

# Operation Manual

## **DORICO ELEMENTS<sup>4</sup>** Personal Music Notation System



The Steinberg Documentation Team: Cristina Bachmann, Martina Becker, Heiko Bischoff, Lillie Harris, Christina Kaboth, Insa Mingers, Matthias Obrecht, Sabine Pfeifer

Translation: Ability InterBusiness Solutions (AIBS), Moon Chen, Jérémie Dal Santo, Rosa Freitag, GiEmme Solutions, Josep Llodra Grimalt, Vadim Kupriianov, Roland Münchow, Boris Rogowski, Sergey Tamarovsky

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# New features

## New Features in Version 4.3.0

### Splitting notes by duration

- You can now split notes into multiple, shorter notes. See [Splitting notes by duration](#).

### Repeat barlines

- When you add start repeat barlines to a range of selected items, Dorico Elements now automatically adds end repeat barlines at the end of the selection. See [Inputting barlines with the popover](#) and [Inputting barlines with the panel](#).

### Restorative clefs

- When you add clefs to a range of selected items, Dorico Elements now automatically adds restorative clefs at the end of the selection. See [Inputting clefs with the popover](#) and [Inputting clefs with the panel](#).

### Engrave mode view options

- System and frame fullness indicators are now shown in Engrave mode. See [System fullness indicators](#) and [Frame fullness indicators](#).

### Layout transposition token

- A new token that displays whether layouts are concert or transposed pitch is available. It uses your instrument language setting by default, but you can override the text in each layout independently. See [Tokens](#) and [Editing layout transposition text](#).

### Key Editor improvements

- You can now show multiple instruments in the Key Editor simultaneously, allowing you to input data, such as MIDI CC points, for all selected instruments simultaneously. See [Showing instruments in the Key Editor](#).
- You can now copy MIDI CC and dynamic points from the primary instrument in the Key Editor to all secondary instruments, making it easy to sync data across tracks. See [Copying dynamic points to other instruments](#) and [Copying MIDI points to other instruments](#).
- The Histogram and Transform tools are now available in the MIDI CC editor, in addition to the Velocity editor. See [Histogram tool](#) and [Transform tool](#).
- You can now save configurations of editors in the Key Editor, allowing you to open those editors again quickly. See [Key Editor configurations](#).

### Chord diagram fingering improvements

- When editing chord diagram fingerings, you can now enter **0** to show no fingering and **T** for thumb fingerings on the lowest string. See [Edit Chord Diagram dialog](#).

### Lyric improvements

- It is now possible to export all lyrics in the project as plain text. See [Exporting lyrics](#).

### Hiding noteheads

- You can now hide the noteheads of individual notes, while maintaining appropriate note spacing. See [Hiding/Showing noteheads](#).

### Note grouping in slash regions

- You can now change the grouping and duration of rhythm slashes in slash regions; for example, if you want to show six slashes in 6/8 instead of two dotted slashes. See [Note grouping in slash regions](#).

### Text improvements

- You can now select different border styles for text items. See [Changing the style of text item borders](#).

### Tremolos in tie chains

- You can now specify that single-note tremolos should not appear on the first or last note in tie chains when inputting tremolos. See [Tremolos in tie chains](#), [Inputting tremolos with the popover](#), and [Inputting tremolos with the panel](#).

## New Features in Version 4.2.0

### Key Editor improvements

- MIDI CC, MIDI pitch bend, and dynamic points are now copied automatically when you copy the notes to which they apply. However, you can disable this behavior if required. See [Disabling automatic copying of MIDI data when pasting](#).
- The percussion editor has been returned to the Key Editor. You can also now use the **Drumstick** tool to input notes with a different rhythmic duration for each unpitched percussion instrument independently. See [Inputting notes using the Drumstick tool](#).

## New Features in Version 4.1.0

### Color improvements

- A new **Colors** page has been added to **Preferences**. It includes new options that allow you to control colors used for various purposes in the music area, including the first eight voices on each staff, and to invert music/page colors, which by default shows white music on a black background. See [Changing music area colors](#) and [Inverting colors](#).

### Printing/Exporting flows

- You can now specify the flows that you want to print or export. Dorico Elements then prints/exports all pages on which the selected flows appear. See [Print Flows dialog](#).

### Page template overrides

- You can now remove page template overrides in Dorico Elements. See [Removing page template overrides](#).

### Flow headings

- You can now change the tokens included in flow headings in Dorico Elements. See [Edit Flow Heading dialog](#).

### Properties panel

- You can now activate properties in the Properties panel by clicking their name in addition to their activation switch. See [Properties panel](#).

### Lyrics improvements

- You can now edit the formatting of individual lyrics, such as making single characters underlined. See [Edit Lyric dialog](#).
- You can override the paragraph style used for individual lyrics. For example, if you want to use a paragraph style with less stretch for lyrics on tightly spaced systems. See [Changing the paragraph style used for lyrics](#).



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## New Features in Version 4.0.0

### Highlights

#### Jump bar

- The new jump bar allows you to perform commands and go to locations using only your computer keyboard. See [Jump bar](#).
- You can assign jump bar aliases to specific commands; for example, so you can use shorter entries for your favorite commands. See [Assigning jump bar aliases](#).

#### MIDI improvements

- The handling of imported/opened MIDI files has been extensively improved. You can now map tracks to specific voices, players, and playing techniques, and save your settings for reuse in subsequent imports. See [MIDI Import Options dialog](#).
- During MIDI recording, Dorico Elements now automatically transcribes multiple simultaneous parts into separate voices, such as in contrapuntal piano music. Depending on your settings for MIDI recording and quantization, Dorico Elements can also detect slurs, tremolos, trills, pedal lines, tuplets, and grace notes. See [MIDI recording](#).

#### Player sorting

- By default, players are now automatically sorted in orchestral order, regardless of the order in which you add them to the project. You can change the player sorting setting in the **Players** panel in Setup mode. See [Players panel](#).
- You can now designate players as soloists, such as in a concerto for solo violin and orchestra. Soloists are treated differently, such as their instruments not being numbered with other instruments of the same type and being automatically positioned in the conventional score position; that is, above the strings. See [Designating players as soloists](#).

#### Dorico Elements features

- The maximum number of players you can have in a single project has been increased to 24, allowing Dorico Elements users to write for ensembles such as big bands and medium-sized orchestras. See [Players](#).
- Graphical editing in Engrave mode is now included in Dorico Elements, allowing you to adjust the graphical positions of items and to access additional properties. See [Engrave mode](#).
- The **Notation Options** dialog is now available in Dorico Elements. It allows you to change per-flow defaults, such as for beam, note, and rest grouping in different meters. See [Notation Options dialog](#).
- You can now access chord symbol appearance presets that allow you to customize the appearance of chord symbols. See [Chord symbol appearance presets](#).

#### Capos

- You can now define capos for individual fretted instruments. You can then control how capos affect notated pitches and chord symbols/diagrams independently of each other to suit a range of requirements. See [Capos](#).

#### Lower zone

- The lower zone, formerly known as the “bottom panel”, now contains multiple different panels, including Keyboard, Fretboard, and Drum Pads panels that you can use to input notes and the Mixer and Key Editor panels that you can use to adjust playback. See [Lower zone \(Write mode\)](#).

#### Instrument filters

- Instrument filters allow you to show only the staves of selected instruments in galley view. You can easily switch between showing only staves in the filter and all staves in the layout. See [Instrument filters](#).

### Insert mode scope

- Insert mode has been given additional functionality, allowing you to change the scope of its impact. For example, you can now set Insert mode to affect all players in flows and also change the duration of the current bar. See [Insert mode scopes](#).
- You can also now set a stop position in each flow, which prevents any material beyond the stop point being affected by inserted notes. See [Setting Insert mode stop positions](#).

### Musical transformations

- Dorico Elements now provides multiple tools for transforming pitches and rhythms, including reversing and inverting pitches. See [Musical transformations](#).
- The functionality of the note tools popover has been expanded to include the new musical transformations. You can also transform notes using new, dedicated dialogs. See [Note tools popover](#).

### Play mode

- Play mode has had a complete refresh in both appearance and functionality. Tracks now appear in a track overview, with editing options available in the Track Inspector and Key Editor. See [Project window in Play mode](#).
- The piano roll now appears in the Key Editor, rather than in the track overview (previously known as the “event display”). See [Key Editor](#).
- Powerful histogram controls have been introduced as part of the new Key Editor, allowing you to perform various editing operations, including for non-consecutive notes. See [Histogram tool](#).
- The Mixer has also been completely refreshed in appearance and functionality. In addition to the **Mixer** window, it can also appear as a panel in the lower zone in Write, Engrave, and Play modes. See [Mixer](#).

### Library

- Dialogs for visual items and options in the library are now accessible on a new **Library** menu. This also allows you to access these dialogs from all modes. See [Library](#).

### Numbered bar regions

- Numbered bar regions allow you to show bar counts in specific regions without additional notations. This can help performers keep track of how many bars have passed when playing repetitive music. See [Numbered bar regions](#).

## More New Features

### Language improvements

- Changing the application language now takes effect immediately, without the need to restart Dorico Elements. See [Changing the application language](#).
- You can now change the language used for instrument names, including resetting the names of all existing instruments in the project to follow the new setting. See [Changing the language for instrument names](#).
- You can now change the language used for date and time tokens. See [Changing the language for date and time tokens](#).

### Hub redesign

- The Hub has been redesigned, and now includes a **Create New** page where you can set up basic project information, including adding the project title, selecting a time signature, and specifying a starting number of bars. See [Hub](#).

### Ensemble picker

- When adding ensembles, you can now build custom ensembles and save them for future projects. The ensemble picker has also been given a default key command. See [Ensemble picker](#) and [Building and saving custom ensembles](#).

### Write mode toolboxes

- Some functions in the Notes toolbox now have additional options available when you click and hold their button, including allowing you to open the tuplets popover. See [Notes toolbox](#).
- You can now switch between accessing panels and popovers from the Notations toolbox in Write mode. See [Notations toolbox](#).

### Chord symbol improvements

- You can now generate chord symbols based on the harmony of selected notes. See [Generating chord symbols from notes](#).
- You can change the arrangement of polychord and altered bass note chord symbols. See [Changing the arrangement of compound chord symbols](#).
- You can also now erase the background of chord symbols. See [Erasing the background of chord symbols](#).
- You can now show parentheses around chord symbols, including showing only a single left or right bracket on individual parenthesized chord symbols. See [Parenthesized chord symbols](#).
- For players set to show chord diagrams, you can now show only the chord symbol or chord diagram for individual chord symbols. See [Showing only chord symbols or chord diagrams](#).

### Insert Music Text dialog

- The new **Insert Music Text** dialog makes it easier to add music symbols, such as note glyphs and accidentals, to text items and in text frames. See [Insert Music Text dialog](#).

### Figured bass improvements

- You can now input *tasto solo* indications and bracketed figures, including only showing a single bracket on each figure. See [Figured bass popover](#) and [Showing single brackets on figured bass](#).

### Note spelling

- A new automatic note respelling dialog has been added, allowing you to specify the notes you want to respell and apply general preferences to the selection. See [Respell Notes Automatically dialog](#).
- You can now copy note spellings to other layouts, for example, if you originally respelled notes in a part layout but want those spellings to appear in the full score layout as well. See [Copying note spellings to other layouts](#).
- Additionally, you can reset changes to note spellings in either the current layout only or in all layouts. See [Resetting note spellings](#).

### Casting off improvements

- There are new options to make casting off layouts easier, including moving bars to next/previous systems and locking/resetting entire layouts. See [Moving bars to other systems](#), [Locking layouts](#), and [Resetting casting off](#).
- Additionally, there is now a preference for whether system/frame breaks are allowed within bars. Disallowing breaks within bars lets you select anything in the bar at the start of which you want a system/frame break. See [Allowing/Disallowing breaks within bars](#).

### Pasting articulations

- You can now copy phrases and paste only their articulations and jazz articulations to other phrases. See [Copying and pasting articulations](#).

### Chord diagram fingerings

- You can now show fingerings in chord diagrams, either inside dots or at the ends of strings. You can change individual fingerings when editing chord diagram shapes. See [Hiding/Showing fingerings in chord diagrams](#) and [Edit Chord Diagram dialog](#).



### Percussion improvements

- You can now interact with rests belonging to unpitched percussion instruments, including moving rests vertically and deleting rests. See [Moving rests vertically](#) and [Deleting rests](#).

### Staff label improvements

- You can now show player names instead of instrument names for each player in each layout independently, and set both full and short player names for each player. For example, in works with multiple percussionists, showing “Percussion 1” in staff labels regardless of their current instrument is sometimes preferred. See [Showing instrument/player names in staff labels](#) and [Renaming players](#).
- Additional options have been added for the appearance and position of instrument transpositions in staff labels, including parenthesizing instrument transpositions and showing them after the instrument number. See [Changing the appearance/position of instrument transpositions in staff labels](#).
- You can now show vertical labels for player groups to the left of staff labels, as is sometimes used in large-scale works. See [Player group labels](#).

## Last but Not Least

### Saving, resetting, and removing defaults in options dialogs

- A **Reset to Factory** option has been added to the **Preferences** dialog, allowing you to restore the factory defaults for application preferences if necessary. See [Preferences dialog](#).
- All four ways of saving, resetting, and removing defaults in options dialogs are now always shown. Previously, it was necessary to hold a modifier key to access other options if you had existing saved defaults. See [Layout Options dialog](#) and [Notation Options dialog](#).

### Project preview

- When you save projects, Dorico now generates preview images of the layout open in the music area. PNG files are used on the **Open Recent** page in the Hub. See [Project Info dialog](#).

### Pedal line improvements

- You can now add retakes and pedal level changes to, and remove them from, multiple rhythmic positions simultaneously. See [Adding retakes with the popover](#), [Adding retakes with the panel](#), and [Removing retakes and pedal level changes](#).

### Changing voices

- You can now change the voice of existing notes using the same methods as creating and switching between voices during note input. See [Changing the voice of existing notes](#).

### Crosshairs

- You can now show crosshairs when selecting and/or dragging items in Engrave mode, which can help you align items more easily. See [Hiding/Showing crosshairs](#).

### Page templates

- The templates for achieving consistent page formatting that used to be known as “master pages” have been renamed, and are now known as “page templates” throughout Dorico. See [Page templates](#).

### Accidental scale size

- You can now change the size of accidentals independently of noteheads. See [Changing the size of accidentals](#).

### Bar number improvements

- You can now hide numbers in subordinate bar number sequences and only show alphabetical letters, such as “a”, “b”, and “c”. See [Adding subordinate bar numbers](#).

### Beaming improvements

- You can now change the gaps between, and thickness of, beam lines for individual beams. See [Changing the gaps between beam lines](#) and [Changing the thickness of beams](#).
- You can now force centered beams for beams that include notes only on one side of the middle staff line using the new **Custom Centered Beam** dialog. See [Creating centered beams](#).

### Hiding clefs and key signatures after the first system

- You can now hide/show clefs and key signatures at the start of single-staff systems from the second system onwards in each flow independently. This is a convention commonly used in hand-copied lead sheets. See [Hiding/Showing clefs at the start of systems](#) and [Hiding/Showing key signatures at the start of systems](#).

### Grace notes

- You can now turn existing notes into grace notes and vice versa. See [Turning existing notes into grace notes](#) and [Turning grace notes into normal notes](#).

# Introduction

Thank you very much for purchasing Dorico Elements.

We are delighted that you have chosen Steinberg's scoring application and hope that you will enjoy using it for years to come.

Dorico is a next-generation application for producing beautiful sheet music, whether you are a composer, arranger, music engraver, publisher, instrumentalist, teacher, or student. Whether you want to print your music or share it in a digital format, Dorico is the most sophisticated program available.

Like all of Steinberg's products, Dorico has been designed from the ground up by a team of musicians who understand your needs and who are dedicated to producing a tool that is both easy to learn and use, but also capable of results of the highest quality. Dorico also integrates with your existing workflow and can import and export files in a variety of formats.

Dorico thinks about music the same way a human musician does and has a deeper understanding of the elements of music and musical performance than other scoring applications. Its unique design allows an unprecedented degree of flexibility, in music input and editing, in score layout, in rhythmic freedom, and many other areas besides.

Most sincerely yours,

The Steinberg Dorico Team

## Platform-independent documentation

This documentation applies to the operating systems Windows and macOS.

Features and settings that are specific to one of these platforms are clearly indicated. In all other cases, the descriptions and procedures in the documentation are valid for Windows and macOS.

Some points to consider:

- The screenshots are taken from macOS and use the dark theme in Dorico Elements.
- Some functions that are available on the **File** menu on Windows can be found in the program name menu on macOS.

## Usage of musical terms

This documentation uses American terminology for musical items.

The following table lists all the notes and notations that have different names in American and British English:

---

<b>American name</b>	<b>British name</b>
Double whole note	Breve
Whole note	Semibreve



<b>American name</b>	<b>British name</b>
Half note	Minim
Quarter note	Crotchet
Eighth note	Quaver
Sixteenth note	Semiquaver
Thirty-second note	Demisemiquaver
Sixty-fourth note	Hemidemisemiquaver
Hundred twenty-eighth note	Semihemidemisemiquaver
Two hundred fifty-sixth note	Demisemihemidemisemiquaver
Half-step	Semitone
Whole step	Whole tone
Staff	Stave
Bar/Measure	Bar

**NOTE**

This documentation only uses “bar”.

---

## Documentation structure

In our documentation, we divide information into three different types of topics, according to their content.

### **Descriptions of the user interface**

Topics that describe the functionality of user interface items and list the options and settings of dialogs, panels, or other items.

### **Descriptions of basic concepts**

Topics that describe concepts and explain the functionality of a specific software feature.

### **Descriptions of procedures**

Topics that provide step-by-step instructions for how to perform a specific task. These topics often provide an example for why you might want to follow the steps and a brief summary of the result, including consequences to be aware of.

Because of this division of information, our documentation structure functions as a reference you can consult for specific information or instructions as required, rather than a guide you must read from start to finish.

**TIP**

Descriptive topics do not describe how to perform a task, and procedural topics do not explain what something is. To find general information about items or concepts, we recommend searching for them by name, such as “dynamics”. To find instructions for performing particular actions, we recommend including a relevant verb in your search, such as “moving”.

Links at the bottom of topics guide you to further relevant content. You can also check the sidebar for nearby, related topics in the documentation structure.

---

## Typographical conventions

In our documentation, we use structural and markup elements to present information according to its purpose.

### Structural elements

#### Prerequisite

Describes any actions or conditions you must have fulfilled before starting a procedure.

#### Procedure

Lists the steps that you must take to achieve a specific result.

#### Important

Informs you about serious issues; for example, issues that affect the system, the connected hardware, or that risk data loss.

#### Note

Informs you about issues or other relevant information.

#### Tip

Adds further information or useful suggestions.

#### Example

Provides you with an example.

#### Result

Describes the result of the procedure.

#### After Completing This Task

Informs you about actions or tasks that you can perform after completing the procedure.

#### Related Links

Lists related topics that you can find in this documentation.

### Markup

Bold text indicates the name of a menu, option, function, dialog, window, and so on.

---

#### EXAMPLE

To open the **Project Info** dialog, choose **File > Project Info**.

---

If bold text is separated by a greater-than symbol, this indicates either a sequence of different menus to open, or directions to follow for navigation inside the dialog named at the start of the sequence.

---

EXAMPLE

Choose **Edit > Notations > Voices > Change Voice > [Voice]**.

You can change this option in **Preferences > Note Input and Editing > Editing**.

---

File names and folder paths are shown in a different font.

---

EXAMPLE

`example_file.txt`

---

## Key commands

Key commands are sets of keys that perform defined tasks when pressed together. They are also known as “keyboard shortcuts” or “hotkeys”. Many key commands are the same on different operating systems but some are not, and this guide distinguishes them.

When key commands use equivalent modifier keys depending on the operating system, the modifier keys are indicated separated by a slash, with the Windows modifier key first and the macOS modifier key second.

---

EXAMPLE

**Ctrl/Cmd-Alt/Opt-Down Arrow** means: press **Ctrl - Alt - Down Arrow** on Windows, **Cmd - Opt - Down Arrow** on macOS.

---

When key commands require entirely different keys depending on the operating system, they are indicated with the Windows key command first, followed by the macOS key command.

---

EXAMPLE

**# (Windows) or \ (macOS)** means: press **#** on Windows, **\** on macOS.

---

In this documentation, we use key commands that match the language of the documentation. For example, key commands in the English documentation correspond to the English keyboard language.

RELATED LINKS

[Key commands in Dorico](#) on page 28

[Key Commands page in the Preferences dialog](#) on page 59

[Changing the keyboard language](#) on page 64

[Changing the application language](#) on page 56

## How you can reach us

You can access additional information from the **Help** menu.

The menu contains links to various Steinberg web pages. Selecting one of these menu items automatically launches your web browser and opens the page. On these pages, you can find support and compatibility information, answers to frequently asked questions, information about updates and other Steinberg products, and so on.

# Dorico concepts

Dorico is based on a number of key concepts that come from its design philosophy.

We recommend familiarizing yourself with these concepts, as this will greatly enhance your ability to work efficiently with Dorico and to navigate more easily through this documentation.

## Design philosophy and higher-level concepts

Deep design considerations are required to create a notation software like Dorico, which might be of particular interest to users familiar with scoring applications. Dorico has a forward-thinking design that is led by musical concepts rather than computational convenience, and this provides many benefits.

In most other graphically-orientated scoring applications, the highest-level concept is the staff or the instrument definition that creates a staff or staves. When setting up your full score in such programs, you start by adding the correct number of staves, and you are immediately forced into making decisions about the layout. This means that you must know in advance whether two flutes share a staff or have their own individual staves, or whether there should be two trumpets or three. Many of these decisions have significant effects throughout the process of inputting, editing, and producing individual instrumental parts.

Typically, every system of a score must contain the same number of staves, even if some are hidden on particular systems. This requires the user to manage common conventions for themselves, such as multiple players of the same instrument sharing staves. This can be time-consuming and is naturally error-prone.

By contrast, Dorico is designed to conform more closely to how music is performed in the real world and to make the score a flexible expression of the practical choices that go into a musical performance, rather than to make the musical performance subservient to the way the score was initially prepared.

To that end, the highest-level concept of Dorico is the group of human musicians that performs a score. A score can be written for one or more groups; for example, a double choir, or an orchestra plus off-stage chamber ensemble, and so on. Each group includes one or more players which correspond to the humans who play one or more instruments. Players may either be individuals who play more than one instrument, such as an oboist doubling cor anglais, or groups in which everyone plays only one instrument, such as eight desks of violinists.

One crucial difference between Dorico and other scoring applications is that the musical content exists independently of the score layout in which it is viewed.

The actual music played by the group in your score belongs to one or more flows. A flow is any span of music that stands alone; for example, a whole song, a movement of a sonata or symphony, a number in a musical show, or even a short scale or exercise. Players might or might not have any music to play in a given flow. For example, all the brass players might be omitted from the slow movement of a classical symphony, or certain players might have nothing to play in some cues in a movie score. This is no problem as you can combine players in flows in any combination.

Dorico's design philosophy provides several benefits. Chief among them is its ability to produce multiple layouts that share the same musical content, but each having customized appearances to suit different requirements. For example, in the same project you can create a conductor's



score with as many instruments as possible condensed onto a smaller number of staves, a full score with each player's music on separate staves, a custom score layout containing just the piano and vocal staves for choral rehearsals, and an instrumental part for each player that only contains the music belonging to them.

This means it is not necessary to extract flows or parts as separate files: all this information can co-exist in the same Dorico project file.

#### RELATED LINKS

[Condensing](#) on page 595

[Assigning players to layouts](#) on page 167

## Projects in Dorico

A project is an individual file that you create within Dorico. It can contain multiple separate pieces of music of any duration, written for any combination of instruments, and use as many layouts as required.

For example, you can create a single project that contains all the preludes and fugues in Bach's "The Well-Tempered Clavier" as separate flows. You could then have one layout that contains only the flows for Book 1 and another layout that contains the flows for Book 2.

In addition to the notated music, projects save other relevant information, such as the playback template applied.

Dorico projects are saved as `.dorico` files.

#### RELATED LINKS

[Flows in Dorico](#) on page 22

[Layouts in Dorico](#) on page 26

[Options dialogs in Dorico Elements](#) on page 29

[Page templates in Dorico](#) on page 27

[Playback templates](#) on page 518

## Modes in Dorico

Modes in Dorico represent a logical sequence of the workflow phases of preparing music, but you can switch between them at any time as required for your own workflow.

Dorico Elements contains the following modes:

### Setup

In Setup mode, you can set up the fundamental elements of the project: instruments and the players that hold them, flows, layouts, and videos. You can also determine how they interact with each other; for example, by changing the players assigned to layouts.

You can view music in the music area and switch between viewing other tabs and layouts, but you cannot select or interact with anything in the music area in Setup mode.

### Write

In Write mode, you can input and edit your music, including changing the rhythmic positions of items, changing the pitch of notes, and deleting notes and items. The available toolboxes and panels allow you to input all the notes and notation items that are most commonly used.

By design, you cannot move notes and items graphically on the page in Write mode. Graphical adjustments are only possible in Engrave mode in Dorico Pro.

### **Engrave**

In Engrave mode, you can make fine adjustments to the position, size, and appearance notes and items and determine how the pages of your project are laid out, including editing and creating page templates.

By design, you cannot delete any notes or items, change their rhythmic positions, or change the pitch of notes in Engrave mode; this prevents mistakes when engraving.

### **Play**

In Play mode, you can change how your music sounds in playback. You can do this by changing the playback template and assigning VST instruments, inputting automation, adjusting the mix, and changing the sounding duration of notes in playback without affecting their notated duration.

### **Print**

In Print mode, you can print your layouts or export them as graphics files. When printing layouts, you can specify the paper size and other options, such as duplex or booklet printing. When exporting layouts, you can specify different graphics file types, such as PDF or PNG, and the information you want to include in their exported file names.

#### RELATED LINKS

[Setup mode](#) on page 106

[Write mode](#) on page 186

[Engrave mode](#) on page 477

[Print mode](#) on page 533

[Play mode](#) on page 485

## **Flows in Dorico**

Flows are separate spans of music that are completely independent in musical content; for example, a single song in an album, a movement in a sonata or symphony, a number in a stage musical, or a short scale or sight-reading exercise of only a few bars in length. A single project can contain any number of flows.

Each flow can contain music for any combination of players, independently of other flows. For example, brass players are often tacet in the second movements of Classical-period symphonies, so you can remove brass players from the flow for the second movement but leave them in the flows for other movements. In a set of cues for a movie, for example, specific players might not be required in some cues, so the corresponding flows can contain only those players who have anything to play.

The correct assignment of players to flows allows Dorico, for example, to generate tacet sheets automatically for individual instrumental parts.

#### RELATED LINKS

[Players, layouts, and flows](#) on page 118

[Flows](#) on page 162

[Tacet](#) on page 592

[Flow headings](#) on page 603

## Players in Dorico

In Dorico, a player can represent an individual musician or multiple musicians in the same section. Players hold instruments, so you must add at least one player to your project before you can add instruments.

- A single player represents one person who can play one or more instruments. For example, a clarinetist who doubles on alto saxophone or a percussionist who plays bass drum, clash cymbals, and triangle.
- A section player represents multiple people who all play the same instrument. For example, a violin section player might represent all eight desks of the Violin I section in an orchestra, or a soprano section player might represent the whole soprano section in a mixed voice choir.

### NOTE

Section players can only hold one instrument.

---

By using the concept of players, Dorico makes it much easier to handle, for example, instrument changes, divisi, and condensing music for multiple players onto a smaller number of staves.

You can also group players together; for example, to separate off-stage players from on-stage players in a large-scale work. Grouping players together means they are positioned together in the score, numbered independently of players outside the group, and are bracketed together according to the ensemble type set for each layout.

Players can be assigned to any combination of layouts and flows.

### RELATED LINKS

[Players, layouts, and flows](#) on page 118

[Players](#) on page 120

[Player groups](#) on page 158

[Divisi](#) on page 1199

[Condensing](#) on page 595

[Brackets according to ensemble type](#) on page 778

## Instruments in Dorico

In Dorico, an instrument is an individual musical instrument, such as a piano, a flute, or a violin. Human voices, such as soprano or tenor, are also considered instruments.

In Dorico, instruments are held by players, just as real instruments are held by human players. Section players can only hold one instrument but single players can hold multiple instruments. This allows you to handle instrument changes easily, such as when an oboist doubling the cor anglais switches from one instrument to the other.

Each instrument automatically gets its own staff, but when instrument changes are allowed, the music for multiple instruments held by the same single player can appear on the same staff as long as no notes overlap.

Dorico has a database of information about the properties of each instrument. These include the playable range, common and uncommon playing techniques, notational conventions, transposition properties, tunings, clef, number of staves, type of staff, and so on. Having these properties predetermined makes it easier and quicker to set up projects correctly. For example, selecting the horn instrument with the appropriate transposition and clef setting for its part

layout means you do not have to input a layout-specific clef. Similarly, there is a timpani instrument that automatically hides all key signatures.

#### RELATED LINKS

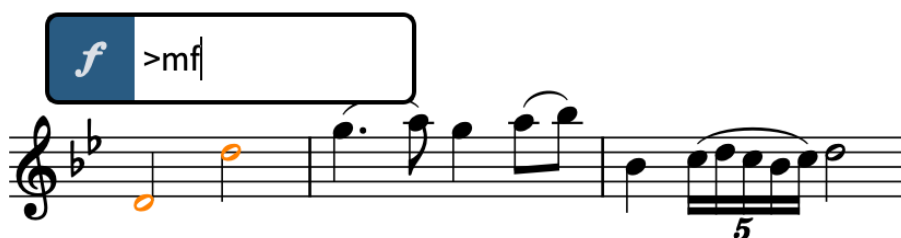
[Instruments](#) on page 127

[Instrument changes](#) on page 130

[Transposing instruments](#) on page 133

## Popovers

Popovers allow you to input different notations and perform tasks, such as transposing a selection of notes, using only your computer keyboard. They are temporary value fields that use text entries for different items and tasks, and there are specific popovers for different purposes.



The dynamics popover with an example entry

One of the key benefits of popovers is that you can use them as you input notes: for example, once you reach the position where you want to input a new time signature, you can open the time signatures popover, input the time signature you want, and then continue inputting notes.

Although specific entries are required for many notations, the correct entries for different notations are consistently and logically structured. For example, tuplets are always expressed as a ratio, such as 3:2 or 5:4. Key signatures are expressed using capital letters for major keys and lowercase letters for minor keys. Time signatures are expressed as a pair of separated numbers; common time signatures use a slash, such as 3/4 or 6/8.

During note input, and depending on the notation you are inputting with the respective popover, notations are input either on the currently selected note, which is usually the last note you input, or at the current rhythmic position, indicated by the caret.

You can always identify popovers by the icon on their left-hand side, which are the same icons used in the Notations toolbox on the right of the window. The Notations toolbox allows you to hide/show the corresponding notation's panel, which is another way you can input notations.

You can only use popovers in Write mode, as that is the only mode where you can input notes and items together and change the pitch of notes. Popovers open above the top staff on which the caret is active or an item is selected, and at the caret position or the rhythmic position of the earliest selected item.

#### RELATED LINKS

[Caret](#) on page 205

[Note input](#) on page 210

[Notations input](#) on page 259

[Notations toolbox](#) on page 192

[Right zone \(Write mode\)](#) on page 195



## Notes and rests in Dorico

In Dorico, the notation and division of notes and rests is determined semantically by rules based on convention. This means that note and rest durations can change and appear differently later than when you first input them.

Dorico is able to update how notes and rests are notated depending on their context because of the following key concepts:

1. Notes are treated as a single unit, even if they appear as a tie chain that contains multiple notes tied together.
2. Implicit rests automatically fill the gaps between the notes you input.

In combination with time signatures and Dorico's understanding of their corresponding meters, this allows you to input only the notes you want with the duration required. It is not necessary to input rests between notes or input ties for notes that cross the half-bar, for example. If you subsequently change the time signature or move notes rhythmically to start earlier or later, Dorico updates how notes and rests are notated, such as by notating a quarter note as two tied eighth notes if it now straddles a barline or consolidating two eighth note rests into a single quarter note rest if they are now in the same bar.

If you tie existing notes together, you might find that they turn into a single note, such as a half note instead of two tied quarter notes, or into a tie chain containing more notes. This is because tie chains are treated as single notes in Dorico, and Dorico automatically notates and beams notes appropriately depending on their duration, the prevailing time signature, and their position in the bar. Similarly, notes can change after you input notes immediately following them as this changes the context, such as a quarter note tied to an eighth note becoming a dotted quarter note when it is followed by an eighth note rather than a rest.

### TIP

In Write mode, selecting any part of a tie chain selects the whole tie chain because it is a single note. However, you can still input notations, such as dynamics, in the middle of tie chains by activating the caret and moving it to the required rhythmic position within the tie chain.

---

You can force the duration of individual notes and rests; for example, if you want to specify subdivisions within a tie chain that are different than the prevailing meter.

### RELATED LINKS

[Notes](#) on page 940

[Ties](#) on page 1232

[Implicit vs. explicit rests](#) on page 1145

[Note and rest grouping](#) on page 774

[Beam grouping according to meters](#) on page 755

[Per-flow notation options for beam grouping](#) on page 754

[Caret](#) on page 205

[Inputting notes](#) on page 211

[Forcing the duration of notes/rests](#) on page 250

[Inputting ties](#) on page 237

## Rhythmic position

In Dorico, notes and items exist at rhythmic positions, which are calculated using their place in musical time in the flow rather than their position in a specific bar that has a particular time signature.

In Dorico, musical time is the number of beats starting from the beginning of each flow. For example, instead of a note existing on beat 3 in bar 4 in a 4/4 time signature, Dorico considers that note to exist at beat 15, regardless of the time signature and its position in a bar.

This approach allows for a lot of flexibility. For example, because notes and items exist independently of bars and time signatures in Dorico, you can change the time signature without changing when notes happen in relation to each other or adding rests at the end of each bar. Instead, the barlines simply move to different positions and note grouping is updated as required, such as notating a quarter note as two tied eighth notes if it now straddles a barline or crosses the half-bar. You can even start writing notes without inputting a time signature at all.

Similarly, you can easily push notes to later rhythmic positions or pull them in to earlier ones using Insert mode without the risk of them being incorrectly notated. It also means you can think of items existing in the music independently of notes, because items exist at a particular rhythmic position, rather than being attached to notes. To input items at rhythmic positions that do not coincide with the start of notes, such as dynamics in the middle of tie chains, you can either select any other item at that position, or activate the caret and input items at the caret position.

In Dorico, the rhythmic position of notes and items is separate from their graphical position on the page. The benefit of this is that you can input items at the position in the music where they must apply and then move them graphically without causing them to apply to different notes or inadvertently split multi-bar rests. For example, if you want strings to play *pizzicato* from the start of a bar, but because of tight vertical spacing you want to move the *pizz.* indication slightly to the side. Attachment lines link items to the rhythmic positions to which they apply, so it is always clear where they belong, but are not printed.

### RELATED LINKS

[Note and rest grouping](#) on page 774

[Beaming](#) on page 754

[Time signatures](#) on page 1249

[Inputting notes in Insert mode](#) on page 226

[Notes](#) on page 940

[Caret](#) on page 205

[Insert mode](#) on page 427

[Rhythmic grid](#) on page 204

[Annotations](#) on page 554

## Layouts in Dorico

Layouts combine musical content, as represented by flows and players, with rules for page formatting and music engraving, and allow you to produce paginated music notation that can be printed or exported in various formats. For example, part layouts typically only show the music for one player, whereas full score layouts show the music of all players in the project.

A typical project for an ensemble contains several layouts. By default, Dorico projects contain a single full score layout that contains the music for all players, and a part layout for each player that only contains their music. However, you can also create as many layouts as required.

When you add the first player to a project, Dorico automatically creates a full score layout and a part layout. For all subsequent players you add to the project, Dorico creates a part layout for each player and assigns them all to the existing full score layout.

Layouts can contain any combination of players and flows. They share the musical content of these players and flows, such as the notes each instrument plays. For example, when you change the pitch of a note in the full score, that note's pitch is also updated in the corresponding part layout.

You can control practically every aspect of page formatting in each layout independently, including note spacing, staff size, page size, margins, and casting off; that is, the positions of system breaks and page turns. Changing these aspects in one layout does not affect other layouts. For example, inserting systems breaks in a part layout does not change the casting off in the full score.

Similarly, you can change the visual appearance of many items only in one layout, without affecting other layouts, using local properties. For example, you can hide text items in the full score layout but show them in part layouts.

The default formatting of pages in layouts is determined by page templates. By default, full score layouts use a different page template set to part layouts; however, you can apply a different page template set to each layout.

Deleting layouts does not delete any music from the project.

#### RELATED LINKS

[Layouts](#) on page 165

[Players, layouts, and flows](#) on page 118

[Page formatting](#) on page 555

[Casting off](#) on page 581

[Condensing](#) on page 595

[Properties](#) on page 615

[Local vs. global properties](#) on page 616

[Page templates](#) on page 599

[Page template sets](#) on page 600

[Types of page templates](#) on page 601

[Applying page template sets to layouts](#) on page 558

[Printing layouts](#) on page 538

[Exporting layouts as graphics files](#) on page 542

## Page templates in Dorico

Page templates in Dorico Elements allow you to achieve consistent page formatting by applying the same arrangements of frames to multiple pages and in different layouts.

Frames are boxes in which you can display text, music, and graphics. The default page templates contain a large music frame that takes up most of the page and text frames at the top and bottom. On the first page of music, text frames display the project title, lyricist, and composer. On the second page of music onwards, text frames display the page number and flow title for the top flow on that page in scores, and the layout name in parts.

All pages in your scores and parts inherit their default formatting from page templates.

Dorico Elements provides different types of page templates so that there is appropriate page formatting for first pages independently of subsequent pages, as the first page typically includes additional information, such as the title, composer, and copyright. Dorico Elements uses tokens to display this additional information.

Page templates are contained in page template sets. By default, Dorico Elements provides separate page template sets for full score and part layouts. Page template sets are automatically applied to every layout that you create.

#### NOTE

- In Dorico Elements, you cannot edit page templates or create new ones; this is only available in Dorico Pro.
- Changing individual pages in layouts is considered a page template override in Dorico Elements. This includes, for example, editing the title or running header in Write mode. Pages with page template overrides are not automatically deleted, even if they are empty because the layout became shorter.

If you want to change the information shown at the tops of pages, that is, the title and running header text that you cannot select, we recommend that you do so in the **Project Info** dialog to avoid page template overrides. The big title at the top of the first page is the project title. The running header on subsequent pages uses the flow title for the top flow on that page in scores, and the layout name in parts.

---

#### RELATED LINKS

- [Page template sets](#) on page 600
- [Page templates](#) on page 599
- [Types of page templates](#) on page 601
- [Frames](#) on page 605
- [Project Info dialog](#) on page 75
- [Tokens](#) on page 607

## Key commands in Dorico

Dorico's key commands have been designed to be logical, consistent, and accessible using a standard computer keyboard, without needing a number pad.

---

#### EXAMPLE

- The arrow keys on their own navigate the selection around the music area.
- **Alt/Opt** modifies selected items.  
For example, in Write mode, adding **Alt/Opt** to the up/down arrow keys transposes notes by staff position; adding **Alt/Opt** to the right/left arrow keys moves notes/items rhythmically. In Engrave mode, adding **Alt/Opt** to any arrow key moves items a small amount graphically.
- **Shift - Alt/Opt** changes the duration of notes/items in Write mode.  
For example, **Shift-Alt/Opt-Right Arrow** lengthens notes/items by the current rhythmic grid resolution.
- **Ctrl/Cmd** increases the amount by which selected items are modified.  
For example, in Write mode, adding **Ctrl/Cmd - Alt/Opt** to the up/down arrow keys transposes notes by an octave; **Ctrl/Cmd-Shift-Alt/Opt-Right Arrow** doubles the duration of notes. In Engrave mode, adding **Ctrl/Cmd - Alt/Opt** to any arrow key moves items a large amount graphically.
- **Shift** plus letter keys opens popovers in Write mode.  
For example, **Shift-D** opens the dynamics popover; **Shift-O** opens the ornaments popover.
- **Ctrl/Cmd - Shift** plus specific letter keys opens options dialogs.

For example, **Ctrl/Cmd-Shift-L** opens **Layout Options**; **Ctrl/Cmd-Shift-N** opens **Notation Options**.

---

The default key commands in Dorico depend on your keyboard language setting, which follows your application language setting by default.

You can view available key commands in the following ways:

- Choose **Help > Key Commands** to open the **Dorico Key Commands** window, which provides an overview of all available key commands.
- Search for key commands of specific functions or menu items in **Preferences > Key Commands**. In this dialog, you can also assign new key commands or change default key commands.
- When you move the mouse over a tool or a function that has a key command, a tooltip with the corresponding key command in brackets is shown.

#### RELATED LINKS

[Interactive Dorico key commands map](#) on page 61

[Preferences dialog](#) on page 58

[Key Commands page in the Preferences dialog](#) on page 59

[Searching for the key commands of functions](#) on page 62

[Assigning key commands](#) on page 63

[Changing the keyboard language](#) on page 64

[Changing the application language](#) on page 56

## Options dialogs in Dorico Elements

Options to control the default appearance of music and functionality of Dorico Elements are available in different dialogs according to their type and purpose.

We recommend becoming familiar with the available options in these dialogs, as finding the most appropriate settings for each project reduces the requirement for manual intervention and graphical tweaks.

Dorico Elements contains the following dialogs for global settings:

### Layout Options

Contains options that are likely to vary from layout to layout, such as page size, staff size, and the appearance and position of bar numbers. Options in **Layout Options** affect only the selected layouts but apply to all flows in those layouts.

### Notation Options

Contains options that are likely to vary from flow to flow, such as beam grouping and accidental duration rules. Options in **Notation Options** affect only the selected flows but apply to all layouts in which those flows appear.

#### TIP

Many options have equivalent properties, which you can change for individual notes and items.

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#### RELATED LINKS

[Layout Options dialog](#) on page 677

[Notation Options dialog](#) on page 679

[Preferences dialog](#) on page 58

[Properties](#) on page 615

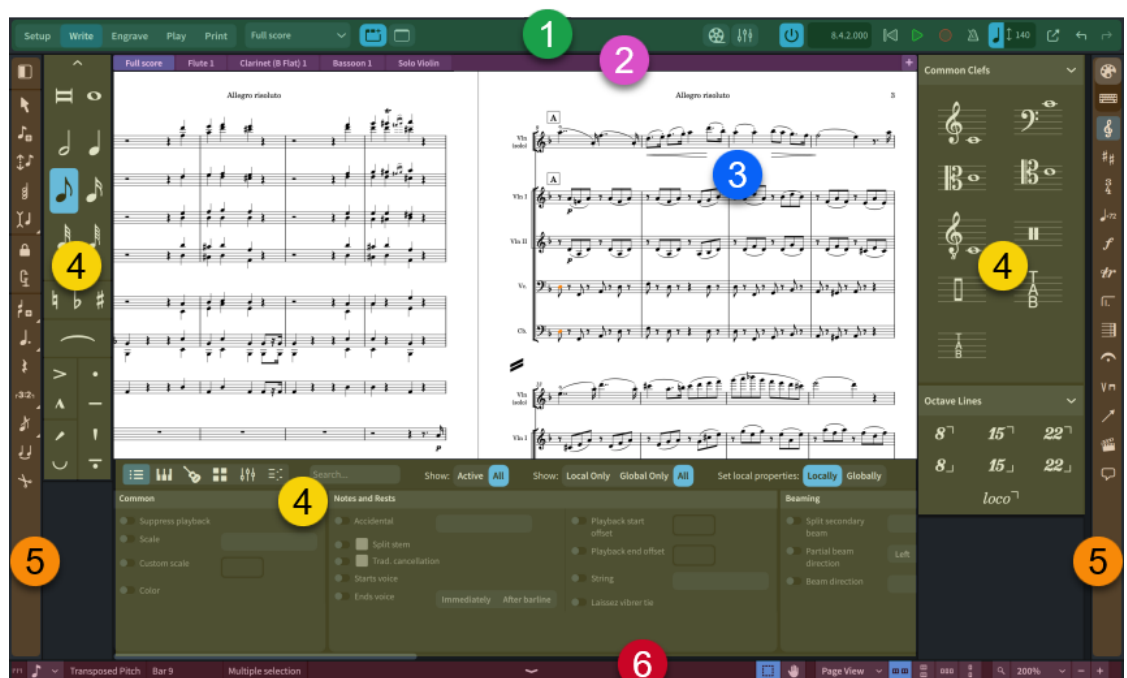


# User interface

The user interface of Dorico Elements is designed to keep all of the important tools at your fingertips. This chapter introduces you to key aspects of the user interface.

## Project window

Dorico Elements's main project window allows you to access all the options and tools you need to work on a project. You can open multiple project windows for the same project or for different projects.



The project window comprises the following areas:

### 1 **Toolbar**

Allows you to access the modes, the workspace options, the **Mixer**, the **Video** window, and the main transport options.

### 2 **Tab bar**

Displays all open tabs. If you split the music area and open several tabs, tab groups are shown. Available in Setup, Write, and Engrave modes.

### 3 **Project start area/Music area/Track overview/Print preview area**

The central part of the project window where you work on your project. When you start a new empty project, this area shows the project start area that allows you to add your first players. Once you have added a player or an ensemble, this area becomes the music area that shows the music notation of the currently selected layout.

In Play mode, this area contains a track overview that displays your music in a similar way to that used in a digital audio workstation, or "DAW", such as Cubase.

In Print mode, the print preview area shows a preview of how your project will appear when printed onto paper or exported into a graphics file format.

#### 4 Zones

Zones on the left, right, and lower edges of the project window contain panels that provide the notes, notations, and functions that you need to create and edit your music. Different panels are available in each zone according to the mode.

#### 5 Toolboxes

Toolboxes provide access to items and tools that you can use to input and edit your music. Different toolboxes contain different items and tools according to the mode.

#### 6 Status bar

Allows you to choose a different view and page arrangement of the music area. It also contains zoom options and a summary of your current selection in the music area.

#### RELATED LINKS

[Starting new projects](#) on page 71

[Opening multiple project windows](#) on page 49

[Showing multiple tabs in the same project window](#) on page 48

[Switching between layouts](#) on page 43

[Project window in Setup mode](#) on page 106

[Project window in Write mode](#) on page 186

[Project window in Engrave mode](#) on page 477

[Project window in Play mode](#) on page 485

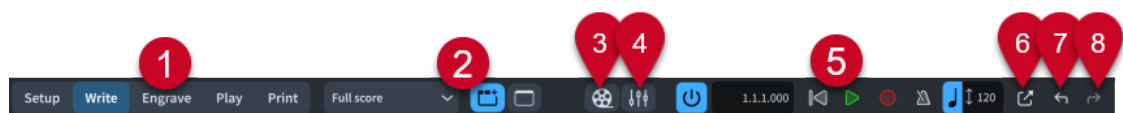
[Project window in Print mode](#) on page 533

## Toolbar

The toolbar allows you to access modes and workspace options as well as the **Mixer** and main transport options. It is located at the top of the project window and is available in all modes.

You can hide/show the toolbar in any of the following ways:

- Press **Ctrl/Cmd-6**.
- Choose **Window > Show Toolbar**.



The toolbar contains the following:

#### 1 Modes

Selectable workspaces in the project window that represent different phases in the workflow of preparing a score. If the width of the main project window becomes sufficiently small, the mode buttons become a menu.

#### 2 Workspace options

Provide options that allow you to select different layouts to open in the music area and to change the working environment.

#### 3 Show Video

Hides/Shows the **Video** window.

#### 4 Show Mixer

Hides/Shows the **Mixer** window.

#### 5 Mini transport

Allows you quick access to the main transport functions, including **Play**, **Record**, and **Click**.

**6 Show Transport Bar**

Hides/Shows the **Transport** window, which contains playback and MIDI recording functions.

**7 Undo**

Allows you to undo previous actions.

**8 Redo**

Allows you to restore previous actions that were undone using **Undo**.

RELATED LINKS

[Hub](#) on page 69

[Modes in Dorico](#) on page 21

[Mini transport](#) on page 33

[Transport window](#) on page 515

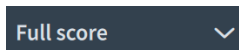
[Videos](#) on page 180

[Mixer window](#) on page 668

## Workspace options

The workspace options in the middle of the toolbar provide options that allow you to select different layouts and to change the working environment.

### Layout selector



Allows you to select other layouts to show in the current tab.

### Show Tabs

Shows/Hides the tab bar above the music area.



**Show Tabs** when the tab bar is hidden



**Show Tabs** when the tab bar is shown

### Hide/Restore Zones

Shows/Hides all open zones.



**Hide/Restore Zones** when zones are shown



**Hide/Restore Zones** when all zones were previously shown but are now all hidden

RELATED LINKS

[Layouts](#) on page 165

[Switching between layouts](#) on page 43

[Zones and panels](#) on page 38

[Hiding/Showing zones](#) on page 44

## Mini transport

The mini transport on the right of the toolbar provides quick access to the main transport functions of Dorico Elements.

### Activate Project

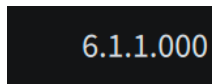


Activates/Deactivates playback in the project. When playback is deactivated, transport and playback functions are disabled.

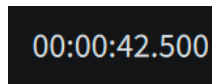
### Time display

Shows the position of the playhead in one of the following formats:

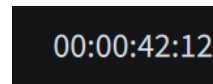
- Bars, beats, and ticks
- Elapsed time in the following order of units: hours, minutes, seconds, milliseconds
- Timecode in the following order of units: hours, minutes, seconds, frames



Time display showing bars and beats



Time display showing elapsed time



Time display showing the timecode

You can change the content shown in the time display by clicking it.

### Rewind to Beginning of Flow



Moves the playhead back to the beginning of the flow.

### Play

Starts/Stops playback, either from the playhead position or the earliest selected item, depending on your setting on the **Play** page in **Preferences**.



**Play** when playback is stopped



**Play** during playback

### Record

Starts/Stops MIDI recording.



**Record** outside of MIDI recording



**Record** during MIDI recording

### Click

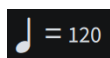


Plays/Mutes the metronome click during playback and recording.

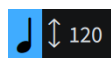
### Tempo Mode

Displays the tempo used for both playback and recording. The value changes according to the playhead position, and its appearance changes according to its mode.

- You can change the tempo mode by clicking the beat unit.
- You can change the metronome mark value used in fixed tempo mode by clicking the number to show a slider, then dragging the slider to the right/left.



Fixed Tempo Mode



Follow Tempo Mode

#### TIP

The **Transport** window contains additional transport functions.

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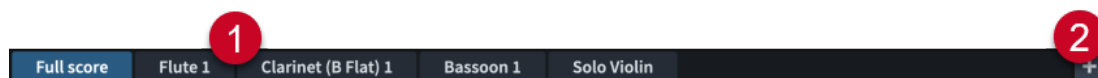
#### RELATED LINKS

- [Transport window](#) on page 515
- [Playing back music](#) on page 503
- [Moving the playhead](#) on page 502
- [Changing the tempo mode](#) on page 504
- [Changing the content shown in the transport display](#) on page 517
- [Changing the sound used for the click](#) on page 496
- [MIDI recording](#) on page 252
- [Mixer window](#) on page 668
- [Preferences dialog](#) on page 58
- [Timecodes](#) on page 1103

## Tab bar

The tab bar in Dorico Elements allows you to display different layouts within the same project window. It is located between the toolbar and the music area.

- You can hide/show the tab bar by clicking **Show Tabs**  in the toolbar.

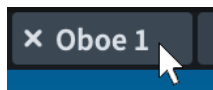


The tab bar contains the following:

### 1 Tabs

Displays all open tabs, with their position from left to right reflecting the order in which you opened them. Each tab is labeled with the name of the selected layout. The tab currently in view in the music area is highlighted.

When you hover over an individual tab, an **x** appears that allows you to close the tab.



### 2 New Tab

Allows you to open a new tab. Tabs can contain a different layout, or an additional view of a layout that is already open in another tab or window.

#### TIP

You can change whether the tab bar is hidden or shown in new projects by default in **Preferences > General > View**.

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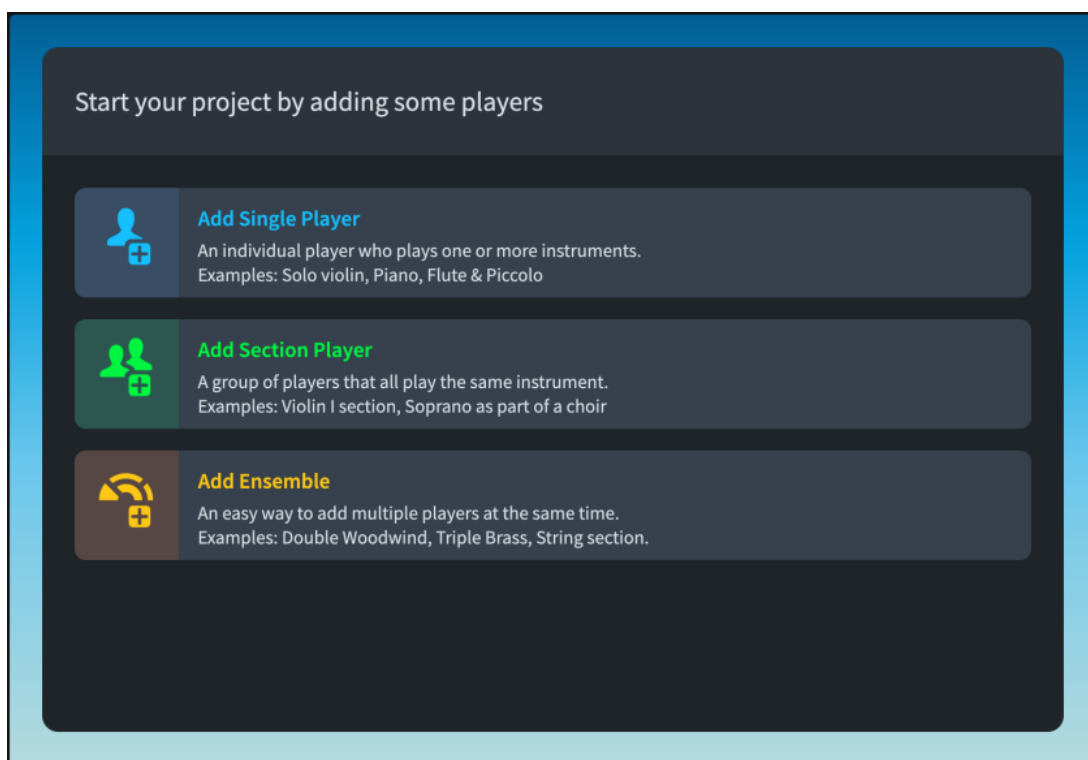
RELATED LINKS

[Preferences dialog](#) on page 58

## Project start area

The project start area is displayed in the middle of the project window in Setup mode and Write mode when you set up a new empty project. When you add at least one player, the view changes into the music area.

The project start area shows cards that allow you to add players to the project.



Project start area

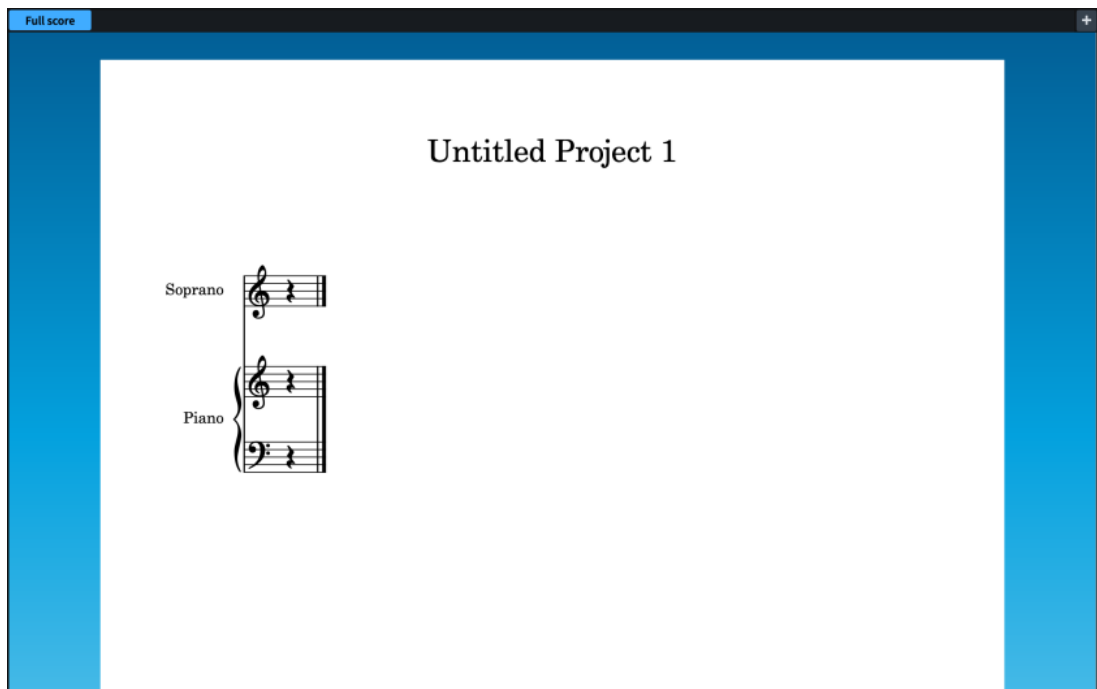
RELATED LINKS

[Adding players](#) on page 121

## Music area

In Setup, Write, and Engrave modes, the music area shows the music notation of the currently selected layout. It is the central part of the project window where you work on your project.





Music area showing a new choir piece in page view

The music area displays layouts in either galley view or page view. In Engrave mode, layouts always appear in page view. The tab bar above the music area allows you to open multiple layouts in the project simultaneously and switch between them. The scroll bars to the right and to the bottom of the music area allow you to scroll within the layout.

You can use the layout selector in the toolbar to show other layouts in the music area.

When zones are open on the right, left, and lower edges of the window, the size of the music area can be reduced. You can hide/show zones when necessary.

#### RELATED LINKS

[Toolbar](#) on page 31

[Switching to galley/page view](#) on page 50

[Switching between layouts](#) on page 43

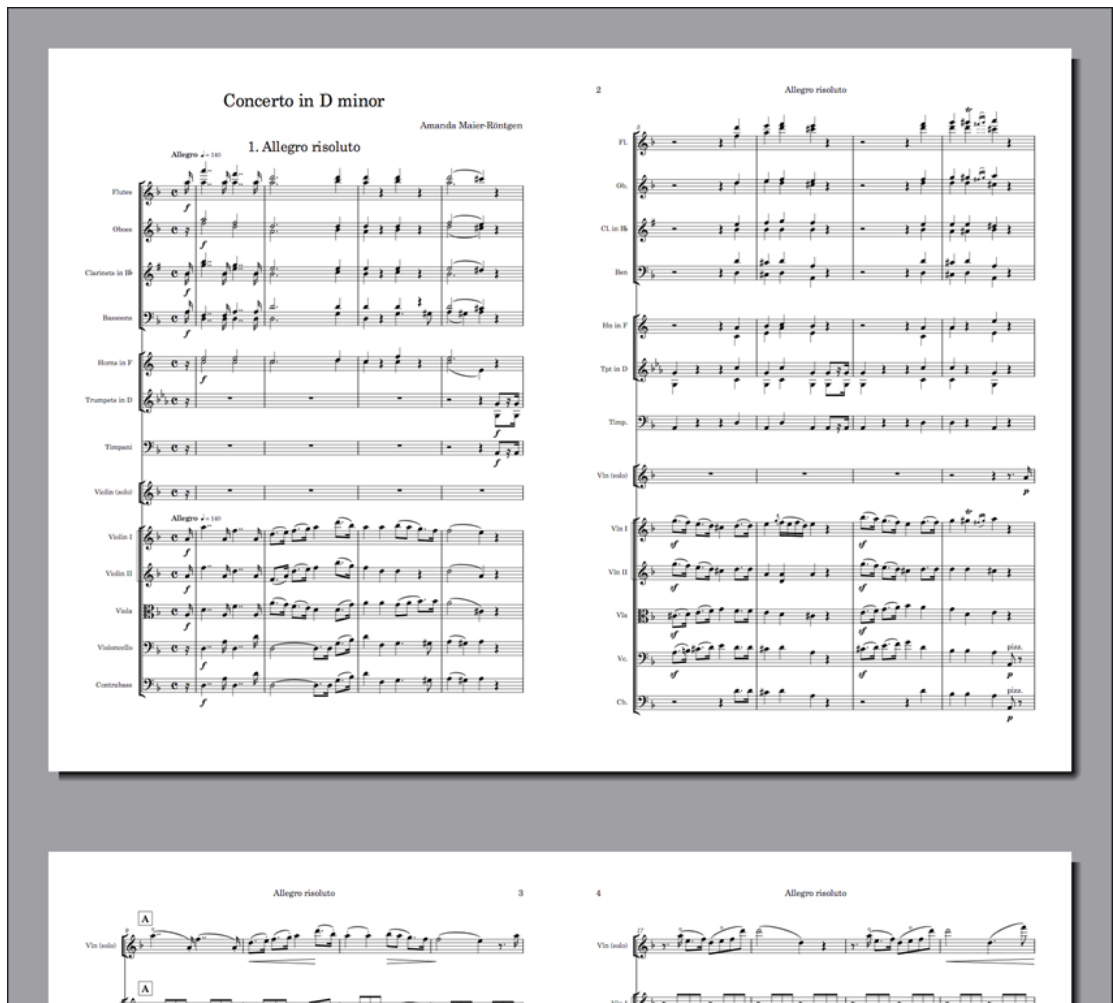
[Hiding/Showing zones](#) on page 44

[Navigation](#) on page 417

[Layouts](#) on page 165

## Print preview area

The print preview area is the central part of the project window in Print mode that shows a preview of what will be printed or exported as a graphic.



Print preview area displaying a score set to print 2-up

The print preview area shows a preview of the first layout selected in the **Layouts** panel. You can scroll through the pages that are shown, but you cannot edit layouts. If you want to make changes, you must switch to Setup or Write mode.

### TIP

You can go directly to the first page in the layout by pressing **Home**, and to the last page by pressing **End**. You can change these key commands on the **Key Commands** page in **Preferences**.

If you select multiple layouts to be printed as part of the same print job, the print preview area only displays the first layout. If you want to show the expected page arrangement for each layout in the print preview, you must check each layout individually before you start printing.

### RELATED LINKS

[Project window in Print mode](#) on page 533

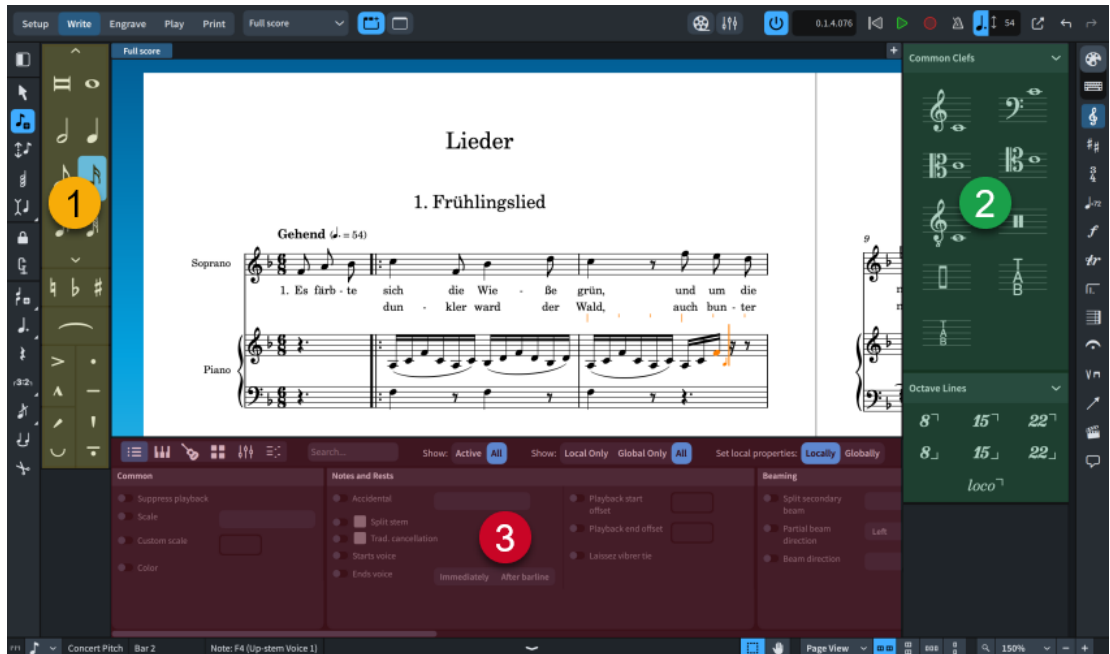
[Layouts panel \(Print mode\)](#) on page 534

[Key Commands page in the Preferences dialog](#) on page 59

## Zones and panels

Zones on the left, right, and lower edges of the project window contain panels that provide the notes, notations, and functions that you need to set up, write, edit, and format your music. Different panels are available in each zone according to the mode.

You can hide/show each zone individually or all of them at the same time.



- 1 Left zone. In Write mode, this contains the Notes panel.
- 2 Right zone. In Write mode, this can display different panels, according to the current selection in the Notations toolbox.
- 3 Lower zone. In Write mode, this can display different panels, including the Properties panel and Mixer.

The zones contain different panels in each mode in Dorico Elements.

### Modes and their panels

Mode	Left Zone	Right Zone	Lower Zone
Setup	Players panel	Layouts panel	Flows panel
Write	Notes panel	Notations panels	Properties, Keyboard, Fretboard, Drum Pads, Mixer, and Key Editor panels
Engrave	Formatting panel	n/a	Properties and Mixer panels
Play	Track Inspector and VST and MIDI panel	n/a	Mixer and Key Editor panels
Print	Layouts panel	Print Options panel	n/a

#### RELATED LINKS

- [Modes in Dorico](#) on page 21
- [Hiding/Showing zones](#) on page 44
- [Project window in Setup mode](#) on page 106
- [Project window in Write mode](#) on page 186
- [Project window in Play mode](#) on page 485
- [Project window in Print mode](#) on page 533
- [Players panel](#) on page 107
- [Layouts panel \(Setup mode\)](#) on page 114
- [Flows panel](#) on page 117
- [Notes panel](#) on page 191
- [Right zone \(Write mode\)](#) on page 195
- [Lower zone \(Write mode\)](#) on page 196
- [Properties panel](#) on page 615
- [Track Inspector](#) on page 488
- [Key Editor panel](#) on page 619
- [Mixer panel](#) on page 667
- [Layouts panel \(Print mode\)](#) on page 534
- [Print Options panel](#) on page 535

## Toolboxes

Toolboxes are located on the right and left edges of the project window in some modes. They contain different tools and options according to the current mode, but in general they allow you to input and modify notes/items and to show different panels in the corresponding zone.

The following toolboxes are available in the different modes:

#### Write mode

- Notes toolbox on the left of the project window
- Notations toolbox on the right of the project window

#### Engrave mode

- Engrave toolbox on the left of the project window

#### RELATED LINKS

- [Project window](#) on page 30
- [Notes toolbox](#) on page 187
- [Notations toolbox](#) on page 192

## Status bar

The status bar at the bottom of the project window allows you to choose different views and page arrangements for the music area.

NOTE

Not all options in the status bar are available in all modes.



Status bar in Write mode

### 1 **Rhythmic Grid selector**

Allows you to change the rhythmic grid resolution, which affects certain aspects of inputting and editing, such as the amount by which items move.

### 2 **Status display**

Displays information about the current layout and selection, divided in up to three sections, which are, from left to right:

- Transposition of the current layout
- The bar/range of bars of the current selection
- Summary of the selection; for example, the pitch and voice of a single selected note, or the implied chord of multiple selected notes

### 3 **Disclosure arrow**

Allows you to show/hide the lower zone in Setup, Write, and Engrave modes.

### 4 **Selection tools**

Allow you to switch between using the **Marquee Tool** and the **Hand Tool** in Write mode and Engrave mode.

### 5 **View type selector**

Allows you to select one of the provided view types for the music area in Setup and Write mode.

### 6 **Page arrangement options**



Allow you to choose between different horizontal and vertical arrangements of either individual pages or pairs of pages, which are called spreads.

### 7 **Zoom options**

Allow you to change the zoom factor of the music area and its musical contents. There are preset zoom levels but you can also use a custom zoom level.

### 8 **MIDI activity indicator/Audio engine connection warning**

Indicates that there might be MIDI or audio problems that require your attention.

- A brief green light  indicates that Dorico Elements is receiving MIDI input from a connected device. If the green light is persistent, a connected MIDI device is sending lots of data, which can cause problems.
- A warning icon  indicates that Dorico Elements is unable to send MIDI events to the audio engine; for example, if no device is chosen or the sample rate is wrong. You can click the warning icon to open the **Device Setup** dialog, where you can fix the problem in most cases.

#### RELATED LINKS

[Rhythmic grid](#) on page 204

[View types](#) on page 41

[Page arrangements for page view](#) on page 42

[Zoom options](#) on page 42

[MIDI recording](#) on page 252

[Playing back music](#) on page 503

[Enabling/Disabling MIDI input devices](#) on page 258

## Selection tools

The status bar in Dorico Elements contains selection tools that you can use to select items and change the music shown within the music area.

### Marquee Tool



Allows you to drag a rectangle to select multiple notes and notations.

### Hand Tool



Allows you to move the view within the music area.

#### TIP

- You can press **Alt/Opt-H** to switch between selection tools.
- To use the other tool briefly without selecting it, **Shift**-drag with the mouse.
- You can change the default selection tool for all future projects on the **Note Input and Editing** page in **Preferences**.

#### RELATED LINKS

[Selecting notes/items](#) on page 401

[Selecting multiple items using marquee selections](#) on page 403

[Moving the view in the music area](#) on page 420

[Preferences dialog](#) on page 58

## View types

In Dorico Elements there are different ways to view your layouts.

The following view types are available:

### Galley View

Lays out all the staves in the current layout and flow on a single continuous system.

This view type is most useful during the process of inputting the music as it allows you to focus on the musical content of your project. Because it shows all staves, galley view is particularly useful when inputting notes for single players holding multiple instruments.

By default, bar numbers are shown every bar above every staff. Staff labels are also shown above every staff, and follow the view as you scroll so they are always visible.

#### NOTE

Note spacing is unjustified in galley view and there is no automatic vertical collision avoidance, so notes and items might overlap. You can change the default gaps between staves in galley view for each layout independently.

### Page View

Displays your layout paginated exactly as it appears when you print or export it.

This view type is useful for determining appropriate page turns, for example.

#### NOTE

- The view type is reset to your default setting when you switch layouts.



- You can change the default view type used for all future projects in the **View** section of the **General** page in **Preferences**.
- 

#### RELATED LINKS

[Preferences dialog](#) on page 58

[Switching to galley/page view](#) on page 50

[Changing the staff spacing in galley view](#) on page 579

[Page formatting](#) on page 555

[Players](#) on page 120

[Instruments](#) on page 127

## Page arrangements for page view

Page arrangement options in the status bar allow you to change the way pages are arranged in the music area, for layouts shown in page view.

### Spreads Horizontally



Displays pages in pairs as two-page spreads, with each pair laid out from left to right in a row.

### Spreads Vertically



Displays pages in pairs as two-page spreads, with each pair laid out from top to bottom in a column.

### Single Pages Horizontally



Displays individual pages laid out from left to right.

### Single Pages Vertically



Displays individual pages laid out from top to bottom.

#### RELATED LINKS

[Status bar](#) on page 39

[Switching to galley/page view](#) on page 50

## Zoom options

Zoom options in the status bar allow you to change the displayed size of pages in the music area.

### Custom Zoom



Opens a dialog that allows you to set a custom zoom percentage.

### Set Zoom



Allows you to select one of the preset zoom scaling factors. You can set a permanent zoom factor for all future projects on the **General** page in **Preferences**.

### Zoom Out



Decreases the size of notes and notations in the music area.

#### Zoom In



Increases the size of notes and notations in the music area.

#### RELATED LINKS

[Status bar](#) on page 39

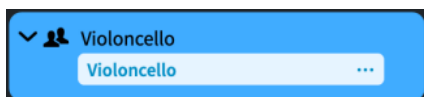
[Preferences dialog](#) on page 58

[Zooming in/out of the music area](#) on page 420

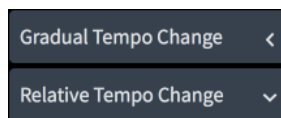
## Disclosure arrows

Disclosure arrows indicate that objects, areas, and menus can be expanded/collapsed, either vertically or horizontally.

In Dorico Elements, disclosure arrows are commonly used to expand/collapse sections in panels and cards, such as player cards in the **Players** panel in Setup mode.



Disclosure arrow for a player card



Disclosure arrows for sections in the Tempo panel

#### RELATED LINKS

[Players panel](#) on page 107

[Instruments](#) on page 127

## Workspace setup

Dorico Elements enables you to set up your workspace according to your working style. For example, you can open multiple tabs to display multiple layouts in the same window. You can also open the same project in multiple project windows.

#### RELATED LINKS

[Navigation](#) on page 417

[Hiding/Showing zones](#) on page 44

[Starting new projects](#) on page 71

## Switching between layouts

You can change which layout is displayed in the current tab in the music area in Setup, Write, and Engrave modes, or in the track overview in Play mode. For example, if you want to check individual part layouts.

#### NOTE

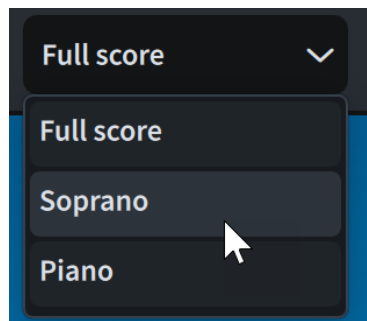
You can only switch between layouts to which players are assigned.

---

#### PROCEDURE

- Switch to another layout in any of the following ways:

- To switch to the next layout, press **Shift-Alt/Opt-]**.
- To switch to the previous layout, press **Shift-Alt/Opt-[**.
- Select an item on a staff or in the piano roll of the player whose layout you want to open and press **W**.
- In the toolbar, click the layout selector and select a layout from the menu.



---

#### RESULT

The selected layout is opened in the music area. It replaces the layout previously open in the tab.

#### TIP

You can assign a key command for **Center Selection** on the **Key Commands** page in **Preferences**. This command automatically brings the selection into view.

---

#### RELATED LINKS

[Layouts](#) on page 165

[Implicit vs. explicit rests](#) on page 1145

[Players, layouts, and flows](#) on page 118

[Assigning players to layouts](#) on page 167

[Switching to galley/page view](#) on page 50

[Switching between flows in the track overview](#) on page 487

[Piano roll editor](#) on page 630

## Hiding/Showing zones


You can hide/show individual zones or all zones simultaneously; for example, to increase the space available for displaying music in the music area, or to access options in a specific panel.


#### NOTE

In some modes, not all methods are available.

---

#### PROCEDURE

1. Hide/Show the left zone in any of the following ways:
  - Press **Ctrl/Cmd-7**.
  - In the toolbox on the left, click **Show Left Zone** .
  - Click the disclosure arrow on the left edge of the main window.
  - Choose **Window > Show Left Zone**.
2. Hide/Show the right zone in any of the following ways:

- Press **Ctrl/Cmd-9**.
  - Click the disclosure arrow on the right edge of the main window.
  - In the Notations toolbox, click the button for any panel you want to show, or the active button for the panel you want to hide.
  - Choose **Window > Show Right Zone**.
3. Hide/Show the lower zone in any of the following ways:
- Press **Ctrl/Cmd-8**.
  - Click the disclosure arrow at the bottom of the main window.
  - Choose **Window > Show Lower Zone**.
4. Hide/Show all zones in any of the following ways:
- Press **Ctrl/Cmd-0**.
  - In the toolbar, click **Hide/Restore Zones** .
  - Choose **Window > Hide/Restore Zones**.
- 

#### RESULT

The corresponding zones are hidden/shown.

If you hide all active zones, the **Hide/Restore Zones** button in the toolbar indicates which zones were previously active but are now hidden.

#### TIP

- You can assign key commands for showing specific panels in the lower zone on the **Key Commands** page in **Preferences**.
  - You can choose to hide the right/left zones when the lower zone is shown, and vice versa, automatically in all future projects in **Preferences > General > Window**.
- 

#### EXAMPLE



**Hide/Restore Zones** button when zones are shown



**Hide/Restore Zones** button when all zones were previously shown but are now all hidden

---

#### RELATED LINKS

[Zones and panels](#) on page 38

[Toolbar](#) on page 31

[Disclosure arrows](#) on page 43

[Properties panel](#) on page 615


[Preferences dialog](#) on page 58

[Key Commands page in the Preferences dialog](#) on page 59

## Opening new tabs

You can open multiple tabs in the same project window, which you can use to display multiple layouts or different views of the same layout. For example, you can show your full score layout in page view in one tab and in galley view in another tab.


Each tab can contain a separate layout or a different view of a layout already open in another tab or window. Whenever you open a new tab, you are prompted to select a layout that you want to display in the tab.

You can find tabs in the tab bar, located at the top of the music area, below the toolbar. If no tabs are shown, click **Show Tabs**  in the toolbar.

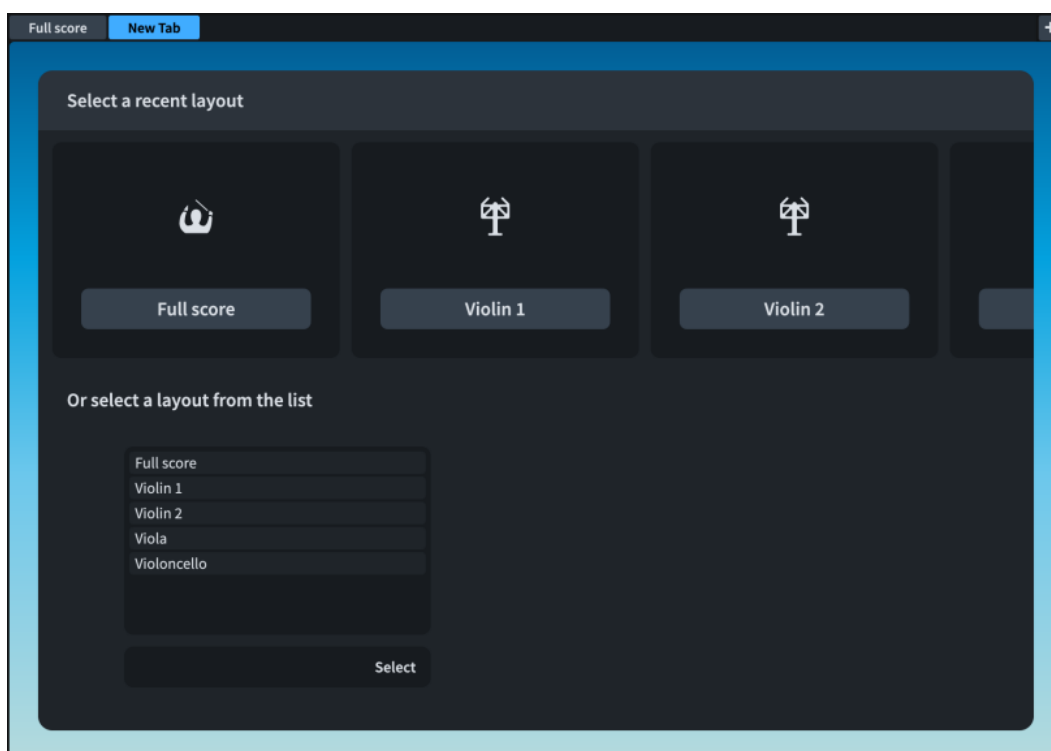
---

#### PROCEDURE

1. Open a new tab in any of the following ways:

- Press **Ctrl/Cmd-T**.
- At the right end of the tab bar, click **New Tab** .
- Choose **Window > New Tab**.

A new tab opens that shows recent layouts at the top and a list of other layouts in the project at the bottom. If the tab bar was hidden, it is now shown.



2. Select a layout to open in the new tab in any of the following ways:

- Click one of the icons.
- In the list at the bottom, select a layout.
- In the toolbar, click the layout selector and select a layout.

---

#### RESULT

The layout that you choose opens in the active tab.

#### TIP

You can also switch between different layouts within the same tab.

---

RELATED LINKS

[Tab bar](#) on page 34

[Toolbar](#) on page 31

[Switching between layouts](#) on page 43

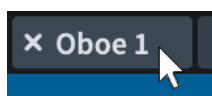
## Closing tabs

You can close individual tabs of layouts that you no longer need, and you can close multiple tabs at the same time.

---

PROCEDURE

- Close tabs in any of the following ways:
  - Select the tab you want to close and press **Ctrl/Cmd-W**.
  - Hover over the tab you want to close and click **x**.



- Right-click the single tab you want to close and choose **Close Tab** from the context menu.
- Right-click the tab you do not want to close and choose **Close Other Tabs** from the context menu.

NOTE

You cannot close the last tab in a window. If only one tab is open and you no longer want to see the tabs, deactivate **Show Tabs** in the main toolbar. The tab is no longer displayed, but the corresponding layout is still shown.

---

RESULT

If you selected a single tab and closed it, the selected tab and its corresponding layout are closed.

If you selected a single tab and closed other tabs, all open tabs except for the selected tab are closed.

## Switching between tabs

You can switch between different open tabs to show different layouts in the music area.

---

PROCEDURE

- Switch tabs in any of the following ways:
  - To cycle forwards through all open tabs, press **Ctrl-Tab**.
  - To cycle backwards through all open tabs, press **Ctrl-Shift-Tab**.
  - Click the tab to which you want to switch.

TIP

- You can choose to keep selected items in view automatically when switching between tabs and windows on the **General** page in **Preferences**.



- You can assign a key command for **Center Selection** on the **Key Commands** page in **Preferences**. This command automatically brings the selection into view.
- 

RELATED LINKS

[Preferences dialog](#) on page 58

## Changing the order of tabs

You can move tabs to a different position on the tab bar.

---

PROCEDURE

- Click and drag a tab to the new position.  
The other tabs move to show where the dragged tab will be positioned.
- 

## Showing multiple tabs in the same project window

You can split your project window to display two tabs at the same time. The split can be either vertical or horizontal, allowing you to display different layouts either side by side or above one another.

---

PROCEDURE

1. Select the tab of the layout that you want to move to a new tab group.
  2. Split the view in one of the following ways:
    - To show layouts side by side, choose **Window > Vertical Split**.
    - To show layouts above one another, choose **Window > Horizontal Split**.
- 

RESULT

The project window is split to display two tabs at the same time. The selected tab is moved to the new tab group.

## Moving tabs to another tab group

You can move tabs to other tab groups. For example, if you want to compare different layouts or two views of the same layout.

PREREQUISITE

You have opened at least two tabs, and they are both shown in the same project window.

---

PROCEDURE

- Click and drag the tab into the target tab group.
-

## Moving tabs to other windows

You can move tabs to another open window of the same project to show the corresponding layouts in a new window. For example, if you want to compare two layouts on two displays.

### NOTE

- The layouts must belong to the same project. If you attempt to move a tab to a window of a different project, a new window is created for the project to which the layout belongs.
  - You can only move tabs to other windows if you have opened at least two tabs.
- 

### PROCEDURE

- Do one of the following:
    - To create a new project window with the tab inserted, either click and drag the tab away from the tab bar and release it, or choose **Window > Move Tab To New Window**. You can also right-click tabs and choose this option from the context menu.
    - To move the tab to an existing project window, click and drag the tab onto the tab bar in the corresponding project window.
- 

## Opening multiple project windows

You can open multiple project windows for the same project; for example, if you want to work on multiple layouts at the same time. You can also show a different mode of the same project in each window, such as having one window show Write mode and another show Play mode.

During playback, all windows that belong to the same project show the playhead and move the view to follow the music.

### PROCEDURE

- Open a new project window in any of the following ways:
    - Press **Ctrl/Cmd-Shift-T**.
    - Choose **Window > New Window**.
- 

### RESULT

A duplicate of the window opens. It contains the same tabs and the same view options as the original window.

### TIP

You can choose to keep selected items in view automatically when switching between tabs and windows on the **General** page in **Preferences**.

---

### RELATED LINKS

[Playhead](#) on page 501

[Switching between tabs](#) on page 47

## Switching to full screen view

You can maximize the amount of screen space available for your music by making any project window cover the whole screen.

You can also hide the desktop elements provided by your operating system; for example, the task bar in Windows or the system menu bar and Dock in macOS.

Within Dorico Elements, you can also hide/show the zones on the edges of the window.

---

### PROCEDURE

- Choose **View > Full Screen**.

---

### AFTER COMPLETING THIS TASK

To return to the default view, choose **View > Full Screen** again.

### RELATED LINKS

[Hiding/Showing zones](#) on page 44

[Zooming in/out of the music area](#) on page 420

## Switching to galley/page view

You can switch between different view types in the music area in Setup mode and Write mode. For example, if a flute player in your project is doubling piccolo, you can switch to galley view to see the piccolo staff in addition to the flute staff.

### NOTE

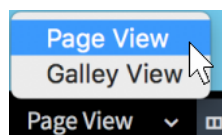
In Engrave mode, layouts always appear in page view.

---





### PROCEDURE

1. Switch to galley or page view in any of the following ways:

- To switch to galley view, press **Ctrl/Cmd-Alt/Opt-2**.
- To switch to page view, press **Ctrl/Cmd-Alt/Opt-1**.
- In the status bar, select **Galley View** or **Page View** from the view selector.



2. Optional: If you selected **Page View**, choose one of the available page arrangements in the status bar.

- To show display pages in pairs as two-page spreads, with each pair laid out from left to right in a row, choose **Spreads Horizontally** .
- To display pages in pairs as two-page spreads, with each pair laid out from top to bottom in a column, choose **Spreads Vertically** .
- To display individual pages laid out from left to right, choose **Single Pages Horizontally** .
- To display individual pages laid out from top to bottom, choose **Single Pages Vertically** .

#### RESULT

The view type in the music area is changed. In page view, only staves containing notes or items are shown by default. For players holding multiple empty instruments, only the top instrument is shown in full scores.

In galley view, all staves in the project are shown. By default, guide bar numbers are shown above each staff and guide instrument labels are shown above each instrument. For players holding multiple instruments, the player name is also shown in guide instrument labels.

#### NOTE

- Note spacing is unjustified in galley view and there is no automatic vertical collision avoidance, so notes and items might overlap. You can change the default gaps between staves in galley view for each layout independently.
- The view type is reset to your default setting when you switch layouts.
- You can change the default view type used for all projects in **Preferences > General > View**.
- You can assign a key command for **Toggle View Type** on the **Key Commands** page in **Preferences**. This command switches between galley view and page view.
- You can assign a key command for **Center Selection** on the **Key Commands** page in **Preferences**. This command automatically brings the selection into view.

---

#### AFTER COMPLETING THIS TASK

In galley view, you can use instrument filters to show only specific staves.

#### RELATED LINKS

[Music area](#) on page 35

[View types](#) on page 41

[Switching between layouts](#) on page 43

[Status bar](#) on page 39

[Page arrangements for page view](#) on page 42

[Changing the staff spacing in galley view](#) on page 579

[Per-layout vertical spacing options](#) on page 577

[Preferences dialog](#) on page 58

[Key Commands page in the Preferences dialog](#) on page 59

[Moving the view in the music area](#) on page 420

[Hiding/Showing guide bar numbers](#) on page 745

[Renaming players](#) on page 173

[Instrument filters](#) on page 421

## Changing your preferred unit of measurement

You can change your default preferred unit of measurement to be used throughout Dorico Elements for options that use absolute measurements, such as the size of page margins in **Layout Options**. It does not affect options that are relative to the size of staves, such as options in **Notation Options**.

---

#### PROCEDURE

1. Press **Ctrl/Cmd-**, to open **Preferences**.
2. In the category list, click **General**.
3. In the **General** section, select one of the following options from the **Preferred unit of measurement** menu:
  - **Points (pt)**

- **Millimeters (mm)**
  - **Inches (in)**
  - **Centimeters (cm)**
4. Click **Apply**, then **Close**.
- 

## Color setup

Dorico Elements allows you to change the colors used in different contexts, including for project windows and pages in each type of layout.

### RELATED LINKS

[Annotations](#) on page 554

[Viewing options for notes and rests](#) on page 951

[Hiding/Showing voice colors](#) on page 1304

[Hiding/Showing colors for notes out of range](#) on page 951

## Changing the window color theme

You can change the color theme used throughout Dorico Elements; for example, you might switch to the light theme if you prefer to read dark text on a light background. By default, Dorico Elements uses the dark theme, which shows light text on a dark background.

### PROCEDURE

1. Press **Ctrl/Cmd-**, to open **Preferences**.
  2. In the category list, click **General**.
  3. In the **Window** section, select one of the following options from the **Theme** menu:
    - **Dark**
    - **Light**
  4. Click **Apply**, then **Close**.
- 

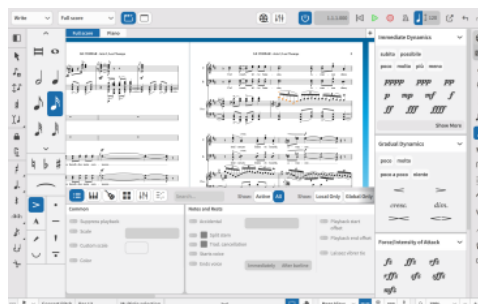
### RESULT

The color theme used in Dorico Elements is changed. This affects the current project immediately and all future projects you open, until you next change your setting.

### EXAMPLE



Dark theme



Light theme

## Changing the page color

You can change the color of pages in each of the different layout types; for example, to help you identify whether you are in a part layout or full score layout, or to make reading the music easier or more comfortable.

By default, full score and custom score layouts have white pages, while part layouts have cream pages.

---

### PROCEDURE


1. Press **Ctrl/Cmd-**, to open **Preferences**.
2. In the category list, click **Colors**.
3. In the **Page Colors** section, change the page color for **Full score layouts**, **Part layouts**, and/or **Custom score layouts** in any of the following ways:
  - Click the corresponding color preview and select a color in the dialog that opens.
  - Enter a color code into the corresponding value field.
4. Click **Apply**, then **Close**.

---

### RESULT

The page color in layouts of the corresponding type is changed in the current project and all future projects you open. This does not affect the resulting page color when exporting or printing layouts.

### TIP

You can reset page colors back to the default factory settings by clicking **Reset**  for each layout type.

---

### RELATED LINKS

[Layouts](#) on page 165

[Printing layouts](#) on page 538

[Exporting layouts as graphics files](#) on page 542

## Changing the background color

You can change the background color of the music area. The background can be a gradient of up to four colors or a single block color. You can also change the background color for Write mode and Engrave mode independently of each other; for example, to help you identify which mode you are in.

---

### PROCEDURE


1. Press **Ctrl/Cmd-**, to open **Preferences**.
2. In the category list, click **Colors**.
3. In the **Background Colors** section, choose one of the following options for **Use for Write mode** and/or **Engrave mode**:
  - **Gradient**
  - **Single Color**
4. Change the background color for **Write mode** and/or **Engrave mode** in one of the following ways:

- If you chose **Gradient** and want to use a preset selection of colors, select it from the **Preset** menu.
  - If you chose **Gradient** and want to use a custom selection of colors, either click each color preview and select a color in the dialog that opens, or enter color codes into the value fields.
  - If you chose **Single Color**, either click the **Stop 1** color preview and select a color in the dialog that opens, or enter a color code into the value field.
- 

#### RESULT

The background color is changed in the current project and all future projects you open.

#### TIP

- The background color set for Write mode is also used in Setup mode.
  - You can reset background colors back to the default factory settings by clicking **Reset** .
- 

## Changing music area colors

You can change the colors used for various purposes in the music area, including the first eight voice colors on each staff and the color of selected items. For example, if you find specific color combinations easier to read than others.

---


#### PROCEDURE

1. Press **Ctrl/Cmd-**, to open **Preferences**.
  2. In the category list, click **Colors**.
  3. In the **Voice Colors** section, change the color for each voice in any of the following ways:
    - Click the corresponding color preview and select a color in the dialog that opens.
    - Enter a color code into the corresponding value field.
  4. In the **Other Colors** section, change the color for each item in any of the following ways:
    - Click the corresponding color preview and select a color in the dialog that opens.
    - Enter a color code into the corresponding value field.
  5. Click **Apply**, then **Close**.
- 

#### RESULT

The color of the corresponding voices and items is changed in the current project and all future projects you open.

#### TIP

You can reset colors back to the default factory settings by clicking **Reset**  for each voice or item.

---

#### RELATED LINKS

[Preferences dialog](#) on page 58

[Annotations](#) on page 554

[Viewing options for notes and rests](#) on page 951

[Hiding/Showing voice colors](#) on page 1304

[Hiding/Showing colors for notes out of range](#) on page 951



[Selecting notes/items](#) on page 401

[Caret](#) on page 205

[MIDI recording](#) on page 252

[Playhead](#) on page 501

[Tablature](#) on page 1200

[Linked dynamics](#) on page 855

[Linked slurs](#) on page 1169

## Inverting colors

You can invert the colors used for music and pages in Dorico Elements, which by default shows white music on black pages. You can then customize the inverted page color; for example, to show white music on a blue background.

---

### PROCEDURE

1. Press **Ctrl/Cmd-**, to open **Preferences**.
2. In the category list, click **Colors**.
3. In the **Page Colors** section, activate **Invert colors for music (white on black)**.
4. Change the inverted page color in any of the following ways:
  - Click the corresponding color preview and select a color in the dialog that opens.
  - Enter a color code into the corresponding value field.
5. Click **Apply**, then **Close**.


---

### RESULT

The colors for music and pages are inverted in the current project and all future projects you open. Music always appears white, while pages use the inverted page color you set. This does not affect the resulting colors when exporting or printing layouts.

Deactivating **Invert colors for music (white on black)** returns music/page colors to their non-inverted configuration.

### TIP


You can reset the inverted page color back to the default factory setting by clicking **Reset** .

---

## Changing the color of items

You can change the color of individual notes and items; for example, to distinguish specific items when creating educational worksheets. You can do this for the current layout and frame chain only, or for all layouts and frame chains.

### PREREQUISITE

- The lower zone is shown.
- **Properties**  is selected in the lower zone toolbar.
- You have chosen the appropriate property scope for local properties.

---

### PROCEDURE

1. Select the items whose color you want to change. You can do this in Write mode and Engrave mode.
2. In the Properties panel, activate **Color** in the **Common** group.

3. Click the color preview to open the **Select Color** (Windows)/**Colors** (macOS) dialog.
  4. Select or create the color you want.
  5. Click **OK** to save your changes and close the dialog.
- 

#### RESULT

The color of the selected items is changed. If the property scope was set to **Locally**, this change only takes effect in the current layout and frame chain.

#### RELATED LINKS

[Changing the property scope](#) on page 617

[Copying property settings to other layouts/frame chains](#) on page 599

## Language setup

Dorico Elements allows you to change the language used in different contexts, including for the application itself and for instrument names in staff labels.

#### RELATED LINKS

[Instrument transpositions in staff labels](#) on page 1185

[Changing the keyboard language](#) on page 64

## Changing the application language

You can change the language used for the user interface in the current project and all future projects you open; for example, if your operating system language is different to the language you want to use in Dorico Elements.

#### NOTE

Changing the application language does not affect the language used for instrument names or date and time tokens.

---

#### PROCEDURE

1. Press **Ctrl/Cmd-**, to open **Preferences**.
  2. In the category list, click **General**.
  3. In the **General** section, select the language you want to use from the **Language** menu.
  4. Click **Apply**, then **Close**.
- 

#### RESULT

The language used for the user interface in the current project and all future projects is changed. If your keyboard language is set to **Default**, the keyboard language is also changed.

#### RELATED LINKS

[Preferences dialog](#) on page 58

[Changing the keyboard language](#) on page 64

## Changing the language for instrument names

You can change the language used for instrument names; for example, if you want to recreate a French score. This affects staff labels and instrument change labels.

---

### PROCEDURE

1. Choose **Library > Project Language** to open the **Project Language** dialog.
2. Select the language you want to use from the **Instrument names language** menu.
3. Activate/Deactivate **Reset instrument names**.
4. Click **OK** to save your changes and close the dialog.

---

### RESULT

The language for all instrument names and prefixes for instrument change labels is changed project-wide. Future instruments you add to the project use your new language setting.

- If you activated **Reset instrument names**, the names of existing instruments in the project are reset to follow your new language setting.
- If you deactivated **Reset instrument names**, the names of existing instruments in the project are not reset and continue to use their existing language.

### TIP

You can change the default language used for instrument names in all future projects on the **General** page in **Preferences**.

---

### RELATED LINKS

[Adding players](#) on page 121

[Adding instruments to players](#) on page 133

[Instrument changes](#) on page 130

[Staff labels](#) on page 1180

[Showing instrument/player names in staff labels](#) on page 1184

[Instrument transpositions in staff labels](#) on page 1185

## Changing the language for date and time tokens

You can change the language used for all date and time tokens project-wide; for example, if you want to display the date and time using a different language convention to your operating system.

---

### PROCEDURE

1. Choose **Library > Project Language** to open the **Project Language** dialog.
2. Select the language you want to use from the **Date and time language** menu.
3. Click **OK** to save your changes and close the dialog.

---

### RELATED LINKS

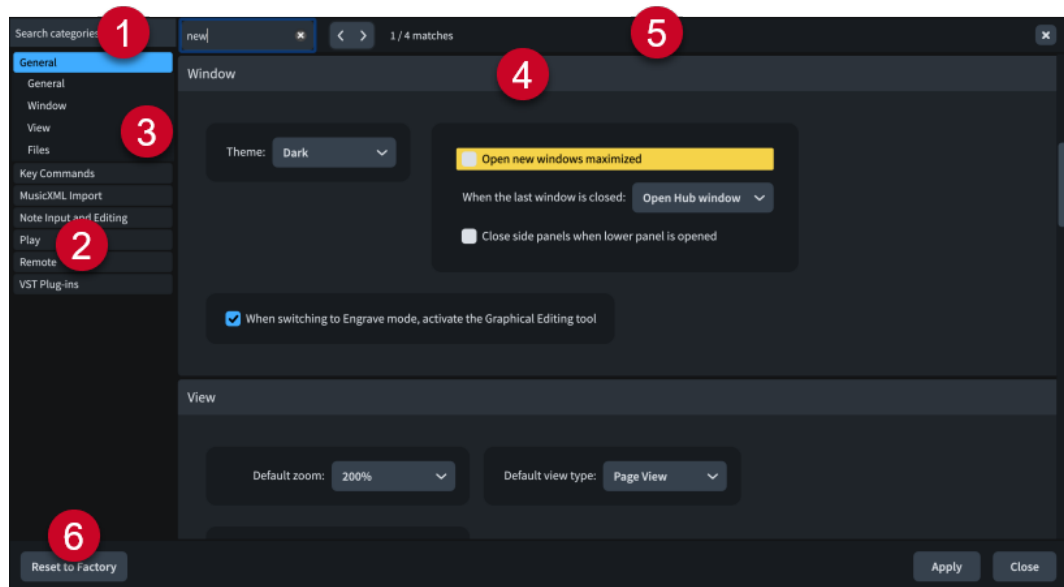
[Tokens](#) on page 607

## Preferences dialog

The **Preferences** dialog allows you to change how Dorico Elements functions by default across all projects.

You can open **Preferences** in any of the following ways:

- Press **Ctrl/Cmd-,**
- Choose **Edit > Preferences** (Windows) or **Dorico > Preferences** (macOS).



The **Preferences** dialog contains the following:

### 1 Search categories field

Allows you to filter categories and section titles according to your entry.

#### TIP

You can set the focus to the **Search categories** field by pressing **Ctrl/Cmd-L**. You can set the focus away by pressing **Tab**.

### 2 Category list

Contains the categories of options that you can view and change in the dialog. When you click a category in this list, any applicable section titles appear below the category in the list and its options appear as a page in the main body of the dialog.

### 3 Section titles

Shows the titles of any sections on the selected category's page. You can click these section titles to navigate directly to that section of the page.

### 4 Section

Pages are divided into sections, which can contain multiple options. Sections that contain many options are divided into subsections. For options that have multiple possible settings, the active setting is highlighted.

#### NOTE

The arrangement of options on the **Key Commands** page is significantly different to other pages in the **Preferences** dialog. This page is described separately in further detail.

## 5 Search pages bar

Allows you to search section titles and options on the currently selected page according to your entry and navigate through matches. The number of matches is displayed in the bar. Matches appear highlighted on the page, and the current option appears with a brighter highlight.

You can show the **Search pages** bar by pressing **Ctrl/Cmd-F**.

The bar contains the following options:

- **Search pages field:** Allows you to enter the term you want to search for. You can set the focus to the **Search pages** field by pressing **Ctrl/Cmd-F**.
- **Previous match:** Allows you to navigate to the previous match on the page. You can also navigate to the previous match by pressing **Ctrl/Cmd-Shift-G**.
- **Next match:** Allows you to navigate to the next match on the page. You can also navigate to the next match by pressing **Ctrl/Cmd-G**.
- **Close:** Closes the bar and removes all match highlights. You can also close the bar by pressing **Esc**.

## 6 Reset to Factory

Resets all the options in the dialog back to the default factory settings.

### RELATED LINKS

[View types](#) on page 41

[Zoom options](#) on page 42

[Selection tools](#) on page 41

[Layout Options dialog](#) on page 677

[Key commands](#) on page 19

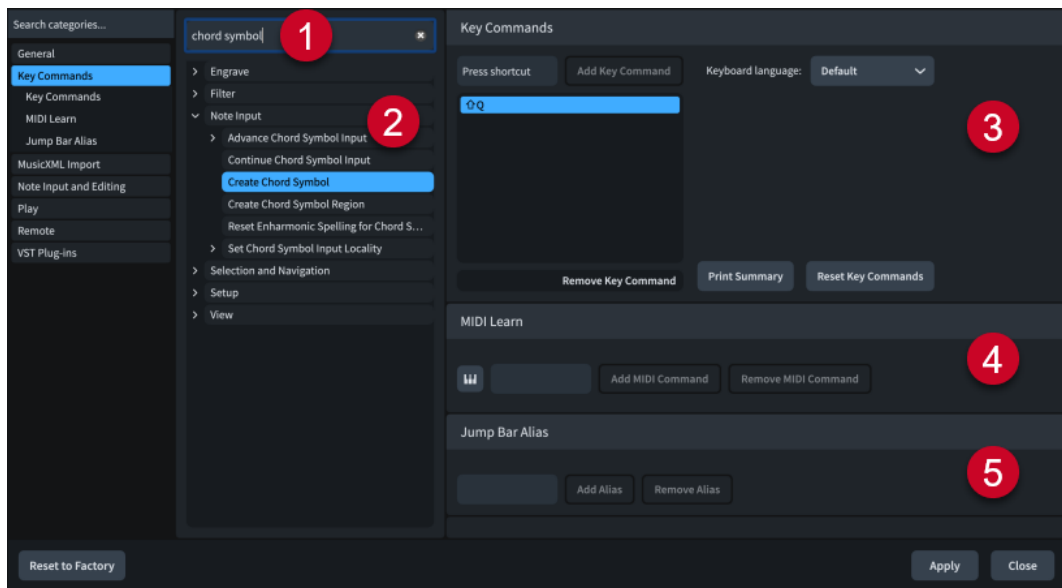
[Changing values in numeric value fields](#) on page 618

# Key Commands page in the Preferences dialog

The **Key Commands** page in the **Preferences** dialog allows you to view all the functions to which you can assign key commands, change existing key commands, and assign new key commands to functions that have no key command assigned by default.

Assigning your own key commands can be helpful for items or actions that you find yourself performing regularly, such as setting specific rhythmic grid resolutions or exporting all layouts to PDF.

- You can find the **Key Commands** page by opening the **Preferences** dialog and clicking **Key Commands** in the category list.



The **Key Commands** page comprises the following:

### 1 Search field

Allows you to search for functions to view, change, or add key commands. Because there are multiple levels of disclosure arrows before you reach many functions, this is often the quickest way to find what you are looking for.

### 2 Functions

Displays the functions that can be assigned key commands. The list can be filtered using the **Search** field. Disclosure arrows beside options indicate that further options are available when the option is expanded.

Hovering over functions shows a tool tip, which is helpful for some functions with particularly long names.

### 3 Key Commands section

Displays any existing key commands set in the current keyboard language for the function selected in the list of assigned key commands, and allows you to assign new key commands.


- **Keyboard language:** Allows you to change the keyboard language used for key commands.
- **Add Key Command:** Adds the key command you pressed to the selected function.

#### NOTE

- You can assign multiple key commands to the same function.
  - If you enter a key command that is already assigned to another function, a warning is shown.
- 
- **Remove Key Command:** Removes the selected key command from the selected function.
  - **Print Summary:** Directs you to an offline page in a web browser that displays your key commands on an interactive keyboard.
  - **Reset Key Commands:** Resets all of your key commands to their defaults.

### 4 MIDI Learn section

Allows you to assign MIDI controllers, notes, and combinations of notes to control functions.

- **MIDI Learn** : Prepares Dorico Elements to receive the MIDI input data that you want to save as a command.
- **Add MIDI Command**: Adds the MIDI controllers or notes you changed or pressed to the selected function.
- **Remove MIDI Command**: Removes the MIDI command from the selected function.

## 5 Jump Bar Alias section

Allows you to assign aliases that you can enter into the jump bar to perform the corresponding function.

- **Alias field**: Allows you to enter a jump bar alias for the selected function.
- **Add Alias**: Adds the characters you entered as the jump bar alias for the selected function.
- **Remove Alias**: Removes the existing jump bar alias from the selected function.

### RELATED LINKS

[Key commands in Dorico](#) on page 28

[Assigning key commands](#) on page 63

[Assigning MIDI commands](#) on page 63

[Jump bar](#) on page 65

## Interactive Dorico key commands map

The interactive **Dorico Key Commands** map shows a virtual computer keyboard, with keys that have been assigned key commands highlighted in different colors according to the modifier keys they contain. All key commands for the selected keyboard language layout are listed below, divided into global and mode-specific groups.

You can open the **Dorico Key Commands** map in any of the following ways:

- Choose **Help > Key Commands**.
- In the **Preferences** dialog, click **Key Commands** in the category list, then click **Print Summary** in the **Key Commands** section.





The interactive key commands map as it appears when US English is selected

The **Dorico Key Commands** map opens in a web browser. It allows you to do any of the following:

- To see the available key commands, select a context. The context of a key command is the mode in which it can be used. Key commands that have a global context work in all modes.
- To highlight the keys that you can press in combination with modifier keys to form a key command, press one or more modifier keys on your computer keyboard, such as **Shift** or **Ctrl/Cmd - Alt/Opt**, or click a modifier key on the virtual keyboard. The virtual computer keyboard highlights the pressed/clicked keys and displays the assigned functions on each key.
- To search for a specific key command, enter one or multiple words in the search field.
- To get an overview of all available key commands, browse the key commands that are listed below the virtual keyboard. The key commands are listed according to the context in which they can be used.

#### RELATED LINKS

[Changing the keyboard language](#) on page 64

## Searching for the key commands of functions

You can search for key commands that are assigned to functions or menu items in Dorico Elements.

---

#### PROCEDURE

1. Press **Ctrl/Cmd-** to open **Preferences**.
2. In the category list, click **Key Commands**.
3. Enter the name of a function in the **Search** field.  
The entries that are listed below are filtered according to the words that you enter.
4. Expand an entry and select the function for which you want to see the key command.

For particularly long names, you can hover over them to see a tool tip.

---

#### RESULT

If the function has a key command, it is shown in the list of assigned key commands.

#### TIP

You can also search for functions in the interactive key commands map.

---

## Assigning key commands

You can assign key commands to many functions; for example, for functions you use frequently but that do not have a key command assigned by default. You can also change existing key commands.

#### PROCEDURE

1. Press **Ctrl/Cmd-**, to open **Preferences**.
  2. In the category list, click **Key Commands**.
  3. Search for the name of a function and select it.  
For particularly long names, you can hover over them to see a tool tip.
  4. Optional: If the function already has an assigned key command, click **Remove Key Command** in the **Key Commands** section.  
If you assign a new key command without removing an existing one, you can use either key command.
  5. Click the **Press shortcut** input field.
  6. Press the key command that you want to assign on your computer keyboard.
  7. Click **Add Key Command**.
  8. Click **Apply**, then **Close**.
- 

#### RESULT

The key command you pressed is added to the list of assigned key commands for the selected menu item or function. You can use it immediately.


#### RELATED LINKS

[Resetting key commands](#) on page 65

## Assigning MIDI commands

You can assign specific keys or buttons on your MIDI keyboard to perform functions and access menu items. For example, if you want to navigate using MIDI keys during chord symbol input.

#### PROCEDURE

1. Press **Ctrl/Cmd-**, to open **Preferences**.
2. In the category list, click **Key Commands**.
3. Select the menu item or function to which you want to assign MIDI commands.  
For particularly long names, you can hover over them to see a tool tip.
4. In the **MIDI Learn** section, click **MIDI Learn** .

5. Press the key or button on your MIDI keyboard that you want to assign to the selected parameter.
  6. Click **Add MIDI Command**.
  7. Click **Apply**, then **Close**.
- 

## Changing the keyboard language

You can change the keyboard language used for key commands in Dorico Elements; for example, if the application language is set to German, but you are using an English keyboard and want to use English key commands.

---

### PROCEDURE

1. Press **Ctrl/Cmd-**, to open **Preferences**.
2. In the category list, click **Key Commands**.
3. Select the keyboard language you want to use for key commands from the **Keyboard language** menu.

#### NOTE

**Default** follows the application language.

---

4. Click **Apply**, then **Close**.
- 

### RESULT

The keyboard language used for key commands in the current project and all future projects is changed.

### RELATED LINKS

[Changing the application language](#) on page 56

## Removing key commands

You can remove individual key commands from a function.

---

### PROCEDURE

1. Press **Ctrl/Cmd-**, to open **Preferences**.
  2. In the category list, click **Key Commands**.
  3. Search for the name of a function and select it.
  4. In the **Key Commands** section, click **Remove Key Command**.
  5. Click **Apply**, then **Close**.
- 

### RESULT

The key command is removed from the selected function.

### RELATED LINKS

[Searching for the key commands of functions](#) on page 62

[Removing jump bar aliases](#) on page 68

## Resetting key commands

You can reset all the key commands in your project to their defaults.

---

### PROCEDURE

1. Press **Ctrl/Cmd-**, to open **Preferences**.
2. In the category list, click **Key Commands**.
3. In the **Key Commands** section, click **Reset Key Commands**.
4. Click **Apply**, then **Close**.

---

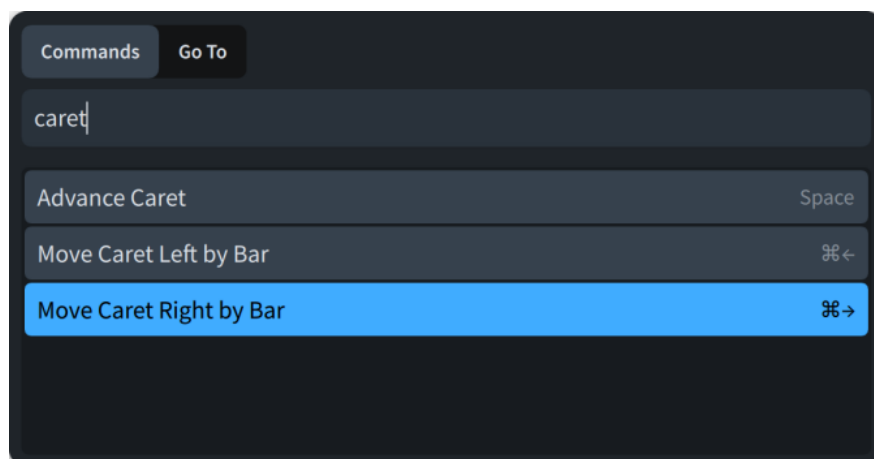
### RESULT

All custom key commands are deleted and the default key commands are reinstated.

## Jump bar

The jump bar is a temporary value field that allows you to perform commands and go to locations in the current layout using only your computer keyboard.

- You can show the jump bar in Setup, Write, Engrave, and Play modes by pressing **J**.



Jump bar in Commands mode with an example entry

### Commands

In Commands mode, you can use the jump bar to perform commands, such as opening the **Layout Options** dialog with the specified page already selected.

- You can switch the jump bar to Commands mode by pressing **Alt-C (Windows) or Ctrl-1 (macOS)**.

When you start entering text into the jump bar in Commands mode, a menu appears that shows valid commands containing the letters/words you enter.

If you show the jump bar in Commands mode after performing a command, your previous entry is shown with its text selected.

You can press **Down Arrow** to show a list of up to five commands that you perform most frequently.

**NOTE**

- You can only perform commands using the jump bar in the same contexts as you can perform the corresponding action. For example, you can only perform Setup mode-specific actions in Setup mode.
  - You can assign jump bar aliases to specific commands; for example, so you can use shorter entries for your favorite commands.
  - If commands have a corresponding key command or jump bar alias, they are shown in the menu of valid commands.
- 

## Go To

In Go To mode, you can use the jump bar to go to bars, rehearsal marks, pages, and flows.

- You can switch the jump bar to Go To mode by pressing **Alt-G (Windows) or Ctrl-2 (macOS)**.

---

Example move	Jump bar entry
Go to bar number [n]; for example, bar number 32	<b>b[n]</b> ; for example, <b>b32</b> or <b>b+32</b>
Go to rehearsal mark [n]; for example, rehearsal mark K	<b>r[n]</b> ; for example, <b>rK</b> or <b>rk</b>
Go to page number [n]; for example, page 6	<b>p[n]</b> ; for example, <b>p6</b> or <b>p+6</b>
Go to flow number [n]; for example, flow 3	<b>f[n]</b> ; for example, <b>f3</b> or <b>f+3</b>
Go to the next flow	<b>fn</b>
Go to the previous flow	<b>fp</b>

---

EXAMPLE

To go to bar 20 in flow 3, enter **f3b20**.

---

RELATED LINKS

- [Navigation](#) on page 417
- [Key commands in Dorico](#) on page 28
- [Key Commands page in the Preferences dialog](#) on page 59
- [Properties panel](#) on page 615
- [Popovers](#) on page 24
- [Notations input](#) on page 259
- [Layout Options dialog](#) on page 677
- [Notation Options dialog](#) on page 679

## Going to locations with the jump bar

You can use the jump bar to go to bars, rehearsal marks, pages, and flows in Setup, Write, Engrave, and Play modes.

---

PROCEDURE

1. Press **J** to show the jump bar.
  2. Optional: Press **Alt-G (Windows) or Ctrl-2 (macOS)** to switch to Go To mode.
  3. Enter the appropriate entry for the location to which you want to go.  
For example, enter **f3b20** to go to bar 20 in flow 3.
  4. Press **Return**.
- 

## Performing commands with the jump bar

You can use the jump bar to perform commands, such as opening the **Layout Options** dialog with the specified page already selected, in Setup, Write, Engrave, and Play modes.

PREREQUISITE

If you want to perform mode-specific commands, you are in the corresponding mode.

---

PROCEDURE

1. Press **J** to show the jump bar.
  2. Optional: Press **Alt-C (Windows) or Ctrl-1 (macOS)** to switch to Commands mode.
  3. Select the command you want to perform in any of the following ways:
    - Enter relevant text into the jump bar.  
When you start entering text into the jump bar in Commands mode, a menu appears that shows valid commands containing the letters/words you enter, which you can select by pressing **Up Arrow / Down Arrow**.
    - Enter the appropriate jump bar alias into the jump bar.
    - To show a list of up to five commands that you perform most frequently, press **Down Arrow**, then press **Up Arrow / Down Arrow** to select a command.
  4. Press **Return**.
- 

## Assigning jump bar aliases

You can assign jump bar aliases to specific commands; for example, so you can use shorter entries for your favorite commands.

---

PROCEDURE

1. Press **J** to show the jump bar.
2. Optional: Press **Alt-C (Windows) or Ctrl-1 (macOS)** to switch to Commands mode.
3. Enter the command to which you want to assign an alias into the jump bar.

TIP

To ensure the command is entered correctly, select it from the menu of valid commands by pressing **Up Arrow / Down Arrow**.

---

4. Immediately after the command, enter = followed by the characters you want to use as the jump bar alias.  
For example, to assign the jump bar alias **rr** to the **Remove Rests** command, enter **Remove Rests=rr**.

5. Do one of the following:

- To perform the command and assign the jump bar alias, press **Return**.
  - To assign the jump bar alias only, without performing the command, press **Alt/Opt-Return**.
- 

#### RESULT

The characters you entered after the = are assigned as the jump bar alias for the specified command.

#### TIP

You can also assign jump bar aliases on the **Key Commands** page in **Preferences**.

---

#### RELATED LINKS

[Jump bar](#) on page 65

[Key Commands page in the Preferences dialog](#) on page 59

## Removing jump bar aliases

You can remove jump bar aliases you have assigned to specific commands.

---

#### PROCEDURE

1. Press **Ctrl/Cmd-**, to open **Preferences**.
  2. In the category list, click **Key Commands**.
  3. Search for the name of a function and select it.
  4. In the **Jump Bar Alias** section, click **Remove Alias**.
  5. Click **Apply**, then **Close**.
- 

#### RESULT

The jump bar alias is removed from the selected function.



# Project and file handling

In addition to opening and importing/exporting projects and other file formats, project and file handling also includes auto-save and project backups.

## RELATED LINKS

[Starting new projects](#) on page 71

[Opening projects/files](#) on page 72

[File import and export](#) on page 78

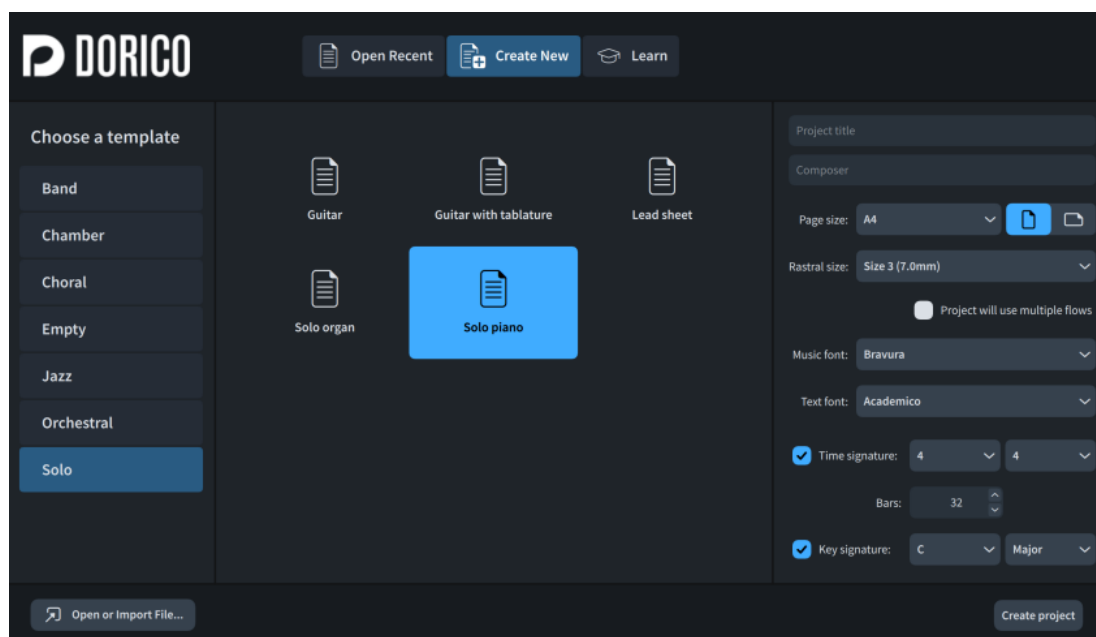
[Auto-save](#) on page 102

[Project backups](#) on page 104

## Hub

The Hub allows you to access recent projects, start new projects, and keep up-to-date with learning materials including tutorials, videos, and blog updates. The Hub opens automatically when you start Dorico Elements.

- You can also open the Hub by choosing **Window > Hub**.



The Hub contains the following pages:

### Open Recent


Allows you quick access to the projects that you worked on last. You can scroll through the list to access recent projects out of view. You can navigate through recent projects by pressing **Up Arrow / Down Arrow**.

Double-clicking a recent project, or selecting it and pressing **Return**, opens the project.

You can choose one of the following view types for recent projects:

- **Grid view** 

- **List view** 

When recent projects are shown in the grid view, you can click the menu button  for each project to access the following options:

- **Remove from Recent Projects:** Removes the project from the **Recent Projects** page.
- **Open Enclosing Folder:** Opens the File Explorer/macOS Finder and shows the folder where the project is saved.

### Create New

Allows you to start new projects from project templates or choose an empty project.



The **Choose a template** list on the left allows you to select a project template category, with available project templates in the selected category listed in the middle. The **Empty** project template creates a project with no players or flows.

#### NOTE

In Dorico Elements, the maximum number of players you can have in a single project is 24. Only categories and project templates containing 24 or fewer players are available.

---

On the right, the Project Options section provides the following options:

- **Project title:** Allows you to enter the project title.
- **Composer:** Allows you to enter the project composer.
- **Page size:** Allows you to select the page size for the full score layout.
- **Page orientation:** Allows you to choose whether the page orientation in the full score layout is **Portrait**  or **Landscape** .
- **Rastral size:** Allows you to select the staff size for the full score layout.
- **Project will use multiple flows:** When activated, flow headings are shown in all layouts, and flow titles are shown in running headers in score layouts. When deactivated, flow headings are hidden in all layouts, and the project title is shown in running headers in score layouts.
- **Music font:** Allows you to select the music font used in the project.
- **Text font:** Allows you to select the font family used throughout the project by default.
- **Time signature:** Allows you to specify a time signature for the project. When deactivated, the project starts with no time signature, which is treated as open.
- **Bars:** Allows you to set the number of bars you want the project to contain.
- **Key signature:** Allows you to specify a key signature for the project. When deactivated, the project starts with no key signature, which is treated as atonal.

At the bottom of the Hub, **Create project** creates a new project using the selected project template and project options. You can also double-click project templates to start a new project.

### Learn

Provides access to learning materials. Dorico Elements displays a notification when new materials are available.

- **Hands-on tutorials:** Displays available practical tutorials that introduce you to common operations directly in Dorico demo projects.
- **Videos:** Displays recent Dorico video tutorials. Double-clicking a video tutorial, or selecting it and clicking **Watch Now**, opens it in a web browser.

You can find more tutorial videos and information about new features on the Dorico YouTube channel.

- **Forum:** Links you to the Steinberg user forum.
- **Manual:** Links you to the online documentation. A PDF version is also available on [steinberg.help](https://steinberg.help).
- **Dorico Blog:** Displays recent entries in the Dorico blog. Clicking a blog entry opens it in a web browser.

At the bottom of the Hub, **Open or Import File** allows you to search for and open MusicXML, MIDI, and Dorico project files.

#### RELATED LINKS

[Toolbar](#) on page 31

[Opening recent projects from the Hub](#) on page 73

[Project templates](#) on page 78

[Project Info dialog](#) on page 75

[Types of page templates](#) on page 601

[Staff size](#) on page 573

## Starting new projects

You can start new projects from project templates, such as for orchestra or a vocal ensemble. You can also start empty projects.

#### NOTE

In Dorico Elements, the maximum number of players you can have in a single project is 24. Only categories and project templates containing 24 or fewer players are available.

---

#### PROCEDURE

1. Optional: If the Hub is not open, choose **Window > Hub** to open the Hub.
2. In the Hub, click **Create New** to show the **Create New** page.
3. Choose one of the following project template categories:
  - **Band**
  - **Chamber**
  - **Choral**
  - **Empty**
  - **Jazz**
  - **Orchestral**
  - **Solo**
4. Choose a project template.
5. In the Project Options section, add or change information and settings as required.

#### NOTE

The Project Options section does not affect **Empty** project templates.

---

6. Create a new project in any of the following ways:
  - Click **Create project**.

- Double-click the project template.
- 

#### RESULT

A new project is created using the selected project template.

#### TIP

- You can start a new, empty project at any time by pressing **Ctrl/Cmd-N** or choosing **File > New**.
  - You can also start a new project from a project template by choosing **File > New From Project Template > [Project template category] > [Project template]**.
- 

#### AFTER COMPLETING THIS TASK

You can customize your project, such as by adding or deleting players/instruments.

#### RELATED LINKS

[Hub](#) on page 69

[Project templates](#) on page 78

[Brackets according to ensemble type](#) on page 778

[Adding players](#) on page 121

[Adding instruments to players](#) on page 133

[Deleting players](#) on page 125

[Deleting instruments](#) on page 137

## Opening projects/files

You can open Dorico projects at any time and in addition to other open projects; for example, if the project you want to open is not listed as a recent project in the list in the Hub. You can also open MusicXML and MIDI files.

---

#### PROCEDURE

1. Open the File Explorer/macOS Finder in any of the following ways:
    - In the Hub, click **Open or Import File**.
    - Choose **File > Open**.
    - Choose **File > Open Recent > [Project file name]**.
  2. Locate and select the files you want to open.
  3. Click **Open**.
  4. Optional: If you opened a MIDI file, change the settings as required in the **MIDI Import Options** dialog that opens.
- 

#### RESULT

The selected files are opened.

If you opened MusicXML or MIDI files, Dorico Elements creates new project files from the MusicXML or MIDI content, which you can save as default Dorico projects.

If MusicXML files include page size, margin, and staff size settings, Dorico Elements imports those values. If they are not included, Dorico Elements creates suitable settings according to the number of instruments in the file.

#### NOTE

- You can also import MusicXML and MIDI files as new flows in existing projects, rather than opening them as separate projects.
  - In Dorico Elements, the maximum number of players you can have in a single project is 24. If you open a project that contains more than 24 players, it opens in read-only mode.
- 

#### RELATED LINKS

[Read-only mode](#) on page 105

[Hub](#) on page 69

[Importing MusicXML files](#) on page 82

[Importing MIDI](#) on page 85

[MIDI Import Options dialog](#) on page 86

## Opening recent projects from the Hub

You can open projects you have recently worked on from the Hub.

---

#### PROCEDURE

1. Optional: If the Hub is not open, choose **Window > Hub** to open the Hub.
  2. In the Hub, click **Open Recent** to show the **Open Recent** page.
  3. Double-click the recent project you want to open.
- 

#### RESULT

The selected Dorico project is opened.

#### NOTE

In Dorico Elements, the maximum number of players you can have in a single project is 24. If you open a project that contains more than 24 players, it opens in read-only mode.

---

## Projects from different versions of Dorico

You can open projects that were last saved in other versions of Dorico than the one you have. In such cases, Dorico Elements shows a warning message to make you aware of any implications.

The contents of the warning message vary according to the version of Dorico in which the project was last saved:

- When opening a project last saved in an older version, it shows the version number the project was last saved in and informs you that the project will be updated to your current version.
- When opening a project last saved in a newer version, it shows only that the project is from a newer version. It also informs you that items and notations from that version might not appear and will be deleted if you save the project in your current version.

In both cases, opening the project is non-destructive. This means that its contents and formatting are unaffected if you do not save it.

You can prevent Dorico Elements from showing you warnings about projects from different versions in the **Files** section of the **General** page in **Preferences**. In the same section, you can

also tell Dorico Elements to prompt you to choose a new location for projects from different versions when you save them. This reduces the risk of you overwriting them by mistake.

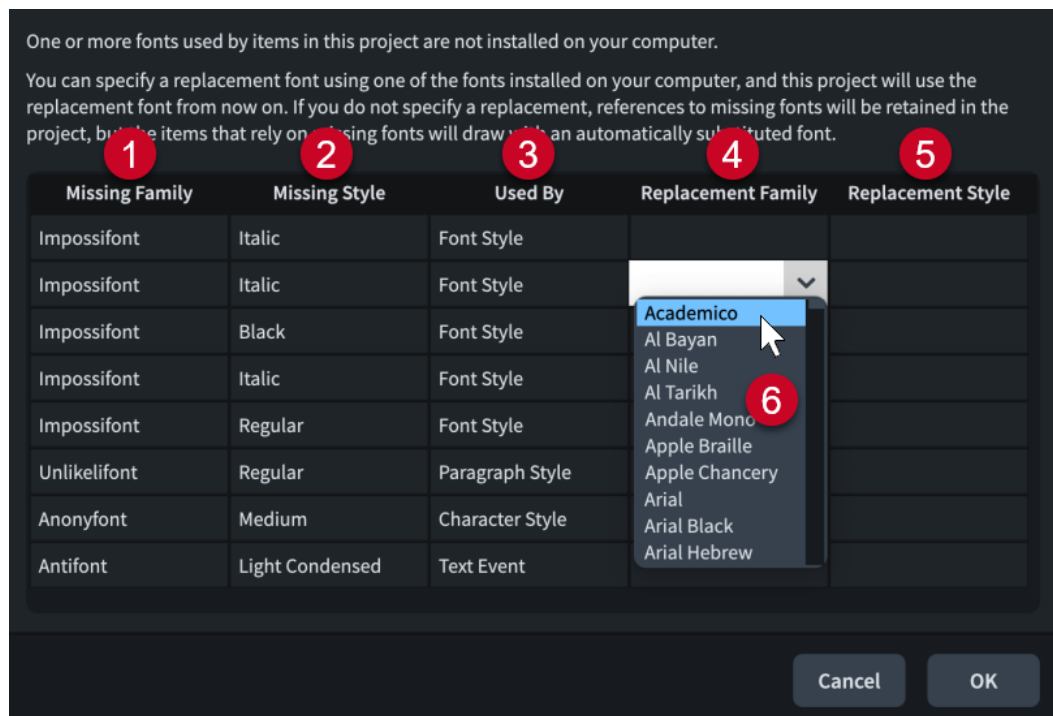
RELATED LINKS

[Preferences dialog](#) on page 58

## Missing Fonts dialog

The **Missing Fonts** dialog appears when you open a project that contains a font that you do not have installed on your computer. It allows you to select replacement fonts that are installed on your computer as substitutes.

The **Missing Fonts** dialog displays a table with multiple columns that identify the specific font families and styles that are missing for font, character, and paragraph styles and text items. Every place in the project where a font is missing has its own row. For example, if the bold style of a font family is used in three different paragraph styles, three rows are shown in the dialog, one for each paragraph style.



The **Missing Fonts** dialog comprises the following:

**1 Missing Family**

Contains a list of font families included in the project but missing on your computer.

**2 Missing Style**

Contains a list of the specific styles within the corresponding font families that are included in the project but missing on your computer.

**3 Used By**


Contains a list of the places in the project where the corresponding font is used.

**4 Replacement Family**

Allows you to select replacement font families. You can select replacement font families by double-clicking entries, then either entering the font family you want or clicking the arrow

and selecting a font family from the menu. Once selected, their names are displayed in the corresponding entry.

#### 5 Replacement Style

Allows you to select any of the available styles within the corresponding replacement font families. You can select replacement font styles by double-clicking entries, then either entering the font style you want or clicking the arrow  and selecting a font style from the menu. Once selected, the styles are displayed in the corresponding entry.

#### 6 Fonts

Contains a list of all the available fonts installed on your computer. You can access the menu in the **Replacement Family** and **Replacement Style** columns by double-clicking any entry.

#### TIP

- You can choose whether or not the **Missing Fonts** dialog appears when you open a project containing fonts not installed on your computer on the **General** page in **Preferences**.
- You can change the width of columns in the **Missing Fonts** dialog. Their widths are remembered in future projects.

---

#### RELATED LINKS

[Preferences dialog](#) on page 58

[Text editor options in Write mode](#) on page 371

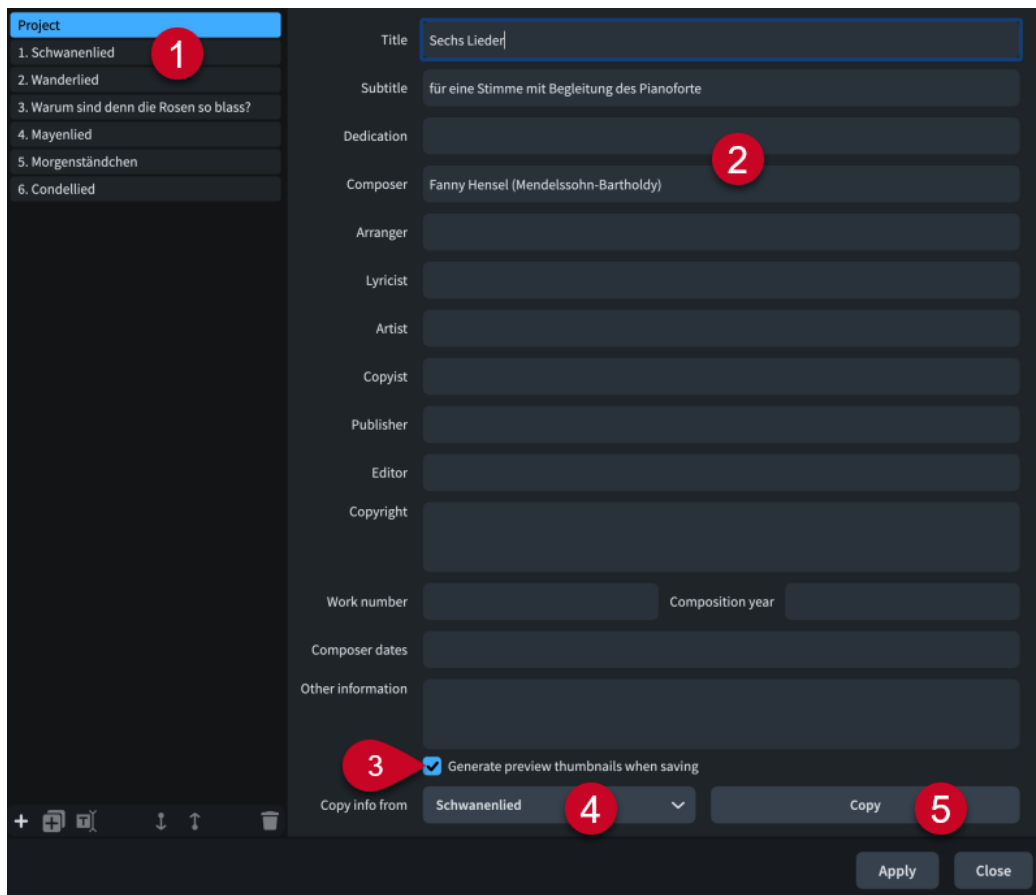
## Project Info dialog

The **Project Info** dialog allows you to specify information about the whole project and each flow within it separately, such as the title, composer, and lyricist, as these might be different for different flows. You can then refer to these entries using tokens in text frames.

You can open the **Project Info** dialog in any mode in any of the following ways:

- Press **Ctrl/Cmd-I**.
- Choose **File > Project Info**.





The **Project Info** dialog comprises the following:




### 1 Flows list

Contains all the flows in the project, with a separate entry for the project as a whole at the top. You can select individual or multiple flows in the flows list.

#### NOTE


The flows list uses the names of flows as shown in the **Flows** panel in Setup mode, which can be different to their entry in the **Title** field if you have changed their flow title.



The action bar at the bottom of the list contains the following options:

- **New Flow** : Creates a new flow with no information. Its default name is **New Flow**.
- **Duplicate Flow** : Creates a new flow with all the information of the selected flow. Its default name is **Copy of [selected flow]**.
- **Rename Flow** : Opens the **Rename Flow** dialog, which allows you to change the name of the flow.

#### NOTE

If you have already manually changed the flow title, changing the name of the flow does not automatically change the flow title.

- **Move Down** : Moves the selected flows down the flows list, which changes their order in the project.

- **Move Up** : Moves the selected flows up the flows list, which changes their order in the project.
- **Delete Flow** : Deletes the selected flows.

## 2 Information fields

Allow you to enter information about the currently selected flows or the whole project in the corresponding field, such as **Composer** and **Lyricist**. If you have selected multiple flows with different entries in the same fields, such as flows with different composers, those fields display **Mixed**.

## 3 Generate preview thumbnails when saving

When activated, Dorico Elements generates the following preview images of the layout open in the music area when you save the project:

- PNG file of the first page. This is displayed on the **Open Recent** page in the Hub.
- PDF file of the whole layout.

When deactivated, Dorico Elements does not generate preview images. This reduces the file size and can make saving large projects quicker.

## 4 Copy info from menu

Allows you to select another flow or the whole project whose information you want to copy; for example, for a project containing multiple flows that all have the same composer and lyricist.

## 5 Copy

Copies all the information from the specified flow/project to the selected flows/project.

### NOTE

- The information you add in **Project Info** only appears on pages where the corresponding tokens exist. For example, if you want to display a dedication above the project title, you must add the dedication token to the **First** page template.
- You cannot specify line breaks in single-line fields. However, you can enter line breaks in larger fields, namely **Copyright** and **Other information**, which you can then copy into single-line fields.
- By default, **First** page templates have tokens that refer to project information. If you only enter information for individual flows in the **Project Info** dialog, that information does not automatically appear on pages that use the **First** page template.

---

### RELATED LINKS

[Tokens](#) on page 607

[Flows](#) on page 162

[Flow names and flow titles](#) on page 178

[Reordering flows](#) on page 164

[Starting new projects](#) on page 71

[Opening projects/files](#) on page 72

[Front matter](#) on page 895

[Page templates](#) on page 599

[Types of page templates](#) on page 601

[Hub](#) on page 69

## Project templates

Project templates allow you to start new projects that already contain a particular set of players and project library settings. For example, full score layouts in orchestral project templates have larger page sizes than in chamber ensemble project templates.

Dorico Elements provides the following project template categories:

### **Band**

Ensembles containing mostly woodwind and brass instruments, such as brass band or pit band.

### **Chamber**

Typically small ensembles containing only a few players, such as string quartet.

### **Choral**

Ensembles containing voices, including popular choir arrangements, such as SATB unaccompanied.

### **Empty**

An empty project template.

### **Jazz**

Popular ensembles commonly used to perform jazz, such as big band or jazz trio.

### **Orchestral**

Large ensembles containing most Western instruments, including strings, woodwinds, brass, and percussion.

### **Solo**

Ensembles containing only a single player/instrument, such as a solo organ, guitar with tablature, or lead sheet.

#### RELATED LINKS

[Brackets according to ensemble type](#) on page 778

[Starting new projects](#) on page 71

[System objects](#) on page 1196

[Page formatting](#) on page 555

[Page templates](#) on page 599

[Library](#) on page 677

[Hub](#) on page 69

## File import and export

External files are files in different formats than Dorico projects, such as MIDI, MusicXML, or tempo tracks. It is possible in Dorico Elements both to import and export different types of files.

This can be useful if, for example, you want to share your project with others who use a different notation software, or to convert the notes, audio, or time signatures and tempo information in your project into other formats.

#### RELATED LINKS

[Exporting lyrics](#) on page 924

[Exporting layouts as graphics files](#) on page 542

## Importing flows

You can import individual flows into existing projects; for example, if you want to bring together multiple existing pieces into one project for publishing, or if you have an empty project file with your preferred settings saved and want to reuse those settings.

---

### PROCEDURE

1. Choose **File > Import > Flows** to open the File Explorer/macOS Finder.
2. Locate and select the project files of the flows you want to import.
3. Click **Open** to open the **Flow Import Options** dialog for the first selected project.
4. In the **Flow Import Options** dialog, choose one of the following options for **Player handling**:
  - **Create All New Players**
  - **Merge with Existing Players Where Possible**
5. In the **Import flows** list, activate the checkbox for each flow you want to import. You can also click **Select All** or **Select None** at the bottom of the list.
6. Click **OK** to import the selected flows and close the dialog.
7. Optional: If you selected multiple projects from which to import flows, repeat steps 4 to 6 for each project. The **Flow Import Options** dialog reopens automatically for each project.

---

### RESULT

The selected flows are imported into the project.

- If you chose **Create All New Players**, new players are added as required for each flow.
- If you chose **Merge with Existing Players Where Possible**, any players that the imported flows and existing project have in common are merged; for example, if you imported a flow containing one piano into a project containing a piano and viola, the imported flow is added to the existing piano player.

---

### NOTE

- Players are not automatically added to flows that you imported into the project.
- You can also open flows directly if you want them to be separate projects, rather than new flows in existing projects.

---

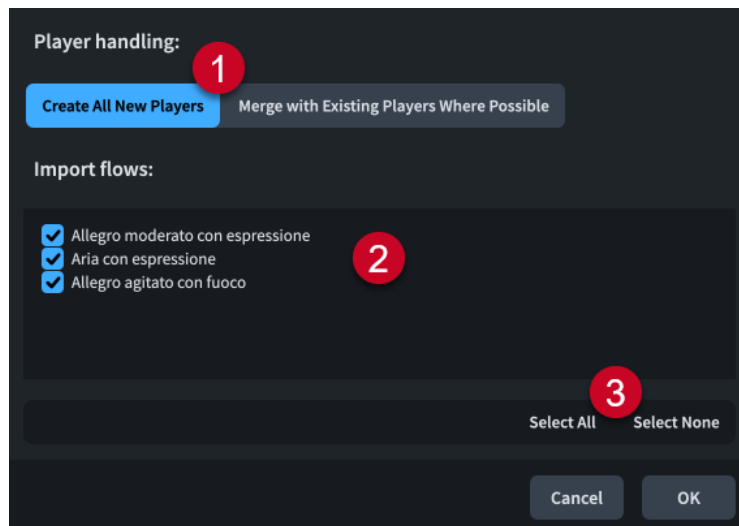
### RELATED LINKS

- [Opening projects/files](#) on page 72
- [Flows](#) on page 162
- [Adding flows](#) on page 163
- [Duplicating flows](#) on page 163
- [Reordering flows](#) on page 164
- [Deleting flows](#) on page 165

## Flow Import Options dialog

The **Flow Import Options** dialog allows you to determine whether players in imported flows are merged with existing players in the project and which flows from within other projects you want to import.

- You can open the **Flow Import Options** dialog by choosing **File > Import > Flows** and opening a Dorico project from the File Explorer/macOS Finder.



The **Flow Import Options** dialog comprises the following:

**1 Player handling**

Allows you to determine how imported flows are assigned to players.

- **Create All New Players** adds separate players for each imported flow.
- **Merge with Existing Players Where Possible** merges players from imported flows with any existing compatible players in the project.

**2 Import flows**

Contains a list of all the flows in the selected project. Flows are included in the import when their checkbox is activated.

**3 Selection options**

Allow you to select/deselect all the flows in the project. For example, you can deselect all flows and then activate the checkbox of a single flow you want to import.

## Exporting flows

You can export individual flows from projects; for example, to save small excerpts of large projects separately.

### NOTE


These steps export flows as separate Dorico projects. If you want to export flows as other file formats, such as MusicXML or MP3, there are different methods.

### PREREQUISITE

If you want the exported flows to include all players and layouts in the project, including players with no music, you have deactivated **Omit excluded players and layouts when exporting flows** in **Preferences > General > Files**.

### PROCEDURE

1. Choose **File > Export > Flows** to open the **Export Flows** dialog.
2. Activate/Deactivate **Export each selected flow as a separate file**.
3. In the **Select flows to export** list, activate the checkbox for each flow you want to export. You can also click **Select All** or **Select None** at the bottom of the list.

4. Activate/Deactivate **Export layouts as separate files**.
  5. Optional: If you activated **Export layouts as separate files**, activate the checkbox for each layout you want to export in the **Select layouts to export** list.  
You can also click **Select All** or **Select None** at the bottom of the list.
  6. Click **Choose Folder**  beside the **Export to** field to open the File Explorer/macOS Finder.
  7. Locate and select the destination folder you want.
  8. Click **Choose** to insert the new path in the **Export to** field.
  9. Activate/Deactivate **Create folder for exported files**.
  10. Click **OK** to export the selected flows and layouts and close the dialog.
- 

#### RELATED LINKS

[Flows](#) on page 162

[Exporting MusicXML files](#) on page 84

[Exporting MIDI](#) on page 95

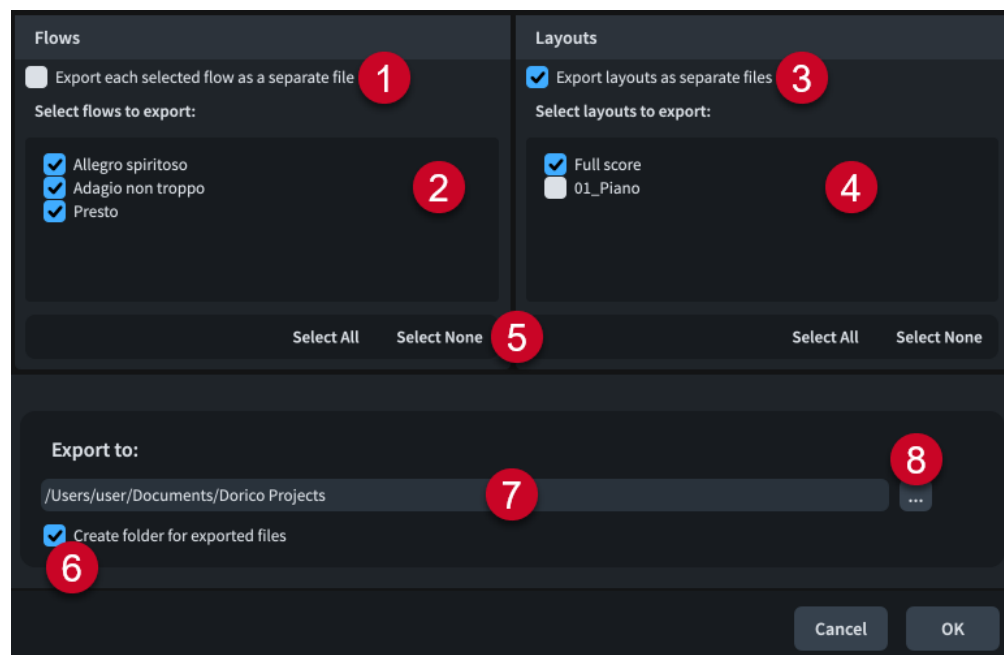
[Exporting tempo tracks](#) on page 98

[Exporting audio](#) on page 99

## Export Flows dialog

The **Export Flows** dialog allows you to save individual flows and layouts as separate Dorico files.

- You can open the **Export Flows** dialog by choosing **File > Export > Flows**.



The **Export Flows** dialog contains the following options and lists:

- 1 **Export each selected flow as a separate file**  
Allows you to export each flow as a separate file instead of all the selected flows as a single file.
- 2 **Select flows to export**  
Contains a list of all the flows in the project. Flows are included in the export when their checkbox is activated.

**3 Export layouts as separate files**

Allows you to export each layout in the project as a separate file instead of as a single file.

**4 Select layouts to export**

Contains a list of all the layouts in the project. Layouts are included in the export when their checkbox is activated. Only available if you have activated **Export layouts as separate files**.

**5 Selection options**

Allow you to select/deselect all the flows/layouts in the corresponding list. For example, you can deselect all flows and then activate the checkbox of a single flow you want to export.

**6 Create folder for exported files**

Controls whether or not Dorico Elements generates a new folder for the selected flows within the selected export path. The automatic folder name is “Flows from” followed by the project file name; for example, “Flows from Smyth - String Quintet”.

**7 Export to field**

Displays the export path where exported flows will be saved.

**8 Choose Folder**

Opens the File Explorer/macOS Finder and allows you to change the export path.

## Importing MusicXML files

You can import MusicXML files into existing Dorico Elements projects as separate flows; for example, to continue work on a piece started in a different notation software.

### PREREQUISITE

You have set your preferences for importing MusicXML files as appropriate for the file on the **MusicXML Import** page in **Preferences**.

---

### PROCEDURE

1. Choose **File > Import > MusicXML** to open the File Explorer/macOS Finder.
2. Locate and select the MusicXML files you want to import.
3. Click **Open** to open the **Flow Import Options** dialog for the first selected MusicXML file.
4. In the **Flow Import Options** dialog, choose one of the following options for **Player handling**:
  - **Create All New Players**
  - **Merge with Existing Players Where Possible**
5. Click **OK** to import the selected flows and close the dialog.
6. Optional: If you selected multiple MusicXML files, repeat steps 4 and 5 for each file. The **Flow Import Options** dialog reopens automatically for each file.

---

### RESULT

The selected MusicXML files are imported into the project as new flows.

- If MusicXML files include page size, margin, and staff size settings, Dorico Elements imports those values. If they are not included, Dorico Elements creates suitable settings according to the number of instruments in the file.
- If you chose **Create All New Players**, new players are added as required for each MusicXML file.

- If you chose **Merge with Existing Players Where Possible**, any players that the imported MusicXML files and existing project have in common are merged; for example, if you imported a MusicXML file containing one piano into a project containing a piano and viola, the imported MusicXML file is added to the existing piano player.

TIP

You can also open MusicXML files directly if you want them to be separate projects, rather than new flows in existing projects.

---

RELATED LINKS

[Flow Import Options dialog](#) on page 79

[Opening projects/files](#) on page 72

[Preferences dialog](#) on page 58

## Unpitched percussion imported from MusicXML files

Unpitched percussion music can be expressed in a number of ways in MusicXML. Scoring applications take different approaches to what data is exported and how it is encoded. Therefore, the results of importing MusicXML into Dorico Elements vary considerably.

Dorico Elements identifies each instrument in kits explicitly and then combines them dynamically onto five-line staves. Other scoring applications and MusicXML have a different approach to how unpitched percussion music is represented. For example, a drum set may be effectively notated as pitched notes on a five-line staff and annotated with additional information to help identify which instrument corresponds to each staff position.

Because of these different approaches, mapping information between the MusicXML representation and the Dorico Elements representation can be challenging, so Dorico Elements employs heuristics to improve the quality of results.

Typically, drum set instruments in MusicXML files exported from both Sibelius and Finale are imported quite cleanly into Dorico Elements.

Results are particularly good, and more likely to be imported correctly, if the voicing of the drum set is consistent, such as consistently notating the snare drum in a down-stem voice. If the voicing changes from bar to bar, it is possible that some notes are either identified incorrectly or not imported at all.

Other kinds of percussion that are notated on five-line staves produce more variable results. In most cases, Finale includes information about which percussion instrument maps onto each staff position, but Sibelius does not. As a result, you might find that Dorico Elements chooses different instruments than you expected, but you can change instruments using the **Edit Percussion Kit** dialog.

RELATED LINKS

[Edit Percussion Kit dialog](#) on page 150

[Changing instruments in percussion kits](#) on page 153

[Adding instruments to percussion kits](#) on page 153

[Percussion editor](#) on page 631


[Importing MIDI](#) on page 85



## Exporting MusicXML files

You can export flows and layouts as separate MusicXML files; for example, if you want to export just the soloist's layout containing the first flow.

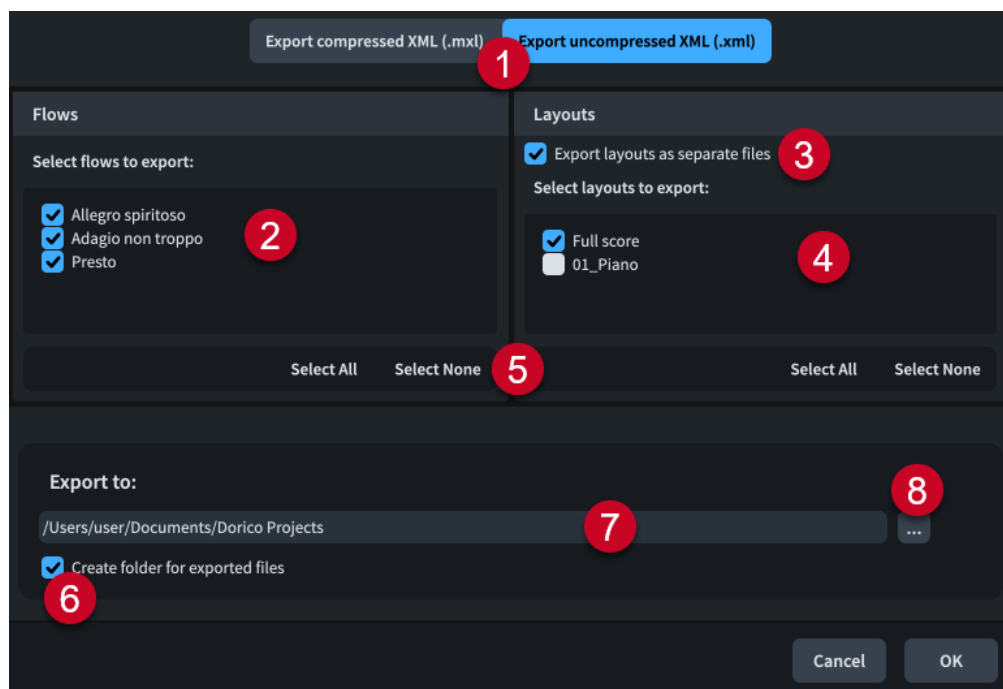
### PROCEDURE

1. Choose **File > Export > MusicXML** to open the **Export MusicXML** dialog.
2. Choose one of the following file format options:
  - **Export compressed XML (.mxl)**
  - **Export uncompressed XML (.xml)**
3. In the **Select flows to export** list, activate the checkbox for each flow you want to export. You can also click **Select All** or **Select None** at the bottom of the list.
4. Activate/Deactivate **Export layouts as separate files**.
5. Optional: If you activated **Export layouts as separate files**, activate the checkbox for each layout you want to export in the **Select layouts to export** list. You can also click **Select All** or **Select None** at the bottom of the list.
6. Click **Choose Folder**  beside the **Export to** field to open the File Explorer/macOS Finder.
7. Locate and select the destination folder you want.
8. Click **Choose** to insert the new path in the **Export to** field.
9. Activate/Deactivate **Create folder for exported files**.
10. Click **OK** to export the selected flows/layouts as MusicXML files and close the dialog.

## Export MusicXML dialog

The **Export MusicXML** dialog allows you to save individual flows and layouts as separate MusicXML files.

- You can open the **Export MusicXML** dialog by choosing **File > Export > MusicXML**.



The **Export MusicXML** dialog contains the following options and lists:

**1 File format options**

Allows you to choose the MusicXML file format you want to export. Compressed MusicXML files contain the same information as uncompressed MusicXML files but have a smaller file size.

**2 Select flows to export**

Contains a list of all the flows in the project. Flows are included in the export when their checkbox is activated.

**3 Export layouts as separate files**

Allows you to export each layout in the project as a separate file instead of as a single file.

**4 Select layouts to export**

Contains a list of all the layouts in the project. Layouts are included in the export when their checkbox is activated. Only available if you have activated **Export layouts as separate files**.

**5 Selection options**

Allow you to select/deselect all the flows/layouts in the corresponding list. For example, you can deselect all flows and then activate the checkbox of a single flow you want to export.

**6 Create folder for exported files**

Controls whether or not Dorico Elements generates a new folder for the selected flows within the selected export path. The automatic folder name is "Flows from" followed by the project file name; for example, "Flows from Smyth - String Quintet".

**7 Export to field**

Displays the export path where exported files will be saved.

**8 Choose Folder**

Opens the File Explorer/macOS Finder and allows you to change the export path.

## Importing MIDI

You can import MIDI files into existing Dorico Elements projects, as either separate flows or into existing flows; for example, to work on a different version of a section of a piece.

---

### PROCEDURE

1. Choose **File > Import > MIDI** to open the File Explorer/macOS Finder.
2. Locate and select the MIDI files you want to import.
3. Click **Open** to open the **MIDI Import Options** dialog for the first selected MIDI file.
4. Change the settings as required.  
For example, you can change the playing techniques of tracks, assign tracks to specific players, and customize quantization options.
5. Click **OK** to close the **MIDI Import Options** dialog and import the first selected MIDI file.
6. Optional: If you selected multiple MIDI files, repeat steps 4 to 5 for each file. The **MIDI Import Options** dialog reopens automatically for each file.

---

### RESULT

The selected MIDI files are imported into the project according to your settings. Dorico Elements uses an algorithm on imported MIDI notes to produce the correct enharmonic spelling.

If the MIDI files contained markers, they are also imported. If they have SMPTE offset values defined, Dorico Elements uses them to set the timecode position for the start of the flow.

TIP

You can also open MIDI files directly if you want them to be separate projects, rather than new flows in existing projects.

---

RELATED LINKS

[Opening projects/files](#) on page 72

[Requantizing notes](#) on page 255

[Changing the sustain pedal controller settings for MIDI recording/import](#) on page 258

[Importing tempo tracks](#) on page 96

[Exporting tempo tracks](#) on page 98

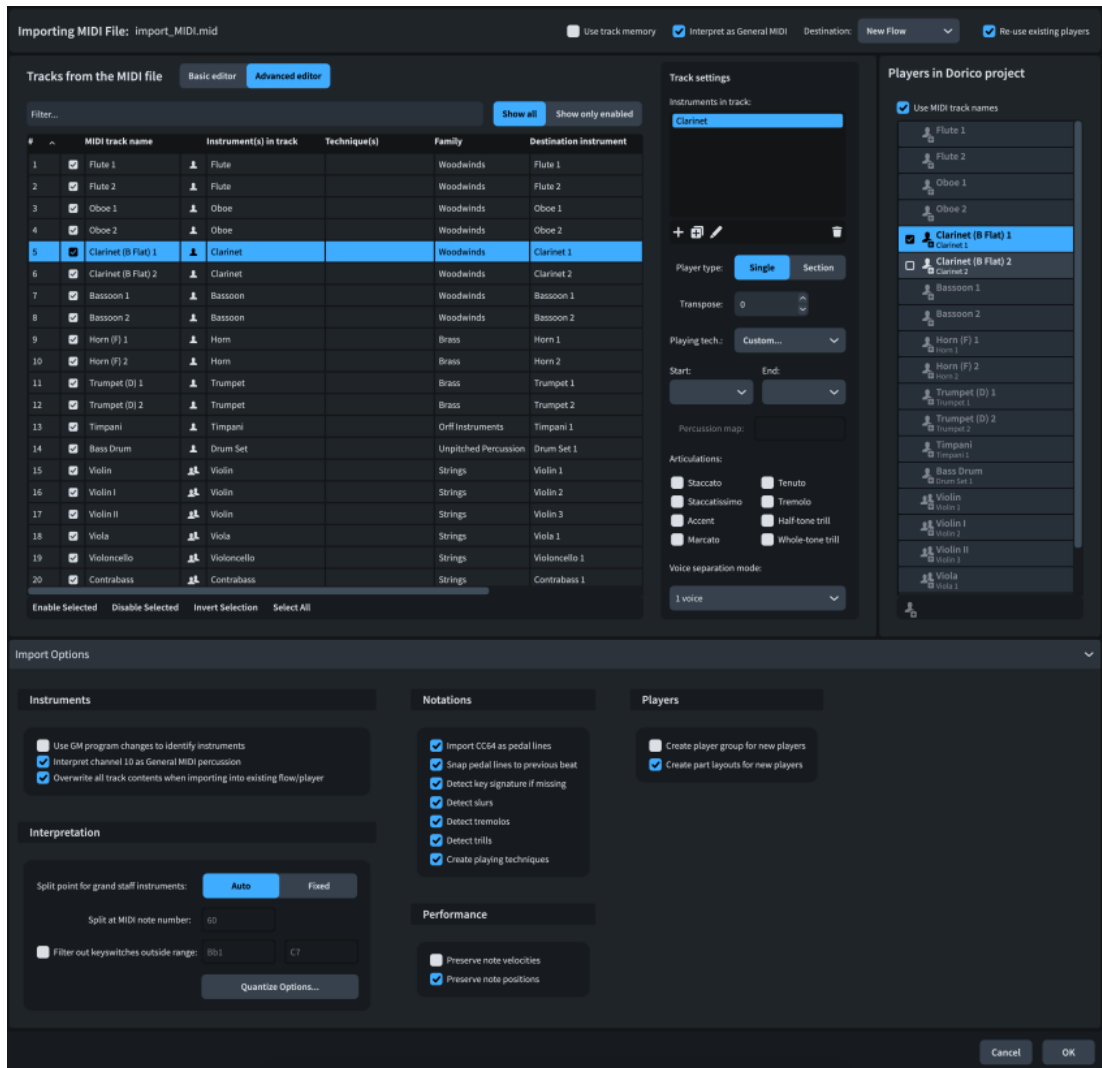
## MIDI Import Options dialog

The **MIDI Import Options** dialog allows you to customize the settings Dorico Elements uses to translate MIDI data into a Dorico project when importing and opening MIDI files.

Your MIDI import settings are stored to the track memory, allowing you to reuse settings automatically the next time you open or import MIDI files with similar tracks.

You can open the **MIDI Import Options** dialog in any of the following ways:

- Choose **File > Import > MIDI** and import a MIDI file from the File Explorer/macOS Finder.
- Choose **File > Open** and open a MIDI file from the File Explorer/macOS Finder.



At the top of the **MIDI Import Options** dialog, there are the following options:

### Importing MIDI File

Displays the file name of the MIDI file you are importing or opening.

### Use track memory

Allows you both to apply settings from the track memory to the current MIDI file, and to save the settings for the current MIDI file to the track memory for reuse in future when importing or opening MIDI files with identical track names.

### Interpret as General MIDI

Allows Dorico Elements to use MIDI program changes at the start of tracks to determine instrument types, including identifying tracks using channel 10 as containing unpitched percussion using the General MIDI drum set.

We recommend deactivating this option for MIDI files that do not conform to General MIDI conventions.

### Destination

Allows you to select the flow into which you want to import the MIDI file. You can import MIDI as a new flow or into an existing flow in the project; for example, if you want to overwrite specific tracks in an existing flow. Only available when importing MIDI files.

## Re-use existing players

Allows you to determine the players to which tracks in the MIDI file are assigned. Only available when importing MIDI files.

- When activated, tracks from the imported MIDI file are either merged with existing players in the project or overwrite them, depending on your setting for **Overwrite all track contents when importing into existing flow/player** in the **Import Options** section.
- When deactivated, tracks are imported as new players.

## Tracks from the MIDI file

Displays all the tracks from the imported or opened MIDI file in a table. Allows you to enable/disable tracks for import and change their player type, instrument, and playing techniques.

#	^	MIDI track name	Instrument(s) in track	Technique(s)	Family	Destination instrument	Max. sim. notes	Total no. of notes
1	<input checked="" type="checkbox"/>	Flute 1	Flute		Woodwinds	Flute 1	2	22
2	<input checked="" type="checkbox"/>	Flute 2	Flute		Woodwinds	Flute 2	1	18
3	<input checked="" type="checkbox"/>	Oboe 1	Oboe		Woodwinds	Oboe 1	1	18
4	<input checked="" type="checkbox"/>	Oboe 2	Oboe		Woodwinds	Oboe 2	1	16
5	<input checked="" type="checkbox"/>	Clarinet (B Flat) 1	Clarinet		Woodwinds	Clarinet 1	1	19
6	<input checked="" type="checkbox"/>	Clarinet (B Flat) 2	Clarinet		Woodwinds	Clarinet 2	1	18
7	<input checked="" type="checkbox"/>	Bassoon 1	Bassoon		Woodwinds	Bassoon 1	1	19
8	<input checked="" type="checkbox"/>	Bassoon 2	Bassoon		Woodwinds	Bassoon 2	1	21
9	<input checked="" type="checkbox"/>	Horn (F) 1	Horn		Brass	Horn 1	1	14
10	<input checked="" type="checkbox"/>	Horn (F) 2	Horn		Brass	Horn 2	1	15
11	<input checked="" type="checkbox"/>	Trumpet (D) 1	Trumpet		Brass	Trumpet 1	1	13
12	<input checked="" type="checkbox"/>	Trumpet (D) 2	Trumpet		Brass	Trumpet 2	1	13
13	<input checked="" type="checkbox"/>	Timpani	Timpani		Orff Instruments	Timpani 1	1	13
14	<input checked="" type="checkbox"/>	Bass Drum	Drum Set		Unpitched Percussion	Drum Set 1	1	2
15	<input checked="" type="checkbox"/>	Violin	Violin		Strings	Violin 1	2	109
16	<input checked="" type="checkbox"/>	Violin I	Violin		Strings	Violin 2	2	206
17	<input checked="" type="checkbox"/>	Violin II	Violin		Strings	Violin 3	3	189
18	<input checked="" type="checkbox"/>	Viola	Viola		Strings	Viola 1	2	93
19	<input checked="" type="checkbox"/>	Violoncello	Violoncello		Strings	Violoncello 1	2	83
20	<input checked="" type="checkbox"/>	Contrabass	Contrabass		Strings	Contrabass 1	2	69

At the top of the table, there are the following filter controls:

- **Filter field:** Allows you to filter tracks by name, instrument, or family.
- **Track visibility:** Allows you to show either all tracks or only tracks enabled for import.

The table contains the following columns:

- **#:** Displays the number of the track.
- **Enable:** Allows you to enable/disable the track for import.
- **MIDI track name:** Displays the name of the track in the MIDI file.
- **Player type:** Displays the player type for the track. You can change the player type by double-clicking the icon. Icons show the current player type from the following options:
  - Single player
  - Section player
- **Instrument(s) in track:** Displays the instruments identified for the track. You can change the instrument by double-clicking the field and selecting an instrument in the instrument

picker that opens. If a single track requires multiple instruments, you must use the advanced editor options.

- **Technique(s):** Displays the playing techniques identified for the track. You can change the playing technique by double-clicking the field and selecting a playing technique from the menu. If a single track requires multiple playing techniques, you must use the advanced editor options.

#### TIP

- It is not necessary to specify natural or legato playing techniques, as Dorico Elements automatically creates slurs if **Detect slurs** is activated in the **Import Options** section.
  - Dorico Elements inputs the corresponding playing techniques at the required positions in the music if **Create playing techniques** is activated in the **Import Options** section.
- 
- **Family:** Displays the instrument family of the track. For tracks with multiple instruments, the family of the first instrument is displayed.
  - **Destination Instrument:** Displays the instrument in the project to which the track will be assigned. You can change the destination instrument by double-clicking the field and selecting an instrument from the menu. For example, if you want to assign multiple tracks to the same destination instrument.
  - **Max. sim. notes:** Displays the number of notes played simultaneously in the track. This can help you identify whether tracks represent single, multiple, or grand staff instruments.
  - **Total no. of notes:** Displays the total number of notes in the track. Tracks containing no notes might be unnecessary to import.

#### TIP

You can click each column's header to change its sort order.

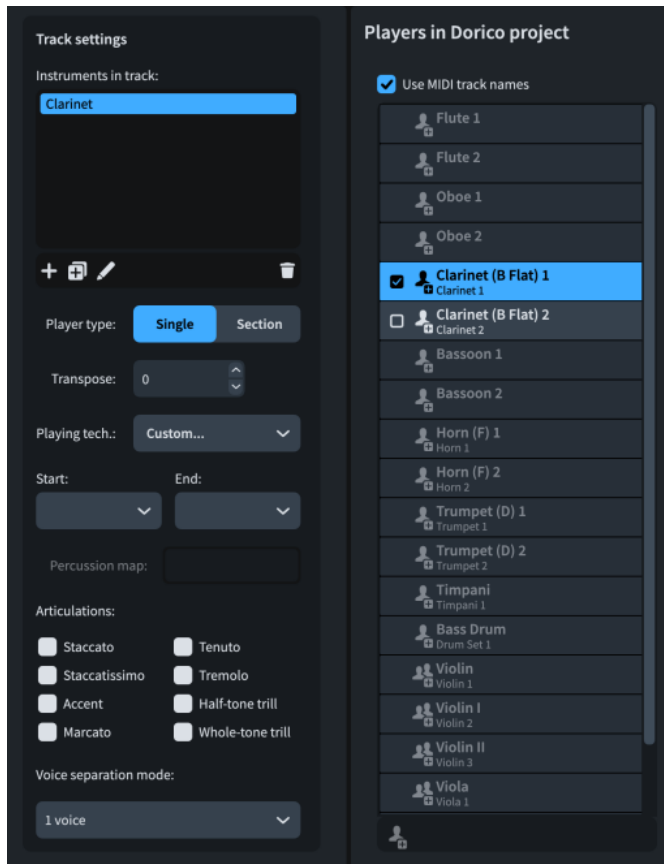
---

The action bar at the bottom of the table contains the following options:

- **Enable Selected:** Enables the selected tracks for import.
- **Disable Selected:** Disables the selected tracks for import.
- **Invert Selection:** Switches your selection to include all tracks not previously selected.
- **Select All:** Selects all tracks.

## Advanced editor options

Contains advanced options that allow you to control how the selected track is mapped to players in the project.



The **Advanced editor** options are divided into the following sections:





### Track settings

Contains a list of instruments in the track selected in the **Tracks from the MIDI file** table and allows you to view and change details of how Dorico Elements will interpret the track.

- **Instruments in track list:** Contains all the instruments in the selected track and allows you to change them. For example, you might add enough horn instruments to match the **Max. sim. notes** in a horn ensemble track, and therefore ensure each instrument only plays a single note at a time.

Chords are split between instruments in tracks in pitch order; for example, piccolos receive higher notes than flutes.

The action bar at the bottom of the list contains the following options:

- **Add Instrument** : Opens the instrument picker and allows you to add a new instrument to the track.
- **Duplicate Instrument** : Duplicates the selected instrument.
- **Change Instrument** : Opens the instrument picker and allows you to change the selected instrument.
- **Delete Instrument** : Deletes the selected instrument.
- **Player type:** Allows you to choose the player type for the track.
- **Transpose:** Allows you to transpose the track by the specified number of half-steps (semitones).
- **Playing tech.:** Allows you to select the playing techniques for the track; for example, when assigning multiple tracks that represent different playing techniques to the same player.



- **Start:** The playing technique used at the start of the track.
- **End:** The playing technique used at the end of the track.

For example, for a violin part that switches between *pizzicato* and *arco*, using two tracks in the MIDI file, selecting **Pizzicato/Arco** instructs Dorico Elements to input *pizz.* and *arco* playing techniques at the appropriate positions.

- **Percussion map:** Allows you to select a percussion map for the track. Only available for percussion kits.
- **Articulations:** Allows you to select articulations you want to input on all notes in the track.
- **Voice separation mode:** Allows you to select a voice approach for chords. Only available when mapping a track to a single instrument. When mapping one track to multiple instruments or multiple tracks to one player, Dorico Elements automatically distributes notes to voices.
  - **1 voice:** All music in the track is assigned to the same voice.
  - **2 voice (auto):** Music in the track is assigned to two voices on the same staff.
  - **2 voice (fixed split point):** Music in the track is assigned to two voices, each on its own staff, using the split point set in the **Import Options** section.
  - **2 voice (explode):** Music in the track is assigned to two voices, each on its own staff. This option can be useful for fretted instruments.
  - **4 voice keyboard (auto):** Music in the track is assigned to four voices, spread across two staves. We recommend using this option for grand staff instruments, as it can automatically detect common keyboard textures, such as bass and melody with inner chords.

### Players in Dorico project


Contains a list of the players in the project to which tracks will be assigned, including existing players in the project and any new players required by the imported MIDI file. Icons for each player indicate if it is new and its type from the following options:

- Single player 
- Section player 

When you select an instrument in the **Instruments in track** list in the **Track settings** section, its current assigned player appears highlighted in the **Players in Dorico project** list.

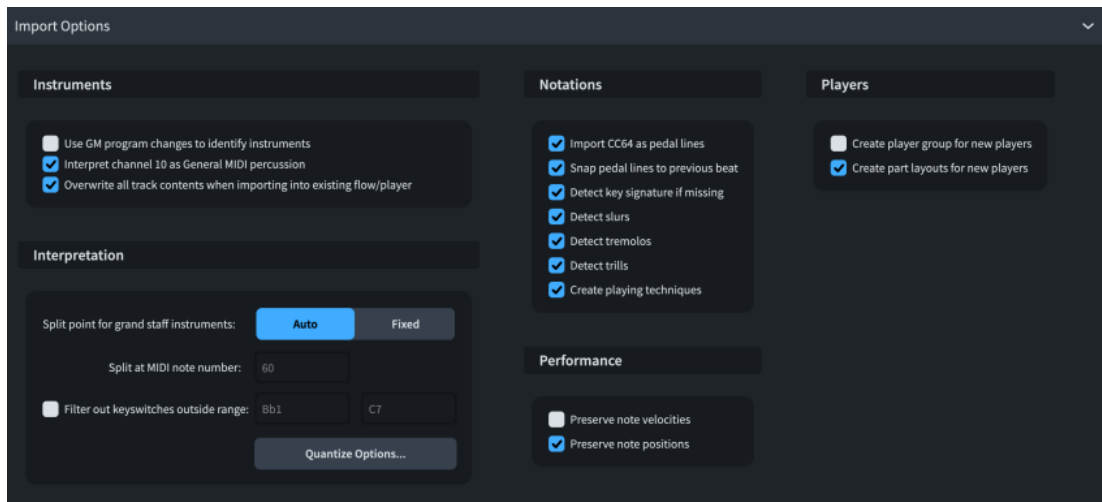
You can assign instruments to other players by clicking an available player in the list. Only players of the same type and with the same instrument are available. For example, if multiple tracks represent different techniques played by the same instrument, you can assign them all to the same player.

If no instruments are assigned to a new player, it is automatically deleted.

- **Use MIDI track names** allows you to use MIDI track names for player names.
- **Add new player for track**  allows you to assign the selected instrument to a new player. Only available when you have assigned more than one instrument to the same player.



## Import Options



The **Import Options** section contains the following subsections:

### Instruments

Contains options that determine how Dorico Elements identifies and handles instruments from the imported MIDI file.

- **Use GM program changes to identify instruments:** Allows you to set whether Dorico Elements uses MIDI program changes or track names to identify instruments.
- **Interpret channel 10 as General MIDI percussion:** Allows you to set whether Dorico Elements interprets tracks using channel 10 as conforming to the General MIDI drum set standard.
- **Overwrite all track contents when importing into existing flow/player:** When activated, imported tracks overwrite all existing music belonging to destination players. When deactivated, imported tracks merge with existing music belonging to destination players. Only applies when importing MIDI into an existing flow.

### Interpretation

Contains options that determine how Dorico Elements interprets key switches and keyboard music from the imported MIDI file.

- **Split point for grand staff instruments:** Allows you to change how notes are assigned to each staff for grand staff instruments.
  - **Auto:** Dorico Elements automatically determines split points according to the musical context.
  - **Fixed:** Dorico Elements uses the set split point.
- **Split at MIDI note number:** Allows you set a MIDI note number at which notes are split between staves. Only available when **Fixed** is chosen for **Split point for grand staff instruments**.
- **Filter out key switches outside range:** Allows you to set the range of pitches used for notes in the MIDI file. Notes higher/lower than the set range are omitted.
- **Quantize Options:** Opens the **MIDI Quantize Options** dialog, which allows you to customize the quantization options.

#### NOTE

Quantization options are linked between **Preferences > Play > Quantization** and the **MIDI Import Options** dialog.

---

### Notations

Contains options that determine the handling and detection of notations from the imported MIDI file, such as pedal lines and slurs.

#### NOTE

- Notation settings are linked between **Preferences > Play > Recording** and the **MIDI Import Options** dialog.
  - When **Detect key signature if missing** is activated, Dorico Elements creates a single key signature at the start of the flow. This option works best for music with a strong tonal center that does not modulate.
- 

### Performance

Contains options that determine how much of the original performance in the MIDI file is preserved for playback purposes. They do not affect how the imported MIDI notes are notated, as this is controlled by quantization options.

#### NOTE

Performance settings are linked between **Preferences > Play > Recording** and the **MIDI Import Options** dialog.

---

### Players

Contains options that determine the handling of players and layouts.

For example, if you are importing a MIDI file into an existing project in order to orchestrate, you might want to import players into their own player group without creating any extra part layouts for them.

#### RELATED LINKS

[Opening projects/files](#) on page 72

[Changing the sustain pedal controller settings for MIDI recording/import](#) on page 258

[Unpitched percussion imported from MusicXML files](#) on page 83

[Types of actions](#) on page 695

[Preferences dialog](#) on page 58

[Player groups](#) on page 158

[Players](#) on page 120

[Instruments](#) on page 127

[Layouts](#) on page 165

[Instrument picker](#) on page 109

[Playing techniques](#) on page 1062

[Pedal lines](#) on page 1044

[Key signatures](#) on page 911

[Slurs](#) on page 1155

[Tremolos](#) on page 1264

[Trills](#) on page 981

[Tuplets](#) on page 1271

[Grace notes](#) on page 897

## Quantization options

Quantization options allow you to customize the quantization you want to apply to notes when importing MIDI files, inputting notes using MIDI recording, or requantizing notes.

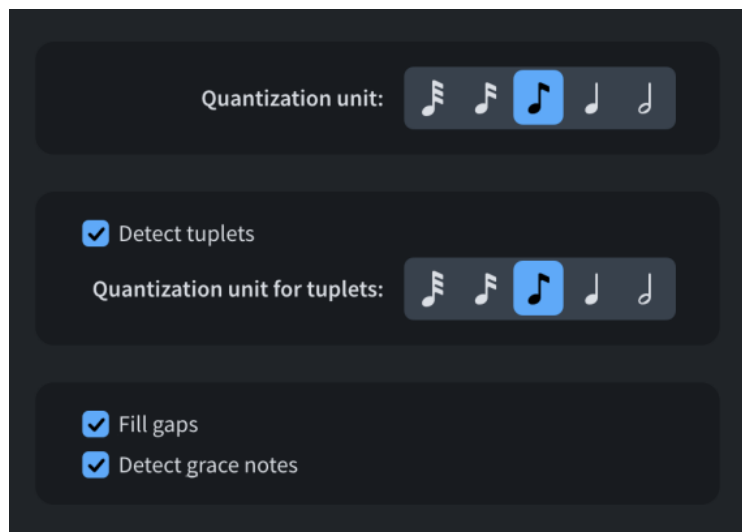
You can access the available quantization options in any of the following ways:

- In **Preferences > Play > Quantization**.
- In the **MIDI Import Options** dialog, click **Quantize Options** in the **Import Options** section.
- When at least one note is selected in the music area, choose **Edit > Requantize**.

### NOTE

Quantization options are linked between **Preferences > Play > Quantization** and the **MIDI Import Options** dialog.

---



The following quantization options are available:

### Quantization unit

Allows you to set the smallest beat unit to which you want notes to be quantized. For example, if the smallest intentional note duration in your imported file is an eighth note, set **Quantization unit** to eighth notes.

### Detect tuplets

Allows you to control whether off-beat notes can be considered tuplets. If you know there are no intentional tuplets in your imported MIDI file, deactivating **Detect tuplets** ensures no notes are imported as tuplets.

### Quantization unit for tuplets

Allows you to set the smallest beat unit to which you want tuplet notes to be quantized. For example, if the smallest intentional tuplet note duration in your imported file is a quarter note, set **Quantization unit for tuplets** to quarter notes.

### Fill gaps

Allows you to determine whether Dorico Elements fills in gaps between short notes. If you are importing already precisely quantized music, we recommend that you deactivate **Fill gaps** to ensure that note and rest durations are notated exactly as quantized.

### Detect grace notes

Allows you to determine whether Dorico Elements interprets grace notes. When deactivated, Dorico Elements turns grace notes into normal notes.

#### RELATED LINKS

- [MIDI recording](#) on page 252
- [Requantizing notes](#) on page 255
- [Tuplets](#) on page 1271
- [Grace notes](#) on page 897

## Exporting MIDI


You can export flows as separate MIDI files; for example, if you want to edit the audio in further detail in a DAW. MIDI files exported from Dorico Elements contain any markers in the project by default.

#### PREREQUISITE

You have opened a layout in the music area that contains the players whose MIDI you want to export.

---

#### PROCEDURE

1. Choose **File > Export > MIDI** to open the **Export MIDI** dialog.
2. In the **Select flows to export** list, activate the checkbox for each flow you want to export. You can also click **Select All** or **Select None** at the bottom of the list.
3. Click **Choose Folder**  beside the **Export to** field to open the File Explorer/macOS Finder.
4. Locate and select the destination folder you want.
5. Click **Choose** to insert the new path in the **Export to** field.
6. Activate/Deactivate **Create folder for exported files**.
7. Click **OK** to export the selected flows as MIDI files and close the dialog.

---

#### RESULT

The selected flows are exported as MIDI files. They contain the MIDI of all the players assigned to the layout open in the music area.

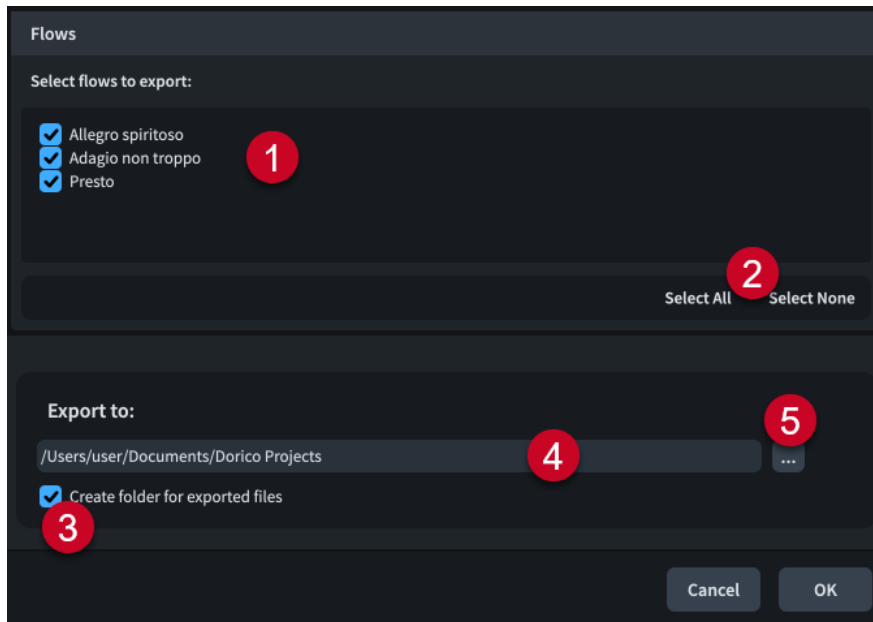
#### RELATED LINKS

- [Switching between layouts](#) on page 43
- [Opening new tabs](#) on page 45
- [Assigning players to layouts](#) on page 167
- [Importing tempo tracks](#) on page 96
- [Exporting tempo tracks](#) on page 98

## Export MIDI dialog

The **Export MIDI** dialog allows you to save individual flows as separate MIDI files.

- You can open the **Export MIDI** dialog by choosing **File > Export > MIDI**.



The **Export MIDI** dialog comprises the following:

**1 Select flows to export**

Contains a list of all the flows in the project. Flows are included in the export when their checkbox is activated.

**2 Selection options**

Allow you to select/deselect all the flows in the project. For example, you can deselect all flows and then activate the checkbox of a single flow you want to export.

**3 Create folder for exported files**

Controls whether or not Dorico Elements generates a new folder for the selected flows within the selected export path. The automatic folder name is “Flows from” followed by the project file name; for example, “Flows from Smyth - String Quintet”.

**4 Export to field**

Displays the export path where exported files will be saved.

**5 Choose Folder**

Opens the File Explorer/macOS Finder and allows you to change the export path.

## Importing tempo tracks

You can import tempo tracks into individual flows and new flows in existing projects; for example, if you are writing music for a film and changes to the footage require tempo and time signature changes. This does not overwrite the notes and notations in the flow.

---

### PROCEDURE

1. Choose **File > Import > Tempo Track** to open the File Explorer/macOS Finder.
2. Locate and select the MIDI file whose tempo track you want to import.
3. Click **Open** to open the **Import Tempo Track** dialog.
4. In the **Import into flow** list, select the flow into which you want to import the tempo track.
5. In the **Import and replace** section, activate the checkbox for each tempo track aspect you want to include.
6. Optional: If you activated the checkbox for **Markers as**, choose one of the following options:

- **Markers**
  - **System-attached Text**
7. Optional: If you chose **System Text** for **Markers as**, activate/deactivate **Show border around system-attached text markers**.
  8. Click **OK** to import the tempo track and close the dialog.
- 

#### RESULT

The tempo track is imported into the selected flow. If you selected **New Flow** in the **Import into flow** list, a new flow is added to the project. All selected aspects are applied to the existing music or the new flow, and notes and tempo marks are adjusted as required.

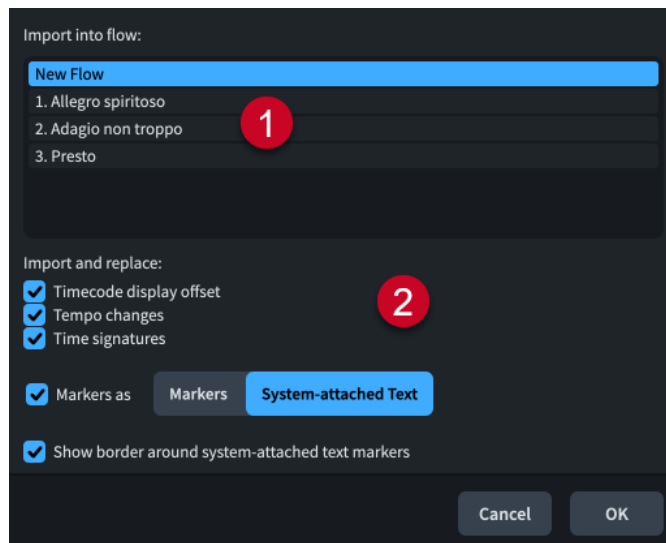
#### RELATED LINKS

- [Flows](#) on page 162
- [Exporting tempo tracks](#) on page 98
- [Importing MIDI](#) on page 85
- [Exporting MIDI](#) on page 95

## Import Tempo Track dialog

The **Import Tempo Track** dialog allows you to import tempo tracks to individual flows within projects and to control which aspects of the tempo track you want to apply to the flow.

- You can open the **Import Tempo Track** dialog by choosing **File > Import > Tempo Track** and opening a MIDI file from the File Explorer/macOS Finder.



The **Import Tempo Track** dialog comprises the following:

### 1 Import into flow

Contains a list of all the flows in the project. The currently selected flow is highlighted.

#### NOTE

You can only import tempo tracks into a single flow at a time.

---

### 2 Import and replace

Allows you to control which tempo track aspects you want to include in your import and apply to the selected flow.


- **Timecode display offset** sets the initial timecode position at the start of the flow.
- **Tempo changes** replaces all immediate and gradual tempo changes in the flow with the tempo changes from the MIDI file.
- **Time signatures** replaces all time signatures in the flow with time signatures from the MIDI file.
- **Markers as** adds any markers from the MIDI file to the flow as either **Markers** or **System-attached Text**.  
Importing markers as **Markers** replaces any existing markers in the flow with markers from the MIDI file, while importing markers as **System-attached Text** does not replace any existing markers or system-attached text items.
- **Show border around system-attached text markers** adds borders to markers imported as system-attached text items when activated. Only available if you have chosen **System-attached Text** for **Markers as**.

## Exporting tempo tracks

You can export flows as separate tempo tracks; for example, if you want to apply the tempo marks and time signatures of one flow to a different flow, which can be in the same project.

---

### PROCEDURE

1. Choose **File > Export > Tempo Track** to open the **Export Tempo Track** dialog.
2. Activate the checkbox for each flow you want to export as a tempo track.  
You can also click **Select All** or **Select None** at the bottom of the list.
3. Click **Choose Folder**  beside the **Export to** field to open the File Explorer/macOS Finder.
4. Locate and select the destination folder you want.
5. Click **Choose** to insert the new path in the **Export to** field.
6. Activate/Deactivate **Create folder for exported files**.
7. Click **OK** to export the selected flows as tempo tracks and close the dialog.

---

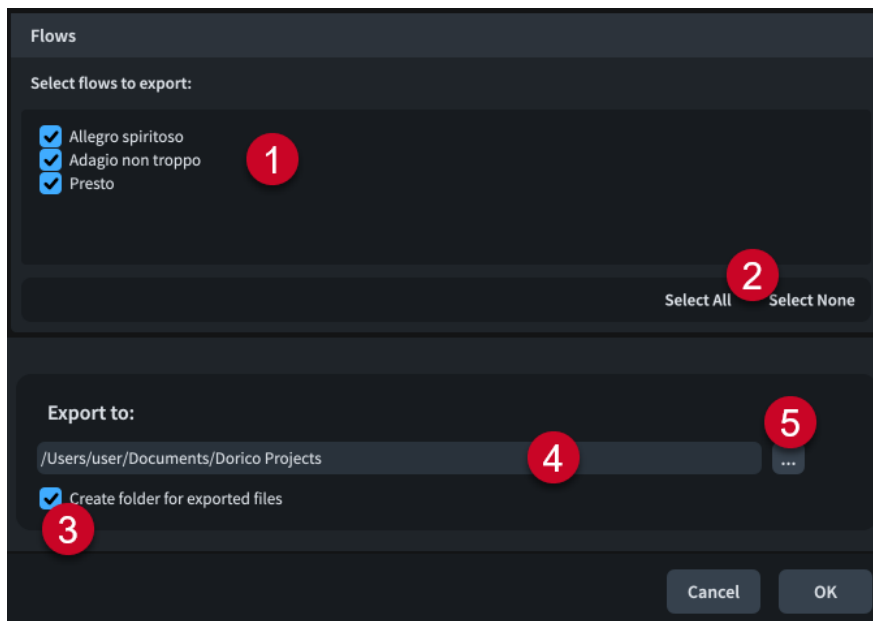
### RELATED LINKS

- [Importing tempo tracks](#) on page 96
- [Importing MIDI](#) on page 85
- [Exporting MIDI](#) on page 95

## Export Tempo Track dialog

The **Export Tempo Track** dialog allows you to save individual flows as separate tempo tracks in the format of MIDI files.

- You can open the **Export Tempo Track** dialog by choosing **File > Export > Tempo Track**.



The **Export Tempo Track** dialog comprises the following:

**1 Select flows to export**

Contains a list of all the flows in the project. Flows are included in the export when their checkbox is activated.

**2 Selection options**

Allow you to select/deselect all the flows in the project. For example, you can deselect all flows and then activate the checkbox of a single flow you want to export.

**3 Create folder for exported files**

Controls whether or not Dorico Elements generates a new folder for the selected flows within the selected export path. The automatic folder name is “Flows from” followed by the project file name; for example, “Flows from Smyth - String Quintet”.

**4 Export to field**

Displays the export path where exported files will be saved.

**5 Choose Folder**

Opens the File Explorer/macOS Finder and allows you to change the export path.

## Exporting audio

You can export projects as audio files in MP3, FLAC, or WAV formats, including exporting flows and players as separate files. For example, if you want to share an audio mock-up of only the soloist’s part in the second flow.

### PREREQUISITE

You have opened a layout in the music area that contains the players whose audio you want to export.


---

### PROCEDURE

1. Choose **File > Export > Audio** to open the **Export Audio** dialog.
2. Activate/Deactivate **Export each selected flow as a separate file**.
3. In the **Select flows to export** list, activate the checkbox for each flow you want to export as audio.



You can also click **Select All** or **Select None** at the bottom of the list.

4. Activate/Deactivate **Export players as separate files**.
  5. Optional: If you activated **Export players as separate files**, activate the checkbox for each player you want to export in the **Select players to export** list.  
You can also click **Select All** or **Select None** at the bottom of the list.
  6. Click **Choose Folder**  beside the **Export to** field to open the File Explorer/macOS Finder.
  7. Locate and select the destination folder you want.
  8. Click **Choose** to insert the new path in the **Export to** field.
  9. In the **Audio Export Options** section, choose one of the following audio file formats:
    - **MP3 (.mp3)**
    - **FLAC (.flac)**
    - **WAV (.wav)**
  10. Optional: If you chose **FLAC (.flac)** or **WAV (.wav)**, choose one of the following bit depths:
    - **16-bit**
    - **24-bit**
    - **32-bit** (WAV files only)
  11. Optional: If you chose **WAV (.wav)**, activate/deactivate **Broadcast WAVE**.
  12. Change the reverb tail duration by changing the value in the **Reverb tail (s)** value field.
  13. Click **OK** to export the selected flows/players with the set audio export options and close the dialog.
- 

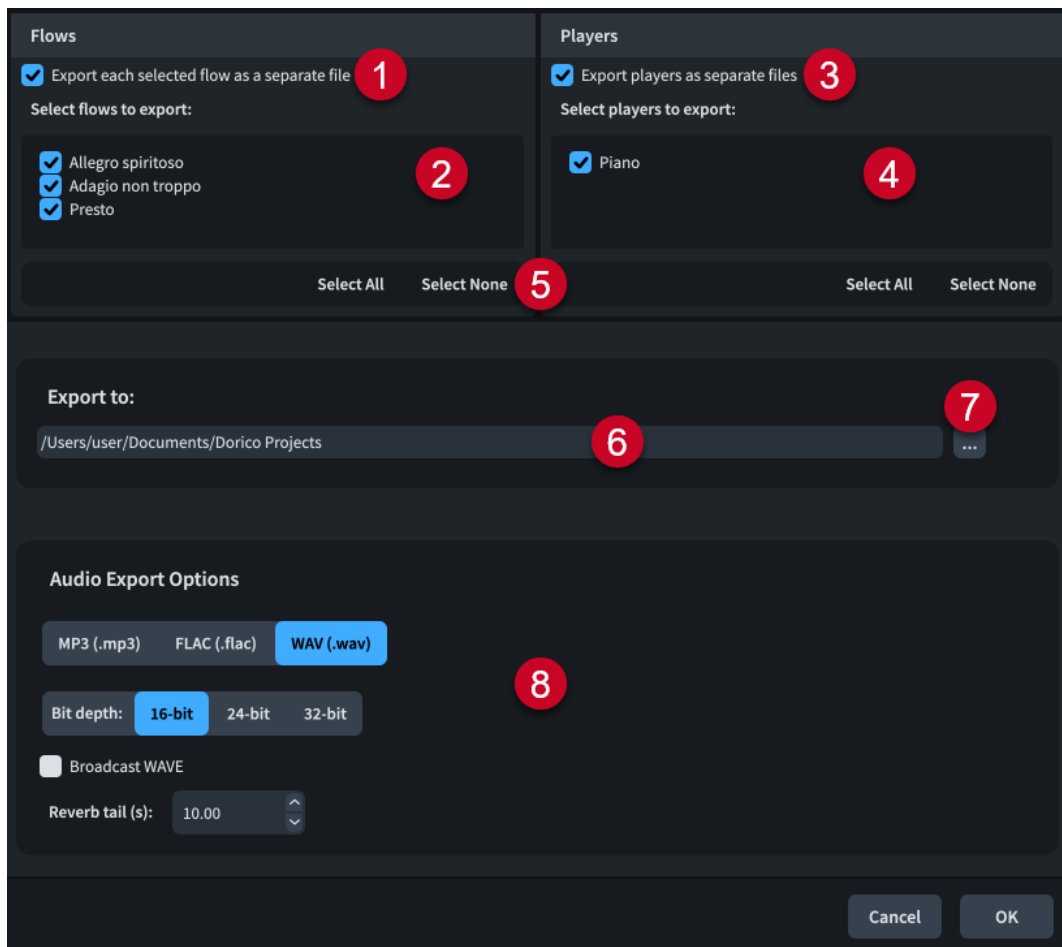
#### RELATED LINKS

- [Reordering layouts](#) on page 170
- [Layouts panel \(Setup mode\)](#) on page 114
- [Assigning players to layouts](#) on page 167

## Export Audio dialog

The **Export Audio** dialog allows you to export projects as audio files in MP3, FLAC, or WAV formats, including exporting flows and players as separate files.

- You can open the **Export Audio** dialog by choosing **File > Export > Audio**.



The **Export Audio** dialog contains the following options and lists:

- 1 Export each selected flow as a separate file**  
Allows you to export each flow in the project as a separate audio file instead of as a single audio file.
- 2 Select flows to export**  
Contains a list of all the flows in the project. Flows are included in the export when their checkbox is activated.
- 3 Export players as separate files**  
Allows you to export each player in the project as a separate audio file instead of all players in a single audio file.
- 4 Select players to export**  
Contains a list of all the players in the project. Players are included in the export when their checkbox is activated. Only available if you have activated **Export players as separate files**.
- 5 Selection options**  
Allow you to select/deselect all the flows/players in the corresponding list. For example, you can deselect all flows and then activate the checkbox of a single flow you want to export.
- 6 Export to field**  
Displays the export path where exported audio files will be saved.
- 7 Choose Folder**  
Opens the File Explorer/macOS Finder and allows you to change the export path.
- 8 Audio Export Options**

Contains the following options that allow you to control the audio file format and export:

- **File format:** Allows you to export audio as an **MP3 (.mp3)**, **FLAC (.flac)** or **WAV (.wav)** file.
- **Bit depth:** Allows you to export FLAC files as **16-bit** or **24-bit**, and WAV files as **16-bit**, **24-bit**, or **32-bit**.
- **Broadcast WAVE:** Allows you to export audio in Broadcast WAVE format, which includes start timecodes and markers.
- **Reverb tail (s):** Allows you to change the duration of time added to the end of the exported audio to accommodate reverb effects.

## Auto-save

The auto-save function stores a version of the currently active project at regular intervals, including new projects you have not explicitly saved yet. This reduces the chances of losing significant amounts of work if you accidentally close a project without saving or in the unlikely event that Dorico Elements or your computer crashes.

Dorico Elements saves auto-saved projects in an **AutoSave** folder inside the application data folder for your user account. You cannot change this location.

### NOTE

- Dorico Elements might become less responsive briefly in order to perform auto-saves, particularly for larger projects.
- Dorico Elements does not generate preview images when auto-saving.

## Auto-save with multiple projects open

Only the currently activated project is auto-saved at each auto-save interval if you have multiple projects open. This is because only a single project at a time can be activated for playback. If you are switching between multiple projects frequently, we recommend that you set a smaller auto-save interval.

## Removal of auto-save files

All files in the **AutoSave** folder are automatically deleted when you close their corresponding projects and also when you quit Dorico Elements. You can find deleted auto-saved projects in the bin on your computer. Dorico Elements automatically adds “[AutoSave]” to the end of auto-saved project file names so you can identify them.

### IMPORTANT

When Dorico Elements deletes files from the **AutoSave** folder, this includes any files in the folder, not just auto-saved Dorico projects. Therefore, it is important that you do not manually save anything in the **AutoSave** folder.

### TIP

If you want to access earlier versions of projects, you can use project backups.

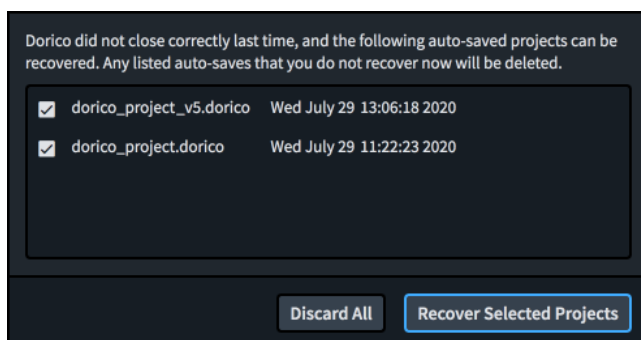
### RELATED LINKS

[Project backups](#) on page 104

[Toolbar](#) on page 31

## Recover Auto-saved Projects dialog

The **Recover Auto-saved Projects** dialog allows you to recover individual auto-saved projects; for example, if you accidentally closed a project without saving, or if Dorico Elements or your computer crashed.



The **Recover Auto-saved Projects** dialog contains the following:

### Auto-saved projects list

Contains all the auto-saved projects that are available for recovery. Displays the file name of each project and the date and time of the auto-save.

You can activate the checkbox for each project you want to recover.

### Discard All

Deletes all auto-saved projects in the list and moves them to the bin on your computer.

### Recover Selected Projects

Recovers the selected auto-saved projects and opens them in separate project windows.

### RELATED LINKS

[Changing the auto-save frequency](#) on page 104

## Recovering auto-saved projects

If Dorico Elements crashes, you can recover the most recent auto-saved version of each project that was open.

---

### PROCEDURE

1. Reopen Dorico Elements.
2. In the **Recover Auto-saved Projects** dialog that opens after the Dorico Elements splash screen, activate the checkbox for each auto-saved project you want to recover.

### NOTE

Any auto-saved projects you do not recover are permanently deleted once you close the dialog.

3. Click **Recover Selected Projects** to recover the selected auto-saved projects and close the dialog.

---

### RESULT

The selected auto-saved projects are recovered and opened in separate project windows.

AFTER COMPLETING THIS TASK

You can save auto-saved projects permanently in any folder location and with new file names if required.

## Changing the auto-save frequency

You can change how frequently Dorico Elements auto-saves projects. By default, the auto-save interval is five minutes for the currently active project.

---

PROCEDURE

1. Press **Ctrl/Cmd-**, to open **Preferences**.
  2. In the category list, click **General**.
  3. In the **Files** section, change the value for **Auto-save every [n] minutes**.
  4. Click **Apply**, then **Close**.
- 

## Disabling auto-save

You can disable auto-save completely; for example, if it is significantly affecting the performance of a large project.

---

PROCEDURE

1. Press **Ctrl/Cmd-**, to open **Preferences**.
  2. In the category list, click **General**.
  3. In the **Files** section, deactivate **Auto-save every [n] minutes**.
  4. Click **Apply**, then **Close**.
- 

## Project backups

Dorico Elements stores backup versions of your projects each time you save them explicitly. By default, the previous five saves are stored as backups.

Their default location is in a folder named after the corresponding project file name in the **Backup Projects** folder in the **Dorico Projects** folder, whose default location is in the **Documents** folder for your user account.

You can find deleted project backups in the bin on your computer.

## Changing the number of backups per project

You can change the number of backups that Dorico Elements stores for each project; for example, if you want to store a greater range of changes.

---

PROCEDURE

1. Press **Ctrl/Cmd-**, to open **Preferences**.
  2. In the category list, click **General**.
  3. In the **Files** section, change the value for **Number of backups per project**.
  4. Click **Apply**, then **Close**.
-

## Changing the backup location

You can change the folder that Dorico Elements uses to store project backups. By default, Dorico Elements uses the **Backup Projects** folder inside your **Dorico Projects** folder, whose default location is in the **Documents** folder for your user account.

---

### PROCEDURE

1. Press **Ctrl/Cmd-**, to open **Preferences**.
2. In the category list, click **General**.
3. In the **Files** section, click **Choose** beside the **Project backup folder** field to open the File Explorer/macOS Finder.
4. Locate and select the folder where you want to save project backups.
5. Click **Select Folder** (Windows)/**Open** (macOS) to insert the new path in the **Project backup folder** field.
6. Click **Apply**, then **Close**.

---

### RESULT

The default folder for project backups is changed. If the folder specified does not exist, Dorico Elements creates it.

## Read-only mode

Projects that contain more than your maximum number of players open in read-only mode. In read-only mode, you can view, play back, and print projects, but you cannot edit or save them.

- Read-only projects are indicated by the text [Read-only] after their file name in the project window.

### RELATED LINKS

[Opening projects/files](#) on page 72

[Playing back music](#) on page 503

[Printing layouts](#) on page 538

# Setup mode

Setup mode allows you to set up the fundamental elements of the project: instruments and the players that hold them, flows, layouts, and videos. You can also determine how they interact with each other; for example, by changing the players assigned to layouts.

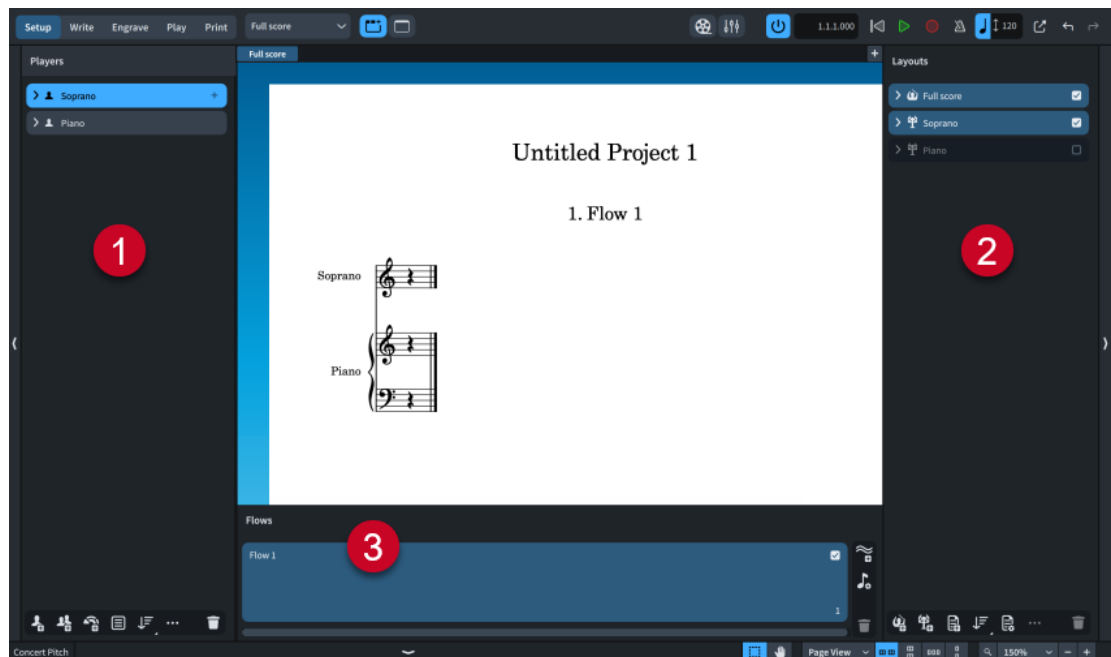
You can view music in the music area and switch between viewing other tabs and layouts, but you cannot select or interact with anything in the music area in Setup mode.

## Project window in Setup mode

The project window in Setup mode contains panels with all the tools and functions that allow you to add players and instruments as well as to create layouts and flows for your project.

You can switch to Setup mode in any of the following ways:

- Press **Ctrl/Cmd-1**.
- In the toolbar, click **Setup**.
- Choose **Window > Setup**.



The following panels are available in Setup mode:

### 1 Players

Lists the players, instruments, and groups in your project. By default, players are assigned to all flows, all full score layouts, and their own part layout.

### 2 Layouts

Lists the layouts in your project. A single full score layout and a part layout for each player are created automatically, but you can create and delete layouts as required. By default, layouts contain all flows and full score layouts contain all players.

### 3 Flows

Shows the flows in your project, ordered left to right. By default, flows contain all players and are assigned to all layouts.

The three panels work together to allow you to control how and where the players, layouts, and flows in your project are used. When you select an item in one of the panels, that panel and the selected item are highlighted in a different color and checkboxes appear in cards in the other panels. You can activate/deactivate these checkboxes independently to change how material is distributed across players, layouts, and flows.

#### RELATED LINKS

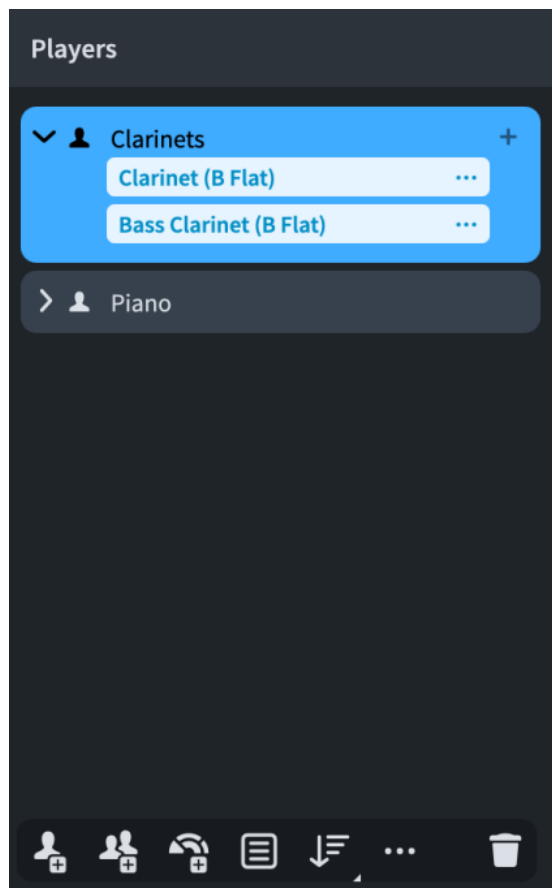
- [Players, layouts, and flows](#) on page 118
- [Project window](#) on page 30
- [Layouts panel \(Setup mode\)](#) on page 114
- [Flows panel](#) on page 117
- [Starting new projects](#) on page 71

## Players panel

The **Players** panel contains all the players and groups in the project, shown in a list. It is located on the left of the window in Setup mode.

You can hide/show the **Players** panel in Setup mode in any of the following ways:

- Press **Ctrl/Cmd-7**.
- Click the disclosure arrow on the left edge of the main window.
- Choose **Window > Show Left Zone**.





The order in which players are listed in the Players panel sets the default player order used in all layouts. You can also set a custom player order in each layout independently.

In the **Players** panel, each player is shown as a card that contains the instruments held by that player. Each player card shows the following:





**1 Disclosure arrow**

Expands/Collapses the player card.

**2 Player type**

Shows the type of player from the following options:

- Single player 
- Section player 


**3 Player name**

Shows the name of the player. By default, player names contain the names of all instruments held by the player. You can also rename players manually.

**4 Add instruments icon**

Opens the instrument picker from which you can select an instrument for the player.

**5 Instrument labels**

Each instrument assigned to a player has its own instrument label. The instrument menu  in each instrument label opens a menu with further options that allow you to, for example, change the instrument names or move the instrument to another player.

Instrument labels appear blue. Kit instrument labels appear green.

The action bar at the bottom of the panel contains the following options:

**Add Single Player**



Adds a single player to your project. Dorico Elements also automatically adds a part layout for the player in the **Layouts** panel.

**Add Section Player**



Adds a section player to your project. Dorico Elements also automatically adds a part layout for the player in the **Layouts** panel.

**Add Ensemble**



Adds multiple players to your project. Dorico Elements also automatically adds part layouts for each player in the **Layouts** panel.

### Add Group



Adds a player group to your project. If no players were selected, an empty player group is added. If existing players were selected, they are grouped together.

### Sort Players



Sorts all players in the **Players** panel according to the current player sorting setting. You can click and hold or right-click **Sort Players** to change the setting to one of the following options:

- **None:** New players are added at the bottom of the players list, regardless of their instrument.
- **Orchestral:** New players are sorted according to the accepted orchestral order convention. For example, woodwinds positioned above brass and strings.
- **Band:** New players are sorted according to the accepted wind/concert band convention. For example, strings positioned between brass and percussion.

### Player Settings



Allows you to access settings and controls for the selected player; for example, to rename them or show chord symbols above their staves.

You can also access player settings by right-clicking players.

### Delete Player



Deletes selected players or groups from the project. When you delete a player, a warning message appears that allows you to delete only the player but leave their part layouts in the project, delete both the player and their part layouts, or cancel.

#### RELATED LINKS

- [Players](#) on page 120
- [Ensembles](#) on page 125
- [Layouts panel \(Setup mode\)](#) on page 114
- [Layout Options dialog](#) on page 677
- [Changing the default player order](#) on page 123
- [Setting custom player orders](#) on page 123
- [Renaming players](#) on page 173
- [Player groups](#) on page 158

## Instrument picker

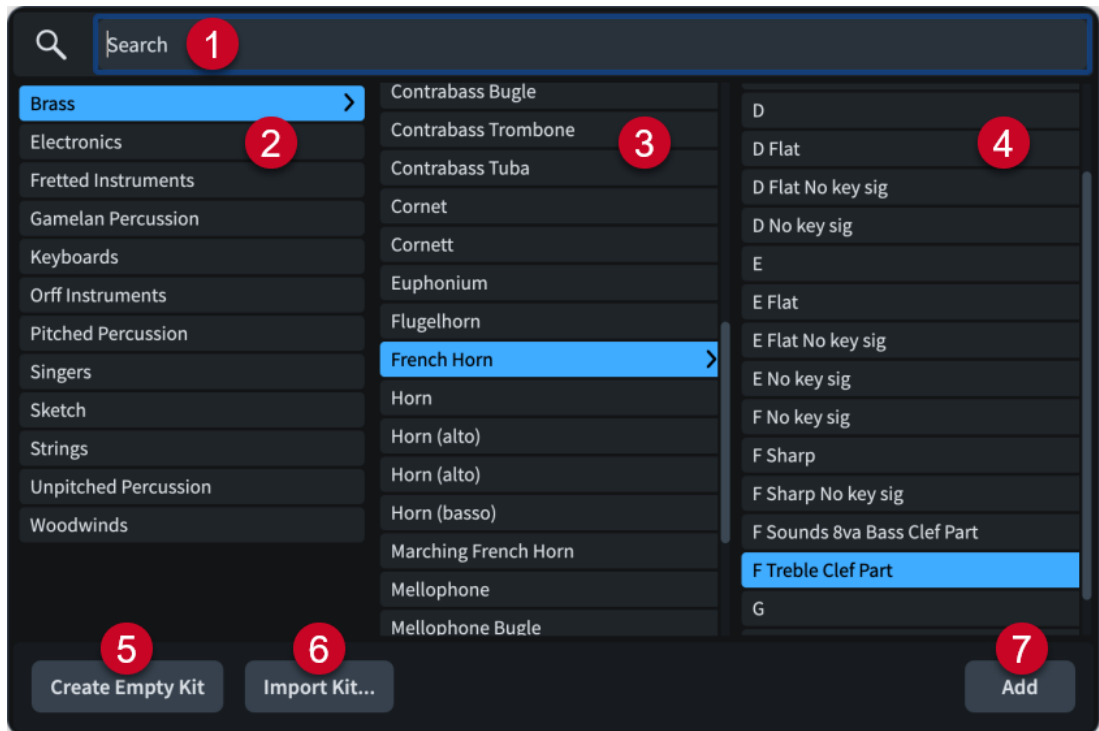
The instrument picker allows you to find and add instruments to your project. It contains multiple versions of some instruments that have specific formatting and tuning requirements, such as French Horn, which has a version whose part layouts are always in treble clef.

The instrument picker uses the application language.

You can open the instrument picker in Setup mode in any of the following ways:

- Add a new player.
- In the **Players** panel, click **Add Instrument to Player**  in player cards.

- In the **Players** panel, select a player and press **Shift-I**.
- In the **Players** panel, select a player, then click **Player Settings** in the action bar and choose **Add Instrument to Player**. You can also right-click players and choose this option from the context menu.



The instrument picker contains the following sections and options:

**1 Search field**

Allows you to enter the instrument you are searching for directly. You can enter only part of the instrument name, such as **cello** for Violoncello.

**2 Instrument family column**

Contains instrument families to help you focus your search.

**3 Instrument column**

Contains the instruments available in the selected instrument family.

**4 Instrument type column**

Contains options for multiple possible transpositions, tunings, key signature options, or different behavior in part layouts for the selected instrument. This column is not populated for instruments that do not have further options.

**5 Create Empty Kit**

Adds an empty percussion kit to the player.

**6 Import Kit**

Imports an existing percussion kit previously exported as a library file.

**7 Add**

Adds the selected instrument to the project.

In addition to entering the instrument you want directly into the **Search** field, you can click options in the instrument picker to select them, and you can also select other items in the same column by pressing **Up Arrow** / **Down Arrow**.

You can cycle forwards through the instrument picker by pressing **Tab**, which navigates in the following order: **Search field, Instrument, Instrument type, Instrument family**. You can also cycle backwards by pressing **Shift-Tab**, which navigates in the opposite direction.

An enclosure line shows which instrument family or instrument is selected when using the keyboard to navigate.

#### RELATED LINKS

[Players](#) on page 120

[Instruments](#) on page 127

[Transposing instruments](#) on page 133

[Fretted instrument tuning](#) on page 138

[Capos](#) on page 142

[Adding players](#) on page 121

[Adding instruments to players](#) on page 133

[Changing instruments](#) on page 136

[Adding ensembles](#) on page 126

[Adding empty percussion kits to players](#) on page 134

[Importing percussion kits](#) on page 1290



[Changing the application language](#) on page 56

## Ensemble picker

The ensemble picker allows you to find and add ensembles containing multiple players to your project. You can select existing ensembles and build new ones.

The ensemble picker uses the application language.

You can open the ensemble picker in Setup mode in any of the following ways:

- Press **Shift-E**.
- In the **Players** panel, click **Add Ensemble** .
- In empty projects, click **Add Ensemble**  in the project start area.

The ensemble picker contains **Build** and **Choose** tabs. You can switch between them using the options in the top left of the ensemble picker.

## Build tab



The **Build** tab contains the following:

### 1 Search field

Allows you to specify the instruments you want to include in the ensemble in the following ways:

- Enter the name of an existing ensemble, such as **String Section**.
- Enter the names or abbreviations of instruments, with each name/abbreviation separated by a comma. You can prefix instruments with a number followed by a space. For example, enter **2 vln, 3 cl,bsn,tuba,marim** to build an ensemble containing two violins, three clarinets, a bassoon, a tuba, and a marimba.
- Enter the corresponding orchestral shorthand, with or without separators. For example, enter **2picc.2.2.2 / 4.3.3.1** to add two flutes, one piccolo, two oboes, two clarinets, and two bassoons followed by four horns, three trumpets, three trombones, and one tuba. To specify only brass instruments, prefix orchestral shorthand entries with **br**, such as **br4331**.



#### NOTE

You can only use single digit numbers for each instrument type.

### 2 Player list

Contains the instruments currently in the ensemble based on your entries in the **Search** field.

By default, instruments are held by single players. You can change the player type by double-clicking players in the list. Icons show the current player type from the following options:

- Single player 
- Section player 

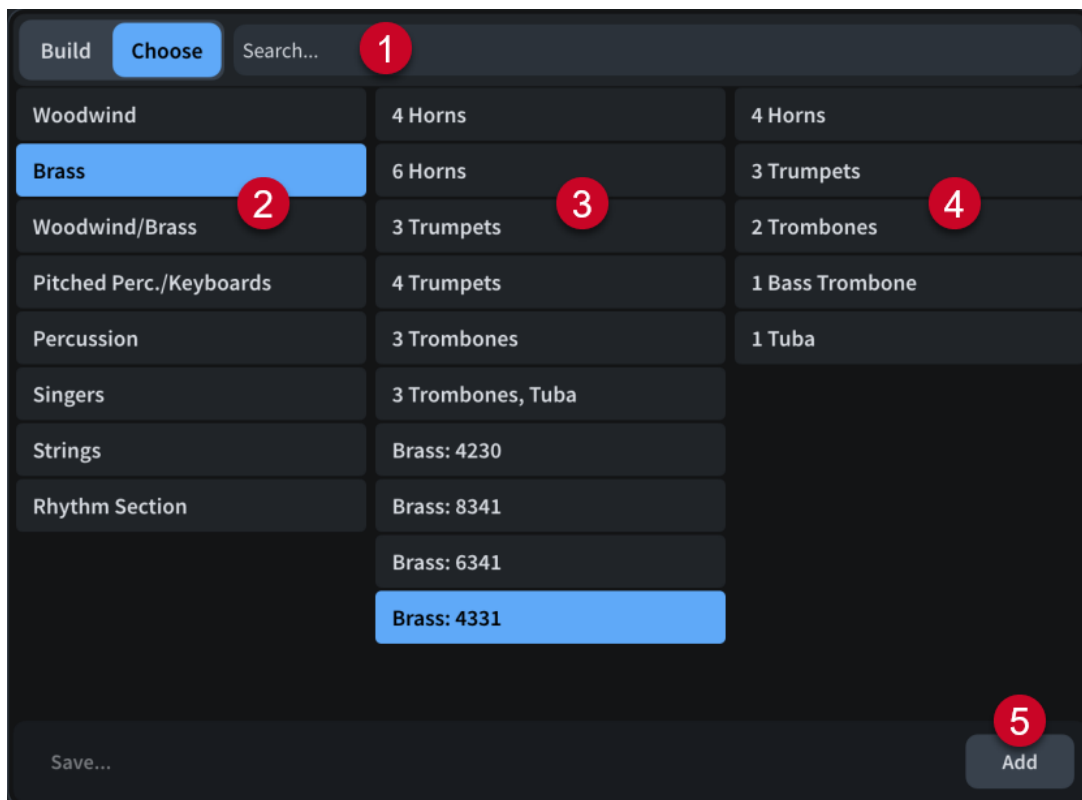
### 3 Save

Opens the **Save Custom Ensemble** dialog, which allows you to name and save your ensemble for reuse in future projects.

### 4 Add

Adds the players in the custom ensemble to the project.

## Choose tab



The **Choose** tab contains the following:

- 1 Search field**  
Allows you to enter the ensemble you are searching for directly.
- 2 Ensemble category column**  
Contains ensemble categories to help you focus your ensemble search.
- 3 Ensemble column**  
Contains the ensembles available in the selected instrument family.
- 4 Ensemble contents column**  
Displays the instruments included in the selected ensemble.
- 5 Add**  
Adds the players in the selected ensemble to the project.

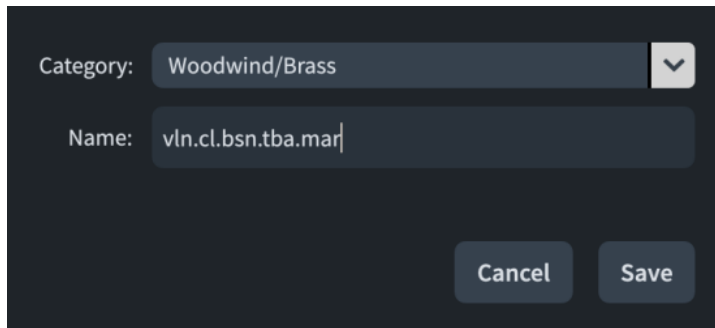
### RELATED LINKS

- [Ensembles](#) on page 125
- [Adding ensembles](#) on page 126
- [Players](#) on page 120
- [Adding players](#) on page 121
- [Project templates](#) on page 78
- [Changing the application language](#) on page 56

## Save Custom Ensemble dialog

The **Save Custom Ensemble** dialog allows you to name and save custom ensembles for reuse in future projects.

- You can open the **Save Custom Ensemble** dialog in Setup mode from inside the ensemble picker by building a custom ensemble and clicking **Save**.



The **Save Custom Ensemble** dialog contains the following options:

### Category

Allows you to select an ensemble category for the custom ensemble.

### Name

Allows you to enter a name for the custom ensemble.

### RELATED LINKS

[Adding ensembles](#) on page 126

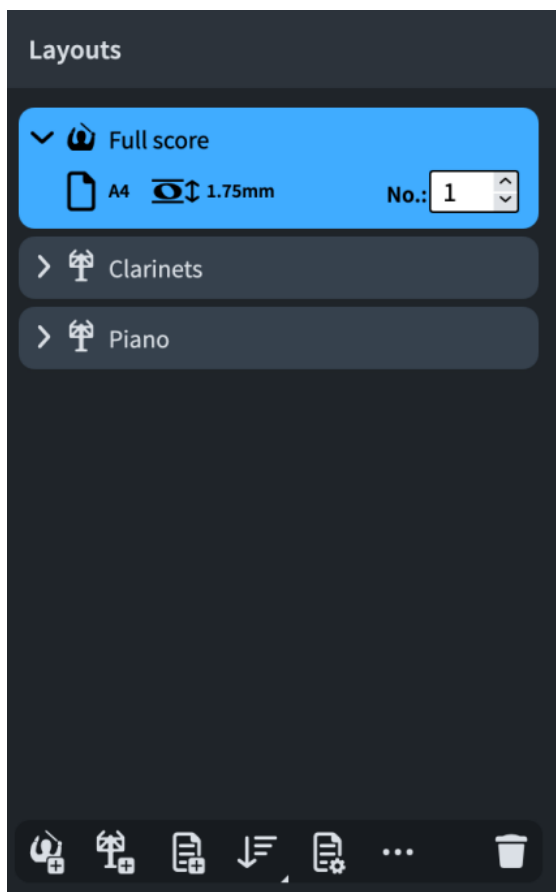
[Building and saving custom ensembles](#) on page 127

## Layouts panel (Setup mode)

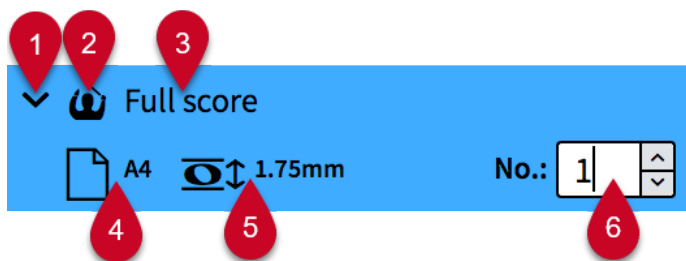
The **Layouts** panel contains all the layouts in the project, shown in a list. In Setup mode, it is located on the right of the window.

You can hide/show the **Layouts** panel in Setup mode in any of the following ways:

- Press **Ctrl/Cmd-9**.
- Click the disclosure arrow on the right edge of the main window.
- Choose **Window > Show Right Zone**.



In the **Layouts** panel, each layout is shown as a card. Each layout card shows the following:






**1 Disclosure arrow**

Expands/Collapses the layout card.

**2 Layout type**

Shows the type of layout from the following options:

- Full score layout 
- Instrumental part layout 
- Custom score layout 

**3 Layout name**

Shows the name of the layout. Dorico Elements automatically adds default names depending on the name of the instrument that is assigned to a player and on the type of layout that is added. For example, if you assign a flute to a player, the instrumental part layout automatically gets the same name. If you add an empty instrumental part layout, the layout name shows **Empty part** and an incremental number if you add multiple empty part layouts.

**4 Page size and orientation**



Shows the size and orientation of the layout as set on the **Page Setup** page in **Layout Options**.

#### 5 Space size

Shows the space size between two staff lines in points, as set on the **Page Setup** page in **Layout Options**. This indicates the size of staves in the layout.

#### 6 Layout number

Allows you to set a unique number for the layout that can be used as part of its file name when exported as a graphic. This can be useful to ensure exported part layout files are organized in their orchestral order, as this is usually different to their alphabetical order.

There is a different layout number sequence for each layout type. For example, full score layouts are numbered independently of part layouts.

The action bar at the bottom of the panel contains the following options:

#### Add Full Score Layout



Adds a full score layout to your project. By default, every player and flow is included in the layout.

#### Add Instrumental Part Layout



Adds an empty instrumental part layout to your project. You can then assign one or multiple players to the layout. By default, part layouts contain all flows that originated in the project.

#### Add Custom Score Layout



Adds an empty custom score layout to your project. You can then assign players and flows to the layout.

#### Sort Layouts



Sorts all layouts in the **Layouts** panel according to their type in the following order: full score layouts, instrumental part layouts, custom score layouts.

You can click and hold or right-click **Sort Layouts** to change the setting to one of the following options:

- **Layout Number:** Sorts layouts within each category according to their current layout number.
- **Instrument Score Order:** Sorts layouts within each category according to the corresponding player order in the **Players** panel.

#### Layout Options



Opens the **Layout Options** dialog for the selected layouts.

#### Layout Settings



Allows you to access settings and controls for the selected layout; for example, to rename the layout.

You can also access layout settings by right-clicking layouts.

### Delete Layout



Deletes selected layouts from the project.

#### RELATED LINKS

[Project window in Setup mode](#) on page 106

[Layouts](#) on page 165

[Layout Options dialog](#) on page 677

[Layouts panel \(Print mode\)](#) on page 534

[File import and export](#) on page 78

[Assigning players to layouts](#) on page 167

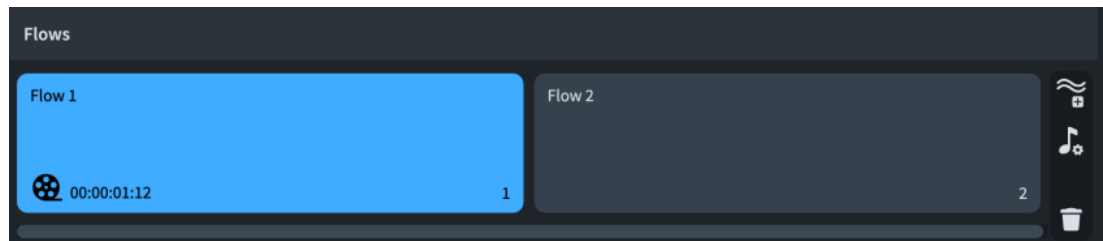
[Assigning flows to layouts](#) on page 168

## Flows panel

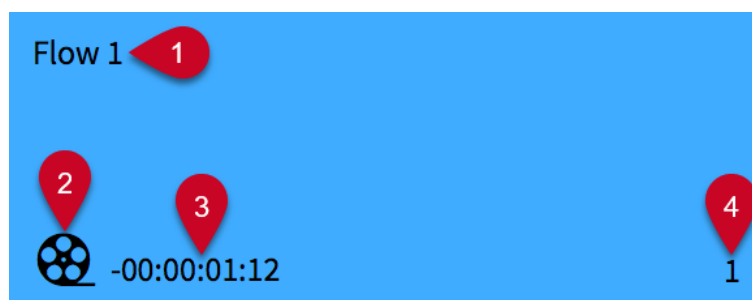
The **Flows** panel contains all the flows in the project, shown in a horizontal list. It is located at the bottom of the window in Setup mode.

You can hide/show the **Flows** panel in Setup mode in any of the following ways:

- Press **Ctrl/Cmd-8**.
- Click the disclosure arrow at the bottom of the main window.
- Choose **Window > Show Lower Zone**.



In the **Flows** panel, each flow is shown as a card. Each flow card shows the following:



#### 1 Flow name

Shows the name of the flow. If you create multiple flows without renaming them, each flow name shows a number that increments with each new flow that you create.

#### 2 Film reel icon

Indicates the flow has an attached video.

#### 3 Flow timecode

Shows the start timecode for the flow.

#### 4 Flow number

Shows the number of the flow. The number increments with each new flow that you create or import. The number also indicates the position of the flow in a layout.

The **Flows** panel contains the following options:

#### Add Flow



Adds a new flow to your project. By default, every new flow is included in all layouts, and every player is added to the new flow.

#### Notation Options



Opens the **Notation Options** dialog that provides multiple options that allow you to make changes that affect the way music is notated for each flow.

#### Delete Flow



Deletes the selected flows from the project.

#### RELATED LINKS

[Project window in Setup mode](#) on page 106

[Flows](#) on page 162

[Videos](#) on page 180

[Notation Options dialog](#) on page 679

## Players, layouts, and flows

In Dorico Elements, players, layouts, and flows are all connected to each other. Because they exist in the project rather than in a single score, you can, for example, have players and flows saved in the project without showing them in the full score.

- Players can be assigned to any combination of layouts and flows. For example, you can assign a single player to both the full score layout and their own part layout, and remove them from flows in which they do not play. By default, players are assigned to all flows that originated in the project, all full score layouts, and their own part layout.
- Layouts can contain any combination of players and flows. For example, you can assign all the singers to a single part layout, then remove the flows in which they do not sing from the layout. By default, layouts contain all flows and full score layouts contain all players.
- Flows can contain any combination of players and be assigned to/removed from layouts. By default, flows contain all players and are assigned to all layouts.

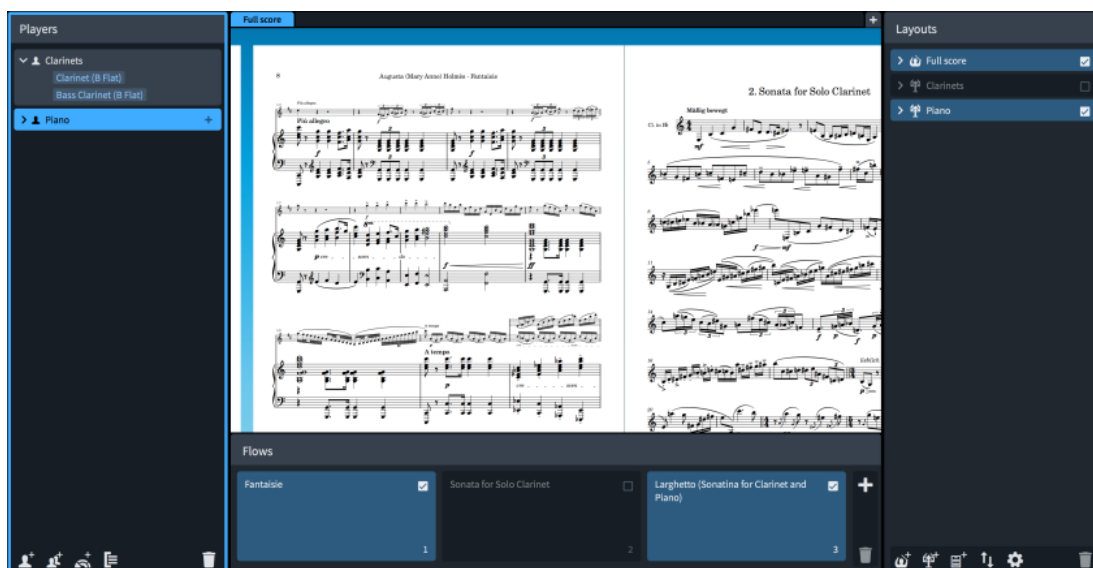
#### NOTE

- If you remove a player from a flow, any notes you have already input for that player in that flow are deleted.
- Removing a flow from a layout automatically removes that layout from the flow, and vice versa. The same is true for players and layouts, and players and flows.

---

When you select a card in one of the panels in Setup mode, each card in the other panels shows a checkbox. Connected cards appear highlighted and have activated checkboxes, while unconnected cards are not highlighted and have deactivated checkboxes. For example, if you select a player card in the **Players** panel, all the flows to which the player is assigned are

highlighted and activated in the **Flows** panel, and all layouts to which the player is assigned are highlighted and activated in the **Layouts** panel.



A piano player selected in the **Players** panel with connected flows and layouts highlighted in the **Flows** and **Layouts** panels

---

#### EXAMPLE

A work for string quartet and choir is divided into three movements. The string quartet is tacet for the third movement, which the choir sings a cappella.

The Dorico project contains three flows (one for each movement), four single players for the string quartet, four section players for the choir, and another single player for a piano reduction. It uses the following layouts to produce the required performance materials:

- Four instrumental part layouts, one for each string quartet player. Each part layout contains all three flows but because the string players are not assigned to the third flow, automatic tacets are shown for it.
  - One full score layout containing all three flows, the string quartet players, and the choir players but omitting the piano reduction player.
  - One custom score layout for the vocal score. It contains all three flows, the choir players, and the piano reduction player.
- 

#### RELATED LINKS

[Project window in Setup mode](#) on page 106

[Project Info dialog](#) on page 75

[Flows](#) on page 162

[Layouts](#) on page 165

[Assigning flows to layouts](#) on page 168

[Assigning players to layouts](#) on page 167

[Assigning players to flows](#) on page 164

[File import and export](#) on page 78

[Tacets](#) on page 592

[Flow headings](#) on page 603

[Condensing](#) on page 595

## Players

In Dorico Elements, a player can represent an individual musician or multiple musicians in the same section. Players hold instruments, so you must add at least one player to your project before you can add instruments.

In Dorico Elements, there are the following types of players:

### Single player

Represents an individual person who can play one or more instruments. For example, a clarinettist who doubles on alto saxophone or a percussionist who plays bass drum, clash cymbals, and triangle.

### Section player

Represents multiple people who all play the same instrument. For example, a violin section player might represent all eight desks of the Violin I section in an orchestra, or a soprano section player might represent the whole soprano section in a mixed voice choir.

#### NOTE

Section players can only hold one instrument.

---

You can designate both single and section players as soloists, such as in a concerto for solo violin and orchestra.

When you add a player in Dorico Elements, the following happens automatically:

- A part layout is created and the new player is assigned to it.
- The player is added to any full score layouts that already exist. If no full score layouts exist, a new full score layout is created.
- The player is assigned to all existing flows that originated in the project. It is not added to any flows that you imported into the project.

#### NOTE

In Dorico Elements, the maximum number of players you can have in a single project is 24. If you open a project that contains more than 24 players, it opens in read-only mode.

---

#### RELATED LINKS

- [Read-only mode](#) on page 105
- [Players, layouts, and flows](#) on page 118
- [Flows](#) on page 162
- [Layouts](#) on page 165
- [Instruments](#) on page 127
- [Adding players](#) on page 121
- [Adding ensembles](#) on page 126
- [Designating players as soloists](#) on page 124
- [Changing the default player order](#) on page 123
- [Setting custom player orders](#) on page 123
- [Player, layout, and instrument names](#) on page 172
- [Staff labels](#) on page 1180
- [Showing instrument/player names in staff labels](#) on page 1184
- [Brackets according to ensemble type](#) on page 778
- [Instrument numbering](#) on page 129
- [Instrument changes](#) on page 130

## Adding players





You can add both single and section players to your project. Single players can hold multiple instruments, while section players can only hold one instrument.

### NOTE

In Dorico Elements, the maximum number of players you can have in a single project is 24.

---

### PROCEDURE

1. In Setup mode, add an empty-handed player and open the instrument picker in any of the following ways:
  - To add a single player, press **Shift-P**.
  - To add a section player, press **Shift-Alt/Opt-P**.
  - In the **Players** panel, click **Add Single Player** .
  - In the **Players** panel, click **Add Section Player** .
  - In an empty project, click **Add Single Player**  in the project start area.
  - In an empty project, click **Add Section Player**  in the project start area.

### TIP

You can also open the instrument picker by selecting an existing empty-handed or single player in the **Players** panel and pressing **Shift-I**.

---

2. Select the instrument you want in the instrument picker.
  3. Press **Return** to add the selected instrument.
- 

### RESULT

The single/section player is added and is automatically named after the selected instrument. The player's order in the **Players** panel depends on your current player sorting setting.

The player is assigned to its own new part layout, all full score layouts, and all flows that originated in the project.

Dorico Elements automatically loads sounds for the instrument according to the current playback template.

### NOTE

- Players are not automatically added to flows that you imported into the project.
  - If you want to add multiple instruments to your project at the same time, you can add ensembles or use a project template.
- 

### AFTER COMPLETING THIS TASK

- If you added a single player and you want them to hold multiple instruments, you can add other instruments to the single player.
- You can designate the player as a soloist.
- You can change the default order of players in all layouts and set custom player orders in each layout independently.

### RELATED LINKS

[Players panel](#) on page 107

[Instrument picker](#) on page 109  
[Players, layouts, and flows](#) on page 118  
[Player, layout, and instrument names](#) on page 172  
[Staff labels](#) on page 1180  
[Showing instrument/player names in staff labels](#) on page 1184  
[Instrument numbering](#) on page 129  
[Designating players as soloists](#) on page 124  
[Changing the default player order](#) on page 123  
[Adding instruments to players](#) on page 133  
[Adding ensembles](#) on page 126  
[Changing the language for instrument names](#) on page 57  
[Renaming players](#) on page 173  
[Changing instrument names](#) on page 175  
[Layouts](#) on page 165  
[Project start area](#) on page 35  
[Project templates](#) on page 78  
[Playback templates](#) on page 518  
[File import and export](#) on page 78

## Duplicating players


You can duplicate existing players. This adds another player of the same type holding the same instruments as the original.

### NOTE

In Dorico Elements, the maximum number of players you can have in a single project is 24.

---

### PROCEDURE

1. In Setup mode, in the **Players** panel, select the player you want to duplicate.
  2. In the action bar, click **Player Settings**  and choose **Duplicate Player**.
- 

### RESULT

A new player is added, with the same instruments as the original player and is named after those instruments. By default, the player appears below the original player in the **Players** panel. The original and new players are automatically numbered to ensure their names are unique.

The new player is assigned to its own new part layout, all full score layouts, and all flows that originated in the project.

### NOTE

- Any existing music belonging to the original player is not duplicated.
  - You can also duplicate players by right-clicking them in the **Players** panel and choosing **Duplicate Player** from the context menu.
- 

### RELATED LINKS

[Players panel](#) on page 107  
[Renaming players](#) on page 173  
[Players, layouts, and flows](#) on page 118  
[Arranging tools](#) on page 431  
[Copying and pasting notes/items](#) on page 433  
[Setting custom player orders](#) on page 123

[Duplicating flows](#) on page 163

## Changing the default player order

You can change the default order in which players' staves appear in all layouts; for example, if your project requires an unconventional instrument order.

---

### PROCEDURE


1. In Setup mode, in the **Players** panel, select the players whose default position you want to change.
2. Click and drag the selected players upwards/downwards.  
An insertion line indicates where the players will be positioned.


---

### RESULT

The default player order is changed. This does not change the player order in layouts with custom player orders.

### TIP

You can also automatically sort players according to their type by clicking **Sort Players**  in the **Players** panel.

You can click and hold or right-click **Sort Players**  to change the setting to one of the following options:

- **None**
- **Orchestral**
- **Band**

We recommend changing the setting to **None** when using an unconventional default player order.

---

### RELATED LINKS

[Players panel](#) on page 107

[Adding players](#) on page 121

## Setting custom player orders

You can change the order in which players' staves appear in each layout independently; for example, if you want to have a different player order in a custom score layout than the default player order for your other layouts, as set by the order of players in the **Players** panel.

---

### PROCEDURE

1. Press **Ctrl/Cmd-Shift-L** to open **Layout Options**.
2. In the **Layouts** list, select the layout in which you want to set a custom player order.

### NOTE

You can only set custom player orders in one layout at a time. By default, the layout currently open in the music area is selected when you open the dialog.

- 
3. In the category list, click **Players**.
  4. In the **Players** section, activate **Uses custom player order**.



5. In the list, select a player whose position you want to change.
  6. Change its position relative to other players in one of the following ways:
    - Click **Move up**.
    - Click **Move down**.
  7. Optional: Repeat steps 5 to 6 for other players in the selected layout whose position you want to change.
  8. Click **Apply**, then **Close**.
- 

#### RESULT

The player order in the selected layout is changed. This overrides the default player order. Any subsequent changes you make to the default player order in the **Players** panel are not reflected in layouts with custom player orders.

#### RELATED LINKS

[Layouts](#) on page 165

[Layout Options dialog](#) on page 677

## Designating players as soloists


You can designate both single and section players as soloists, such as in a concerto for solo violin and orchestra. You can have multiple soloists in a single project.

#### PREREQUISITE

You have added the players you want to designate as soloists.

---

#### PROCEDURE

1. In Setup mode, in the **Players** panel, select the player you want to designate as a soloist.
  2. In the action bar, click **Player Settings**  and choose **Soloist**.
- 

#### RESULT

The selected player is designated as a soloist.

Instruments held by players designated as soloists are not automatically numbered. Provided they have default instrument names, they are automatically given the prefix “Solo” as appropriate for the current instrument language setting, which appears in staff labels.

Soloists are automatically positioned in the conventional score position; that is, above the strings, and are bracketed separately from other players.

Choosing **Soloist** again, so that no tick appears beside it in the menu, returns soloists to being a normal player of their type.

#### TIP

You can also designate players as soloists by right-clicking them in the **Players** panel and choosing **Soloist** from the context menu.

---

#### RELATED LINKS

[Players panel](#) on page 107

[Adding players](#) on page 121

[Instrument numbering](#) on page 129

[Brackets according to ensemble type](#) on page 778

[Changing the default player order](#) on page 123

[Changing the language for instrument names](#) on page 57

[Staff labels](#) on page 1180

[Staff label contents](#) on page 1184

## Deleting players


You can delete players from your project, which also deletes all instruments held by those players.

### IMPORTANT

Deleting instruments permanently deletes any music that you have input on their staves.

---

### PROCEDURE

1. In Setup mode, in the **Players** panel, select the players that you want to delete.
2. Delete the selected players in any of the following ways:
  - Press **Backspace or Delete**.
  - In the **Players** panel, click **Delete Player** .
3. Choose one of the following options in the warning message that appears:
  - **Delete Player Only:** Deletes the player and the music that you created for the instruments belonging to that player.
  - **Delete Player and Part Layouts:** Deletes the player, the music, and all part layouts to which the player is assigned.

### NOTE

The part layout cannot be deleted if it also contains other players.

---

### RELATED LINKS

[Players panel](#) on page 107

[Deleting instruments](#) on page 137

[Deleting layouts](#) on page 171

[Restoring default layouts](#) on page 171

## Ensembles

Ensembles are sets of multiple players that are commonly used together, such as a double woodwind section that contains two flutes, two oboes, two clarinets, and two bassoons. Dorico Elements provides predefined ensembles, but you can also build custom ensembles.

Ensembles can contain single and/or section players, depending on the ensemble. For example, woodwind ensembles contain single players whereas string ensembles contain section players.

You can use ensembles to add multiple players to your project simultaneously and build up the instrumentation quickly.

### NOTE

In Dorico Elements, the maximum number of players you can have in a single project is 24. If you open a project that contains more than 24 players, it opens in read-only mode.

---

#### RELATED LINKS

- [Players](#) on page 120
- [Ensemble picker](#) on page 111
- [Save Custom Ensemble dialog](#) on page 114
- [Project templates](#) on page 78

## Adding ensembles



You can add multiple players simultaneously by adding ensembles, such as a complete string section or four-part choir. You can select existing ensembles and build new ones.

#### NOTE

In Dorico Elements, the maximum number of players you can have in a single project is 24. Only ensembles containing 24 or fewer players are available.

---

#### PROCEDURE

1. In Setup mode, open the ensemble picker in any of the following ways:
    - Press **Shift-E**.
    - In the **Players** panel, click **Add Ensemble** .
    - In an empty project, click **Add Ensemble**  in the project start area.
  2. Select or build the ensemble you want in the ensemble picker.
  3. Optional: If you built a new ensemble that you want to reuse in future projects, click **Save** to open the **Save Custom Ensemble** dialog and save your ensemble.
  4. Click **Add**.
- 

#### RESULT

The players in the selected ensemble are added to the **Players** panel, as either single or section players depending on the ensemble type. They are assigned to all flows that originated in the project.

#### TIP

You can use project templates to start projects with multiple players.

---

#### RELATED LINKS



- [Players panel](#) on page 107
- [Ensemble picker](#) on page 111
- [Save Custom Ensemble dialog](#) on page 114
- [Changing the language for instrument names](#) on page 57
- [Renaming players](#) on page 173
- [Project start area](#) on page 35
- [Starting new projects](#) on page 71
- [Project templates](#) on page 78
- [Opening projects/files](#) on page 72
- [Players, layouts, and flows](#) on page 118
- [File import and export](#) on page 78
- [Key Commands page in the Preferences dialog](#) on page 59

## Building and saving custom ensembles

You can build custom ensembles in the ensemble picker and save them for reuse in future projects; for example, if you frequently write music for an ensemble with unusual instrumentation.



---

### PROCEDURE

1. In Setup mode, open the ensemble picker in any of the following ways:
  - Press **Shift-E**.
  - In the **Players** panel, click **Add Ensemble** .
  - In an empty project, click **Add Ensemble**  in the project start area.
2. Click **Build** to switch to the **Build** tab.
3. Enter the instruments you want into the **Search** field.  
For example, enter **2 vln, 3 cl,bsn,tuba,marim** to build an ensemble containing two violins, three clarinets, a bassoon, a tuba, and a marimba.

### TIP

You can also use orchestral shorthand to specify instruments.

- 
4. Optional: To confirm the instruments identified by your current entry and clear the **Search** field, press **Tab**.
  5. Optional: To change the player type, double-click players in the list.  
The icons for each player show whether they are single players  or section players .
  6. Click **Save** to open the **Save Custom Ensemble** dialog.
  7. Select an ensemble category from the **Category** menu.
  8. Enter a name for your ensemble in the **Name** field.
  9. Click **Save** to save your ensemble and close the **Save Custom Ensemble** dialog.
  10. Optional: Click **Add** to add the ensemble to the project and close the ensemble picker.

---

### RESULT

Your ensemble is saved, allowing you to add it to future projects. If you clicked **Add** in the ensemble picker, the players in the ensemble are added to the project.

### RELATED LINKS

- [Ensemble picker](#) on page 111
- [Save Custom Ensemble dialog](#) on page 114
- [Players](#) on page 120
- [Adding players](#) on page 121

## Instruments

In Dorico Elements, an instrument is an individual musical instrument, such as a piano, a flute, or a violin. Human voices, such as soprano or tenor, are also considered instruments.

In Dorico Elements, instruments are held by players, just as real instruments are held by human players. Section players can only hold one instrument but single players can hold multiple instruments, which allows you to handle instrument changes easily, such as when an oboist doubling the cor anglais switches from one instrument to the other.

This means that before you can add instruments to a project, you must first add players or ensembles, which may in turn also be assigned to groups if needed. If you add ensembles, the appropriate instruments for the ensemble are automatically added to the players.

Each instrument automatically gets its own staff, but when instrument changes are allowed, the music for multiple instruments held by the same single player can appear on the same staff as long as no notes overlap. By default, Dorico Elements allows instrument changes in all layouts and automatically shows instrument change labels. This means that only the top instrument held by players is shown automatically in the music area. You can see staves for all instruments in galley view, and you can allow/disallow instrument changes in each layout independently. You can also hide/show empty staves in each layout independently.

Instruments in Dorico Elements do not have limited ranges; it is possible to notate any pitch in any register on every instrument. However, in the piano roll editor, only pitches that fall in the MIDI note range 0-127 can be represented. Similarly, if you input a pitch beyond the range of samples in the assigned VST instrument, the pitch does not sound in playback.

There are multiple versions of some instruments that have specific formatting and tuning requirements, such as French Horn, which has a version whose part layouts are always in treble clef.

You can change instruments at any time, add/delete them from players, and move them between players. You can also change the language for instrument names; for example, to recreate a French score.

#### RELATED LINKS

[Players](#) on page 120

[Piano roll editor](#) on page 630

[Track Inspector](#) on page 488

[Unpitched percussion](#) on page 1282

[Instrument picker](#) on page 109

[Inputting notes](#) on page 211

[Adding players](#) on page 121

[Adding instruments to players](#) on page 133

[Player, layout, and instrument names](#) on page 172

[Changing the language for instrument names](#) on page 57

[Staff labels](#) on page 1180

[Brackets according to ensemble type](#) on page 778

[Changing the open pitches of fretted instrument strings](#) on page 140

[Changing instruments](#) on page 136

[Moving instruments](#) on page 137

[Designating players as soloists](#) on page 124

[Changing the default player order](#) on page 123

[Deleting instruments](#) on page 137

[Switching to galley/page view](#) on page 50

[Allowing/Disallowing instrument changes](#) on page 130

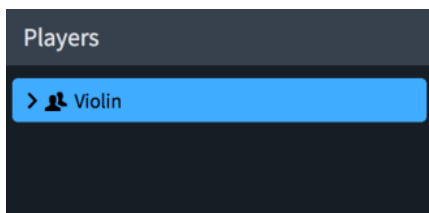
[Hiding/Showing empty staves](#) on page 562

[Edit Percussion Kit dialog](#) on page 150

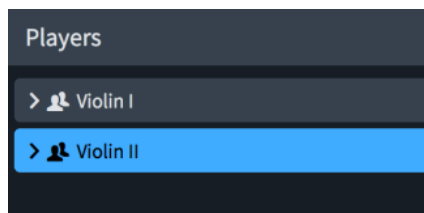
## Instrument numbering

It is customary to number instruments when there is more than one in a piece so that they can be easily identified, such as Horn 1 and Horn 2. Dorico Elements automatically numbers instruments where there are multiple instruments of the same type in the same project.

For example, if there is only one flute in a project, it is called Flute, but if there are three flutes, they are automatically called Flute 1, Flute 2, and Flute 3.



One violin with no number



Adding a second violin automatically generates numbers for both violins

Instrument numbering applies to individual instruments, rather than players. For example, if an ensemble contains two flute players and a piccolo player, but the second flute is also holding a piccolo, then the instruments are numbered in the following way:

- Flute 1
- Flute 2 & Piccolo 1
- Piccolo 2

### TIP

You can move individual instruments to different players if you want to change which numbered instruments are held by each player. For example, if you want the second flute to double second piccolo rather than first piccolo, you can swap the piccolo instruments between the players.

Dorico Elements automatically generates instrument numbers for players if the following criteria are met:

- The project contains multiple instruments with identical instrument names.
- The instruments have the same transposition.
- The players holding them are the same type, either single or section.
- The players are in the same group.

For example, if you have two flutes in your project, but one flute is a section player and the other flute is a single player, they are not numbered automatically. Similarly, if the two flutes are in different player groups, they are not numbered automatically.

### NOTE

Instruments held by players designated as soloists are not automatically numbered.

### RELATED LINKS

[Player, layout, and instrument names](#) on page 172

[Changing instrument names](#) on page 175

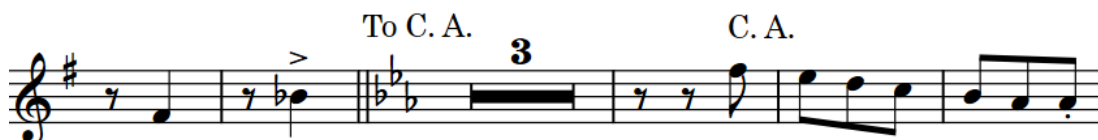
[Player groups](#) on page 158

[Instrument transpositions in staff labels](#) on page 1185

[Moving instruments](#) on page 137  
[Designating players as soloists](#) on page 124  
[Staff label contents](#) on page 1184  
[Transposing instruments](#) on page 133

## Instrument changes

Instrument changes are when a player holding multiple instruments switches from playing one instrument to a different instrument. They are usually indicated in full scores and parts with text indications both after the last note before the change and at the first note after the change.



An instrument change from Oboe to Cor Anglais

Dorico Elements handles instrument changes automatically, including showing the appropriate instrument change labels, when the following criteria are met:

- You have added a single player holding at least two instruments.
- You have input notes on at least two instrument staves held by the single player, such as inputting oboe notes on the Oboe staff and cor anglais notes on the Cor Anglais staff.
- Notes for different instruments held by the same single player do not overlap.
- Instrument changes are allowed in the layout.

You can see staves for all instruments in galley view, and you can allow/disallow instrument changes in each layout independently.

Instrument change labels use the appropriate prefix for the current instrument name language setting.

### RELATED LINKS

[Allowing/Disallowing instrument changes](#) on page 130  
[Adding players](#) on page 121  
[Adding instruments to players](#) on page 133  
[Switching to galley/page view](#) on page 50  
[Inputting notes](#) on page 211  
[Hiding/Showing instrument change labels at the start of flows](#) on page 1187  
[Changing the language for instrument names](#) on page 57  
[Changing instruments](#) on page 136

## Allowing/Disallowing instrument changes

You can allow/disallow instrument changes in each layout independently; for example, if you want to show multiple percussion instruments on as few staves as possible in the score, but on separate staves for each percussion instrument in the percussion part.

Disallowing instrument changes shows all instrument staves in the selected layouts, including multiple instruments held by one single player.

### TIP

If you want to input notes for other instruments held by single players but keep instrument changes in the layout, you can switch to galley view to see all staves in the project.

---

#### PROCEDURE

1. Press **Ctrl/Cmd-Shift-L** to open **Layout Options**.
  2. In the **Layouts** list, select the layouts in which you want to allow/disallow instrument changes.  
By default, the layout currently open in the music area is selected when you open the dialog. You can select other layouts by using the selection options in the action bar, clicking and dragging across multiple layouts, **Shift**-clicking adjacent layouts, and **Ctrl/Cmd**-clicking individual layouts.
  3. In the category list, click **Players**.
  4. In the **Instrument Changes** section, activate/deactivate **Allow instrument changes**.
  5. Click **Apply**, then **Close**.
- 

#### RESULT

Instrument changes are allowed in the selected layouts when **Allow instrument changes** is activated, and disallowed when it is deactivated.

#### NOTE

Multiple instruments can only appear on the same staff with an instrument change if none of their notes overlap. If any of their notes do overlap, multiple staves are shown.

---

#### RELATED LINKS

[Instruments](#) on page 127

[Inputting notes](#) on page 211

[Hiding/Showing empty staves](#) on page 562

[Hiding/Showing instrument change labels at the start of flows](#) on page 1187

[Changing instruments](#) on page 136

## Editing the default instrument change label text

You can change the default instrument change label prefix and whether instrument change labels show full or short instrument names by default in each layout independently; for example, if you want to show full instrument names in part layouts but short instrument names in full score layouts.

---

#### PROCEDURE

1. Press **Ctrl/Cmd-Shift-L** to open **Layout Options**.
2. In the **Layouts** list, select the layouts in which you want to change the default content in instrument change labels.  
By default, the layout currently open in the music area is selected when you open the dialog. You can select other layouts by using the selection options in the action bar, clicking and dragging across multiple layouts, **Shift**-clicking adjacent layouts, and **Ctrl/Cmd**-clicking individual layouts.
3. In the category list, click **Players**.
4. In the **Instrument Changes** section, choose one of the following options for **Instrument names to use in change labels**:
  - **Full Names**
  - **Short Names**
5. Choose one of the following options for **Prefix for instrument change warnings**:



- **To**
- **Take**
- **Custom**

#### NOTE

**To** and **Take** prefixes appear as appropriate for the current instrument name language setting.

---

6. Optional: If you chose **Custom**, enter the text you want in the following fields, individually or together:
    - **Custom prefix**
    - **Custom suffix**
  7. Click **Apply**, then **Close**.
- 

#### RESULT

The length of instrument names and prefixes/suffixes in all instrument change labels in the selected layouts is changed.

#### RELATED LINKS

[Hiding/Showing instrument change labels at the start of flows](#) on page 1187


[Changing the language for instrument names](#) on page 57

[Staff labels](#) on page 1180

## Editing instrument change label text individually

You can override the text shown in instrument change labels individually; for example, if you want to show the full instrument name in the first instrument change label in the flow.

#### PREREQUISITE

- The lower zone is shown.
  - **Properties**  is selected in the lower zone toolbar.
- 

#### PROCEDURE

1. In Engrave mode, select the instrument change labels whose text you want to edit.
  2. In the Properties panel, activate **Custom text** in the **Instrument Changes** group.
  3. Enter the text you want to appear in the instrument change labels into the value field.
  4. Press **Return**.
  5. Optional: Activate/Deactivate **Hide prefix**.
- 

#### RESULT

The selected instrument change labels are changed to show the text you entered. If you activated **Hide prefix**, the prefix is hidden.

Deactivating **Custom text** returns the corresponding instrument change labels to their default text.

#### NOTE

- Deactivating properties permanently deletes any custom text entered.

- You can change the default instrument change label prefix and whether instrument change labels show full or short instrument names by default in each layout independently.
- 

RELATED LINKS

[Changing the language for instrument names](#) on page 57

## Transposing instruments

While most instruments produce notes at concert pitch, transposing instruments produce a note that is different to the one that is written. For example, two common orchestral transposing instruments are clarinet in B $\flat$  and horn in F.

When a clarinet in B $\flat$  plays a C, the sound produced is a B $\flat$ , one whole step (tone) below. When a horn in F plays a C, the sound produced is an F, a fifth below. Other instruments that conventionally produce a pitch different to the one notated include the piccolo (sounding an octave above written), double bass (sounding an octave below written), and glockenspiel (sounding two octaves above written).

Dorico Elements stores all note information in concert pitch and automatically transposes notes as appropriate for the transposition of the instrument. This means notes, key signatures, and chord symbols are automatically changed in transposing layouts compared to non-transposing layouts. You can also change instruments at any time, and the music is adjusted automatically to ensure the correct pitches are shown.

You can also change the octave of individual clefs and whether Dorico Elements respects or ignores clef octave indicators in each flow independently.

RELATED LINKS

[Instrument picker](#) on page 109

[Instrument numbering](#) on page 129

[Instrument transpositions in staff labels](#) on page 1185

[Concert vs. transposed pitch](#) on page 170

[Making layouts transposing/concert pitch](#) on page 169

[Editing layout transposition text](#) on page 895

[Changing fretted instrument transpositions](#) on page 145

[Enharmonic equivalent key signatures](#) on page 915

[Changing instruments](#) on page 136

[Hiding/Showing clefs according to layout transpositions](#) on page 817

[Clefs with octave indicators](#) on page 820

[Fretted instrument tuning](#) on page 138

[Capos](#) on page 142

## Adding instruments to players

You can add instruments to both single and section players. Single players can hold multiple instruments, while section players can only hold one instrument.

PREREQUISITE

You have added at least one player.

---

PROCEDURE

1. In Setup mode, in the **Players** panel, select the player to which you want to add instruments.

#### NOTE

- You can only add instruments to one player at a time.
  - You cannot add instruments to section players who are already holding one instrument.
- 

2. Open the instrument picker in any of the following ways:
    - Press **Shift-I**.
    - Click the plus symbol **+** in the player card.
  3. Select the instrument you want in the instrument picker.
  4. Press **Return** to add the selected instrument.
- 

#### RESULT

The selected instrument is added to the selected player. Dorico Elements automatically loads sounds for the instrument according to the current playback template.

#### NOTE

- Before you have input any notes, only the first instrument held by single players is shown in full scores in page view. All instrument staves are shown in galley view, so we recommend switching to galley view to input notes for any other instruments held by single players; for example, to create instrument changes.
  - If you want to add multiple players to your project at the same time, you can add ensembles or use a project template.
- 

#### RELATED LINKS

- [Players](#) on page 120
- [Players panel](#) on page 107
- [Instrument picker](#) on page 109
- [Adding players](#) on page 121
- [Adding ensembles](#) on page 126
- [Designating players as soloists](#) on page 124
- [Starting new projects](#) on page 71
- [Switching to galley/page view](#) on page 50
- [Playback templates](#) on page 518
- [Instrument changes](#) on page 130
- [Player, layout, and instrument names](#) on page 172
- [Changing the language for instrument names](#) on page 57
- [Changing instrument names](#) on page 175

## Adding empty percussion kits to players

You can add empty percussion kits to players, to which you can then add unpitched percussion instruments.

#### NOTE

You cannot add percussion kits to section players that are already holding one instrument.

---

#### PREREQUISITE

You have added at least one player.

#### PROCEDURE

1. In Setup mode, in the **Players** panel, open the **Edit Percussion Kit** dialog in any of the following ways:
    - Select a player, press **Shift-I**, and click **Create Empty Kit** in the instrument picker.
    - Click the plus symbol **+** in a player card and click **Create Empty Kit** in the instrument picker.
    - Select a player, then click **Player Settings** **⋮** in the action bar and choose **Create Empty Kit**. You can also right-click players and choose this option from the context menu.
  2. Add the percussion instruments you want to the kit in the **Edit Percussion Kit** dialog.
- 

#### RELATED LINKS

- [Players panel](#) on page 107
- [Percussion kits vs. individual percussion instruments](#) on page 1288
- [Edit Percussion Kit dialog](#) on page 150
- [Instrument picker](#) on page 109
- [Percussion kit presentation types](#) on page 1293
- [Changing the language for instrument names](#) on page 57

## Combining individual percussion instruments into kits

If a player is holding one or more individual percussion instruments, you can combine them into a percussion kit.

---

#### PROCEDURE

1. In Setup mode, in the **Players** panel, select the player whose percussion instruments you want to combine into a kit.
2. In the action bar, click **Player Settings** **⋮** and choose **Combine Instruments into Kit** to open the **Edit Percussion Kit** dialog.

#### TIP

You can also right-click players and choose this option from the context menu.

---

3. Edit the new percussion kit.  
For example, you can change the order in which the instruments appear in a grid or on a five-line staff.
- 

#### RESULT

A new kit is created containing all the instruments held by the player.

#### NOTE

If the player was already holding one or more kit instruments, all individual instruments and any other kits are combined into the first kit.

---

## Changing instruments

You can change the type of instruments without affecting any music already entered onto their staves; for example, if your Clarinet part is very low and you want to change it to a Bass Clarinet, or you want to change the tuning of a guitar.

### NOTE

- You cannot change percussion kits into other instruments, you can only change individual unpitched percussion instruments.
- You cannot change a pitched instrument into an unpitched instrument, and vice versa.
- These steps describe changing the instrument type, not an instrument change where a performer switches from one instrument to another partway through a flow.


---

### PROCEDURE

1. In Setup mode, in the **Players** panel, expand the card of the player whose instrument you want to change.

The card lists the instruments held by the player.



2. In the instrument label, click the instrument menu  and choose **Change Instrument** to open the instrument picker.
3. Select the instrument you want in the instrument picker.
4. Press **Return** to change to the selected instrument.

---

### RESULT

The selected instrument is changed without affecting any music on its staff.

Where appropriate, different clefs are used by default. This means that notes can appear differently so that they are notated correctly according to the new clef.

### AFTER COMPLETING THIS TASK

You can change the player order; for example, if the new instrument requires a different position according to orchestral convention.

### RELATED LINKS

[Players panel](#) on page 107

[Instrument picker](#) on page 109

[Fretted instrument tuning](#) on page 138

[Transposing instruments](#) on page 133

[Edit Strings and Tuning dialog](#) on page 138

[Instrument changes](#) on page 130

[Changing the language for instrument names](#) on page 57

[Hiding/Showing instrument transpositions in staff labels](#) on page 1185

[Changing the default player order](#) on page 123

## Moving instruments

You can move individual instruments without affecting any music already input for those instruments. You can move instruments between players, or to a different position in the instrument list for a single player; for example, if you want to change the order of staves in the score.


Changing the order of instruments held by a single player also affects its player name, if you have not already renamed the player.

### PREREQUISITE

You have added the players to which you want to move instruments.

---

### PROCEDURE

1. In Setup mode, in the **Players** panel, expand the cards of the players holding the instruments you want to move.
  2. Move instruments in any of the following ways:
    - To change the order of instruments for a single player, click and drag a single instrument to the required position, then release the mouse.
    - To move instruments to another player, click and drag a single instrument to the required player card, then release the mouse.
    - To move instruments to another player, click the instrument menu  in the instrument label and choose **Move Instrument to Player** > **[Player]**.
- 

### RELATED LINKS

- [Players panel](#) on page 107
- [Adding players](#) on page 121
- [Changing the default player order](#) on page 123
- [Renaming players](#) on page 173
- [Resetting player names](#) on page 174

## Deleting instruments


You can delete individual instruments without deleting the player holding them or other instruments held by the same player.

### IMPORTANT

Deleting instruments permanently deletes any music that you have input on their staves.

---

### PROCEDURE

1. In Setup mode, in the **Players** panel, expand the card of the player holding the instrument you want to delete.
  2. In the instrument label, click the instrument menu  and choose **Delete Instrument**.
  3. Click **OK**.
- 

### RESULT

The instrument is deleted from the player.

TIP

If you want to delete all instruments held by a single player, you can also delete the player.

---

RELATED LINKS

[Players panel](#) on page 107

[Deleting players](#) on page 125

## Fretted instrument tuning

Fretted instruments can have different numbers of strings and frets. In order to display tablature for fretted instruments in Dorico Elements, you must specify information about the tuning of fretted instruments.

Dorico Elements requires the following information to display tablature:

- The number of strings the instrument has
- The open pitch of each string
- The number of frets
- The fret number at which each string starts, such as for the fifth string on a banjo
- The pitch intervals between frets
- The fret number of the capo, if applicable

When you add a fretted instrument or change an existing instrument, any available tunings for that instrument are shown in the instrument picker.

You can also customize all aspects of fretted instruments in the **Edit Strings and Tuning** dialog, including adding capos.

RELATED LINKS


[Instrument picker](#) on page 109

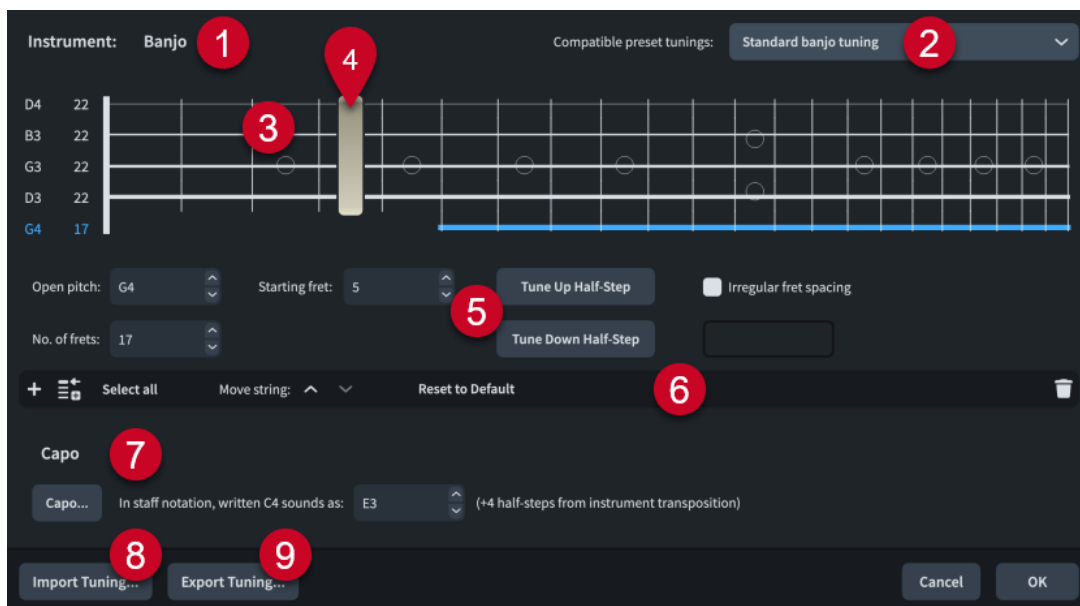
[Changing instruments](#) on page 136

[Capos](#) on page 142

## Edit Strings and Tuning dialog

The **Edit Strings and Tuning** dialog allows you to customize the tuning of individual fretted instruments by changing the number of strings and frets they have, the pitches of their open strings, and the spacing of their frets. It also allows you to add/remove capos and change the fretted instrument transposition.

- You can open the **Edit Strings and Tuning** dialog in Setup mode by expanding the card of the player holding the fretted instrument in the **Players** panel, then clicking the instrument menu  in its instrument label and choosing **Edit Strings and Tuning**.



The **Edit Strings and Tuning** dialog comprises the following:

**1 Instrument**

Displays the name of the selected fretted instrument.

**2 Compatible preset tunings**

Allows you to select preset fretted instrument tunings with the same number of strings as the selected fretted instrument. If your changes in the dialog match a preset tuning, it is automatically selected.

**3 String editor**

Allows you to select and edit individual or all strings of the fretted instrument. The arrangement of strings in the editor matches that of the real instrument. The pitch and total number of frets of each string is shown to the left of the vertical line that represents the nut.

You can navigate through strings by pressing **Up Arrow / Down Arrow**, and to top/bottom strings by pressing Page Up/Page Down.

**4 Capo representation**

Indicates the fret position and extent of the capo added to the fretted instrument.

**5 Controls**

Allow you to edit individual or multiple strings. The following controls are available when at least one string is selected in the string editor:




- **Open pitch:** Allows you to set the open pitch of the string using the note name and octave, such as **C4** for middle C. If necessary, you can add **#** for sharp and **b** for flat.
- **No. of frets:** Allows you to set the number of frets for the selected strings.
- **Starting fret:** Allows you to set the number of the first fret on the selected strings. For example, the fifth string on the banjo starts at fret 5.
- **Tune Up Half-Step:** Allows you to raise the open pitch of the selected strings by a half-step (semitone).
- **Tune Down Half-Step:** Allows you to lower the open pitch of the selected strings by a half-step (semitone).
- **Irregular fret spacing:** Allows you to set non-chromatic fret arrangements for instruments with fretboards that correspond to other scales, such as the dulcimer. Enter



1 for a half-step and 2 for a whole step, with each step separated by a comma. For example, enter **2,2,1,2,2,2,1** to set the pattern for a major scale.

## 6 Action bar

Contains options that allow you to change the number and arrangement of strings.

- **Add String** : Adds a new string below the lowest currently selected string. The new string is a duplicate of the lowest currently selected string.
- **Add String at Top** : Adds a new string at the top of the fretboard. The new string is a duplicate of the previous top string.
- **Select all**: Selects all strings at once.
- **Move string buttons**: Allow you to move the currently selected strings up/down the fretboard.
- **Reset to Default**: Returns all strings and corresponding tunings to the factory default settings for the fretted instrument.
- **Delete String** : Deletes the selected strings.

## 7 Capo section

Contains options that allow you to change the capo and fretted instrument transposition.

- **Capo**: Opens the **Capo Definition** dialog, which allows you to add full and partial capos to fretted instruments.
- **In staff notation, written C4 sounds as**: Allows you to change the transposition of the selected fretted instrument. The pitch determines the spelling of notes and chord symbols for the corresponding number of half-steps.

## 8 Import Tuning

Opens the File Explorer/macOS Finder, where you can select the `.doricotuning` file that you want to import and apply to the fretted instrument.

## 9 Export Tuning

Opens the File Explorer/macOS Finder, where you can select the location to which you want to export the strings and tuning settings of the fretted instrument as a `.doricotuning` file. You can then import the `.doricotuning` file into other instruments/projects and share it with other users.

### RELATED LINKS

[Players panel](#) on page 107

[Chord diagrams](#) on page 805

[Tablature](#) on page 1200

[Fretted instrument tuning](#) on page 138


[Capos](#) on page 142

## Changing the open pitches of fretted instrument strings

You can change the open pitch of each fretted instrument string independently; for example, if your project requires an unconventional tuning that is not available as an instrument type in the instrument picker.

---

### PROCEDURE

1. In Setup mode, in the **Players** panel, expand the card of the player holding the fretted instrument whose open pitches you want to change.
2. In the instrument label, click the instrument menu  and choose **Edit Strings and Tuning** to open the **Edit Strings and Tuning** dialog.

3. Select the string whose open pitch you want to change.
  4. Change the **Open pitch** value; for example, to **G2**.
  5. Optional: Repeat steps 3 and 4 to change the open pitch of other strings.
  6. Click **OK** to save your changes and close the dialog.
- 

#### RESULT

The open pitches of the selected strings are changed. This affects the tuning of the instrument and the pitch of all fret positions on those strings.

The new tuning becomes available for chord diagrams.

#### RELATED LINKS

[Players panel](#) on page 107

[Chord diagrams](#) on page 805


[Hiding/Showing chord diagrams](#) on page 806

## Importing fretted instrument tunings

You can import custom fretted instrument tunings that you have already created and apply them to instruments. This allows you to reuse tunings without having to create them from scratch.

---

#### PROCEDURE

1. In Setup mode, in the **Players** panel, expand the card of the player holding the fretted instrument to which you want to apply an imported tuning.
  2. In the instrument label, click the instrument menu  and choose **Edit Strings and Tuning** to open the **Edit Strings and Tuning** dialog.
  3. Click **Import Tuning** at the bottom of the dialog to open the File Explorer/macOS Finder.
  4. Locate and select the `.doricotuning` library file you want to import.
  5. Click **Open**.
- 

#### RESULT


The selected `.doricotuning` file is applied to the fretted instrument. The imported tuning becomes available for chord diagrams.

## Exporting fretted instrument tunings

You can export fretted instrument tunings so you can reuse them for other instruments and in other projects. Fretted instrument tunings are exported as `.doricotuning` library files.

---

#### PROCEDURE

1. In Setup mode, in the **Players** panel, expand the card of the player holding the fretted instrument whose tuning you want to export.
  2. In the instrument label, click the instrument menu  and choose **Edit Strings and Tuning** to open the **Edit Strings and Tuning** dialog.
  3. Click **Export Tuning** at the bottom of the dialog to open the File Explorer/macOS Finder.
  4. In the File Explorer/macOS Finder, specify a name and location for the library file.
  5. Click **Save**.
-

#### RESULT

The tuning of the selected fretted instrument is exported and saved as a .doricotuning library file.

#### AFTER COMPLETING THIS TASK

You can import the library file into other projects to reuse the fretted instrument tuning.

## Capos

Capos are devices that performers clamp onto the necks of fretted instruments to depress strings at a single fret position. This raises the sounding pitch of open strings affected by the capo, allowing performers to use the same fingerings and chord shapes but produce higher pitches.

In Dorico Elements, you can allow capos to affect your notated music in the following ways, independently of each other:

- You can change the pitches shown on tablature by adding capos to fretted instruments. Dorico Elements treats capos as fret 0 for fret numbers on tablature. Capos added to individual fretted instruments appear at the corresponding fret position and crossing the specified strings in the **Edit Strings and Tuning** dialog and in the Fretboard panel.
- You can change fretted instrument transpositions to reflect capos or detuned fretted instruments, and optionally allow fretted instrument transpositions to affect pitches on notation staves and in main chord symbols.
- You can define capos for chord symbols/diagrams in the music and/or used chord diagrams grids, and show only main chords, only capo chords, or both.

For example, you can show capo pitches on tablature but show sounding pitches on notation staves. You can also show both main and capo chords in chord symbols in layouts that do not contain a fretted instrument, such as when creating lead sheets in vocal part layouts.

#### RELATED LINKS

[Edit Strings and Tuning dialog](#) on page 138

[Fretboard panel](#) on page 199

[Chord symbols](#) on page 782

[Chord diagrams](#) on page 805

[Fretted instrument tuning](#) on page 138

[Defining capos for chord symbols/diagrams](#) on page 147

[Defining capos for used chord diagrams grids](#) on page 149

[Layouts](#) on page 165

[Making layouts transposing/concert pitch](#) on page 169

[Assigning players to layouts](#) on page 167

## Capo vs. main chords

For the same chord symbol, Dorico Elements can show its original pitch only, its sounding pitch based on the defined capo only, or both with capo chords above or below main chords.

### Main chord

The original chord symbol you input. Its displayed pitches depend on whether the layout is transposing or concert pitch, and whether the layout uses fretted instrument transpositions for main chord symbols. For example, in the transposed pitch part layout for a trumpet in B $\flat$ , a C7 chord symbol appears as D7.

### Capo chord

The chord that the fretted instrument must play in order to produce the desired main chord, according to the fret position of the capo. For example, if a guitarist with a capo on the second fret plays Gm7, the chord that sounds is Am7.

By default, capo chords appear in italics when shown alongside main chords.

#### TIP

You can choose to show capo chords in parentheses instead and change the vertical gap between capo and main chord symbols in the **Capo** section of the **Chord Symbols Options** dialog.

---

#### RELATED LINKS

[Concert vs. transposed pitch](#) on page 170

[Changing fretted instrument transpositions](#) on page 145

[Hiding/Showing capo chord symbols](#) on page 147

[Hiding/Showing capo chord symbols in used chord diagrams grids](#) on page 150

[Respelling chord symbols](#) on page 794

[Chord symbol appearance presets](#) on page 783

## Adding capos to fretted instruments


You can add capos to individual fretted instruments. This affects the pitches shown on tablature for the corresponding instruments, as Dorico Elements treats capos as fret 0. For example, if each flow in a project for guitar requires a capo at a different fret, you might add multiple players, each holding a guitar instrument with the required capo.

#### NOTE

These steps do not affect pitches on notation staves, chord symbols/diagrams in the music, or used chord diagram grids.

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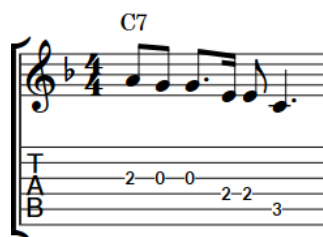
#### PROCEDURE

1. In Setup mode, in the **Players** panel, expand the card of the player holding the fretted instrument to which you want to add a capo.
  2. In the instrument label, click the instrument menu  and choose **Edit Strings and Tuning** to open the **Edit Strings and Tuning** dialog.
  3. In the **Capo** section, click **Capo** to open the **Capo Definition** dialog.
  4. Choose one of the following options for **Capo**:
    - **Full Capo**
    - **Partial Capo**
  5. Change the fret position of the capo by changing the value for **Fret**.
  6. Optional: If you chose **Partial Capo**, change the strings across which the capo extends.
  7. Click **OK** to save your changes and close the **Capo Definition** dialog.
  8. Click **OK** to save your changes and close the **Edit Strings and Tuning** dialog.
- 

#### RESULT

A capo is added to the selected instrument according to your settings. The capo appears at the corresponding fret position and crossing the specified strings in the **Edit Strings and Tuning** dialog and in the Fretboard panel for the selected instrument.

EXAMPLE



No capo



Capo added to the third fret

RELATED LINKS

[Players panel](#) on page 107

[Edit Strings and Tuning dialog](#) on page 138

[Fretboard panel](#) on page 199

[Changing fretted instrument transpositions](#) on page 145

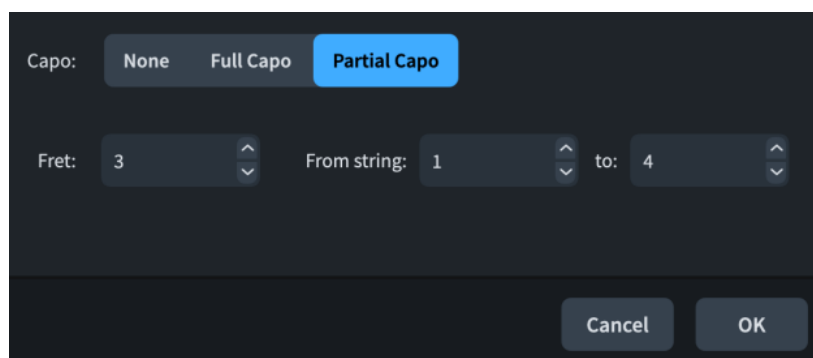
[Defining capos for chord symbols/diagrams](#) on page 147

[Defining capos for used chord diagrams grids](#) on page 149

## Capo Definition dialog

The **Capo Definition** dialog allows you to add full and partial capos to fretted instruments.

- You can open the **Capo Definition** dialog from inside the **Edit Strings and Tuning** dialog by clicking **Capo** in the **Capo** section.



The **Capo Definition** dialog contains the following options:

### Capo

Allows you to choose one of the following capo types:

- None**
- Full Capo**
- Partial Capo**

### Fret

Allows you to change the fret position of the capo.

### From string [n] to [n]


Allows you to set the first and last strings across which the capo extends. Only available when **Partial Capo** is chosen for **Capo**.

## Removing capos from fretted instruments

You can remove capos from individual fretted instruments. This affects the pitches shown on tablature for the corresponding instruments.

---

### PROCEDURE

1. In Setup mode, in the **Players** panel, expand the card of the player holding the fretted instrument whose capo you want to remove.
  2. In the instrument label, click the instrument menu  and choose **Edit Strings and Tuning** to open the **Edit Strings and Tuning** dialog.
  3. In the **Capo** section, click **Capo** to open the **Capo Definition** dialog.
  4. Choose **None** for **Capo**.
  5. Click **OK** to save your changes and close the **Capo Definition** dialog.
  6. Click **OK** to save your changes and close the **Edit Strings and Tuning** dialog.
- 


## Changing fretted instrument transpositions

You can change the transposition of individual fretted instruments; for example, to reflect capos added to them, or for a fretted instrument whose strings have all been detuned. This can affect the pitches shown on notation staves and in main chord symbols in the music, depending on your per-layout setting for using fretted instrument transpositions.

### NOTE

- You can find different tunings for each fretted instrument in the instrument picker.
  - You can also change the open pitch of individual fretted instrument strings.
  - Fretted instrument transpositions do not affect pitches shown on tablature, which use the instrument's capo, or used chord diagram grids.
- 

### PROCEDURE

1. In Setup mode, in the **Players** panel, expand the card of the player holding the fretted instrument whose transposition you want to change.
  2. In the instrument label, click the instrument menu  and choose **Edit Strings and Tuning** to open the **Edit Strings and Tuning** dialog.
  3. In the **Capo** section, change the pitch for **In staff notation, written C4 sounds as**.  
The pitch determines the spelling of notes and chord symbols for the corresponding number of half-steps.
  4. Click **OK** to save your changes and close the dialog.
- 

### RELATED LINKS

[Players panel](#) on page 107

[Edit Strings and Tuning dialog](#) on page 138

[Instrument picker](#) on page 109

[Changing the open pitches of fretted instrument strings](#) on page 140

[Making layouts transposing/concert pitch](#) on page 169

## Using fretted instrument transpositions

You can show transposed pitches on notation staves and in main chord symbols, according to the corresponding fretted instrument's transposition, in each layout independently and for each player holding at least one fretted instrument independently.

For example, if you have added a capo to a fretted instrument and want notation staves and main chord symbols to show the pitches the performer must play in order to produce the desired sounding pitch.

### PROCEDURE

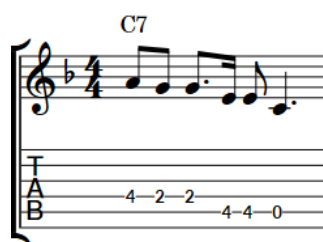
1. Press **Ctrl/Cmd-Shift-L** to open **Layout Options**.
2. In the **Layouts** list, select the layouts in which you want to use fretted instrument transpositions for notation staves and main chord symbols.  
By default, the layout currently open in the music area is selected when you open the dialog. You can select other layouts by using the selection options in the action bar, clicking and dragging across multiple layouts, **Shift**-clicking adjacent layouts, and **Ctrl/Cmd**-clicking individual layouts.
3. In the category list, click **Players**.
4. In the **Fretted Instruments** section, activate **Use fretted instrument transposition** for each player holding at least one fretted instrument in your project.
5. Choose one of the following options:
  - **For notation**
  - **For notation and main chord symbols**
6. Click **Apply**, then **Close**.

### RESULT

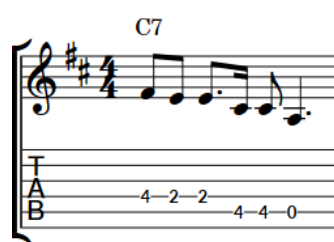
Transpositions set for the corresponding fretted instruments are used for either notation staves only or both notation staves and main chord symbols in the selected layouts.

For example, you might choose **For notation** for fretted instruments with capos that are set to show capo chord symbols, and **For notation and main chord symbols** for detuned fretted instruments.


### EXAMPLE



Fretted instrument transposition (reflecting capo at fret 3) not used for notation staff or main chord symbols



Fretted instrument transposition used for notation staff only



Fretted instrument transposition used for notation staff and main chord symbols

### RELATED LINKS

[Layout Options dialog](#) on page 677

[Players](#) on page 120

[Capo vs. main chords](#) on page 142

[Chord symbols](#) on page 782

[Hiding/Showing notation staves and tablature](#) on page 1201

[Hiding/Showing capo chord symbols](#) on page 147

## Defining capos for chord symbols/diagrams


You can define capos for chord symbols and chord diagrams on a per-player basis. This affects chord diagram shapes and the transposition of capo chord symbols. For example, you might show both main and capo chord symbols for the voice player when creating a lead sheet.

### NOTE

These steps do not affect used chord diagram grids or pitches on notation staves/tablatore.

---

### PROCEDURE

1. In Setup mode, select a player in the **Players** panel for whom you want to define a capo for chord symbols/diagrams.
2. In the action bar, click **Player Settings**  and choose **Chord Symbols > Capo Chord Symbol Definition** to open the **Capo Chord Symbol Definition** dialog.

### TIP

You can also right-click players and choose this option from the context menu.

---

3. Change the pitch for **In capo chord symbols, written C4 sounds as**.  
The pitch determines the spelling of capo chord symbols for the corresponding number of half-steps.
  4. Click **OK** to save your changes and close the dialog.
- 

### RESULT

A capo with the set transposition and spelling is set for the selected player.

## Hiding/Showing capo chord symbols


You can show only main chords, only capo chords, or both in chord symbols on a per-player basis. For example, if you want to show both for the guitar player but only main chords for the singer.

### NOTE

Chord diagrams always reflect the capo set for the player.

---

### PROCEDURE

1. In Setup mode, select a player in the **Players** panel for whom you want to hide/show capo chords in chord symbols.
2. In the action bar, click **Player Settings**  and choose one of the following options:
  - To show only main chords, choose **Chord Symbols > Show Main Chord Symbol for Capo**.
  - To show only capo chords, choose **Chord Symbols > Show Transposed Chord Symbol for Capo**.



- To show capo chords above main chords, choose **Chord Symbols > Show Capo Chord Symbol Above Main**.
- To show capo chords below main chords, choose **Chord Symbols > Show Capo Chord Symbol Below Main**.

TIP

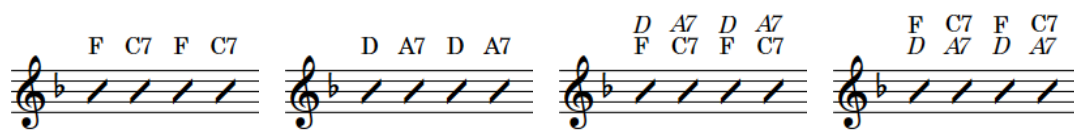
You can also right-click players and choose these options from the context menu.

RESULT

Main and/or capo chords are shown in chord symbols, according to the instrument staves and layouts set to show chord symbols for the selected player. By default, capo chords appear in italics when shown alongside main chords.

In layouts where chord symbols are only shown above the top staff in each system, the visibility of main/capo chords in chord symbols is determined by the setting for the player at the top of each system.

EXAMPLE



Main chords shown only    Capo chords shown only    Capo chords shown above main chords    Capo chords shown below main chords


RELATED LINKS

- [Capo vs. main chords](#) on page 142
- [Positions of chord symbols](#) on page 788
- [Hiding/Showing chord symbols](#) on page 789
- [Hiding/Showing chord symbols in layouts](#) on page 790
- [Showing chord symbols above one/multiple staves](#) on page 790
- [Hiding/Showing empty staves](#) on page 562
- [Showing only chord symbols or chord diagrams](#) on page 808
- [Hiding/Showing chord diagrams](#) on page 806
- [Chord symbol appearance presets](#) on page 783
- [Inputting chord symbols](#) on page 303

## Showing only main or capo chord symbols

You can show only the main or capo chord in individual chord symbols on staves set to show both. For example, if you want to show both the first time each chord symbol appears but only show main chords for subsequent instances. You can do this for the current layout and frame chain only, or for all layouts and frame chains.

PREREQUISITE

- The players on whose staves you want to show only main or capo chords are set to show both.
- The lower zone is shown.
- **Properties**  is selected in the lower zone toolbar.
- You have chosen the appropriate property scope for local properties.

#### PROCEDURE

1. Select the chord symbols whose shown chords you want to change. You can do this in Write mode and Engrave mode.
  2. In the Properties panel, activate **Show only** in the **Chord Symbols** group.
  3. Choose one of the following options:
    - **Main Chord**
    - **Capo Chord**
- 

#### RESULT

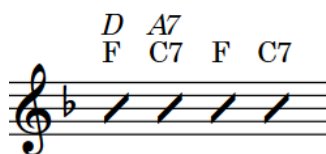
The selected chord symbols show only main or capo chords. If the property scope was set to **Locally**, this change only takes effect in the current layout and frame chain.

---

#### EXAMPLE



Both main and capo chords shown in all chord symbols



Only main chords shown in some chord symbols

---

## Defining capos for used chord diagrams grids

You can define capos for used chord diagrams grids in each layout independently. This affects chord diagram shapes and the transposition of capo chord symbols. For example, you might show both main and capo chord symbols in used chord diagrams grids in the voice part layout when creating a lead sheet.

#### NOTE

These steps do not affect chord symbols/diagrams in the music or pitches on notation staves/ tablature.

---

#### PROCEDURE

1. Press **Ctrl/Cmd-Shift-L** to open **Layout Options**.
  2. In the **Layouts** list, select the layouts for which you want to define capos for used chord diagrams grids.

By default, the layout currently open in the music area is selected when you open the dialog. You can select other layouts by using the selection options in the action bar, clicking and dragging across multiple layouts, **Shift**-clicking adjacent layouts, and **Ctrl/Cmd**-clicking individual layouts.
  3. In the category list, click **Chord Symbols and Diagrams**.
  4. In the **Chord Diagrams** section, change the pitch for **Use capo with transposition**.

The pitch determines the spelling of capo chord symbols for the corresponding number of half-steps.
  5. Click **Apply**, then **Close**.
-

#### RELATED LINKS

[Hiding/Showing used chord diagrams grids](#) on page 809

[Capo vs. main chords](#) on page 142

[Adding capos to fretted instruments](#) on page 143

[Inputting chord symbols](#) on page 303

## Hiding/Showing capo chord symbols in used chord diagrams grids

You can show only main chords, only capo chords, or both in used chord symbol grids in each layout independently. For example, if you want to show both in the guitar part layout but only main chords in the vocal part layout.

#### NOTE

Chord diagrams in used chord diagrams grids always reflect the capo set for the layout.

---

#### PROCEDURE


1. Press **Ctrl/Cmd-Shift-L** to open **Layout Options**.
  2. In the **Layouts** list, select the layouts in which you want to hide/show capo chord symbols in used chord diagrams grids.  
  
By default, the layout currently open in the music area is selected when you open the dialog. You can select other layouts by using the selection options in the action bar, clicking and dragging across multiple layouts, **Shift**-clicking adjacent layouts, and **Ctrl/Cmd**-clicking individual layouts.
  3. In the category list, click **Chord Symbols and Diagrams**.
  4. In the **Chord Diagrams** section, select one of the following options from the **Capo chord symbols** menu:
    - To show only main chords, select **Show Only Main Chord Symbol**.
    - To show only capo chords, select **Show Only Transposed Chord Symbol**.
    - To show capo chords above main chords, select **Show Above Main Chord Symbol**.
    - To show capo chords below main chords, select **Show Below Main Chord Symbol**.
  5. Click **Apply**, then **Close**.
- 

#### RESULT

Main and/or capo chords are shown in used chord diagrams grids in the selected layouts. By default, capo chords appear in italics when shown alongside main chords.

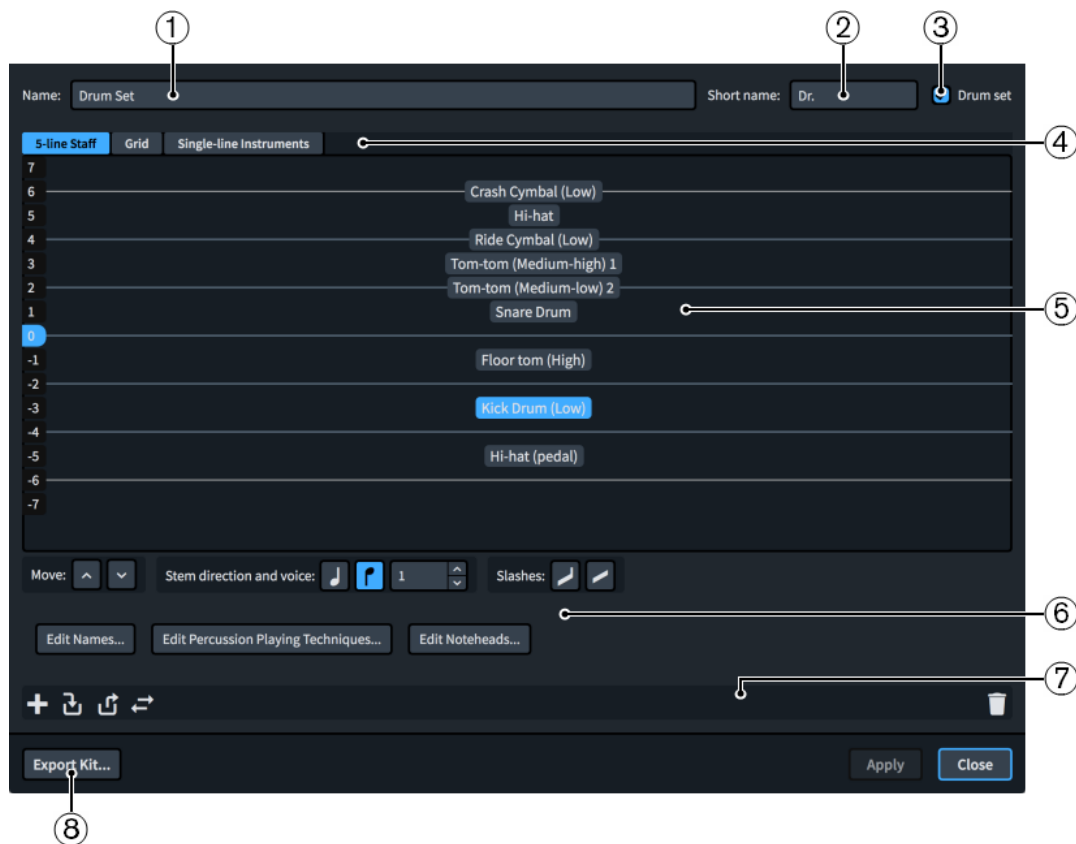
## Edit Percussion Kit dialog

The **Edit Percussion Kit** dialog allows you to make changes to percussion kits, including which instruments are included in them and how instruments are arranged in the different available kit presentations.

- The **Edit Percussion Kit** dialog opens automatically when you create empty kits or combine existing instruments into a kit.
- You can also open the **Edit Percussion Kit** dialog manually for existing percussion kit instruments by expanding the card of the player holding the percussion kit in the **Players** panel in Setup mode, then clicking the instrument menu  in its kit instrument label and choosing **Edit Percussion Kit**.

NOTE

Percussion kit instrument labels are green in the **Players** panel in Setup mode.



**1 Name**

Allows you to enter or change the full name for the percussion kit. This is used in **Full** staff labels for percussion kits that use the five-line staff presentation type.

**2 Short name**

Allows you to enter or change the abbreviated name for the percussion kit. This is used in **Abbreviated** staff labels for percussion kits that use the five-line staff presentation type.

**3 Drum set**

Percussion kits are defined as drum sets when the checkbox is activated. Percussion kits that are defined as drum sets follow your settings for drum sets on the **Percussion** page in **Notation Options**, including for voicing and default stem directions.

**4 Presentation types**

Allows you to select a percussion kit presentation type in order to edit how the selected percussion kit appears in that presentation type.

- **5-line Staff:** Kit instruments are shown on a five-line staff. You can determine which instruments are shown on each line and in each space of the staff. A single staff label containing the name of the kit is shown.
- **Grid:** Kit instruments are shown on a grid, with each instrument on its own line. You can customize how large the gaps between each line are. Staff labels are shown for each instrument in a smaller font than normal staff labels.
- **Single-line Instruments:** Kit instruments are shown as individual instruments with their own lines. Normal-sized staff labels are shown for each instrument.

## 5 Editor

Displays the current arrangement of instruments in the selected percussion kit presentation type. You can change the order of instruments and the layout of lines and spaces in the grid presentation type by using the controls.

## 6 Controls

Allows you to change the order and stem direction of instruments in the selected percussion kit presentation type. It also allows you to add slash voices to the kit.

- **Edit Names:** Opens the **Edit Instrument Names** dialog, which allows you to change the names of the currently selected instrument.






### NOTE

This changes the appearance of percussion instrument names in all presentations. Depending on the percussion kit presentation type, staff labels might use different information than these instrument names.

- **Edit Percussion Playing Techniques:** Opens the **Percussion Instrument Playing Techniques** dialog, which allows you to change how combinations of noteheads, articulations, and tremolos affect playback for the currently selected instrument.
- **Edit Noteheads:** Opens the **Override Percussion Noteheads** dialog, which allows you to override the noteheads used by the currently selected instrument in five-line staff kit presentations.

## 7 Action bar

Contains options that apply to all presentation types.

- **Add New Instrument** : Opens the instrument picker, which allows you to choose a new unpitched percussion instrument to be added to the kit.
- **Add Existing Instrument From Player** : Shows a menu listing the other players in your project that are holding individual percussion instruments not in kits. You can select a percussion instrument from another player to move to this kit, bringing its music with it.
- **Remove Instrument From Kit** : Removes the selected instrument from the kit, so it appears as an individual instrument. You can move individual instruments to other players or into other kit instruments.
- **Change Instrument** : Opens the instrument picker, which allows you to choose a new unpitched instrument to replace the selected instrument while retaining its music.
- **Delete Instrument** : Deletes the instrument from the kit, including its music.

## 8 Export Kit

Allows you to export the percussion kit as a library file so you can use it in other projects.

### RELATED LINKS

[Percussion kits and drum sets](#) on page 1289

[Voices in percussion kits](#) on page 1300

[Staff labels for percussion kits](#) on page 1189

[Percussion kit presentation types](#) on page 1293

[Edit Instrument Names dialog](#) on page 176

[Percussion Instrument Playing Techniques dialog](#) on page 1283

[Override Percussion Noteheads dialog](#) on page 1285

[Playing techniques for unpitched percussion instruments](#) on page 1282

[Playing technique-specific noteheads](#) on page 1283



[Specifying the stem direction/voice of instruments in percussion kits](#) on page 1300

## Adding instruments to percussion kits

You can add new instruments to percussion kits within the **Edit Percussion Kit** dialog.

---

### PROCEDURE

1. In Setup mode, in the **Players** panel, expand the card of the player holding the kit to which you want to add instruments.
  2. In the kit instrument label, click the instrument menu  and choose **Edit Percussion Kit** to open the **Edit Percussion Kit** dialog.
  3. Click **Add New Instrument**  to open the instrument picker.
  4. Select the percussion instrument you want in the instrument picker.
  5. Press **Return** to add the selected instrument.
  6. Click **Close**.
- 

### RESULT

The selected instrument is added to the percussion kit.

### RELATED LINKS

[Players panel](#) on page 107

[Changing the language for instrument names](#) on page 57



[Percussion kit presentation types](#) on page 1293

## Changing instruments in percussion kits

You can change existing instruments in percussion kits while retaining any existing music for that instrument.

---

### PROCEDURE

1. In Setup mode, in the **Players** panel, expand the card of the player holding the kit in which you want to change instruments.
  2. In the kit instrument label, click the instrument menu  and choose **Edit Percussion Kit** to open the **Edit Percussion Kit** dialog.
  3. Click the instrument you want to change.
  4. Click **Change Instrument**  in the action bar to open the instrument picker.
  5. Select the percussion instrument you want in the instrument picker.
  6. Press **Return** to change to the selected instrument.
  7. Click **Close**.
- 

### RESULT

The instrument is changed to the one selected in the instrument picker. Any music input for the previous instrument is retained.

### NOTE

Playing techniques expressed using playing technique-specific noteheads are not retained.


---

## Defining percussion kits as drum sets

You can define individual percussion kits as drum sets. Drum sets follow your per-flow notation options for voicing in drum sets with five-line staff presentations.

---

### PROCEDURE

1. In Setup mode, in the **Players** panel, expand the card of the player holding the kit you want to define as a drum set.
2. In the kit instrument label, click the instrument menu  and choose **Edit Percussion Kit** to open the **Edit Percussion Kit** dialog.
3. Activate **Drum set** in the top right of the dialog.
4. Click **Apply**, then **Close**.

---

### RESULT

The selected percussion kit is defined as a drum set. The arrangement of voices for instruments in the kit when using the five-line staff presentation type follows your per-flow setting on the **Percussion** page in **Notation Options**.

### NOTE

If you no longer want a percussion kit to be defined as a drum set, you can deactivate **Drum set** in the **Edit Percussion Kit** dialog for that kit.

---

### RELATED LINKS

[Players panel](#) on page 107

[Notation Options dialog](#) on page 679

[Percussion Instrument Playing Techniques dialog](#) on page 1283


## Creating groups of instruments within grid presentation percussion kits

You can create groups of instruments within percussion kits that use the grid presentation type in order to have a better overview of the instruments in the kit.

In grid presentation percussion kits, the name of each individual instrument is shown in the staff label. You can simplify the staff label of grid presentation percussion kits by creating groups; for example, to show “Wood Blocks” instead of “Wood Block (High)”, “Wood Block (Medium)”, and “Wood Block (Low)”.

---

### PROCEDURE

1. In Setup mode, in the **Players** panel, expand the card of the player holding the kit in which you want to create groups in the grid presentation.
2. In the kit instrument label, click the instrument menu  and choose **Edit Percussion Kit** to open the **Edit Percussion Kit** dialog.
3. Click **Grid** at the top of the dialog.
4. Click the first instrument you want to include in the group.
5. **Shift**-click the last instrument you want to include in the group.

### NOTE

You can only include adjacent instruments in groups.

---

6. Click **Add** .

---

RESULT

A group is created containing the selected instruments. The group is given a default name that you can change.

RELATED LINKS

[Players panel](#) on page 107


[Percussion kit presentation types](#) on page 1293

## Renaming groups in grid presentation percussion kits

Group names are shown as instrument labels. You can change the names of groups in percussion kits using the grid presentation type.

---

PROCEDURE

1. In Setup mode, in the **Players** panel, expand the card of the player holding the kit whose grid presentation groups you want to rename.
  2. In the kit instrument label, click the instrument menu  and choose **Edit Percussion Kit** to open the **Edit Percussion Kit** dialog.
  3. Click **Grid** at the top of the dialog.
  4. Double-click the group you want to rename to open the **Edit Percussion Grid Group Names** dialog.  
Groups are shown as colored blocks in the column to the left of the list of percussion kit instruments.
  5. Enter the names you want to give the group in the corresponding fields in the **Edit Percussion Grid Group Names** dialog:
    - **Full Name**
    - **Short Name**
  6. Click **OK** to save your changes and close the dialog.
- 

RESULT

The name of the group is changed. This also changes the staff label for the group.

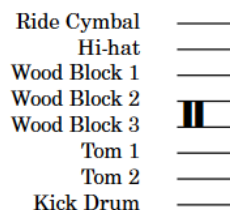
NOTE

Staff labels for groups in grid presentation percussion kits use a different paragraph style to the staff labels for non-grouped instruments in grid presentation percussion kits.

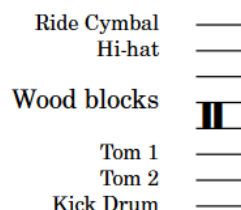
---



EXAMPLE



Ungrouped grid presentation percussion kit



Grid presentation percussion kit with wood blocks grouped

---



RELATED LINKS

[Staff labels for percussion kits](#) on page 1189

## Deleting groups within grid presentation percussion kits

You can delete groups in percussion kits using the grid presentation type without deleting the instruments within the group.

PROCEDURE

1. In Setup mode, in the **Players** panel, expand the card of the player holding the kit from whose grid presentation you want to delete groups.
2. In the kit instrument label, click the instrument menu  and choose **Edit Percussion Kit** to open the **Edit Percussion Kit** dialog.
3. Click **Grid** at the top of the dialog.
4. Click the group you want to delete.  
Groups are shown as colored blocks in the column to the left of the list of percussion kit instruments.
5. Click **Delete** .


RESULT

The group is deleted. The individual staff labels for each instrument in the group are restored.

## Changing the positions of instruments within percussion kits

You can change the positions of instruments within percussion kits of all presentation types to change the order in which the instruments appear in the score and parts. In five-line staff presentation types, you can also change the staff position of slash voices.

PROCEDURE

1. In Setup mode, in the **Players** panel, expand the card of the player holding the kit in which you want to change the positions of instruments.
2. In the kit instrument label, click the instrument menu  and choose **Edit Percussion Kit** to open the **Edit Percussion Kit** dialog.
3. Click the kit presentation type in which you want to change the order of instruments.  
For example, click **Grid** to change the order of instruments when the kit uses the grid presentation type.

4. Click the percussion instruments and/or slash voices whose position you want to change.

**NOTE**

When using the mouse, you can only move one instrument or slash voice at a time.

---

5. Change the position of the selected instruments/slash voices in any of the following ways:
    - Click **Move** up arrow to move them upwards.
    - Click **Move** down arrow to move them downwards.
    - Click and drag a single instrument upwards/downwards (five-line staff presentation only).
  6. Optional: Repeat these steps for other instruments in the percussion kit, and for other kit presentation types for the same percussion kit.
  7. Click **Apply**, then **Close**.
- 

**RESULT**

The positions of the selected instruments and/or slash voices within the kit is changed. Multiple instruments can share the same staff position, but we recommend that they use different noteheads so that the player can tell them apart.

**RELATED LINKS**

[Players panel](#) on page 107


[Moving notes to different instruments in percussion kits](#) on page 1291

## Changing the size of gaps between lines in percussion grids

You can change the size of gaps between lines in percussion kits using the grid presentation type.

---

**PROCEDURE**

1. In Setup mode, in the **Players** panel, expand the card of the player in whose percussion kit you want to change the size of gaps in the grid presentation.
  2. In the kit instrument label, click the instrument menu  and choose **Edit Percussion Kit** to open the **Edit Percussion Kit** dialog.
  3. Click **Grid** at the top of the dialog.
  4. Click the instruments below which you want to change the gap size.
  5. Change the value for **Gap**.
  6. Click **Apply**, then **Close**.
- 

**RESULT**



The size of the gaps below the selected instruments is changed.

## Removing individual instruments from percussion kits

You can remove individual instruments from percussion kits without affecting other instruments in the kit. For example, if you want to move an instrument from one percussion kit to another player.

---

### PROCEDURE

1. In Setup mode, in the **Players** panel, expand the card of the player holding the kit from which you want to remove instruments.
2. In the kit instrument label, click the instrument menu  and choose **Edit Percussion Kit** to open the **Edit Percussion Kit** dialog.
3. Click the instruments you want to remove from the kit.
4. Click **Remove Instrument From Kit**  in the action bar.
5. Click **Close**.

---

### RESULT

The selected instruments are removed from the percussion kit. They appear as individual instruments belonging to the same player.

### AFTER COMPLETING THIS TASK

You can move the instruments to other players if required.

### RELATED LINKS

[Players panel](#) on page 107

[Moving instruments](#) on page 137

## Player groups

A player group represents a collection of musicians that are considered together, such as one choir in a work for double choir or an off-stage ensemble. Player groups can have their own brackets, depending on the bracket grouping set for each layout.

Grouping players together means they are positioned together in the default player order, numbered independently of players outside the group, and are bracketed together according to the ensemble type set for each layout.

For example, if your project is for double choir (SATB/SATB), all voices are joined by a single bracket by default because they are in the same family. However, if you add each choir to its own group, they are bracketed separately. This is useful in works containing multiple groups, such as in Britten's "War Requiem", which has three distinct groups, or in Walton's "Belshazzar's Feast" which requires two separate off-stage brass groups.

You can add as many player groups as required; for example, to allow easy separation of forces, or to prevent automatic instrument numbering for percussion instruments when multiple percussion players hold the same instrument to accommodate instrument changes.

You can also show player group labels for player groups in each layout independently.

### RELATED LINKS

[Instrument numbering](#) on page 129

[Brackets and braces](#) on page 776

[Brackets according to ensemble type](#) on page 778

[Changing the default player order](#) on page 123


[Setting custom player orders](#) on page 123  
[Player group labels](#) on page 1188  
[Player, layout, and instrument names](#) on page 172

## Adding player groups

You can organize players into groups; for example, if you want to bracket them together. Players in different groups are also numbered separately.

---

### PROCEDURE

1. Optional: If you want to add a group that includes existing players, select those players in the **Players** panel in Setup mode.
2. In the **Players** panel, click **Add Group** .

---

### RESULT

A new player group is added to the **Players** panel. If you selected players, those players are added to the group. If you did not select players, the new group is empty.

### AFTER COMPLETING THIS TASK

- You can add players to groups and move them between groups.
- You can rename player groups and show player group labels.

### RELATED LINKS

[Players panel](#) on page 107  
[Adding players to groups](#) on page 159  
[Moving players between groups](#) on page 161  
[Renaming player groups](#) on page 160  
[Player group labels](#) on page 1188

## Adding players to groups



You can add new players to existing player groups.

### NOTE

In Dorico Elements, the maximum number of players you can have in a single project is 24.

---

### PROCEDURE

1. In Setup mode, in the **Players** panel, select the group to which you want to add new players.
2. Add new players in one of the following ways:
  - To add a single player, click **Add Single Player**  in the action bar.
  - To add a section player, click **Add Section Player**  in the action bar.

The instrument picker opens.

### TIP

You can also open the instrument picker by selecting an existing player in the **Players** panel and pressing **Shift-I**.

---

3. Select the instrument you want in the instrument picker.

4. Press **Return** to add the selected instrument.
- 

#### RESULT

The corresponding type of player is added to the selected group.

#### TIP

You can also move existing players to, from, or between groups.

---

#### RELATED LINKS


- [Players panel](#) on page 107
- [Instrument picker](#) on page 109
- [Adding players](#) on page 121
- [Moving players between groups](#) on page 161
- [Player group labels](#) on page 1188
- [Changing the language for instrument names](#) on page 57

## Renaming player groups

You can change the name of player groups after you have added them. This changes the name shown in player group labels.

---

#### PROCEDURE

1. In Setup mode, in the **Players** panel, select the player group you want to rename.
2. In the action bar, click **Player Settings**  and choose **Rename Player Group** to open the **Rename Player Group** dialog.

#### TIP

You can also right-click player groups and choose this option from the context menu.

---

3. Enter new names or edit the existing names in the following fields:
    - **Full name**
    - **Short name**
  4. Click **OK** to save your changes and close the dialog.
- 

#### RESULT

The corresponding names for the selected player group are changed.

Player group labels show full player group names by default. Short player group names are used when the full player group name is longer than the bracket.

#### RELATED LINKS


- [Players panel](#) on page 107
- [Player group labels](#) on page 1188
- [Player, layout, and instrument names](#) on page 172

## Deleting player groups

You can delete groups of players; for example, if you no longer need a group of players that you created when importing a MIDI file. When deleting player groups, you can choose to keep the players within the group or delete them as well.

---

### PROCEDURE

1. In Setup mode, in the **Players** panel, select the groups that you want to delete.
  2. Delete the selected groups in any of the following ways:
    - Press **Backspace or Delete**.
    - In the **Players** panel, click **Delete Player** .
  3. Choose one of the following options in the warning message that opens:
    - **Keep Players:** Deletes the group but keeps the players.
    - **Delete Players:** Deletes the group and the players it contains.
- 

## Moving players between groups

You can move players to, from, or between player groups. For example, you can move ungrouped players into existing groups and move players from one group to another.

---

### PROCEDURE

1. In Setup mode, in the **Players** panel, select the players that you want to move.
  2. Click and drag the selected players to the position you want.  
An insertion line indicates where the players will be positioned.
- 

### RESULT

The players are moved to the new position.

### TIP

- You can also add existing players to existing groups by right-clicking them in the **Players** panel and choosing **Add Player to Group > [Group]** from the context menu.
  - You can also add new players to player groups.
- 

### RELATED LINKS

[Adding players to groups](#) on page 159


## Removing players from groups

You can remove players from groups.

---

### PROCEDURE

- In Setup mode, in the **Players** panel, remove players from groups in any of the following ways:
  - Select multiple players, then click and drag them out of the group.

- Select one player, then click **Player Settings**  in the action bar and choose **Remove Player from Group**. You can also right-click players and choose this option from the context menu.
- 

#### RESULT

The players are removed from their groups but remain in the project as individual players.

## Flows

Flows are separate spans of music that are completely independent in musical content, meaning they can contain completely different players from each other and have different time signatures and key signatures. A single project can contain any number of flows.

Depending on the purpose of each project, a flow could be, for example, a single song in an album, a movement in a sonata or symphony, a number in a stage musical, or a short scale or sight-reading exercise of only a few bars in length.

Dorico Elements automatically adds a flow to projects once you have added at least one player. You cannot add flows until you have added at least one player to the project.

When you add a flow in Dorico Elements, the following happens automatically:

- The flow is assigned to all full score and part layouts in the project.
- All players are assigned to the new flow.

By default, all layouts include all flows in the project. If necessary, you can change the layouts to which flows are assigned and which players are assigned to flows.

#### IMPORTANT

If you exclude a player from a flow, any notes that you have already input for that player in that flow are deleted.

---

You can change notation options, such as beam grouping and accidental duration rules, for each flow independently in the **Notation Options** dialog.

#### RELATED LINKS

[Flows panel](#) on page 117

[Notation Options dialog](#) on page 679

[Players](#) on page 120

[Layouts](#) on page 165

[Tacets](#) on page 592

[Players, layouts, and flows](#) on page 118

[Importing flows](#) on page 79

[Exporting flows](#) on page 80

[Starting new projects](#) on page 71

[Opening projects/files](#) on page 72


[Flow headings](#) on page 603

## Adding flows

You can add any number of new flows to your project; for example, when engraving a large work that comprises multiple movements.

---

### PROCEDURE

- In Setup mode, add a flow in any of the following ways:
  - Press **Shift-F**.
  - In the **Flows** panel, click **Add Flow** .

---

### RESULT

A new flow is added to your project. All existing players are assigned to new flows, and new flows are automatically assigned to all existing full score and part layouts.

### AFTER COMPLETING THIS TASK

- You can rename the flow.
- You can change the players assigned to the flow and the layouts to which the flow is assigned.

### RELATED LINKS

- [Flows panel](#) on page 117
- [Importing flows](#) on page 79
- [Exporting flows](#) on page 80
- [Starting new projects](#) on page 71
- [Opening projects/files](#) on page 72
- [Renaming flows](#) on page 179
- [Adding players](#) on page 121
- [Assigning players to flows](#) on page 164
- [Assigning flows to layouts](#) on page 168

## Duplicating flows

You can duplicate flows; for example, if you want to experiment with some ideas without affecting the original flow, or if you want to copy material with any barlines you have added.

---

### PROCEDURE

- In Setup mode, in the **Flows** panel, right-click the flow you want to duplicate and choose **Duplicate Flow** from the context menu.

---

### RESULT

A new flow is added, containing all the music and players of the original flow. It is automatically added to all full score and part layouts.



## Assigning players to flows

By default, all players in your project are added to all flows that originated in the project. You can assign players to and remove players from flows manually; for example, if the soloists in a choral work do not sing for an entire flow.

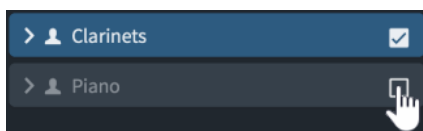
### NOTE

If you remove a player from a flow, any notes you have already input for that player in that flow are deleted.

---

### PROCEDURE

1. In Setup mode, in the **Flows** panel, select the flow whose assigned players you want to change.
2. In the **Players** panel, activate the checkbox in the card of each player you want to assign to the flow.



### TIP

You can **Shift**-click to activate/deactivate the checkboxes in multiple player cards at once.

---

### RESULT

Players are assigned to the selected flow when the checkbox in their player card is activated, and removed from the flow when the checkbox is deactivated.

### RELATED LINKS

[Flows panel](#) on page 117

[Tacets](#) on page 592

[Assigning flows to layouts](#) on page 168

[Assigning players to layouts](#) on page 167

## Reordering flows

You can change the order of flows; for example, if you want an imported flow to be the first flow rather than the last.

---



### PROCEDURE

1. In Setup mode, in the **Flows** panel, select the flows whose order you want to change.
  2. Click and drag the selected flows to the right/left.
- 

### RESULT

The selected flows are moved to the specified position. Their flow numbers are automatically updated, as is their order in the **Project Info** dialog and in layouts by default.

TIP

You can also reorder flows in the **Project Info** dialog by selecting them in the flows list and clicking **Move Down**  or **Move Up**  in the action bar. This can be an easier method of reordering flows in projects that contain many flows.

---

RELATED LINKS


- [Project Info dialog](#) on page 75
- [Flow names and flow titles](#) on page 178
- [Importing flows](#) on page 79
- [Flow headings](#) on page 603
- [Tokens](#) on page 607

## Deleting flows

You can delete flows that you no longer need. This deletes all music for all instruments and players in the flows.

---

PROCEDURE

1. In Setup mode, in the **Flows** panel, select the flows you want to delete.
  2. Delete the selected flows in any of the following ways:
    - Press **Backspace or Delete**.
    - In the **Flows** panel, click **Delete Flow** .
- 

RELATED LINKS

- [Importing flows](#) on page 79
- [Exporting flows](#) on page 80

## Layouts

Layouts combine musical content, as represented by flows and players, with rules for page formatting and music engraving, and allow you to produce paginated music notation that can be printed or exported in various formats. For example, part layouts typically only show the music for one player, whereas full score layouts show the music of all players in the project.

Layouts can contain any combination of players and flows. They share the musical content of these players and flows, such as the notes each instrument plays. For example, when you change the pitch of a note in the full score, that note's pitch is also updated in the corresponding part layout.

You can control practically every aspect of page formatting in each layout independently, including note spacing, staff size, page size, margins, and casting off; that is, the positions of system breaks and page turns. Changing these aspects in one layout does not affect other layouts. For example, inserting systems breaks in a part layout does not change the casting off in the full score.

Similarly, you can change the visual appearance of many items only in one layout, without affecting other layouts, using local properties. For example, you can hide text items in the full score layout but show them in part layouts.

The default formatting of pages in layouts is determined by page templates. By default, full score layouts use a different page template set to part layouts; however, you can apply a different page template set to each layout.

Dorico Elements provides the following layout types:

#### **Full score**

A full score layout includes all players and all flows in your project by default. Full score layouts are concert pitch by default.

Dorico Elements automatically creates a single full score layout in every project.

#### **Part**

A part layout is automatically created when you add a player to your project. You can also create empty part layouts and assign players to them manually.

By default, instrumental part layouts contain all flows. They are also transposed pitch by default.

You can propagate the formatting of part layouts.

#### **Custom score**

A custom score layout initially does not contain any players or flows. This allows you to create your score manually and, for example, assign only one flow instead of all flows or only vocal and piano players to create a vocal score. Custom score layouts are concert pitch by default.

#### **TIP**

- You can create as many layouts of each type in each project as required.
- You can combine players, layouts, and flows together in any combination. For example, you might add all percussion players to a single part layout so that the performers can manage instrument changes themselves. In a large-scale work, you might also create a piano reduction for choir rehearsals, but only assign that piano player to the vocal score, meaning it does not appear in the orchestral full score at all.
- By default, respelling notes in score layouts also affects their spelling in all other layouts, but respelling notes in part layouts only affects their spelling in the current part layout.
- You can save options set in **Layout Options** as the default for score and part layouts independently. For example, full scores and part layouts often require different page and staff sizes.
- Deleting layouts does not delete any music from the project.

---

#### RELATED LINKS

- [Page formatting](#) on page 555
- [Part formatting propagation](#) on page 596
- [Flows](#) on page 162
- [Players](#) on page 120
- [Players, layouts, and flows](#) on page 118
- [Page templates](#) on page 599
- [Page template sets](#) on page 600
- [Types of page templates](#) on page 601
- [Applying page template sets to layouts](#) on page 558
- [Properties](#) on page 615
- [Local vs. global properties](#) on page 616
- [Layout Options dialog](#) on page 677
- [Player, layout, and instrument names](#) on page 172
- [Renumbering layouts](#) on page 171




- [Renaming layouts](#) on page 174
- [Switching between layouts](#) on page 43
- [Switching to galley/page view](#) on page 50
- [Hiding/Showing staff labels](#) on page 1181
- [Brackets according to ensemble type](#) on page 778
- [Casting off](#) on page 581
- [Condensing](#) on page 595
- [Divisi](#) on page 1199
- [Editing layout transposition text](#) on page 895
- [Respelling notes](#) on page 449
- [Hiding/Showing text items](#) on page 1230

## Creating layouts

You can create any number of full score, custom score, and part layouts in each project. By default, Dorico Elements creates a single full score layout and a part layout for each player.

---

### PROCEDURE

- In Setup mode, in the **Layouts** panel, click one of the following layout types:
  - **Add Full Score Layout** 
  - **Add Instrumental Part Layout** 
  - **Add Custom Score Layout** 

---

### RESULT

The layout is added to the list of layouts in the **Layouts** panel.

### NOTE

- Layouts are not available in the layout selector until you have assigned at least one player to them.
- You can also add new custom score layouts by pressing **Shift-L**.

---

### AFTER COMPLETING THIS TASK

- You can assign players and flows to the layout.
- If you want to change the position of the new layout in the layouts list, you can reorder and renumber layouts.

### RELATED LINKS

- [Layouts panel \(Setup mode\)](#) on page 114
- [Workspace options](#) on page 32
- [Reordering layouts](#) on page 170
- [Renumbering layouts](#) on page 171
- [Switching between layouts](#) on page 43
- [Switching to galley/page view](#) on page 50
- [Opening new tabs](#) on page 45

## Assigning players to layouts

By default, all players are included in full score layouts and each player is automatically assigned its own part layout. You can assign players to and exclude players from layouts manually; for

example, if you want to remove unnecessary players from the full score, or you want to add the soloists' music to the part for the accompanist.

---

#### PROCEDURE

1. In Setup mode, in the **Layouts** panel, select the layout whose assigned players you want to change.
2. In the **Players** panel, activate the checkbox in the card of each player you want to assign to the layout.



#### TIP

You can **Shift**-click to activate/deactivate the checkboxes in multiple player cards at once.

---

#### RESULT

Players are assigned to the selected layout when the checkbox in their player card is activated, and removed from the layout when the checkbox is deactivated. If you have not changed the name of the layout, it is automatically updated to reflect the players included in the layout.

#### RELATED LINKS

- [Players panel](#) on page 107
- [Layouts panel \(Setup mode\)](#) on page 114
- [Player, layout, and instrument names](#) on page 172
- [Renaming layouts](#) on page 174
- [Assigning players to flows](#) on page 164

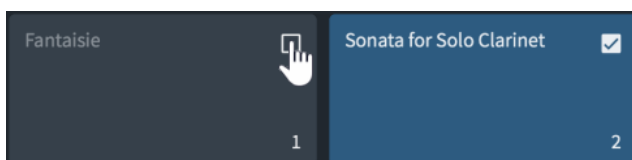
## Assigning flows to layouts

By default, all flows in your project are added to all layouts. You can exclude flows that you do not want to show in a layout. You can assign flows to and remove flows from layouts manually; for example, if a flow in your project contains specific performance instructions for strings that you want to show in string part layouts but not in other part layouts.

---

#### PROCEDURE

1. In Setup mode, in the **Layouts** panel, select the layout whose assigned flows you want to change.
2. In the **Flows** panel, activate the checkbox in the flow card of each flow you want to assign to the layout.



#### TIP

You can **Shift**-click to activate/deactivate the checkboxes in multiple flow cards at once.

---

#### RESULT

Flows are assigned to the selected layout when the checkbox in their flow card is activated, and removed from the layout when the checkbox is deactivated.

Dorico Elements automatically creates enough pages to display the flows assigned to the layout.

#### RELATED LINKS

[Layouts panel \(Setup mode\)](#) on page 114

[Flows panel](#) on page 117

## Making layouts transposing/concert pitch

You can change whether each layout in your project is transposing or concert pitch. In Dorico Elements, full score layouts are concert pitch and part layouts are transposing by default.

For example, full scores are often concert pitch, to show notes at their sounding pitch, but part layouts are transposing so the player can read the notes they must play in order to achieve the desired sounding pitch.

---

#### PROCEDURE

1. Press **Ctrl/Cmd-Shift-L** to open **Layout Options**.
2. In the **Layouts** list, select the layouts you want to make transposing/non-transposing.  
By default, the layout currently open in the music area is selected when you open the dialog. You can select other layouts by using the selection options in the action bar, clicking and dragging across multiple layouts, **Shift**-clicking adjacent layouts, and **Ctrl/Cmd**-clicking individual layouts.
3. In the category list, click **Players**.
4. In the **Players** section, activate/deactivate **Transposing layout**.
5. Click **Apply**, then **Close**.

---

#### RESULT

The selected layouts are transposed pitch when **Transposing layout** is activated, and concert pitch when it is deactivated.

#### TIP

You can also make layouts transposing by choosing **Edit > Transposed Pitch**, and concert pitch by choosing **Edit > Concert Pitch**. This automatically updates the layout option but only for the layout currently open in the music area.

---

#### RELATED LINKS

[Transposing instruments](#) on page 133

[Fretted instrument tuning](#) on page 138

[Transposing selections](#) on page 445

[Changing the input pitch setting](#) on page 218

[Hiding/Showing clefs according to layout transpositions](#) on page 817

[Editing layout transposition text](#) on page 895

## Concert vs. transposed pitch

Layouts in Dorico Elements can use concert or transposed pitch. This affects the pitches and key signatures on staves belonging to transposing instruments.

### Concert pitch

When music is in concert pitch, all notes are written as they sound. This means that players with transposing instruments reading music in concert pitch must transpose the music themselves. For example, if a clarinet in B $\flat$  reads a C in concert pitch, they must play the note D on their instrument to produce the sounding note C.

### Transposed pitch

When music is in transposed pitch, the notes written are the ones each instrument must play in order to produce the desired sounding pitch. For example, if a clarinet in B $\flat$  reads a D in transposed pitch, the pitch that sounds from the instrument is C.

Transposed pitch layouts automatically transpose key signatures and chord symbols according to the transposition of the instrument. Transposing and concert pitch layouts can also use different clefs.

#### RELATED LINKS

[Transposing selections](#) on page 445

[Enharmonic equivalent key signatures](#) on page 915

[Clefs with octave indicators](#) on page 820

[Capo vs. main chords](#) on page 142

[Editing layout transposition text](#) on page 895

## Reordering layouts

You can change the order in which layouts appear in the **Layouts** panel and the layout selector; for example, if you added a custom score layout and want it to be positioned at the top next to the full score layout.

---

#### PROCEDURE


1. In Setup mode, in the **Layouts** panel, select the layouts whose order you want to change.
2. Click and drag the selected layouts upwards/downwards.

---

#### RESULT

The selected layouts are moved to the specified position. This does not affect their layout numbers.

#### TIP

You can also automatically sort layouts according to their type by clicking **Sort Layouts**  in the **Layouts** panel, which positions all full score layouts at the top, all part layouts in the middle, and all custom score layouts at the bottom.

You can click and hold or right-click **Sort Layouts**  to change the setting to one of the following options:

- **Layout Number**
  - **Instrument Score Order**
-

RELATED LINKS


[Layouts panel \(Setup mode\)](#) on page 114

## Renumbering layouts

You can renumber all layouts according to their current position in the **Layouts** panel in Setup mode; for example, after you have dragged layouts to different positions.

---

PROCEDURE

1. In Setup mode, in the **Layouts** panel, select any layout.
2. In the action bar, click **Layout Settings**  and choose **Renumber Layouts**.

TIP

You can also right-click layouts and choose this option from the context menu.

---

RESULT


All layouts are renumbered according to their current position in the panel. Full score layouts, custom score layouts, and part layouts are all numbered separately.

## Deleting layouts

You can delete layouts without removing the corresponding music from the project. For example, if you only want to use a combined Violin I and II part layout, you can delete their separate part layouts.

---

PROCEDURE

1. In Setup mode, in the **Layouts** panel, select the layouts that you want to delete.
2. Delete the selected layouts in any of the following ways:
  - Press **Backspace or Delete**.
  - In the **Layouts** panel, click **Delete Layout** .

---

RESULT

The selected layouts are deleted without removing any music from the project.

AFTER COMPLETING THIS TASK

You can later restore all the part layouts that Dorico Elements provides by default.

RELATED LINKS

[Layouts panel \(Setup mode\)](#) on page 114

[Players, layouts, and flows](#) on page 118

## Restoring default layouts

You can recreate all the part layouts that Dorico Elements provides by default; for example, if you accidentally deleted some part layouts.

---

PROCEDURE

- In Setup mode, choose **Setup > Create Default Part Layouts**.
-



#### RESULT

The default set of part layouts is restored, recreating a single part layout for each player that contains all flows in the project. Any part layouts that were recreated are added at the bottom of the **Layouts** list. Their order matches the order of the corresponding players in the **Players** panel.

## Player, layout, and instrument names

In Dorico Elements, you can use three different names to refer to the same player in different contexts. This allows you to show relevant information in different places, such as in staff labels and at the top of part layouts.

The following names relate to players and instruments:

### Player name

The name of each player in the **Players** panel. They can be used in staff labels instead of instrument names.

Player names are automatically generated when you add instruments, and are linked to the corresponding instrument names until you rename the player.

### Layout name

The name for each layout in the **Layouts** panel. By default, layout names appear with borders at the top of pages in part layouts that use the **First** page template.

Layout names for part layouts are automatically generated when you add instruments to the corresponding players, and are linked to the corresponding players' names until you rename the layout.

### Instrument names

Used in staff labels by default. This means that the instrument label on each staff is relevant to the instrument or percussion kit currently being played by that player, rather than listing all instruments that player is playing in the flow.

For example, if a clarinettist is doubling bass clarinet, the staff label where the player plays clarinet automatically shows **Clarinet**, and the staff label automatically shows **Bass Clarinet** where the player plays bass clarinet.

All instruments in Dorico Elements come with a set of instrument names that you can change for individual instruments, independently of other players in the project holding the same instrument. You can change the language used for instrument names. You can also save changes to instrument names as default, which are then used whenever you add that instrument again in the current project and all future projects.

#### NOTE

- Changing the default instrument names does not change the instrument names of existing instruments of that type in your project.
- You can change various aspects of how instrument names appear in staff labels without changing instrument names, such as whether instrument transpositions are shown before or after instrument names.

---

#### RELATED LINKS

[Instrument numbering](#) on page 129

[Page templates](#) on page 599

[Types of page templates](#) on page 601

[Tokens](#) on page 607


- [Staff labels](#) on page 1180
- [Instrument transpositions in staff labels](#) on page 1185
- [Showing instrument/player names in staff labels](#) on page 1184
- [Percussion legends](#) on page 1295
- [Players](#) on page 120
- [Layouts](#) on page 165
- [Assigning players to layouts](#) on page 167
- [Changing instrument names](#) on page 175
- [Renaming player groups](#) on page 160
- [Changing the language for instrument names](#) on page 57

## Renaming players

You can change the player names of players, and reset renamed players to their default names. Player names appear in guide instrument labels in galley view for players holding multiple instruments and can appear in staff labels.

---

### PROCEDURE

1. In Setup mode, in the **Players** panel, select the player you want to rename.
2. In the action bar, click **Player Settings**  and choose **Rename Player** to open the **Rename Player** dialog.

#### TIP

You can also right-click players and choose this option from the context menu.

3. Enter new names or edit the existing names in the following fields:
  - **Full name**
  - **Short name**
4. Click **OK** to save your changes and close the dialog.

---

### RESULT

The corresponding names for the selected player are changed. If you have not already renamed the corresponding part layout, its layout name is updated.

#### NOTE

- This does not affect staff labels that show instrument names, or the name at the top of part layouts if you have already renamed the layout. You can change instrument and layout names separately.
- Player names you have changed no longer get updated when you change the instruments or names of instruments held by the player.

---

### RELATED LINKS


- [Players panel](#) on page 107
- [Tokens](#) on page 607
- [Changing instrument names](#) on page 175
- [Renaming player groups](#) on page 160
- [Moving instruments](#) on page 137
- [Staff labels](#) on page 1180
- [Showing instrument/player names in staff labels](#) on page 1184
- [Switching to galley/page view](#) on page 50

## Resetting player names

You can reset both full and short player names to their defaults simultaneously. Default player names automatically update when you change the instruments or names of instruments held by the player.

---

### PROCEDURE

1. In Setup mode, in the **Players** panel, select the player whose names you want to reset.
2. Press **Return** to open the player name text field.
3. Click **Reset to Default** .

---

### RESULT


Both the full and short names for the corresponding player are reset to their defaults.

## Renaming layouts

You can rename layouts and reset renamed layouts to their default name. By default, layout names appear with borders at the top of pages in part layouts that use the **First** page template.

---

### PROCEDURE

1. In Setup mode, in the **Layouts** panel, select the layout you want to rename.
2. Press **Return** to open the layout name text field.
3. Rename the layout in any of the following ways:
  - Enter a new layout name or edit the existing name.
  - To revert the layout name to the player name, click **Reset to Default** .

### TIP

If you want to include an accidental in the instrument transposition, you can enter the appropriate token, such as **{@flat@}** for b.

- 
4. Press **Return**.

---

### RESULT

The selected layout is renamed, or reverted to its default name.

### NOTE

- Renaming layouts does not affect staff labels, which show either instrument or player names.
- Part layout names you have changed no longer get updated when you rename the corresponding players.

---

### RELATED LINKS

[Player, layout, and instrument names](#) on page 172

[Layouts panel \(Setup mode\)](#) on page 114

[Tokens](#) on page 607

[Page templates](#) on page 599

[Types of page templates](#) on page 601

[Staff labels](#) on page 1180

[Staff label contents](#) on page 1184

## Changing instrument names


By default, instrument names are used in staff labels and instrument change labels shown above the staff. You can change the different instrument names used for each instrument.

### NOTE

- If you want to change instrument names because you want them to appear in a different language, you can instead change the default language for all instrument names.
- You can change various aspects of how instrument names appear in staff labels without changing instrument names, such as whether instrument transpositions are shown before or after instrument names.
- Changing instrument names does not change the name shown at the top of part layouts if you have already renamed the layout. You can rename layouts separately.

---

### PROCEDURE

1. In Setup mode, in the **Players** panel, click the disclosure arrow in the card of the player holding the instrument whose names you want to change.  
This expands the card to show the instruments held by the player.
2. In the instrument label, click the instrument menu  and choose **Edit Names** to open the **Edit Instrument Names** dialog.
3. Enter new names in any of the name fields.
4. Optional: Activate **Save as default for instrument**.
5. Click **OK** to save your changes and close the dialog.

---

### RESULT

The instrument names for the selected instrument are changed. If you have not already renamed the corresponding player, its player name is updated.

- If you did not save your changes as default, only the names of the selected instrument are changed. Any instruments of the same type added later or in future projects use the original default names.
- If you saved your changes as default, any instruments of the same type added later or in future projects use your new instrument names. This does not affect any existing instruments of that type unless you reset their names.

### RELATED LINKS

[Players panel](#) on page 107

[Instruments](#) on page 127

[Instrument changes](#) on page 130

[Instrument numbering](#) on page 129

[Player, layout, and instrument names](#) on page 172

[Staff labels](#) on page 1180

[Showing instrument/player names in staff labels](#) on page 1184

[Changing the appearance/position of instrument transpositions in staff labels](#) on page 1186

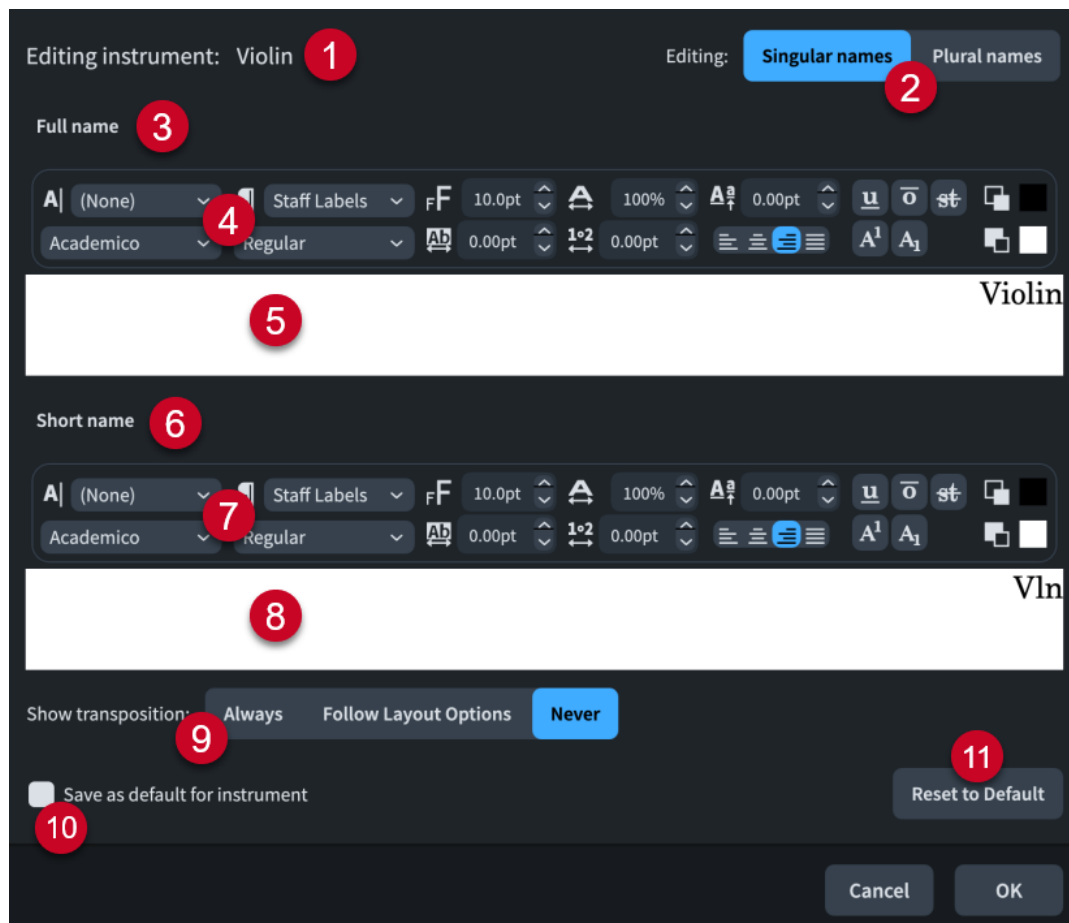
[Changing the language for instrument names](#) on page 57

[Editing the default instrument change label text](#) on page 131

## Edit Instrument Names dialog

The **Edit Instrument Names** dialog allows you to change the content and formatting of each instrument's names, which are used in staff labels and instrument change labels shown above the staff. You can edit both singular/plural full instrument names and singular/plural short instrument names.

- You can open the **Edit Instrument Names** dialog in Setup mode by clicking the instrument menu  in an instrument label in the **Players** panel and choosing **Edit Names**.



The **Edit Instrument Names** dialog contains the following options and sections:

### 1 Editing instrument

Displays the permanent underlying name of the instrument.

### 2 Editing

Allows you to switch between editing the **Singular names** and **Plural names** of the selected instrument.

**Singular names** are used when the staff contains one player, **Plural names** are used when the staff contains multiple players.

### 3 Full name section

Contains options that allow you to edit the appearance of the full instrument name.

### 4 Full name text editor options

Allows you to customize the font, size, and formatting of the selected part of the full instrument name.

### 5 Full name text editing area

Shows the current long name for the selected instrument, as it appears in **Full** staff labels. You can select any part of the instrument name and edit it independently of other parts; for example, if you want to add additional information on a new line and in italics. However, instrument names in instrument change labels are always shown on a single line.

Staff labels are right-aligned by default, so appear at the right edge of the text editing area.

#### 6 **Short name section**

Contains options that allow you to edit the appearance of the short instrument name.

#### 7 **Short name text editor options**

Allows you to customize the font, size, and formatting of the selected part of the short instrument name.

#### 8 **Short name text editing area**

Shows the current short staff label for the selected instrument, as it appears in **Abbreviated** staff labels. You can select any part of the instrument name and edit it independently of other parts; for example, if you want to add additional information on a new line and in italics. However, instrument names in instrument change labels are always shown on a single line.

Staff labels are right-aligned by default, so appear at the right edge of the text editing area.

#### 9 **Show transposition**

Allows you to choose when the transposition is shown in the instrument name for the selected instrument. It is common to see the transposition included in the name of transposing instruments, such as Clarinet in B $\flat$ .

You can choose when the transposition is shown from the following options:

- **Always:** Instrument transpositions are shown even if you have chosen to hide them on the **Staves and Systems** page in **Layout Options**.
- **Follow Layout Options:** Instrument transpositions can be hidden and shown, depending on your per-layout settings in **Layout Options**.
- **Never:** Instrument transpositions are never shown, even if you have chosen to show them in **Layout Options**.

#### 10 **Save as default for instrument**

Activating the checkbox saves your changes in the dialog as the default. This affects all new instruments of that type that you add to the project and all future projects. It does not affect any existing instruments of that type unless you reset their names.

#### 11 **Reset to Default**

Removes all your changes to the names of the selected instrument type and reverts them to the current default settings. If you changed the default name for an instrument type or the instrument name language setting after adding an instrument, resetting its names changes them to your new default names and language setting.

#### NOTE

Staff labels always use the horizontal alignment set for the paragraph style, they do not use the alignment set in the **Edit Instrument Names** dialog. This ensures consistent alignment across the whole system.

---

#### RELATED LINKS

[Layout Options dialog](#) on page 677

[Changing the language for instrument names](#) on page 57

[Resetting instrument names](#) on page 178

[Staff labels](#) on page 1180

[Hiding/Showing staff labels](#) on page 1181  
[Text editor options in Write mode](#) on page 371

## Resetting instrument names


You can reset all your changes to the names of individual instruments and revert them to the current default settings for their instrument type.

### NOTE

Resetting instrument names does not change the name shown at the top of part layouts. If you want to change the name used at the top of part layouts, rename the layout.

---

### PROCEDURE

1. In Setup mode, in the **Players** panel, click the disclosure arrow in the card of the player holding the instrument whose names you want to reset.  
This expands the card to show the instruments held by the player.
  2. In the instrument label, click the instrument menu  and choose **Edit Names** to open the **Edit Instrument Names** dialog.
  3. Click **Reset to Default**.
  4. Click **OK** to save your changes and close the dialog.
- 

### RESULT

The instrument names for the selected instrument are reset to the current default settings for its instrument type. If you changed the default name for the instrument type or the instrument name language setting after adding the instrument, resetting its names changes them to your new default names and language setting.

### TIP

You can assign a key command for **Reset Instrument Names** on the **Key Commands** page in **Preferences**, which resets all instrument names in the project to their default settings.

---

### RELATED LINKS

[Players panel](#) on page 107  
[Key Commands page in the Preferences dialog](#) on page 59  
[Renaming layouts](#) on page 174  
[Changing the language for instrument names](#) on page 57

## Flow names and flow titles

Whenever you add a flow to a project, the default name of a flow is **Flow** plus an incremental number. In Dorico Elements, flows have both a flow name and a flow title, which are the same by default but can be different if, for example, you want to organize sketch versions of flows without affecting their displayed titles in the music.

### Flow names

Set either in the **Flows** panel in Setup mode or in the flows list in the **Project Info** dialog.

### Flow titles

Set in the **Title** field for each flow in the **Project Info** dialog.

Flow titles automatically match the flow name until you change the flow title independently. Changing flow titles removes the link between their flow title and flow name.

Titles shown in layouts are linked to the **Title** fields in the **Project Info** dialog, using the **{@projectTitle@}** and **{@flowTitle@}** tokens. This allows you to organize flows with different names to their displayed title in the music.

#### TIP

You can change both flow names and flow titles in the **Project Info** dialog, and you can also change flow names in the **Flows** panel in Setup mode.

---

#### RELATED LINKS

[Tokens](#) on page 607

[Project Info dialog](#) on page 75

[Flows panel](#) on page 117

## Renaming flows

You can change the names of flows in Setup mode. This automatically updates the title of the corresponding flow until you change the title in the **Project Info** dialog.

---

#### PROCEDURE

1. In Setup mode, in the **Flows** panel, double-click the card of the flow you want to rename to open the flow name text field.
  2. Enter a new name for the flow or edit the existing name.
  3. Press **Return**.
- 

#### RESULT

The name of the flow is changed. If you have not entered a different title for the flow in the **Project Info** dialog, the title shown in the music area is updated to match the new flow name.

#### TIP

You can also rename flows in the **Project Info** dialog.

---

#### RELATED LINKS

[Flows panel](#) on page 117

## Changing flow titles

You can change flow titles in the **Project Info** dialog. Once you have done so, flow titles are no longer automatically changed if you change their flow name.

---

#### PROCEDURE

1. Press **Ctrl/Cmd-I** to open the **Project Info** dialog.
  2. Select the flow whose title you want to change in the flows list.
  3. Enter a new title in the **Title** field.
  4. Optional: Repeat steps 2 and 3 for other flows in your project.
  5. Click **OK** to save your changes and close the dialog.
-



#### RESULT

The titles of the selected flows are changed.

#### NOTE

This breaks the link between flow names and the title shown in the music area.

---

#### RELATED LINKS

[Project Info dialog](#) on page 75

## Videos

Dorico Elements supports the use of videos within the program as well as the associated notations, such as markers and timecodes, and allows you to find appropriate tempos based on where important markers occur.

Videos are a fast sequence of images that create the impression of a moving image. They can be any length, from only a few seconds up to several hours for feature-length films.

Videos in Dorico Elements are shown in a separate **Video** window and play back in sync with the music. Any existing audio in the video is also played back, and you can control the volume of this audio independently of the volume of the music.

#### TIP

You can use these features, including setting a project frame rate, without having a video attached.

---

#### RELATED LINKS

[Adding videos](#) on page 182

[Frame rates](#) on page 185

[Timecodes](#) on page 1103

[Markers](#) on page 1099

[Changing the volume of video audio](#) on page 184

## Supported video formats

Dorico Elements uses the same video engine that was introduced in Cubase and Nuendo in 2017. It supports the most commonly-used video formats.

The following video formats are supported:

- MOV: Including H263, H264, Apple ProRes, DV/DVCPRO and Avid DNxHR codecs
- MP4: Including H263 and H264
- AVI: Including DV/DVCPRO and MJPEG/PhotoJPEG

All the common frame rates, such as 23.976, 24, 24.975, 25, 29.97, and 30 frames per second, are fully supported in Dorico Elements.

#### NOTE

- Videos with variable frame rates are not supported.
  - Support for more formats is planned for future versions.
-

You can consult the Steinberg support site for more information about the supported formats as well as how to identify and change video formats.

#### RELATED LINKS

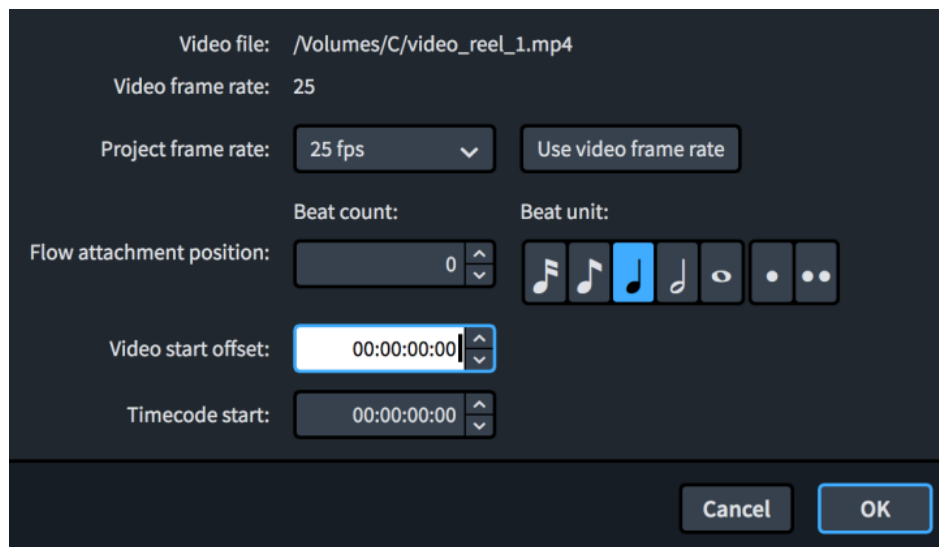
[Frame rates](#) on page 185

## Video Properties dialog

The **Video Properties** dialog allows you to change video-related settings, including their frame rate and start position.

- You can open the **Video Properties** dialog in Setup mode by right-clicking a flow in the **Flows** panel and choosing **Video > Properties** from the context menu.

It also opens automatically when you add a new video.



The **Video Properties** dialog contains the following fields and options:

#### Video file

Shows the location of the video file on your computer. This field is read-only.

#### Video frame rate

Shows the frame rate of the video file. This field is read-only.

#### Project frame rate

Allows you to select a frame rate for your project from the menu. You can only have a single frame rate across the project.

#### Use video frame rate

Sets the project frame rate to be the same as the video file.

#### Flow attachment position

Allows you to set the rhythmic position at which the video attaches. This is set using the **Beat count** and **Beat unit** settings in combination, such as eight dotted quarter notes.

#### Video start offset

Allows you to set a position within the video that syncs with the flow attachment position; for example, you can set the fifth second of the video to attach to the start of the third bar.

### Timecode start

Allows you to set the timecode at the start of the video. This also affects the timecode of the flow, but the initial timecode of the flow adjusts to accommodate the video. For example, if the initial timecode of the video is 02:00:00:00 but the video does not start until the start of the third bar in 4/4, the initial timecode of the flow is eight beats of time less than 02:00:00:00; if the tempo is 60 bpm, this makes the initial flow timecode 01:59:52:00.

#### NOTE

Flow timecodes are shown in their flow cards in the **Flows** panel.

---

#### RELATED LINKS

[Timecodes](#) on page 1103

[Flows panel](#) on page 117

## Adding videos

You can add a video to each flow in your project. You can also follow these steps to reload videos previously added to the project that Dorico Elements can no longer locate.

Flows with missing videos show a warning icon  instead of the video icon in the flow card in the **Flows** panel. This can happen if you send a project to someone else without the video file.

#### PREREQUISITE

You have added at least one player to the project.

---

#### PROCEDURE

1. In Setup mode, in the **Flows** panel, right-click the flow to which you want to add/reload a video and choose **Video > Attach** from the context menu to open the File Explorer/macOS Finder.
  2. Locate and select the video file you want to add.
  3. Click **Open** to open the **Video Properties** dialog.
  4. Change the settings as required.
  5. Click **OK** to save your changes and close the dialog.
- 

#### RESULT

The selected video file is added to the flow and is shown in the **Video** window. A video reel icon appears in the flow card in the **Flows** panel, beside a timecode indicating the combination of the **Video start offset** and **Timecode start**.

If you reloaded a video, all your previous settings are retained.

#### RELATED LINKS

[Flows panel](#) on page 117

[Adding players](#) on page 121

[Timecodes](#) on page 1103

[Changing the initial timecode value](#) on page 1104

## Changing the start position of videos

You can change both the rhythmic position in the music at which videos start, and the position in the video that coincides with that rhythmic position; for example, if you want the fifth second of a video to sync with the start of the third bar of music.

---

### PROCEDURE

1. In Setup mode, open the **Video Properties** dialog in one of the following ways:
  - Add a video to a flow.
  - In the **Flows** panel, right-click a flow and choose **Video > Properties** from the context menu.
2. Change the values for the following options, individually or together:
  - **Flow attachment position**
  - **Video start offset**
3. Click **OK** to save your changes and close the dialog.

---

### RESULT

Changing the value for **Flow attachment position** changes the rhythmic position in the music at which the video starts.

Changing the value for **Video start offset** changes the position in the video that occurs at the **Flow attachment position**.

For example, if you change the **Video start offset** to **00:00:05:00** and the **Flow attachment position** to **8**, then the fifth second in the video happens on the eighth beat in the music.

### NOTE

- The initial rhythmic position is 0. Therefore, if the **Flow attachment position** is set to **8** and the time signature is 4/4, the flow attachment occurs on the first beat in the third bar.
- Changing the **Video start offset** changes what part of the video coincides with the **Flow attachment position**, but this does not cut the video before this point. Any preceding video material is shown as long as it happens within the flow.


---

## Hiding/Showing the Video window

You can hide and show the **Video** window at any time and in any mode; for example, if you do not want it in view when working on the music in the music area.

---

### PROCEDURE

- Hide/Show the **Video** window in any of the following ways:
  - Press **F4**.
  - In the toolbar, click **Show Video** .
  - Choose **Window > Video**.

---

### RELATED LINKS

[Toolbar](#) on page 31

[Markers track](#) on page 497

## Changing the size of the Video window

You can change the size of the **Video** window at any time.

### PREREQUISITE

The **Video** window is shown.

---

### PROCEDURE

- Change the size of the **Video** window in any of the following ways:
    - Click and drag the corners/edges in any direction.
    - **Shift**-click and drag a corner/edge to change the size without changing the shape.
- 

### RESULT

The size of the **Video** window is changed. Dorico Elements saves the new size and shape and uses this for all projects until you change the size again.

## Removing videos

You can remove videos from each flow independently.

---

### PROCEDURE

- In Setup mode, in the **Flows** panel, right-click the flow from which you want to remove a video and choose **Video > Detach** from the context menu.
- 

### RESULT

The video is removed from the selected flow.

### RELATED LINKS

[Flows panel](#) on page 117

## Changing the volume of video audio


Any audio that is part of a video you have added is played back in sync with the music in the project. You can change the video volume manually.

### PREREQUISITE

The Mixer is shown, either in the lower zone or in the **Mixer** window.

---

### PROCEDURE

1. Optional: If the **Video** channel is not shown in the Mixer, click **Video** in the Mixer toolbar.
  2. Do one of the following:
    - To change the volume of video audio, click and drag the **Video** channel fader upwards/downwards.
    - To mute video audio, click **Mute**  in the **Video** channel.
- 

### RESULT

The volume of audio from videos in your project is changed.

RELATED LINKS

[Mixer panel](#) on page 667

[Mixer window](#) on page 668

[Muting/Soloing tracks](#) on page 507

[Deactivating mute/solo instrument states](#) on page 508

## Frame rates

The frame rate of a video is the number of still images that are used per unit of time in order to create the impression of a moving image, commonly measured in frames per second, or “fps”.

The number of frames per second required to create the impression of a moving image is determined by how fast the human eye processes movement, and so the most common frame rate is around 24 fps. However, recent major films have been released at 48 fps, which results in sharper images.

Dorico Elements supports frame rates from 23.976 fps to 60 fps. For example, the US and Canadian broadcast standard NTSC uses 29.97 fps.

Frame rates are closely linked to timecodes, as timecodes include both the time and the current frame position.

All the common frame rates, such as 23.976, 24, 24.975, 25, 29.97, and 30 frames per second, are fully supported in Dorico Elements.

By default, Dorico Elements uses the same frame rate for the project as the video file, but you can manually choose a different frame rate.

RELATED LINKS

[Timecodes](#) on page 1103

## Changing the project frame rate

By default, Dorico Elements uses the video frame rate as the project frame rate. You can change the project frame rate if you want it to be different; for example, if your project contains multiple videos with different frame rates.

**TIP**

You can change the frame rate even if there are no videos in the project.

---

PROCEDURE

1. In Setup mode, open the **Video Properties** dialog in one of the following ways:
    - Add a video to a flow.
    - In the **Flows** panel, right-click a flow and choose **Video > Properties** from the context menu.
  2. Select the frame rate you want to use for the project from the **Project frame rate** menu.
  3. Click **OK** to save your changes and close the dialog.
- 

RESULT

The project frame rate is changed.

# Write mode

Write mode allows you to input and edit your music, including changing the rhythmic positions of items, changing the pitch of notes, and deleting notes and items. The available toolboxes and panels allow you to input all the notes and notation items that are most commonly used.

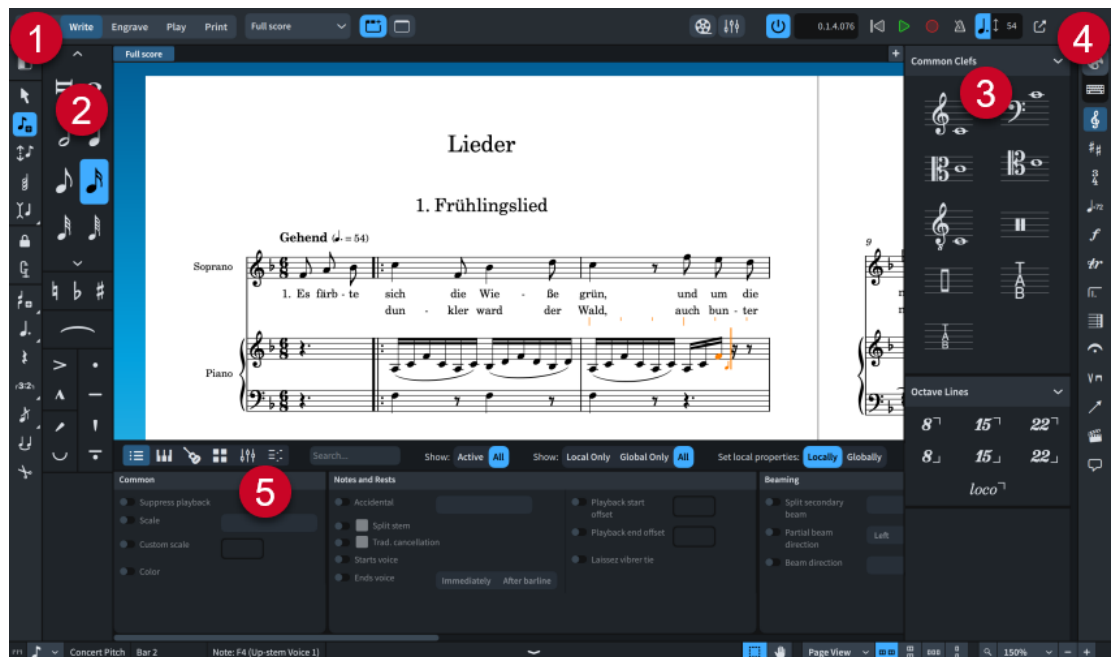
By design, you cannot move notes and items graphically in Write mode. Graphical adjustments are only possible in Engrave mode in Dorico Pro.

## Project window in Write mode

The project window in Write mode contains toolboxes and panels with the tools and functions required to write your music.

You can switch to Write mode in any of the following ways:

- Press **Ctrl/Cmd-2**.
- In the toolbar, click **Write**.
- Choose **Window > Write**.



The following zones and toolboxes are available in Write mode:

### 1 Notes toolbox

Contains tools that affect note input and editing.



### 2 Left zone

Contains the Notes panel. The Notes panel provides the note durations, accidentals, and articulations that are most commonly used during note input.

### 3 Right zone

Can display different panels, according to the current selection in the Notations toolbox. Panels in the right zone contain notation items that you can add to your music, such as dynamics and playing techniques, divided into separate categories.

#### 4 Notations toolbox

Contains either panel or popover buttons, depending on whether **Panels**  or **Popovers**  is active.

Allows you to show panels for different notations in the right zone, open popovers, and input certain items directly, such as rehearsal marks and text.

#### 5 Lower zone

Can display different panels, according to the current selection in the lower zone toolbar. Panels in the lower zone include the Properties panel, which allows you to make individual modifications to the currently selected notes and notations, and the Keyboard panel, which allows you to input notes.

#### RELATED LINKS

[Lower zone \(Write mode\)](#) on page 196

[Properties panel](#) on page 615

[Mixer panel](#) on page 667

[Copying property settings to other layouts/frame chains](#) on page 599

## Notes toolbox

The tools in the Notes toolbox allow you to start note input, modify notes, and change the type and scope of notes you input. The Notes toolbox is located on the left of the window in Write mode.

#### Show Left Zone



Hides/Shows the left zone.

#### Select



Activates/Deactivates mouse input. When **Select** is activated, mouse input is deactivated and you cannot input notes by clicking on the staff.

#### TIP

You can assign a key command for **Disable Mouse Input** on the **Key Commands** page in **Preferences**.

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#### Start Note Input



Starts/Stops note input by showing/hiding the caret. If a note, rest, or item is selected in the music area, note input starts at the selected rhythmic position. If nothing is selected in the music area, note input starts at the earliest rhythmic position on the top staff in view.

#### Pitch Before Duration





When this option is activated, you can select the pitch before specifying the duration during note input. This allows you to experiment with pitches without having to stop note input because you only input the note when you specify the duration.

You can also activate/deactivate **Pitch Before Duration** by pressing **K**.

### Chords



Allows you to add multiple notes at the same rhythmic position in order to build a chord during note input. This function prevents the caret from advancing automatically after inputting a note. Chord mode also affects some edits outside of note input, such as copying/pasting notes and items without overwriting existing material.

You can also start/stop chord input by pressing **Q**.





### Insert



Allows you to insert notes before existing notes in the current voice ahead of the caret, instead of overwriting them, during note input. Insert mode also affects some edits outside of note input, such as deleting notes or changing their duration. For example, reducing the duration of notes with Insert mode activated pulls them closer together without leaving rests between the notes.

When inputting or changing time signatures, Insert mode instructs Dorico Elements to add any extra beats required to fill bars.

You can click and hold or right-click **Insert** to access the following options:

- **Voice** : Insert mode only affects the selected voices.
- **Player** : Insert mode affects all voices and instruments belonging to the selected players.
- **Global** : Insert mode affects all players in the flow.
- **Global Adjustment of Current Bar** : Insert mode affects all players in the flow, changes the duration of the current bar, and updates its time signature to reflect its new duration.

You can also activate/deactivate Insert mode by pressing **I**. You can cycle through the different Insert mode scopes by pressing **Alt/Opt-I**.

### Lock to Duration



Allows you to maintain the duration of notes while you change their pitches. Only available during note input.

You can also activate/deactivate **Lock to Duration** by pressing **L**.

### Force Duration



Allows you to input notes/rests with the explicit duration you have selected during note input, and fixes the current notated duration of existing notes outside of note input. For example, you can activate **Force Duration** to force the input of a dotted quarter note on the second quarter beat of 4/4, where Dorico Elements splits the note with a tie by default.

#### IMPORTANT

You can get unexpected results if you force the duration of notes and later change the time signature or move barlines, for example.

You can remove **Force Duration** from selected notes by resetting their appearance.




You can also activate/deactivate **Force Duration** by pressing **O**.

#### Create Voice



Allows you to create a new voice on the current staff into which you can input notes during note input. Outside of note input, **Create Voice** allows you to change the voice of existing notes.

You can click and hold or right-click **Create Voice** to access the following options:





- **Create Voice** : Creates a new voice on the current staff. You can also use the key command **Shift-V**.
- **Create Slash Voice** : Creates a new slash voice with each click. For example, the third new slash voice is stemless. You can also use the key command **Shift-Alt/Opt-V**.
- **Next Voice** : Cycles through active voices on the staff. You can also use the key command **V**.

#### Dotted Notes



Allows you to input dotted notes/rests based on the currently selected duration during note input. Outside of note input, **Dotted Notes** allows you to add rhythm dots to, and remove rhythm dots from, existing notes/rests.

You can click and hold or right-click **Dotted Notes** to access the following options:

- **One Rhythm Dot** : Inputs notes/rests with one rhythm dot during note input. Adds one rhythm dot to selected existing notes/rests outside of note input.
- **Two Rhythm Dots** : Inputs notes/rests with two rhythm dots during note input. Adds two rhythm dots to selected existing notes/rests outside of note input.
- **Three Rhythm Dots** : Inputs notes/rests with three rhythm dots during note input. Adds three rhythm dots to selected existing notes/rests outside of note input.
- **Four Rhythm Dots** : Inputs notes/rests with four rhythm dots during note input. Adds four rhythm dots to selected existing notes/rests outside of note input.

You can also activate/deactivate **Dotted Notes** by pressing **.**. You can cycle through the different numbers of rhythm dots by pressing **Alt/Opt.-**.

#### Rests



Allows you to input rests of the currently selected duration instead of notes.

You can also start/stop rest input by pressing **,**.

#### NOTE

If **Force Duration** is not activated, Dorico Elements automatically combines adjacent rests as appropriate for their position in relation to notes and according to the current meter.








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### Tuplets



Inputs a triplet based on the currently selected note duration at the caret position or at the selected rhythmic position.

You can click and hold or right-click **Tuplets** to access the following options:



- **2:3** : Inputs a duplet; that is, two notes in the space of three.
- **3:2** : Inputs a triplet; that is, three notes in the space of two.
- **4:3** : Inputs a quadruplet; that is, four notes in the space of three.
- **5:4** : Inputs a quintuplet; that is, five notes in the space of four.
- **6:4** : Inputs a sextuplet; that is, six notes in the space of four.
- **7:8** : Inputs a septuplet; that is, seven notes in the space of eight.
- **x:y** : Opens the tuplets popover, into which you can enter any tuplet ratio.

### Grace Notes



Allows you to input grace notes instead of normal notes at the caret position. Only available during note input.

You can click and hold or right-click **Grace Notes** to access the following options:

- **Unslashed Grace Notes** : Selects unslashed grace notes.
- **Slashed Grace Notes** : Selects slashed grace notes.

You can also start/stop grace note input by pressing **/**. You can switch between slashed/unslashed grace notes by pressing **Alt/Opt-/**.

### Tie



During note input, this ties the next note you input to the previous note of the same pitch, in the same voice, and on the same staff. Outside of note input, you can use this tool to tie together notes of the same pitch in different voices or to tie grace notes to rhythmic notes.

You can also activate **Tie** by pressing **T**.

#### NOTE

You cannot deactivate **Tie**. If you want to delete ties, you must use **Scissors**.

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### Scissors



Splits notes and explicit rests in two at the caret position during note input. Outside of note input, it deletes all ties in tie chains.

You can also activate **Scissors** by pressing **U**.


RELATED LINKS

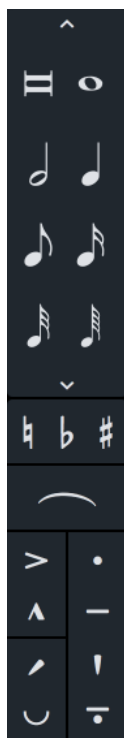
- [Key Commands page in the Preferences dialog](#) on page 59
- [Activating/Deactivating mouse input](#) on page 219
- [Inputting notes with rhythm dots](#) on page 219
- [Inputting chords](#) on page 240
- [Inputting grace notes](#) on page 239
- [Inputting tuplets](#) on page 243
- [Tuplets popover](#) on page 244
- [Input methods for time signatures and pick-up bars](#) on page 270
- [Resetting the appearance of items](#) on page 415

## Notes panel

The Notes panel contains buttons that allow you to select note and rest durations, and to input accidentals, slurs, and articulations. It is located on the left of the window in Write mode.

You can hide/show the Notes panel in any of the following ways:

- Press **Ctrl/Cmd-7**.
- In the toolbox on the left, click **Show Left Zone** .
- Choose **Window > Show Left Zone**.



The upper part of the Notes panel contains note durations that you can select for input or to change the duration of existing notes. By default, only the most common note durations are shown. You can see all note durations by clicking the **Show/Hide All Notes** disclosure arrows at the top and bottom of the section.

In the middle part of the Notes panel, you can activate/deactivate accidentals and activate slurs.

In the bottom part of the Notes panel, you can activate/deactivate articulations.

RELATED LINKS

- [Inputting notes](#) on page 211

[Inputting accidentals](#) on page 233  
[Inputting articulations](#) on page 259  
[Inputting slurs](#) on page 260  
[Inputting nested slurs](#) on page 1167  
[Deleting notes/items](#) on page 431  
[Deleting accidentals](#) on page 712  
[Deleting articulations](#) on page 724

## Notations toolbox

The Notations toolbox allows you to access panels and popovers, which you can use to input the different notations available. It is located on the right of the window in Write mode.

### Panels



Allows you to access panels from the Notations toolbox. Panels allow you to input notations by clicking them in the panel.

### Popovers



Allows you to access popovers from the Notations toolbox. Popovers allow you to input notations by typing entries on your computer keyboard. Popovers open above the top staff on which the caret is active or an item is selected, and at the caret position or the rhythmic position of the earliest selected item.

#### NOTE

Popovers are only available during note input or when at least one note/item is selected in the music area.

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## Panel buttons

### Clefs



Hides/Shows the Clefs panel, which contains sections for clefs and octave lines.

### Key Signatures, Tonality Systems, and Accidentals



Hides/Shows the Key Signatures, Tonality Systems, and Accidentals panel, which contains sections for key signatures, tonality systems, and accidentals. You can also create and edit custom tonality systems from this panel.

### Time Signatures (Meter)



Hides/Shows the Time Signatures (Meter) panel, which contains sections for the different types of time signatures, including a section where you can create custom time signatures, such as interchangeable time signatures and time signatures with pick-up bars.

### Tempo



Hides/Shows the Tempo panel, which contains sections for the different types of tempo changes, including gradual tempo changes, metronome marks, and tempo equations.

### Dynamics



Hides/Shows the Dynamics panel, which contains sections for the different types of dynamics, including immediate, gradual, and custom combined dynamics.

### Ornaments



Hides/Shows the Ornaments panel, which contains sections for ornaments, arpeggio signs, glissando lines, and guitar techniques.

### Repeat Structures



Hides/Shows the Repeat Structures panel, which contains sections for the different types of repeat structures, including repeat endings and segments, repeat markers, single-note and multi-note tremolos, bar repeats, and slash regions.

### Bars and Barlines



Hides/Shows the Bars and Barlines panel, which contains sections for bars, bar rests, and barlines.

### Holds and Pauses



Hides/Shows the Holds and Pauses panel, which contains sections for fermatas, breath marks, and caesuras.

### Playing Techniques



Hides/Shows the Playing Techniques panel, which contains sections for the various instrument family groups. Each section contains playing techniques for the corresponding instrument family.

### Lines



Hides/Shows the Lines panel, which contains sections for horizontal and vertical lines.

### Video



Hides/Shows the Video panel, which allows you to open the **Video Properties** dialog, view and edit markers in the current flow, and to calculate suitable tempos for important markers.

### Comments



Hides/Shows the Comments panel, which allows you to view, edit, and export comments in the current flow.

## Popover and direct input buttons

### Clefs



Opens the clefs and octave lines popover.

### Key Signatures, Tonality Systems, and Accidentals



Opens the key signatures popover.

### Time Signatures (Meter)



Opens the time signatures popover.

### Tempo



Opens the tempo popover.

### Dynamics



Opens the dynamics popover.

### Ornaments



Opens the ornaments popover.

### Repeat Structures



Opens the repeats popover.

### Bars and Barlines



Opens the bars and barlines popover.

### Holds and Pauses



Opens the holds and pauses popover.

### Playing Techniques



Opens the playing techniques popover.

### Rehearsal Marks



Inputs a rehearsal mark.

### Text



Opens the text editor for inputting text items.

### Lyrics



Opens the lyrics popover.

### Chord Symbols



Opens the chord symbols popover.

### Note Tools



Opens the note tools popover.

### Fingering



Opens the fingerings popover.

### Figured Bass



Opens the figured bass popover.

#### RELATED LINKS

- [Project window in Write mode](#) on page 186
- [Notations input](#) on page 259
- [Note tools popover](#) on page 462
- [Text editor options in Write mode](#) on page 371
- [Video Properties dialog](#) on page 181
- [Comment dialog](#) on page 471

## Right zone (Write mode)

The right zone in Write mode can display different panels for the available notation items, according to your selection in the Notations toolbox. You can use panels in the right zone to input notations. The right zone is located on the right of the window in Write mode.

You can hide/show the right zone in any of the following ways; for example, if you want to find a notation to input but then want to increase the size of the music area after inputting it:

- Press **Ctrl/Cmd-9**.
- In the Notations toolbox, click the button for any panel you want to show, or the active button for the panel you want to hide.
- Choose **Window > Show Right Zone**.

#### RELATED LINKS

- [Hiding/Showing zones](#) on page 44
- [Clefs panel](#) on page 316
- [Key Signatures, Tonality Systems, and Accidentals panel](#) on page 267



[Time Signatures \(Meter\) panel](#) on page 273  
[Tempo panel](#) on page 283  
[Dynamics panel](#) on page 298  
[Ornaments panel](#) on page 330  
[Repeat Structures panel](#) on page 390  
[Bars and Barlines panel](#) on page 290  
[Holds and Pauses panel](#) on page 322  
[Playing Techniques panel](#) on page 355  
[Lines panel](#) on page 367  
[Video panel](#) on page 384  
[Comments panel](#) on page 472

## Lower zone (Write mode)

The lower zone in Write mode can display different panels for inputting notes and editing notes/items.

You can hide/show the lower zone in any of the following ways:

- Press **Ctrl/Cmd-8**.
- Click the disclosure arrow at the bottom of the main window.
- Choose **Window > Show Lower Zone**.

You can use the panel selectors in the top left of the lower zone to display the corresponding panel:

### Properties



Shows the Properties panel, which allows you to edit individual notes and notations, such as by changing their appearance or position.

### Keyboard



Shows the Keyboard panel, which allows you to input notes using a piano keyboard layout and displays the pitches of selected notes as depressed keys.

### Fretboard



Shows the Fretboard panel, which allows you to input notes for fretted instruments using the corresponding fretboard layout for the selected instrument type.

### Drum Pads



Shows the Drum Pads panel, which allows you to input notes for unpitched percussion instruments using a drum pads layout.

### Mixer



Shows the Mixer panel, which allows you to control the sounds produced in playback by instruments in the project, both for the master output and each individual instrument's channel.

## Key Editor



Shows the Key Editor panel, which allows you to view and edit notes belonging to the selected instrument in a continuous piano roll.

### RELATED LINKS

[Hiding/Showing zones](#) on page 44

[Properties panel](#) on page 615

[Keyboard panel](#) on page 197

[Fretboard panel](#) on page 199

[Drum Pads panel](#) on page 200

[Mixer panel](#) on page 667

[Key Editor panel](#) on page 619


[Note input](#) on page 210

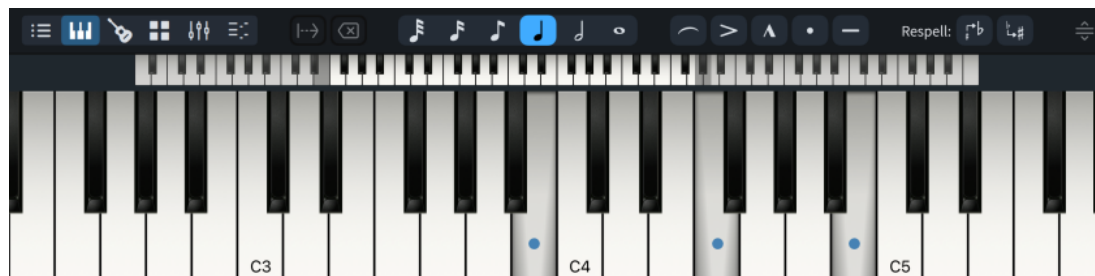
[Notations input](#) on page 259

## Keyboard panel

The Keyboard panel allows you to input notes using a piano keyboard layout, and displays selected notes and sounding notes in playback as depressed keys with blue dots. It is located in the lower zone at the bottom of the window in Write mode.

During note input, the notes you press in the Keyboard panel are input. Outside of note input, Dorico Elements plays the notes you press using the instrument sounds of your most recent selection but does not input them.

- You can show the Keyboard panel by showing the lower zone, then clicking **Keyboard**  in the lower zone toolbar.



Between the toolbar and the keyboard, there is a keyboard range selector. The brighter keys indicate the keys shown in the panel. The shaded keys at each end of the range allow you to change the keys shown in the panel; for example, if you want to show fewer, wider keys.

The Keyboard panel toolbar contains the following options:

### Advance Caret



Advances the caret by the currently selected note duration without inputting notes. Extends notations with duration, such as gradual dynamics and pedal lines. Only available during note input.

You can also advance the caret by pressing **Space**.

### Delete Left



Deletes notes at the previous rhythmic position and moves the caret back to that position. Only available during note input.

You can also delete notes/items during note input by pressing **Backspace**.

**TIP**

You can delete notes/items outside of note input by pressing **Backspace or Delete**.

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### Set Note Duration



Allows you to select a note duration, both for the next notes you input during note input and to change the duration of existing notes outside of note input.

You can also select note durations by pressing the corresponding key command or by clicking note durations in the Notes panel in the left zone.

### Slur



Inputs a slur, starting from the currently selected note or spanning the selected notes. During note input, slurs extend automatically as you input notes.

You can also input slurs by pressing **S**.

### Set Articulation



Allows you to activate/deactivate articulations, both for the next notes you input during note input and to add articulations to existing notes.

You can also activate/deactivate articulations by pressing the corresponding key command.

**NOTE**

Notes cannot have both accent and marcato articulations, or both staccato and tenuto articulations.

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### Respell Using Note Name Above



Respells the selected notes upwards to show the enharmonic equivalent using the note name above; for example, respelling F# as Gb.

### Respell Using Note Name Below



Respells the selected notes downwards to show the enharmonic equivalent using the note name below, such as respelling Gb as F#.

### Resize Lower Zone



Allows you to change the height of the lower zone.


#### RELATED LINKS

- [Caret](#) on page 205
- [Notes panel](#) on page 191
- [Hiding/Showing zones](#) on page 44
- [Inputting notes](#) on page 211
- [Inputting chords](#) on page 240
- [Deleting notes/items](#) on page 431
- [Selecting note/rest durations](#) on page 247
- [Inputting slurs](#) on page 260
- [Inputting articulations](#) on page 259
- [Respelling notes](#) on page 449

## Fretboard panel

The Fretboard panel allows you to input notes for fretted instruments using the corresponding fretboard layout for the selected instrument type, and displays the pitches of the earliest selected notes as stopped strings with blue dots. It is located in the lower zone at the bottom of the window in Write mode.

During note input, the notes you press in the Fretboard panel are input. Outside of note input, Dorico Elements plays the notes you press using the instrument sounds of your most recent selection but does not input them.

- You can show the Fretboard panel by showing the lower zone, then clicking **Fretboard**  in the lower zone toolbar.



The Fretboard panel toolbar contains the following options:

#### Advance Caret



Advances the caret by the currently selected note duration without inputting notes. Extends notations with duration, such as gradual dynamics and pedal lines. Only available during note input.

You can also advance the caret by pressing **Space**.

#### Delete Left



Deletes notes at the previous rhythmic position and moves the caret back to that position. Only available during note input.

You can also delete notes/items during note input by pressing **Backspace**.

#### TIP

You can delete notes/items outside of note input by pressing **Backspace or Delete**.

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### Set Note Duration



Allows you to select a note duration, both for the next notes you input during note input and to change the duration of existing notes outside of note input.

You can also select note durations by pressing the corresponding key command or by clicking note durations in the Notes panel in the left zone.

#### RELATED LINKS

[Caret](#) on page 205

[Notes panel](#) on page 191

[Hiding/Showing zones](#) on page 44

[Inputting notes](#) on page 211

[Inputting notes on tablature](#) on page 232

[Inputting chords](#) on page 240

[Deleting notes/items](#) on page 431

[Selecting note/rest durations](#) on page 247

[Fretted instrument tuning](#) on page 138


[Tablature](#) on page 1200

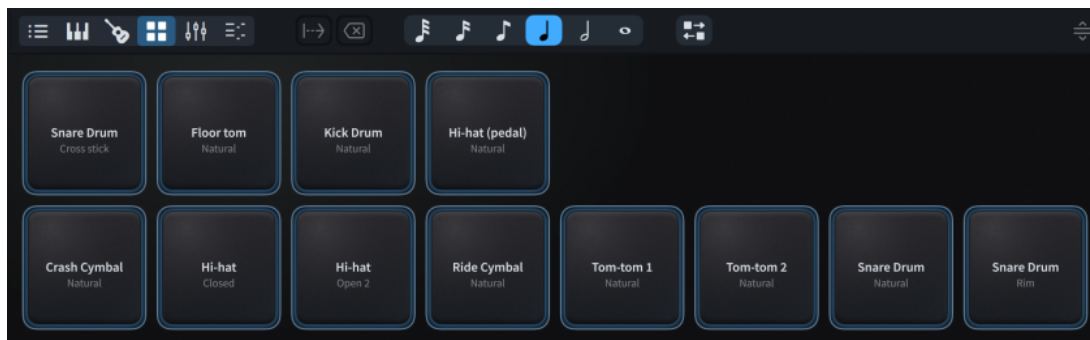
[Hiding/Showing notation staves and tablature](#) on page 1201

## Drum Pads panel

The Drum Pads panel allows you to input notes for unpitched percussion instruments using a drum pads layout. It is located in the lower zone at the bottom of the window in Write mode.

During note input, the notes you press in the Drum Pads panel are input. Outside of note input, Dorico Elements plays sounds for the instruments and techniques you press but does not input them.

- You can show the Drum Pads panel by showing the lower zone, then clicking **Drum Pads**  in the lower zone toolbar.



The Drum Pads panel toolbar contains the following options:

#### Advance Caret



Advances the caret by the currently selected note duration without inputting notes. Extends notations with duration, such as gradual dynamics and pedal lines. Only available during note input.

You can also advance the caret by pressing **Space**.

### Delete Left



Deletes notes at the previous rhythmic position and moves the caret back to that position. Only available during note input.

You can also delete notes/items during note input by pressing **Backspace**.

#### TIP

You can delete notes/items outside of note input by pressing **Backspace or Delete**.

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### Set Note Duration



Allows you to select a note duration, both for the next notes you input during note input and to change the duration of existing notes outside of note input.

You can also select note durations by pressing the corresponding key command or by clicking note durations in the Notes panel in the left zone.

### Reorder Drum Pads



Allows you to move drum pads in relation to each other; for example, to create a different arrangement for easier input in different circumstances.

### Resize Lower Zone



Allows you to change the height of the lower zone.

#### RELATED LINKS

[Caret](#) on page 205

[Notes panel](#) on page 191

[Hiding/Showing zones](#) on page 44

[Inputting notes for unpitched percussion](#) on page 227

[Deleting notes/items](#) on page 431

[Selecting note/rest durations](#) on page 247

[Unpitched percussion](#) on page 1282

[Percussion kits and drum sets](#) on page 1289

[Percussion kit presentation types](#) on page 1293

[Voices in percussion kits](#) on page 1300

## Inputting vs. editing

Dorico Elements distinguishes the processes for inputting and editing music.

### Inputting

If you can see the caret, you are inputting new music. The caret must be activated in order to input notes and notations. If the caret is activated, selecting tools or items in the Notes toolbox and the Notes panel affects the note or chord that you are about to input, as you can specify the duration, rhythm dot, accidentals, and articulations. Then you specify the pitch by clicking the note into the score, by pressing the letter name of the note on your computer keyboard, or by playing the note or chord on your MIDI keyboard.

When the caret is activated, notes and notations are input at the caret position.

If no notes or chords are selected in the music area and you select a duration, either by pressing its key command or by clicking it in the Notes panel, mouse input is activated. If you move the mouse pointer over the staff, a shadow note is displayed to indicate where the note will be input if you click.

#### NOTE

Deactivating mouse input prevents Dorico Elements from starting mouse input in this circumstance.

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## Editing

If you cannot see the caret, you can edit existing music. Editing music includes deleting notes and notations, which you can only do in Write mode, although you can also delete notes in the Key Editor. You can switch back and forth between inputting and editing at any time.

When the caret is not activated, new items are input at the position of the first selected item in the music area. If there is no selection, the mouse pointer is loaded with the new item. The item is then created at the location where you click.

To edit existing notes and notations, you must select them in the music area. This allows you to update the selected notes or items when you select, for example, new note durations, accidentals, or articulations in the Notes panel.

We recommend that you spend a moment to understand the difference between how Dorico Elements behaves if the caret is shown and if it is not. In the latter case, all editing functions operate on the items that you have selected in the music area.

#### NOTE

The results of some edits outside of note input, including copying/pasting notes, can be affected by Insert mode and Chord mode.

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#### RELATED LINKS

[Editing items](#) on page 409

[Selecting notes/items](#) on page 401

[Caret](#) on page 205

[Note input](#) on page 210

[Notations input](#) on page 259

[Rhythmic grid](#) on page 204

[Insert mode](#) on page 427

[Chord mode](#) on page 242

[Key Editor](#) on page 619

## Mouse input settings

There are a number of different settings that you can choose from to determine how mouse input functions in Dorico Elements.

You can set your preferences for mouse input in the **Editing** section of the **Note Input and Editing** page in **Preferences**.

You can choose between the following options for mouse input:

- **Create item at selection:** Items are input at the position of selected items or notes in the music area.
- **Load pointer with item:** Items are loaded onto the mouse pointer so you can click in the music area where you want to input the item.

You can also activate/deactivate **Allow multiple items to be created with the mouse**. When this option is activated, you can load an item onto your mouse pointer and input the same item in the music area multiple times without having to reselect the item each time you input it. When this option is deactivated, you can only input an item loaded onto your mouse pointer once. If you want to input the item at multiple positions, you must reselect it each time.

#### NOTE

Changing your preferences permanently changes the functionality for the current project and all new projects.

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#### RELATED LINKS

[Preferences dialog](#) on page 58

## Changing your mouse input settings

You can change your mouse input settings; for example, if you want to load a playing technique on the pointer once and input it in multiple places without having to reselect the playing technique each time.

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#### PROCEDURE

1. Press **Ctrl/Cmd-**, to open **Preferences**.
  2. In the category list, click **Note Input and Editing**.
  3. In the **Editing** section, choose one of the following options for **Creating items with the mouse**:
    - **Create item at selection**
    - **Load pointer with item**
  4. Optional: If you chose **Load pointer with item**, activate/deactivate **Allow multiple items to be created with the mouse**.
  5. Click **Apply**, then **Close**.
- 

#### RESULT

Your mouse input settings are changed in the current project and for all future projects.

#### RELATED LINKS

[Notations input](#) on page 259



## Rhythmic grid

The rhythmic grid is a unit of rhythmic duration whose value affects certain aspects of inputting and editing, such as the amount by which items move. However, it does not control the duration of notes and items that you input.



Rhythmic grid set to eighth notes (quavers) shown above the staff

The current rhythmic grid resolution is shown by the note value in the status bar, and by ruler markings above the staff on which the caret is active. Longer lines in the rhythmic grid indicate beat divisions, while shorter lines indicate beat subdivisions.

The rhythmic grid controls the following:

- The possible input positions when using the caret or the mouse, and when copying and pasting. For example, setting the rhythmic grid resolution to 32nd notes allows you to input notes and items at a greater number of possible rhythmic positions than when the rhythmic grid is set to quarter notes.
- The amount by which the caret moves when using **Right Arrow** / **Left Arrow**.
- The amount by which notes and items are lengthened/shortened.
- The amount by which notes and items move.
- The duration by which notes are split.

### RELATED LINKS

[Rhythmic position](#) on page 26

[Caret](#) on page 205

[Moving the caret manually](#) on page 210

[Changing the Key Editor rhythmic grid resolution](#) on page 626

[Inputting notes](#) on page 211

[Splitting notes by duration](#) on page 249

[Changing music area colors](#) on page 54

## Changing the rhythmic grid resolution

You can change the resolution of the rhythmic grid; for example, you might decrease the rhythmic grid resolution so you can shorten notes by smaller increments. The resolution is indicated by the note value symbol in the status bar and by the beat divisions/subdivisions in the ruler markings above the caret.

The rhythmic grid resolution is set to eighth notes (quavers) by default.

---

### PROCEDURE

- Change the resolution of the rhythmic grid in any of the following ways:
  - To decrease the rhythmic grid resolution, press **Alt/Opt-]**.
  - To increase the rhythmic grid resolution, press **Alt/Opt-[**.
  - Choose **Write > Rhythmic Grid > Decrease Grid Resolution**.
  - Choose **Write > Rhythmic Grid > Increase Grid Resolution**.
  - Choose **Write > Rhythmic Grid > [Beat division]**.

- Select a value from the **Rhythmic Grid** selector in the status bar.
- 

#### RESULT

Decreasing the rhythmic grid resolution makes it finer by making the note value shorter.  
Increasing the rhythmic grid resolution makes it coarser by making the note value longer.

#### RELATED LINKS

[Status bar](#) on page 39

[Changing the Key Editor rhythmic grid resolution](#) on page 626

[Changing the duration of notes](#) on page 248

[Lengthening/Shortening items](#) on page 410

[Moving notes/items rhythmically](#) on page 437

## Caret

In Dorico Elements, the caret is a vertical line that extends above and below five-line staves but appears shorter on percussion staves and tablature. It shows the rhythmic position at which notes, chords, or notation items are input, which can be partway through tie chains.

A caret is a mark that is commonly used when proofreading published text to denote the position at which something should be inserted or added; for example, a missing letter or a word. In software, the caret shows where something is inserted. The caret is also known as an “insertion point” or “cursor”. In this documentation, we use “caret” to refer to the line that appears during note input, and “cursor” to refer to the line that appears during text input.

If you are inputting notes, the caret advances to the next rhythmic position automatically. If you are inputting chords or notes on tablature, the caret does not move automatically, and you must move it to the next rhythmic position manually.

The caret has a note symbol beside it, which indicates the stem direction and type of the currently selected voice. It is accompanied by a + symbol if the voice is new.



The caret

The appearance of the caret changes depending on the input mode and the currently selected voice number.

#### Multiple staves

The caret extends vertically across all the staves onto which notes and notations will be input. This allows you to input, for example, the same dynamics or playing techniques on multiple staves simultaneously or play in chords on a MIDI keyboard and distribute the notes in those chords onto multiple staves. The note symbol and rhythmic grid also appear for each included staff.



Caret when inputting notes onto multiple staves

### Insert

The caret shows V and inverted V shapes at the top and bottom. Dotted lines are shown on staves affected by the Insert mode scope across which the caret does not already extend. In Insert mode, inserted notes shift existing notes after the caret along by the input duration instead of overwriting them.



Caret when **Insert (Voice)** is active



Caret when **Insert (Player)** is active



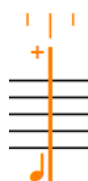
Caret when either **Insert (Global)** or **Insert (Global Adjustment of Current Bar)** is active

### NOTE

Insert mode also affects some edits outside of note input, such as copying/pasting, deleting, and lengthening/shortening notes.

### Chords

The caret shows a plus symbol at the top left. During chord input, you can input multiple notes at the same rhythmic position.



Caret when inputting chords

## NOTE

Chord mode also affects some edits outside of note input, such as copying/pasting and lengthening/shortening notes and items.

---

### Lock to Duration

The caret is dashed. **Lock to Duration** allows you to repitch notes without changing their duration or rhythm.



Caret when **Lock to Duration** is activated

### Grace Notes

The caret is shorter than the default caret. It allows you to input grace notes at the caret position.



Caret when inputting grace notes

### Voices

To identify voices, the caret shows the following:

- An up-stem or down-stem note symbol to indicate the stem direction of the voice
- The voice number into which you are about to input notes, for second voices and above
- A plus symbol at the bottom left, if the voice is new



Caret when inputting notes into the first up-stem voice



Caret when inputting notes into a new down-stem voice



Caret when inputting notes into a new, second up-stem voice

### Slash voices

To identify slash voices, the caret shows the following:

- An up-stem or down-stem slash note symbol, indicating the stem direction of the slash voice, and whether it has stems or is stemless
- The number of the slash voice into which you are about to input notes, for second voices and above

- A plus symbol on the left at the bottom, if the slash voice is new



Caret when inputting notes into an up-stem slash voice



Caret when inputting notes into a new, second up-stem slash voice



Caret when inputting notes into a new, stemless slash voice

### Percussion kits

The caret appears significantly smaller than usual when inputting notes into percussion kits. The name of the kit instrument into which you are currently inputting notes is shown above the rhythmic grid.

Sn. Dr.  
| | | |



Caret when inputting notes into percussion kits

### Tablature

The caret appears significantly smaller than usual when inputting notes into tablature. On tablature, the caret behaves as if chord input is always active, meaning you must advance the caret and move it to other string lines manually.



Caret when inputting notes on tablature

### RELATED LINKS

[Chord mode](#) on page 242

[Insert mode](#) on page 427

[Inputting chords](#) on page 240

[Inputting notes in Insert mode](#) on page 226

[Repitching notes without changing their rhythm](#) on page 448

[Inputting grace notes](#) on page 239

[Inputting notes into multiple voices](#) on page 221

[Inputting notes for unpitched percussion](#) on page 227

[Inputting notes on tablature](#) on page 232

[Changing music area colors](#) on page 54

[Ties](#) on page 1232

[Splitting tie chains](#) on page 1241



[Splitting notes by duration](#) on page 249

## Activating/Deactivating the caret

When the caret is activated, you can input notes and notations at the caret position; for example, if you want to input a dynamic in the middle of a tie chain. When the caret is deactivated, you cannot input notes, instead you can select and edit items in the music area.

---

### PROCEDURE

1. In Write mode, activate the caret and start note input in any of the following ways:
    - Select an item and press **Shift-N**.
    - In the Notes toolbox, click **Start Note Input** .
    - Double-click a rhythmic position on a staff.
  2. Deactivate the caret and stop note input in any of the following ways:
    - Press **Shift-N**, **Return**, or **Esc**.
    - If you have deactivated mouse input, click any selectable item in the music area.
    - In the Notes toolbox, click **Start Note Input** .
    - Switch to another mode.
- 

### RELATED LINKS


- [Moving the caret manually](#) on page 210
- [Activating/Deactivating mouse input](#) on page 219
- [Inputting notes](#) on page 211
- [Notations input](#) on page 259

## Extending the caret to multiple staves

You can extend the caret so it spans multiple staves. This allows you to input notes and notations onto multiple staves simultaneously, including automatically exploding the notes in chords that you play on a MIDI keyboard onto the appropriate staves.

---


### PROCEDURE

1. In Write mode, activate the caret in any of the following ways:
    - Select an item and press **Shift-N**.
    - In the Notes toolbox, click **Start Note Input** .
    - Double-click a rhythmic position on a staff.
  2. Extend the caret to other staves in any of the following ways:
    - To extend to the staff above, press **Shift-Up Arrow**.
    - To extend to the staff below, press **Shift-Down Arrow**.
  3. Optional: Repeat step 2 as many times as you require.
- 

### RELATED LINKS


- [Notes toolbox](#) on page 187
- [Inputting notes and notations onto multiple staves](#) on page 225

## Moving the caret manually

During normal note input, the caret moves automatically as you input notes, but you can also move it manually. For example, the caret does not move automatically when **Chords**  is activated.

---

### PROCEDURE

- In Write mode, move the caret in any of the following ways:
  - To move the caret according to the current rhythmic grid resolution or to the next/previous note/rest, whichever is closest, press **Right Arrow** / **Left Arrow**.
  - To advance the caret according to the note value currently selected, press **Space** or click **Advance Caret**  in the Keyboard, Fretboard, or Drum Pads panel toolbar.
  - To move the caret to the next/previous bar, press **Ctrl/Cmd-Right Arrow** / **Ctrl/Cmd-Left Arrow**.
  - To move the caret to the staff above/below, press **Up Arrow** / **Down Arrow**.
  - To move the caret to the top/bottom staff in the system, press **Ctrl/Cmd-Up Arrow** / **Ctrl/Cmd-Down Arrow**.

---

### RELATED LINKS

[Inputting chords](#) on page 240

[Keyboard panel](#) on page 197

[Fretboard panel](#) on page 199

[Drum Pads panel](#) on page 200

[Rhythmic grid](#) on page 204

## Note input

In Dorico Elements, you can only input notes during note input, which is when the caret is activated. This reduces the risk of you adding notes to staves accidentally.

You can also input notations at the same time as inputting notes. Notations are input at the caret position or on the selected note.

You can input notes in different ways and using any of the following devices, including switching between them at any time:

- MIDI keyboard
- Computer keyboard
- Mouse or touchpad
- Keyboard, Fretboard, and Drum Pads panels

### TIP

A MIDI keyboard can be the fastest way to input notes.

---

### RELATED LINKS

[Notes](#) on page 940

[Inputting notes](#) on page 211

[Accidental selection during MIDI input](#) on page 234

[Keyboard panel](#) on page 197

[Fretboard panel](#) on page 199

[Drum Pads panel](#) on page 200

[Notations input](#) on page 259

[Arranging tools](#) on page 431

## Inputting notes

You can input notes into your project during note input, which is when the caret is activated. You can input notes with a computer keyboard, with the mouse, using panels in the lower zone, or by playing notes with a MIDI keyboard.

### NOTE

- These steps describe inputting notes with the default preference of duration before pitch. However, you can also specify the pitch before duration instead.
- These steps describe selecting rhythm dots, articulations, and accidentals not in the prevailing key signature before inputting notes. However, you can also select them after inputting notes. If you change this setting, you must perform step 7 before steps 4 to 6.
- You do not have to input rests between notes, as Dorico Elements automatically shows implicit rests of the appropriate duration between the notes you input. Similarly, you do not have to input ties, as Dorico Elements shows notes as tie chains if necessary.
- You can also input notations alongside notes without deactivating note input.

### PREREQUISITE

- You have chosen the appropriate input pitch setting.
- You have chosen the appropriate note-based notation input setting.
- You have connected any MIDI devices you want to use for note input.
- If you want to select note durations using the Notes panel, the left zone is shown.
- If you want to input notes into multiple instruments held by a single player or instruments not visible in the score in page view, you are in galley view.
- If your music requires a key signature, you have input that key signature.


### PROCEDURE

1. In Write mode, start note input in any of the following ways:

- Select a note or rest on the staff where you want to input notes and press **Shift-N**.

### NOTE

You can also press **Return**; however, if you select a notation, such as a dynamic, pressing **Return** opens the corresponding popover instead of starting note input.

- Select a note or rest on the staff where you want to input notes and click **Start Note Input**  in the Notes toolbox.
  - Double-click the staff where you want to input notes.
2. Optional: If you want to input notes onto multiple staves at once, extend the caret to those staves.
3. Select a note duration in any of the following ways:
- Press the number on your computer keyboard that corresponds to the duration you want.




For example, press **6** for quarter notes (crotchets). Press smaller numbers for smaller durations, such as **5** for eighth notes (quavers) and **4** for 16th notes (semiquavers). Press larger numbers for larger durations, such as **7** for half notes (minims).

- In the Notes panel, click the duration you want.
  - In the Keyboard, Fretboard, or Drum Pads panel toolbar, click the duration you want.
4. Optional: Select any required rhythm dots.
  5. Optional: If you want to input a pitch whose accidental is not in the prevailing key signature, select the appropriate accidental.
  6. Optional: Select any required articulations.
  7. Input the pitches you want in any of the following ways:


**TIP**

Dorico Elements automatically selects the note whose register is the smallest interval away from the previously input note. However, you can force a different register.

- To input a note above the previously input note, press **Shift-Alt/Opt** as well as the letter for the note; for example, **Shift-Alt/Opt-A**.
  - To input a note below the previously input note, press **Ctrl-Alt (Windows) or Ctrl (macOS)** as well as the letter for the note; for example, **Ctrl-Alt-A (Windows) or Ctrl-A (macOS)**.
- 
- Click the staff at the rhythmic position of each note you want to input.  
A shadow notehead appears when inputting with the mouse to indicate where the note will be input.
  - In the Keyboard, Fretboard, or Drum Pads panel, play the notes you want.
  - Play the notes on a MIDI keyboard.
8. Optional: Advance the caret by the currently selected note duration without inputting notes in any of the following ways:
- Press **Space**.
  - In the Keyboard, Fretboard, or Drum Pads panel toolbar, click **Advance Caret** .

**TIP**

You can also move the caret in different ways and by different increments.

- 
9. Stop note input in any of the following ways:
- Press **Esc** or **Return**.
  - In the Notes toolbox, click **Start Note Input** .

---

**RESULT**

Notes are input with the selected duration at the caret position or where you click and are played back as you input them by default. Their pitch follows the prevailing key signature. For example, if you press **F** in G major, an **F#** is input automatically.

If you selected rhythm dots or articulations, notes continue to be input with them until you deactivate them. However, accidentals not in the prevailing key signature are only added to the first note you input after selecting them.

Dorico Elements notates and beams notes appropriately according to their duration, the prevailing time signature, and their position in the bar. This includes showing notes as tie chains if required.

If you advance the caret without inputting notes, Dorico Elements fills the gaps between notes with implicit rests of the appropriate duration.

If you input notes on notation staves belonging to fretted instruments, Dorico Elements automatically allocates these notes to the strings on which they can be played closest to the nut. Because this calculation is done for each note separately, multiple notes can be allocated to the same string. In such cases, the notes are shown next to each other on tablature and are colored green. You can then select them individually and make your own string allocation.

#### NOTE

- The notes you input overwrite existing notes at the caret position in the voice indicated by the quarter note symbol beside the caret. If you want to add notes to an existing voice, you can input chords. You can also input notes into new voices.
- You can change the default beam, note, and rest grouping settings for each flow independently in **Notation Options**. You can also specify custom beat groupings within individual time signatures.

---

#### AFTER COMPLETING THIS TASK

- You can move notes to different rhythmic positions and other staves after they have been input.
- You can also show brackets on noteheads individually.

#### RELATED LINKS

[Notes toolbox](#) on page 187  
[Keyboard panel](#) on page 197  
[Fretboard panel](#) on page 199  
[Drum Pads panel](#) on page 200  
[Inputting notes using pitch before duration](#) on page 214  
[Changing the note-based notation input setting](#) on page 218  
[Changing the input pitch setting](#) on page 218  
[Hiding/Showing zones](#) on page 44  
[Switching to galley/page view](#) on page 50  
[Accidental selection during MIDI input](#) on page 234  
[Respelling notes](#) on page 449  
[Notation Options dialog](#) on page 679  
[Notes panel](#) on page 191  
[Rhythmic grid](#) on page 204  
[Caret](#) on page 205  
[Selecting note/rest durations](#) on page 247  
[Inputting notes with rhythm dots](#) on page 219  
[Inputting accidentals](#) on page 233  
[Inputting articulations](#) on page 259  
[Inputting chords](#) on page 240  
[Inputting notes into multiple voices](#) on page 221  
[Inputting rests](#) on page 235  
[Inputting tuplets](#) on page 243  
[Adding notes above/below existing notes](#) on page 247  
[Moving notes/items rhythmically](#) on page 437  
[Creating cross-staff beams/tremolos](#) on page 764  
[Note and rest grouping](#) on page 774

- [Beam grouping according to meters](#) on page 755
- [Notations input](#) on page 259
- [Playing/Muting notes during note input/selection](#) on page 408
- [Changing the allocated string for notes on tablature](#) on page 1202
- [Enabling/Disabling MIDI input devices](#) on page 258
- [Implicit vs. explicit rests](#) on page 1145
- [Ties](#) on page 1232
- [Key signatures](#) on page 911
- [Arranging tools](#) on page 431
- [Bracketed noteheads](#) on page 953

## Register selection during note input

Dorico Elements automatically selects the register of pitches during note input, but you can override this and select the register manually.

During note input, Dorico Elements automatically selects the note whose register is the smallest interval away from the previously input note. For example, if you input an F and then press **A**, an A is input a third above the F, rather than a sixth below.

You can override this automatic register selection in the following ways:

- To input a note above the previously input note, press **Shift-Alt/Opt** as well as the letter for the note; for example, **Shift-Alt/Opt-A**.
- To input a note below the previously input note, press **Ctrl-Alt (Windows) or Ctrl (macOS)** as well as the letter for the note; for example, **Ctrl-Alt-A (Windows) or Ctrl-A (macOS)**.

## Register selection when inputting chords

During chord input, Dorico Elements automatically inputs notes above the highest note at the caret position. For example, if you press **A** then **E** then **A**, a chord of A-E-A is input at the caret position.

You can input notes below the lowest note at the caret position instead by pressing **Ctrl-Alt (Windows) or Ctrl (macOS)** as well as the letter for the note name; for example, **Ctrl-Alt-A (Windows) or Ctrl-A (macOS)**.

### RELATED LINKS

- [Changing the pitch of individual notes](#) on page 444
- [Accidental selection during MIDI input](#) on page 234
- [Respelling notes](#) on page 449

## Inputting notes using pitch before duration

You can input notes into your project by specifying their pitch before their duration, meaning you can test pitches before inputting them without leaving note input. You can input notes with a computer keyboard, with the mouse, using panels in the lower zone, or by playing notes with a MIDI keyboard.

By default in Dorico Elements, you must specify the duration before the pitch of notes.

### NOTE

- These steps describe selecting the pitch before the duration when inputting notes. However, you can also specify the duration before the pitch instead, which is the default note input behavior in Dorico Elements.

- These steps describe selecting rhythm dots, articulations, and accidentals not in the prevailing key signature before inputting notes. However, you can also select them after inputting notes. If you change this setting, you must perform steps 7 and 8 before steps 4 to 6.
  - When inputting notes on tablature using pitch before duration, you must select note durations by clicking them in the Notes panel.
  - You do not have to input rests between notes, as Dorico Elements automatically shows implicit rests of the appropriate duration between the notes you input. Similarly, you do not have to input ties, as Dorico Elements shows notes as tie chains if necessary.
  - You can also input notations alongside notes without deactivating note input.
- 

#### PREREQUISITE

- You have chosen the appropriate input pitch setting.
  - You have chosen the appropriate note-based notation input setting.
  - You have connected any MIDI devices you want to use for note input.
  - If you want to select note durations using the Notes panel, the left zone is shown.
  - If you want to input notes into multiple instruments held by a single player or instruments not visible in the score in page view, you are in galley view.
  - If your music requires a key signature, you have input that key signature.
- 

#### PROCEDURE



1. In Write mode, start note input in any of the following ways:

- Select a note or rest on the staff where you want to input notes and press **Shift-N**.

#### NOTE

You can also press **Return**; however, if you select a notation, such as a dynamic, pressing **Return** opens the corresponding popover instead of starting note input.

---

- Select a note or rest on the staff where you want to input notes and click **Start Note Input**  in the Notes toolbox.
  - Double-click the staff where you want to input notes.
2. Activate **Pitch Before Duration** in any of the following ways:
- Press **K**.
  - In the Notes toolbox, click **Pitch Before Duration** .
3. Optional: If you want to input notes onto multiple staves at once, extend the caret to those staves.
4. Optional: If you want to input a pitch whose accidental is not in the prevailing key signature, select the appropriate accidental.
5. Optional: Select any required articulations.
6. Optional: Select any required rhythm dots.
7. Select a pitch in any of the following ways:
- Press the corresponding letters on your computer keyboard.

TIP

Dorico Elements automatically selects the note whose register is the smallest interval away from the previously input note. However, you can force a different register.

- To input a note above the previously input note, press **Shift-Alt/Opt** as well as the letter for the note; for example, **Shift-Alt/A**.
- To input a note below the previously input note, press **Ctrl-Alt (Windows) or Ctrl (macOS)** as well as the letter for the note; for example, **Ctrl-Alt-A (Windows) or Ctrl-A (macOS)**.

When inputting notes using pitch before duration, you can press these key commands multiple times to select higher/lower octaves.

- 
- Click the staff at the rhythmic position of each note you want to input.  
A shadow notehead appears when inputting with the mouse to indicate where the note will be input.
  - In the Keyboard, Fretboard, or Drum Pads panel, play the notes you want.
  - Play the notes on a MIDI keyboard.


Once you have selected a pitch, a shadow note of the corresponding pitch appears at the caret position. You can release the pitch after selecting it.

8. Select a note duration and input the note in any of the following ways:

- Press the number on your computer keyboard that corresponds to the duration you want.  
For example, press **6** for quarter notes (crotchets). Press smaller numbers for smaller durations, such as **5** for eighth notes (quavers) and **4** for 16th notes (semiquavers). Press larger numbers for larger durations, such as **7** for half notes (minims).
- In the Notes panel, click the duration you want.

NOTE


When inputting notes on tablature, you must click durations in the Notes panel.

- In the Keyboard, Fretboard, or Drum Pads panel toolbar, click the duration you want.
9. Optional: Advance the caret by the currently selected note duration without inputting notes in any of the following ways:
- Press **Space**.
  - In the Keyboard, Fretboard, or Drum Pads panel toolbar, click **Advance Caret** .

TIP

You can also move the caret in different ways and by different increments.

10. Stop note input in any of the following ways:

- Press **Esc** or **Return**.
- In the Notes toolbox, click **Start Note Input** .

---

RESULT

Notes are input with the selected duration at the caret position or where you click and are played back as you input them by default. Their pitch follows the prevailing key signature. For example, if you press **F** in G major, an **F#** is input automatically.


If you selected rhythm dots or articulations, notes continue to be input with them until you deactivate them. However, accidentals not in the prevailing key signature are only added to the first note you input after selecting them.

Dorico Elements notates and beams notes appropriately according to their duration, the prevailing time signature, and their position in the bar. This includes showing notes as tie chains if required.

If you advance the caret without inputting notes, Dorico Elements fills the gaps between notes with implicit rests of the appropriate duration.

If you input notes on notation staves belonging to fretted instruments, Dorico Elements automatically allocates these notes to the strings on which they can be played closest to the nut. Because this calculation is done for each note separately, multiple notes can be allocated to the same string. Similarly, when you input chords on tablature using pitch before duration with a MIDI keyboard, all notes in the chord are allocated to the same string. In such cases, the notes are shown next to each other on tablature and are colored green. You can then select them individually and make your own string allocation.

#### NOTE

- The notes you input overwrite existing notes at the caret position in the voice indicated by the quarter note symbol beside the caret. If you want to add notes to an existing voice, you can input chords. You can also input notes into new voices.
- You can switch between using pitch before duration and duration before pitch note input at any time by pressing **K** or clicking **Pitch Before Duration** . For example, duration before pitch can be easier when inputting a sequence of notes with the same duration.
- You can change the default beam, note, and rest grouping settings for each flow independently in **Notation Options**. You can also specify custom beat groupings within individual time signatures.
- You can change whether note input uses pitch before duration or duration before pitch by default on the **Note Input and Editing** page in **Preferences**.

---

#### AFTER COMPLETING THIS TASK

You can move notes to different rhythmic positions and other staves after they have been input. You can also show brackets on noteheads individually.

#### RELATED LINKS

- [Changing the note-based notation input setting](#) on page 218
- [Changing the input pitch setting](#) on page 218
- [Notes toolbox](#) on page 187
- [Keyboard panel](#) on page 197
- [Fretboard panel](#) on page 199
- [Drum Pads panel](#) on page 200
- [Inputting notes](#) on page 211
- [Register selection during note input](#) on page 214
- [Accidental selection during MIDI input](#) on page 234
- [Hiding/Showing zones](#) on page 44
- [Switching to galley/page view](#) on page 50
- [Notes panel](#) on page 191
- [Rhythmic grid](#) on page 204
- [Caret](#) on page 205
- [Inputting chords](#) on page 240
- [Inputting notes into multiple voices](#) on page 221
- [Adding notes above/below existing notes](#) on page 247

[Notations input](#) on page 259

[Enabling/Disabling MIDI input devices](#) on page 258

## Changing the input pitch setting

You can input and record notes at either sounding pitch or written pitch; for example, if you want to record notes at their sounding pitch in transposing part layouts.

In concert pitch layouts, written pitch and sounding pitch are the same.

---

### PROCEDURE

- In Write mode, choose one of the following input pitch settings:
  - To input/record notes at their written pitch, choose **Write > Input Pitch > Written Pitch**.
  - To input/record notes at their sounding pitch, choose **Write > Input Pitch > Sounding Pitch**.

---

### RESULT

The resulting pitch notated or recorded is changed. For example, if you input a C in a Horn in F transposing part layout with the input pitch set to **Sounding Pitch**, the note is written as a G.

### RELATED LINKS

[Inputting notes](#) on page 211

[Inputting notes using MIDI recording](#) on page 253

[Concert vs. transposed pitch](#) on page 170

## Changing the note-based notation input setting

You can change your default setting for whether rhythm dots, accidentals, and articulations apply to the last input note or the next note you input during note input. This setting also affects whether or not the last input note remains selected after entry when using pitch before duration for inputting notes.

For example, changing the setting to **After inputting note** when using pitch before duration for notes ensures the last input note remains selected after you input it, making it easier to change its enharmonic spelling when inputting notes using a MIDI keyboard. The last input note is always selected when using duration before pitch for notes, regardless of your note-based notation input setting.

---

### PROCEDURE

1. Press **Ctrl/Cmd-**, to open **Preferences**.
2. In the category list, click **Note Input and Editing**.
3. In the **Note Input** section, choose one of the following options for **Specify accidental, rhythm dot and articulations** in the **Pitch and Duration** subsection:
  - **After inputting note**
  - **Before inputting note**
4. Click **Apply**, then **Close**.

---

### RESULT

The setting is changed in the current project and for all future projects. If you chose **Before inputting note**, notes do not remain selected after you input them during pitch before duration note input.

RELATED LINKS

- [Inputting notes](#) on page 211
- [Inputting notes using pitch before duration](#) on page 214
- [Inputting accidentals](#) on page 233
- [Inputting notes with rhythm dots](#) on page 219
- [Inputting articulations](#) on page 259

## Activating/Deactivating mouse input

You can activate/deactivate mouse input; for example, if you only want to input notes using your computer keyboard or MIDI device. Deactivating mouse input also allows you to click other items to stop note input.



---

PROCEDURE

- In Write mode, in the Notes toolbox, activate/deactivate **Select** .

---

RESULT

Mouse input is activated in the current project when **Select**  is deactivated. Mouse input is deactivated in the current project when **Select**  is activated.

TIP

You can change the default setting for whether mouse input is activated/deactivated by activating/deactivating **Enable note input using the mouse** on the **Note Input and Editing** page in **Preferences**.

---

RELATED LINKS

- [Notes toolbox](#) on page 187
- [Preferences dialog](#) on page 58

## Inputting notes with rhythm dots

The **Dotted Notes** tool allows you to input notes with rhythm dots and add rhythm dots to existing notes. You can input notes with up to four rhythm dots.

NOTE









- These steps describe inputting notes with the default preference of duration before pitch. However, you can also specify the pitch before duration instead.
- These steps describe selecting rhythm dots before inputting notes. However, you can change this setting if you prefer to specify rhythm dots after inputting notes.
- You cannot add rhythm dots to grace notes.

---

PROCEDURE

- In Write mode, do one of the following:
  - Start note input.
  - Select existing notes to which you want to add rhythm dots.
- Optional: If you want to input notes with rhythm dots onto multiple staves at once, extend the caret to those staves.
- Select a note duration in any of the following ways:



- Press the number on your computer keyboard that corresponds to the duration you want.  
For example, press **6** for quarter notes (crotchets). Press smaller numbers for smaller durations, such as **5** for eighth notes (quavers) and **4** for 16th notes (semiquavers). Press larger numbers for larger durations, such as **7** for half notes (minims).
  - In the Notes panel, click the duration you want.
  - In the Keyboard, Fretboard, or Drum Pads panel toolbar, click the duration you want.
4. Activate **Dotted Notes** in any of the following ways:
- Press **.**
  - In the Notes toolbox, click **Dotted Notes** .
5. Optional: Change the number of rhythm dots in any of the following ways:
- Press **Alt/Opt-.** to cycle through different numbers of rhythm dots.
  - In the Notes toolbox, click and hold **Dotted Notes** , then click the number of rhythm dots you want.
- Dotted Notes**  in the Notes toolbox updates to indicate the current number of rhythm dots. You can input notes with up to four rhythm dots.
6. Optional: Activate **Force Duration** in any of the following ways:
- Press **O**.
  - In the Notes toolbox, click **Force Duration** .
- If **Force Duration**  is not activated, the notes you input might be shown as tied notes rather than dotted notes, depending on their position in the bar and the prevailing meter.
7. Input the dotted notes you want.  
**Dotted Notes**  remains activated until you either select a different note duration or deactivate it.
8. Press **.** or click **Dotted Notes**  again to deactivate **Dotted Notes**.
9. Stop note input in any of the following ways:
- Press **Esc** or **Return**.
  - In the Notes toolbox, click **Start Note Input** .

---

#### RESULT

During note input, notes are input as dotted notes until you deactivate **Dotted Notes** or change the note duration.

When you add rhythm dots to multiple existing notes that would then overlap, Dorico Elements adjusts the duration of notes in the selection to avoid deleting notes at the end of the selection.

---

#### EXAMPLE



A phrase containing eighth notes



After adding rhythm dots to the whole selection

---

RELATED LINKS

- [Note and rest grouping](#) on page 774
- [Notes toolbox](#) on page 187
- [Notes panel](#) on page 191
- [Caret](#) on page 205
- [Insert mode](#) on page 427
- [Chord mode](#) on page 242
- [Selecting note/rest durations](#) on page 247
- [Activating/Deactivating the caret](#) on page 209
- [Extending the caret to multiple staves](#) on page 209
- [Inputting notes in Insert mode](#) on page 226
- [Changing the note-based notation input setting](#) on page 218



## Inputting notes into multiple voices

By default, notes are input into the first up-stem voice, as indicated by the symbol of an up-stem quarter note beside the caret. You can input notes directly into other voices during note input, and switch between voices as required.

You can also create new voices on staves with existing notes and input notes into those voices anywhere else on those staves.

---

PROCEDURE

1. In Write mode, select an item on the staff and at the rhythmic position where you want to input multiple voices.
2. Start note input in any of the following ways:
  - Press **Shift-N**.
  - In the Notes toolbox, click **Start Note Input** .
  - Double-click the staff.
3. Select the voice into which you want to input notes in one of the following ways:
  - To create a new voice, press **Shift-V** or click **Create Voice**  in the Notes toolbox.When a new voice is added, a + sign appears beside the symbol of a quarter note beside the caret. The quarter note symbol indicates the stem direction, and the number beside the quarter note indicates the voice number if applicable.



Caret when adding the first down-stem voice

**TIP**

You can press **Shift-V** as many times as you require. For example, on a staff containing no notes, creating one new voice allows you to input notes into the first down-stem voice, but you can also create another new voice immediately if you want to input notes into the second up-stem voice.


Only voices that contain notes are preserved.

---

- To select an existing voice, press **V** or click **Next Voice**  in the Notes toolbox to cycle through active voices on the staff.

#### NOTE

- You can switch between voices as often as you like.
- If you have three or more voices on a single staff, you can only cycle through all the voices in a set order. For example, if you have two up-stem voices and two down-stem voices, the order is: first up-stem voice, first down-stem voice, second down-stem voice, second up-stem voice.

4. Input the notes you want.
5. Stop note input in any of the following ways:
  - Press **Esc** or **Return**.
  - In the Notes toolbox, click **Start Note Input** .

---

#### RESULT

Notes are input into the voice indicated by the quarter note symbol beside the caret.

If you are inputting notes into a new voice on a staff that already contains notes in another voice, the stem directions of existing notes at the same rhythmic position change automatically as necessary. Rests appear as required around notes in different voices.

#### NOTE

- Any voices that you created, but did not input notes into, are deleted.
- You can show voice colors to check which notes are in which voice. Additionally, when you select single notes or multiple notes in the same voice at the same rhythmic position, their pitches are shown in the status bar and as depressed keys in the Keyboard panel.

---

#### EXAMPLE



Caret when inputting notes into the first up-stem voice



Caret when inputting notes into the first down-stem voice



Caret when inputting notes into a new, second up-stem voice

---

#### RELATED LINKS

- [Caret](#) on page 205
- [Notes toolbox](#) on page 187
- [Notes panel](#) on page 191
- [Rhythmic grid](#) on page 204
- [Inputting notes](#) on page 211
- [Inputting notes using pitch before duration](#) on page 214
- [Inputting bar rests into specific voices](#) on page 236
- [Adding notes above/below existing notes](#) on page 247
- [Changing the voice of existing notes](#) on page 442

- [Voices on page 1303](#)
- [Stem direction on page 961](#)
- [Implicit rests in multiple-voice contexts on page 1146](#)
- [Unused voices on page 1309](#)
- [Per-flow notation options for voices on page 1304](#)
- [Status bar on page 39](#)
- [Keyboard panel on page 197](#)
- [Allowing/Disallowing noteheads in opposing voices to overlap on page 1305](#)
- [Hiding/Showing bar rests in additional voices on page 1151](#)
- [Hiding/Showing notes alongside slash regions on page 1136](#)
- [Hiding/Showing voice colors on page 1304](#)




## Inputting notes into slash voices

You can input notes into multiple slash voices; for example, if you want to indicate a precise rhythm without specifying pitches. By default, the first slash voice is up-stem, but you can add extra slash voices both with and without stems, and switch between them as often as you want.

You can also input notes into new slash voices on a staff with existing notes. Once you have created a slash voice somewhere on a staff, you can input notes into that slash voice anywhere else on the same staff.

---

### PROCEDURE

1. In Write mode, select an item on the staff and at the rhythmic position where you want to input slash voices.
2. Start note input in any of the following ways:
  - Press **Shift-N**.
  - In the Notes toolbox, click **Start Note Input** .
  - Double-click the staff.
3. Select the slash voice into which you want to input notes in one of the following ways:
  - To create a new slash voice, press **Shift-Alt/Opt-V**. You can also click and hold **Create Voice**  in the Notes toolbox, then click **Create Slash Voice** .

When a new slash voice is added, a + sign appears beside the symbol of a note beside the caret, which now appears as a slash note. The slash note symbol indicates the stem direction, and the number beside the slash note symbol indicates the voice number if applicable.



Caret when adding the first down-stem slash voice



### TIP

You can press **Shift-Alt/Opt-V** as many times as you require. For example, on a staff containing no notes in slash voices, creating one new slash voice allows you to input notes into the first up-stem slash voice.

You can also create a second new slash voice immediately if you want to input notes into a down-stem slash voice, or a third new slash voice if you want to input notes into a stemless slash voice.

Only voices that contain notes are preserved.

---

- To select an existing slash voice, press **V** or click **Next Voice**  in the Notes toolbox to cycle through active voices on the staff.
4. Input the notes you want.  
Notes in slash voices appear at the same staff position, regardless of their pitch. By default, this is the middle line of the staff, but this changes in multiple-slash-voice contexts.
  5. Stop note input in any of the following ways:
    - Press **Esc** or **Return**.
    - In the Notes toolbox, click **Start Note Input** .
- 

#### RESULT

Notes are input into new slash voices, as indicated by the caret indicator. The slash note symbol beside the caret changes to indicate which voice is currently selected and into which notes are input.

You can switch between voices as often as you like.

#### NOTE

- If you are inputting notes into a new slash voice on a staff that already contains notes in other voices/slash voices, the stem directions of existing notes and the staff positions of slash voices at the same rhythmic position change automatically as necessary. Rests appear as required around notes in different voices.
  - If you have three or more voices of any type on a single staff, you must cycle through all the voices in a set order. For example, if you have two up-stem voices, two down-stem voices, and a slash voice, the order is: first up-stem voice, first down-stem voice, second down-stem voice, second up-stem voice, slash voice.
  - Any voices that you created, but did not input notes into, are deleted.
- 

#### EXAMPLE



Caret when inputting notes into the first up-stem slash voice



Caret when inputting notes into the first down-stem slash voice



Caret when inputting notes into a new stemless slash voice



Caret when inputting notes into a new, second up-stem slash voice

---

#### RELATED LINKS

[Notes toolbox](#) on page 187

[Slash voices](#) on page 1141

[Rhythm slashes](#) on page 1132

[Inputting slash regions](#) on page 398  
[Changing the voice of existing notes](#) on page 442  
[Stem direction](#) on page 961  
[Implicit rests in multiple-voice contexts](#) on page 1146  
[Unused voices](#) on page 1309

## Inputting notes and notations onto multiple staves

You can input notes and notations onto multiple staves simultaneously, including automatically exploding the notes in chords that you play on a MIDI keyboard onto the appropriate staves. For example, if you want to input notes onto both piano staves or input the same dynamics for multiple instruments.


Inputting notes and notations onto multiple staves is most useful for multiple adjacent pitched instruments whose music is only a single voice.

### PREREQUISITE

If you want to explode individual notes in chords onto multiple staves during note input, you have connected a MIDI keyboard. You can only input the different notes in chords onto separate staves when using a MIDI keyboard.


---

### PROCEDURE

1. In Write mode, select an item at the rhythmic position where you want to input notes/ notations onto multiple staves.
2. Start note input in any of the following ways:
  - Press **Shift-N**.
  - In the Notes toolbox, click **Start Note Input** .
  - Double-click the staff.
3. Extend the caret to another staff in any of the following ways:
  - To extend to the staff above, press **Shift-Up Arrow**.
  - To extend to the staff below, press **Shift-Down Arrow**.
4. Optional: Repeat step 3 for as many staves as you require.
5. Input the notes and notations you want.

### NOTE

You must input notes using a computer keyboard or MIDI keyboard. If you use the mouse, notes are only input on the staff you click. Similarly, you must use the corresponding popover to input notations on multiple staves. When inputting notations using the corresponding panel, they are only input on the top staff.

- 
6. Stop note input in any of the following ways:
    - Press **Esc** or **Return**.
    - In the Notes toolbox, click **Start Note Input** .

---

### RESULT

The notes and notations you input are input at the caret position on all staves across which the caret extends. If the caret extends across both staves of a grand staff instrument, notes are input on either the top or bottom staff according to their pitch. However, this does not apply to grand staff instruments with extra staves.

When inputting notes using a MIDI keyboard, the individual notes in any chords you input are automatically exploded across the staves.

#### RELATED LINKS

[Caret](#) on page 205

[Notes panel](#) on page 191

[Inputting notes](#) on page 211

[Inputting chords](#) on page 240

[Inputting notes using pitch before duration](#) on page 214

[Notations input](#) on page 259

[Preferences dialog](#) on page 58

[Exploding music onto multiple staves](#) on page 441

[MIDI Import Options dialog](#) on page 86

## Inputting notes in Insert mode


In Insert mode, you can input notes before existing notes in a single voice without overriding them. This allows you to push existing notes ahead at the same time as inputting new notes at their previous positions.

#### NOTE

- These steps describe inputting notes with the default preference of duration before pitch. However, you can also specify the pitch before duration instead.
- You can only input chords in Insert mode when using a MIDI keyboard.





---


#### PROCEDURE

1. In Write mode, start note input.
2. Activate Insert mode in any of the following ways:
  - Press **I**.
  - In the Notes toolbox, click **Insert** .

In Insert mode, the caret shows V and inverted V shapes at the top and bottom. Dotted lines are shown on staves affected by the Insert mode scope across which the caret does not already extend.



3. Choose the appropriate Insert mode scope.
4. Optional: If the Insert mode scope is set to **Voice** , press **V** until the voice you want is selected.
5. Optional: If the Insert mode scope is set to **Player**  or **Voice**  and you want to input notes in Insert mode onto multiple staves at once, extend the caret to those staves.
6. Input the notes you want.
7. Optional: Press **I** or click **Insert**  again to deactivate Insert mode and return to normal note input.
8. Stop note input in any of the following ways:

- Press **Esc** or **Return**.
  - In the Notes toolbox, click **Start Note Input** .
- 

#### RESULT

Notes are inserted at the caret position or where you click without overwriting any existing notes at rhythmic positions after the caret. Instead, existing notes after the caret are pushed ahead to subsequent rhythmic positions.

The voices and staves affected by Insert mode depend on the Insert mode scope.

#### RELATED LINKS

[Caret](#) on page 205

[Insert mode](#) on page 427

[Insert mode scopes](#) on page 428

[Changing the Insert mode scope](#) on page 429

[Notes toolbox](#) on page 187

[Rhythmic grid](#) on page 204

[Inputting notes](#) on page 211

[Inputting chords](#) on page 240

[Moving the caret manually](#) on page 210

## Inputting notes for unpitched percussion

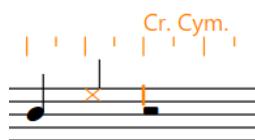
You can input notes for individual unpitched percussion instruments and on all percussion instruments in percussion kits using any presentation type, including selecting playing technique-specific noteheads for individual instruments.

When inputting notes in percussion kits, the caret is smaller than when inputting notes on pitched instrument or individual percussion instrument staves. Instead of occupying the whole height of the staff, the caret in percussion kits is positioned at a particular staff position.

The name of the percussion instrument or slash voice currently selected by the caret, and any applicable playing technique, is shown directly above the rhythmic grid display.

#### NOTE

- You can only input notes into slash voices in percussion kits when using the five-line staff presentation type.
  - These steps describe inputting notes with the default preference of duration before pitch. However, you can also specify the pitch before duration instead.
- 



Inputting notes on instruments with five-line staff kit presentation

#### PREREQUISITE

If you want to use additional playing technique-specific noteheads for percussion instruments, you have defined these in the **Percussion Instrument Playing Techniques** dialog for each instrument.




#### PROCEDURE

1. In Write mode, select an item on the unpitched percussion instrument/kit staff and at the rhythmic position where you want to input notes.
2. In Write mode, start note input in any of the following ways:
  - Select a note or rest on the staff where you want to input notes and press **Shift-N**.

#### NOTE

You can also press **Return**; however, if you select a notation, such as a dynamic, pressing **Return** opens the corresponding popover instead of starting note input.

---

- Select a note or rest on the staff where you want to input notes and click **Start Note Input**  in the Notes toolbox.
  - Double-click the staff where you want to input notes.
3. Optional: When inputting into percussion kits, move the caret up/down to other instruments in the kit in any of the following ways:
    - To move it up, press **Up Arrow**.
    - To move it down, press **Down Arrow**.
  4. Select a note duration in any of the following ways:
    - Press the number on your computer keyboard that corresponds to the duration you want.  
For example, press **6** for quarter notes (crotchets). Press smaller numbers for smaller durations, such as **5** for eighth notes (quavers) and **4** for 16th notes (semiquavers). Press larger numbers for larger durations, such as **7** for half notes (minims).
    - In the Notes panel, click the duration you want.
    - In the Keyboard, Fretboard, or Drum Pads panel toolbar, click the duration you want.
  5. Select an appropriate playing technique for the instrument currently selected by the caret before inputting notes.
    - To cycle upwards through playing techniques, press **Alt/Opt-Up Arrow**.
    - To cycle downwards through playing techniques, press **Alt/Opt-Down Arrow**.
    - Play the pitch for the playing technique you want on a MIDI keyboard.

#### NOTE

You can define MIDI pitches for playing techniques on the **Note Input and Editing** page in **Preferences**.

---

6. Input notes in one of the following ways:
  - Any kit presentation type/Individual instruments: Press **Y** to input notes for the instrument and playing technique shown above the rhythmic grid.
  - Any kit presentation type/Individual instruments: Click on the staff where you want to input notes, and at the rhythmic positions where you want them.
  - Five-line staff presentation type: Press letters on a computer keyboard or play notes on a MIDI keyboard, corresponding to staff positions for the clef set in **Preferences**. For example, press **B** to input notes for the instrument assigned to the middle line of a five-line staff when **Treble G clef** is set.
  - Grid and single-line instruments presentation types/Individual instruments: Press the letter of any note name **A** to **G** on a computer keyboard or play any note on a

MIDI keyboard to input notes for the instrument on whose line the caret is currently positioned.

#### NOTE

Notes played on MIDI keyboards are interpreted differently, depending on whether **Use percussion map** or **Use staff position** is set for the different kit presentation types in the **Note Input** section of the **Note Input and Editing** page in **Preferences**.

---

7. Optional: Advance the caret by the currently selected note duration without inputting notes in any of the following ways:


- Press **Space**.
- In the Keyboard, Fretboard, or Drum Pads panel toolbar, click **Advance Caret** .

#### TIP

You can also move the caret in different ways and by different increments.

---

8. Stop note input in any of the following ways:

- Press **Esc** or **Return**.
  - In the Notes toolbox, click **Start Note Input** .
- 

#### RESULT

Notes are input at the caret position or where you click with the selected duration and are played back as you input them by default. If you selected playing techniques, their noteheads appear as set in the **Percussion Instrument Playing Techniques** dialog for the corresponding instrument and playing technique, or in the **Override Percussion Noteheads** dialog for five-line staff presentations only.

If you selected rhythm dots or articulations, notes continue to be input with them until you deactivate them.

Dorico Elements notates and beams notes appropriately according to their duration, the prevailing time signature, and their position in the bar. This includes showing notes as tie chains if required.

If you advance the caret without inputting notes, Dorico Elements fills the gaps between notes with implicit rests of the appropriate duration.

#### TIP

You can change the default beam, note, and rest grouping settings for each flow independently in **Notation Options**. You can also specify custom beat groupings within individual time signatures.

---

#### RELATED LINKS

[Notes toolbox](#) on page 187

[Notes panel](#) on page 191

[Caret](#) on page 205

[Percussion kits vs. individual percussion instruments](#) on page 1288

[Percussion kits and drum sets](#) on page 1289

[Playing techniques for unpitched percussion instruments](#) on page 1282

[Playing technique-specific noteheads](#) on page 1283

[Percussion Instrument Playing Techniques dialog](#) on page 1283

[Changing playing technique-specific noteheads](#) on page 1286

[Inputting notes using pitch before duration](#) on page 214

[Note and rest grouping](#) on page 774

[Beam grouping according to meters](#) on page 755

[Notation Options dialog](#) on page 679

[Deleting rests](#) on page 1149

[Inputting notes](#) on page 211

## Note input setup for percussion kits

Inputting music for unpitched percussion instruments works differently than for pitched instruments. You can use any of the usual methods for unpitched percussion input, but using a MIDI keyboard or a computer keyboard is most efficient.

- You can find options relating to note input for percussion in the **Note Input** section of the **Note Input and Editing** page in **Preferences**.

There is one set of options for input onto five-line staves, and another set of options for input onto grids and individual instruments.

The main choice affects input via MIDI keyboards and computer keyboards.

### Use percussion map

A percussion map defines which MIDI notes produce which sound for a particular patch in a sound library. For example, in General MIDI percussion, C2 (note 36) produces bass drum, and D2 (note 38) produces snare drum, and so on.

If you know a particular mapping well, you may find it helpful to use the mapping directly for input.

### Use staff position

This option uses the staff position defined in the **Edit Percussion Kit** dialog. For example, on a drum set, the bass drum is normally positioned in the bottom space of the staff, while the snare drum is positioned in the third space from the bottom.

You can think of staff positions relative to what they would be when using a treble G clef (F4 and C5 respectively) or using a bass F clef (A2 and E3 respectively).

You can choose which clef is used to interpret staff positions for five-line staves:

- **Treble G clef**
- **Bass F clef**

When you select **Use staff position**, you can designate one octave of your MIDI keyboard to input playing techniques.

By default, the **Input techniques from MIDI key** option is set to MIDI note 48, which is C3, the C one octave below middle C (C4 = MIDI note 60). You can click the MIDI learn button and then play a note on your MIDI keyboard to change the starting pitch. Assuming a starting pitch of C3, ascending notes operate as follows:

- C3 (48): Previous playing technique
- C#3 (49): Next playing technique
- D3 (50): First mapped playing technique
- E♭3 (51): Second mapped playing technique
- E3 (52): Third mapped playing technique

And so on, up to:

- B3 (59): Tenth mapped playing technique

In general, we recommend that you set **Use staff position** for percussion input. **Use percussion map** is normally only useful when you are inputting notes onto a drum set and you have already memorized the General MIDI percussion map.

RELATED LINKS

[Preferences dialog](#) on page 58

[Edit Percussion Kit dialog](#) on page 150

[Inputting notes for unpitched percussion](#) on page 227

[Changing playing technique-specific noteheads](#) on page 1286

## Default note selection during note input for percussion kits

During note input in percussion kits, you can press the letters on a computer keyboard that correspond to staff positions for kits using the five-line staff presentation type. For example, you can press **F** to input a note on the F space or line.

In **Preferences**, you can set options for inputting notes into percussion kits in the **Note Input** section of the **Note Input and Editing** page. For example, if you want to use staff positions to determine notes, choose **Use staff position** for **Input onto kit or grid**.

If you have the staff positions set relative to **Treble G clef**, then F could mean either the bottom space on the staff or the top line on the staff. In a standard drum set, this means either the kick drum in the bottom space, or the ride cymbal on the top line.

When inputting notes in pitched instruments, Dorico Elements chooses the lower or upper possible staff position based on which is closer to the current position of the caret.

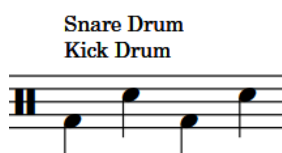
However, when inputting notes in percussion kits, Dorico Elements chooses the staff position of the note with the same stem direction as the last input note, rather than the staff position that is closest to the current position of the caret. This makes it easier to input common note patterns used in percussion kits.

For example, inputting kick drum and snare drum notes on a standard drum set is a common pattern. The kick drum is in the bottom space, and the snare drum is two spaces above: five staff positions away from the bottom space, and four staff positions away from the top line.

You can press **F** for the kick drum and **C** for the snare drum.

The default stem direction behavior for inputting notes in kits in Dorico Elements means that you can alternate pressing **F** and **C**, and the notes are input at the positions of the kick drum and snare drum, even though the top line is the closer position after inputting a snare drum note.

This is because the kick drum uses the same stem direction, and therefore voice, as the snare drum.



### NOTE

Dorico Elements automatically changes the directions of stems according to the positions of notes on the staff when only one voice on the staff contains notes, regardless of their voice.

---

RELATED LINKS

[Stem direction](#) on page 961

## Inputting notes on tablature

You can input notes directly into tablature in the same ways as inputting normal notes. When inputting notes on tablature, the caret is smaller than when inputting notes on standard five-line staves and behaves as if chord input is always active, meaning you must advance the caret manually to input notes at other rhythmic positions.

### NOTE

These steps describe inputting notes with the default preference of duration before pitch. However, you can also specify the pitch before duration instead.

When inputting notes on tablature using pitch before duration, you must select note durations by clicking them in the Notes panel.

---


### PROCEDURE

1. In Write mode, select an item on the tablature and at the rhythmic position where you want to input notes.

### NOTE

If both notation staves and tablature are shown in the current layout, you must select an item on the notation staff and then move the caret to the tablature after starting note input.

---


2. Start note input in any of the following ways:
  - Press **Shift-N**.
  - In the Notes toolbox, click **Start Note Input** .
  - Double-click the staff.
3. Select a note duration in any of the following ways:
  - To select the next longer duration, press **=**.
  - To select the next shorter duration, press **-**.
  - In the Notes panel, click the duration you want.
  - In the Fretboard panel toolbar, click the duration you want.
4. Input the pitch you want for the current string in any of the following ways:
  - Press the number on your computer keyboard or numeric keypad that corresponds to the fret number you want. For example, press **6** for fret 6.  
For fret numbers 10 and above, press the two digits quickly.
  - Press the corresponding letters on your computer keyboard.

### NOTE

When using letters, Dorico Elements automatically chooses the octave closest to the nut on the corresponding string.

---

- In the Fretboard panel, click the corresponding string and fret position.
  - Play the note on a MIDI keyboard.
5. Move the caret up/down to input notes on different strings at the same rhythmic position in any of the following ways:
    - To move it up, press **Up Arrow**.
    - To move it down, press **Down Arrow**.

6. Move the caret to other rhythmic positions in any of the following ways:
    - To move the caret according to the current rhythmic grid resolution, press **Right Arrow / Left Arrow**.
    - To advance the caret according to the note duration currently selected, press **Space** or click **Advance Caret**  in the Fretboard panel toolbar.
    - To move the caret to the next/previous bar, press **Ctrl/Cmd-Right Arrow / Ctrl/Cmd-Left Arrow**.
- 

#### RESULT

Notes are input at the caret position with the selected duration on the string indicated by the caret and are played back as you input them by default. Notes continue to be input at the caret position until you move the caret manually and overwrite any previous note on the same string. If you attempt to input a note that is impossible on the current string, it is input on the closest available string in addition to any existing notes.

If you have input two or more notes on the same string at the same rhythmic position, they are shown next to each other on tablature and are colored green. Similarly, when you input chords on tablature using pitch before duration with a MIDI keyboard, all notes in the chord are allocated to the same string. You can then select them individually and change their string allocation.

#### RELATED LINKS

[Caret](#) on page 205

[Moving the caret manually](#) on page 210

[Fretboard panel](#) on page 199

[Tablature](#) on page 1200

[Hiding/Showing notation staves and tablature](#) on page 1201

[Changing the allocated string for notes on tablature](#) on page 1202

[Inputting notes using pitch before duration](#) on page 214

## Inputting accidentals

You can input accidentals during note input and by adding them to existing notes. You can also change the accidentals of existing notes.

#### NOTE

- Accidentals that are part of the prevailing key signature are input automatically. For example, if you press **F** in G major, an **F#** is input automatically. You would only need to specify an accidental if you want to input an **F<sub>b</sub>**, for example.

This also applies if you are using a MIDI keyboard, though you can respell notes if the accidentals chosen automatically are not the ones that you expected.

- These steps describe selecting accidentals before inputting each note. However, you can change this setting if you prefer to specify accidentals after inputting notes.
- 

#### PROCEDURE

1. In Write mode, do one of the following:
  - Start note input.
  - Select the existing notes to which you want to add accidentals or whose accidentals you want to change.

2. Select the accidental you want to input in one of the following ways:
  - For a flat accidental, press **b**.
  - For a sharp accidental, press **#**.
  - For a natural accidental, press **0**.
  - In the Notes panel, click the accidental you want.

#### TIP

You can find more accidentals, such as double sharps/flats or microtonal accidentals, in the **Accidentals** section of the Key Signatures, Tonality Systems, and Accidentals panel on the right of the window.

---

3. Optional: During note input, input the note you want with your selected accidental.
- 

#### RESULT

The accidental is added to the selected existing notes. If you selected existing notes with different accidentals, they are changed to have the accidental you selected.

During note input, the selected accidental is only input on the next note you input. You must reselect the accidental for each subsequent note.

#### NOTE

- Due to the default accidental duration rule in Dorico Elements, subsequent accidentals for the same note in the same register do not appear in the same bar.
  - If you input notes using a MIDI device, Dorico Elements automatically shows an accidental if necessary. It selects a sharp, flat, or natural based on key signature and context. You can later respell notes so they are shown as their enharmonic equivalents with different accidentals.
- 

#### RELATED LINKS

[Notes panel](#) on page 191

[Hiding/Showing zones](#) on page 44

[Accidentals](#) on page 712

[Inputting notes](#) on page 211

[Changing the note-based notation input setting](#) on page 218

[Respelling notes](#) on page 449

[Changing the pitch of individual notes](#) on page 444

[Changing the size of accidentals](#) on page 714

[Accidental duration rules](#) on page 719

## Accidental selection during MIDI input

Dorico Elements interprets MIDI data to create accidentals, and automatically determines the spelling of notes according to preset rules.

Dorico Elements automatically displays an accidental if one is required. It selects a sharp or flat based on key signature and context.

The algorithm for this takes into account the key signature and the intervals between successive notes and chords. Therefore Dorico Elements prefers sharp accidentals in a key with sharps, and flats in a key with flats. If you change the spelling of an accidental, Dorico Elements follows your spelling preference whenever that note is used again in the score.

If you input notes with accidentals outside the key signature, Dorico Elements uses sharps if the figure is rising, and flats if it is falling. The spelling is also calculated vertically, meaning a simpler interval is produced where possible, such as a major third rather than a diminished fourth.

By default, Dorico Elements makes retrospective changes to how it has spelled accidentals, depending on how your music develops. For example, in C major, if you input a sequence of pitches C-E-G#, but then input a Gb, the G# is respelled as an Ab.

## Inputting rests






Dorico Elements automatically shows rests as appropriate in the gaps between the notes you input. However, you can also input rests manually; for example, to show fermatas on specific beats for players without notes in that bar.

### NOTE

These steps describe selecting the duration before inputting rests. However, you can also input rests when **Pitch Before Duration** is active, in which case step 7 is unnecessary.

---

### PROCEDURE

1. In Write mode, select an item on the staff and at the rhythmic position where you want to input rests.
  2. Start note input in any of the following ways:
    - Press **Shift-N**.
    - In the Notes toolbox, click **Start Note Input** .
    - Double-click the staff.
  3. Optional: If you want to input rests onto multiple staves at once, extend the caret to those staves.
  4. Start rest input in any of the following ways:
    - Press **,**.
    - In the Notes toolbox, click **Rests** .
  5. Activate **Force Duration** in any of the following ways:
    - Press **O**.
    - In the Notes toolbox, click **Force Duration** .
  6. Select the rest duration you want.
  7. Input rests in any of the following ways:
    - Press **Y** or any of the letters from **A** to **G**.
    - Click the staff at the rhythmic position of each rest you want to input.  
A shadow rest appears when inputting with the mouse to indicate where the rest will be input.
    - Play notes on a MIDI keyboard.
  8. Optional: Press **,** or click **Rests**  again to stop rest input.
  9. Stop note input in any of the following ways:
    - Press **Esc** or **Return**.
    - In the Notes toolbox, click **Start Note Input** .
-



#### RESULT

Rests of the selected duration are input. If **Force Duration** is not activated, Dorico Elements automatically combines adjacent rests as appropriate for their position in relation to notes and according to the current meter.

#### RELATED LINKS

[Rests](#) on page 1144

[Implicit vs. explicit rests](#) on page 1145

[Note and rest grouping](#) on page 774

[Notes toolbox](#) on page 187

[Notes panel](#) on page 191

[Caret](#) on page 205

[Extending the caret to multiple staves](#) on page 209

[Selecting note/rest durations](#) on page 247

[Forcing the duration of notes/rests](#) on page 250

[Inputting notes](#) on page 211

[Inputting notes using pitch before duration](#) on page 214



## Inputting bar rests into specific voices

When inputting music in multiple voices, rests are normally created automatically when there is a gap in the secondary voice. However, if you want secondary voices to begin with explicit bar rests in strict contrapuntal music, you can input a bar rest into those voices.

For music in a single voice, you do not have to input bar rests as they appear in each new bar automatically when you advance the caret. You can also hide/show bar rests in all empty bars in each layout independently.

---

#### PROCEDURE

1. In Write mode, start note input.
2. Select the appropriate secondary voice by pressing **V** until the voice direction indicator shows the correct voice.  
Alternatively, if you want to input bar rests into a new voice, press **Shift-V** until the voice direction indicator shows the correct voice.
3. Open the bars and barlines popover in any of the following ways:
  - Press **Shift-B**.
  - In the Notations toolbox, click **Popovers**  then **Bars and Barlines** .
4. Enter **rest** into the popover to add a bar rest.
5. Press **Return** to close the popover.
6. Press **Ctrl/Cmd-Right Arrow** to advance the caret to the start of the next bar after the bar rest.
7. Optional: If you want to show bar rests in multiple bars for the selected voice, repeat steps 3 to 6 as many times as required.

#### TIP

If your notation options are set to show bar rests in additional voices, bar rests appear in all subsequent empty bars for the selected voice after you have input one bar rest.

---

#### RESULT

Bar rests are input into the selected voice at the caret position. If the caret position is within a bar that contains notes for the selected voice, these notes are replaced by the bar rest.

#### NOTE

Alternatively, you can click **Insert Bar Rest** in the **Insert Bar Rest** section of the Bars and Barlines panel to input bar rests during note input.

---

#### RELATED LINKS

[Bars](#) on page 729

[Bars and barlines popover](#) on page 288

[Hiding/Showing bar rests in empty bars](#) on page 1150

[Hiding/Showing bar rests in additional voices](#) on page 1151

[Per-flow notation options for rests](#) on page 1147

[Inputting notes into multiple voices](#) on page 221

[Caret](#) on page 205

## Inputting ties

You can input ties manually to join two notes of the same pitch, both during note input and by joining two existing notes with a tie. You can tie existing notes in different voices or on different staves belonging to the same instrument, or that are not rhythmically adjacent.

For example, you might have input a melody across multiple voices in order to accommodate passing notes, but want to tie two notes together even though they are in different voices. Similarly, you might have written multiple notes before a chord that are all held down and want to reduce the number of tied notes.

#### TIP

Dorico Elements automatically creates ties as required for note durations in each meter. For example, if you want to input a tie between two quarter notes across a barline, you can input a half note at the rhythmic position where you want to input the first quarter note. Dorico Elements automatically splits the half note into two quarter notes, one on each side of the barline, and joins them with a tie.

---

#### PREREQUISITE

If you want to preserve the durations of existing notes, you have forced their duration. For example, if you want to specify subdivisions within a tie chain that are different than the prevailing meter.

We also recommend starting ties from the first note in the tie chain, as tied notes become a single note whose settings, including forced durations, come from the first note.

---


#### PROCEDURE

1. In Write mode, do one of the following:
  - Start note input.
  - Select the note from which you want the tie to start. If you want to input a tie between two specific notes or between a grace note and a normal note, select those two notes.

#### NOTE

The two notes must be the same pitch, but can be in different voices or on different staves belonging to the same instrument.

---

- Optional: During note input, input the note that you want at the start of the tie.
- Input a tie in any of the following ways:
  - Press **T**.
  - In the Notes toolbox, click **Tie** .
- Optional: During note input, input the note that you want at the end of the tie.

#### NOTE

The second note must be the same pitch as the first note.

---

#### RESULT

During note input, the two notes input are joined by a tie.

If you selected a single existing note, it is joined by a tie to the next note of the same pitch in the same voice and staff. If you selected two existing notes, they are tied together, provided they are the same pitch and belong to the same instrument.

#### NOTE

- During note input, Dorico Elements ties the first note you input after inputting the tie to the previous note of the same pitch in the same voice and staff, even if there are other notes of other pitches between them.
  - Depending on the prevailing time signature, the position of the start of the note in the bar, and your settings on the **Note Grouping** page in **Notation Options**, inputting a tie between two notes can instead create a single note of a different duration, such as a half note instead of two tied quarter notes. You can override your note grouping settings and fix your notated rhythm by forcing their duration. Dorico Elements then notates your input notes with the rhythmic durations specified, as long as they can fit inside the bar.
- 

#### EXAMPLE



Ties between adjacent notes



Ties between non-adjacent notes



Ties between grace notes and normal notes

---

#### RELATED LINKS

- [Inputting notes](#) on page 211
- [Forcing the duration of notes/rests](#) on page 250
- [Notation Options dialog](#) on page 679
- [Notes toolbox](#) on page 187
- [Ties](#) on page 1232
- [Ties vs. slurs](#) on page 1233

[Note and rest grouping](#) on page 774

[Beam grouping according to meters](#) on page 755

## Inputting grace notes







You input grace notes in the same ways as normal notes, and they can have any rhythmic note value, accidental, and articulation.

### NOTE

- These steps describe inputting notes with the default preference of duration before pitch. However, you can also specify the pitch before duration instead.
- You cannot add rhythm dots to grace notes.


---

### PROCEDURE

1. In Write mode, select an item on the staff and at the rhythmic position where you want to input grace notes.
  2. Start note input in any of the following ways:
    - Press **Shift-N**.
    - In the Notes toolbox, click **Start Note Input** .
    - Double-click the staff.
  3. Optional: If you want to input grace notes onto multiple staves at once, extend the caret to those staves.
  4. Start grace note input in any of the following ways:
    - Press **/**.
    - In the Notes toolbox, click **Grace Notes** .
  5. Press the number for the note duration you want. For example, press **5** for eighth grace notes.
  6. Optional: Switch between inputting slashed/unslashed grace notes in any of the following ways:
    - Press **Alt/Opt-/**.
    - In the Notes toolbox, click and hold **Grace Notes** , then click **Unslashed Grace Notes**  or **Slashed Grace Notes** .
- Grace Notes**  in the Notes toolbox updates to indicate the current grace note type.
7. Input the grace notes you want.

### TIP

There is no limit to the number of grace notes that can exist at the same rhythmic position.

8. Press **/** or click **Grace Notes**  again to stop grace note input and return to normal note input.

---

### RESULT

The pitches you enter are input as grace notes at the caret position.

### TIP

- You can also change the type of grace notes after they have been input.

- Slashed and unslashed grace notes are handled differently in playback.
- 

#### RELATED LINKS

- [Grace notes](#) on page 897
- [Grace notes in playback](#) on page 904
- [Notes toolbox](#) on page 187
- [Notes panel](#) on page 191
- [Keyboard panel](#) on page 197
- [Fretboard panel](#) on page 199
- [Drum Pads panel](#) on page 200
- [Caret](#) on page 205
- [Extending the caret to multiple staves](#) on page 209
- [Inputting notes](#) on page 211
- [Selecting note/rest durations](#) on page 247
- [Inputting ties](#) on page 237
- [Inputting accidentals](#) on page 233
- [Inputting articulations](#) on page 259
- [Changing the type of grace notes](#) on page 901
- [Turning existing notes into grace notes](#) on page 899
- [Turning grace notes into normal notes](#) on page 900
- [Inputting notes using pitch before duration](#) on page 214



## Inputting chords

You can input chords during note input when both note input and **Chords** are activated. You can input notes with a computer keyboard, with the mouse, using panels in the lower zone, or by playing notes with a MIDI keyboard.

#### NOTE

- These steps describe inputting notes with the default preference of duration before pitch. However, you can also specify the pitch before duration instead.  
  
When inputting chords using pitch before duration, you must use your computer keyboard or a MIDI keyboard and complete step 6 before step 5.
  - You can only input chords in Insert mode when using a MIDI keyboard.
  - You can input chords without activating **Chords** when using the Keyboard panel, Fretboard panel, or a MIDI keyboard.
- 

#### PROCEDURE

1. In Write mode, select an item on the staff and at the rhythmic position where you want to input chords.
2. Start note input in any of the following ways:
  - Press **Shift-N**.
  - In the Notes toolbox, click **Start Note Input** .
  - Double-click the staff.
3. Start chord input in any of the following ways:
  - Press **Q**.
  - In the Notes toolbox, click **Chords** .

In chord input, a + sign appears at the top of the caret. This allows you to input multiple notes at the caret position.




4. Optional: If you want to input chords onto multiple staves at once, extend the caret to those staves.
5. Select a note duration in any of the following ways:

- Press the number on your computer keyboard that corresponds to the duration you want.  
For example, press **6** for quarter notes (crotchets). Press smaller numbers for smaller durations, such as **5** for eighth notes (quavers) and **4** for 16th notes (semiquavers). Press larger numbers for larger durations, such as **7** for half notes (minims).
- In the Notes panel, click the duration you want.
- In the Keyboard, Fretboard, or Drum Pads panel toolbar, click the duration you want.

6. Input the pitches you want in any of the following ways:


- Press the corresponding letters on your keyboard.

**TIP**

Dorico Elements automatically inputs notes above the highest note at the caret position when **Chords**  is activated.

You can input notes below the lowest note at the caret position instead by pressing **Ctrl-Alt (Windows) or Ctrl (macOS)** as well as the letter for the note name; for example, **Ctrl-Alt-A (Windows) or Ctrl-A (macOS)**.


- Click the staff at the rhythmic positions where you want to input notes.  
A shadow notehead appears when inputting with the mouse to indicate where the note will be input.
  - In the Keyboard, Fretboard, or Drum Pads panel, play the notes you want.
  - Play the notes on a MIDI keyboard.
7. Optional: Advance the caret to input chords at other rhythmic positions in any of the following ways:


- Press **Space**.
- In the Keyboard, Fretboard, or Drum Pads panel toolbar, click **Advance Caret** .

During chord input, notes are input at the same rhythmic position and above the previous note until you advance the caret manually.

**TIP**

You can also move the caret in different ways and by different increments.

8. Press **Q** or click **Chords**  again to stop chord input.
9. Stop note input in any of the following ways:
  - Press **Esc** or **Return**.

- In the Notes toolbox, click **Start Note Input** .

---

#### RESULT

Multiple notes are input at the caret position.

- If entering pitches by clicking with the mouse, you can put the same pitch into the chord twice by clicking again on the same line.
- If entering pitches with the keyboard, repeated notes are automatically input an octave above. You can change the register of notes by forcing the register selection during note input, or by transposing them after they have been input.

#### NOTE

- You can stop chord input and immediately continue inputting notes as before, with a single note at each rhythmic position and the caret advancing automatically to the next rhythmic position.
- When chords contain two pitches in the same register but with different accidentals, that is known as an altered unison. Altered unisons are shown with either single stems or with split stems, depending on your settings on the **Accidentals** page in **Notation Options**.
- When you input chords on tablature using pitch before duration with a MIDI keyboard, all notes in the chord are allocated to the same string. In such cases, the notes are shown next to each other on tablature and are colored green. You can then select them individually and make your own string allocation.

---


#### RELATED LINKS

- [Notation Options dialog](#) on page 679
- [Notes toolbox](#) on page 187
- [Notes panel](#) on page 191
- [Keyboard panel](#) on page 197
- [Fretboard panel](#) on page 199
- [Drum Pads panel](#) on page 200
- [Register selection during note input](#) on page 214
- [Caret](#) on page 205
- [Extending the caret to multiple staves](#) on page 209
- [Moving the caret manually](#) on page 210
- [Altered unisons](#) on page 717
- [Inputting notes using pitch before duration](#) on page 214
- [Changing the note-based notation input setting](#) on page 218

## Chord mode

Chord mode changes how notes are input and how edits you make outside of note input affect the music. When Chord mode is activated, notes can overlap or stack on top of each other to create chords rather than overwriting existing notes. During chord input, the caret does not advance automatically.

Edits outside of chord input that are affected by Chord mode include copying/pasting notes or changing their duration. For example, if you copy four notes and paste them to a staff that already has notes with Chord mode activated, the existing notes are not overwritten but instead combine with the new notes to make chords.

- You can activate/deactivate Chord mode in Write mode by pressing **Q** or clicking **Chords**  in the Notes toolbox.

#### NOTE

You cannot have both Insert mode and Chord mode activated simultaneously.

---

#### RELATED LINKS

[Insert mode](#) on page 427

[Caret](#) on page 205

[Copying and pasting notes/items](#) on page 433

[Exploding music onto multiple staves](#) on page 441

[Changing the duration of notes](#) on page 248

[Inputting notes with rhythm dots](#) on page 219

## Inputting tuplets

You can input all types of tuplets using the tuplets popover. Tuplets can contain notes of any duration, such as a quarter note at the start of an eighth note triplet.




#### NOTE

These steps describe inputting notes with the default preference of duration before pitch. However, you can also specify the pitch before duration instead.

When inputting tuplets using pitch before duration, Dorico Elements determines the base value of the tuplet on either the first note you input after specifying the tuplet or the note value included in your tuplet ratio.

---

#### PROCEDURE

1. In Write mode, select an item on the staff and at the rhythmic position where you want to input tuplets.
2. Start note input in any of the following ways:
  - Press **Shift-N**.
  - In the Notes toolbox, click **Start Note Input** .
  - Double-click the staff.
3. Optional: If you want to input tuplets onto multiple staves at once, extend the caret to those staves.
4. Open the tuplets popover in any of the following ways:
  - Press **;**.
  - In the Notes toolbox, click and hold **Tuplets** , then click **x:y** .

When inputting tuplets with the keyboard, Dorico Elements automatically continues inputting notes as the specified tuplet.

5. Enter the tuplet you want into the popover as a ratio followed by the beat unit. For example, enter **3:2e** to input eighth note triplets or **5:4x** to input sixteenth note quintuplets.

#### NOTE


If you do not specify the beat unit, the tuplet is based on the note value currently selected in the Notes panel.

---

6. Press **Return** to close the popover.



The tuplet is entered.

7. Optional: Change the selected note duration.  
For example, you can input a tuplet based on eighth notes but input a quarter note within that tuplet.
8. Enter or play in the pitches you want.  
When inputting tuplets with the keyboard, Dorico Elements automatically continues inputting notes as the specified tuplet.
9. Optional: Advance the caret to continue inputting tuplets of the same ratio at later rhythmic positions in any of the following ways:
  - Press **Space**.
  - In the Keyboard, Fretboard, or Drum Pads panel toolbar, click **Advance Caret** .
10. Stop tuplet input in one of the following ways:
  - To return to inputting normal notes, press **:** or move the caret with the arrow keys.
  - To stop note input completely, press **Esc**.


---

#### RESULT

The pitches you enter or play in are input as tuplets, starting from the caret position.

If you want to input a different type of tuplet immediately after inputting tuplets, you must stop the first type of tuplet before inputting the second type. If you do not stop the first type, the second type is input as a nested tuplet.

#### TIP

You can also input tuplets by clicking and holding **Tuplets**  in the Notes toolbox, then clicking the tuplet you want.

---



#### RELATED LINKS

- [Tuplets](#) on page 1271
- [Nested tuplets](#) on page 1271
- [Turning existing notes into tuplets](#) on page 1273
- [Turning tuplets into normal notes](#) on page 1273
- [Notes toolbox](#) on page 187
- [Notes panel](#) on page 191
- [Notations toolbox](#) on page 192
- [Keyboard panel](#) on page 197
- [Fretboard panel](#) on page 199
- [Drum Pads panel](#) on page 200
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- [Inputting notes](#) on page 211
- [Extending the caret to multiple staves](#) on page 209
- [Inputting notes using pitch before duration](#) on page 214

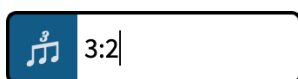
## Tuplets popover

The tuplets popover allows you to input tuplets of any ratio and based on any note duration. The table contains examples of what you can enter into the tuplets popover to input different types of tuplets.

You can open the tuplets popover in Write mode during note input or when notes are selected in any of the following ways:

- Press **;**.  
As tuplets are often described in ratios, such as 3:2, the tuplets popover uses the semicolon key to be memorable.
- In the Notes toolbox, click and hold **Tuplets** , then click **x:y** .
- Choose **Write > Create Tuplet**.

The icon on the left-hand side of the popover matches the corresponding button in the Notes toolbox on the right of the window.



Tuplets popover with an example entry



**Tuplets** button in the Notes toolbox

When inputting tuplets with the keyboard, Dorico Elements continues to input notes as the specified tuplet until any of the following happens:

- You press **;** to return to inputting normal notes.
- You move the caret with the arrow keys.
- You stop note input.

---

Type of tuplet	Popover entry
Triplet, three notes in the space of two	<b>3, 3:2, 3/2, or 3 2</b>
Triplet, three notes in the space of four	<b>3:4, 3/4, or 3 4</b>
Quadruplet, four notes in the space of three	<b>4:3, 4/3, or 4 3</b>
Quintuplet, five notes in the space of two	<b>5:2, 5/2, or 5 2</b>
Quintuplet, five notes in the space of four	<b>5:4, 5/4, or 5 4</b>
Sextuplet, six notes in the space of four	<b>6:4, 6/4, or 6 4</b>
Septuplet, seven notes in the space of four	<b>7:4, 7/4, or 7 4</b>
Nonuplet, nine notes in the space of eight	<b>9:8, 9/8, or 9 8</b>
Duplet, two notes in the space of three. Often used in compound meters.	<b>2:3, 2/3, or 2 3</b>
Quintuplet, five notes in the space of six. Often used in compound meters.	<b>5:6, 5/6, or 5 6</b>

---

### Type of tuplet

Quintuplet, five dotted quarter notes in the space of four

### Popover entry

**5:4q., 5/4q., 5 4q., or 5:4-6.**

#### NOTE

When using a number to specify the beat unit, you must separate the tuplet ratio from the beat unit using a space or hyphen.

---

---

This list is not comprehensive. It is intended to illustrate how you can structure your entry to input different tuplets.

#### NOTE

Unless you specify a beat unit in your entry, the total duration of the tuplet depends on the note value selected when you open the popover. For example, if a quarter note is selected when you input a triplet, the triplet input is three quarter notes in the space of two.

---

## Tuplet beat units

---

### Tuplet beat unit

### Popover entry

64th note

**z or 2**

32nd note

**y or 3**

16th note

**x or 4**

Eighth note

**e or 5**

Quarter note

**q or 6**

Half note

**h or 7**

Whole note

**w or 8**

Double whole note

**2w or 9**

Rhythm dot

**. (period)**

---

#### RELATED LINKS

[Turning existing notes into tuplets](#) on page 1273



[Selecting note/rest durations](#) on page 247

## Adding notes above/below existing notes

You can add notes above/below existing notes. You can add multiple notes at the same time, according to their intervals relative to the existing notes.

---

### PROCEDURE

1. In Write mode, select the notes to which you want to add notes.
  2. Open the note tools popover in any of the following ways:
    - Press **Shift-I**.
    - In the Notations toolbox, click **Popovers**  then **Note Tools** .
  3. Enter the intervals of the notes you want, relative to your selected notes.  
For example, enter **-m3,4** to add notes a minor third below and a fourth above the selected notes.
  4. Press **Return** to close the popover.
- 

### RESULT

Notes are added to the selected notes according to the intervals specified.

### RELATED LINKS

- [Notations toolbox](#) on page 192
- [Note tools popover](#) on page 462

## Note durations

In Dorico Elements, you can change note durations both during note input and for existing notes.

### RELATED LINKS

- [Notes and rests in Dorico](#) on page 25
- [Note and rest grouping](#) on page 774
- [Played vs. notated note durations](#) on page 639



## Selecting note/rest durations

You can select different durations for notes/rests, both during note input and for existing notes/rests.

---

### PROCEDURE

1. Optional: If you want to select a note duration not shown in the Notes panel, click the **Show/Hide All Notes** disclosure arrows at the top and bottom of the notes list to show more note durations.
2. Select a note/rest duration in any of the following ways:
  - Press the number on your computer keyboard that corresponds to the duration you want.  
For example, press **6** for quarter notes (crotchets). Press smaller numbers for smaller durations, such as **5** for eighth notes (quavers) and **4** for 16th notes (semiquavers). Press larger numbers for larger durations, such as **7** for half notes (minims).
  - In the Notes panel, click the duration you want.

- In the Keyboard, Fretboard, or Drum Pads panel toolbar, click the duration you want.
3. Optional: Add rhythm dots to the duration in one of the following ways:
    - For a single rhythm dot, press **.**.
    - For multiple rhythm dots, press **Alt/Opt.-** to cycle through different numbers of rhythm dots. You can specify up to four rhythm dots.
    - In the Notes toolbox, click **Dotted Notes**  to add the displayed number of rhythm dots.
    - In the Notes toolbox, click and hold **Dotted Notes**  to access different numbers of rhythm dots.

#### NOTE

You cannot add rhythm dots to grace notes.

---

#### RELATED LINKS

- [Notes toolbox](#) on page 187
- [Keyboard panel](#) on page 197
- [Fretboard panel](#) on page 199
- [Drum Pads panel](#) on page 200
- [Notes panel](#) on page 191
- [Caret](#) on page 205
- [Key commands in Dorico](#) on page 28
- [Inputting notes](#) on page 211

## Changing the duration of notes

You can lengthen/shorten the duration of notes after they have been input.

---

#### PROCEDURE

1. In Write mode, select the notes whose duration you want to change.

#### NOTE

If you want to extend a note to the end of the current selection, select both that note and an item at the rhythmic position to which you want to extend the note.

---

2. Change the duration in any of the following ways:
  - Press the key command of the duration you want. For example, press **4** for a 16th note (semiquaver).
  - In the Notes panel, click the duration you want.
  - In the Keyboard, Fretboard, or Drum Pads panel toolbar, click the duration you want.
  - To lengthen notes by the current rhythmic grid resolution, press **Shift-Alt/Opt-Right Arrow**.
  - To shorten notes by the current rhythmic grid resolution, press **Shift-Alt/Opt-Left Arrow**.
  - To double the length of notes, press **Ctrl/Cmd-Shift-Alt/Opt-Right Arrow**.
  - To halve the length of notes, press **Ctrl/Cmd-Shift-Alt/Opt-Left Arrow**.
  - To lengthen notes by the current rhythmic grid resolution, choose **Write > Edit Duration > Lengthen Duration by Grid Value**.

- To shorten notes by the current rhythmic grid resolution, choose **Write > Edit Duration > Shorten Duration by Grid Value**.
- To double the length of notes, choose **Write > Edit Duration > Double Note Duration**.
- To halve the length of notes, choose **Write > Edit Duration > Halve Note Duration**.
- To lengthen notes up to the next existing note in their voice, choose **Write > Edit Duration > Extend to Next Note**.

#### NOTE

This does not apply to grace notes.

---

- To lengthen a single note up to the rhythmic position of the end of the current selection, choose **Write > Edit Duration > Extend to End of Selection**.
  - To shorten overlapping notes in the same voice so that they no longer overlap, choose **Write > Edit Duration > Shorten to Next Note**.
- 

#### RESULT

The duration of the selected notes is changed. Dorico Elements automatically notates and beams the notes appropriately according to their new duration, the prevailing time signature, and their position in the bar.

When extending notes, their duration fills in any intervening rests. Extending notes to the end of the current selection does not delete any intervening notes, instead they combine with the extended note to create chords where necessary.

#### TIP

You can assign your own key commands to lengthen/shorten notes by specific durations and to extend them. You can find these by searching for **Shorten duration by**, **Lengthen duration by**, and **Extend to** on the **Key Commands** page in **Preferences**.

---

#### RELATED LINKS

- [Notes panel](#) on page 191
- [Notes toolbox](#) on page 187
- [Keyboard panel](#) on page 197
- [Fretboard panel](#) on page 199
- [Drum Pads panel](#) on page 200
- [Rhythmic grid](#) on page 204
- [Key Commands page in the Preferences dialog](#) on page 59
- [Insert mode](#) on page 427
- [Chord mode](#) on page 242
- [Lengthening/Shortening items](#) on page 410
- [Played vs. notated note durations](#) on page 639

## Splitting notes by duration

You can split notes by either a specific duration, the current rhythmic grid resolution, or the duration between the start of the note and the caret position; for example, to turn a long tie chain into a sequence of eighth notes.

---

#### PROCEDURE

1. In Write mode, select the notes you want to split.
2. Split the selected notes in any of the following ways:

- To split them by the current rhythmic grid resolution, press **Alt/Opt-U** or choose **Write > Edit Duration > Split by Rhythmic Grid Resolution**.
  - To split them by the duration between the start of the note and the caret position, activate the caret, extend it across the required staves, move the caret to the required position, then press **Alt/Opt-U**.
  - To split them by a specific duration, choose **Write > Edit Duration > Split by Note Duration > [Note duration]**.
- 

#### RESULT

The selected notes, or notes across which the caret extends, are split into multiple, shorter notes of the corresponding duration. If multiples of the selected duration do not fit exactly into the original notes, the final note is shortened.

---

#### EXAMPLE



A phrase containing long notes



Up-stem notes split into eighth notes

---

#### RELATED LINKS

[Rhythmic grid](#) on page 204

[Caret](#) on page 205

[Activating/Deactivating the caret](#) on page 209

[Moving the caret manually](#) on page 210

[Extending the caret to multiple staves](#) on page 209

[Deleting ties](#) on page 1241

[Splitting tie chains](#) on page 1241

## Forcing the duration of notes/rests

Dorico Elements automatically notates and beams notes/rests appropriately according to the prevailing time signature and their position in the bar. You can force the duration of notes/rests to specify their notation.

For example, if you input a half note at the start of a 6/8 bar, it is notated as a dotted quarter note (crotchet) tied to an eighth note (quaver). This is because, according to convention, 6/8 bars are subdivided into two groups of three eighth notes. To reflect this for a half note (four eighth notes), Dorico Elements automatically divides the note to show the correct grouping, but you can force the note duration to show a half note instead.

#### TIP

If you want to force the duration of all notes on a staff to imply a different meter, for example, to show three quarter note groups in 6/8 to indicate a hemiola, you can also input a time signature only on those staves to group notes according to that meter. You can then hide the time signatures if required.

---

---

#### PROCEDURE

1. In Write mode, do one of the following:


- Start note input.
- Select existing notes whose duration you want to force.

#### TIP


If you later want to tie notes together, we recommend forcing the duration of all notes you want in the tie chain.

---

2. Optional: If you want input rests with forced durations, start rest input in any of the following ways:

- Press **,**.
- In the Notes toolbox, click **Rests** .

3. Activate **Force Duration** in any of the following ways:

- Press **O**.
- In the Notes toolbox, click **Force Duration** .

4. Select the note/rest duration you want.

#### TIP

If you want tie chains to appear as single noteheads with the same total duration, you must first reduce their duration, then change it to the duration you want.

---

5. Optional: During note or rest input, input the notes or rests you want.

---

#### RESULT

During note or rest input, any notes you input are notated with their whole rhythmic value, whatever their position in the bar. If you move them later, they keep the same notation. Rests are input as explicit rests. Notes that cross barlines are notated as tied notes.

Forcing the duration of existing notes or rests preserves their current duration or any duration to which you subsequently change them.

#### TIP

- **Force position and duration** in the **Notes and Rests** group of the Properties panel is activated automatically for rests input with forced durations. You can also use this property to force the duration and position of rests.
  - You can choose whether or not **Force Duration** retains its previous state when you stop and restart note input in **Preferences > Note Input and Editing > Note Input**.
  - You can change how notes are grouped in different contexts project-wide on the **Note Grouping** page in **Notation Options**.
-



EXAMPLE



Default notation of notes in 6/8



Notes in the down-stem voice input with forced durations

---

RELATED LINKS

- [Implicit vs. explicit rests](#) on page 1145
- [Notes toolbox](#) on page 187
- [Notes panel](#) on page 191
- [Caret](#) on page 205
- [Inputting notes](#) on page 211
- [Inputting rests](#) on page 235
- [Inputting ties](#) on page 237
- [Selecting note/rest durations](#) on page 247
- [Changing the duration of notes](#) on page 248
- [Notation Options dialog](#) on page 679
- [Beam grouping according to meters](#) on page 755
- [Note and rest grouping](#) on page 774
- [Creating custom beat groupings for meters](#) on page 774
- [Turning explicit rests into implicit rests](#) on page 1147

## MIDI recording

MIDI recording is a way of inputting notes into Dorico Elements by playing them in real time on a MIDI device. This can be particularly useful if, for example, you prefer to improvise your music rather than plan pitches and note durations in advance.

In Dorico Elements, you can record MIDI notes using any MIDI device.

Dorico Elements automatically transcribes multiple simultaneous parts into separate voices, such as in contrapuntal piano music. Depending on your settings for MIDI recording and quantization, Dorico Elements can also detect slurs, tremolos, trills, pedal lines, tuplets, and grace notes.

Outside of note input, Dorico Elements uses the instrument sounds of your most recent selection for the notes you play on your MIDI device. In Play mode, this is the most recent track header you clicked, while in Write mode, this is the last instrument staff on which you selected an item, started note input, or into which you recorded MIDI. During note input, Dorico Elements always uses the instrument sounds of the instrument into which you are recording notes.

**TIP**

You can enable/disable MIDI thru on the **Play** page in **Preferences**. For example, if you do not want to hear sounds in Dorico Elements when playing on your MIDI keyboard.

---

As you play notes on your MIDI device, Dorico Elements uses an algorithm to produce the correct enharmonic spelling for those notes.

RELATED LINKS

- [Optimization for MIDI recording](#) on page 256

- [Preferences dialog](#) on page 58
- [Quantization options](#) on page 94
- [MIDI Import Options dialog](#) on page 86
- [Voices](#) on page 1303
- [Pedal lines](#) on page 1044
- [Slurs](#) on page 1155
- [Tremolos](#) on page 1264
- [Trills](#) on page 981
- [Tuplets](#) on page 1271
- [Grace notes](#) on page 897

## Inputting notes using MIDI recording

You can input notes by recording what you play on a MIDI device in real time. You can record notes in both concert and transposed pitch.

### PREREQUISITE


- You have connected the MIDI device you want to use.
- You have set the quantization and recording options on the **Play** page in **Preferences** as required for the music you intend to record.
- You have input enough bars or empty rhythmic space for the amount of music you want to record. Dorico Elements does not automatically add extra bars or rhythmic space.
- If you want to hear a click during your recording, you have input a time signature. There is no click in open meter or when there is no time signature.
- You have chosen the appropriate input pitch setting.

---

### PROCEDURE

1. Select a note or rest on the staff/instrument track into which you want to record notes, at the position from which you want to record. You can do this in Write mode and Play mode.

#### NOTE

- In Play mode you cannot select rests, meaning you can only record into instrument tracks that already contain at least one note.
  - You can also record MIDI during note input, but this prevents Dorico Elements from using both staves in grand staff instruments.
- 
2. Optional: If you want to record notes without overwriting any existing notes on the staff, activate Chord mode in any of the following ways:
    - Press **Q**.
    - In the Notes toolbox, click **Chords** .
  3. Optional: If you want to record into a specific voice on the staff, in Write mode, press **Shift-N** to start note input, then do one of the following:
    - If the voice you want already exists on the staff, press **V** until the note symbol beside the caret indicates the correct voice.
    - If the voice you want does not exist on the staff yet, press **Shift-V** until the note symbol beside the caret indicates the correct voice.
  4. Press **Ctrl/Cmd-R** to start recording.

During recording, the playhead appears red and moves along in time. By default, there is one bar of count-in before the playhead reaches the rhythmic position of either your original selection or the caret.

5. Play the notes you want on your MIDI device.

**NOTE**

Notes do not appear until you stop recording.

6. Press **Space or Enter** or **Ctrl/Cmd-R** to stop recording.
- 

RESULT

The notes you played on the MIDI device are input onto the selected staff.

If you did not specify the voice, notes are recorded into voices according to what you played. For example, if you played notes in rhythmic unison, they are recorded into a single voice. If you played notes with different rhythms, they are recorded into separate voices, up to two voices per staff.

If you activated **Chords**, the notes you played are merged into the first available voice on the staff without overwriting any existing notes.

The notated duration of the notes follows your quantization options, but their played durations are retained for playback.

AFTER COMPLETING THIS TASK

- If the notes you played in are not notated as you intended, you can requantize them.
- If you do not want to retain played durations for playback, you can reset playback overrides.

RELATED LINKS

[Quantization options](#) on page 94

[Optimization for MIDI recording](#) on page 256

[Enabling/Disabling MIDI input devices](#) on page 258

[Changing the input pitch setting](#) on page 218

[Changing the sustain pedal controller settings for MIDI recording/import](#) on page 258

[Repeats in MIDI recording](#) on page 255

[Input methods for bars, beats, and barlines](#) on page 287

[Input methods for time signatures and pick-up bars](#) on page 270

[Inputting notes into multiple voices](#) on page 221

[Turning existing notes into grace notes](#) on page 899

[Resetting playback overrides](#) on page 640

[Preferences dialog](#) on page 58

## Retrieving played notes that you did not record

During playback, you can play notes on your MIDI keyboard and hear them without recording them into the score. You can use retrospective recording to retrieve these notes and input them into the project without previously explicitly recording them. For example, if you only intended to experiment with ideas, but afterwards decided you wanted to keep them.


PREREQUISITE

You have started playback, played notes on a MIDI device alongside playback, then stopped playback.

---

PROCEDURE

1. In Write mode, select a note or rest on the staff where you want to input the retrieved notes.

2. Optional: If you want to input retrieved notes without overwriting any existing notes on the staff, press **Q** to activate **Chords**.
  3. Retrieve the notes you played in any of the following ways:
    - Press **Ctrl/Cmd-Alt/Opt-R**.
    - In the **Transport** window, click **Retrospective Record** .
- 

#### RESULT

All the notes you played on your MIDI device during the previous playback are input on the selected staff, starting from the selected rhythmic position. They are input into the first available voice on the staff and overwrite any existing notes in that voice by default. If you activated **Chords**, the retrieved notes are merged into the first available voice on the staff without overwriting any existing notes.

#### NOTE

The retrospective recording buffer is cleared each time you start playback, meaning you cannot retrieve music you played before the most recent playback.

---

#### RELATED LINKS

[Playing back music](#) on page 503

[Transport window](#) on page 515

## Repeats in MIDI recording

When recording MIDI into flows that contain repeat structures, such as repeat barlines, Dorico Elements records the notes you play during each playthrough and merges them together into the same voice.

Any differences in rhythms between the recordings are notated according to the current meter.

## Requantizing notes

You can requantize notes using different quantization options. For example, if you want to change notated rhythms after importing MIDI or recording notes using a MIDI device. This does not affect the played duration of notes in playback.

---

#### PROCEDURE

1. Select all the notes you want to requantize. You can do this in Write mode and Play mode.
  2. Choose **Edit > Requantize** to open the **Requantize** dialog.
  3. Change the quantization options as required.
  4. Click **OK** to save your changes and close the dialog.
- 

#### RESULT

The notated durations of all selected notes are changed according to the quantization options. This does not affect their played duration in playback.

#### RELATED LINKS

[Quantization options](#) on page 94

[Resetting playback overrides](#) on page 640

[Large selections](#) on page 403

[Selecting/Deselecting notes and items individually](#) on page 401

## Optimization for MIDI recording

Depending on your operating system and the MIDI devices you use for recording, you might find that the notes you record are not notated with the durations or at the rhythmic positions you expected. Optimizing the settings related to MIDI recording can help you achieve better results.

- You can find options that affect MIDI recording on the **Play** page in **Preferences**.

Because there can be a time latency between you pressing keys on a MIDI device and the notes being picked up by Dorico Elements, we recommend that you check the latency by inputting a simple rhythm against the click; for example, recording quarter notes in a 4/4 time signature.

Depending on the results, there are different settings you can change:

- If your notes are notated with incorrect durations, such as sixteenth notes notated as eighth notes, we recommend that you change the quantization options.
- If notes are input with missing or incorrect notations, we recommend that you change the detected notations in **Preferences > Play > Recording**.

### NOTE

Notation settings are linked between **Preferences** and the **MIDI Import Options** dialog.

---

- If your notes are notated ahead of the beat, we recommend that you increase the latency compensation value.
- If your notes are notated behind the beat, we recommend that you reduce the buffer size for your audio device to the lowest possible value that still produces stable playback with no drop-outs.

### NOTE

The built-in audio device on Windows computers cannot always achieve a low enough latency for reliable input in real time. In such cases, we recommend that you use an external USB audio interface with ASIO support.

---

### RELATED LINKS

[Quantization options](#) on page 94

[MIDI Import Options dialog](#) on page 86

[Changing the sustain pedal controller settings for MIDI recording/import](#) on page 258

[Turning existing notes into grace notes](#) on page 899

[Changing the sound used for the click](#) on page 496

[Preferences dialog](#) on page 58

[Pedal lines](#) on page 1044

[Slurs](#) on page 1155

[Tremolos](#) on page 1264

[Trills](#) on page 981

[Tuplets](#) on page 1271

[Grace notes](#) on page 897

## Changing the MIDI latency compensation value

You can change the MIDI latency compensation value to correct any discrepancy between when you press keys during MIDI recording and where the corresponding notes are notated relative to the beat.

---

### PROCEDURE

1. Press **Ctrl/Cmd-**, to open **Preferences**.
2. In the category list, click **Play**.
3. In the **Recording** subsection, change the value for **MIDI input latency compensation**.
4. Click **Apply**, then **Close**.

---

### RESULT

Increasing the latency compensation value increases the time between pressing the key and the note being notated. This is useful if the notes you record were previously notated ahead of the beat.

Decreasing the latency compensation value decreases the time between pressing the key and the note being notated. This is useful if the notes you record were previously notated behind the beat.

## Changing the audio device buffer size

You can change the audio buffer size; for example, if the current buffer size is causing notes input using MIDI recording appear significantly after the beat.

### NOTE

- If the notes you play when recording MIDI are notated behind the beat, we recommend that you reduce the buffer size for your audio device to the lowest possible value that still produces stable playback with no drop-outs.
- The built-in audio device on Windows computers cannot always achieve a low enough latency for reliable input in real time. In such cases, we recommend that you use an external USB audio interface with ASIO support.

---

### PROCEDURE

1. Choose **Edit > Device Setup** to open the **Device Setup** dialog.
  2. Select the audio device whose buffer size you want to change from the **ASIO Driver** menu.
  3. Click **Device Control Panel** to open the device settings dialog for the selected audio device.
  4. In the audio device settings dialog, change the buffer size in one of the following ways, as appropriate for your operating system:
    - For Windows systems, in the **Audio buffer size** section, either drag the slider to a different position or activate **User definable** and change the value in the **Selected buffer size** field.
    - For macOS systems, select a sample rate from the **Buffer Size** menu.
  5. Click **OK** (Windows)/**Close** (macOS) to close the audio device settings dialog.
  6. Click **Close** to close the **Device Setup** dialog.
-

## Changing the sustain pedal controller settings for MIDI recording/import

You can change your default setting for whether Dorico Elements interprets sustain pedal controllers as pedal lines when recording MIDI and importing or opening MIDI files.

---

### PROCEDURE

1. Press **Ctrl/Cmd-**, to open **Preferences**.
  2. In the category list, click **Play**.
  3. In the **Recording** subsection, activate/deactivate **Import CC64 as pedal lines**.
  4. Optional: If you activated **Import CC64 as pedal lines**, activate/deactivate **Snap pedal lines to previous beat**.
  5. Click **Apply**, then **Close**.
- 

### RESULT

When **Import CC64 as pedal lines** is activated, the MIDI controller CC64 is interpreted as pedal lines.

When **Snap pedal lines to previous beat** is activated, the start of pedal lines is automatically moved back to the start of the beat.

### NOTE

These options are also available in the **MIDI Import Options** dialog, and your settings are linked between this dialog and **Preferences**.

---

### RELATED LINKS

[Preferences dialog](#) on page 58

[MIDI Import Options dialog](#) on page 86

## Enabling/Disabling MIDI input devices

By default, Dorico Elements accepts MIDI input from all connected MIDI devices, including virtual MIDI cables and inter-application buses. You can enable/disable MIDI devices individually; for example, if you are using devices that continuously output MIDI data or if you want particular devices to remain routed exclusively to another application.

---

### PROCEDURE

1. Press **Ctrl/Cmd-**, to open **Preferences**.
  2. In the category list, click **Play**.
  3. In the **MIDI Input Devices** subsection, activate/deactivate the checkbox for each MIDI input device.
  4. Click **Apply**, then **Close**.
-

## Notations input

You can input many types of notations, both during note input and by adding them to existing notes and music. In Dorico Elements, “notation” is a broad term that includes many different items, including articulations, slurs, dynamics, and more.

In Dorico Elements, you can input most notations with the keyboard by using popovers and with the mouse by using panels.

## Inputting articulations

You can input notes with articulations during note input, and you can add articulations to notes after they have been input.

### NOTE

These steps describe selecting articulations before inputting notes. However, you can change this setting if you prefer to specify articulations after inputting notes.

---

### PROCEDURE

1. In Write mode, do one of the following:
    - Start note input.
    - Select the existing notes to which you want to add articulations.
  2. Optional: If you want to input notes with articulations onto multiple staves at once, extend the caret to those staves.
  3. Select the articulations you want to input in any of the following ways:
    - Press the key commands for the articulations you want.
    - In the Notes panel, click the articulations you want.
    - In the Keyboard panel toolbar, click the articulations you want.
  4. Optional: During note input, input the notes or chords you want with your selected articulations.
- 

### RESULT

The selected articulations are added to the selected notes. They are positioned between noteheads or stems and tuplet brackets, so they are closer to the notes than tuplet brackets or tuplet numbers/ratios.

During note input, the selected articulations are added to all notes that are input until the articulations are deactivated.

### NOTE

Some combinations of articulations on the same notes are not possible. For example, you cannot have both staccato and staccatissimo marks on the same notes, as both articulations indicate that notes are played shorter.

---

### AFTER COMPLETING THIS TASK

You can enable independent voice playback for individual instruments to hear different sounds in different voices simultaneously; for example, if you have slurs in one voice and staccatos in another voice.



#### RELATED LINKS

- [Articulations](#) on page 723
- [Note input](#) on page 210
- [Notes panel](#) on page 191
- [Keyboard panel](#) on page 197
- [Copying and pasting articulations](#) on page 724
- [Extending the caret to multiple staves](#) on page 209
- [Hiding/Showing zones](#) on page 44
- [Enabling independent voice playback](#) on page 506

## Key commands for articulations

In addition to clicking them in the Notes panel, you can input common articulations by pressing key commands on your computer keyboard.

You can use the following key commands to input articulations with the keyboard:

---

Type of articulation	Key command
Accent: >	[
Marcato: ^	·
Stressed: ˇ	{
Unstressed: ˇ	@ (Windows) or " (macOS)
Staccato: ·	]
Tenuto: -	# (Windows) or \ (macOS)
Staccatissimo: ', or '´	}
Combined tenuto and staccato: ˘	~ (Windows) or   (macOS)

---

## Inputting slurs

You can input slurs, both during note input and by adding them to existing notes. You can also add slurs to existing notes on multiple staves at the same time, and to notes in different voices or on different staves belonging to the same instrument; for example, when phrases span both staves of grand staff instruments.

---

#### PROCEDURE

1. In Write mode, do one of the following:



- Start note input.
- Select the notes to which you want to add slurs.

#### TIP

- If you only select a single note, the slur connects that note to the next note in the same voice on the staff. To input slurs between notes in different voices, you must

select both notes; for example, by selecting the first note then **Ctrl/Cmd**-clicking the second note.


- For instruments with multiple staves, such as piano and harp, you can select two existing notes, each on a different staff, to create cross-staff slurs. However, you cannot create cross-staff slurs between different instruments.
  - You can select notes on multiple staves to input slurs on those staves simultaneously.
- 

2. Optional: If you want to input notes and slurs onto multiple staves at once, extend the caret to those staves.
3. Input a slur in any of the following ways:
  - Press **S**.
  - In the Notes panel, click **Slur** .
  - In the Keyboard panel toolbar, click **Slur** .

#### NOTE

If you added slurs to existing notes, stop here.

---

4. During note input, input the notes you want.  
The slur extends automatically, even if there are rests between the notes you input.
  5. During note input, end the slur on the currently selected note in any of the following ways:
    - Press **Shift-S**.
    - In the Keyboard panel toolbar, click **Slur** .
- 


#### RESULT

During note input, slurs begin from the currently selected note on all staves across which the caret extends, not from the caret position. Slurs extend automatically as you input notes, and end on the currently selected note.

When adding slurs to existing notes, the selected notes are connected by slurs. For example, if you select two notes belonging to one instrument and two notes belonging to another, two slurs are input connecting the notes on each selected staff. If you selected notes on different staves belonging to the same instrument, a cross-staff slur is input.

Slurs are placed either above or below the notes, depending on the stem direction of the notes within the selection.

#### TIP

When nothing is selected, you can also click **Slur**  in the Notes panel or Keyboard panel toolbar, and then click and drag to input a slur and extend it to your preferred length.

---

#### AFTER COMPLETING THIS TASK

- You can enable independent voice playback for individual instruments to hear different sounds in different voices simultaneously; for example, if you have slurs in one voice and staccatos in another voice.
- You can change the curvature direction of individual slurs.

#### RELATED LINKS

[Notes panel](#) on page 191

[Keyboard panel](#) on page 197  
[Hiding/Showing zones](#) on page 44  
[Slurs](#) on page 1155  
[Inputting nested slurs](#) on page 1167  
[Inputting notes](#) on page 211  
[Extending the caret to multiple staves](#) on page 209  
[Slurs in playback](#) on page 1178  
[Enabling independent voice playback](#) on page 506  
[Cross-staff and cross-voice slurs](#) on page 1166  
[Changing the curvature direction of slurs](#) on page 1165  
[Moving notes/items rhythmically](#) on page 437  
[Lengthening/Shortening items](#) on page 410

## Inputting fingerings



You can input fingerings on existing notes using the fingerings popover, both during note input and by adding them to existing notes.

### NOTE

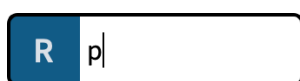
- You can only add fingerings to notes at one rhythmic position at a time, and you can only input as many fingerings as there are notes at each rhythmic position. For example, you can input three fingerings at the rhythmic position of a chord containing three notes, but only one fingering at the rhythmic position of a single note.
- If you select notes in multiple voices, fingerings are only input into the top voice.
- Although they contain two numbers, substitution fingerings are considered one fingering, meaning you can add substitution fingerings to single notes.

---

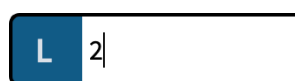
### PROCEDURE

1. In Write mode, do one of the following:
  - Start note input.
  - Select an existing note on a single staff to which you want to add fingering.  
If you want to add fingerings to all notes in a chord, select all the notes in the chord.
2. Optional: During note input, input at least one note.
3. Open the fingerings popover in any of the following ways:
  - Press **Shift-F**.
  - In the Notations toolbox, click **Popovers** , then **Fingerings** .
4. Optional: If you are inputting fingerings for fretted instruments, change the hand in one of the following ways:
  - To switch to the right hand, press **Down Arrow**.
  - To switch to the left hand, press **Up Arrow**.

The popover icon updates to show the current hand.



Fingerings popover when inputting right-hand fingerings



Fingerings popover when inputting left-hand fingerings

5. Enter the fingerings you want into the popover.  
For example, enter:
    - **3-2** for a substitution fingering from the third finger to the second finger.
    - **1,3,5** for a chord.
    - **12** to show the first two valves should be depressed on a valved brass instrument.
    - **p** for a right-hand thumb fingering or **t** for a left-hand thumb fingering.
    - **2/** for a fingering with a shift indicator.
  6. Optional: When adding fingerings to existing notes, move the popover in one of the following ways:
    - To advance the popover to the next note/chord in the current voice, press **Space**.
    - To move the popover back to the previous note/chord in the current voice, press **Shift-Space**.
    - To advance the popover to the first note/chord in the current voice in the next bar, press **Tab**.
    - To move the popover back to the first note/chord in the current voice in the previous bar, press **Shift-Tab**.
    - To move the cursor and popover to the right/left and to the next/previous note/fingering in the current voice, press **Right Arrow / Left Arrow**.
  7. Press **Return** to close the popover.
- 

#### RESULT

The fingerings are input on the selected notes, including during note input. The popover advances through notes in the voice as indicated by the caret or in the same voice as your initial selection.

#### RELATED LINKS

[Fingering](#) on page 871

[Changing the rhythmic position of substitution fingerings](#) on page 873

[Fingerings for valved brass instruments](#) on page 887



[Deleting fingerings](#) on page 878

[Hiding/Showing fingerings in chord diagrams](#) on page 810

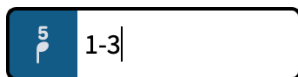
## Fingerings popover

The following tables contain examples of what you can enter into the fingerings popover to input the different types of fingerings available. The fingerings popover behaves differently for fretted instruments compared to other instruments, so there is a separate table for fretted instrument fingerings.

You can open the fingerings popover in Write mode in any of the following ways when either a note is selected or the caret is active:

- Press **Shift-F**.
- In the Notations toolbox, click **Popovers**  then **Fingerings** .
- Choose **Write > Create Fingerings**.

When inputting fingerings for non-fretted instruments, the icon on the left-hand side of the popover matches the corresponding button in the Notations toolbox. When inputting fingerings for fretted instruments, the icon on the left-hand side of the popover indicates whether you are inputting left-hand or right-hand fingerings.



Fingerings popover with an example entry for inputting a non-fretted instrument fingering



Fingerings popover with an example entry for a left-hand fretted instrument fingering



**Fingerings** button in the Notations toolbox



Fingerings popover with an example entry for a right-hand fretted instrument fingering

## Non-fretted instruments

Type of fingering	Example popover entry
Single fingerings for individual notes, including for brass valve numbers and trombone slide positions	<b>1, 2, 3,</b> and so on
Valved brass instruments	<b>12</b>
Single fingerings for each note in chords	<b>1,3,5</b>
For keyboard instruments, Dorico Elements automatically orders numbers appropriately according to the hand playing the notes. The default is: <ul style="list-style-type: none"> <li>• Right hand for the upper staff</li> <li>• Left hand for the lower staff</li> </ul>	
Left-hand fingerings (non-fretted instruments)	<b>L2, G2, S5, I2,</b> or <b>H2</b>
Right-hand fingerings (non-fretted instruments)	<b>R5, D5,</b> or <b>M5</b>
Thumb indicator (non-fretted instruments)	<b>T</b>
Multiple fingerings for individual notes; for example, for ornaments such as mordents or turns	<b>2343</b>
Single fingerings for multiple notes: enter the same fingering number for two adjacent notes.	<b>1,1</b>
For example, in keyboard music the thumb may depress two keys simultaneously.	
Alternative fingerings	<b>2(3)</b>

Type of fingering	Example popover entry
Editorial fingerings	[4]
Finger substitutions	1-3
Fingering shift indicator (string instruments)	2/

---

## Fretted instruments

---

Type of fingering	Example popover entries
Left-hand fingerings	0, 1, 2, 3, 4, 5
Left-hand thumb	t
Right-hand fingerings	1, 2, 3, 4, 5 p, i, m, a, e
Right-hand thumb	p, t, or 1
Right-hand pinky finger	e, x, c, o, or 5

---

These lists are not comprehensive as there are many possible fingerings. It is intended to illustrate how you can structure your entries to input different types of fingerings.

### NOTE

Finger substitutions are shown as immediate by default, but you can change the rhythmic position of the substitution by changing the deferral duration.

---

### RELATED LINKS

[Notations toolbox](#) on page 192

[Fingering](#) on page 871

[Changing the rhythmic position of substitution fingerings](#) on page 873

[Fingerings for valved brass instruments](#) on page 887

[Hiding/Showing fingerings in chord diagrams](#) on page 810

## Input methods for key signatures

You can input key signatures with the keyboard by using the key signatures popover, and with the mouse by using the Key Signatures, Tonality Systems, and Accidentals panel.



### RELATED LINKS

[Key signatures](#) on page 911

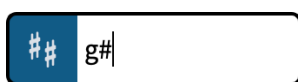
## Key signatures popover

The table contains the entries for the key signatures popover that you can use to input the different key signatures available.

You can open the key signatures popover in Write mode in any of the following ways when either an item is selected or the caret is active:

- Press **Shift-K**.
- In the Notations toolbox, click **Popovers**  then **Key Signatures** .
- Select an existing key signature and press **Return**.
- Choose **Write > Create Key Signature**.

The icon on the left-hand side of the popover matches the corresponding button in the Notations toolbox on the right of the window.



Key signatures popover with an example entry



Key Signatures, Tonality Systems, and Accidentals button in the Notations toolbox

---

Type of key signature	Popover entry
Open or atonal key signature	<b>open</b> or <b>atonal</b>
Major keys (capital letters)	<b>C, D, G#, Ab</b> , and so on
Minor keys (lowercase letters)	<b>g, d, f#, bb</b> , and so on
Number of sharps	<b>3s, 2#</b> , and so on
<b>NOTE</b>	
Assumes the major key for that many sharps.	
Number of flats	<b>4f, 5b</b> , and so on
<b>NOTE</b>	
Assumes the major key for that many flats.	

---

This list is not comprehensive as you can input every possible key signature. It is intended to illustrate how you can structure your entry to input different types of key signatures.

### RELATED LINKS



[Notations toolbox](#) on page 192

[Key signatures](#) on page 911

[Types of key signatures](#) on page 913

## Key Signatures, Tonality Systems, and Accidentals panel

The Key Signatures, Tonality Systems, and Accidentals panel allows you to create and input common key signatures. It is located in the right zone in Write mode.

- You can hide/show the Key Signatures, Tonality Systems, and Accidentals panel by clicking **Panels** , then **Key Signatures, Tonality Systems, and Accidentals**  in the Notations toolbox.

You can also hide/show the right zone by pressing **Ctrl/Cmd-9**.

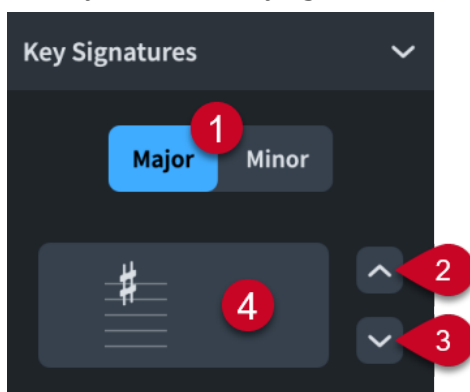
The Key Signatures, Tonality Systems, and Accidentals panel contains the following sections:

### Used in This Flow

Contains all the key signatures currently used in the flow.

### Key Signatures

Allows you to create key signatures.



The **Key Signatures** section contains the following parts:

#### 1 Major/Minor

Allow you to choose whether your key signature is **Major** or **Minor**.

#### 2 More Sharps/Fewer Flats

Each time you click, you add one sharp accidental to the key signature, or remove one flat accidental from the key signature.

#### 3 Fewer Sharps/More Flats

Each time you click, you remove one sharp accidental from the key signature, or add one flat accidental to the key signature.

#### 4 Input key signature

Shows how the key signature looks on a staff. Clicking this button inputs the displayed key signature. If nothing in the project is selected, the key signature is loaded onto the mouse pointer.

### Accidentals

Contains all accidentals available in the currently selected tonality system.

### RELATED LINKS

[Notations toolbox](#) on page 192

[Key signatures](#) on page 911

[Tonality systems](#) on page 918



## Inputting key signatures with the popover



You can input key signatures using the key signatures popover, both during note input and by adding them to existing music. You can also input key signatures only on single staves.

### NOTE

It is not necessary to input different key signatures for transposing instruments, as Dorico Elements automatically shows the appropriate key signatures for transposing instruments in transposing layouts.

---

### PROCEDURE

1. In Write mode, do one of the following:
    - Start note input.
    - Select an item at the rhythmic position where you want to input a key signature. If you want to input a key signature on a single staff, select an item that belongs to that staff only.
  2. Optional: If you want to input key signatures onto multiple specific staves at once, extend the caret to those staves.
  3. Open the key signatures popover in any of the following ways:
    - Press **Shift-K**.
    - In the Notations toolbox, click **Popovers** , then **Key Signatures** .
  4. Enter the key signature you want into the popover.  
For example, enter:
    - **G** or **1s** for G major.
    - **g** for G minor.
    - **open** for an atonal key signature.
  5. Input the key signature and close the popover in one of the following ways:
    - To input a key signature on all staves, press **Return**.
    - To input a key signature only on the selected staff or staves across which the caret extends, press **Alt/Opt-Return**.
- 

### RESULT

During note input, key signatures are input at the caret position, even if this is in the middle of a bar. However, it is preferable to input key signature changes at barlines.

When adding key signatures to existing music, they are added at the rhythmic position of the earliest selected item. They appear to the right of barlines and clefs, and to the left of other items, even if this is in the middle of an existing bar. If you selected an existing key signature, the new key signature directly replaces the existing one.

All subsequently input notes follow the input key signature, until the next existing key signature or the end of the flow, whichever comes first. If playing in notes using a MIDI keyboard, accidentals are spelled according to the key signature.

Key signatures that do not show accidentals, such as A minor or open key signatures, are indicated by signposts.

#### NOTE

An individual key signature on a single staff is not intended for transposing instruments. Transpositions of notes and key signatures are done automatically for transposing instruments.

---

#### RELATED LINKS

- [Key signatures popover](#) on page 266
- [Extending the caret to multiple staves](#) on page 209
- [Accidental selection during MIDI input](#) on page 234
- [Key signatures](#) on page 911
- [Moving notes/items rhythmically](#) on page 437
- [Transposing instruments](#) on page 133
- [Making layouts transposing/concert pitch](#) on page 169
- [Respelling notes](#) on page 449
- [Changing the pitch of individual notes](#) on page 444
- [Transposing selections](#) on page 445
- [Mapping notes to scales](#) on page 460
- [Signposts](#) on page 426



## Inputting key signatures with the panel

You can input key signatures using the Key Signatures, Tonality Systems, and Accidentals panel, both during note input and by adding them to existing music. You can also input key signatures only on single staves.

#### NOTE

- These steps describe inputting with the default mouse input preference **Create item at selection**.
  - It is not necessary to input different key signatures for transposing instruments, as Dorico Elements automatically shows the appropriate key signatures for transposing instruments in transposing layouts.
- 

#### PROCEDURE

1. In Write mode, do one of the following:
    - Start note input.
    - Select an item at the rhythmic position where you want to input a key signature. If you want to input a key signature on a single staff, select an item that belongs to that staff only.
  2. In the Notations toolbox, click **Panels** , then **Key Signatures, Tonality Systems, and Accidentals**  to show the Key Signatures, Tonality Systems, and Accidentals panel.
  3. Optional: If you have not already used the key signature you want in the current flow, create the key signature you want using the **Key Signatures** editor in the Key Signatures, Tonality Systems, and Accidentals panel.
  4. Input the key signature you want in one of the following ways:
    - To input a key signature on all staves, click it in the Key Signatures, Tonality Systems, and Accidentals panel.
    - To input a key signature on the selected staff only, **Alt/Opt**-click it in the Key Signatures, Tonality Systems, and Accidentals panel.
-

#### RESULT

During note input, key signatures are input at the caret position, even if this is in the middle of a bar. However, it is preferable to input key signature changes at barlines.

When adding key signatures to existing music, they are added at the rhythmic position of the earliest selected item. They appear to the right of barlines and clefs, and to the left of other items, even if this is in the middle of an existing bar. If you selected an existing key signature, the new key signature directly replaces the existing one.

All subsequently input notes follow the input key signature, until the next existing key signature or the end of the flow, whichever comes first. If playing in notes using a MIDI keyboard, accidentals are spelled according to the key signature.

Key signatures that do not show accidentals, such as A minor or open key signatures, are indicated by signposts.

#### NOTE

An individual key signature on a single staff is not intended for transposing instruments. Transpositions of notes and key signatures are done automatically for transposing instruments.

---

#### RELATED LINKS

[Notations toolbox](#) on page 192

[Key Signatures, Tonality Systems, and Accidentals panel](#) on page 267

[Key signatures](#) on page 911

[Accidental selection during MIDI input](#) on page 234

[Moving notes/items rhythmically](#) on page 437

[Changing your mouse input settings](#) on page 203

[Transposing instruments](#) on page 133

[Making layouts transposing/concert pitch](#) on page 169

[Respelling notes](#) on page 449

[Changing the pitch of individual notes](#) on page 444

[Transposing selections](#) on page 445

[Mapping notes to scales](#) on page 460

[Signposts](#) on page 426

## Input methods for time signatures and pick-up bars

You can input time signatures, including time signatures with pick-up bars, with the keyboard by using the time signatures popover, and with the mouse by using the Time Signatures (Meter) panel.

#### NOTE

You can create most types of custom time signatures using the **Create Time Signature** section of the Time Signatures (Meter) panel, but certain time signatures are only possible using the time signatures popover. For example, you can only specify beat subdivisions with the time signatures popover.

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#### RELATED LINKS

[Preferences dialog](#) on page 58



[Time signatures](#) on page 1249

[Types of time signatures](#) on page 1250

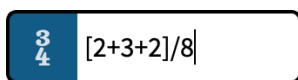
## Time signatures popover

The table contains the entries for the time signatures popover that you can use to input the different types of time signatures available.

You can open the time signatures popover in Write mode in any of the following ways when either an item is selected or the caret is active:

- Press **Shift-M**.
- In the Notations toolbox, click **Popovers**  then **Time Signatures (Meter)** .
- Select an existing time signature and press **Return**.
- Choose **Write > Create Time Signature**.

The icon on the left-hand side of the popover matches the corresponding button in the Notations toolbox on the right of the window.



Time signatures popover with an example entry



**Time Signatures (Meter)** button in the Notations toolbox

## Time signatures

Type of time signature	Popover entry
Simple time signatures For example, 2/2 (two half notes per bar), 2/4 (two quarter notes per bar), 6/8 (six eighth notes per bar), 3/4, 5/4, and so on	2/2, 2/4, 6/8, 3/4, 5/4, and so on
Alternating time signatures, such as 6/8+3/4	6/8 + 3/4 <b>NOTE</b> You must include spaces either side of the plus sign.
Common time, the equivalent of 4/4	<b>c</b>
Cut common time, the equivalent of 2/2	<b>cutc, cut,</b> or <b>¢</b>
Open meter indicated by X	<b>X</b> or <b>x</b>
Open meter with no indication	<b>open</b>
<b>NOTE</b> A time signature signpost is shown at the position of the open meter.	

---

### Type of time signature

### Popover entry

Additive time signature with explicit beat grouping

**3+2+2/8, 3+2/4**, and so on

Beat grouping specified but not shown in the time signature

**[2+3+2]/8**

For example, a time signature of 7/8 is shown but beams are subdivided into 2+3+2 eighth notes.

Aggregate time signature with dashed barlines shown in each bar, indicating the divisions between the different meters

**2/4 | 6/8**

Aggregate time signature without dashed barlines shown in each bar

**2/4:6/8**

Interchangeable time signature with different styles: parenthesized, slash, equals sign, and dashed

**2/4 (6/8), 2/4 / 6/8, 2/4 = 6/8, or 2/4 - 6/8**

#### NOTE

You must include spaces either side of the slashes, equals signs, or dashes, and before opening parentheses.

---

---

## Pick-up bars

---

### Example time signature with pick-up bar

### Popover entry

4/4 time signature with a dotted quarter note pick-up

**4/4,1.5**

6/8 time signature with a pick-up of two eighth notes

**6/8,2**

2/2 time signature with a quarter note pick-up

**2/2,0.5**

---

#### TIP

The number after the comma indicates multiples of the rhythmic unit specified by the denominator of the time signature.

---

These lists are not comprehensive, as there are many possible time signatures and pick-up bars. They are intended to illustrate how you can structure your entry to input different time signatures and pick-up bars.

#### RELATED LINKS

[Notations toolbox](#) on page 192

[Time signatures](#) on page 1249

[Types of time signatures](#) on page 1250

[Time signature styles](#) on page 1256

[Inputting time signatures with the popover](#) on page 274



[Inputting pick-up bars with the popover](#) on page 277

[Creating custom beat groupings for meters](#) on page 774

[Ending interchangeable time signatures](#) on page 1262

## Time Signatures (Meter) panel

The Time Signatures (Meter) panel allows you to input different time signatures. In the **Create Time Signature** section of the panel, you can create uncommon time signatures. It is located in the right zone in Write mode.

- You can hide/show the Time Signatures (Meter) panel by clicking **Panels** , then **Time Signatures (Meter)**  in the Notations toolbox.

You can also hide/show the right zone by pressing **Ctrl/Cmd-9**.

The Time Signatures (Meter) panel contains the following sections:

### Used in This Flow

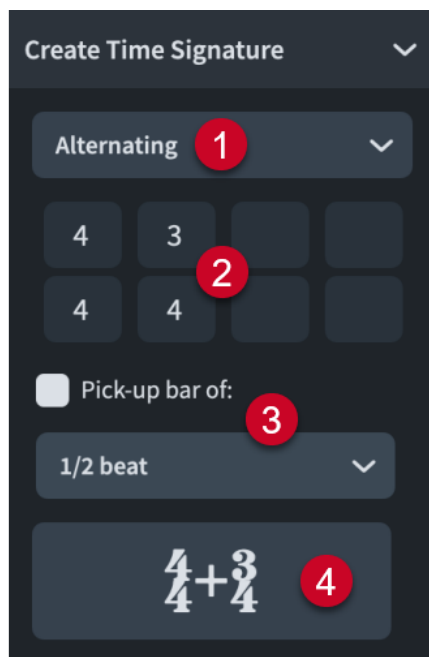
Contains any time signatures already used in the current flow.

### Common

Contains common time signatures, such as 4/4, 3/4, 6/8, and 7/8.

### Create Time Signature

Allows you to design your own time signatures, including alternating time signatures and aggregate time signatures.



The **Create Time Signature** section contains the following parts:

#### 1 Time signature type menu

Allows you to select one of the following types of time signatures:

- Regular**
- Additive**
- Interchangeable**

- **Aggregate**
- **Alternating**

## 2 Time signature spaces

Allows you to combine up to four time signatures. For example, you can specify only one time signature for a regular time signature, but for an alternating time signature, you might want to include three time signatures.

## 3 Pick-up bar of

Allows you to include a pick-up bar before the time signature. A pick-up bar is not a complete bar, and so allows you to include only a few beats before the first complete bar.

You can select one of the following options for the number of beats in a pick-up bar:

- **1/2 beat**
- **1 beat**
- **2 beats**
- **3 beats**

## 4 Input time signature button

Click the button that displays the time signature to input it. If nothing in the project is selected, the time signature is loaded onto the mouse pointer.

### RELATED LINKS

[Notations toolbox](#) on page 192

[Time signatures](#) on page 1249

[Types of time signatures](#) on page 1250

[Time signature styles](#) on page 1256

[Inputting time signatures with the panel](#) on page 275

[Inputting pick-up bars with the panel](#) on page 278

## Inputting time signatures with the popover

You can input time signatures using the time signatures popover, both during note input and by adding them to existing music. You can also input time signatures only on single staves.




### NOTE

Dorico Elements does not automatically add beats to fill bars according to the new time signature at the end of the affected region unless Insert mode is activated.

---

### PROCEDURE

1. In Write mode, do one of the following:
  - Start note input.
  - Select an item at the rhythmic position where you want to input a time signature. If you want to input a time signature on a single staff, select an item that belongs to that staff only.
2. Optional: If you want to input time signatures onto multiple specific staves at once, extend the caret to those staves.
3. Optional: If you want Dorico Elements to add beats at the end of the region affected by the new time signature if required, activate Insert mode in any of the following ways:

- Press **I**.
  - In the Notes toolbox, click **Insert** .
4. Open the time signatures popover in any of the following ways:
    - Press **Shift-M**.
    - In the Notations toolbox, click **Popovers** , then **Time Signatures (Meter)** .
  5. Enter the time signature you want into the popover.  
For example, enter **4/4** for a 4/4 time signature or **[2+2+3]/8** for a 7/8 time signature with a custom beat grouping.
  6. Input the time signature and close the popover in one of the following ways:
    - To input a time signature on all staves, press **Return**.
    - To input a time signature only on the selected staff or staves across which the caret extends, press **Alt/Opt-Return**.
- 

#### RESULT

During note input, time signatures are added at the caret position, even if this is in the middle of an existing bar.

When adding time signatures to existing music, they are added at the rhythmic position of the earliest selected item. They appear to the right of barlines, key signatures, and clefs, and to the left of other items, even if this is in the middle of an existing bar. If you selected an existing time signature, the new time signature directly replaces the existing one.

All subsequent bars follow the input time signature, until the next existing time signature or the end of the flow, whichever comes first. Dorico Elements automatically inputs and moves barlines as required so that subsequent music is barred correctly. However, in open meters, you must input barlines and add beats manually.

Any time signatures you input after an interchangeable time signature that are specified in it are hidden automatically until you end the interchangeable time signature.

#### RELATED LINKS

[Time signatures popover](#) on page 271

[Extending the caret to multiple staves](#) on page 209

[Time signatures](#) on page 1249

[Pick-up bars](#) on page 1253

[Time signature styles](#) on page 1256

[Changing the separator style of interchangeable time signatures](#) on page 1259

[Inputting pick-up bars with the popover](#) on page 277

[Inputting barlines with the popover](#) on page 293

[Inputting bars/beats with the popover](#) on page 290

[Insert mode](#) on page 427

[Ending interchangeable time signatures](#) on page 1262

[Rhythmic position](#) on page 26

## Inputting time signatures with the panel

You can input time signatures using the Time Signatures (Meter) panel, both during note input and by adding them to existing music. You can also input time signatures only on single staves.




#### NOTE

- These steps describe inputting with the default mouse input preference **Create item at selection**.



- Dorico Elements does not automatically add beats to fill bars according to the new time signature at the end of the affected region unless Insert mode is activated.
- 

#### PROCEDURE

1. In Write mode, do one of the following:
    - Start note input.
    - Select an item at the rhythmic position where you want to input a time signature. If you want to input a time signature on a single staff, select an item that belongs to that staff only.
  2. Optional: If you want Dorico Elements to add beats at the end of the region affected by the new time signature if required, activate Insert mode in any of the following ways:
    - Press **I**.
    - In the Notes toolbox, click **Insert** .
  3. In the Notations toolbox, click **Panels**  then **Time Signatures (Meter)**  to show the Time Signatures (Meter) panel.
  4. Optional: If you want to input a time signature that is not available in the **Used in This Flow** or **Common** sections, select the type of time signature you want to input from the menu in the **Create Time Signature** section.
  5. Optional: Enter the time signatures you want into the available spaces.
  6. Input the time signature you want in one of the following ways:
    - To input a time signature on all staves, click it in the Time Signatures (Meter) panel.
    - To input a time signature on the selected staff only, **Alt/Opt**-click it in the Time Signatures (Meter) panel.
- 

#### RESULT

During note input, time signatures are added at the caret position, even if this is in the middle of an existing bar.

When adding time signatures to existing music, they are added at the rhythmic position of the earliest selected item. They appear to the right of barlines, key signatures, and clefs, and to the left of other items, even if this is in the middle of an existing bar. If you selected an existing time signature, the new time signature directly replaces the existing one.

All subsequent bars follow the input time signature, until the next existing time signature or the end of the flow, whichever comes first. Dorico Elements automatically inputs and moves barlines as required so that subsequent music is barred correctly. However, in open meters, you must input barlines and add beats manually.

Any time signatures you input after an interchangeable time signature that are specified in it are hidden automatically until you end the interchangeable time signature.

#### RELATED LINKS

[Notations toolbox](#) on page 192

[Time Signatures \(Meter\) panel](#) on page 273

[Changing your mouse input settings](#) on page 203

[Time signatures](#) on page 1249

[Pick-up bars](#) on page 1253

[Time signature styles](#) on page 1256

[Changing the separator style of interchangeable time signatures](#) on page 1259

[Inputting pick-up bars with the panel](#) on page 278

[Inputting barlines with the panel](#) on page 294

[Inputting bars/beats with the popover](#) on page 290

[Insert mode](#) on page 427

[Ending interchangeable time signatures](#) on page 1262

[Rhythmic position](#) on page 26

## Inputting pick-up bars with the popover




You can input pick-up bars as part of time signatures using the time signatures popover, both during note input and by adding them to existing music. You can also input time signatures with pick-up bars only on single staves.

### NOTE

Dorico Elements does not automatically add beats to fill bars according to the new time signature at the end of the affected region unless Insert mode is activated.

---

### PROCEDURE

1. In Write mode, do one of the following:
  - Start note input.
  - Select an item at the rhythmic position where you want to input a pick-up bar. If you want to input a pick-up bar on a single staff, select an item that belongs to that staff only.
2. Optional: If you want to input a pick-up bar onto multiple specific staves at once, extend the caret to those staves.
3. Optional: If you want Dorico Elements to add beats at the end of the region affected by the pick-up bar if required, activate Insert mode in any of the following ways:
  - Press **I**.
  - In the Notes toolbox, click **Insert** .
4. Open the time signatures popover in any of the following ways:
  - Press **Shift-M**.
  - In the Notations toolbox, click **Popovers** , then **Time Signatures (Meter)** .
5. Enter the time signature and the number of pick-up beats you want into the popover.  
For example, enter **3/4,0.75** for a 3/4 time signature with a dotted eighth note (dotted quaver) upbeat or **4/4,1** for a 4/4 time signature with one quarter note upbeat. The number after the comma indicates multiples of the rhythmic unit specified by the denominator of the time signature.
6. Input the pick-up bar and close the popover in one of the following ways:
  - To input a pick-up bar on all staves, press **Return**.
  - To input a pick-up bar only on the selected staff or staves across which the caret extends, press **Alt/Opt-Return**.

### RESULT

During note input, pick-up bars are added at the caret position as part of the specified time signature, even if this is in the middle of an existing bar.

When adding pick-up bars to existing music, they are added at the rhythmic position of the earliest selected item as part of the specified time signature. They appear to the right of barlines, key signatures, and clefs, and to the left of other items, even if this is in the middle of an existing

bar. If you selected an existing time signature, the new time signature with pick-up bar directly replaces the existing one.

All subsequent bars follow the input time signature, until the next existing time signature or the end of the flow, whichever comes first. Dorico Elements automatically inputs and moves barlines as required so that subsequent music is barred correctly. However, in open meters, you must input barlines and add beats manually.

Any time signatures you input after an interchangeable time signature that are specified in it are hidden automatically until you end the interchangeable time signature.

#### NOTE

- Dorico Elements does not automatically insert beats at the start of existing music to which you add time signatures with pick-up bars. If you add a pick-up bar at the start of a flow, that flow now begins in the pick-up bar, not in the first full bar. You can insert beats at the start to push existing music to later rhythmic positions.
- You can use the **Global Adjustment of Current Bar** Insert mode scope to create and delete pick-up bars by deleting notes/rests in the first bar in the flow. You can also use it to shorten the last bar in flows that start with a pick-up bar.

---

#### RELATED LINKS

[Time signatures popover](#) on page 271

[Pick-up bars](#) on page 1253

[Defining partial bars as pick-up bars or irregular bars](#) on page 1253

[Inputting time signatures with the popover](#) on page 274

[Inputting bars/beats with the popover](#) on page 290

[Inputting barlines with the popover](#) on page 293

[Rhythmic position](#) on page 26

[Inputting notes in Insert mode](#) on page 226

[Insert mode](#) on page 427

[Insert mode scopes](#) on page 428

[Ending interchangeable time signatures](#) on page 1262

## Inputting pick-up bars with the panel

You can input pick-up bars as part of time signatures using the Time Signatures (Meter) panel, both during note input and by adding them to existing music. You can also input time signatures only on single staves.




#### NOTE

- These steps describe inputting with the default mouse input preference **Create item at selection**.
- Dorico Elements does not automatically add beats to fill bars according to the new time signature at the end of the affected region unless Insert mode is activated.

---

#### PROCEDURE

1. In Write mode, do one of the following:
  - Start note input.
  - Select an item at the rhythmic position where you want to input a pick-up bar. If you want to input a pick-up bar on a single staff, select an item that belongs to that staff only.

2. Optional: If you want Dorico Elements to add beats at the end of the region affected by the pick-up bar if required, activate Insert mode in any of the following ways:
  - Press **I**.
  - In the Notes toolbox, click **Insert** .
3. In the Notations toolbox, click **Panels** , then **Time Signatures (Meter)**  to show the Time Signatures (Meter) panel.
4. In the **Create Time Signature** section, select the type of time signature you want from the menu.
5. Enter the time signatures you want into the available spaces.
6. Activate **Pick-up bar of** and select one of the following options:
  - **1/2 beat**
  - **1 beat**
  - **2 beats**
  - **3 beats**

#### NOTE

Not all pick-up bar lengths are possible when using the panel. For example, you cannot produce a single eighth note upbeat in 6/8 with the available options. In such cases, you must use the time signatures popover.

---

7. Input the pick-up bar in one of the following ways:
    - To input a pick-up bar on all staves, click the input time signature button in the **Create Time Signature** section.
    - To input a pick-up bar on the selected staff only, **Alt/Opt**-click the input time signature button in the **Create Time Signature** section.
- 

#### RESULT

During note input, pick-up bars are added at the caret position as part of the specified time signature, even if this is in the middle of an existing bar.

When adding pick-up bars to existing music, they are added at the rhythmic position of the earliest selected item as part of the specified time signature. They appear to the right of barlines, key signatures, and clefs, and to the left of other items, even if this is in the middle of an existing bar. If you selected an existing time signature, the new time signature with pick-up bar directly replaces the existing one.

All subsequent bars follow the input time signature, until the next existing time signature or the end of the flow, whichever comes first. Dorico Elements automatically inputs and moves barlines as required so that subsequent music is barred correctly. However, in open meters, you must input barlines and add beats manually.

Any time signatures you input after an interchangeable time signature that are specified in it are hidden automatically until you end the interchangeable time signature.

#### NOTE

- Dorico Elements does not automatically insert beats at the start of existing music to which you add time signatures with pick-up bars. If you add a pick-up bar at the start of a flow, that flow now begins in the pick-up bar, not in the first full bar. You can insert beats at the start to push existing music to later rhythmic positions.

- You can use the **Global Adjustment of Current Bar** Insert mode scope to create and delete pick-up bars by deleting notes/rests in the first bar in the flow. You can also use it to shorten the last bar in flows that start with a pick-up bar.
- 

#### RELATED LINKS

- [Notations toolbox](#) on page 192
- [Time Signatures \(Meter\) panel](#) on page 273
- [Pick-up bars](#) on page 1253
- [Inputting pick-up bars with the popover](#) on page 277
- [Defining partial bars as pick-up bars or irregular bars](#) on page 1253
- [Inputting bars/beats with the popover](#) on page 290
- [Inputting barlines with the panel](#) on page 294
- [Rhythmic position](#) on page 26
- [Inputting notes in Insert mode](#) on page 226
- [Insert mode](#) on page 427
- [Insert mode scopes](#) on page 428
- [Ending interchangeable time signatures](#) on page 1262
- [Changing your mouse input settings](#) on page 203

## Input methods for tempo marks

You can input tempo marks with the keyboard by using the tempo popover, with the mouse by using the Tempo panel, and in the Tempo editor. You can input a tempo mark containing just a text instruction, just a metronome mark, or a combination of the two.

#### RELATED LINKS



- [Tempo marks](#) on page 1204
- [Tempo editor](#) on page 656
- [Inputting tempo changes in the Tempo editor](#) on page 657

## Tempo popover

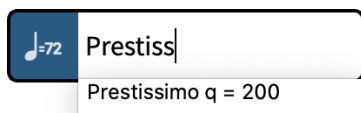
The following tables contain examples of what you can enter into the tempo popover to input tempo marks, tempo equations, and rhythmic feels for swing playback.

When you start entering a tempo into the tempo popover, a menu appears with suggestions containing the letters/words you enter. You can select one of these suggestions to input, or enter your own tempo into the popover.

You can open the tempo popover in Write mode in any of the following ways when either an item is selected or the caret is active:

- Press **Shift-T**.
- In the Notations toolbox, click **Popovers** , then **Tempo** .
- Select an existing tempo mark and press **Return**.
- Choose **Write > Create Tempo**.

The icon on the left-hand side of the popover matches the corresponding button in the Notations toolbox on the right of the window.



Tempo popover with an example entry



Tempo button in the Notations toolbox

## Tempo marks

Example tempo mark	Popover entry
<i>Adagio</i>	<b>Adagio</b>
<i>Presto</i> ♩ = 176	<b>Presto q = 176 or Presto q=176</b>
<i>Largo</i> (♩ = 52)	<b>Largo (q = 52) or Largo (q=52)</b>
♩ = 96-112	<b>q = 96-112, q=96-112, 6 = 96-112, or 6=96-112</b>
♩ = 84	<b>q. = 84, q.=84, 6. = 84, or 6.=84</b>
♩ = 60	<b>h = 60, h=60, 7 = 60, or 7=60</b>
♩ = 120	<b>e = 120, e=120, 5 = 120, or 5=120</b>
<i>rit.</i>	<b>rit. or rit</b>
<i>ritardando</i>	<b>ritardando</b>
<i>accel.</i>	<b>accel. or accel</b>
<i>accelerando</i>	<b>accelerando</b>
<i>più</i>	<b>più</b>
<i>meno</i>	<b>meno</b>
<i>Rubato</i>	<b>Rubato</b>
Faster, with energy	<b>Faster, with energy</b>

This list is not comprehensive as you can enter tempos freely and there are many possible metronome marks and tempo marks. It is intended to illustrate how you can structure your entry to input different types of tempo marks and metronome marks.

### NOTE

The tempo popover is case-sensitive. If you want your tempo mark to start with a capital letter, you must enter a capital letter into the popover.

## Metronome mark beat units




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Metronome mark beat unit	Popover entry
64th note	<b>z</b> or <b>2</b>
32nd note	<b>y</b> or <b>3</b>
16th note	<b>x</b> or <b>4</b>
Eighth note	<b>e</b> or <b>5</b>
Quarter note	<b>q</b> or <b>6</b>
Half note	<b>h</b> or <b>7</b>
Whole note	<b>w</b> or <b>8</b>
Double whole note	<b>2w</b> or <b>9</b>
Rhythm dot	<b>.</b> (period)

---

## Tempo equations

---

Example tempo equation	Popover entry
	<b>e = e.</b> or <b>e=e.</b>
	<b>q = e</b> or <b>q=e</b>
	<b>q. = h</b> or <b>q.=h</b>

---

This list is not comprehensive as there are many possible tempo equations. It is intended to illustrate how you can structure your entry to input different tempo equations.

### NOTE

Tempo equations do not yet include triplet durations. This is planned for future versions.

---

## Rhythmic feels for swing playback

---

Rhythmic feel	Popover entry
Light 16th note swing rhythmic feel	<b>light swing 16ths</b>
Light eighth note swing rhythmic feel	<b>light swing 8ths</b>
Medium 16th note swing rhythmic feel	<b>medium swing 16ths</b>

<b>Rhythmic feel</b>	<b>Popover entry</b>
Medium eighth note swing rhythmic feel	<b>medium swing 8ths</b>
Heavy 16th note swing rhythmic feel	<b>heavy swing 16ths</b>
Heavy eighth note swing rhythmic feel	<b>heavy swing 8ths</b>
Straight rhythmic feel	<b>straight (no swing)</b>
Triplet 16th fixed rhythmic feel	<b>2:1 swing 16ths (fixed)</b>
Triplet 8th fixed rhythmic feel	<b>2:1 swing 8ths (fixed)</b>
Dotted 16th-32nd fixed rhythmic feel	<b>3:1 swing 16ths (fixed)</b>
Dotted 8th-16th fixed rhythmic feel	<b>3:1 swing 8ths (fixed)</b>



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#### RELATED LINKS

- [Notations toolbox](#) on page 192
- [Tempo marks](#) on page 1204
- [Types of tempo marks](#) on page 1205
- [Tempo mark components](#) on page 1206
- [Swing playback](#) on page 512
- [Enabling swing playback](#) on page 513
- [Changing the order of metronome marks](#) on page 1214

## Tempo panel

The Tempo panel contains the different types of tempo marks available in Dorico Elements, organized into sections. It is located in the right zone in Write mode.

- You can hide/show the Tempo panel by clicking **Panels** , then **Tempo**  in the Notations toolbox.  
You can also hide/show the right zone by pressing **Ctrl/Cmd-9**.

#### Used in This Flow

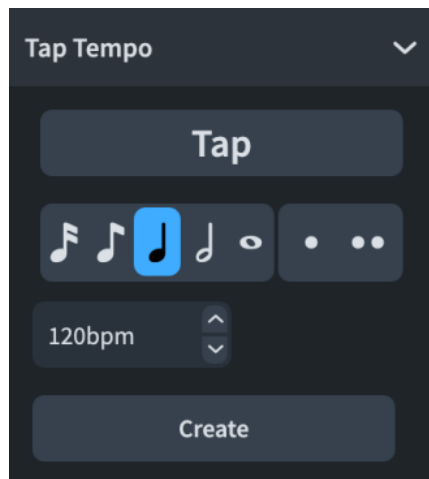
Contains any tempo marks already used in the flow, including custom tempo marks added using the tempo popover.

#### Tap Tempo

Allows you to create an absolute tempo change based on the speed with which you click the **Tap** button. It appears as a metronome mark with no text by default. The metronome mark value is always rounded to the nearest integer.

You can use the available options to set the beat unit on which you want to base the tempo.





### Absolute Tempo Change

Contains a range of tempos with both an Italian tempo indication and a metronome mark. You can later choose to show or hide the metronome mark for individual tempo marks.

You can change the range shown in the list by adjusting the slider at the top.



### Gradual Tempo Change

Contains tempo marks that indicate a change in tempo over a defined period of time, such as *rallentando* or *accelerando*.

You can add modifiers to gradual tempo changes. Available modifiers are shown at the top of the section.

### Relative Tempo Change

Contains tempo marks that indicate a change in tempo that is relative to the previous tempo, such as *mosso* (movement, or with movement). They often include modifiers that qualify the change, such as *poco meno mosso* (a little less movement), and are not defined by a metronome mark.

You can add modifiers to relative tempo changes. Available modifiers are shown at the top of the section.

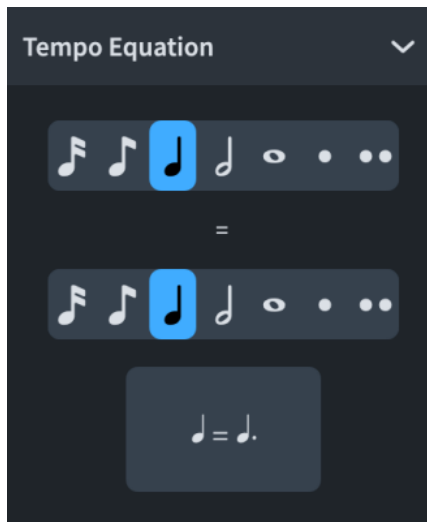
You can later set a relative metronome mark change as a percentage of the previous metronome mark for individual tempo marks.

### Reset Tempo

Contains tempo marks that indicate a return to the previous tempo, such as *A tempo*, or a previously defined tempo, such as *Tempo primo*.

### Tempo Equation

Allows you to input a tempo equation, using beat units from 16th notes to whole notes and up to two rhythm dots.



#### RELATED LINKS

[Notations toolbox](#) on page 192

[Tempo marks](#) on page 1204

[Types of tempo marks](#) on page 1205

[Tempo mark components](#) on page 1206



[Changing the metronome mark value](#) on page 1212

## Inputting tempo marks with the popover

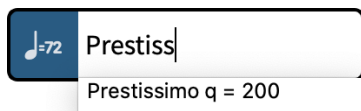
You can input tempo marks using the tempo popover, both during note input and by adding them to existing music.

---

#### PROCEDURE

1. In Write mode, do one of the following:
  - Start note input.
  - Select an item at the rhythmic position where you want to input a tempo mark. If you want to input a gradual tempo change across a duration, select items that span that duration.
2. Open the tempo popover in any of the following ways:
  - Press **Shift-T**.
  - In the Notations toolbox, click **Popovers** , then **Tempo** .
3. Enter the tempo you want into the popover.  
For example, enter **q=72** or **Allegretto**.

When you start entering a tempo into the tempo popover, a menu appears that shows suggested tempos containing the letters/words you enter. You can select one of these suggestions or you can enter your own tempo into the popover.



#### NOTE

If you want to show gradual tempo changes separated into syllables spread across their duration, such as *rit-e-nu-to*, we recommend selecting a suggested entry from the menu. Only gradual tempo changes with valid full text appear separated into syllables.

---

4. Press **Return** to close the popover.
- 

#### RESULT

During note input, tempo marks are input at the caret position. Gradual tempo changes, such as *rallentando*, are also input at the caret position with a default duration of a quarter note. Gradual tempo changes do not extend as you input notes.

When adding tempo marks to existing music, they are added at the rhythmic position of the earliest selected item. Gradual tempo changes span the duration of the selected items.

#### NOTE

Metronome mark values appear as integers without decimal places, even if you input decimal places. However, the exact metronome mark value you input is always reflected in playback.

---

#### AFTER COMPLETING THIS TASK

You can lengthen/shorten gradual tempo changes.

#### RELATED LINKS

- [Tempo marks](#) on page 1204
- [Tempo track](#) on page 496
- [Tempo editor](#) on page 656
- [Tempo mark components](#) on page 1206
- [Gradual tempo changes](#) on page 1215
- [Metronome marks](#) on page 1211
- [Tempo equations](#) on page 1218
- [Lengthening/Shortening items](#) on page 410
- [Changing the style of gradual tempo changes](#) on page 1216
- [Changing the order of metronome marks](#) on page 1214



## Inputting tempo marks with the panel

You can input tempo marks using the Tempo panel, both during note input and by adding them to existing music.

#### NOTE

- These steps describe inputting with the default mouse input preference **Create item at selection**.
  - You cannot specify decimal places for metronome marks using the panel. You can specify decimal places using the popover or by changing the metronome mark value of existing tempo marks.
-

#### PROCEDURE

1. In Write mode, do one of the following:
  - Start note input.
  - Select an item at the rhythmic position where you want to input a tempo mark. If you want to input a gradual tempo change across a duration, select items that span that duration.
2. In the Notations toolbox, click **Panels** , then **Tempo**  to show the Tempo panel.
3. In the Tempo panel, click the tempo mark you want.

#### TIP

If you want Dorico Elements to calculate the metronome mark for you, you can click **Tap** in the **Tap Tempo** section multiple times at the required speed.

4. Optional: Select a modifier from the available options.

#### NOTE

You can only add modifiers to a **Gradual Tempo Change** or a **Relative Tempo Change**.

#### RESULT

During note input, tempo marks are input at the caret position. Gradual tempo changes, such as *rallentando*, are also input at the caret position with a default duration of a quarter note. Gradual tempo changes do not extend as you input notes.

When adding tempo marks to existing music, they are added at the rhythmic position of the earliest selected item. Gradual tempo changes span the duration of the selected items.

#### AFTER COMPLETING THIS TASK

You can lengthen/shorten gradual tempo changes.

#### RELATED LINKS

[Notations toolbox](#) on page 192

[Changing your mouse input settings](#) on page 203

[Tempo marks](#) on page 1204

[Tempo mark components](#) on page 1206

[Gradual tempo changes](#) on page 1215

[Metronome marks](#) on page 1211

[Tempo equations](#) on page 1218

[Changing the metronome mark value](#) on page 1212

[Changing the style of gradual tempo changes](#) on page 1216

[Changing the order of metronome marks](#) on page 1214

## Input methods for bars, beats, and barlines

You can input both bars and barlines with the keyboard by using the bars and barlines popover, and also with the mouse by using the available options in the Bars and Barlines panel. The bars and barlines popover also allows you to input beats. Additionally, you can input bars and beats using the system track.

Normally you do not need to create bars in Dorico Elements, as they are created automatically as needed when you input music. However, you can add bars in advance if, for example, you are copying or arranging an existing piece of music.



#### RELATED LINKS

- [Bars](#) on page 729
- [Barlines](#) on page 734
- [System track](#) on page 404
- [Inputting bar rests into specific voices](#) on page 236
- [Repeats in playback](#) on page 509

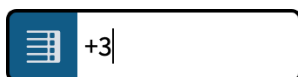
## Bars and barlines popover

The following tables contain examples of what you can enter into the bars and barlines popover to add and delete bars and beats, and the entries you can use to input the different barlines available.

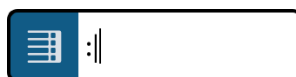
You can open the bars and barlines popover in Write mode in any of the following ways when either an item is selected or the caret is active:

- Press **Shift-B**.
- In the Notations toolbox, click **Popovers**  then **Bars and Barlines** .
- Choose **Write > Create Bar or Barline**.

The icon on the left-hand side of the popover matches the corresponding button in the Notations toolbox on the right of the window.



Bars and barlines popover with an example entry for inputting bars



Bars and barlines popover with an example entry for a barline



**Bars and Barlines** button in the Notations toolbox

## Bars

---

Example action	Popover entry
Add two bars	<b>2</b> or <b>+2</b>
Add fourteen bars	<b>14</b> or <b>+14</b>
Delete one bar	<b>-1</b>
Delete six bars	<b>-6</b>
Add a bar rest	<b>rest</b>
Delete empty bars at the end of the flow	<b>trim</b>

---

This list is not comprehensive, as you can add and delete any number of bars using the popover. This table is intended to illustrate how you can structure your entry to input and delete bars, and input bar rests.

## Beats

You can specify a number of beats that you want to add/delete by entering the number of beats you want followed by either the number that corresponds to the beat unit, such as **5** for eighth

notes, or the letter that corresponds to the beat unit, such as **h** for half notes. When using numbers for both the number of beats and the beat unit, you must separate them with a space or hyphen. You can also specify beats in the form of a time signature, such as 3/4 for three quarter note beats.

<b>Example action</b>	<b>Popover entry</b>
Add one whole note beat	<b>1w, 1-8, 1 8, or 4/4</b>
Add two quarter note beats	<b>2q, 2-6, 2 6, or 2/4</b>
Add four eighth note beats	<b>4e, 4-5, 4 5, 4/8, or 2/4</b>
Delete two quarter note beats	<b>-2q, -2-6, -2 6, or -2/4</b>
Delete empty beats at the end of the flow	<b>trim</b>

This list is not comprehensive, as you can add and delete any number of beats using the popover. This table is intended to illustrate how you can structure your entry to input and delete beats.

<b>Beat unit</b>	<b>Popover entry</b>
64th note	<b>z or 2</b>
32nd note	<b>y or 3</b>
16th note	<b>x or 4</b>
Eighth note	<b>e or 5</b>
Quarter note	<b>q or 6</b>
Half note	<b>h or 7</b>
Whole note	<b>w or 8</b>
Double whole note	<b>2w or 9</b>
Rhythm dot	<b>. (period)</b>

## **Barlines**

<b>Type of barline</b>	<b>Popover entry</b>
Normal (Single)	<b> , single, or normal</b>
Double	<b>   or double</b>


Type of barline	Popover entry
Final	] or <b>final</b>
Start repeat	: or <b>start</b>
End repeat	:  or <b>end</b>
End/Start repeat	: :, :   :, <b>end-start</b> , or <b>endstart</b>

#### RELATED LINKS

- [Notations toolbox](#) on page 192
- [Inputting bar rests into specific voices](#) on page 236
- [Bars](#) on page 729
- [Barlines](#) on page 734
- [Deleting bars/beats](#) on page 729
- [Repeats in playback](#) on page 509

## Bars and Barlines panel

The Bars and Barlines panel allows you to input bars, bar rests, and different types of barlines. It is located in the right zone in Write mode.

- You can hide/show the Bars and Barlines panel by clicking **Panels**  then **Bars and Barlines**  in the Notations toolbox.

You can also hide/show the right zone by pressing **Ctrl/Cmd-9**.

The Bars and Barlines panel contains the following sections:

### Insert Bars

Allows you to determine how many bars you want to insert and where to insert them, such as at the end of the flow.

### Insert Bar Rest

Allows you to insert a bar rest.

### Create Barline

Contains the different barlines you can input.

#### RELATED LINKS

- [Notations toolbox](#) on page 192
- [Repeats in playback](#) on page 509
- [Hiding/Showing zones](#) on page 44



## Inputting bars/beats with the popover

You can input bars/beats using the bars and barlines popover, both during note input and by adding them to or inserting them into existing music. For example, if you want to extend a cadenza in an open meter.

#### PREREQUISITE

If you want to input bars, you have input a time signature.

#### PROCEDURE

1. In Write mode, do one of the following:
  - Start note input.
  - Select an item at the rhythmic position where you want to add bars/beats. If you want to add bars/beats to a single staff, select an item that belongs to that staff only.  
Bars/Beats are added after selected barlines and before other selected items, including time signatures.
2. Optional: If you want to input bars/beats onto multiple specific staves at once, extend the caret to those staves.
3. Open the bars and barlines popover in any of the following ways:
  - Press **Shift-B**.
  - In the Notations toolbox, click **Popovers**  then **Bars and Barlines** .
4. Enter the number of bars/beats you want to input.  
For example, enter **2** to input two bars or **2q** to input two quarter note beats.
5. Input the bars/beats and close the popover in one of the following ways:
  - To input bars/beats for all staves, press **Return**.
  - To input bars/beats only on the selected staff or staves across which the caret extends, press **Alt/Opt-Return**.

---

#### RESULT

The number of bars or beats specified is input.

During note input, bars/beats are input from the caret position. If the caret is in the middle of the bar when inputting bars, sufficient beats are added to ensure that the final bar created has the correct number of beats. The caret position stays at its previous position so you can continue inputting music from the same position.

When you add bars/beats to existing music, they are added after selected barlines and before other selected items, including time signatures.

#### TIP

Another way to add bars is by choosing a note duration, such as a whole note when in a 4/4 time signature, and pressing **Space** repeatedly during note input.

---

#### RELATED LINKS

[Bars and barlines popover](#) on page 288

[Bars](#) on page 729

[Inputting time signatures with the popover](#) on page 274

[Types of time signatures](#) on page 1250

## Inputting bars with the panel



You can input bars using the Bars and Barlines panel, both during note input and by inserting them into existing music.

#### PREREQUISITE

You have input a time signature.



#### PROCEDURE

1. In Write mode, do one of the following:
  - Start note input.
  - Select an existing barline after which you want to input bars.
  - Select an existing item before which you want to input bars.
2. In the Notations toolbox, click **Panels** , then **Bars and Barlines**  to show the Bars and Barlines panel.
3. In the **Insert Bars** section of the Bars and Barlines panel, change the number of bars you want to input by changing the value in the value field.
4. Select one of the following options for where you want to input bars:
  - **Start of Flow:** Bars are input at the beginning of the flow.
  - **Start of Selection:** Bars are input from the selected note or rest.
  - **End of Flow:** Bars are input at the end of the flow.

#### NOTE

If you want to input bars from the caret position, make sure that you have selected **Start of Selection** from the menu.

---

5. Click **Insert Bars**.
- 

#### RESULT

The number of bars specified is input. During note input, bars are input from the caret position. If you selected **Start of Selection**, bars are input directly after a selected barline, and directly before a selected note, bar, or time signature.

#### TIP

Another way to add bars is by choosing a note duration, such as a whole note when in a 4/4 time signature, and pressing **Space** repeatedly during note input.

---

#### RELATED LINKS

[Notations toolbox](#) on page 192

[Bars](#) on page 729

[Inputting time signatures with the panel](#) on page 275

## Inputting bars/beats with the system track

You can insert bars/beats into existing music using the system track; for example, if you decide you want to repeat several bars before the next section. You can insert whole bars and just a few beats.

#### NOTE

You cannot use the system track during note input.

---

#### PREREQUISITE

The system track is shown.

#### PROCEDURE

1. In the system track, select the region whose duration you want to insert.  
For example, if you want to insert two bars, select two bars in the system track immediately before where you want the two new bars to be input.
2. Click **Add** above the system track.



**Add** button above the system track



The **Add** button is highlighted when you hover over it

---

#### RESULT

The rhythmic duration selected in the system track is added immediately after the end of the selection. Existing music after the selection is pushed back after the inserted bars/beats.

#### RELATED LINKS

- [System track](#) on page 404
- [Hiding/Showing the system track](#) on page 406
- [Selecting bars with the system track](#) on page 406
- [Selecting beats with the system track](#) on page 407

## Inputting barlines with the popover

You can input barlines using the bars and barlines popover, both during note input and by adding them to existing music. You can also change the type of existing barlines.

#### PREREQUISITE

If you want to input barlines onto single staves only, you have input an independent time signature on those staves.

---



#### PROCEDURE

1. In Write mode, do one of the following:
  - Start note input.
  - Select an item at the rhythmic position where you want to input a barline. If you want to input a barline on a single staff, select an item that belongs to that staff only.

#### TIP

If you want to add repeat barlines at the start/end of a region simultaneously, select items that span the required duration.

---

2. Optional: If you want to input barlines onto multiple specific staves at once, extend the caret to those staves.
3. Open the bars and barlines popover in any of the following ways:
  - Press **Shift-B**.
  - In the Notations toolbox, click **Popovers** , then **Bars and Barlines** .
4. Enter the barline you want into the popover.  
For example, enter `||` for a double barline, or `|:` for a start repeat barline.

5. Input the barline and close the popover in one of the following ways:

- To input a barline on all staves, press **Return**.
- To input a barline only on the selected staff or staves across which the caret extends, press **Alt/Opt-Return**.

#### NOTE

You can only input barlines onto single staves that already have an independent time signature.

---

#### RESULT

During note input, barlines are input at the caret position.

When you add barlines to existing music, they are added at the rhythmic position of the earliest selected item. They appear to the right of clefs and to the left of other items. If you selected an existing barline, the new barline directly replaces the existing one.

When you add start repeat barlines with a range of items selected, end repeat barlines are also added at the end of the selection.

Surrounding music automatically adjusts to accommodate the barline. For example, note grouping, rests, and tied notes all adjust if necessary. Inputting final barlines at the end of the last bar of flows can automatically trim the flow if there is no further music and depending on the time signature.

#### NOTE

Normal barlines that you have input directly, such as to replace an existing double barline, are still considered explicit barlines and break multi-bar rests. Deleting barlines resets them completely.

---

#### RELATED LINKS

[Bars and barlines popover](#) on page 288

[Barlines](#) on page 734

[Inputting notes](#) on page 211

[Inputting time signatures with the popover](#) on page 274

[Extending the caret to multiple staves](#) on page 209

[Deleting notes/items](#) on page 431

[Deleting bars/beats](#) on page 729

[Repeats in playback](#) on page 509

[Changing the number of playthroughs at repeat barlines](#) on page 510

## Inputting barlines with the panel

You can input barlines using the Bars and Barlines panel, both during note input and by adding them to existing music. You can also change the type of existing barlines.

#### NOTE

These steps describe inputting with the default mouse input preference **Create item at selection**.

---

#### PREREQUISITE

If you want to input barlines onto single staves only, you have input an independent time signature on those staves.



#### PROCEDURE

1. In Write mode, do one of the following:
  - Start note input.
  - Select an item at the rhythmic position where you want to input a barline. If you want to input a barline on a single staff, select an item that belongs to that staff only.

#### TIP

If you want to add repeat barlines at the start/end of a region simultaneously, select items that span the required duration.

---

2. In the Notations toolbox, click **Panels**  then **Bars and Barlines**  to show the Bars and Barlines panel.
3. Input the barline you want in one of the following ways:
  - To input a barline on all staves, click it in the **Create Barline** section.
  - To input a barline on the selected staff only, **Alt/Opt**-click it in the **Create Barline** section.

#### NOTE

You can only input barlines onto single staves that already have an independent time signature.

---

#### RESULT

During note input, barlines are input at the caret position.

When you add barlines to existing music, they are added at the rhythmic position of the earliest selected item. They appear to the right of clefs and to the left of other items. If you selected an existing barline, the new barline directly replaces the existing one.

When you add start repeat barlines with a range of items selected, end repeat barlines are also added at the end of the selection.

Surrounding music automatically adjusts to accommodate the barline. For example, note grouping, rests, and tied notes all adjust if necessary. Inputting final barlines at the end of the last bar of flows can automatically trim the flow if there is no further music and depending on the time signature.

#### NOTE

Normal barlines that you have input directly, such as to replace an existing double barline, are still considered explicit barlines and break multi-bar rests. Deleting barlines resets them completely.

---

#### RELATED LINKS

[Notations toolbox](#) on page 192

[Barlines](#) on page 734

[Bars and barlines popover](#) on page 288

[Inputting notes](#) on page 211

[Inputting time signatures with the panel](#) on page 275

[Changing your mouse input settings](#) on page 203

[Repeats in playback](#) on page 509

[Changing the number of playthroughs at repeat barlines](#) on page 510

## Input methods for dynamics

You can input dynamics with the keyboard by using the dynamics popover, and with the mouse by using the Dynamics panel.

You can also input dynamic points that affect playback, but do not appear in the music, in the Dynamics editor.

### RELATED LINKS

[Dynamics](#) on page 828

[Inputting dynamics with the popover](#) on page 299

[Inputting dynamics with the panel](#) on page 302

[Niente markings](#) on page 851



[Adding modifiers to existing dynamics](#) on page 839

[Dynamics editor](#) on page 645

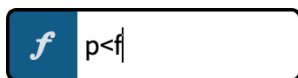
## Dynamics popover

The table contains examples of what you can enter into the dynamics popover to input the different dynamics available.

You can open the dynamics popover in Write mode in any of the following ways when either an item is selected or the caret is active:

- Press **Shift-D**.
- In the Notations toolbox, click **Popovers**  then **Dynamics** .
- Select an existing dynamic and press **Return**.
- Choose **Write > Create Dynamic**.

The icon on the left-hand side of the popover matches the corresponding button in the Notations toolbox on the right of the window.



Dynamics popover with an example entry



Dynamics button in the Notations toolbox

## Dynamics popover entries

---

Dynamic or modifier	Popover entry
<i>pianissimo</i> : <b>pp</b>	<b>pp</b>
<i>piano</i> : <b>p</b>	<b>p</b>
<i>mezzo piano</i> : <b>mp</b>	<b>mp</b>
<i>mezzo forte</i> : <b>mf</b>	<b>mf</b>
<i>forte</i> : <b>f</b>	<b>f</b>
<i>fortissimo</i> : <b>ff</b>	<b>ff</b>

Dynamic or modifier	Popover entry
<i>fortepiano</i> without separator: <b><i>fp</i></b>	<b>fp</b>
<i>fortepiano</i> with separator, such as <b><i>f-p</i></b>	<b>f-p, f:p, or f/p</b>
<i>subito</i>	<b>subito, sub, or sub.</b>
<i>possibile</i>	<b>possibile, poss, or poss.</b>
<i>poco</i>	<b>poco</b>
<i>molto</i>	<b>molto</b>
<i>più</i>	<b>piu or più</b>
<i>meno</i>	<b>meno</b>
<i>mosso</i>	<b>mosso</b>
<i>crescendo</i> : $\lessdot$	<b>&lt;</b>
<i>cresc.</i> (text)	<b>cresc</b>
<i>diminuendo</i> : $\gtrdot$	<b>&gt;</b>
<i>dim.</i> (text)	<b>dim</b>
<i>messa di voce</i> hairpin: $\lessgtr$ ( <i>crescendo</i> then <i>diminuendo</i> )	<b>&lt;&gt;</b>
<i>messa di voce</i> hairpin: $\gtrless$ ( <i>diminuendo</i> then <i>crescendo</i> )	<b>&gt;&lt;</b>
A pair of grouped hairpins that looks like a <i>messa di voce</i> hairpin	<b>&lt;&gt; or &gt;&lt;</b>
<b>NOTE</b>	
You must separate hairpins with a space.	
<i>niente</i> hairpins that start/end with a small circle	<b>o&lt; or &gt;o</b>
<i>niente</i> hairpins that start/end with the letter "n"	<b>n&lt; or &gt;n</b>
<i>sforzando</i> : <b><i>sfz</i></b>	<b>sfz</b>
<i>rinforzando</i> : <b><i>rfz</i></b>	<b>rfz</b>

---

This list is not comprehensive as you can enter anything as a dynamic modifier. It is intended to illustrate how you can structure your entry to input different types of dynamics.

#### NOTE

- Pairs of separate hairpins are treated differently than *mesa di voce* hairpins. For example, separate hairpins each have start and end handles in Write mode, whereas *mesa di voce* hairpins share a single center handle.
- You can input hairpins and *mesa di voce* hairpins directly, without using the popover.
  - For a crescendo hairpin, press **<**.
  - For a diminuendo hairpin, press **>**.
  - For a crescendo/diminuendo *mesa di voce* hairpin, press **Shift-Alt/Opt-,**.
  - For a diminuendo/crescendo *mesa di voce* hairpin, press **Shift-Alt/Opt-.,**
- You can also change the appearance of individual gradual dynamics after they have been input.

---

## Inputting modifiers into the dynamics popover

You can enter modifiers into the dynamics popover, such as *poco*, *molto*, *subito*, *espressivo*, or *dolce*. It appears in the correct italic font beside the dynamic. However, you must also enter an accompanying immediate dynamic, such as **p** or **f**, and separate the two with a space; for example, **f molto** or **p espressivo**.

You can hide immediate dynamics if you only want to show the modifier.

#### RELATED LINKS

[Notations toolbox](#) on page 192

[Dynamics](#) on page 828

[Dynamic modifiers](#) on page 839

[Gradual dynamics](#) on page 842

[Messa di voce hairpins](#) on page 849

[Niente markings](#) on page 851

[Groups of dynamics](#) on page 853

[Hiding/Showing immediate dynamics](#) on page 836

[Changing the appearance of gradual dynamics](#) on page 844



[Hiding/Showing combined dynamic separators](#) on page 837

[Changing the appearance of sforzando/rinforzando dynamics](#) on page 837

[Changing the appearance/position of subito modifiers](#) on page 840

## Dynamics panel

The Dynamics panel contains the different dynamics available in Dorico Elements, including gradual dynamics and dynamic modifiers, such as *poco* and *possibile*. It is located in the right zone in Write mode.

- You can hide/show the Dynamics panel by clicking **Panels** , then **Dynamics**  in the Notations toolbox.

You can also hide/show the right zone by pressing **Ctrl/Cmd-9**.

The Dynamics panel contains the following sections:

### Immediate Dynamics

Contains dynamics such as **pp** and **f**, and modifiers, such as *subito* and *possibile*.

Available modifiers are shown at the top of the section in boxes.

You can only input modifiers alongside a dynamic.

### Gradual Dynamics

Contains dynamics such as  $\ll$  and  $\gg$ , and modifiers, such as *poco* and *niente*. Available modifiers are shown at the top of the section in boxes.

You can only input modifiers alongside a dynamic.

#### NOTE

Pairs of separate hairpins are treated differently than *messa di voce* hairpins. For example, separate hairpins each have start and end handles in Write mode, whereas *messa di voce* hairpins share a single center handle.

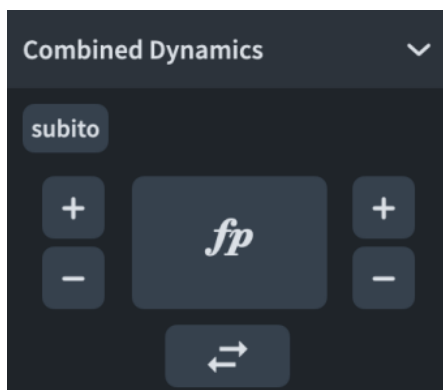
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### Force/Intensity of Attack

Contains dynamics such as *sfz* and *fz*.

### Combined Dynamics

Allows you to create custom combinations of dynamics, such as *fffpp*. The controls allow you to increase and decrease the dynamic on each side, and to swap their order.



#### RELATED LINKS

[Notations toolbox](#) on page 192

[Dynamics](#) on page 828

[Dynamic modifiers](#) on page 839

[Gradual dynamics](#) on page 842

[Messa di voce hairpins](#) on page 849

[Niente markings](#) on page 851

[Hiding/Showing combined dynamic separators](#) on page 837

## Inputting dynamics with the popover

You can input dynamics and modifiers using the dynamics popover, both during note input and by adding them to existing music. You can also input different dynamics into each voice independently in multiple-voice contexts; for example, to give the separate staves of grand staff instruments different dynamics.

#### TIP

- If you want to input dynamics in the middle of tie chains, start note input, then move the caret to the required rhythmic position.
  - You can also change dynamics during note input by following these steps when the caret is at the rhythmic position of the dynamic you want to change.
-



#### PROCEDURE




1. In Write mode, do one of the following:

- Start note input.

#### NOTE

If you want to input voice-specific dynamics, the caret must be active.

---

- Select an item on each staff and at the rhythmic position where you want to input dynamics. If you want to input dynamics across a duration, select items on the staff that span that duration.
2. Optional: If you want to input notes and dynamics onto multiple staves at once, extend the caret to those staves.
3. Open the dynamics popover in any of the following ways:
- Press **Shift-D**.
  - In the Notations toolbox, click **Popovers**  then **Dynamics** .
4. Enter the dynamic you want into the popover.  
For example, **p**, **p<f>p**, or **f>**.
5. Input the dynamics and close the popover in one of the following ways:
- To input the dynamics for all voices/staves belonging to the instrument, press **Return**.
  - During note input, input the dynamics only into the voice indicated by the caret indicator by pressing **Alt/Opt-Return**.
6. Optional: During note input, advance the caret and extend open-ended gradual dynamics, such as **p<**, in any of the following ways:
- Press **Space**.
  - In the Keyboard, Fretboard, or Drum Pads panel toolbar, click **Advance Caret** .
- Open-ended gradual dynamics also extend automatically as you continue inputting notes.
7. Optional: During note input, stop open-ended dynamics in any of the following ways:
- Press **?**.
  - Open the dynamics popover and input an immediate dynamic, such as **f**.
- 

#### RESULT

The specified dynamics are input. Unless you input voice-specific dynamics, dynamics apply to all voices on all staves belonging to a single instrument, including grand staff instruments. Voice-specific dynamics are placed on the default side of the staff for the instrument type, regardless of the voice's stem direction.

Adjoining dynamics, or dynamics that were input together or in sequence, are automatically grouped together, both during note input and when adding dynamics to existing music.

During note input, dynamics are input at the caret position, and extend automatically if you included an open-ended gradual dynamic. Voice-specific dynamics are input in the voice indicated by the quarter note symbol beside the caret.

Outside of note input, immediate dynamics are added to the first selected item on each selected staff, while gradual dynamics are added across each selection on each selected staff.

#### NOTE

- If you entered a dynamic phrase into the popover during note input, such as **p<f>p**, each gradual dynamic lasts a quarter note (crotchet). You can lengthen/shorten gradual dynamics and groups of dynamics later.
- Some modifiers, such as *molto*, appear before immediate dynamics rather than after them, even if you do not enter them in that order. This follows the generally accepted practice for the placement of that text.  
  
You can add modifiers before and after existing dynamics. You can also hide immediate dynamics later if you only want to show the modifier.
- Pairs of separate hairpins are treated differently than *mesa di voce* hairpins. For example, separate hairpins each have start and end handles in Write mode, whereas *mesa di voce* hairpins share a single center handle.
- You can input hairpins and *mesa di voce* hairpins directly, without using the popover.
  - For a crescendo hairpin, press **<**.
  - For a diminuendo hairpin, press **>**.
  - For a crescendo/diminuendo *mesa di voce* hairpin, press **Shift-Alt/Opt-,**.
  - For a diminuendo/crescendo *mesa di voce* hairpin, press **Shift-Alt/Opt-.,**

---

#### AFTER COMPLETING THIS TASK

You can move dynamics within dynamic phrases and change the placement of dynamics relative to the staff.

#### RELATED LINKS

- [Caret on page 205](#)
- [Moving the caret manually on page 210](#)
- [Extending the caret to multiple staves on page 209](#)
- [Dynamics on page 828](#)
- [Voice-specific dynamics on page 838](#)
- [Notations toolbox on page 192](#)
- [Keyboard panel on page 197](#)
- [Fretboard panel on page 199](#)
- [Drum Pads panel on page 200](#)
- [Dynamics editor on page 645](#)
- [Gradual dynamics on page 842](#)
- [Messa di voce hairpins on page 849](#)
- [Niente markings on page 851](#)
- [Gradual dynamics in Engrave mode on page 843](#)
- [Changing the appearance of gradual dynamics on page 844](#)
- [Adding niente markings to existing gradual dynamics on page 852](#)
- [Groups of dynamics on page 853](#)
- [Dynamic modifiers on page 839](#)
- [Changing the appearance/position of subito modifiers on page 840](#)
- [Hiding/Showing combined dynamic separators on page 837](#)
- [Changing dynamic levels on page 835](#)
- [Moving notes/items rhythmically on page 437](#)
- [Lengthening/Shortening items on page 410](#)
- [Showing consecutive hairpins as continuous on page 845](#)
- [Hiding/Showing immediate dynamics on page 836](#)
- [Changing the staff-relative placement of items on page 414](#)

## Inputting dynamics with the panel

You can input dynamics and modifiers using the Dynamics panel, both during note input and by adding them to existing music. You can also input different dynamics into each voice independently in multiple-voice contexts; for example, to give the separate staves of grand staff instruments different dynamics.

### NOTE

- If you want to input dynamics in the middle of tie chains, start note input, then move the caret to the required rhythmic position.
- You can also change dynamics during note input by following these steps when the caret is at the rhythmic position of the dynamic you want to change.
- These steps describe inputting with the default mouse input preference **Create item at selection**.

---



### PROCEDURE

1. In Write mode, do one of the following:

- Start note input.

### NOTE

If you want to input voice-specific dynamics, the caret must be active.

- 
2. In the Notations toolbox, click **Panels** , then **Dynamics**  to show the Dynamics panel.
3. Input the dynamics you want in one of the following ways:
  - To input dynamics for all voices/staves belonging to the instrument, click them in the Dynamics panel.
  - During note input, input the dynamics only into the voice indicated by the caret indicator by **Alt/Opt**-clicking them in the Dynamics panel.

### NOTE

- If you want to add expressive or qualifying text to the dynamics, do not deselect them.
- When inputting voice-specific dynamics, you can release **Alt/Opt** once you have input the dynamic level, such as *f*.
- Gradual dynamics have a default duration of a quarter note. You can lengthen/shorten gradual dynamics later.

- 
- 
- 
4. Optional: In the Dynamics panel, click the expressive/qualifying texts you want in the **Immediate Dynamics** and **Gradual Dynamics** sections.

---

### RESULT

The specified dynamics are input. Unless you input voice-specific dynamics, dynamics apply to all voices on all staves belonging to a single instrument, including grand staff instruments. Voice-specific dynamics are placed on the default side of the staff for the instrument type, regardless of the voice's stem direction.

Adjoining dynamics, or dynamics that were input together or in sequence, are automatically grouped together, both during note input and when adding dynamics to existing music.

During note input, dynamics are input at the caret position. Gradual dynamics are input with a default duration of a quarter note. Voice-specific dynamics are input in the voice indicated by the quarter note symbol beside the caret.

Outside of note input, immediate dynamics are added to the first selected item on each selected staff, while gradual dynamics are added across each selection on each selected staff.

#### NOTE

- Some modifiers, such as *molto*, appear before immediate dynamics rather than after them, even if you do not enter them in that order. This follows the generally accepted practice for the placement of that text.

You can add modifiers before and after existing dynamics. You can also hide immediate dynamics later if you only want to show the modifier.

- Pairs of separate hairpins are treated differently than *mesa di voce* hairpins. For example, separate hairpins each have start and end handles in Write mode, whereas *mesa di voce* hairpins share a single center handle.
- You can also input gradual dynamics by clicking the gradual dynamic you want in the Dynamics panel when nothing is selected in the music area. Then click and drag to input the gradual dynamic and extend it to the length you want.

---

#### AFTER COMPLETING THIS TASK

You can move dynamics within dynamic phrases and change the placement of dynamics relative to the staff.

#### RELATED LINKS

[Notations toolbox](#) on page 192

[Caret](#) on page 205

[Moving the caret manually](#) on page 210

[Dynamics](#) on page 828

[Voices](#) on page 1303

[Gradual dynamics in Engrave mode](#) on page 843

[Changing the appearance of sforzando/rinforzando dynamics](#) on page 837

[Hiding/Showing combined dynamic separators](#) on page 837

[Changing dynamic levels](#) on page 835

[Hiding/Showing immediate dynamics](#) on page 836

[Changing your mouse input settings](#) on page 203

## Inputting chord symbols

You can input chord symbols using the chord symbols popover with the computer keyboard and any connected MIDI keyboard, both for all instruments or only for individual instruments. You can also open the chord symbols popover during note input; however, inputting a chord symbol stops note input.

#### PREREQUISITE

If you want to input chord symbols using a MIDI device, you have connected the MIDI device you want to use.

---

#### PROCEDURE

1. In Write mode, select an item on the staff and at the rhythmic position where you want to input a chord symbol.
2. Open the chord symbols popover in any of the following ways:

- Press **Shift-Q**.
- In the Notations toolbox, click **Popovers**  then **Chord Symbols** .

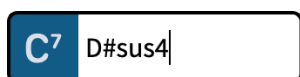
**NOTE**

If you selected an item on a staff that has local chord symbols at earlier rhythmic positions, the chord symbols popover is automatically set to input local chord symbols when it opens.

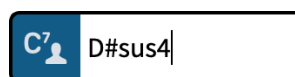
---

3. Optional: Change the type of chord symbol you want to enter in one of the following ways:
  - To input local chord symbols, press **Alt/Opt-L**.
  - To input global chord symbols, press **Alt/Opt-G**.

The popover icon updates to show the current type.



Chord symbols popover when inputting a global chord symbol



Chord symbols popover when inputting a local chord symbol

4. Enter the chord symbol you want into the chord symbols popover in any of the following ways:
  - Enter the appropriate letters and numbers using the computer keyboard. For example, enter **D#sus4** for a D#sus4 chord symbol or **CM7 | D** for a Cmaj7/D polychord chord symbol.
  - Play the chord in the Keyboard panel.
  - Play the chord using a MIDI keyboard.

**TIP**

- To input a polychord chord symbol, play the first chord and keep the keys depressed, then play the second chord.
- To input a chord symbol that consists only of the root note, just play a single note.
- You can indicate root notes in any of the following ways:
  - First play the root with one finger, and then play the remaining notes of the chord while still holding down the root.
  - Play all the notes of the chord together, then release them all, then replay the root note.
- You can indicate altered bass notes in any of the following ways:
  - Play all notes of the chord together with the altered bass note at the bottom.
  - Play the chord and its altered bass note separately: Hold down the keys for the chord, then play the altered bass note while keeping the rest of the keys of the chord depressed.

5. Optional: Press **Space** to advance the popover to the next beat according to the prevailing time signature.

**TIP**

You can also navigate the popover forwards and backwards by different amounts.

---

- Optional: To input an individual local chord symbol when the popover is set to global, and vice versa, press **Alt/Opt-Return** to input the chord symbol.
  - Press **Return** to close the popover.
- 

#### RESULT

The chord symbol specified is input. If you selected an item belonging to an instrument that was not already set to show chord symbols in the current layout, the corresponding player is automatically updated to show chord symbols for all instruments.

Global chord symbols apply to all instruments in the project and appear on all staves set to show chord symbols. Local chord symbols only apply to the selected instrument. Local chord symbols always appear, even if global chord symbols exist at the same rhythmic positions.

#### NOTE

- The chord symbol may look different to what you entered into the popover because Dorico Elements provides a single default chord symbol appearance preset that applies to all chord symbols.
  - When you input chord symbols using a MIDI keyboard, the voicing you used is retained for chord symbol playback. You can reset the voicing of chord symbols input using MIDI keyboards.
- 

#### AFTER COMPLETING THIS TASK

You can hide/show chord symbols above specific staves and hide/show chord diagrams alongside them.



#### RELATED LINKS

- [Notations toolbox](#) on page 192
- [Keyboard panel](#) on page 197
- [Chord symbols](#) on page 782
- [Generating chord symbols from notes](#) on page 311
- [Hiding/Showing chord symbols](#) on page 789
- [Hiding/Showing chord symbols in layouts](#) on page 790
- [Hiding/Showing chord diagrams](#) on page 806
- [Inputting chord symbol regions](#) on page 311
- [Inputting slash regions](#) on page 398
- [Enabling/Disabling MIDI input devices](#) on page 258
- [Chords track](#) on page 498
- [Enabling chord symbol playback](#) on page 499
- [Resetting the voicing of chord symbols](#) on page 500

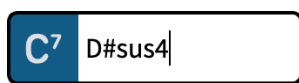
## Chord symbols popover

The following tables contain examples of what you can enter into the chord symbols popover to input the different possible chord symbol components. You can enter them in any combination.

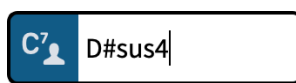
You can open the chord symbols popover in Write mode in any of the following ways when either an item is selected or the caret is active:

- Press **Shift-Q**.
- In the Notations toolbox, click **Popovers** , then **Chord Symbols** .
- Select an existing chord symbol and press **Return**.
- Choose **Write > Create Chord Symbol**.

When inputting global chord symbols, the icon on the left-hand side of the popover matches the corresponding button in the Notations toolbox. When inputting local chord symbols, the icon on the left-hand side of the popover appears smaller and includes the icon for a single player.



Chord symbols popover with an example entry for a global chord symbol



Chord symbols popover with an example entry for a local chord symbol



**Chord Symbols** button in the Notations toolbox

#### NOTE

You can combine multiple types of entries to create more complex chord symbols if you enter them one after another into the chord symbols popover without spaces between them. For example, enter **EbLocrian** for the following chord symbol:

**E<sub>b</sub>Loc.**

### Chord symbol roots

Type of chord symbol root	Popover entry
English note names C, D <sub>b</sub> , F <sub>#</sub> , B, and so on	<b>C, D<sub>b</sub>, F<sub>#</sub>, B</b> , and so on
German note names C, D <sub>b</sub> , F <sub>#</sub> , H, and so on	<b>C, Des, Fis, H</b> , and so on
Fixed-do solfège C, D <sub>b</sub> , F, F <sub>#</sub> , B, and so on	<b>do, reb, fa, fa<sub>#</sub>, ti</b> , and so on
Nashville numbers representing scale degrees Assuming C major: C, D <sub>b</sub> , F <sub>#</sub> , B, and so on	<b>1, 2<sub>b</sub>, 4<sub>#</sub>, 7</b> , and so on

#### TIP

When using a MIDI keyboard, you can also indicate root notes in any of the following ways:

- First play the root with one finger, and then play the remaining notes of the chord while still holding down the root.
- Play all the notes of the chord together, then release them all, then replay the root note.

## Chord symbol qualities

---

Chord symbol quality	Popover entry
Major	<b>maj, M, ma</b> , or nothing after entering the root.
Minor	<b>m, min</b> , or <b>mi</b>
Diminished	<b>dim, di</b> , or <b>o</b>
Augmented	<b>aug, au, ag</b> , or <b>+</b>
Half-diminished	<b>half-dim, halfdim</b> , or <b>hd</b>
6/9	<b>6/9, 69</b> , or <b>%</b>

---

### NOTE

**M** and **m** entries for major and minor are case-sensitive.

---

## Chord symbol intervals

---

Interval	Popover entry
Major 7th	<b>^7</b> or <b>^</b>
Major 9th	<b>^9, maj9</b> , or <b>9maj7</b>

---

## Chord symbol alterations

---

Type of chord symbol alteration	Popover entry
Alterations	<b>b5, -5, #9, +9, b10</b> , and so on
Added notes	<b>add#11, add+11, addb9, add-9, addF#, addBb</b> , and so on
Suspensions	<b>sus4, sus9</b> , and so on
Omissions	<b>omit3, no7</b> , and so on

---

## Chord symbols with altered bass notes

---

Example altered bass note chord symbols	Popover entry
G7/D	<b>G7/D, G7,D, Gmaj7/D</b> or <b>Gmaj7,D</b>



Example altered bass note chord symbols	Popover entry
C(♭5)/E♭	CM♭5/E♭, CM♭5, E♭, Cmaj♭5/E♭, or Cmaj♭5, E♭
Fm/D♯	Fm/D♯, Fm, D♯, Fmi/D♯, or Fmi, D♯

---

#### TIP

When using a MIDI keyboard, you can also indicate altered bass notes in any of the following ways:

- Play all notes of the chord together with the altered bass note at the bottom.
  - Play the chord and its altered bass note separately: Hold down the keys for the chord, then play the altered bass note while keeping the rest of the keys of the chord depressed.
- 

## Polychord chord symbols

---

Example polychord chord symbols	Popover entry
G/E	G   E, G;E, Gmaj   E, or Gmaj;E
Cmaj7/D	CM7   D, CM7;D, Cmaj7   D, or Cmaj7;D
Fm/D♯	Fm   D♯, Fm;D♯, Fmi   D♯, or Fmi;D♯

---

#### TIP

When using a MIDI keyboard, you can also input polychord symbols by playing the first chord and keeping the keys depressed, then playing the second chord.

---

## No chord symbols

---

No chord symbol	Popover entry
No chord	N.C., NC, no chord, or none

---

## Modal chord symbols

---

Modal chord symbol	Popover entry
Ionian	ionian
Dorian	dorian
Phrygian	phrygian
Lydian	lydian

<b>Modal chord symbol</b>	<b>Popover entry</b>
Mixolydian	<b>mixolydian</b>
Aeolian	<b>aeolian</b>
Locrian	<b>locrian</b>
Melodic minor	<b>melodicminor</b>
Harmonic minor	<b>harmonicminor</b>
Whole tone	<b>wholetone</b>
Half-whole diminished or octatonic	<b>diminishedhalfwhole, diminishedsemitonetone, octatonichalfwhole, or octatonicsemitonetone</b>
Whole-half diminished or octatonic	<b>diminishedwholehalf, diminishedtoneseemitone, octatonicwholehalf, or octatonictonesemitone</b>

---

This list is not comprehensive, as there are many possible chord symbols. It is intended to illustrate the different components you can use to input different chord symbols.

#### NOTE

The appearance of the resulting chord symbols is determined by Dorico Elements's default settings. The structure of your entry in the chord symbols popover is not considered. For example, entering a C major chord as **C**, **Cmaj**, or **CM** results in the same chord symbol.

---

## Parenthesized chord symbols

---

<b>Example parenthesized chord symbol</b>	<b>Popover entry</b>
(Cmaj7)	<b>(Cmaj7)</b>

---

## Chord symbol regions

---

<b>Chord symbol region</b>	<b>Popover entry</b>
New chord symbol region	<b>reg</b>

---

#### RELATED LINKS

[Notations toolbox](#) on page 192

[Chord symbols](#) on page 782

[Parenthesized chord symbols](#) on page 799

## Navigation during chord symbol input

You can move the chord symbols popover manually by different amounts to input chord symbols at other positions without closing and reopening the popover each time.

### Navigating with a computer keyboard

---

Popover navigation	Key command
Advance the popover to the next beat, according to the prevailing time signature.	<b>Space</b>
Move the popover back to the previous beat, according to the prevailing time signature.	<b>Shift-Space</b>
Advance the popover to the start of the next bar.	<b>Tab</b>
Move the popover back to the start of the previous bar.	<b>Shift-Tab</b>
Move the cursor and popover to one of the following positions, whichever is closest: <ul style="list-style-type: none"><li>• Next/Previous note or rest</li><li>• Next/Previous rhythmic grid position</li><li>• Next/Previous character in existing chord symbol's entry</li></ul>	<b>Right Arrow / Left Arrow</b>
Move the popover to the next/previous chord symbol.	<b>Ctrl/Cmd-Right Arrow / Ctrl/Cmd-Left Arrow</b>

---

### Navigating with a MIDI keyboard

When inputting chord symbols using a MIDI keyboard, by default the popover advances automatically to the next beat after you play a chord.

You can define specific keys or buttons on your MIDI keyboard to trigger different navigation behaviors. Use the **MIDI Learn** button on the **Key Commands** page in **Preferences** to assign specific keys to the **Note Input > Advance Chord Symbol Input** commands.

#### RELATED LINKS

[Key Commands page in the Preferences dialog](#) on page 59

[Assigning MIDI commands](#) on page 63



[Assigning key commands](#) on page 63

## Inputting chord symbol regions

You can input specific regions in which you want to show chord symbols; for example, if an instrument that does not need chord symbols for most of the project has an improvisation section that requires chord symbols to be shown.

---

### PROCEDURE

1. In Write mode, do one of the following:
    - Start note input.
    - Select the region on the staff where you want to show chord symbols.
  2. Open the chord symbols popover in any of the following ways:
    - Press **Shift-Q**.
    - In the Notations toolbox, click **Popovers**  then **Chord Symbols** .
  3. Enter **reg** into the popover.
  4. Press **Return** to close the popover.
- 

### RESULT

During note input, chord symbol regions are input spanning the duration of the selected note or item, which is usually the last input note. When adding chord symbol regions to existing music, they span the selected duration.

The player holding the corresponding instrument is automatically set to show chord symbols in chord symbol regions and slash regions, even if it was set to hide all chord symbols before.

### TIP

You can also input chord symbol regions by choosing **Write > Create Chord Symbol Region**. You can assign a key command for this option on the **Key Commands** page in **Preferences**.

---

### RELATED LINKS

[Chord symbols popover](#) on page 305

[Chord symbol regions](#) on page 793

[Hiding/Showing chord symbols](#) on page 789

[Inputting slash regions](#) on page 398

[Key Commands page in the Preferences dialog](#) on page 59

## Generating chord symbols from notes

You can automatically generate chord symbols based on the harmony of notes you have already input. You can specify the musical context you want to consider in the calculation, such as which note durations and inversions to include.

---

### PROCEDURE

1. In Write mode, select the notes from which you want to generate chord symbols.

### TIP

You can select notes on multiple staves.

---

2. Choose **Edit > Notations > Chord Symbols and Diagrams > Generate Chord Symbols from Selection** to open the **Generate Chord Symbols From Notes** dialog. You can also choose this option from the context menu.

3. Change the settings as required.

For example, you can change the minimum note duration you want to include in chord symbols, and disallow the creation of open fifth chord symbols.

4. Click **OK** to save your changes and close the dialog.

---

RESULT

Chord symbols are generated based on the selected notes and your settings. Chord symbols are input at the rhythmic positions of chords comprising at least two or three notes, depending on your settings.

All instruments included in your selection are set to show chord symbols.

RELATED LINKS

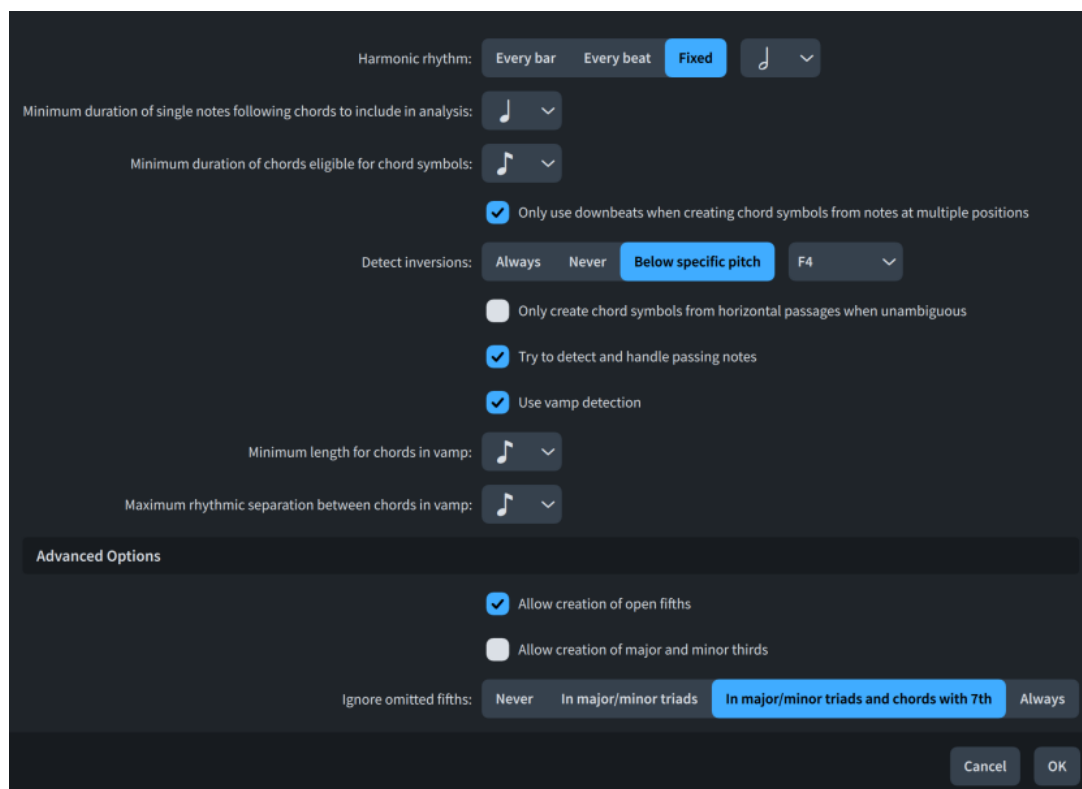
[Hiding/Showing chord symbols](#) on page 789

[Calculating harp pedal diagrams based on existing music](#) on page 363

## Generate Chord Symbols From Selection dialog

The **Generate Chord Symbols From Selection** dialog allows you to generate chord symbols based on the harmony of notes you have already input, and specify the musical context you want to consider in the calculation.

- You can open the **Generate Chord Symbols From Selection** dialog in Write mode when at least one chord is selected in the music area by choosing **Edit > Notations > Chord Symbols and Diagrams > Generate Chord Symbols from Selection**. You can also choose this option from the context menu.



The **Generate Chord Symbols From Selection** dialog contains the following options:

### Harmonic rhythm

Allows you to set the minimum rhythmic interval between generated chord symbols.

- **Every bar:** Chord symbols are created at least every bar.
- **Every beat:** Chord symbols are created at least every beat, according to the prevailing time signature.
- **Fixed:** Chord symbols are created at the specified interval.

#### **Minimum duration of single notes following chords to include in analysis**

Allows you to set the shortest note value for single notes that you want to include in the chord symbol calculation. This allows you to exclude passing notes shorter than the set duration.

#### **Minimum duration of chords eligible for chord symbols**

Allows you to set the shortest note value for chords that you want to include in the chord symbol calculation. This allows you to exclude transitory chords shorter than the set duration.

#### **Only use downbeats when creating chord symbols from notes at multiple positions**

When activated, only notes that start on strong beats in each bar are included in the chord symbol calculation.

#### **Detect inversions**

Allows you to change how inversions are handled in the chord symbol calculation.

- **Always:** Inversions are always considered.
- **Never:** Inversions are never considered. This is particularly useful when calculating chord symbols from notes belonging to multiple instruments.
- **Below specific pitch:** Inversions are only considered for notes below the specified pitch.

#### **Only create chord symbols from horizontal passages when unambiguous**

When activated, chord symbols are only created from notes at multiple rhythmic positions if the resulting chord is simple.

#### **Try to detect and handle passing notes**

When activated, Dorico Elements detects passing notes where possible and excludes them from the chord symbol calculation.

#### **Use vamp detection**

When activated, Dorico Elements detects rhythmic patterns and textures often used when vamping and considers them in the chord symbol calculation.

#### **Minimum length for chords in vamp**

Allows you to change the minimum note value for chords in vamp sections.

#### **Maximum rhythmic separation between chords in vamp**

Allows you to change the maximum gap between chords in vamp sections.

#### **Allow creation of open fifths**

When activated, Dorico Elements creates chord symbols from chords comprising only two notes, a fifth apart.

#### **Allow creation of major and minor thirds**

When activated, Dorico Elements creates chord symbols from chords comprising only two notes, a third apart.

#### **Ignore omitted fifths**

Allows you to change how chords with omitted fifths are handled.

- **Never:** Omitted fifths are never ignored, meaning chords are considered according to the notes available.
- **In major/minor triads:** Omitted fifths are only ignored in chords comprising only two notes, a third apart.
- **In major/minor triads and chords with 7th:** Omitted fifths are ignored in chords comprising only two notes, a third apart, and chords with a seventh.
- **Always:** Omitted fifths are always ignored, meaning chord symbols are created as if the fifth were present.

#### RELATED LINKS

[Chord symbols](#) on page 782

[Inputting chord symbols](#) on page 303

[Hiding/Showing chord symbols](#) on page 789

[Calculating harp pedal diagrams based on existing music](#) on page 363

[Types of time signatures](#) on page 1250

## Input methods for clefs and octave lines

You can input clefs and octave lines with the keyboard by using the clefs and octave lines popover, and also with the mouse by using the Clefs panel.

Clefs and octave lines share the same popover and panel as both affect the pitch and register of notes.

#### RELATED LINKS



[Clefs](#) on page 816

[Octave lines](#) on page 822

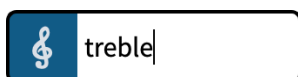
## Clefs and octave lines popover

The following tables contain the entries for the clefs and octave lines popover that you can use to input the different clefs and octave lines available.

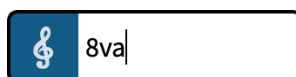
You can open the clefs and octave lines popover in Write mode in any of the following ways when either an item is selected or the caret is active:

- Press **Shift-C**.
- In the Notations toolbox, click **Popovers**  then **Clefs** .
- Select an existing clef or octave line and press **Return**.
- Choose **Write > Create Clef**.

The icon on the left-hand side of the popover matches the corresponding button in the Notations toolbox on the right of the window.



Clefs and octave lines popover with an example entry for a clef



Clefs and octave lines popover with an example entry for an octave line



**Clefs** button in the Notations toolbox

## Clefs

---

Type of clef	Popover entry
Treble G clef	<b>g, G, g2, sol, or treble</b>
Bass F clef	<b>f, F, f4, fa, or bass</b>
Tenor C clef	<b>ct, CT, c4, ut4, or tenor</b>
Alto C clef	<b>ca, CA, c3, ut3, or alto</b>
Treble G clef, octave below	<b>g8ba, G8ba, g8d, G8d, treble8ba, or treble8d</b>
Unpitched percussion	<b>perc</b>
4-string tablature	<b>tab4</b>
6-string tablature	<b>tab6</b>

---

### TIP

The rectangular percussion clef is available in the Clefs panel.

---

## Octave shifts for clefs

---

Function of octave shifts	Popover entry
Shift notes up by one octave	<b>+1</b>
Shift notes up by two octaves	<b>+2</b>
Shift notes down by one octave	<b>-1</b>
Shift notes down by two octaves	<b>-2</b>
Set octave shift for concert pitch	<b>c</b>
Set octave shift for transposed pitch	<b>t</b>

---

For example, enter **treble+1t** for a treble clef shifted up one octave in transposed pitch layouts, causing notes after the clef in transposed pitch layouts to appear an octave lower than they appear with a normal treble clef.



## Octave lines

---

Function of octave line	Popover entry
Shift notes up by one octave	<b>8va, 8, 8u, or 1u</b>
Shift notes up by two octaves	<b>15ma, 15, 15u, or 2u</b>
Shift notes up by three octaves	<b>22ma, 22, 22u, or 3u</b>
Shift notes down by one octave	<b>8ba, 8vb, 8d, or 1d</b>
Shift notes down by two octaves	<b>15ba, 15vb, 15d, or 2d</b>
Shift notes down by three octaves	<b>22ba, 22vb, 22d, or 3d</b>
<i>Loco</i> indication	<b>loco</b>
End of octave line	<b>  or stop</b>

For example, enter **stop** to specify where an octave line ends during note input.

---

### RELATED LINKS

[Notations toolbox](#) on page 192

[Clefs](#) on page 816


[Octave lines](#) on page 822

[Changing the octave of clefs](#) on page 819

[Respecting/Ignoring clef octave indicators](#) on page 820

## Clefs panel

The Clefs panel contains the different types of clefs and octave lines available in Dorico Elements. It is located in the right zone in Write mode.

- You can hide/show the Clefs panel by clicking **Panels**  then **Clefs**  in the Notations toolbox.

You can also hide/show the right zone by pressing **Ctrl/Cmd-9**.

The Clefs panel contains the following sections:

### Common Clefs

Contains the clefs you are most likely to need, including treble clef and bass clef.

### Octave Lines

Contains octave lines, indicating up to three octaves above and below, and a *loco* line.

### RELATED LINKS

[Notations toolbox](#) on page 192

[Clefs](#) on page 816

[Octave lines](#) on page 822

[Inputting clefs with the panel](#) on page 318

[Inputting octave lines with the panel](#) on page 320



## Inputting clefs with the popover

You can input clefs using the clefs and octave lines popover, both during note input and by adding them to existing music. You can also use the popover to change the type of existing clefs.

### NOTE

- If you do not want to show any clef in any layout, you must input an invisible clef. You can also hide/show clefs according to the layout transposition.
  - Many instruments in Dorico Elements have different types that show alternative clefs by default. You can select the appropriate instrument type from the instrument picker when adding or changing instruments.
- 

### PROCEDURE

1. In Write mode, do one of the following:
    - Start note input.
    - Select an item on the staff and at the rhythmic position where you want to input a clef. If you want to add a restorative clef at a later position, select items on the staff that span the required duration.
  2. Optional: If you want to input clefs onto multiple staves at once, extend the caret to those staves.
  3. Open the clefs and octave lines popover in any of the following ways:
    - Press **Shift-C**.
    - In the Notations toolbox, click **Popovers**  then **Clefs** .
  4. Enter the appropriate entry for the clef you want into the popover.  
For example, enter **bass** for a bass clef, **alto** for an alto clef, or **treble+1t** for a treble clef shifted up one octave in transposed pitch layouts.
  5. Press **Return** to close the popover.
- 

### RESULT

During note input, clefs are input at the caret position. Note input continues after inputting the clef, so you can continue inputting notes and clefs as required.

When you add clefs to existing music, clefs are added directly before a selected notehead, and apply to all notes on that staff until the next clef, or the end of the flow. When you add clefs to a range of selected items, restorative clefs are also added at the end of the selection.

Clefs apply to all notes on the staff until the next clef or the end of the flow, whichever comes first.

### RELATED LINKS

[Clefs on page 816](#)

[Extending the caret to multiple staves on page 209](#)

[Hiding/Showing clefs according to layout transpositions on page 817](#)

[Changing the octave of clefs on page 819](#)

[Respecting/Ignoring clef octave indicators on page 820](#)

[Changing instruments on page 136](#)

[Adding instruments to players on page 133](#)

## Inputting clefs with the panel



You can input clefs using the Clefs panel, both during note input and by adding them to existing music.

### NOTE

- If you do not want to show any clef in any layout, you must input an invisible clef. You can also hide/show clefs according to the layout transposition.
- These steps describe inputting with the default mouse input preference **Create item at selection**.
- Many instruments in Dorico Elements have different types that show alternative clefs by default. You can select the appropriate instrument type from the instrument picker when adding or changing instruments.

---

### PROCEDURE

1. In Write mode, do one of the following:
  - Start note input.
  - Select an item on the staff and at the rhythmic position where you want to input a clef. If you want to add a restorative clef at a later position, select items on the staff that span the required duration.
2. In the Notations toolbox, click **Panels** , then **Clefs**  to show the Clefs panel.
3. In the Clefs panel, click the clef you want.

---

### RESULT

During note input, clefs are input at the caret position. Note input continues after inputting the clef, so you can continue inputting notes and clefs as required.

When you add clefs to existing music, clefs are added directly before a selected notehead, and apply to all notes on that staff until the next clef, or the end of the flow. When you add clefs to a range of selected items, restorative clefs are also added at the end of the selection.

Clefs apply to all notes on the staff until the next clef or the end of the flow, whichever comes first.

### RELATED LINKS

[Notations toolbox](#) on page 192

[Clefs](#) on page 816

[Changing your mouse input settings](#) on page 203

[Universal Indian Drum Notation](#) on page 1301




## Inputting octave lines with the popover

You can input octave lines using the clefs and octave lines popover, both during note input and by adding them to existing music. You can also input octave lines only into specific voices in multiple-voice contexts.

---

### PROCEDURE

1. In Write mode, do one of the following:
  - Start note input.
  - Select the notes to which you want to add an octave line. If you want to add an octave line for a single voice, only select notes in that voice.

2. Optional: If you want to input octave lines onto multiple staves at once, extend the caret to those staves.
3. Open the clefs and octave lines popover in any of the following ways:
  - Press **Shift-C**.
  - In the Notations toolbox, click **Popovers**  then **Clefs** .
4. Enter the appropriate entry for the octave line you want into the popover.  
For example, enter **8va** for an octave line that shifts notes up one octave.
5. Input the octave line and close the popover in one of the following ways:
  - To input an octave line for all voices on the staff, press **Return**.
  - To input an octave line only for the currently selected voice, press **Alt/Opt-Return**.
6. Optional: During note input, advance the caret and extend the octave line in any of the following ways:
  - Press **Space**.
  - In the Keyboard, Fretboard, or Drum Pads panel toolbar, click **Advance Caret** .

The octave line also extends automatically as you continue inputting notes.
7. Optional: During note input, stop any octave line by opening the clefs and octave lines popover again and entering **|** or **stop**.

---

#### RESULT

During note input, octave lines are input from the caret position. When you stop octave lines, they end at the caret position.

When adding octave lines to existing music, they are input either above or below your selection, depending on whether the octave line indicates that notes are played higher or lower than notated.

The pitches of notes within octave lines are adjusted automatically. For example, notes within octave above lines appear an octave lower than they do without the octave above line.

#### TIP

You can also lengthen/shorten octave lines after they have been input.

---

#### RELATED LINKS

- [Clefs and octave lines popover](#) on page 314
- [Octave lines](#) on page 822
- [Lengthening/Shortening items](#) on page 410
- [Changing the pitch of individual notes](#) on page 444
- [Extending the caret to multiple staves](#) on page 209
- [Notations toolbox](#) on page 192
- [Keyboard panel](#) on page 197
- [Fretboard panel](#) on page 199
- [Drum Pads panel](#) on page 200

## Inputting octave lines with the panel



You can input octave lines using the Clefs panel, both during note input and by adding them to existing music. You can also input octave lines only into specific voices in multiple-voice contexts.

### NOTE

These steps describe inputting with the default mouse input preference **Create item at selection**.

---

### PROCEDURE

1. In Write mode, do one of the following:
  - Start note input.
  - Select the notes to which you want to add an octave line. If you want to add an octave line for a single voice, only select notes in that voice.
2. In the Notations toolbox, click **Panels** , then **Clefs**  to show the Clefs panel.
3. Input the octave line you want in one of the following ways:
  - To input an octave line for all voices on the staff, click it in the **Octave Lines** section.
  - To input an octave line only for the currently selected voice, **Alt/Opt**-click it in the **Octave Lines** section.

Alternatively, when adding octave lines to existing music, you can click the octave line you want in the Clefs panel first, and then click and drag it to the length you want.

---

### RESULT

During note input, octave lines are input at the caret position. They are input with a default duration of a quarter note.

When adding octave lines to existing music, they are input either above or below your selection, depending on whether the octave line indicates that notes are played higher or lower than notated.

The pitches of notes within octave lines are adjusted automatically. For example, notes within octave above lines appear an octave lower than they do without the octave above line.

### TIP

You can also lengthen/shorten octave lines after they have been input.

---

### RELATED LINKS

- [Notations toolbox](#) on page 192
- [Octave lines](#) on page 822
- [Lengthening/Shortening items](#) on page 410
- [Changing the pitch of individual notes](#) on page 444
- [Changing your mouse input settings](#) on page 203

## Input methods for holds and pauses

You can input holds and pauses with the keyboard by using the holds and pauses popover in Write mode, and with the mouse by using the Holds and Pauses panel.

### RELATED LINKS



- [Holds and pauses](#) on page 905

[Correct positioning for caesura input](#) on page 325

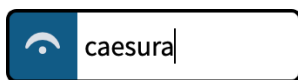
## Holds and pauses popover

The table contains the entries for the holds and pauses popover that you can use to input the different holds and pauses available.

You can open the holds and pauses popover in Write mode in any of the following ways when either an item is selected or the caret is active:

- Press **Shift-H**.
- In the Notations toolbox, click **Popovers** , then **Holds and Pauses** .
- Select an existing hold or pause and press **Return**.
- Choose **Write > Create Hold or Pause**.

The icon on the left-hand side of the popover matches the corresponding button in the Notations toolbox on the right of the window.











Holds and pauses popover with an example entry



Holds and Pauses button in the Notations toolbox

## Fermatas

Type of fermata	Popover entry
Fermata 	<b>fer</b> or <b>fermata</b>
Very long fermata 	<b>fermataverylong</b>
Long fermata 	<b>fermatalong</b>
Short fermata 	<b>fermatashort</b>
Very short fermata 	<b>fermataveryshort</b>
Short fermata (Henze) 	<b>fermatashorthenze</b>
Long fermata (Henze) 	<b>fermatalonghenze</b>
Curlew (Britten) 	<b>curlew</b>

### NOTE

The Curlew mark was originally devised by Benjamin Britten for “Curlew River”, a parable for church performance inspired by Japanese Noh theater. It indicates that a player should hold a note or a rest until a synchronization point in asynchronous music.

## Caesuras

---


Type of caesura	Popover entry
-----------------	---------------

Caesura 	<b>caes</b> , <b>caesura</b> , or <b>//</b>
---	---

Thick caesura 	<b>caesurathick</b> , <b>thickcaesura</b> , or <b>thick//</b>
---	---

Curved caesura 	<b>caesuracurved</b> , <b>curvedcaesura</b> , or <b>curved//</b>
--	--

Short caesura 	<b>caesurashort</b> , <b>shortcaesura</b> , or <b>short//</b>
---	---


Single-stroke caesura 	<b>caesurasingle</b> , <b>singlecaesura</b> , or <b>single//</b>
---	--


---

## Breath marks


---

Type of breath mark	Popover entry
---------------------	---------------

Breath mark (Comma-like) 	<b>breathmarkcomma</b> , <b>comma</b> , or <b>,</b> (comma)
--	---

Breath mark (Tick-like) 	<b>breathmarktick</b>
--	-----------------------

Breath mark (Upbow-like) 	<b>breathmarkupbow</b>
--	------------------------

Breath mark (Salzedo) 	<b>breathmarksalzedo</b>
---	--------------------------

---

### RELATED LINKS

[Notations toolbox](#) on page 192

[Holds and pauses](#) on page 905



[Types of fermatas](#) on page 906

[Types of caesuras](#) on page 907

[Types of breath marks](#) on page 907

## Holds and Pauses panel

The Holds and Pauses panel allows you to input all the different types of holds and pauses available in Dorico Elements, including alternative versions of fermatas. It is located in the right zone in Write mode.

- You can hide/show the Holds and Pauses panel by clicking **Panels**  then **Holds and Pauses**  in the Notations toolbox.

You can also hide/show the right zone by pressing **Ctrl/Cmd-9**.

The Holds and Pauses panel contains the following sections:

- **Fermatas**
- **Breath Marks**
- **Caesuras**

#### NOTE

Holds and pauses do not currently have an effect in playback, but this is planned for future versions.

---

#### RELATED LINKS

[Notations toolbox](#) on page 192

[Inputting holds and pauses with the panel](#) on page 324

[Holds and pauses](#) on page 905

[Types of fermatas](#) on page 906

[Types of caesuras](#) on page 907

[Types of breath marks](#) on page 907

## Inputting holds and pauses with the popover

You can input holds and pauses using the holds and pauses popover, both during note input and by adding them to existing music.

---

#### PROCEDURE

1. In Write mode, do one of the following:

- Start note input.
- Select an item at the rhythmic position where you want to input a hold or pause. If you want to input a breath mark on a specific staff, select an item that belongs to that staff only.

#### NOTE

You can only input one hold or pause at a time.

---

2. Optional: If you want to input breath marks onto multiple staves at once, extend the caret to those staves.

3. Open the holds and pauses popover in any of the following ways:

- Press **Shift-H**.
- In the Notations toolbox, click **Popovers** , then **Holds and Pauses** .

4. Enter the hold or pause you want into the popover.

For example, enter **fermata** for a pause or **caesura** for a caesura.

5. Press **Return** to close the popover.

---

#### RESULT

During note input, the specified hold or pause is input at the caret position. When adding holds or pauses to existing music, they are input at the rhythmic position of the earliest selected item.

- Fermatas appear on all staves at the rhythmic position of the note, chord, or rest that corresponds with the end of the fermata.
- Breath marks appear to the right of the caret or selected note.
- Caesuras appear on all staves to the left of the caret or selected note.

#### RELATED LINKS

[Extending the caret to multiple staves](#) on page 209

[Holds and pauses](#) on page 905



[Types of fermatas](#) on page 906  
[Types of breath marks](#) on page 907  
[Types of caesuras](#) on page 907  
[Positions of holds and pauses](#) on page 907

## Inputting holds and pauses with the panel

You can input holds and pauses using the Holds and Pauses panel, both during note input and by adding them to existing music.

### NOTE

These steps describe inputting with the default mouse input preference **Create item at selection**.

---



### PROCEDURE

1. In Write mode, do one of the following:
  - Start note input.
  - Select an item at the rhythmic position where you want to input a hold or pause. If you want to input a breath mark on a specific staff, select an item that belongs to that staff only.

### NOTE

You can only input one hold or pause at a time.

---

2. In the Notations toolbox, click **Panels** , then **Holds and Pauses**  to show the Holds and Pauses panel.
  3. In the Holds and Pauses panel, click the hold or pause you want.
- 

### RESULT

During note input, the specified hold or pause is input at the caret position. When adding holds or pauses to existing music, they are input at the rhythmic position of the earliest selected item.

- Fermatas appear on all staves at the rhythmic position of the note, chord, or rest that corresponds with the end of the fermata.
- Breath marks appear to the right of the caret or selected note.
- Caesuras appear on all staves to the left of the caret or selected note.

### RELATED LINKS

[Notations toolbox](#) on page 192  
[Holds and pauses](#) on page 905  
[Positions of holds and pauses](#) on page 907  
[Changing your mouse input settings](#) on page 203

## Correct positioning for caesura input

Caesuras are commonly placed at the end of a bar, before a barline. In Dorico Elements, caesuras must be attached to the note immediately after the position where you want it to appear, as then Dorico Elements can automatically position them correctly.

If you input caesuras with your mouse input preference set to **Load pointer with item**, you must click the first note in the next bar for a caesura to appear to the left of the barline. You can also click directly on the barline.



A correctly input caesura. The dotted attachment lines are attached to the notehead after the barline, meaning the caesura is correctly positioned before the barline.



An incorrectly input caesura. By clicking to the left of the barline, the caesura is attached to the last eighth note in the bar.

When input correctly, the dotted attachment lines link the caesura to the notehead immediately after the barline.

If your dotted attachment lines do not link the caesura to the notehead immediately after the barline, delete the caesura and re-input it. Caesuras can cause spacing issues when input incorrectly.

### RELATED LINKS

[Holds and pauses](#) on page 905

[Types of caesuras](#) on page 907

## Input methods for ornaments, arpeggio signs, glissando lines, and jazz articulations

You can input ornaments, including arpeggio signs, glissando lines, and jazz articulations with the keyboard by using the ornaments popover, and with the mouse by using the Ornaments panel.

You can input ornaments and arpeggio signs during note input and by adding them to existing notes, but you cannot input glissando lines during note input. You can only input glissando lines by adding them to existing notes.

You can specify the type/length of jazz articulations when using the Ornaments panel but not when using the ornaments popover.

### RELATED LINKS

[Ornaments](#) on page 977

[Arpeggio signs](#) on page 994

[Glissando lines](#) on page 1000

[Jazz articulations](#) on page 1028

[Jazz ornaments](#) on page 1029



[Lines](#) on page 1075

[Input methods for lines](#) on page 367

## Ornaments popover

The following tables contain the entries for the ornaments popover that you can use to input the different ornaments, arpeggio signs, glissando lines, and jazz articulations available.

You can open the ornaments popover in Write mode in any of the following ways when either an item is selected or the caret is active:

- Press **Shift-O**.
- In the Notations toolbox, click **Popovers**  then **Ornaments** .
- Select an existing ornament and press **Return**.
- Choose **Write > Create Ornament**.

The icon on the left-hand side of the popover matches the corresponding button in the Notations toolbox on the right of the window.








Ornaments popover with an example entry



Ornaments button in the Notations toolbox

## Ornaments

---

Type of ornament	Popover entry
Trill: 	<b>tr</b> or <b>trill</b>
Short trill: 	<b>shorttr</b>
Mordent: 	<b>mor</b> or <b>mordent</b>
Turn: 	<b>turn</b>
Inverted turn: 	<b>invturn</b> or <b>invertedturn</b>

---

## Trill intervals

---

Trill interval or quality	Popover entry
Interval degree Unison, second, third, fourth, fifth, sixth, seventh, octave	<b>1, 2, 3, 4, 5, 6, 7, 8</b>
Major	<b>M, maj,</b> or <b>major</b>
Minor	<b>m, min,</b> or <b>minor</b>
Perfect	<b>p, per,</b> or <b>perf</b>

---

**Trill interval or quality**

Diminished

Augmented

**Popover entry**

**d, dim, or diminished**

**a, aug, or augmented**

---

**EXAMPLE**


To input a trill with a perfect fifth interval, enter **tr p5**.

---

**Jazz ornaments**


---

**Type of jazz ornament**

Bend 

Flip 

Jazz turn 

Smear 

**Popover entry**

**brassbend**

**flip**

**jazz or shake**

**smear**

---

**Jazz articulations**

---

**Type of jazz articulation**

Plop (bend)

Plop (smooth)

Scoop

Doit (bend)

Doit (smooth)

Fall (bend)

Fall (smooth)

**Popover entry**

**plop**

**plopsmooth**

**scoop**

**doit**

**doitsmooth**

**fall**

**fallsmooth**

---

**TIP**

Other ornaments are available in the Ornaments panel. You can specify the type/length of jazz articulations when using the Ornaments panel but not when using the ornaments popover.

---

## Arpeggio signs

---

Type of arpeggio sign	Popover entry
Up arpeggio sign	<b>arp, arpup, or arpeggioup</b>
Down arpeggio sign	<b>arpdown or arpeggiodown</b>
Non arpeggio sign	<b>nonarp or nonarpeggio</b>
Curved arpeggio sign	<b>slurarp</b>

---

## Glissando lines

---

Type of glissando line	Popover entry
Default style glissando line	<b>gliss</b>
Straight glissando line	<b>glissstraight</b>
Wavy glissando line	<b>glisswavy</b>

---

## Guitar techniques

---

Type of guitar technique	Popover entry
Guitar bend	<b>bend</b>
Vibrato bar dive and return	<b>vibbend</b>
Vibrato bar scoop	<b>vibscoop</b>
Vibrato bar dip	<b>vibdip</b>
Vibrato bar line	<b>wbar or w/bar</b>

### NOTE

Must have duration to show its line.

---

Hammer-on	<b>ho or hammer</b>
-----------	---------------------

### NOTE

You must select at least two notes assigned to the same string with ascending pitch directions, such as C-D.

---

Type of guitar technique	Popover entry
Pull-off	<b>po</b> or <b>pull</b>
<b>NOTE</b>	
You must select at least two notes assigned to the same string with descending pitch directions, such as D-C.	
Hammer-on then pull-off or pull-off then hammer-on ( <i>ligado</i> )	<b>hp</b> , <b>hopo</b> , <b>hammerpull</b> , <b>lig</b> , or <b>ligado</b>
<b>NOTE</b>	
You must select at least three notes assigned to the same string with alternating pitch directions, such as C-D-C or D-C-D.	
Right-hand tapping	<b>tap</b>
Right-hand tapping with pull-off	<b>tappull</b>
<b>NOTE</b>	
You must select at least two notes assigned to the same string with descending pitch directions, such as D-C.	
Left-hand tapping	<b>lhtap</b>
Left-hand tapping with pull-off	<b>lhtappull</b>
<b>NOTE</b>	
You must select at least two notes assigned to the same string with descending pitch directions, such as D-C.	

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
#### RELATED LINKS

- [Notations toolbox](#) on page 192
- [Inputting arpeggio signs with the popover](#) on page 332
- [Inputting glissando lines with the popover](#) on page 334
- [Inputting jazz articulations with the popover](#) on page 336
- [Inputting guitar bends with the popover](#) on page 338
- [Inputting vibrato bar dives](#) on page 341
- [Inputting vibrato bar dives and returns with the popover](#) on page 343
- [Inputting vibrato bar scoops with the popover](#) on page 345
- [Inputting vibrato bar dips with the popover](#) on page 346
- [Inputting hammer-ons/pull-offs](#) on page 349
- [Inputting tapping](#) on page 350

[Assigning notes to strings](#) on page 947  
[Changing the allocated string for notes on tablature](#) on page 1202  
[Ornaments](#) on page 977  
[Trill intervals](#) on page 984  
[Arpeggio signs](#) on page 994  
[Glissando lines](#) on page 1000  
[Guitar bends](#) on page 1006  
[Guitar techniques](#) on page 1021  
[Jazz articulations](#) on page 1028  
[Jazz ornaments](#) on page 1029  
[Playing technique duration](#) on page 1068

## Ornaments panel

The Ornaments panel allows you to input all the different types of ornaments available, including jazz articulations, as well as arpeggio signs, glissando lines, guitar bends, and vibrato bar techniques. It is located in the right zone in Write mode.

- You can hide/show the Ornaments panel by clicking **Panels** , then **Ornaments**  in the Notations toolbox.

You can also hide/show the right zone by pressing **Ctrl/Cmd-9**.

The Ornaments panel contains the following sections:

### Jazz

Contains ornaments and pitch alterations commonly used in jazz music, such as bends, scoops, and falls.

### Baroque and Classical

Contains ornaments commonly used in Baroque and Classical music, such as mordents, turns, and trills.

### Arpeggiation

Contains the different types of arpeggio signs.

NOTE

You cannot input arpeggio signs with the mouse during note input.

---

### Glissandi

Contains the different types of glissando lines.

### Guitar

Contains techniques and pitch alterations commonly associated with guitars, such as guitar bends and vibrato bar scoops.

### RELATED LINKS



[Notations toolbox](#) on page 192  
[Inputting ornaments/trills with the panel](#) on page 332  
[Inputting arpeggio signs with the panel](#) on page 333  
[Inputting glissando lines with the panel](#) on page 335  
[Inputting jazz articulations with the panel](#) on page 337  
[Input methods for guitar bends and guitar techniques](#) on page 338

## Inputting ornaments/trills with the popover

You can input ornaments, trills, and jazz ornaments using the ornaments popover, both during note input and by adding them to existing notes. When inputting trills, you can specify the trill interval, such as a minor third.

---

### PROCEDURE

1. In Write mode, do one of the following:
    - Start note input.
    - Select an item on the staff and at the rhythmic position where you want to input an ornament. If you want to input a trill with a specific duration, select items on the staff that span that duration.
  2. Optional: If you want to input ornaments onto multiple staves at once, extend the caret to those staves.
  3. Open the ornaments popover in any of the following ways:
    - Press **Shift-O**.
    - In the Notations toolbox, click **Popovers** , then **Ornaments** .
  4. Enter the appropriate entry for the ornament you want into the popover.  
For example, enter **tr m3** for a trill with a minor third interval or **mor** for a mordent.
  5. Press **Return** to close the popover.
  6. Optional: When inputting trills during note input, input a note or press **Space** to advance the caret and input the trill.
- 

### RESULT

During note input, ornaments are input at the caret position. Trills last the duration of the rhythmic value of the note input at the caret position or the duration by which the caret advanced. Trills have a default interval of a second, either major or minor depending on the context. If you specified an interval for your trill, the interval applies only to the first note in the selection, but you can also change the interval partway through trills.

When adding ornaments to existing music, they are input at the rhythmic position of the earliest selected item. Trills are input at the rhythmic position of the earliest selected item, with an extender line across the rest of the selection.

### RELATED LINKS

[Ornaments](#) on page 977

[Trills](#) on page 981

[Trill intervals](#) on page 984

[Changing trill intervals](#) on page 986

[Changing trill intervals partway through trills](#) on page 987

[Trill interval appearance](#) on page 989

[Jazz ornaments](#) on page 1029

[Inputting notes](#) on page 211

[Inputting jazz articulations with the popover](#) on page 336

[Extending the caret to multiple staves](#) on page 209



## Inputting ornaments/trills with the panel



You can input ornaments, trills, and jazz ornaments using the Ornaments panel, both during note input and by adding them to existing notes.

### NOTE

These steps describe inputting with the default mouse input preference **Create item at selection**.

---

### PROCEDURE

1. In Write mode, do one of the following:
    - Start note input.
    - Select an item on the staff and at the rhythmic position where you want to input an ornament. If you want to input a trill with a specific duration, select items on the staff that span that duration.
  2. In the Notations toolbox, click **Panels** , then **Ornaments**  to show the Ornaments panel.
  3. In the Ornaments panel, click the ornament you want.
- 

### RESULT

During note input, ornaments are input at the caret position. Trills are input with a default duration of a quarter note.

When adding ornaments to existing music, they are input at the rhythmic position of the earliest selected item. Trills are input at the rhythmic position of the earliest selected item, with an extender line across the rest of the selection.

### TIP

You can specify trill intervals when inputting trills using the popover.

---

### RELATED LINKS

[Notations toolbox](#) on page 192

[Ornaments panel](#) on page 330

[Inputting jazz articulations with the panel](#) on page 337

[Changing your mouse input settings](#) on page 203

## Inputting arpeggio signs with the popover

You can input arpeggio signs using the ornaments popover, both during note input and by adding them to existing notes. You can also input arpeggio signs across notes in multiple voices and on different staves that belong to the same instrument, such as piano or harp.

### NOTE

You can only input one arpeggio sign at a time.

---

### PROCEDURE

1. In Write mode, do one of the following:
  - Start note input.
  - Select at least one note in each voice to which you want to add an arpeggio sign.



NOTE

- For instruments with multiple staves, such as piano and harp, you can select existing notes on multiple staves to create cross-staff arpeggio signs. However, you cannot create cross-staff arpeggio signs between different instruments.
- Arpeggio signs are added to all notes in the selected voices at the selected rhythmic position.

2. Optional: If you started note input, press **Q** to start chord input.

NOTE

You can only input arpeggio signs during chord input.

3. Open the ornaments popover in any of the following ways:
  - Press **Shift-O**.
  - In the Notations toolbox, click **Popovers**  then **Ornaments** .
4. Enter the appropriate entry for the arpeggio sign you want into the popover.  
For example, enter **arpup** for an up arpeggio sign or **arpdown** for a down arpeggio sign.
5. Press **Return** to close the popover.
6. Optional: During chord input, input the notes you want.

RESULT

During chord input, arpeggio signs are input at the caret position.

When adding arpeggio signs to existing notes, they are input to the left of the selected notes.

Arpeggio signs automatically span the pitch range of all notes at that rhythmic position in the current voice during chord input, and all notes in the selected voices/staves when adding arpeggio signs to existing notes.

RELATED LINKS

[Ornaments popover](#) on page 326

[Arpeggio signs](#) on page 994

[Inputting notes](#) on page 211

[Inputting chords](#) on page 240

## Inputting arpeggio signs with the panel

You can input arpeggio signs on existing notes using the Ornaments panel. You can also input arpeggio signs across notes in multiple voices and on different staves that belong to the same instrument, such as piano or harp.

NOTE

- You can only input one arpeggio sign at a time, and you cannot input arpeggio signs with the mouse during note input.
- These steps describe inputting with the default mouse input preference **Create item at selection**. You cannot create cross-staff and cross-voice arpeggio signs if your preference is set to **Load pointer with item**.



---

#### PROCEDURE

1. In Write mode, select at least one note in each voice to which you want to add an arpeggio sign.

#### NOTE

- For instruments with multiple staves, such as piano and harp, you can select existing notes on multiple staves to create cross-staff arpeggio signs. However, you cannot create cross-staff arpeggio signs between different instruments.
- Arpeggio signs are added to all notes in the selected voices at the selected rhythmic position.

2. In the Notations toolbox, click **Panels** , then **Ornaments**  to show the Ornaments panel.
3. In the **Arpeggiation** section, click the arpeggio sign you want.

---

#### RESULT

The arpeggio sign specified is input to the left of the selected note or chord. Arpeggio signs automatically span the pitch range of all notes in the selected voices/staves at that rhythmic position.

#### RELATED LINKS

[Notations toolbox](#) on page 192

[Ornaments panel](#) on page 330

[Arpeggio signs](#) on page 994

[Changing your mouse input settings](#) on page 203

## Inputting glissando lines with the popover

You can input glissando lines between existing notes using the ornaments popover. You can input glissando lines between both adjacent and non-adjacent notes.

#### NOTE

You cannot input glissando lines during note input or on the last note on a staff. Instead, you can input a jazz articulation.



---

#### PREREQUISITE

You have input at least two notes that you want to join with a glissando.

---

#### PROCEDURE

1. In Write mode, select the two notes you want to join with a glissando line.  
For example, select a grace note and a normal note, two notes in different voices, or two notes on different staves belonging to the same instrument.
2. Open the ornaments popover in any of the following ways:
  - Press **Shift-O**.
  - In the Notations toolbox, click **Popovers** , then **Ornaments** .
3. Enter the appropriate entry for the glissando line you want into the popover.
  - For a default style glissando line, enter **gliss**.
  - For a straight glissando line, enter **glissstraight**.
  - For a wavy glissando line, enter **glisswavy**.

4. Press **Return** to close the popover.
- 

#### RESULT

The glissando line specified is input between the selected notes.

#### NOTE

- If you select a single note and input a glissando line, the glissando line specified starts from the selected note and ends at the next note in the same voice on the staff, even if this crosses rests.
  - Glissando lines do not automatically adjust around any notes or rests between the selected notes. If glissando text is shown, the text can collide with notes or rests, in which case we recommend that you make further adjustments, such as not showing glissando text for that glissando line.
  - By default, glissando line text is hidden on staves belonging to fretted instruments. However, you can show glissando line text manually.
- 

#### RELATED LINKS

[Ornaments popover](#) on page 326

[Glissando lines](#) on page 1000

[Changing glissando line text](#) on page 1002

[Changing when glissando line text is shown](#) on page 1002

[Changing the style of glissando lines](#) on page 1001

[Inputting jazz articulations with the panel](#) on page 337

## Inputting glissando lines with the panel

You can input glissando lines between existing notes using the Ornaments panel. You can input glissando lines between both adjacent and non-adjacent notes.

#### NOTE





- These steps describe inputting with the default mouse input preference **Create item at selection**. If your preference is set to **Load pointer with item**, you can only input glissando lines between the note you click on and the note immediately following it.
  - You cannot input glissando lines during note input or on the last note on a staff. Instead, you can input a jazz articulation.
- 

#### PREREQUISITE

You have input at least two notes that you want to join with a glissando.

---

#### PROCEDURE

1. In Write mode, select the two notes you want to join with a glissando line.  
For example, select a grace note and a normal note, two notes in different voices, or two notes on different staves belonging to the same instrument.
  2. In the Notations toolbox, click **Panels** , then **Ornaments**  to show the Ornaments panel.
  3. In the **Glissandi** section, click the style of glissando line you want.
    - **Glissando (Straight)** 
    - **Glissando (Wavy)** 
-

#### RESULT

The glissando line specified is input between the selected notes.

#### NOTE

- If you select a single note and input a glissando line, the glissando line specified starts from the selected note and ends at the next note in the same voice on the staff, even if this crosses rests.
  - Glissando lines do not automatically adjust around any notes or rests between the selected notes. If glissando text is shown, the text can collide with notes or rests, in which case we recommend that you make further adjustments, such as not showing glissando text for that glissando line.
  - By default, glissando line text is hidden on staves belonging to fretted instruments. However, you can show glissando line text manually.
- 

#### RELATED LINKS

[Notations toolbox](#) on page 192

[Ornaments panel](#) on page 330

[Glissando lines](#) on page 1000

[Changing glissando line text](#) on page 1002

[Changing when glissando line text is shown](#) on page 1002

[Inputting jazz articulations with the panel](#) on page 337

[Changing your mouse input settings](#) on page 203

## Inputting jazz articulations with the popover

You can input jazz articulations using the ornaments popover, both during note input and by adding them to existing notes.

#### NOTE

You can input jazz ornaments, such as flips or jazz turns, in the same ways as inputting ornaments.

---

#### PROCEDURE



1. In Write mode, do one of the following:

- Start note input.

#### TIP

During note input, you can select additional notes before/after the last input note without deactivating the caret by pressing **Shift-Right Arrow** / **Shift-Left Arrow**.

---

- Select the notes to which you want to add jazz articulations.
2. Optional: If you want to input jazz articulations onto multiple staves at once, extend the caret to those staves.
3. Optional: During note input, input at least one note.
4. Open the ornaments popover in any of the following ways:
- Press **Shift-O**.
  - In the Notations toolbox, click **Popovers**  then **Ornaments** .
5. Enter the appropriate entry for the jazz articulation you want into the popover.

For example, enter **scoop** for a scoop or **fall** for a fall.

6. Press **Return** to close the popover.
- 

#### RESULT

The jazz articulation you specify is input on all selected notes. During note input, this is usually the last note you input.

#### NOTE

When using the popover, all jazz articulations are input with a default line style for their type. You can change their type/length after they have been input.

When using the panel, you can specify the line style of jazz articulations when you input them.

---

#### AFTER COMPLETING THIS TASK

You can enable independent voice playback for individual instruments to hear different jazz articulations in different voices simultaneously.

#### RELATED LINKS

[Ornaments popover](#) on page 326

[Inputting ornaments/trills with the popover](#) on page 331

[Extending the caret to multiple staves](#) on page 209

[Jazz articulations](#) on page 1028

[Changing the type/length of existing jazz articulations](#) on page 1030

[Changing the line style of smooth jazz articulations](#) on page 1031

[Enabling independent voice playback](#) on page 506

[Playback techniques](#) on page 706

## Inputting jazz articulations with the panel

You can input jazz articulations using the Ornaments panel, both during note input and by adding them to existing notes.

#### NOTE

- You can input jazz ornaments, such as flips or jazz turns, in the same ways as inputting ornaments.
  - These steps describe inputting with the default mouse input preference **Create item at selection**.
- 

#### PROCEDURE

1. In Write mode, do one of the following:



- Start note input.

#### TIP

During note input, you can select additional notes before/after the last input note without deactivating the caret by pressing **Shift-Right Arrow** / **Shift-Left Arrow**.

---

- Select the notes to which you want to add jazz articulations.
2. Optional: If you want to input jazz articulations onto multiple staves at once, extend the caret to those staves.
  3. Optional: During note input, input at least one note.

4. In the Notations toolbox, click **Panels** , then **Ornaments**  to show the Ornaments panel.
  5. In the **Jazz** section, click the jazz articulation you want.
- 

#### RESULT

The jazz articulation you specify is input on all selected notes. During note input, this is usually the last note you input.

#### AFTER COMPLETING THIS TASK

You can enable independent voice playback for individual instruments to hear different jazz articulations in different voices simultaneously.

#### RELATED LINKS

- [Notations toolbox](#) on page 192
- [Ornaments panel](#) on page 330
- [Inputting ornaments/trills with the panel](#) on page 332
- [Extending the caret to multiple staves](#) on page 209
- [Changing your mouse input settings](#) on page 203
- [Enabling independent voice playback](#) on page 506
- [Playback techniques](#) on page 706

## Input methods for guitar bends and guitar techniques

You can input guitar bends (including pre-bends and post-bends), vibrato bar techniques (including dips, dives, scoops, and dives and returns) and tapping, hammer-on, and pull-off indications with the keyboard by using the ornaments popover, and with the mouse by using the Ornaments panel.

You can also input guitar pre-bends, post-bends, and vibrato bar pre-dives using properties in the Properties panel.

You can input guitar techniques during note input and by adding them to existing notes, but you cannot input guitar bends during note input. You can only input guitar bends by adding them to existing notes.

#### RELATED LINKS

- [Ornaments popover](#) on page 326
- [Ornaments panel](#) on page 330
- [Guitar bends](#) on page 1006
- [Guitar pre-bends and pre-dives](#) on page 1008
- [Guitar post-bends](#) on page 1009
- [Vibrato bar dives and returns](#) on page 1011
- [Vibrato bar techniques](#) on page 1021
- [Tapping](#) on page 1022
- [Hammer-ons and pull-offs](#) on page 1023

## Inputting guitar bends with the popover

You can input guitar bends between existing notes, including between grace notes and normal notes, using the ornaments popover. You can input guitar bends between both adjacent and non-adjacent notes.

#### NOTE

You cannot input guitar bends during note input or on the last note on a staff.



---

#### PREREQUISITE

You have input at least two notes that you want to join with a guitar bend.

---

#### PROCEDURE

1. In Write mode, select the two notes you want to join with a guitar bend.  
For example, select a grace note and a normal note or two notes in different voices.
  2. Open the ornaments popover in any of the following ways:
    - Press **Shift-O**.
    - In the Notations toolbox, click **Popovers** , then **Ornaments** .
  3. Enter **bend** into the popover.
  4. Press **Return** to close the popover.
- 

#### RESULT

The guitar bend is input between the selected notes.

Guitar bends automatically appear as guitar bends or returns on tablature according to the pitch direction of the notes they join.

#### TIP

- If you select a single note and input a guitar bend, the guitar bend starts from the selected note and ends at the next note in the same voice on the staff, even if this crosses rests.
  - You can assign a key command for **Create Guitar Bend** on the **Key Commands** page in **Preferences**.
- 

#### RELATED LINKS

[Ornaments popover](#) on page 326

[Guitar bends](#) on page 1006

[Inputting guitar pre-bends/pre-dives](#) on page 340

[Inputting guitar post-bends](#) on page 341

[Key Commands page in the Preferences dialog](#) on page 59

## Inputting guitar bends with the panel

You can input guitar bends between existing notes, including between grace notes and normal notes, using the Ornaments panel. You can input guitar bends between both adjacent and non-adjacent notes.

#### NOTE

- These steps describe inputting with the default mouse input preference **Create item at selection**. If your preference is set to **Load pointer with item**, you can only input guitar bends between the note you click on and the note immediately following it.
  - You cannot input guitar bends during note input or on the last note on a staff.
- 

#### PREREQUISITE




You have input at least two notes that you want to join with a guitar bend.

---

#### PROCEDURE

1. In Write mode, select the two notes you want to join with a guitar bend.  
For example, select a grace note and a normal note or two notes in different voices.



2. In the Notations toolbox, click **Panels** , then **Ornaments**  to show the Ornaments panel.
  3. In the **Guitar** section, click **Guitar Bend** .
- 

#### RESULT

The guitar bend is input between the selected notes.

Guitar bends automatically appear as guitar bends or returns on tablature according to the pitch direction of the notes they join.

#### TIP

- If you select a single note and input a guitar bend, the guitar bend starts from the selected note and ends at the next note in the same voice on the staff, even if this crosses rests.
  - You can assign a key command for **Create Guitar Bend** on the **Key Commands** page in **Preferences**.
- 

#### RELATED LINKS

[Notations toolbox](#) on page 192

[Ornaments panel](#) on page 330


[Guitar bends](#) on page 1006

[Changing your mouse input settings](#) on page 203

## Inputting guitar pre-bends/pre-dives

You can input guitar pre-bends on any existing notes belonging to fretted instruments. You can also specify that pre-bends should be played using the vibrato bar, a technique that is known as a “pre-dive”.

#### PREREQUISITE

- The lower zone is shown.
  - **Properties**  is selected in the lower zone toolbar.
- 

#### PROCEDURE

1. Select the notes before which you want to input guitar pre-bends/pre-dives. You can do this in Write mode and Engrave mode.
  2. In the Properties panel, activate **Pre-bend interval** in the **Guitar Pre-bends** group.
  3. Change the interval as required.
  4. Optional: To turn the guitar pre-bends into guitar pre-dives, activate **Vibrato bar pre-bend** and the corresponding checkbox in the **Guitar Pre-bends** group.
- 

#### RESULT

Guitar pre-bends of the specified interval are input before the selected notes. They are shown as guitar pre-dives when **Vibrato bar pre-bend** and the corresponding checkbox are both activated.

#### RELATED LINKS

[Guitar pre-bends and pre-dives](#) on page 1008


[Vibrato bar techniques](#) on page 1021

[Properties panel](#) on page 615

## Inputting guitar post-bends

You can input guitar post-bends on any existing notes belonging to fretted instruments. You can also specify that post-bends are microtonal.

### PREREQUISITE

- The lower zone is shown.
- **Properties**  is selected in the lower zone toolbar.

---

### PROCEDURE

1. Select the notes after which you want to input guitar post-bends. You can do this in Write mode and Engrave mode.
2. In the Properties panel, activate **Post-bend interval** in the **Guitar Post-bends** group.
3. Do one of the following:
  - Change the interval as required.
  - To turn the guitar post-bends into microtonal post-bends, activate **Microtone bend** in the **Guitar Post-bends** group.

---

### RESULT

Guitar post-bends of the specified interval are input after the selected notes. They are shown as microtonal when **Microtone bend** is activated.

### RELATED LINKS

[Guitar post-bends](#) on page 1009

[Properties panel](#) on page 615

[Inputting guitar bends with the popover](#) on page 338

## Inputting vibrato bar dives

You can input vibrato bar dives, both during note input and by adding them to existing notes.

Vibrato bar dives are notated using a smooth fall jazz articulation combined with a vibrato bar indication.

---



### PROCEDURE



1. In Write mode, do one of the following:

- Start note input.

#### TIP

During note input, you can select additional notes before/after the last input note without deactivating the caret by pressing **Shift-Right Arrow** / **Shift-Left Arrow**.

- Select the notes to which you want to add vibrato bar dives.
2. Optional: If you want to input vibrato bar dives onto multiple staves at once, extend the caret to those staves.
  3. Optional: During note input, input at least one note.
  4. Open the ornaments popover in any of the following ways:
    - Press **Shift-O**.
    - In the Notations toolbox, click **Popovers** , then **Ornaments** .

5. Enter **fallsmooth** into the popover to input a smooth fall jazz articulation.
  6. Press **Return** to close the popover.
  7. Optional: During note input, move the caret back to the position of the note with the smooth fall.
  8. Open the ornaments popover in any of the following ways:
    - Press **Shift-O**.
    - In the Notations toolbox, click **Popovers** , then **Ornaments** .
  9. Enter **wbar** into the popover to input a vibrato bar indication.
  10. Press **Return** to close the popover.
  11. Optional: During note input, input a note or press **Space** to advance the caret and input the vibrato bar indication.
- 

#### RESULT

The smooth fall jazz articulation is input on all selected notes. During note input, this is usually the last note you input.

During note input, vibrato bar indications are input at the caret position. When adding vibrato bar indications to existing music, they are added at the rhythmic position of the earliest selected item.

#### NOTE

When using the popover, all jazz articulations are input with a default line style for their type. You can change their type/length after they have been input.

You can also input both smooth fall jazz articulations and vibrato bar indications using the Ornaments panel. When using the panel, you can specify the line style of jazz articulations when you input them.

---

#### AFTER COMPLETING THIS TASK

If you want vibrato bar indications to show a line, you can lengthen them to give them duration.

#### RELATED LINKS

[Vibrato bar techniques](#) on page 1021

[Notations toolbox](#) on page 192

[Ornaments popover](#) on page 326

[Ornaments panel](#) on page 330

[Extending the caret to multiple staves](#) on page 209

[Moving the caret manually](#) on page 210

[Jazz articulations](#) on page 1028

[Inputting jazz articulations with the popover](#) on page 336

[Inputting jazz articulations with the panel](#) on page 337

[Changing the type/length of existing jazz articulations](#) on page 1030

[Changing the line style of smooth jazz articulations](#) on page 1031

[Deleting jazz articulations](#) on page 1032

[Lengthening/Shortening items](#) on page 410

[Playing technique duration](#) on page 1068

## Inputting vibrato bar dives and returns with the popover

You can input vibrato bar dives and returns between existing notes using the ornaments popover. You can input vibrato bar dives and returns between both adjacent and non-adjacent notes.

### NOTE

You cannot input vibrato bar dives and returns during note input or on the last note on a staff.

---

### PREREQUISITE

You have input at least three notes with alternating pitch directions, such as D-C-D, that you want to join with a vibrato bar dive and return.

---



### PROCEDURE

1. In Write mode, select the two notes you want to join with a vibrato bar dive.

### NOTE

The notes must be on the same staff and have a descending pitch direction, such as D-C.



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2. Open the ornaments popover in any of the following ways:
  - Press **Shift-O**.
  - In the Notations toolbox, click **Popovers**  then **Ornaments** .
3. Enter **vibbend** into the popover to input the dive.
4. Press **Return** to close the popover.
5. Select the two notes you want to join with a vibrato bar return.

### NOTE

The notes must be on the same staff and have an ascending pitch direction, such as C-D.

---

6. Open the ornaments popover in any of the following ways:
    - Press **Shift-O**.
    - In the Notations toolbox, click **Popovers**  then **Ornaments** .
  7. Enter **vibbend** into the popover to input the return.
  8. Press **Return** to close the popover.
- 

### RESULT

Vibrato bar dives are input between notes with descending pitch directions, and vibrato bar returns are input between notes with ascending pitch directions. If a vibrato bar dive ends on the same note that a vibrato bar return starts on, they appear as a V on tablature with the bend interval shown at the point. If you input vibrato bar dives on consecutive notes with the same pitch direction, such as E-D-C, they are notated on tablature with an additional line protrusion beyond the staff and bend interval for each vibrato bar dive.

Vibrato bar dives and returns automatically point upwards or downwards on tablature according to the pitch direction of the notes they join.

### RELATED LINKS

[Ornaments popover](#) on page 326

[Vibrato bar dives and returns](#) on page 1011

[Vibrato bar techniques](#) on page 1021

[Guitar bends](#) on page 1006

[Inputting guitar bends with the popover](#) on page 338

## Inputting vibrato bar dives and returns with the panel

You can input vibrato bar dives and returns between existing notes using the Ornaments panel. You can input vibrato bar dives and returns between both adjacent and non-adjacent notes.

### NOTE

- These steps describe inputting with the default mouse input preference **Create item at selection**. If your preference is set to **Load pointer with item**, you can only input vibrato bar dives and returns between the note you click on and the note immediately following it.
- You cannot input vibrato bar dives and returns during note input or on the last note on a staff.

---

### PREREQUISITE

You have input at least three notes with alternating pitch directions, such as D-C-D, that you want to join with a vibrato bar dive and return.




---

### PROCEDURE

1. In Write mode, select the two notes you want to join with a vibrato bar dive.

### NOTE

The notes must be on the same staff and have a descending pitch direction, such as D-C.

2. In the Notations toolbox, click **Panels** , then **Ornaments**  to show the Ornaments panel.
3. In the **Guitar** section, click **Guitar Bend with Vibrato Bar**  to input the vibrato bar dive.
4. Select the two notes you want to join with a vibrato bar return.

### NOTE

The notes must be on the same staff and have an ascending pitch direction, such as C-D.

5. Click **Guitar Bend with Vibrato Bar**  to input the vibrato bar return.

---

### RESULT

Vibrato bar dives are input between notes with descending pitch directions, and vibrato bar returns are input between notes with ascending pitch directions. If a vibrato bar dive ends on the same note that a vibrato bar return starts on, they appear as a V on tablature with the bend interval shown at the point. If you input vibrato bar dives on consecutive notes with the same pitch direction, such as E-D-C, they are notated on tablature with an additional line protrusion beyond the staff and bend interval for each vibrato bar dive.

Vibrato bar dives and returns automatically point upwards or downwards on tablature according to the pitch direction of the notes they join.

### RELATED LINKS

[Notations toolbox](#) on page 192

[Ornaments panel](#) on page 330

[Vibrato bar dives and returns](#) on page 1011

[Vibrato bar techniques](#) on page 1021

[Guitar bends](#) on page 1006  
[Inputting vibrato bar dives](#) on page 341  
[Changing your mouse input settings](#) on page 203

## Inputting vibrato bar scoops with the popover

You can input vibrato bar scoops using the ornaments popover, both during note input and by adding them to existing notes.

---

### PROCEDURE



1. In Write mode, do one of the following:

- Start note input.

#### TIP

During note input, you can select additional notes before/after the last input note without deactivating the caret by pressing **Shift-Right Arrow** / **Shift-Left Arrow**.

---

- Select the notes to which you want to add vibrato bar scoops.
2. Optional: If you want to input vibrato bar scoops onto multiple staves at once, extend the caret to those staves.
3. Optional: During note input, input at least one note.
4. Open the ornaments popover in any of the following ways:
- Press **Shift-O**.
  - In the Notations toolbox, click **Popovers** , then **Ornaments** .
5. Enter **vibscoop** into the popover.
6. Press **Return** to close the popover.
- 

### RESULT

Vibrato bar scoops are input on the selected notes. During note input, this is usually the last note you input.

By default, vibrato bar scoops only appear on notation staves, not tablature. They are positioned to the left of notes.

### AFTER COMPLETING THIS TASK

You can input vibrato bar indications to clarify the vibrato bar scoops should be played using the vibrato bar.

### RELATED LINKS

[Ornaments popover](#) on page 326  
[Vibrato bar techniques](#) on page 1021  
[Inputting vibrato bar indications/lines with the popover](#) on page 347  
[Deleting guitar techniques](#) on page 1027

## Inputting vibrato bar scoops with the panel

You can input vibrato bar scoops using the Ornaments panel, both during note input and by adding them to existing notes.

---

### PROCEDURE




1. In Write mode, do one of the following:

- Start note input.

**TIP**

During note input, you can select additional notes before/after the last input note without deactivating the caret by pressing **Shift-Right Arrow / Shift-Left Arrow**.

---

- Select the notes to which you want to add vibrato bar scoops.
2. Optional: If you want to input vibrato bar scoops onto multiple staves at once, extend the caret to those staves.
  3. Optional: During note input, input at least one note.
  4. In the Notations toolbox, click **Panels** , then **Ornaments**  to show the Ornaments panel.
  5. In the **Guitar** section, click **Vibrato Bar Scoop** .
- 

**RESULT**

Vibrato bar scoops are input on the selected notes. During note input, this is usually the last note you input.

By default, vibrato bar scoops only appear on notation staves, not tablature. They are positioned to the left of notes.

**AFTER COMPLETING THIS TASK**

You can input vibrato bar indications to clarify the vibrato bar scoops should be played using the vibrato bar.

**RELATED LINKS**

[Notations toolbox](#) on page 192

[Ornaments panel](#) on page 330

[Vibrato bar techniques](#) on page 1021

[Inputting vibrato bar indications/lines with the panel](#) on page 348



[Deleting guitar techniques](#) on page 1027

## Inputting vibrato bar dips with the popover

You can input vibrato bar dips using the ornaments popover, both during note input and by adding them to existing music.

---

**PROCEDURE**

1. In Write mode, do one of the following:
  - Start note input.
  - Select an item on the staff at the rhythmic position where you want to input a vibrato bar dip.
2. Optional: If you want to input vibrato bar dips onto multiple staves at once, extend the caret to those staves.
3. Open the ornaments popover in any of the following ways:
  - Press **Shift-O**.
  - In the Notations toolbox, click **Popovers** , then **Ornaments** .
4. Enter **vibdip** into the popover.
5. Press **Return** to close the popover.

- Optional: During note input, input a note or press **Space** to advance the caret and input the vibrato bar dip.
- 

#### RESULT

During note input, vibrato bar dips are input at the caret position. When adding vibrato bar dips to existing music, they are input at the position of the earliest selected item.

By default, vibrato bar dips have half step intervals, are placed above the staff, and only appear on notation staves, not tablature.

#### RELATED LINKS

[Ornaments popover](#) on page 326

[Vibrato bar techniques](#) on page 1021

[Changing vibrato bar dip intervals](#) on page 1026

[Inputting vibrato bar indications/lines with the popover](#) on page 347




[Changing the staff-relative placement of items](#) on page 414

## Inputting vibrato bar dips with the panel

You can input vibrato bar dips using the Ornaments panel, both during note input and by adding them to existing music.

---

#### PROCEDURE

- In Write mode, do one of the following:
    - Start note input.
    - Select an item on the staff at the rhythmic position where you want to input a vibrato bar dip.
  - In the Notations toolbox, click **Panels** , then **Ornaments**  to show the Ornaments panel.
  - In the **Guitar** section, click **Vibrato Bar Dip** .
- 

#### RESULT

During note input, vibrato bar dips are input at the caret position. When adding vibrato bar dips to existing music, they are input at the position of the earliest selected item.

By default, vibrato bar dips have half step intervals, are placed above the staff, and only appear on notation staves, not tablature.

#### RELATED LINKS

[Notations toolbox](#) on page 192

[Ornaments panel](#) on page 330

[Vibrato bar techniques](#) on page 1021

[Changing vibrato bar dip intervals](#) on page 1026

[Inputting vibrato bar indications/lines with the panel](#) on page 348

[Changing the staff-relative placement of items](#) on page 414

## Inputting vibrato bar indications/lines with the popover



You can input vibrato bar indications/lines using the ornaments popover, both during note input and by adding them to existing music. When vibrato bar indications are input across a range of items, they are input with duration and show a duration line, which is dashed by default.

---

#### PROCEDURE

- In Write mode, do one of the following:



- Start note input.
  - Select an item on the staff and at the rhythmic position where you want to input a vibrato bar indication. If you want to input a vibrato bar line, select items on the staff that span the required duration.
2. Optional: If you want to input vibrato bar indications onto multiple staves at once, extend the caret to those staves.
  3. Open the ornaments popover in any of the following ways:
    - Press **Shift-O**.
    - In the Notations toolbox, click **Popovers**  then **Ornaments** .
  4. Enter **wbar** into the popover to input the vibrato bar indication.
  5. Press **Return** to close the popover.
  6. Optional: During note input, input a note or press **Space** to advance the caret and input the vibrato bar indication.
- 

#### RESULT

During note input, vibrato bar indications are input at the caret position.

When adding vibrato bar indications to a single selected item, they are input at that rhythmic position only and have no duration. When adding vibrato bar indications to a range of selected items, they are input at the rhythmic position of the earliest selected item and have duration, which applies until the end of the selection. Vibrato bar indications with duration show a duration line, which is dashed by default.

By default, vibrato bar indications/lines are placed below the staff and only appear on notation staves, not tablature.

#### RELATED LINKS




- [Ornaments popover](#) on page 326
- [Vibrato bar techniques](#) on page 1021
- [Extending the caret to multiple staves](#) on page 209
- [Lengthening/Shortening items](#) on page 410
- [Playing technique duration](#) on page 1068

## Inputting vibrato bar indications/lines with the panel

You can input vibrato bar indications/lines using the Ornaments panel, both during note input and by adding them to existing music. When vibrato bar indications are input across a range of items, they are input with duration and show a duration line, which is dashed by default.

---

#### PROCEDURE

1. In Write mode, do one of the following:
    - Start note input.
    - Select an item on the staff and at the rhythmic position where you want to input a vibrato bar indication. If you want to input a vibrato bar line, select items on the staff that span the required duration.
  2. In the Notations toolbox, click **Panels**  then **Ornaments**  to show the Ornaments panel.
  3. In the **Guitar** section, click **Vibrato Bar Line** .
- 

#### RESULT

During note input, vibrato bar indications are input at the caret position.

When adding vibrato bar indications to a single selected item, they are input at that rhythmic position only and have no duration. When adding vibrato bar indications to a range of selected items, they are input at the rhythmic position of the earliest selected item and have duration, which applies until the end of the selection. Vibrato bar indications with duration show a duration line, which is dashed by default.

By default, vibrato bar indications/lines are placed below the staff and only appear on notation staves, not tablature.

#### RELATED LINKS

[Ornaments panel](#) on page 330

[Vibrato bar techniques](#) on page 1021

[Lengthening/Shortening items](#) on page 410

[Playing technique duration](#) on page 1068

## Inputting hammer-ons/pull-offs

You can input hammer-ons/pull-offs on any notes belonging to fretted instruments using the ornaments popover, both during note input and by adding them to existing notes. If you select multiple notes, Dorico Elements automatically inputs the appropriate slurs. You can also add tapping with hammer-ons/pull-offs to existing notes.

---

#### PROCEDURE

1. In Write mode, do one of the following:

- Start note input.



#### TIP

During note input, you can select additional notes before/after the last input note without deactivating the caret by pressing **Shift-Right Arrow** / **Shift-Left Arrow**.

- Select the notes to which you want to add hammer-ons/pull-offs.

#### NOTE

- If you want to input hammer-ons, you must select at least two notes assigned to the same string with ascending pitch directions, such as C-D.
- If you want to input pull-offs or tapping with pull-offs, you must select at least two notes assigned to the same string with descending pitch directions, such as D-C.
- If you want to input *ligados*, you must select at least three notes assigned to the same string with alternating pitch directions, such as C-D-C for a hammer-on then pull-off or D-C-D for a pull-off then hammer-on.

2. Optional: If you want to input hammer-ons/pull-offs onto multiple fretted instrument staves at once, extend the caret to those staves.
  3. Optional: During note input, input at least one note.
  4. Open the ornaments popover in any of the following ways:
    - Press **Shift-O**.
    - In the Notations toolbox, click **Popovers** , then **Ornaments** .
  5. Enter the appropriate entry for the hammer-on/pull-off you want into the popover. For example, enter **ho** for a hammer-on or **hopo** for a hammer-on then pull-off.
  6. Press **Return** to close the popover.
-

#### RESULT

The hammer-on/pull-off you specify is input on the selected notes. During note input, this is usually the last note you input.

If you selected multiple adjacent notes assigned to the same string, Dorico Elements automatically inputs slurs spanning the selected notes and centers hammer-on/pull-off indications on the slurs. For slurs with multiple hammer-on/pull-off indications, each indication is centered over the range of notes in the corresponding direction.

By default, hammer-ons/pull-offs appear on both notation staves and tablature and are placed above the staff.

#### TIP

You can also add hammer-ons/pull-offs to existing notes by selecting them, activating **Technique** in the **Guitar Techniques** group of the Properties panel, and selecting the appropriate indication from the menu. To show hammer-on/pull-off indications centered on slurs, select all notes except the first note under each slur.

---

#### RELATED LINKS

[Ornaments popover](#) on page 326

[Hammer-ons and pull-offs](#) on page 1023

[Changing the staff-relative placement of guitar techniques](#) on page 1026

[Assigning notes to strings](#) on page 947

[Changing the allocated string for notes on tablature](#) on page 1202

[Deleting guitar techniques](#) on page 1027

## Inputting tapping

You can input right-hand and left-hand tapping indications on any notes belonging to fretted instruments using the ornaments popover, both during note input and by adding them to existing notes. You can also add tapping with hammer-ons/pull-offs to existing notes.

---

#### PROCEDURE

1. In Write mode, do one of the following:

- Start note input.

#### TIP

During note input, you can select additional notes before/after the last input note without deactivating the caret by pressing **Shift-Right Arrow** / **Shift-Left Arrow**.



---

- Select the notes to which you want to add tapping indications.

#### NOTE

If you want to input tapping with pull-offs, you must select at least two notes assigned to the same string with descending pitch directions, such as D-C.

---

2. Optional: If you want to input tapping onto multiple fretted instrument staves at once, extend the caret to those staves.
3. Optional: During note input, input at least one note.
4. Open the ornaments popover in any of the following ways:
  - Press **Shift-O**.
  - In the Notations toolbox, click **Popovers** , then **Ornaments** .

5. Enter the appropriate entry for the tapping indication you want into the popover.  
For example, enter **tap** for right-hand tapping or **lhtappull** for left-hand tapping with pull-off.
  6. Press **Return** to close the popover.
- 

#### RESULT

The tapping indication you specify is input on the selected notes. During note input, this is usually the last note you input.

By default, tapping indications appear on both notation staves and tablature and are placed above the staff.

#### TIP

You can also add tapping indications to existing notes by selecting them, activating **Technique** in the **Guitar Techniques** group of the Properties panel, and selecting the appropriate indication from the menu.

---

#### RELATED LINKS

[Ornaments popover](#) on page 326

[Tapping](#) on page 1022

[Changing the staff-relative placement of guitar techniques](#) on page 1026

[Assigning notes to strings](#) on page 947

[Changing the allocated string for notes on tablature](#) on page 1202

[Extending the caret to multiple staves](#) on page 209

[Deleting guitar techniques](#) on page 1027

## Input methods for playing techniques, pedal lines, string indicators, and harp pedal diagrams

You can input playing techniques with the keyboard by using the playing techniques popover, and with the mouse by using the Playing Techniques panel. Pedal lines are considered playing techniques in Dorico Elements because both affect the sound that the instrument produces.

You can input string indicators outside the staff in the same ways, using either the playing techniques popover or Playing Techniques panel. However, you can only input harp pedal diagrams using the playing techniques popover.

You can input string indicators inside the staff using a property in the **String Indicators** group of the Properties panel.

#### RELATED LINKS

[Playing techniques](#) on page 1062

[Pedal lines](#) on page 1044

[Harp pedaling](#) on page 1036

[String indicators](#) on page 891

[Inputting playing techniques with the popover](#) on page 356

[Inputting playing techniques with the panel](#) on page 358

[Inputting pedal lines with the popover](#) on page 359

[Inputting pedal lines with the panel](#) on page 361

[Inputting harp pedal diagrams](#) on page 362

[Inputting string indicators outside the staff with the popover](#) on page 364

[Inputting string indicators outside the staff with the panel](#) on page 365



[Inputting string indicators inside the staff](#) on page 366

## Playing techniques popover

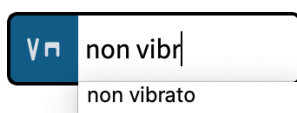
The following tables contain the entries for the playing techniques popover that you can use to input playing techniques, pedal lines, and retakes.

When you start entering a playing technique into the playing techniques popover, a menu appears that shows valid playing techniques containing the letters/words you enter. You can then select one of these playing techniques to input.

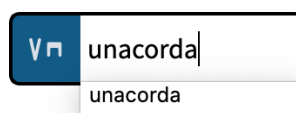
You can open the playing techniques popover in Write mode in any of the following ways when either an item is selected or the caret is active:

- Press **Shift-P**.
- In the Notations toolbox, click **Popovers**  then **Playing Techniques** .
- Select an existing playing technique and press **Return**.
- Choose **Write > Create Playing Technique**.

The icon on the left-hand side of the popover matches the corresponding button in the Notations toolbox on the right of the window.



Playing techniques popover with an example entry for inputting a playing technique



Playing techniques popover with an example entry for inputting a pedal line



**Playing Techniques** button in the Notations toolbox

## Playing techniques

---

Playing technique	Popover entry
<i>Vibrato</i>	<b>vibrato</b>
<i>Senza vibrato</i>	<b>senza vibrato</b>
<i>Naturale</i> (nat.)	<b>nat</b>
Con sord.	<b>con sord</b>
Strong air pressure	<b>strong air pressure</b>
Double-tongue	<b>double-tongue</b>
Down bow	<b>downbow</b>
Up bow	<b>upbow</b>
<i>Sul ponticello</i>	<b>sul pont</b>
<i>Sul tasto</i>	<b>sul tasto</b>

<b>Playing technique</b>	<b>Popover entry</b>
<i>Poco sul tasto</i>	<b>pst</b>
<i>Pizzicato</i>	<b>pizz</b>
<i>Spiccato</i>	<b>spicc</b>
<i>Arco</i>	<b>arco</b>
Tongue click (Stockhausen)	<b>tongue click</b>
Finger click (Stockhausen)	<b>finger click</b>
Vibraphone motor on	<b>motor on</b>
Vibraphone motor off	<b>motor off</b>
Open	<b>open</b>
Damp	<b>damp</b>
Damp (large)	<b>damp large</b>
Full barré	<b>full barre</b>
Half barré	<b>half barre</b>
Strum up	<b>strum up</b>
Strum down	<b>strum down</b>
Left hand	<b>lh</b>
Right hand	<b>rh</b>

---

This list is not comprehensive as there are many valid playing techniques. It is intended to illustrate how you can structure your entry to input different types of common playing techniques.

If you do not know the correct entry for a playing technique, start entering part of the playing technique and see if it becomes available in the popover menu.

#### NOTE

- To give playing techniques duration, add -> at the end of your entry, such as **vibrato->**. During note input, the duration of the playing technique extends as you continue inputting notes or advance the caret. When adding playing techniques to existing music, they are added as a group.
  - As playing techniques correspond to specific samples, they must be input as described or selected from the popover menu.
-

## Pedal lines

---

Type of pedal line or retake	Popover entry
Sustain pedal line	<b>ped</b>
Retake in sustain pedal line	<b>^</b> , <b>notch</b> , or <b>retake</b>
Remove retake in sustain pedal line	<b>nonotch</b>
Stop sustain pedal line	<b>*</b>
<i>Sostenuto</i> pedal line	<b>sost</b>
Stop <i>sostenuto</i> pedal line	<b>s*</b>
<i>Una corda</i> pedal line	<b>unacorda</b>
Stop <i>una corda</i> pedal line	<b>u*</b>

---

## Harp pedaling

---

Example harp pedaling	Popover entry
D, C, B $\flat$ , E $\flat$ , F, G, A	<b>DCB<math>\flat</math>E<math>\flat</math>FGA</b> , <b>B<math>\flat</math>E<math>\flat</math></b> , or <b>--^ ^---</b>
D, C $\sharp$ , B, E, F $\sharp$ , G $\sharp$ , A	<b>DC<math>\sharp</math>BEF<math>\sharp</math>G<math>\sharp</math>A</b> , <b>C<math>\sharp</math>F<math>\sharp</math>G<math>\sharp</math></b> , or <b>-v- -vv-</b>

---

### TIP

The pipe character is optional.

---

## String indicators outside the staff

---

Example string indicator	Popover entry
1	<b>string1</b>
3	<b>string3</b>

---

### RELATED LINKS

[Notations toolbox](#) on page 192  
[Playing techniques](#) on page 1062  
[Groups of playing techniques](#) on page 1072  
[Pedal lines](#) on page 1044  
[Sustain pedal retakes and pedal level changes](#) on page 1045  
[Harp pedaling](#) on page 1036  
[String indicators](#) on page 891



[Adding retakes with the popover](#) on page 360

[Inputting harp pedal diagrams](#) on page 362

[Inputting string indicators outside the staff with the popover](#) on page 364

## Playing Techniques panel

The Playing Techniques panel contains the different playing techniques available in Dorico Elements, divided into instrument families. It is located in the right zone in Write mode. Pedal lines are included in the **Keyboard** section.

- You can hide/show the Playing Techniques panel by clicking **Panels** , then **Playing Techniques**  in the Notations toolbox.

You can also hide/show the right zone by pressing **Ctrl/Cmd-9**.

The Playing Techniques panel contains the following sections:

### Common

Contains commonly used playing techniques that also apply to multiple different instrument families, such as “mute” and “legato”.

### Wind

Contains playing techniques typically only used for wind instruments, such as “key clicks” and “whistle tones”.

### Brass

Contains playing techniques typically only used for brass instruments, such as “cup mute” and “stopped”.

### Unpitched Percussion

Contains playing techniques typically only used for unpitched percussion instruments, such as “rim” and “scrape”.

### Pitched Percussion

Contains playing techniques typically only used for pitched percussion instruments, such as “motor on” and “½ Ped.” for vibraphones.

### Keyboard

Contains playing techniques typically only used for keyboard instruments, such as “Ped.” and different pedal depression levels.

### Choral

Contains playing techniques typically only used for the voice, such as “mouth open” and “tongue click”.

### Strings

Contains playing techniques typically only used for string instruments, such as “col legno battuto” and “down bow”.

### Guitar

Contains playing techniques typically only used for guitars and fretted instruments, such as string indicators, “half barré”, and “strum up”.

#### TIP

You can hover your mouse pointer over the options in each section to show the name of each playing technique.

---



#### RELATED LINKS

[Notations toolbox](#) on page 192

[Inputting string indicators outside the staff with the panel](#) on page 365

[Playing techniques](#) on page 1062

[Pedal lines](#) on page 1044

[String indicators](#) on page 891

## Inputting playing techniques with the popover



You can input playing techniques using the playing techniques popover, both during note input and by adding them to existing music.

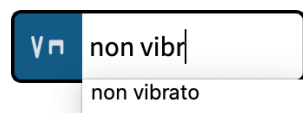
#### NOTE

- You can only enter one playing technique into the popover during note input. You can enter two playing techniques when adding playing techniques to existing music if they are separated by ->.
- If you want to input playing techniques in the middle of tie chains, start note input, then move the caret to the required rhythmic position.


---

#### PROCEDURE

1. In Write mode, do one of the following:
  - Start note input.
  - Select an item on the staff and at the rhythmic position where you want to input a playing technique. If you want to input playing techniques with duration, select items on the staff that span that duration.
2. Optional: If you want to input playing techniques onto multiple staves at once, extend the caret to those staves.
3. Open the playing techniques popover in any of the following ways:
  - Press **Shift-P**.
  - In the Notations toolbox, click **Popovers**  then **Playing Techniques** .
4. Enter the appropriate entry for the playing technique you want into the popover.  
For example, enter **pizz** or **non vibrato->**.



When you start entering a playing technique into the playing techniques popover, a menu appears that shows valid playing techniques containing the letters/words you enter, which you can select. If you want the playing technique to have duration, you can add -> at the end.

5. Press **Return** to close the popover.  
Open-ended playing techniques, such as **non vibrato->**, automatically extend during note input as you continue inputting notes, or if you advance the caret by pressing **Space** or clicking **Advance Caret**  in the Keyboard, Fretboard, or Drum Pads panel toolbar.
6. Optional: During note input, stop open-ended playing techniques by opening the playing techniques popover again and entering one of the following entries:

- To end the current playing technique with another playing technique, enter that playing technique. For example, enter **vibrato**. This joins the current playing technique to the following one with a continuation line.
  - To end the current playing technique with another open-ended playing technique, enter that playing technique followed by **->**. For example, enter **vibrato->**. This joins the current playing technique to the following one with a continuation line.
  - To end the current playing technique without inputting another playing technique, enter **?** into the popover. This leaves the current playing technique with a duration line rather than a continuation line.
- 

#### RESULT

The specified playing techniques are input. They are considered voice-specific by default, meaning they only apply to the voice indicated by the caret indicator during step input or the selected voice when adding playing techniques to existing notes. They are automatically placed above the staff for up-stem voices and below the staff for down-stem voices.

Adjoining playing techniques, or playing techniques that were input together or in sequence, are automatically grouped together, both during note input and when adding playing techniques to existing notes.

During note input, playing techniques are input at the caret position and extend automatically if you included an open-ended playing technique with duration.

When adding playing techniques to a single selected item, they are input at that rhythmic position only and have no duration. When adding playing techniques to a range of selected items, they are input at the rhythmic position of the earliest select item and have duration, which applies until the end of the selection. For playing techniques whose continuation type is set to show lines, the appropriate continuation line is shown.

#### AFTER COMPLETING THIS TASK

- You can move playing techniques within playing technique groups, lengthen/shorten playing techniques, and hide/show playing technique duration lines.
- You can enable independent voice playback for individual instruments to hear different playing techniques in different voices simultaneously.

#### RELATED LINKS

[Groups of playing techniques](#) on page 1072

[Playing technique continuation lines](#) on page 1067

[Hiding/Showing playing technique duration lines](#) on page 1070

[Lengthening/Shortening items](#) on page 410

[Moving notes/items rhythmically](#) on page 437

[Caret](#) on page 205

[Moving the caret manually](#) on page 210

[Extending the caret to multiple staves](#) on page 209

[Enabling independent voice playback](#) on page 506

[Playback techniques](#) on page 706

## Inputting playing techniques with the panel



You can input playing techniques using the Playing Techniques panel, both during note input and by adding them to existing music.

### NOTE

- You cannot input playing techniques with duration in sequence, which automatically groups them, when using the panel. If you want to input playing techniques with duration in sequence, you can use the popover.
- If you want to input playing techniques in the middle of tie chains, start note input, then move the caret to the required rhythmic position.
- These steps describe inputting with the default mouse input preference **Create item at selection**. If you want to input the same playing technique in multiple places, change your mouse input preference to **Load pointer with item** so that you do not have to reselect the playing technique for each note.

---

### PROCEDURE

1. In Write mode, do one of the following:
  - Start note input.
  - Select an item on the staff and at the rhythmic position where you want to input a playing technique. If you want to input playing techniques with duration, select items on the staff that span that duration.
2. In the Notations toolbox, click **Panels** , then **Playing Techniques**  to show the Playing Techniques panel.
3. In the Playing Techniques panel, click the playing technique you want.

---

### RESULT

The specified playing technique is input. It is considered voice-specific by default, meaning it only applies to the voice indicated by the caret indicator during step input or the selected voice when adding playing techniques to existing notes. It is automatically placed above the staff for up-stem voices and below the staff for down-stem voices.

During note input, playing techniques are input at the caret position, even if your preference is set to **Load pointer with item**.

When adding playing techniques to a single selected item, they are input at that rhythmic position only and have no duration. When adding playing techniques to a range of selected items, they are input at the rhythmic position of the earliest select item and have duration, which applies until the end of the selection. For playing techniques whose continuation type is set to show lines, the appropriate continuation line is shown.

### AFTER COMPLETING THIS TASK

- If you want to show transition lines between playing techniques, you can group them together.
- You can enable independent voice playback for individual instruments to hear different playing techniques in different voices simultaneously.

### RELATED LINKS

- [Notations toolbox](#) on page 192
- [Changing your mouse input settings](#) on page 203
- [Caret](#) on page 205
- [Moving the caret manually](#) on page 210



[Lengthening/Shortening items](#) on page 410  
[Grouping playing techniques together](#) on page 1073  
[Enabling independent voice playback](#) on page 506  
[Playback techniques](#) on page 706

## Inputting pedal lines with the popover

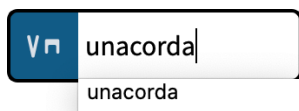
You can input pedal lines using the playing techniques popover, both during note input and by adding them to existing music. Because pedal lines extend automatically as you input notes during note input, you can also input retakes when you reach the appropriate rhythmic position.


---

### PROCEDURE

1. In Write mode, do one of the following:
  - Start note input.
  - On the staff where you want to input a pedal line, select items that span the required duration.
2. Open the playing techniques popover in any of the following ways:
  - Press **Shift-P**.
  - In the Notations toolbox, click **Popovers**  then **Playing Techniques** .
3. Enter the appropriate entry for the pedal line you want into the popover.  
For example, enter **ped** for a sustain pedal line.

When you start entering a pedal line into the playing techniques popover, a menu appears that shows valid pedal lines containing the letters/words you enter, which you can select.



4. Press **Return** to close the popover.  
The pedal line is input.
5. Optional: During note input, advance the caret and extend the pedal line in any of the following ways:
  - Press **Space**.
  - In the Keyboard, Fretboard, or Drum Pads panel toolbar, click **Advance Caret** .  
The pedal line also extends automatically as you continue inputting notes.
6. Optional: During note input, input retakes by opening the playing techniques popover again at the appropriate rhythmic position and entering **^** or **retake** into the popover.
7. Optional: During note input, stop the pedal line by opening the playing techniques popover again and enter the appropriate entry into the popover.  
For example, enter **\*** to stop a sustain pedal line.
8. Press **Return** to close the popover.

---

### RESULT

During note input, pedal lines start at the caret position, and end at the caret position.

When you add pedal lines to existing music, pedal lines are added across the selected items.

#### NOTE

Retakes only appear for sustain pedal lines with the **Line** continuation type.

---

#### AFTER COMPLETING THIS TASK

You can change the continuation type used for individual pedal lines; for example, to show a sign at the end.

#### RELATED LINKS

[Sustain pedal retakes and pedal level changes](#) on page 1045

[Positions of pedal lines](#) on page 1050

[Changing the pedal line continuation type](#) on page 1056

[Inputting notes](#) on page 211

[Notations toolbox](#) on page 192

[Keyboard panel](#) on page 197

[Fretboard panel](#) on page 199

[Drum Pads panel](#) on page 200

## Adding retakes with the popover

You can add retakes to sustain pedal lines using the playing techniques popover, both during note input and by adding them to existing music.

#### NOTE

You cannot add retakes to *sostenuto* or *una corda* pedal lines. Retakes only appear for sustain pedal lines with the **Line** continuation type.



---

#### PREREQUISITE

You have input a sustain pedal line.

---

#### PROCEDURE

1. In Write mode, do one of the following:
    - Start note input.
    - Select an item on each staff and at each rhythmic position where you want to input retakes.
  2. Optional: If you want to input notes and retakes onto multiple staves with sustain pedal lines at once, extend the caret to those staves.
  3. Open the playing techniques popover in any of the following ways:
    - Press **Shift-P**.
    - In the Notations toolbox, click **Popovers** , then **Playing Techniques** .
  4. Enter ^ or **retake** into the popover.
  5. Press **Return** to close the popover.
- 

#### RESULT

During note input, retakes are input at the caret position.

Outside of note input, retakes are input at each selected rhythmic position on each selected staff.

#### TIP

You can also input retakes by selecting notes within the ranges of sustain pedal lines and choosing **Edit > Notations > Pedal Lines > Add Retake**. You can also choose this option from the context menu.

---

#### RELATED LINKS

[Sustain pedal retakes and pedal level changes](#) on page 1045

[Playing techniques popover](#) on page 352

[Changing the pedal line continuation type](#) on page 1056

[Moving the caret manually](#) on page 210

[Removing retakes and pedal level changes](#) on page 1050



## Inputting pedal lines with the panel

You can input pedal lines using the Playing Techniques panel.

#### NOTE

- When using the panel, you cannot input pedal lines during note input.
  - These steps describe inputting with the default mouse input preference **Create item at selection**.
- 

#### PROCEDURE

1. In Write mode, select items on the staff where you want to input a pedal line that span the required duration.
  2. In the Notations toolbox, click **Panels**  then **Playing Techniques**  to show the Playing Techniques panel.
  3. In the Playing Techniques panel, expand the **Keyboard** section.
  4. Click the pedal line you want.
- 

#### RESULT

The pedal line is input across the selected range.

#### TIP

Alternatively, when nothing is selected, you can click the pedal line you want in the **Keyboard** section of the Playing Techniques panel, then click and drag in the music area to input a pedal line and extend it to the duration you want.

---

#### AFTER COMPLETING THIS TASK

- You can change the continuation type used for individual pedal lines; for example, to show a sign at the end.
- You can add retakes within the ranges of sustain pedal lines.

#### NOTE

Retakes only appear for sustain pedal lines with the **Line** continuation type.

---

#### RELATED LINKS

[Playing Techniques panel](#) on page 355

[Sustain pedal retakes and pedal level changes](#) on page 1045

[Changing the pedal line continuation type](#) on page 1056

[Changing your mouse input settings](#) on page 203

## Adding retakes with the panel

You can add retakes to existing sustain pedal lines using the Playing Techniques panel.

### NOTE

You cannot add retakes to *sostenuto* or *una corda* pedal lines. Retakes only appear for sustain pedal lines with the **Line** continuation type.




---

### PREREQUISITE

You have input a sustain pedal line.

---

### PROCEDURE

1. In Write mode, select an item on each staff and at each rhythmic position where you want to input retakes.
  2. In the Notations toolbox, click **Panels** , then **Playing Techniques**  to show the Playing Techniques panel.
  3. In the Playing Techniques panel, expand the **Keyboard** section.
  4. Click **Retake Pedal** .
- 

### RESULT

The retake is input at each selected rhythmic position on each selected staff.

### TIP

- Alternatively, when nothing is selected in the music area, you can click **Retake Pedal** in the **Keyboard** section of the Playing Techniques panel, and then click at each rhythmic position where you want to input the retake.
  - You can also input retakes by selecting notes within the ranges of sustain pedal lines and choosing **Edit > Notations > Pedal Lines > Add Retake**. You can also choose this option from the context menu.
- 

### RELATED LINKS

[Sustain pedal retakes and pedal level changes](#) on page 1045

[Playing Techniques panel](#) on page 355

[Changing the pedal line continuation type](#) on page 1056



[Removing retakes and pedal level changes](#) on page 1050

## Inputting harp pedal diagrams

You can input harp pedal diagrams using the playing techniques popover, both during note input and by adding them to existing music.

If you do not input any harp pedaling, Dorico Elements assumes all harp pedals are in their natural setting, as they would be for C major. Any pitches that do not fit with the current harp pedaling, excluding the two lowest harp strings, appear red when colors for notes out of range are shown.

#### PROCEDURE

1. In Write mode, do one of the following:
    - Start note input on a harp staff.
    - Select an item on a harp staff at the rhythmic position where you want to input a harp pedal diagram.
  2. Open the playing techniques popover in any of the following ways:
    - Press **Shift-P**.
    - In the Notations toolbox, click **Popovers**  then **Playing Techniques** .
  3. Enter the appropriate entry for the harp pedals you want.  
For example, enter **C#F#G#** for C#, F#, and G# pedals, such as in A major, or **BbEb** for B $\flat$  and E $\flat$  pedals, such as in B $\flat$  major.
  4. Press **Return** to close the popover.
- 

#### RESULT

The corresponding harp pedal diagram is input at the selected rhythmic position. Depending on your per-layout settings, it is either displayed as a diagram, using note names, or not shown and instead indicated by a signpost.

During note input, harp pedal diagrams are input at the caret position.

#### RELATED LINKS

[Playing techniques popover](#) on page 352

[Harp pedaling](#) on page 1036

[Hiding/Showing harp pedaling in layouts](#) on page 1038

[Changing the appearance of harp pedal diagrams](#) on page 1037

[Hiding/Showing colors for notes out of range](#) on page 951

## Calculating harp pedal diagrams based on existing music

You can automatically calculate suitable harp pedal diagrams based on the notes you have already input, either from a single point onwards or within a selected region.

If you do not input any harp pedaling, Dorico Elements assumes all harp pedals are in their natural setting, as they would be for C major. Any pitches that do not fit with the current harp pedaling, excluding the two lowest harp strings, appear red when colors for notes out of range are shown.

---

#### PROCEDURE

1. In Write mode, select the region you want to use to calculate harp pedaling in one of the following ways:
  - Select an existing single note from which you want to calculate harp pedaling.
  - Select a range of notes for which you want to calculate harp pedaling.

#### NOTE

Dorico Elements ignores the lowest two harp strings, C and D, when calculating harp pedals.

---

2. Choose **Write > Calculate Harp Pedals**.
-



#### RESULT

A harp pedal diagram is input at the start of your selection. Depending on your per-layout settings, it is either displayed as a diagram, using note names, or not shown and instead indicated by a signpost.

#### RELATED LINKS




[Generating chord symbols from notes](#) on page 311

## Inputting string indicators outside the staff with the popover

You can input string indicators outside the staff using the playing techniques popover, both during note input and by adding them to existing music.

---

#### PROCEDURE

1. In Write mode, do one of the following:
    - Start note input.
    - Select an item on the staff and at the rhythmic position where you want to input a string indicator outside the staff. If you want to input a string indicator with a duration line, select items on the staff that span that duration.
  2. Optional: If you want to input string indicators onto multiple staves at once, extend the caret to those staves.
  3. Open the playing techniques popover in any of the following ways:
    - Press **Shift-P**.
    - In the Notations toolbox, click **Popovers**  then **Playing Techniques** .
  4. Enter the appropriate entry for the string indicator you want into the popover.  
For example, enter **string1** for just a string 1 indicator or **string3->** for a string 3 indicator with duration.
  5. Press **Return** to close the popover.  
Open-ended string indicators, such as **string3->**, automatically extend during note input as you continue inputting notes, or if you advance the caret by pressing **Space** or clicking **Advance Caret**  in the Keyboard, Fretboard, or Drum Pads panel toolbar.
  6. Optional: During note input, stop open-ended string indicators by opening the playing techniques popover again and entering **?** into the popover.  
This leaves the current string indicator with a duration line. You can also enter another string indicator into the popover, but this joins the current string indicator to the following one with a continuation line rather than a duration line, which is a less common notation.
- 

#### RESULT

The specified string indicators are input. They are considered voice-specific by default, meaning they only apply to the voice indicated by the caret indicator during step input or the selected voice when adding string indicators to existing notes. They are automatically placed above the staff for up-stem voices and below the staff for down-stem voices.

During note input, string indicators are input at the caret position, and extend automatically if you included an open-ended string indicator with duration.

When adding string indicators to a single existing note, they are added to the selected note only and have no duration. When adding string indicators to a range of notes, they are added to the first note in the selection and have duration, which applies until the end of the selection.

By default, string indicators have dashed duration lines with a hook cap at the end.

#### AFTER COMPLETING THIS TASK

- If you input string indicators without duration but want to show dashed duration lines, you can add them.
- You can change the staff-relative placement of string indicators.

#### RELATED LINKS

[Playing techniques popover](#) on page 352

[String indicators](#) on page 891

[Lengthening/Shortening items](#) on page 410

[Extending the caret to multiple staves](#) on page 209

[Changing the staff-relative placement of items](#) on page 414

[Notations toolbox](#) on page 192

[Keyboard panel](#) on page 197

[Fretboard panel](#) on page 199

[Drum Pads panel](#) on page 200

## Inputting string indicators outside the staff with the panel



You can input string indicators outside the staff using the Playing Techniques panel, both during note input and by adding them to existing music.

#### NOTE

- You cannot input string indicators with duration during note input when using the panel. You can only do so when using the popover.
- These steps describe inputting with the default mouse input preference **Create item at selection**. If you want to input the same string indicator in multiple places, change your mouse input preference to **Load pointer with item** so that you do not have to reselect the string indicator for each note.

---

#### PROCEDURE

1. In Write mode, do one of the following:
  - Start note input.
  - Select an item on the staff and at the rhythmic position where you want to input a string indicator outside the staff. If you want to input a string indicator with a duration line, select items on the staff that span that duration.
2. In the Notations toolbox, click **Panels** , then **Playing Techniques**  to show the Playing Techniques panel.
3. In the Playing Techniques panel, expand the **Guitar** section.
4. Click the string indicator you want.

---

#### RESULT

The specified string indicator is input. It is considered voice-specific by default, meaning it only applies to the voice indicated by the caret indicator during step input or the selected voice when adding string indicators to existing notes. It is automatically placed above the staff for up-stem voices and below the staff for down-stem voices.

During note input, string indicators are input at the caret position, even if your preference is set to **Load pointer with item**.

When adding string indicators to a single existing note, they are added to the selected note only and have no duration. When adding string indicators to a range of notes, they are added to the first note in the selection and have duration, which applies until the end of the selection.

By default, string indicators have dashed duration lines with a hook cap at the end.

#### AFTER COMPLETING THIS TASK

- If you input string indicators without duration but want to show dashed duration lines, you can add them.
- You can change the staff-relative placement of string indicators.

#### RELATED LINKS

[Playing Techniques panel](#) on page 355

[Changing your mouse input settings](#) on page 203

## Inputting string indicators inside the staff


You can show a string indicator inside the staff for each fretted instrument note. You can do this for the current layout and frame chain only, or for all layouts and frame chains. Dorico Elements automatically detects a string that each pitch could be played on, but you can also specify the string manually.

### NOTE

These steps only apply to notes belonging to fretted instruments.

---

#### PREREQUISITE

- The lower zone is shown.
  - **Properties**  is selected in the lower zone toolbar.
  - You have chosen the appropriate property scope for local properties.
- 

#### PROCEDURE

1. Select the notes belonging to fretted instruments beside which you want to show string indicators. You can do this in Write mode and Engrave mode.
  2. In the Properties panel, activate **Show** in the **String Indicators** group.
- 

#### RESULT

String indicators are shown in the staff beside each selected note. If the property scope was set to **Locally**, this change only takes effect in the current layout and frame chain.

Unless you have specified a string for each note, the string number shown in the string indicators is calculated automatically. String indicators inside the staff for open strings appear as a bold number zero without a circle enclosure.

By default, string indicators appear on the left of noteheads without left-hand fingerings and on the right of noteheads with left-hand fingerings.

#### AFTER COMPLETING THIS TASK

- You can specify the string on which notes are played, which affects the number shown in their corresponding string indicators.
- You can change the notehead-relative position of string indicators.

#### RELATED LINKS

[String indicators](#) on page 891

[Fingerings for fretted instruments](#) on page 880  
[Fretted instrument tuning](#) on page 138  
[Assigning notes to strings](#) on page 947  
[Changing the notehead-relative position of string indicators](#) on page 893  
[Changing the property scope](#) on page 617  
[Copying property settings to other layouts/frame chains](#) on page 599

## Input methods for lines

You can input both horizontal and vertical lines by using the Lines panel. There is no popover for lines.

### TIP



If you want lines to represent specific notations that affect playback if applicable, you can instead input these notations directly. For example, dynamics, arpeggios, glissandi, and trills all have dedicated features in Dorico Elements.

### RELATED LINKS

[Lines](#) on page 1075  
[Input methods for dynamics](#) on page 296  
[Input methods for ornaments, arpeggio signs, glissando lines, and jazz articulations](#) on page 325  
[Input methods for playing techniques, pedal lines, string indicators, and harp pedal diagrams](#) on page 351  
[Input methods for clefs and octave lines](#) on page 314  
[Input methods for tempo marks](#) on page 280  
[Input methods for repeats and tremolos](#) on page 386

## Lines panel

The Lines panel contains the different types of lines available in Dorico Elements. It is located in the right zone in Write mode.

- You can hide/show the Lines panel by clicking **Panels** , then **Lines**  in the Notations toolbox.  
You can also hide/show the right zone by pressing **Ctrl/Cmd-9**.

The Lines panel contains the following sections:

### Horizontal

Contains the different horizontal lines available. The options at the top of the section allow you to determine the attachment type for the start and end of horizontal lines you subsequently input. Horizontal lines can be attached to noteheads, barlines, or rhythmic positions, and the start and end can have different attachment types.



### Vertical

Contains the different vertical lines available.

### RELATED LINKS

[Notations toolbox](#) on page 192  
[Lines](#) on page 1075  
[Line components](#) on page 1077

## Inputting horizontal lines

You can input horizontal lines between existing notes or spanning a specified duration using the Lines panel. Horizontal lines can be attached to noteheads, barlines, or rhythmic positions, and can have different attachment types at their start and end.

You can also input barline-/rhythmic position-attached lines that apply to all staves.

### NOTE

- You cannot change the attachment type of horizontal lines after they have been input.
- If you want to input notehead-attached horizontal lines to represent glissandi, you can instead input glissando lines directly.
- These steps describe inputting with the default mouse input preference **Create item at selection**.

---






### PROCEDURE

1. In Write mode, select one of the following:

- If you want to input a notehead-attached line, select the notes you want to join with a line.

### TIP

The notes can be in different voices, on different staves, and belong to any instruments held by the same player.

- If you want to input a barline-/rhythmic position-attached line, select items that span the required duration of the line.
  - If you want to input a horizontal line that is attached to noteheads at one end but barlines/rhythmic positions at the other end, select the required note and any item at the required rhythmic position of the other end.
2. In the Notations toolbox, click **Panels** , then **Lines**  to show the Lines panel.
3. In the **Horizontal** section, choose one of the following options for both **Start** and **End**:
- **Attach to notehead** 
  - **Attach to barline (where available)** 
  - **Attach to rhythmic position** 
4. Input a line with the specified attachments in one of the following ways:
- To input a notehead-attached line or barline-/rhythmic position-attached line on the selected staff only, click it in the **Horizontal** section.
  - To input a barline-/rhythmic position-attached line that applies to all staves, **Alt/Opt**-click it in the **Horizontal** section.

---

### RESULT

A horizontal line with the specified attachments is input. They are positioned according to their attachment types and their rhythmic positions.

Horizontal lines that apply to all staves are categorized as system objects. Therefore, they follow your per-layout settings for the visibility and positioning of system objects.

#### AFTER COMPLETING THIS TASK

- You can change the placement and staff position of barline-/rhythmic position-attached lines.
- You can add text to lines.

#### RELATED LINKS

[Notations toolbox](#) on page 192

[Lines](#) on page 1075

[Positions of lines](#) on page 1078

[Length of lines](#) on page 1082

[System objects](#) on page 1196

[Changing the positions of system objects](#) on page 1197

[Adding text to lines](#) on page 1088

[Changing the placement of horizontal lines](#) on page 1081

[Inputting glissando lines with the popover](#) on page 334

[Mouse input settings](#) on page 202

## Inputting vertical lines

You can input vertical lines on existing notes using the Lines panel, including across notes in multiple voices and on different staves that belong to the same instrument, such as piano or harp.

#### NOTE



- If you want to input vertical lines to represent arpeggios, you can instead input arpeggio signs directly.
- You can only input one vertical line at a time.
- These steps describe inputting with the default mouse input preference **Create item at selection**. You cannot create cross-staff and cross-voice vertical lines if your preference is set to **Load pointer with item**.

---

#### PROCEDURE

1. In Write mode, select at least one note at the same rhythmic position in each voice to which you want to add a vertical line.

#### NOTE

- For instruments with multiple staves, such as piano and harp, you can select existing notes on multiple staves to create cross-staff vertical lines. However, you cannot create cross-staff vertical lines between different instruments, even if they are held by the same player.
  - Vertical lines are added to all notes in the selected voices at the selected rhythmic position.
- 
2. In the Notations toolbox, click **Panels** , then **Lines**  to show the Lines panel.
  3. In the **Vertical** section, click the line you want.

---

#### RESULT

The vertical line specified is input to the left of the selected notes. Its length is adjusted automatically so that it spans the range of all notes in the selected voices/staves at that rhythmic position.

#### AFTER COMPLETING THIS TASK

- You can change the order of lines when multiple exist at the same rhythmic position and show vertical lines on the right of notes.
- You can lengthen/shorten vertical lines.
- You can add text to lines.

#### RELATED LINKS

[Notations toolbox](#) on page 192

[Lines](#) on page 1075

[Length of lines](#) on page 1082

[Lengthening/Shortening vertical lines](#) on page 1084

[Adding text to lines](#) on page 1088

[Showing vertical lines on the right/left of notes](#) on page 1079

[Changing the horizontal order of vertical lines](#) on page 1079

[Inputting arpeggio signs with the popover](#) on page 332



[Changing your mouse input settings](#) on page 203

## Inputting text items

You can input text at specific rhythmic positions in the score using text items. You can input staff-attached text for single staves or input system-attached text that applies to all staves and appears in all applicable layouts.

---

#### PROCEDURE

1. In Write mode, do one of the following:
  - Start note input.
  - Select an item on the staff and at the rhythmic position where you want to input text.
2. Open the text editor in any of the following ways:
  - To input staff-attached text, press **Shift-X** or click **Popovers** , then **Text**  in the Notations toolbox.
  - To input staff-attached text with a specific paragraph style, choose **Write > Create Text > [Paragraph style]**.
  - To input system-attached text, press **Shift-Alt/Opt-X**.
  - To input system-attached text with a specific paragraph style, choose **Write > Create System Text > [Paragraph style]**.
3. Enter the text you want.
  - To insert a music symbol, right-click in the text item and choose **Insert Music Text** from the context menu to open the **Insert Music Text** dialog. Select the music symbol you want to insert, then click **OK**.
  - To insert a line break, press **Return**.
4. Optional: Format the text using the text editor options.
5. Press **Esc** or **Ctrl/Cmd - Return** to close the text editor.

---

#### RESULT

During note input, the text you entered into the text editor is input at the caret position. When adding text to existing music, it is input at the position of the earliest selected item.

If you did not change or specify the paragraph style, the text item uses the **Default Text** paragraph style.

Text items are automatically placed above the staves to which they apply and follow the default settings for the vertical position of text.

#### NOTE

- In Dorico Elements, system-attached text is categorized as a system object. Therefore, system-attached text follows your per-layout settings for the visibility and positioning of system objects.
- You can assign key commands for inputting text with specific paragraph styles, for both **Create Text** and **Create System Text**, on the **Key Commands** page in **Preferences**.

#### RELATED LINKS

[Notations toolbox](#) on page 192

[Changing the staff-relative placement of items](#) on page 414

[Types of text](#) on page 1221

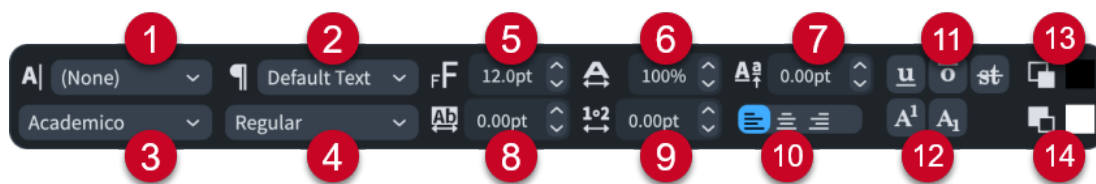
[Text items](#) on page 1220

[System objects](#) on page 1196

[Key Commands page in the Preferences dialog](#) on page 59

## Text editor options in Write mode

The text editor allows you to add and format text. In Write mode, it opens when you add or edit text items.



The text editor provides the following options:

### 1 Character Style

Allows you to change the appearance of selected text within paragraphs. This overrides the paragraph style applied to the corresponding paragraph.

### 2 Paragraph Style

Allows you to change the paragraph style applied to the whole text item. Depending on the paragraph style, this can change the appearance, formatting, and alignment of the text.

### 3 Font

Allows you to change the font family of selected text.

### 4 Font Style

Allows you to change the font style of selected text.

#### NOTE

- Depending on the font selected, some font styles might not be available.
- You can also change the font style using the following standard key commands:
  - **Ctrl/Cmd-B** for bold
  - **Ctrl/Cmd-I** for italic



## 5 Font Size

Allows you to change the size of selected text.

TIP

You can also change the font size using the following key commands:

- **Ctrl/Cmd-Shift-.** to increase the font size
- **Ctrl/Cmd-Shift-,** to decrease the font size

---

## 6 Font Stretch

Allows you to make selected text wider or narrower.

## 7 Baseline Shift

Allows you to shift the baseline of selected text gradually up or down.

## 8 Letter Spacing

Allows you to increase/decrease the space between the characters of selected text.

## 9 Word Spacing

Allows you to increase/decrease the space between the words of selected text.

## 10 Alignment

Allows you to choose one of the following alignments for the text item relative to its rhythmic position:

- **Align Left**
- **Align Center**
- **Align Right**

## 11 Line Types

Allows you to show any of the following types of lines, in any combination, on selected text:

- **Underline**
- **Overline**
- **Strikethrough**

TIP

You can also make selected text underlined by pressing **Ctrl/Cmd-U**.

---

## 12 Script Types

Allows you to position selected text in one of the following positions relative to the text on the baseline:

- **Superscript**
- **Subscript**

## 13 Foreground Color

Allows you to change the color of selected text.

## 14 Background Color

Allows you to change the background color of selected text.

### RELATED LINKS

[Types of text](#) on page 1221

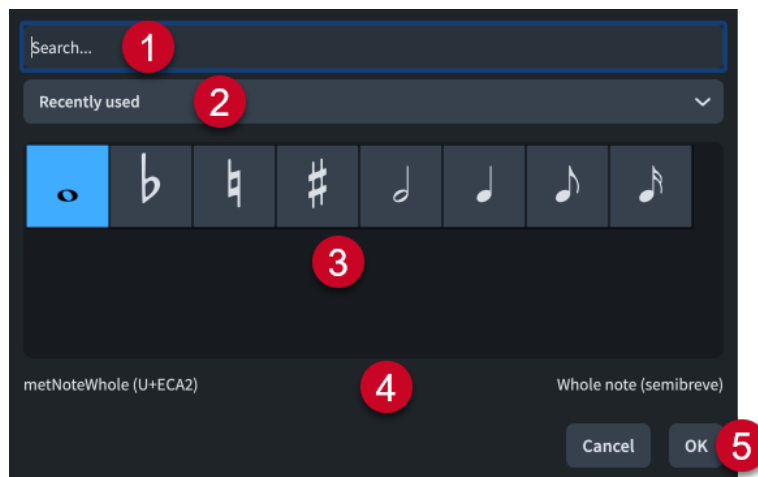
[Text items](#) on page 1220

[Missing Fonts dialog](#) on page 74

## Insert Music Text dialog

The **Insert Music Text** dialog allows you to add music symbols, such as accidentals and note symbols, to text items.

- You can open the **Insert Music Text** dialog when inputting or editing text in a text item by right-clicking and choosing **Insert Music Text** from the context menu.



The **Insert Music Text** dialog comprises the following:

**1 Search field**

Allows you to search for music symbols by their SMuFL name. When you start entering text, a menu appears that shows valid music symbols containing the letters/words you enter, which you can select.

**2 Range menu**

Allows you to select which SMuFL glyph range is available in the music symbol selector. By default, **Recently used** is selected, which contains common accidentals and note symbols in addition to music symbols you have used in recent projects.

**3 Music symbol selector**

Contains the available music symbols in the selected range or that match your entry.

**4 Name**

Displays the SMuFL name and description, where available, of the selected music symbol.

**5 OK**

Inserts the selected music symbol at the cursor position with the **Music Text** character style applied to them automatically.

You can also insert music symbols by pressing **Return**.

## Editing text in text items

You can edit the text shown in text items; for example, to replace individual words or to change their formatting.

---

### PROCEDURE

- Open the text editor for an existing text item in any of the following ways:
  - Select the text item and press **Return**.
  - Double-click the text item.
- Edit the text in the text item.

For example, you can format the text using the text editor options.



3. Press **Esc** or **Ctrl/Cmd - Return** to close the text editor.
- 

## Inputting lyrics

You can input lyrics by entering text into the lyrics popover, and you can advance the lyrics popover to the next note on the staff without closing and reopening it for every note.

---

### PROCEDURE

1. In Write mode, select the note on the staff from which you want to start inputting lyrics.
2. Open the lyrics popover in any of the following ways:
  - Press **Shift-L**.
  - In the Notations toolbox, click **Popovers**  then **Lyrics** .
3. Optional: Change the type of lyric in one of the following ways:
  - To change the lyric line number, press **Down Arrow**.
  - To input lyrics above the staff, press **Shift - Up Arrow**.
  - To input chorus lines, press **Up Arrow**.
  - To input lyric line translations, press **Alt/Opt - Down Arrow**.
4. Enter the word or syllable you want to add to the selected note into the popover.
  - To enter multiple words on a single note, press **Shift-Alt/Opt-Space**.
  - To include a hyphen within a single word or syllable, press **Alt/Opt--** (hyphen).
  - To include an elision in a lyric, press **\_** (underscore).
5. Advance the popover to the next note in one of the following ways:
  - If you entered a complete word, or the final syllable in a multi-syllabic word, press **Space**.
  - If you entered one syllable of a multi-syllabic word that is not the final syllable, press **-** (hyphen).
  - If you do not want the syllable to be followed by an extension line or hyphen, press **Right Arrow**.

### TIP

For lyrics sung over multiple notes, you can press these key commands multiple times until the lyrics popover reaches the note where you want to input the next lyric.

---

6. Continue entering words and syllables into the popover for the rest of the notes to which you want to add lyrics.
  7. Press **Return** or **Esc** to close the popover.  
The popover closes automatically when you reach the last note on the staff.
- 

### RESULT

The text you entered into the popover is input as lyrics of the type indicated by the icon on the left-hand side of the popover.

When you advance the popover to the next note by pressing **-**, a hyphen appears after the last entered lyric. This is used for multi-syllabic words across multiple notes.

When you advance the popover by pressing **Space**, a gap appears after the last entered lyric. This is used for single-syllable words or for the final syllable in multi-syllabic words.

#### TIP

- You can later change whether a gap or a hyphen appears between lyrics by changing their syllable type.
- You can also input lyrics by copying and pasting them; for example, from an external text editor.

#### RELATED LINKS

[Notations toolbox](#) on page 192

[Copying and pasting lyrics](#) on page 922

[Lyrics](#) on page 919

[Navigation during lyric input](#) on page 376

[Types of lyrics](#) on page 919

[Types of syllables in lyrics](#) on page 921

[Lyric line numbers](#) on page 935

[Lyric hyphens and lyric extender lines](#) on page 934



[Elision slurs](#) on page 938

[Lyric text editing](#) on page 930

## Lyrics popover

You can input lyrics, including chorus lines and lyric line translations, using the lyrics popover. You can use key commands to change the type of lyric being input at any time.

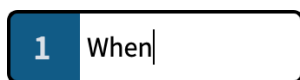
You can open the lyrics popover in Write mode in any of the following ways when either an item is selected or the caret is active:

- Press **Shift-L**.
- In the Notations toolbox, click **Popovers** , then **Lyrics** .
- Select an existing lyric and press **Return**.
- Choose **Write > Create Lyrics**.

### Lyric lines

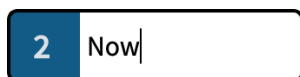
The popover automatically opens ready to input lyrics into Line 1, except if you are changing an existing lyric.

The number shown on the left-hand side of the lyrics popover indicates the lyric line into which the lyric is input.



The lyrics popover with an example entry for Line 1

You can change the lyric line number by pressing **Up Arrow** and **Down Arrow** when the lyrics popover is open.



The lyrics popover with an example entry for Line 2

### Lyric lines above the staff

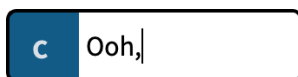
You can input lyrics into lines above the staff by pressing **Shift - Up Arrow** when the lyrics popover is open.

You can then press **Up Arrow** and **Down Arrow** to change the lyric line number above the staff.

### Chorus lines

You can input chorus lines by pressing **Up Arrow** when the lyrics popover is open. You can do this when inputting lyrics below the staff and above the staff.

A **c**, for “chorus lines”, is shown on the left-hand side of the popover.

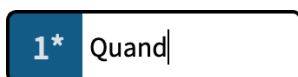


The lyrics popover with an example entry for a chorus line

### Lyric line translations

You can input lyric line translations by pressing **Alt/Opt - Down Arrow** when the lyrics popover is open.

An asterisk (\*) is shown beside the lyric line number for which you are inputting a lyric line translation on the left-hand side of the popover.



The lyrics popover with an example entry for a lyric line translation

## Navigation during lyric input

You can move the lyrics popover to input new lyrics and edit existing lyrics without having to close and reopen the lyrics popover.

---



Popover navigation	Key command
Finish the current word and advance the popover to the next note or chord.	<b>Space</b>
Finish the current syllable and advance the popover to the next note or chord.	<b>-</b> (hyphen)
Advance the popover to the next note without showing an extension line or hyphen.	<b>Right Arrow</b>
Move the cursor to the next/previous letter. If the next/previous letter is in another lyric, the popover advances to that lyric.	<b>Right Arrow / Left Arrow</b>
Move the popover forwards/backwards from syllable to syllable within lines of lyrics.	<b>Alt/Opt-Right Arrow / Alt/Opt-Left Arrow</b>
Add spaces within a word or syllable without advancing the popover.	<b>Shift-Alt/Opt-Space</b>
Add a hyphen within a single word or syllable without advancing the popover.	<b>Alt/Opt--</b> (hyphen)
Add an elision slur within a word or syllable.	<b>_</b> (underscore)

---

## Inputting figured bass

You can input figured bass using the figured bass popover, both for all instruments or only for individual instruments. You can also open the figured bass popover during note input; however, inputting a figure stops note input.

### PROCEDURE

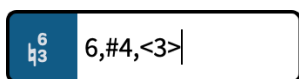
1. In Write mode, select an item on the staff and at the rhythmic position where you want to start inputting figured bass.
2. Open the figured bass popover in any of the following ways:
  - Press **Shift-G**.
  - In the Notations toolbox, click **Popovers**  then **Figured Bass** .

### NOTE

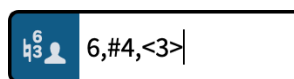
If you selected an item on a staff that has local figures at earlier rhythmic positions, the figured bass popover is automatically set to input local figures when it opens.

3. Optional: Change the type of figure you want to enter in one of the following ways:
  - To input local figures, press **Alt/Opt-L**.
  - To input global figures, press **Alt/Opt-G**.

The popover icon updates to show the current type.



Figured bass popover when inputting a global figure



Figured bass popover when inputting a local figure

4. Enter the figure you want into the figured bass popover.

For example, enter **4->3d=4r=2** for a 4-3 suspension that lasts a whole note, with the resolution to the third after a half note. For bracketed figures, include parentheses around the required figures or accidentals, such as **(#)64(3)**.

If you want Dorico Elements to follow your entry exactly, include **O**, **o**, or **!** at the start of your entry. For example, to force Dorico Elements to show 5,3 figures.
5. Optional: Press **Space** to advance the popover to the next beat according to the prevailing time signature.

### TIP

You can also navigate the popover forwards and backwards by different amounts.

6. Optional: To input an individual local figure when the popover is set to global, and vice versa, press **Alt/Opt-Return** to input the figure.
7. Press **Return** to close the popover.

### RESULT

The figured bass specified is input. If you selected an item belonging to an instrument that was not already set to show figured bass in the current layout, its player is automatically updated to show them. If Dorico Elements cannot identify the bass note at the position of a figure, such as if you input a figure on a rest, it appears as a signpost.

Dorico Elements calculates and saves the pitches implied by the figures you enter in relation to the lowest note at that rhythmic position. This semantic understanding of the harmony implied by figures allows Dorico Elements to update the displayed figures on different staves and if you transpose or change the pitch of notes.

Global figures apply to all instruments in the project and appear on all staves whose players are set to show figured bass. Local figures only apply to the selected instrument, and by default refer to its lowest staff. Local figures always appear, even if global figures exist at the same rhythmic positions.

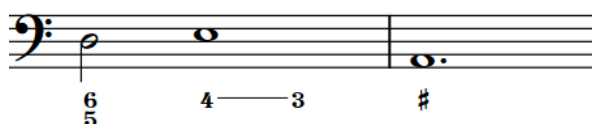
#### NOTE

- Unless you included an entry for **Follow input literally** at the start of your popover entry, the appearance of the resulting figure is determined by the default settings in Dorico Elements
- You can move figures graphically in Engrave mode, including changing the graphical length of hold lines.

---

#### EXAMPLE

Entering **4->3d=4r=2** into the figured bass popover produces a 4-3 suspension that lasts a whole note, with the resolution to the third after a half note.



---

#### AFTER COMPLETING THIS TASK

- You can hide/show figured bass above specific players in each layout independently.
- You can simplify compound figures; that is, figures 9 and above.
- You can show figures on individual rests.

#### RELATED LINKS



- [Figured bass on page 858](#)
- [Figured bass hold lines on page 861](#)
- [Navigation during figured bass input on page 381](#)
- [Hiding/Showing figured bass in layouts on page 859](#)
- [Hiding/Showing figured bass hold/suspension lines on page 862](#)
- [Lengthening/Shortening figured bass hold lines on page 863](#)
- [Moving figured bass resolutions on page 867](#)
- [Showing single brackets on figured bass on page 861](#)
- [Showing brackets on figured bass hold lines on page 864](#)
- [Simplifying figured bass compound intervals on page 869](#)
- [Showing figured bass on rests on page 860](#)
- [Fixing the current appearance of figured bass on page 869](#)

## Figured bass popover

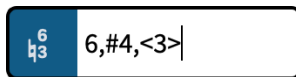
The following tables contain examples of what you can enter into the figured bass popover to input the different possible figured bass figures, including alterations and suspensions.

You can open the figured bass popover in Write mode in any of the following ways when either a note is selected or the caret is active:

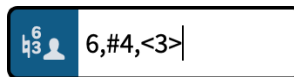
- Press **Shift-G**.

- In the Notations toolbox, click **Popovers**  then **Figured Bass** .
- Choose **Write > Create Figured Bass**.

When inputting global figured bass, the icon on the left-hand side of the popover matches the corresponding button in the Notations toolbox. When inputting local figured bass, the icon on the left-hand side of the popover appears smaller and includes the icon for a single player.



Figured bass popover with an example entry for a global figure



Figured bass popover with an example entry for a local figure



Figured Bass button in the Notations toolbox

## Figures and suspensions

Type of figure	Example popover entry
Figures (1-19)	1, 2, 3, and so on, up to 19
Bracketed figures or accidentals	(#643), #64(3), (#)643, and so on
Figures determined by chord symbols Dorico Elements automatically converts chord symbols, as you would enter into the chord symbols popover, into correct figured bass.	Em7, Amaj7, or G/B, and so on
<i>tasto solo</i>	ts or <b>tasto</b>
Hold duration	d=2 (number of quarter notes) or d=1/2n (fraction of bass note duration)
Multiple figures	6#42 or 6,#4,2
<b>TIP</b>	
You can separate figures with commas to remove ambiguity.	
Hide figures	<3> or {3}
Suspensions	4->3, 4_3, or 4~3
Suspension duration; that is, the duration between suspension and resolution figures	r=2 (number of quarter notes) or r=1/2n (fraction of bass note duration)
Hold and suspension durations both specified	4->3d=4r=2 or 4->3d=1nr=1/2n
For example, a 4-3 suspension that lasts a whole note, with the resolution to the third after a half note.	



---

Type of figure	Example popover entry
----------------	-----------------------

<b>Follow Engraving Options</b> for this figure only	<b>R, r, V, v, or ?</b>
--	-------------------------

NOTE

Must be at the start of the popover entry.

---

<b>Follow input literally</b> for this figure only	<b>O, o, or !</b>
--	-------------------

NOTE

Must be at the start of the popover entry.

---

This list is not comprehensive. It is intended to illustrate how you can structure your entry to input different figures.

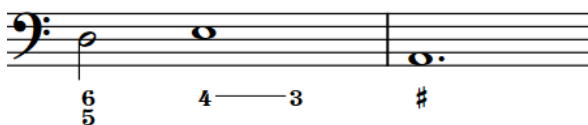
NOTE

Unless you include an entry for **Follow input literally** at the start of your popover entry, the appearance of resulting figures is determined by Dorico Elements's default settings.

---

EXAMPLE

Entering **4->3d=4r=2** into the figured bass popover produces a 4-3 suspension that lasts a whole note, with the resolution to the third after a half note.



---

## Accidentals and alterations

---

Type of accidental/alteration	Popover entry
-------------------------------	---------------

Sharp	# or s
-------	--------

TIP

For raised thirds, you can enter just without the number.

---

Flat	b or f
------	--------

Natural	N or n
---------	--------

Double sharp	x, ##, or ds
--------------	--------------

Triple sharp	x#, #x, ###, or ts
--------------	--------------------

Type of accidental/alteration	Popover entry
Double flat	<b>bb</b> or <b>db</b>
Triple flat	<b>bbb</b> or <b>tb</b>
Raise figure by a half-step (semitone)	<b>+</b>
Lower figure by a half-step (semitone)	<b>-</b>
Diminished figure	<b>d</b>
Unaltered figure	<b>u</b>

---

#### RELATED LINKS

[Notations toolbox](#) on page 192

[Figured bass](#) on page 858

[Figured bass hold lines](#) on page 861

[Hiding/Showing figured bass hold/suspension lines](#) on page 862

[Lengthening/Shortening figured bass hold lines](#) on page 863

[Showing brackets on figured bass hold lines](#) on page 864

[Showing single brackets on figured bass](#) on page 861

[Chord symbols popover](#) on page 305

## Navigation during figured bass input

You can move the figured bass popover manually by different amounts to input figured bass figures at other positions without closing and reopening the popover each time.

---

Popover navigation	Key command
Advance the popover to the next beat, according to the prevailing time signature.	<b>Space</b>
Move the popover back to the previous beat, according to the prevailing time signature.	<b>Shift-Space</b>
Advance the popover to the start of the next bar.	<b>Tab</b>
Move the popover back to the start of the previous bar.	<b>Shift-Tab</b>
Move the cursor and popover to one of the following positions, whichever is closest:	<b>Right Arrow / Left Arrow</b>
<ul style="list-style-type: none"><li>• Next/Previous note or rest</li><li>• Next/Previous rhythmic grid position</li><li>• Next/Previous character in existing figure's entry</li></ul>	

---

**Popover navigation****Key command**

Move the popover to the next/previous figure. **Ctrl/Cmd-Right Arrow / Ctrl/Cmd-Left Arrow**

---

## RELATED LINKS

[Key Commands page in the Preferences dialog](#) on page 59

## Inputting rehearsal marks

You can input rehearsal marks with the mouse and the keyboard. You can input rehearsal marks during note input and later by adding them to existing music.

---

PROCEDURE

1. In Write mode, do one of the following:

- Start note input.
- Select an item at the rhythmic position where you want to input a rehearsal mark. For example, a barline or a note.

**NOTE**

You can only input one rehearsal mark at a time, even if multiple items are selected.

---

2. Input a rehearsal mark in any of the following ways:

- Press **Shift-A**.
  - In the Notations toolbox, click **Popovers**  then **Rehearsal Marks** .
- 

## RESULT

A rehearsal mark is input at the selected barline, or at the rhythmic position of other selected items.

The order of rehearsal marks is updated automatically, meaning you can input them in any order, including before and between existing rehearsal marks.

## AFTER COMPLETING THIS TASK

If you want to change the letter/number displayed in the rehearsal mark, you can change its index and/or sequence type.

## RELATED LINKS

[Notations toolbox](#) on page 192

[Rehearsal marks](#) on page 1095

[Changing the index of rehearsal marks](#) on page 1096

[Changing the rehearsal mark sequence type](#) on page 1097

[Adding prefixes/suffixes to rehearsal marks](#) on page 1098

[Going to rehearsal marks](#) on page 419

[Mouse input settings](#) on page 202

## Inputting markers/timcodes

You can input markers at specific positions in time. In Dorico Elements, timcodes are automatically shown alongside markers.

---

### PROCEDURE

1. In Write mode, move the playhead to the time position where you want to input a marker.
2. Press **Shift-Alt/Opt-M** to open the **Add Marker** dialog.
3. Enter the marker text you want into the **Text** field.
4. Optional: Change the timecode in the **Timecode** field.
5. Click **OK** to input the marker and close the dialog.

---

### RESULT

A marker is input at the timecode position set in the **Add Marker** dialog, which by default is the position of the playhead. It shows the text you entered, or the default text “Marker” if you did not change the marker text, and a timecode reflecting its position.

### TIP

You can also input markers by clicking **Add Marker**  in the **Markers** section of the Video panel, or by using the Markers track in Play mode.


---

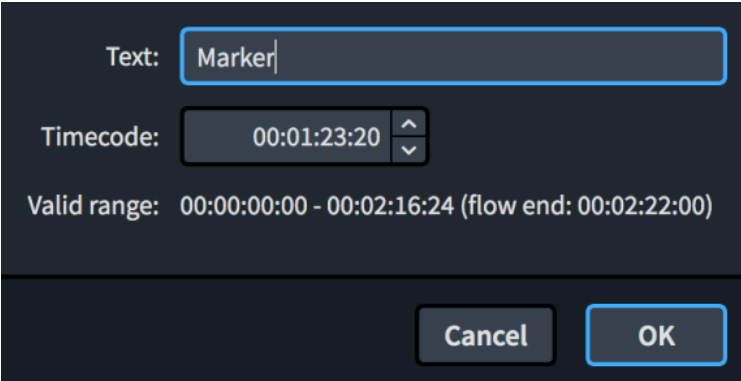
### RELATED LINKS

- [Markers](#) on page 1099
- [Timecodes](#) on page 1103
- [Moving the playhead](#) on page 502
- [Editing marker text](#) on page 1101
- [Changing the timecodes of markers](#) on page 1102
- [Video panel](#) on page 384
- [Markers track](#) on page 497

## Add Marker dialog

The **Add Marker** dialog allows you to input markers with custom text at specific timecodes.

- The **Add Marker** dialog opens automatically when you input markers in Write mode, either by pressing **Shift-Alt/Opt-M** or by clicking **Add Marker**  in the **Markers** section of the Video panel.



The screenshot shows the 'Add Marker' dialog box with the following fields and controls:

- Text:** A text input field containing the word "Marker".
- Timecode:** A timecode input field showing "00:01:23:20" with up and down arrow buttons for navigation.
- Valid range:** A label indicating the time range "00:00:00:00 - 00:02:16:24 (flow end: 00:02:22:00)".
- Buttons:** "Cancel" and "OK" buttons at the bottom right.

The **Add Marker** dialog contains the following options:

### Text

Allows you to enter custom text that is shown in the marker.

### Timecode



Allows you to specify the timecode at which you want to input the marker. For example, if you already know the timecodes for each marker, you can enter them directly rather than positioning the playhead at the position of each marker.

### Valid range

Displays the timecode range of the flow.

## Video panel

The Video panel in Write mode allows you to access the **Video Properties** dialog, and to input and edit markers and timecodes. You can also define markers as important and calculate suitable tempos for them. It is located in the right zone in Write mode.

- You can hide/show the Video panel by clicking **Panels** , then **Video**  in the Notations toolbox.

You can also hide/show the right zone by pressing **Ctrl/Cmd-9**.

In the **Video** section of the Video panel, you can click **Properties** to open the **Video Properties** dialog.

The **Markers** section of the Video panel contains a table of markers, divided into the following columns:

### Timecode

Shows the timecode of the marker. You can edit the timecode by double-clicking in the field.

### Text



Shows the text of the marker. You can edit the text by double-clicking in the field.

### Imp.

Stands for "important". Allows you to define markers as important by activating their checkbox in this column.

When markers are defined as important, their entry uses a bold font in the table and they are considered when finding a suitable tempo in the **Find Tempo** dialog.

The action bar at the bottom of the table contains the following options:

- **Add Marker** : Adds a marker at the playhead position.
- **Delete Marker** : Deletes the selected marker.

### NOTE

You can only delete one marker at a time.

---

### RELATED LINKS

[Notations toolbox](#) on page 192

[Video Properties dialog](#) on page 181

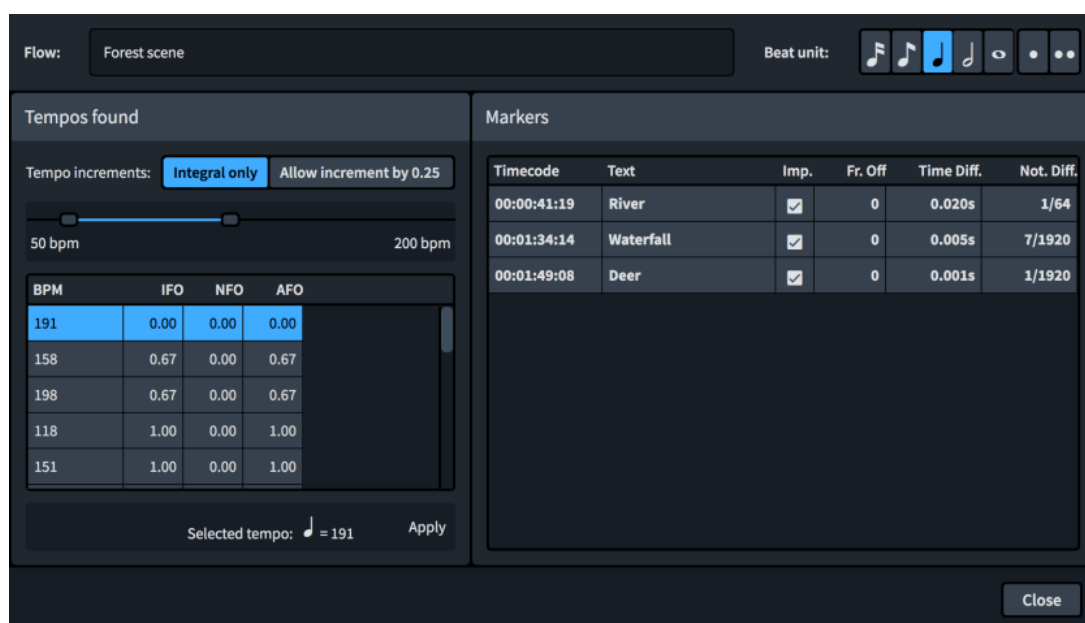
## Find Tempo dialog

The **Find Tempo** dialog allows you to calculate tempos that best accommodate your important markers; for example, by identifying which tempos cause markers to coincide as closely as possible with strong beats.

- You can open the **Find Tempo** dialog in Write mode by clicking **Find Tempo** in the **Markers** section of the Video panel.

### NOTE

- The **Find Tempo** dialog only considers markers in a single flow. You can change which flow by selecting an item in the corresponding flow and then opening the dialog.
- The **Find Tempo** dialog is only available if you have input at least one marker in the flow and defined at least one marker as important.



The **Find Tempo** dialog contains the following options and sections:

### Flow

Shows the name of the flow whose tempo you are determining. This field is read-only.

### Beat unit

Allows you to change the beat unit considered for the tempo. For example, if the time signature for the flow is 6/8, you might want to change the beat unit to a dotted quarter note.

### Tempo range

Allows you to set the minimum/maximum tempos you want to consider.

### Tempo increments

Allows you to filter the suggested tempos according to their precision.

- **Integral only:** Only whole number tempos, that is, tempos without decimal places, are suggested.
- **Allow increment by 0.25:** Allows tempos with decimal places of .25, .5, and .75 to be suggested.

### Tempos found

Contains a list of possible tempos that you can select to see how they affect the position of your markers relative to beats. The list is updated automatically when you change options such as **Tempo range** and **Beat unit**.

The list contains columns for the following information:

- **BPM**: Stands for “beats per minute”. Lists different possible tempos according to their metronome mark value.
- **IFO**: Stands for “important frames off”. Indicates the average number of frames by which important markers miss significant beats, either before or after.
- **NFO**: Stands for “non-important frames off”. Indicates the average number of frames by which non-important markers miss significant beats, either before or after.
- **AFO**: Stands for “all frames off”. Indicates the average number of frames by which all markers in the flow miss significant beats, either before or after.

Found tempos are listed in descending order of average frames off for important markers.

### Markers

Shows the impact that the tempo currently selected in the **Tempos found** list would have on each marker in the flow in more detail.

- **Timecode**: Shows the exact timecode of each marker.
- **Text**: Shows the marker text of each marker to help you identify them.
- **Imp.**: Indicates whether a marker has been defined as important.
- **Fr. Off**: Stands for “frames off”. Shows the average number of frames by which each marker misses being aligned to beats.
- **Time Diff.**: Stands for “time difference”. Shows the time difference between the position of the marker and the position of the nearest beat, expressed in fractions of a second.
- **Not. Diff.**: Stands for “notated difference”. Shows the notated difference between the position of the marker and the position of the nearest beat, expressed in fractions of a whole note.

### Selected tempo

Displays the currently selected tempo for the flow.

### Apply

Applies the selected tempo to the flow by inputting it as a tempo mark at the beginning of the flow. Any other tempo marks in the flow are automatically deleted.

#### RELATED LINKS

[Defining markers as important](#) on page 1102

[Metronome marks](#) on page 1211

## Input methods for repeats and tremolos

You can input repeats and tremolos, including repeat endings, repeat markers, and rhythm slashes, with the keyboard by using the repeats popover, and with the mouse by using the Repeat Structures panel.

Tremolos are included in the Repeat Structures panel because they indicate that notes are repeated, either individually as single-note tremolos or in sequences as multi-note tremolos.

**TIP**

To indicate repeats using repeat barlines, you can input repeat barlines using the available input methods for barlines.

---

RELATED LINKS

[Input methods for bars, beats, and barlines](#) on page 287

[Barlines](#) on page 734

[Types of barlines](#) on page 735

[Repeat endings](#) on page 1107

[Repeat markers](#) on page 1113

[Tremolos](#) on page 1264

[Rhythm slashes](#) on page 1132

[Bar repeats](#) on page 1120



[Numbered bar regions](#) on page 1127

[Repeats in playback](#) on page 509

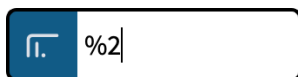
## Repeats popover

The following tables contain the entries for the repeats popover that you can use to input the different tremolos, repeat markers, repeat endings, and bar repeat, slash, and numbered bar regions available.

You can open the repeats popover in Write mode in any of the following ways when either an item is selected or the caret is active:

- Press **Shift-R**.
- In the Notations toolbox, click **Popovers** , then **Repeats** .
- Select an existing repeat marker, slash region, or bar repeat and press **Return**.
- Choose **Write > Create Repeat**.

The icon on the left-hand side of the popover matches the corresponding button in the Notations toolbox on the right of the window.



Repeats popover with an example entry



**Repeat Structures** button in the Notations toolbox

## Repeat endings

---

Part of repeat ending	Popover entry
Whole repeat ending	<b>end</b> or <b>ending</b>
Additional repeat ending segment	<b>add</b>

---



## Repeat markers

---

Type of repeat marker	Popover entry
D.C.	<b>dc, D.C., da capo</b> , and so on
D.C. al Fine	<b>dcalf, DC al Fine, D.C. al Fine</b> , and so on
D.C. al Coda	<b>dcalc, DC al Coda, D.C. al Coda</b> , and so on
D.S.	<b>ds, D.S., dal segno</b> , and so on
D.S. al Fine	<b>dsalf, DS al Fine, D.S. al Fine</b> , and so on
D.S. al Coda	<b>dsalc, DS al Coda, D.S. al Coda</b> , and so on
to Coda	<b>toc, tc, to coda, To Coda</b> , and so on
Segno	<b>s, seg, segno</b> , and so on
Fine	<b>f, fin, fine</b> , and so on
Coda	<b>c, co, coda</b> , and so on

---

The list of entries for repeat markers is not comprehensive, as the flexibility of the popover means you can enter any reasonable version or abbreviation of the type of repeat marker you want, and the popover recognizes it in most cases.

## Single-note tremolos

---

Type of tremolo	Popover entry
One stroke	<b>/, \, or 1</b>
Two strokes	<b>//, \\, or 2</b>
Three strokes	<b>///, \\\\, or 3</b>
Four strokes	<b>////, \\\\, or 4</b>
Z on stem (buzz roll)	<b>z or zonestem</b>
Tremolo with release; for example, two-strokes with release	<b>rel</b> ; for example, <b>///rel</b> or <b>2rel</b>
Tremolo with attack; for example, two-strokes with attack	<b>att</b> ; for example, <b>//att</b> or <b>2att</b>
Remove all tremolos	<b>0</b> or <b>clear</b>

---

## Multi-note tremolos

---

Type of tremolo	Popover entry
One stroke	/2, \2, or 12
Two strokes	//2, \\2, or 22
Three strokes	///2, \\2, or 32
Four strokes	////2, \\2, or 42
Remove all tremolos	0 or clear

---

## Slash regions

---

Slash region	Popover entry
New slash region	slash

---

## Numbered bar regions

---

Numbered bar region	Popover entry
New numbered bar region	nb, num, numbars, or number bars

---

## Bar repeats

---

Type of bar repeat	Popover entry
Repeat last bar	% or %1
Repeat last 2 bars	%2
Repeat last 4 bars	%4
Repeat last bar, group in 2	%1,2
Repeat last bar, group in 4	%1,4
Repeat last 2 bars, group in 4	%2,4

---

### RELATED LINKS

[Notations toolbox](#) on page 192

[Inputting repeat endings with the popover](#) on page 391



[Inputting repeat markers with the popover](#) on page 394

[Inputting tremolos with the popover](#) on page 395  
[Inputting slash regions](#) on page 398  
[Inputting bar repeats](#) on page 399  
[Inputting numbered bar regions](#) on page 400  
[Bars and barlines popover](#) on page 288  
[Repeat endings](#) on page 1107  
[Repeat markers](#) on page 1113  
[Tremolos](#) on page 1264  
[Rhythm slashes](#) on page 1132  
[Bar repeats](#) on page 1120  
[Numbered bar regions](#) on page 1127

## Repeat Structures panel

The Repeat Structures panel contains the different types of repeat notations available in Dorico Elements, including repeat endings, tremolos, and bar repeats. It is located in the right zone in Write mode.

Tremolos are included in the Repeat Structures panel because they indicate that notes are repeated, either individually as single-note tremolos or in sequences as multi-note tremolos.

- You can hide/show the Repeat Structures panel by clicking **Panels** , then **Repeat Structures**  in the Notations toolbox.

You can also hide/show the right zone by pressing **Ctrl/Cmd-9**.

The Repeat Structures panel contains the following sections:

### Repeat Endings

Contains options that allow you to input new repeat endings and add additional endings to existing repeat endings.

### Repeat Jumps

Contains different types of repeat markers that instruct players to jump to a specific point in the piece, such as “D.S. al Coda”.

### Repeat Sections

Contains different sections used in conjunction with repeat jumps, such as “Coda”.

### Tremolos

Contains different types of single-note and multi-note tremolos.

### Rhythm Slashes

Allows you to input a region that displays rhythm slashes that are automatically formatted to be compatible with the prevailing time signature.

### Bar Repeats

Allows you to input a region that indicates that the preceding bar is repeated without re-notating the bar.

#### TIP

You can input bar repeat regions with different bar groupings when using the repeats popover.

---

### Numbered Bars

Allows you to input a region that displays bar counts without additional notations.

RELATED LINKS

[Notations toolbox](#) on page 192

[Repeats popover](#) on page 387

## Inputting repeat endings with the popover

You can input repeat endings using the repeats popover, both during note input and by adding them to existing music.

---

PROCEDURE

1. In Write mode, do one of the following:

- Start note input.

TIP

During note input, you can select additional notes before/after the last input note without deactivating the caret by pressing **Shift-Right Arrow** / **Shift-Left Arrow**.

---

- Select at least one item in each bar that you want to include in the first ending.

2. Open the repeats popover in any of the following ways:

- Press **Shift-R**.
- In the Notations toolbox, click **Popovers**  then **Repeats** .

3. Enter **end** or **ending** into the popover.

4. Press **Return** to close the popover.

---

RESULT

The repeat ending is input, with the first ending segment covering the bars in which you selected items, and a second ending segment created automatically in the following bar.

An end repeat barline is created at the end of the first ending if none exists already.

RELATED LINKS

[Repeats popover](#) on page 387

[Repeat endings](#) on page 1107

## Adding additional repeat endings with the popover

You can have more than two possible endings in each repeat ending structure by adding additional segments using the repeats popover. You can add repeat ending segments both during note input and by adding them to existing music.

---

PROCEDURE

1. In Write mode, do one of the following:

- Start note input.

TIP

During note input, you can select additional notes before/after the last input note without deactivating the caret by pressing **Shift-Right Arrow** / **Shift-Left Arrow**.



---

- Select the bars that you want to include in the additional ending.

**NOTE**

Your selection must start from the first bar following the previous repeat ending segment.

---

2. Open the repeats popover in any of the following ways:
    - Press **Shift-R**.
    - In the Notations toolbox, click **Popovers** , then **Repeats** .
  3. Enter **add** into the popover.
  4. Press **Return** to close the popover.
  5. Optional: Repeat these steps as many times as required for the number of additional endings you want.
- 

**RESULT**

A new repeat ending segment is added. The existing previous repeat ending segment now ends with a closed line, with an end repeat barline created if necessary.

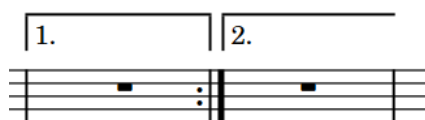
**TIP**

You can also add additional repeat ending segments by selecting the repeat ending and changing the value for **No. endings** in the **Repeat Endings** group of the Properties panel.

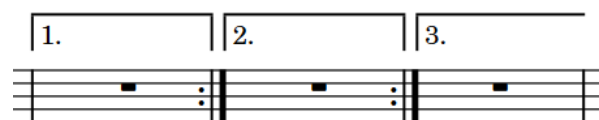
However, **No. endings** only adds additional repeat ending segments that contain one bar, and does not automatically input or reposition repeat barlines. You must input repeat barlines as appropriate manually.

---

**EXAMPLE**



Default repeat ending structure with two endings



Repeat ending structure with additional third ending

---

## Inputting repeat endings with the panel

You can input repeat endings using the Repeat Structures panel, both during note input and by adding them to existing music.

---

**PROCEDURE**




1. In Write mode, do one of the following:
  - Start note input.

**TIP**

During note input, you can select additional notes before/after the last input note without deactivating the caret by pressing **Shift-Right Arrow** / **Shift-Left Arrow**.

---

- Select at least one item in each bar that you want to include in the first ending.

2. In the Notations toolbox, click **Panels** , then **Repeat Structures**  to show the Repeat Structures panel.
  3. In the **Repeat Endings** section, click **Create Repeat Ending** .
- 

#### RESULT

The repeat ending is input, with the first ending segment covering the bars in which you selected items, and a second ending segment created automatically in the following bar.

An end repeat barline is created at the end of the first ending if none exists already.

#### RELATED LINKS

[Repeat Structures panel](#) on page 390

## Adding additional repeat endings with the panel

You can have more than two possible endings in each repeat ending structure by adding additional segments using the Repeat Structures panel. You can add repeat ending segments both during note input and by adding them to existing music.

---

#### PROCEDURE

1. In Write mode, do one of the following:
  - Start note input.

#### TIP

During note input, you can select additional notes before/after the last input note without deactivating the caret by pressing **Shift-Right Arrow** / **Shift-Left Arrow**.




---

- Select the bars that you want to include in the additional ending.

#### NOTE

Your selection must start from the first bar following the previous repeat ending segment.

---

2. In the Notations toolbox, click **Panels** , then **Repeat Structures**  to show the Repeat Structures panel.
3. In the **Repeat Endings** section, click **Add Section To Repeat Ending** .

#### NOTE

If increasing the number of endings makes the repeat ending collide with any part of another repeat ending, the other repeat ending is deleted. However, its repeat barlines are not deleted.

---

4. Optional: Repeat these steps as many times as required for the number of additional endings you want.
- 

#### RESULT

A new repeat ending segment is added. The existing previous repeat ending segment now ends with a closed line, with an end repeat barline created if necessary.

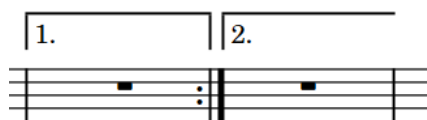
**TIP**

You can also add additional repeat ending segments by selecting the repeat ending and changing the value for **No. endings** in the **Repeat Endings** group of the Properties panel.

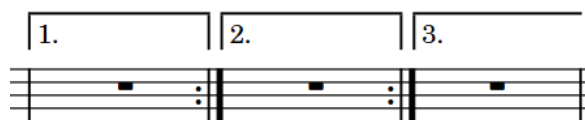
However, **No. endings** only adds additional repeat ending segments that contain one bar, and does not automatically input or reposition repeat barlines. You must input repeat barlines as appropriate manually.

---

**EXAMPLE**



Default repeat ending structure with two endings



Repeat ending structure with additional third ending

---

## Inputting repeat markers with the popover

You can input repeat markers, including repeat jumps and repeat sections, using the repeats popover, both during note input and by adding them to existing music.

---

**PROCEDURE**

1. In Write mode, do one of the following:

- Start note input.

**TIP**

During note input, you can select additional notes before/after the last input note without deactivating the caret by pressing **Shift-Right Arrow** / **Shift-Left Arrow**.

---

- Select an item at the rhythmic position where you want to input a repeat marker.  
For repeat jumps, we recommend that you select the barline with which you want the end of the jump instruction to align. For repeat sections, we recommend that you select the barline with which you want the start of the section marker to align.

2. Open the repeats popover in any of the following ways:

- Press **Shift-R**.
- In the Notations toolbox, click **Popovers**  then **Repeats** .

3. Enter the appropriate entry for the type of repeat marker you want into the popover.

For example, enter **coda** to input a coda section or enter **\$** to input a segno.

4. Press **Return** to close the popover.

---

**RESULT**

During note input, repeat markers are input at the caret position. Coda sections are automatically formatted so that there is a gap between the coda and the preceding material. When adding repeat markers to existing music, they are input at the rhythmic position of the earliest selected item.

Repeat markers that indicate the end of a section, such as *Fine* and *D.C. al Coda*, are right-aligned with the selected rhythmic position.

#### RELATED LINKS

[Repeats popover](#) on page 387

[Repeat markers](#) on page 1113

[Repeats in playback](#) on page 509

[Hiding/Showing repeat markers](#) on page 1116

## Inputting repeat markers with the panel

You can input repeat markers using the Repeat Structures panel, both during note input and by adding them to existing music.

---

#### PROCEDURE



1. In Write mode, do one of the following:

- Start note input.

#### TIP

During note input, you can select additional notes before/after the last input note without deactivating the caret by pressing **Shift-Right Arrow / Shift-Left Arrow**.

---

- Select an item at the rhythmic position where you want to input a repeat marker.  
For repeat jumps, we recommend that you select the barline with which you want the end of the jump instruction to align. For repeat sections, we recommend that you select the barline with which you want the start of the section marker to align.
2. In the Notations toolbox, click **Panels** , then **Repeat Structures**  to show the Repeat Structures panel.
3. Click the repeat marker you want to input in any of the following sections:
- **Repeat Jumps**
  - **Repeat Sections**
- 

#### RESULT

During note input, repeat markers are input at the caret position. Coda sections are automatically formatted so that there is a gap between the coda and the preceding material.

When adding repeat markers to existing music, they are input at the rhythmic position of the earliest selected item.

Repeat markers that indicate the end of a section, such as *Fine* and *D.C. al Coda*, are right-aligned with the selected rhythmic position.

## Inputting tremolos with the popover

You can input both single-note and multi-note tremolos using the repeats popover, both during note input and by adding them to existing notes.

---

#### PROCEDURE

1. In Write mode, do one of the following:

- Start note input.





TIP

During note input, you can select additional notes before/after the last input note without deactivating the caret by pressing **Shift-Right Arrow** / **Shift-Left Arrow**.

- Select the notes to which you want to add tremolos.

NOTE

If you want to input multi-note tremolos, you must select at least two notes that are in the same voice, have the same duration, and are notated using a single notehead. The notes can also be tuplets and cross-staff notes.

2. Open the repeats popover in any of the following ways:
  - Press **Shift-R**.
  - In the Notations toolbox, click **Popovers**  then **Repeats** .
3. Enter the appropriate entry for the type of tremolo you want into the popover.  
For example, enter:
  - **//** for single-note tremolos with two strokes.
  - **///2** for multi-note tremolos with three strokes.
  - **//rel** for two-stroke single-note tremolos with release.
4. Press **Return** to close the popover.

---

RESULT

Single-note tremolos are input on the selected notes with the number of tremolo strokes specified. They appear on all notes in tie chains.

Tremolos with release show single-note tremolo strokes on all notes in tie chains apart from the last note. Tremolos with attack show single-note tremolo strokes on all notes in tie chains apart from the first note.

Multi-note tremolos with the number of tremolo strokes specified are input between selected individual notes and the notes immediately after them, or between selected pairs of notes. The notated duration of notes in multi-note tremolos is automatically updated. For example, two quarter notes joined by a multi-note tremolo both appear as half notes.

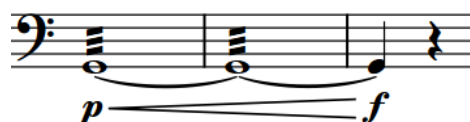
When tuplets are selected, multi-note tremolos are input across the selected tuplets, with the tremolo strokes positioned in the center of all notes in the tuplet. The tuplet bracket is hidden, and a signpost is shown at the start of each tuplet indicating its ratio.

---

EXAMPLE



Multi-note tremolos with three tremolo strokes across tuplets



Tremolo with release added to tie chain

#### AFTER COMPLETING THIS TASK

You can enable independent voice playback for individual instruments to hear different sounds in different voices simultaneously; for example, if you have tremolos in one voice and slurs in another voice.

#### RELATED LINKS

- [Repeats popover](#) on page 387
- [Tremolos](#) on page 1264
- [Tremolos in tie chains](#) on page 1266
- [Deleting tremolos](#) on page 1268
- [Enabling independent voice playback](#) on page 506
- [Forcing the duration of notes/rests](#) on page 250
- [Creating cross-staff beams/tremolos](#) on page 764
- [Tuplets](#) on page 1271

## Inputting tremolos with the panel

You can input both single-note and multi-note tremolos using the Repeat Structures panel, both during note input and by adding them to existing notes.

Tremolos are included in the Repeat Structures panel because they indicate that notes are repeated, either individually as single-note tremolos or in sequences as multi-note tremolos.

---

#### PROCEDURE

1. In Write mode, do one of the following:

- Start note input.



#### TIP

During note input, you can select additional notes before/after the last input note without deactivating the caret by pressing **Shift-Right Arrow / Shift-Left Arrow**.

- Select the notes to which you want to add tremolos.




#### NOTE

If you want to input multi-note tremolos, you must select at least two notes that are in the same voice, have the same duration, and are notated using a single notehead. The notes can also be tuplets and cross-staff notes.

2. In the Notations toolbox, click **Panels** , then **Repeat Structures**  to show the Repeat Structures panel.

3. In the **Tremolos** section, click the tremolo you want to input.

For example, click:

- **Two Strokes Single-note Tremolo**  for single-note tremolos with two strokes.
- **Three Strokes Multi-note Tremolo**  for multi-note tremolos with three strokes.
- **Tremolo With Release**  for three-stroke single-note tremolos with release.

---

#### RESULT

Single-note tremolos are input on the selected notes with the number of tremolo strokes specified. They appear on all notes in tie chains.

Tremolos with release show single-note tremolo strokes on all notes in tie chains apart from the last note. Tremolos with attack show single-note tremolo strokes on all notes in tie chains apart from the first note.

Multi-note tremolos with the number of tremolo strokes specified are input between selected individual notes and the notes immediately after them, or between selected pairs of notes. The notated duration of notes in multi-note tremolos is automatically updated. For example, two quarter notes joined by a multi-note tremolo both appear as half notes.

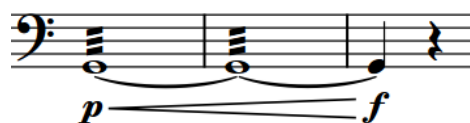
When tuplets are selected, multi-note tremolos are input across the selected tuplets, with the tremolo strokes positioned in the center of all notes in the tuplet. The tuplet bracket is hidden, and a signpost is shown at the start of each tuplet indicating its ratio.

---

#### EXAMPLE



Multi-note tremolos with three tremolo strokes across tuplets



Tremolo with release added to tie chain

---

#### AFTER COMPLETING THIS TASK

You can enable independent voice playback for individual instruments to hear different sounds in different voices simultaneously; for example, if you have tremolos in one voice and slurs in another voice.

#### RELATED LINKS



- [Repeat Structures panel](#) on page 390
- [Enabling independent voice playback](#) on page 506
- [Forcing the duration of notes/rests](#) on page 250
- [Creating cross-staff beams/tremolos](#) on page 764
- [Tuplets](#) on page 1271

## Inputting slash regions

You can input slash regions using the repeats popover.

---

#### PROCEDURE

- In Write mode, do one of the following:
    - Start note input.
    - On the staff where you want to input a slash region, select items that span the required duration.
  - Open the repeats popover in any of the following ways:
    - Press **Shift-R**.
    - In the Notations toolbox, click **Popovers** , then **Repeats** .
  - Enter **slash** into the popover.
  - Press **Return** to close the popover.
-

#### RESULT

During note input, slash regions are input spanning the duration of the selected note or item, which is usually the last input note. When adding slash regions to existing music, they span the selected duration.

Slash regions are automatically formatted as appropriate for the meter. If you later change the time signature, slash regions retain their duration but the appearance of slashes within them automatically updates.

#### TIP

You can also input slash regions by clicking **Create Slash Region** in the **Rhythm Slashes** section of the Repeat Structures panel, or by choosing **Write > Create Slash Region**. You can assign a key command for this option on the **Key Commands** page in **Preferences**.

---

#### RELATED LINKS

[Repeats popover](#) on page 387

[Repeat Structures panel](#) on page 390

[Rhythm slashes](#) on page 1132

[Slash regions](#) on page 1132

[Slash voices](#) on page 1141

[Inputting chord symbol regions](#) on page 311

[Hiding/Showing chord symbols](#) on page 789

[Lengthening/Shortening items](#) on page 410

[Key Commands page in the Preferences dialog](#) on page 59

## Inputting bar repeats

You can input bar repeat regions when at least one bar before the region contains notes.

---



#### PROCEDURE

1. In Write mode, on the staff where you want to input a bar repeat region, select items that span the required duration.

#### NOTE

You cannot input bar repeat regions in the first bar of a flow.

---

2. Open the repeats popover in any of the following ways:
    - Press **Shift-R**.
    - In the Notations toolbox, click **Popovers** , then **Repeats** .
  3. Enter the appropriate entry for the type of bar repeat region you want into the popover. For example, enter **%2,4** to repeat the previous two bars, grouped in four.
  4. Press **Return** to close the popover.
- 

#### RESULT

A region of the selected duration is input, in which the specified type of bar repeat symbol is shown in the staff at the intervals specified.

#### NOTE

- You can also input bar repeat regions during note input; however, this inputs bar repeat regions from the bar containing the currently selected note. As bar repeats are mostly shown in empty bars, this is likely to produce unintended results.
  - You can also input one-bar repeat regions by clicking **Create Bar Repeat Region** in the **Bar Repeats** section of the Repeat Structures panel, or by choosing **Write > Create Bar Repeat Region**. You can assign a key command for this option on the **Key Commands** page in **Preferences**.
- 

#### AFTER COMPLETING THIS TASK

You can change how bar repeats are grouped.

#### RELATED LINKS



- [Bar repeats](#) on page 1120
- [Bar repeat grouping](#) on page 1125
- [Changing bar repeat grouping](#) on page 1125

## Inputting numbered bar regions

You can input numbered bar regions using the repeats popover.

---

#### PROCEDURE

1. In Write mode, on the staff where you want to number bars, select items that span the required duration.
  2. Open the repeats popover in any of the following ways:
    - Press **Shift-R**.
    - In the Notations toolbox, click **Popovers** , then **Repeats** .
  3. Enter **numbars** into the popover.
  4. Press **Return** to close the popover.
- 

#### RESULT

A numbered bar region spanning the selected duration is input.

By default, bar counts are shown on every bar in the region. If the numbered bar region lasts four or more bars, Dorico Elements adds the total range in parentheses to the count on the first bar, such as showing “1 (-8)” on the first bar in a numbered bar region lasting eight bars.

#### NOTE

- You can also input numbered bar regions during note input; however, this only inputs a numbered bar region in the bar containing the currently selected note.
  - You can also input numbered bar regions by clicking **Create Numbered Bar Region** in the **Numbered Bars** section of the Repeat Structures panel, or by choosing **Write > Create Numbered Bar Region**. You can assign a key command for this option on the **Key Commands** page in **Preferences**.
  - Numbered bar regions are hidden in full score layouts and shown in part layouts by default, but you can choose to hide/show numbered bar regions in any layout.
- 

#### RELATED LINKS

- [Repeats popover](#) on page 387

[Repeat Structures panel](#) on page 390  
[Numbered bar regions](#) on page 1127  
[Numbered bar region counts](#) on page 1128  
[Hiding/Showing numbered bar regions](#) on page 1128  
[Lengthening/Shortening items](#) on page 410

## Selecting notes/items

In Dorico Elements, there are multiple different ways you can select notes and items in your project, from selecting items individually to making large selections covering multiple staves. You can also change whether notes play back during note input/selection.

### RELATED LINKS

[Large selections](#) on page 403  
[System track](#) on page 404  
[Filters](#) on page 407  
[Selection tools](#) on page 41  
[Playing/Muting notes during note input/selection](#) on page 408  
[Playing all/individual notes in chords during note input/selection](#) on page 409  
[Selecting items in the Key Editor](#) on page 627

## Selecting/Deselecting notes and items individually

You can select/deselect existing notes and other notation items individually in the music area; for example, if you want to add articulations to a selection of notes or delete a short passage of music.

### TIP

If you want to select a large number of notes/items, we recommend that you use one of the larger selection methods.

---

### PROCEDURE

1. Select individual notes/items in the music area in any of the following ways:

- Click a single note/item.

### TIP

If the item you want to select is behind another item, **Shift-Alt/Opt**-click it.

---

- **Ctrl/Cmd**-click individual notes/items.
- **Shift**-click adjacent notes/items.
- To select all notes in a beam group, click the beam.
- To select all notes in a chord, click the stem.
- To select everything in a bar, click on the staff in that bar, but not on any notes, stems, or items.
- Make a marquee selection around multiple notes/items.
- Navigate to other items from an existing selection.
- If nothing is selected in the music area, press any arrow key on your computer keyboard to select the first note, rest, or other item on the top staff in the current layout.

2. Deselect all currently selected items in any of the following ways:

- Press **Ctrl/Cmd-D**.
  - Choose **Edit > Select None**.
  - Click outside of the staves within the music area.
- 

#### RELATED LINKS

[Selecting multiple items using marquee selections](#) on page 403

[Selecting items in the Key Editor](#) on page 627

[Playing/Muting notes during note input/selection](#) on page 408

[Navigating to other items in the music area](#) on page 417

[Filters](#) on page 407

## Selecting more items of the same type

You can incrementally extend your current selection to more items of the same type and notes in the same voices, which is particularly helpful if you want to select multiple different items at once, such as dynamics and lyrics.

---

#### PROCEDURE

1. Select the notes and items you want to select more of. You can do this in Write mode and Engrave mode.

#### TIP

You can select notes and items on multiple staves and in specific voices; for example, if you only want to select notes in up-stem voices on four staves.

---

2. Press **Ctrl/Cmd-Shift-A** to expand your selection.
  3. Optional: Continue pressing **Ctrl/Cmd-Shift-A** to extend your selection further.
- 

#### RESULT

More of the same types of items and notes in the same voices as your original selection are selected, with the range of selected items expanding each time you press the key command: firstly to the boundaries of the bar, secondly to the boundaries of the system, and finally to the rest of the flow. If there are no other items available in the bar, Dorico Elements automatically advances to the second expansion. In galley view, the second expansion is to the entire flow directly as there is only a single system in galley view.

For items that span multiple bars and systems, they are selected in the earliest bar/system in which they exist.

#### NOTE

Dorico Elements selects the following items differently if you select only a single one of them:


- Lyrics: The selection expands only to other lyrics with the same line number, placement, and line type as the originally selected lyric.
  - Dynamics: The first expansion is to all other dynamics in the same group and on the same staves as the original selection, with further expansions selecting other dynamics in other groups.
  - Playing techniques: The selection expands only to playing techniques of the same category, such as **Strings** or **Choral**. Additionally, if you select either an up bow or down bow playing technique, the selection expands only to other up bow and down bow playing techniques. It does not select any other playing techniques.
-

## Selecting multiple items using marquee selections

You can use a marquee selection to select multiple notes and notations at the same time within a specific area in Write, Engrave, and Play modes.

---

### PROCEDURE

1. In the status bar, click **Marquee Tool** .
2. In the music area, click and drag across the area where you want to select everything.  
A gray rectangle indicates which notes and notations will be selected. We recommend that you click in one corner of the area you want to select and drag diagonally across to the other corner.

---

### RESULT

When you release the mouse, all notes and notations in the area within the gray rectangle are selected.

### NOTE

Only items completely within the area are selected. However, if any part of a note/tie chain is within the area, the whole note/tie chain is selected.

---

### RELATED LINKS

[Status bar](#) on page 39

[Selection tools](#) on page 41


[Selecting items in the Key Editor](#) on page 627

[Changing values using the Transform tool](#) on page 664

## Large selections

You can make large selections, including selecting the contents of whole staves or the whole flow.

### Select everything in a specific area

You can use the **Marquee Tool**  to specify an area in which you want to select everything.

### Select everything in the whole flow

- Press **Ctrl/Cmd-A**.
- Choose **Edit > Select All**.

### Select everything on a single staff

- Select the first note on the staff, hold down **Shift**, then select the last note on the staff.
- Select the first note on the staff and choose **Edit > Select To End Of System** or **Edit > Select To End Of Flow**.

### Select everything on multiple adjacent staves

- Select one whole staff at the top/bottom of the range of staves you want to select and press **Shift-Up Arrow** or **Shift-Down Arrow** until all the staves you want are selected.
- Select one whole staff at the top/bottom of the range of staves you want to select and **Shift**-click the staff at the other end of the range of staves you want to select.



### Select more of the currently selected types of items

You can use **Edit > Select More (Ctrl/Cmd-Shift-A)** to expand your current selection horizontally and incrementally to other items of the same types and in the selected voices and staves in Write mode. For items that span multiple bars and systems, they are selected in the earliest bar/system in which they exist.

1. The first expansion is to the boundaries of the current bar, both to the left and right. If there is nothing to select within the bar, such as if you selected a whole note in a 4/4 bar, Dorico Elements automatically advances to the second expansion.
2. The second expansion in page view is to the boundaries of the current system, both to the left and right. In galley view, the second expansion is to the rest of the flow, as there is only a single system in galley view.
3. In page view, the third expansion is to the entire flow.

### Select everything in the system within a range of beats/bars

You can use the system track to select a region of beats/bars and then select everything on all staves in the system within that region.

#### TIP

If you want to select only a certain type of item, such as lyrics or dynamics, you can then use the corresponding filters.

---

#### RELATED LINKS

[Filters](#) on page 407

[Selecting/Deselecting notes and items individually](#) on page 401

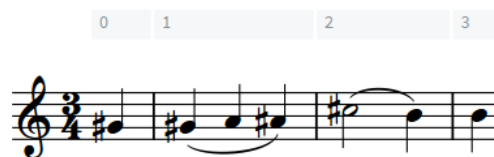
[Selecting items in the Key Editor](#) on page 627

[Selecting more items of the same type](#) on page 402

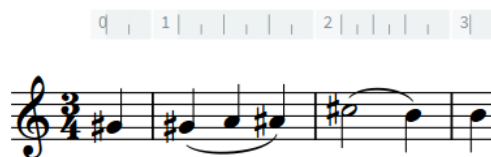
[Histogram tool](#) on page 659

## System track

The system track is a translucent line above the top of each system in Write mode. It allows you to add and delete bars and beats, and to select everything on all staves in the system.



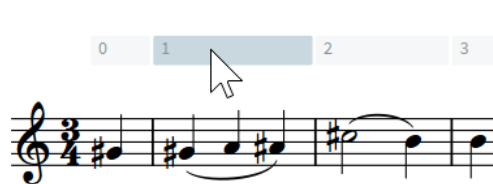
The system track above a staff, showing bars



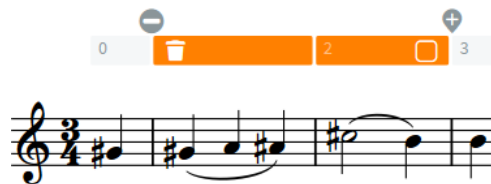
The system track above a staff, showing beat units reflecting the current rhythmic grid resolution (available when you hold **Alt/Opt**)

The color of the system track changes depending on how you are interacting with it.

- When you hover the mouse over it, it becomes more opaque.
- When you select a region in the system track, it appears highlighted.



The system track when the mouse pointer hovers over it



The system track with a region selected

When you have selected a region in the system track, the following options are available:



**1 Set Edit Stop Position**

Allows you to set and delete Insert mode stop positions.

**2 Delete**

Allows you to delete the selected region.

**NOTE**

When you hover over **Delete**, the highlight color of the selected region changes.

---

**3 System Track Select**

Allows you to select all items, including system objects, on all staves in the system across the selected region.

**4 Add**

Allows you to add bars or beats of the same duration as the selection in the system track. The extra time is inserted immediately after the end of the selection.

**NOTE**

Selections on the system track are cleared whenever you make any other kind of selection, or when you switch layouts. However, selections on the system track are retained when switching between page and galley view.

---

RELATED LINKS

[Inputting bars/beats with the system track](#) on page 292

[Deleting bars/beats with the system track](#) on page 730

[System objects](#) on page 1196

[Rhythmic grid](#) on page 204

[Insert mode](#) on page 427

## Hiding/Showing the system track

The system track is shown by default in new projects, but you can hide/show it in Write mode at any time.

---

### PROCEDURE

- Hide/Show the system track in any of the following ways:
  - Press **Alt/Opt-T**.
  - Choose **View > System Track**.

---

### RESULT

The system track is hidden/shown.

### TIP

If you do not want the system track to be shown in all future projects by default, deactivate **Show system track in new projects** in the **View** section of the **General** page in **Preferences**.

---

### RELATED LINKS

[Preferences dialog](#) on page 58

## Selecting bars with the system track



The system track allows you to select all items, including system objects, on all staves in the system across the selected bars.

### PREREQUISITE

The system track is shown.

---

### PROCEDURE

1. In Write mode, click a bar in the system track.
2. Optional: Select additional bars in any of the following ways:
  - **Shift**-click bars to the right/left along the system track.
  - Click and drag to the right/left along the system track.
3. Click **System Track Select**  in the system track. It can also appear above the system track if your selection is narrow.  
**System Track Select**  appears filled in when you hover your mouse pointer over it.

---

### RESULT

Everything on all staves in the selected bars is selected and highlighted, including system objects, notations, and signposts.

### NOTE

If you then delete your selection, any signposts included are also deleted. This can affect the page layout; for example, by removing ossia staves whose signposts were included in the selection.

---

## Selecting beats with the system track

The system track allows you to select all items, including system objects, on all staves in the system across the selected beats.

### PREREQUISITE

The system track is shown.

---


### PROCEDURE


1. In Write mode, press and hold **Alt/Opt**.  
Grid lines that match the current rhythmic grid resolution appear in the system track.
2. Without releasing **Alt/Opt**, click and drag to the right/left along the system track.

### NOTE

You cannot **Shift**-click when selecting beats.

---

3. Click **System Track Select**  in the system track. It can also appear above the system track if your selection is narrow.

**System Track Select**  appears filled in when you hover your mouse pointer over it.

---

### RESULT

Everything on all staves in the selected beats is selected and highlighted, including system objects, notations, and signposts.

### NOTE

If you then delete your selection, any signposts included are also deleted. This can affect the page layout; for example, by removing ossia staves whose signposts were included in the selection.

---

### RELATED LINKS

- [Deleting the contents of bars](#) on page 731
- [Deleting bars/beats with the system track](#) on page 730
- [System objects](#) on page 1196
- [Rhythmic grid](#) on page 204

## Filters

Filters in Dorico Elements allow you to select only a specific type of item from a larger selection. Dorico Elements includes a filter for every notation item.

- You can find the available filters by choosing **Edit > Filter > [Item] > [Item type]**. You can also choose filters from the context menu.

All significant notation items have their own filter; for example, arpeggio signs, chord symbols, key signatures, and playing techniques. You can also filter for note spacing changes.

The following items have multiple filters because they have multiple types:

### Notes

Allows you to filter notes, grace notes, and chords. You can also filter notes according to their position in chords.

### Voices

Allows you to filter voices according to their stem direction. You can also filter slash voices.

### Dynamics

Allows you to filter all dynamics, or just gradual or immediate dynamics.

### Tempos

Allows you to filter all tempo marks, or just absolute, relative, or gradual tempo changes.

### Lyrics

Allows you to filter all lyrics, or just lyrics with a specific line number, type, or staff-relative placement.

#### NOTE

There is no filter for barlines. You also cannot filter notations that are considered part of the notes to which they apply, including fingerings, beams, articulations, and tremolos.

---

#### RELATED LINKS

[Filters for lyrics](#) on page 924

[Selecting more items of the same type](#) on page 402

## Changing filters to select/deselect

You can change whether the available filter options select or deselect the specified items. By default, filters select items, meaning that the resulting selection only includes the item being filtered.

When filters are set to deselect, the resulting selection includes everything except the item being filtered.

---

#### PROCEDURE

- Change the filter behavior in one of the following ways:
  - To change filters to select, choose **Edit > Filter > Select Only**.
  - To change filters to deselect, choose **Edit > Filter > Deselect Only**.

#### TIP

You can also choose these options from the context menu.

---

## Playing/Muting notes during note input/selection

You can change your default setting for whether notes are played back as you input them or not. By default, notes are played back with the prevailing dynamic but you can set a fixed volume instead.

---

#### PROCEDURE

1. Press **Ctrl/Cmd-** to open **Preferences**.
2. In the category list, click **Note Input and Editing**.
3. In the **Note Input** section, activate/deactivate **Play notes during note input and selection** in the **Auditioning** subsection.

4. Optional: If you want notes to play back with a fixed volume instead of the prevailing dynamic, activate **Use fixed volume to play selected notes** and change the value in the value field.
  5. Click **Apply**, then **Close**.
- 

#### RESULT

When the option is activated, notes play back as you input them during note input and when you select them. When it is deactivated, notes do not play back.

When **Use fixed volume to play selected notes** is activated, notes play back with the set volume. When it is deactivated, notes play back with the prevailing dynamic.

#### RELATED LINKS

[Inputting notes](#) on page 211

[Selecting/Deselecting notes and items individually](#) on page 401

[Playing back music](#) on page 503

[Mixer panel](#) on page 667

[Input methods for dynamics](#) on page 296

## Playing all/individual notes in chords during note input/selection

You can change your default setting for whether all notes in chords are played when you select any note in the chord or whether only the selected notes are played.

#### PREREQUISITE

Notes are played during note input/selection.

---

#### PROCEDURE

1. Press **Ctrl/Cmd-**, to open **Preferences**.
  2. In the category list, click **Note Input and Editing**.
  3. In the **Note Input** section, activate/deactivate **Play all notes in chord when any is selected** in the **Auditioning** subsection.
  4. Click **Apply**, then **Close**.
- 

#### RESULT

When the option is activated, all notes in chords are played when any note in the chord is selected. When it is deactivated, only the selected notes are played.

## Editing items

In Dorico Elements, there are editing methods that are common to most notations, including lengthening/shortening items and changing their staff-relative placement.

#### RELATED LINKS

[Selecting notes/items](#) on page 401

[Arranging tools](#) on page 431

[Moving notes/items rhythmically](#) on page 437

## Lengthening/Shortening items

You can lengthen/shorten items with duration rhythmically after they have been input; for example, if you want an octave line to cover more/fewer notes.

Lengthening figured bass or playing techniques, including string indicators outside the staff and vibrato bar indications, that were input without a specified duration gives them duration and shows duration or hold lines if required.

### PREREQUISITE

You have chosen the appropriate rhythmic grid resolution.

---

### PROCEDURE

1. In Write mode, select the items you want to lengthen/shorten.

#### NOTE

- When multiple items are selected, you can only lengthen/shorten them by the current rhythmic grid resolution.
  - You can only lengthen/shorten one of the following items at a time: slurs, gradual dynamics, groups of gradual dynamics, and bar repeat regions.
  - When using the mouse, you can only lengthen/shorten a single item at a time. Figured bass and playing techniques, including string indicators and vibrato bar lines, must have duration already.
  - When lengthening/shortening multiple figured bass or playing techniques using the keyboard, they must all have duration already.
  - You can only lengthen/shorten non-grouped playing techniques or the last playing technique in a group.
  - You can only lengthen/shorten cross-staff slurs to notes on the same staff as the corresponding endpoint, and you can only lengthen/shorten cross-voice slurs to notes in the same voice as the corresponding endpoint.
- 

2. Lengthen/Shorten the selected items in any of the following ways:

- To lengthen them by the current rhythmic grid resolution or to the next notehead, whichever is closer, press **Shift-Alt/Opt-Right Arrow**.
- To shorten them by the current rhythmic grid resolution or to the previous notehead, whichever is closer, press **Shift-Alt/Opt-Left Arrow**.

#### NOTE

Bar repeat regions are lengthened/shortened by the duration of their grouping.

---

- To lengthen a single item to the next notehead, press **Ctrl/Cmd-Shift-Alt/Opt-Right Arrow**.
- To shorten a single item to the previous notehead, press **Ctrl/Cmd-Shift-Alt/Opt-Left Arrow**.
- Click and drag the circular handle at the start/end to the right/left.

#### NOTE

Playing technique groups only have a single handle at their start and end, not individual handles for each playing technique within the group.

---

#### RESULT

The selected items are lengthened/shortened by moving their end rhythmically to the right/left. Most items are lengthened/shortened either by the current rhythmic grid resolution or to the next/previous notehead, whichever is closer, or directly to the next/previous notehead.

Bar repeat regions are lengthened/shortened by the duration of their grouping. Numbered bar regions are lengthened/shortened by bars. Slurs are lengthened/shortened to notes.

If figured bass or playing techniques previously had no duration, they now have duration and show duration or hold lines if required.

If any part of slash regions now overlap rhythmic positions with other slash regions, the staff positions of slashes are automatically adjusted to accommodate multiple slash regions at the same positions.

Dynamic groups are lengthened/shortened proportionally by lengthening/shortening the gradual dynamics and moving any other type of dynamic in the group. This retains the relative durations of the gradual dynamics in the group.

#### NOTE

- The minimum length of a bar repeat region is one bar. If you shorten regions with longer groupings, such as every four bars, the length of the region is halved until a one-bar repeat region remains.
- Only a single bar repeat region or chord symbol region can exist at each rhythmic position on each staff. If a bar repeat region or chord symbol region collides with another item of the same type when it is lengthened/shortened, the existing item is deleted or shortened accordingly. For bar repeat regions, this can mean the grouping of other bar repeat regions is changed.

You can undo this action and restore the previous lengths of the other regions. However, if you lengthened/shortened a bar repeat region or chord symbol region using the mouse and it overwrote another region of the same type completely, the other region is permanently deleted.

- You can move items graphically in Engrave mode, including changing their graphical length.

---

#### EXAMPLE

In the example, lengthening the phrase moves the *p* at the end two quarter notes to the right, but moves the *f* in the middle only one quarter note to the right. This keeps the lengths of the gradual dynamics equal.



Original dynamic phrase



Lengthened dynamic phrase

---

#### RELATED LINKS

[Rhythmic grid](#) on page 204

[Changing the duration of notes](#) on page 248

[Lengthening/Shortening segments in repeat endings](#) on page 1109

[Moving notes/items rhythmically](#) on page 437

[Moving items graphically](#) on page 481

[Hiding/Showing playing technique duration lines](#) on page 1070



[Notations input](#) on page 259  
[Bar repeat grouping](#) on page 1125  
[Playing technique continuation lines](#) on page 1067  
[Playing technique duration](#) on page 1068  
[Pedal line start signs, hooks, and continuation lines](#) on page 1053  
[Sustain pedal retakes and pedal level changes](#) on page 1045  
[Slashes in multiple-voice contexts](#) on page 1134  
[Octave lines in Engrave mode](#) on page 824  
[Slurs in Engrave mode](#) on page 1171  
[Cross-staff and cross-voice slurs](#) on page 1166  
[Groups of dynamics](#) on page 853  
[Showing consecutive hairpins as continuous](#) on page 845  
[Hiding/Showing figured bass hold/suspension lines](#) on page 862

## Changing existing items

You can change all items that have an associated popover, rather than deleting them and inputting new ones. For example, if you want to change an 8va octave line into a 15va octave line or change a short fermata into a long fermata.

---

### PROCEDURE

1. Select the item or the signpost of the item you want to change.
2. Open the popover for that item in any of the following ways:
  - Press **Return**.
  - Double-click the item.
3. Change the existing entry in the popover.  
For chord symbols, you can also play the new chord on your MIDI keyboard.
4. Press **Return** to close the popover.

---

### RESULT

The selected item is changed according to the new entry in the popover. This changes different parameters for different items, such as the duration of a hold or pause or the volume of a dynamic.

### NOTE

- Any properties previously set on the item are reset.
- If you change a fermata to a breath mark, only the fermata on the top staff is changed to a breath mark. If you change a caesura to a breath mark, a breath mark is input on the top staff at the end of the bar to which the caesura is attached. However, the existing caesura also remains on all staves.
- If you open the playing techniques popover in this way, Dorico Elements inputs your new entry as a separate playing technique and does not delete the previous one.
- If you change an immediate dynamic to a combined dynamic, such as *f* to *fp*, or vice versa, Dorico Elements inputs your new entry as a separate dynamic and does not delete the previous one.

---

### RELATED LINKS

[Popovers](#) on page 24  
[Properties panel](#) on page 615

[Changing the text of existing lyrics](#) on page 931

[Assigning key commands](#) on page 63

[Changing dynamic levels](#) on page 835

## Changing the size of notes/items


You can change the size of individual notes and items using the default scale sizes for cues, grace notes, a custom scale size, or a custom scale size in addition to a default scale size. You can do this for the current layout and frame chain only, or for all layouts and frame chains.

### TIP

If you want to change the size of notes because you want them to be grace notes or cues, you can input them as either grace notes or cues instead.

---

### PREREQUISITE

- The lower zone is shown.
- **Properties**  is selected in the lower zone toolbar.
- You have chosen the appropriate property scope for local properties.

---

### PROCEDURE

1. Select the notes/items whose size you want to change. You can do this in Write mode and Engrave mode.
2. In the Properties panel, activate any of the following properties in the **Common** group:
  - If you want to use a default scale size, activate **Scale**.
  - If you want to use a custom scale size, activate **Custom scale**.
  - If you want to use a custom scale size based on a default scale size, activate both **Scale** and **Custom scale**.
3. Optional: If you activated **Scale**, select one of the following options from the menu:
  - **Normal**
  - **Grace**
  - **Cue**
  - **Cue grace**
4. Optional: If you activated **Custom scale**, change the value in the value field.

---

### RESULT

The size of the selected notes/items is changed. If the property scope was set to **Locally**, this change only takes effect in the current layout and frame chain.

- If you activated **Scale**, the selected notes/items are changed to the selected default scale size.
- If you activated **Custom Scale**, the selected notes/items are changed to the custom percentage scale size you set.
- If you activated both **Scale** and **Custom Scale**, the selected notes/items are changed to the custom percentage scale size of the selected default scale size. For example, if you selected **Grace** for **Scale** then set **Custom Scale** to **50**, the size of the selected notes/items is half the size of grace notes.

RELATED LINKS

[Grace notes](#) on page 897

[Inputting grace notes](#) on page 239

[Cues](#) on page 827

[Notehead set designs](#) on page 941

[Changing the property scope](#) on page 617

[Copying property settings to other layouts/frame chains](#) on page 599

[Changing the size of accidentals](#) on page 714

[Changing the size of fingerings](#) on page 876

## Changing the staff-relative placement of items

You can flip any item that can be placed both above/below the staff to change their staff-relative placement; for example, if you want to change the stem direction of notes quickly. For many items, you can do this for the current layout and frame chain only or for all layouts and frame chains.

### NOTE

These steps do not apply to text in text frames or pedal lines.

---

### PREREQUISITE

You have chosen the appropriate property scope for local properties.

---

### PROCEDURE

1. Select the items you want to flip. You can do this in Write mode and Engrave mode.

### NOTE

- You cannot flip items during note input. You cannot flip text items when the text editor is open.
  - If you want to select parts of items, such as articulations, a single notehead within a tie chain, or a single fermata, you must be in Engrave mode.
  - To select multiple items of the same type, you can use large selections and/or filters.
- 

2. Press **F**.
- 

### RESULT

The staff-relative placement of the selected items is changed by setting **Placement**, **Position**, or **Direction** properties appropriately in the corresponding groups of the Properties panel. If the property scope was set to **Locally**, this change only takes effect in the current layout and frame chain for items whose staff-relative placement properties are local.

Deactivating these properties resets items to their default placement.

### NOTE

If you flipped multiple multi-segment slurs or tuplet brackets with different hook directions at the same time, all selected items are set to either above or below the staff, unless they all originally had compatible directions set.

---

### RELATED LINKS

[Filters](#) on page 407

[Large selections](#) on page 403

[Local vs. global properties](#) on page 616  
[Changing the property scope](#) on page 617  
[Copying property settings to other layouts/frame chains](#) on page 599  
[Tucking index properties](#) on page 825  
[Changing the stem direction of notes](#) on page 963  
[Changing the staff-relative placement of beams](#) on page 759  
[Changing the staff-relative placement of fingerings](#) on page 874  
[Changing the staff-relative placement of tuplet brackets](#) on page 1277  
[Moving items graphically](#) on page 481  
[Positions of lyrics](#) on page 925

## Resetting the appearance of items

You can reset all changes you have made to the appearance of individual items, which returns them to the default settings. For some items, you can do this for the current layout and frame chain only or for all layouts and frame chains.

Properties relating to the appearance of items include those that change their style, type, and some additions, such as *poco a poco* text for dynamics.

### PREREQUISITE

You have chosen the appropriate property scope for local properties.

---

### PROCEDURE

1. Select the items whose appearance you want to reset. You can do this in Write mode and Engrave mode.

#### TIP

To select multiple items of the same type, you can use large selections and/or filters.

---

2. Choose **Edit > Reset Appearance**.
- 

### RESULT

All properties that affect the appearance of the selected items are reset to their default settings. If the property scope was set to **Locally**, any properties that are layout-specific and frame chain-specific are only reset in the current layout and frame chain.

### RELATED LINKS

[Notation Options dialog](#) on page 679  
[Local vs. global properties](#) on page 616  
[Changing the property scope](#) on page 617  
[Copying property settings to other layouts/frame chains](#) on page 599  
[Filters](#) on page 407  
[Large selections](#) on page 403

## Resetting the position of items

You can reset the position of individual items you have moved graphically, which returns them to their default position. For some items, you can do this for the current layout and frame chain only or for all layouts and frame chains.

Properties relating to the position of items include horizontal and vertical offsets, beat-relative position, and staff-relative placement.

#### PREREQUISITE

You have chosen the appropriate property scope for local properties.

---

#### PROCEDURE

1. Select the items whose position you want to reset. You can do this in Write mode and Engrave mode.

#### TIP

To select multiple items of the same type, you can use large selections and/or filters.

---

2. Choose **Edit > Reset Position**.
- 

#### RESULT

All properties that affect the position of the selected items are reset to their default settings. If the property scope was set to **Locally**, any properties that are layout-specific and frame chain-specific are only reset in the current layout and frame chain.

## Hiding non-printing elements

You can temporarily hide all visible elements that do not print, such as signposts and selection highlights. This allows you to view the current layout as it will appear when printed/exported without switching to Print mode.

---

#### PROCEDURE

- Press and hold **⌘ (Windows) or ⌘ (macOS)**.
- 

#### RESULT

All non-printing elements in the current layout are hidden until you release the key command. Printing elements appear as they will when printed/exported.

#### TIP

You can also hide/show individual non-printing elements permanently.

---

#### RELATED LINKS

- [Annotations](#) on page 554
- [Printing layouts](#) on page 538
- [Exporting layouts as graphics files](#) on page 542
- [Signposts](#) on page 426
- [Hiding/Showing signposts](#) on page 427
- [Hiding/Showing the system track](#) on page 406
- [Hiding/Showing guide bar numbers](#) on page 745
- [Hiding/Showing colors for notes out of range](#) on page 951
- [Hiding/Showing voice colors](#) on page 1304
- [Hiding/Showing region highlights](#) on page 1122
- [Hiding/Showing slash region highlights](#) on page 1134

## Navigation

There are different ways you can navigate around the layout currently open in the music area, such as moving the selection to different items or bringing specific bar numbers or pages into view. Many navigation methods function in multiple modes.

If you have an item selected, you can navigate to other notes/items, which moves the selection to those notes/items.

### RELATED LINKS

[Workspace setup](#) on page 43

[Going to locations with the jump bar](#) on page 66

[Jump bar](#) on page 65

[Moving the caret manually](#) on page 210

## Navigating to other items in the music area

You can navigate to other notes and items in the music area after you have selected a note/item; for example, if you want to move the selection to other notes along the staff without using the mouse.

---

### PROCEDURE

#### 1. Select an item in the music area.

- If you want to navigate through notes, select a note.
- If you want to navigate through a particular type of item, such as rehearsal marks, select an item of that type.

#### NOTE

You can only navigate forwards/backwards through items on the same staff. You cannot navigate to other items of the same type on other staves.

---

#### 2. Navigate to other notes or items in any of the following ways:

- To navigate to the next item or note in the same voice, press **Right Arrow**.
- To navigate to the previous item or note in the same voice, press **Left Arrow**.
- To navigate to the closest note above the current selection, press **Up Arrow**.  
This navigates to any existing notes on the same staff first, then to the lowest note/rest on the staff above. If a whole chord was selected, this leaves the bottom note in the chord selected.
- To navigate to the closest note below the current selection, press **Down Arrow**.  
This navigates to any existing notes on the same staff first, then to the highest note/rest on the staff below. If a whole chord was selected, this leaves the top note in the chord selected.
- To navigate forwards to the note/rest at the start of the next bar, press **Ctrl/Cmd-Right Arrow**.
- To navigate backwards to the note/rest at the start of the previous bar, press **Ctrl/Cmd-Left Arrow**.
- To navigate to the top staff in the system, press **Ctrl/Cmd-Up Arrow**.
- To navigate to the bottom staff in the system, press **Ctrl/Cmd-Down Arrow**.

- Optional: Switch the selection to another type of item at the same rhythmic position in one of the following ways:
  - To cycle forwards through items, press **Tab**.
  - To cycle backwards through items, press **Shift-Tab**.

#### NOTE

You cannot switch the selection to system objects, such as system-attached text or rehearsal marks. However, you can select system objects directly and navigate through them.

---

- Optional: After switching the selection to another type of item, navigate to other items of that type.
- 

#### RELATED LINKS

[System objects](#) on page 1196

## Going to flows

You can go to the next/previous flow in the current layout, which automatically brings the start of that flow into view in the music area. This is particularly useful when navigating around layouts that contain many flows.

These steps function in Setup, Write, and Engrave modes.

---

#### PROCEDURE

- Go to a different flow in one of the following ways:
    - To go to the previous flow in the layout, choose **Edit > Go To > Go To Previous Flow**.
    - To go to the next flow in the layout, choose **Edit > Go To > Go To Next Flow**.
- 

#### RESULT

The music area updates to show the start of the corresponding flow. Dorico Elements automatically positions the top staff towards the top left of the music area.

#### TIP

You can assign key commands to both **Go To Previous Flow** and **Go To Next Flow** on the **Key Commands** page in **Preferences**.

---

## Going to pages

You can go to any specified page in the current layout using its page number; for example, to jump quickly to the exact page that requires changes when editing music.

These steps function in Setup, Write, and Engrave modes.

---

#### PROCEDURE

- Choose **Edit > Go To > Go To Page** to open the **Go To Page** dialog.
  - Enter the page number to which you want to go into the **Page** field.
  - Click **OK**.
-

#### RESULT

The music area updates to show the start of the corresponding page. Dorico Elements automatically centers the top of the page in the music area.

#### TIP

- You can assign a key command for **Go To Page** on the **Key Commands** page in **Preferences**.
  - You can also move the view and navigate to other pages in the layout in other ways.
- 

#### RELATED LINKS

[Key Commands page in the Preferences dialog](#) on page 59

[Page arrangements for page view](#) on page 42

[Moving the view in the music area](#) on page 420

[Zooming in/out of the music area](#) on page 420

## Going to bars

You can go to any specific bar in any flow in the current layout; for example, to jump quickly to the exact bar that requires changes when editing music.

These steps function in Setup, Write, Engrave, and Play modes.

---

#### PROCEDURE

1. Press **Ctrl/Cmd-G** to open the **Go To Bar** dialog.
  2. Select the flow containing the bar to which you want to go from the **Flow** menu.
  3. Enter the bar number to which you want to go into the **Bar** field.
  4. Click **OK**.
- 

#### RESULT

The music area updates to show the corresponding bar. Dorico Elements automatically positions the top staff towards the top left of the music area.

In Play mode, the playhead moves to the start of the corresponding bar. Dorico Elements automatically positions the playhead at the start of the ruler.

## Going to rehearsal marks

You can go to any specific rehearsal mark in any flow in the current layout; for example, to jump quickly to passages that require changes when editing music.

These steps function in Setup, Write, and Engrave modes.

---

#### PROCEDURE

1. Choose **Edit > Go To > Go To Rehearsal Mark** to open the **Go To Rehearsal Mark** dialog.
  2. Select the flow containing the rehearsal mark to which you want to go from the **Flow** menu.
  3. Enter the rehearsal mark to which you want to go into the **Rehearsal mark** field.
  4. Click **OK**.
- 

#### RESULT

The music area updates to show the corresponding rehearsal mark.



TIP

You can assign a key command for **Go To Rehearsal Mark** on the **Key Commands** page in **Preferences**.


---

## Moving the view in the music area

You can move the view in the music area to show different parts of layouts. For example, you can scroll through a layout to view each page in sequence.

---

PROCEDURE

- Move the view in any of the following ways:
    - To move the view upwards/downwards, scroll upwards/downwards on a mouse wheel or swipe upwards/downwards on a touchpad.
    - To move the view to the right/left, **Shift**-scroll upwards/downwards on a mouse wheel or swipe to the right/left on a touchpad.
    - To navigate to the next page, press **End (horizontal page arrangements) or Page Down (vertical page arrangements)**.
    - To navigate to the previous page, press **Home (horizontal page arrangements) or Page Up (vertical page arrangements)**.
    - To navigate to the first page, press **Ctrl/Cmd-Home**.
    - To navigate to the last page, press **Ctrl/Cmd-End**.
    - In the status bar, click **Hand Tool** , then click and drag in any empty space within the page boundaries in the music area.  
The mouse pointer changes into a hand symbol during the move.
- 

RESULT

The view in the music area is moved.

TIP

- You change the maximum overscroll amount, that is, how far beyond the edges of pages you can move the view, on the **General** page in **Preferences**.
  - You can assign a key command for **Center Selection** on the **Key Commands** page in **Preferences**. This command automatically brings the selection into view.
- 

RELATED LINKS

[Status bar](#) on page 39

[Selection tools](#) on page 41







## Zooming in/out of the music area

You can change the zoom level in the music area; for example, if you want a larger overview when inputting notes, but want to see notes and notations more closely when making detailed graphical amendments.

PREREQUISITE

If you want to keep a specific item in the center of the music area when you zoom in/out, you have selected that item.

#### PROCEDURE

1. Zoom in in any of the following ways:
  - Press **Ctrl/Cmd+= or Z**.
  - Spread two fingers outwards on a touchpad.
  - **Ctrl/Cmd**-scroll upwards on a mouse wheel.
  - Use the zoom options  100%   in the status bar.
2. Zoom out in any of the following ways:
  - Press **Ctrl/Cmd-- or X**.
  - Pinch two fingers together on a touchpad.
  - **Ctrl/Cmd**-scroll downwards on a mouse wheel.
  - Use the zoom options  100%   in the status bar.

---

#### RESULT

The zoom level in the music area is changed. If you had anything selected, Dorico Elements uses your selection as the focal point of the zoom. If you had nothing selected, Dorico Elements focuses on the area previously in the center of the view.

#### RELATED LINKS

- [Zoom options](#) on page 42
- [Zooming in/out of tracks](#) on page 501
- [Workspace setup](#) on page 43

## Instrument filters

Instrument filters allow you to show only the staves of selected instruments in galley view in Write mode. This can be useful in large projects when you want to focus on a specific set of instruments, such as only the woodwinds or strings.

When instrument filters are active, dashed lines are shown at the vertical positions of hidden staves, and you can only select and edit music on visible staves.

Instrument filters are layout-specific.



Instrument filter containing flute and violin instruments active in galley view

#### TIP

You can assign key commands for up to ten instrument filter presets on the **Key Commands** page in **Preferences**. The instruments filtered by these commands vary in each layout and project.

#### RELATED LINKS

[Switching to galley/page view](#) on page 50

[Selecting notes/items](#) on page 401

[Editing items](#) on page 409

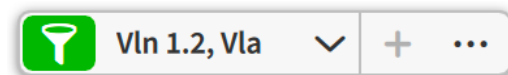
[Arranging tools](#) on page 431

[Hiding/Showing empty staves](#) on page 562

## Instrument filter overlay

The instrument filter overlay allows you to apply instrument filters to layouts and add new instrument filters. It only appears in galley view in Write mode.

- You can hide/show the instrument filter overlay in Write mode by choosing **View > Instrument Filter Overlay**.



The instrument filter overlay contains the following options:

#### Filter

Activates/Deactivates the selected instrument filter. Only available when the layout contains at least one instrument filter.

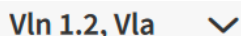


Filter when deactivated



Filter when activated

### Instrument filter menu



Allows you to select the instrument filter you want to apply to the current layout. Only available when **Filter** is activated.

### Add Instrument Filter



Adds an instrument filter containing the instruments on which you have selected items. Only available when at least one item is selected in the music area.

### Manage Instrument Filters



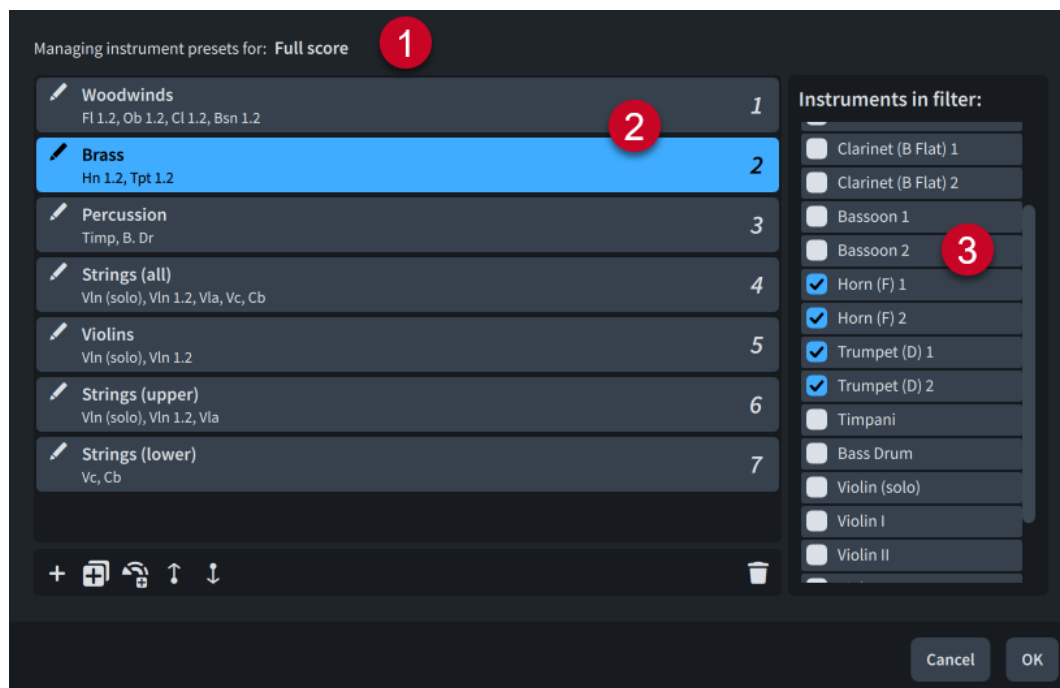
Opens the **Manage Instrument Filters** dialog, which allows you to add, edit, and delete instrument filters for the current layout.

## Manage Instrument Filters dialog

The **Manage Instrument Filters** dialog allows you to add, edit, and delete instrument filters for the current layout.

You can open the **Manage Instrument Filters** dialog in Write mode in any of the following ways:

- In the instrument filter overlay, click **Manage Instrument Filters** ...
- Choose **Write > Instrument Visibility > Edit Instrument Filter Presets**.



The **Manage Instrument Filters** dialog comprises the following:






- 1 Managing instrument presets for**  
Displays the name of the layout whose instrument filters are listed in the dialog.
- 2 Instrument filters list**

Contains the instrument filters set for the layout. Each instrument filter displays its name and the instruments it contains. If multiple instrument filters contain the same instruments, Dorico Elements displays a warning.

The first ten instrument filters show a number corresponding to their order in the list. This denotes the instrument filters for which you can assign key commands on the **Key Commands** page in **Preferences**.

**Rename Instrument Filter**  allows you to rename each instrument filter.

The action bar at the bottom of the list contains the following options:

- **Add Filter Preset** : Adds a new empty instrument filter.
- **Duplicate Filter Preset** : Creates a copy of an existing instrument filter that you can edit separately from the original.
- **Add Presets From Instrument Families** : Generates an instrument filter for each instrument family in the layout automatically, such as woodwind and brass.
- **Move Up** : Moves the selected instrument filter up the list, which can change its key command.
- **Move Down** : Moves the selected instrument filter down the list, which can change its key command.

### 3 Instruments in filter list

Contains the instruments in the layout. Allows you to change the instruments included in the selected instrument filter by activating/deactivating instrument checkboxes.

## Activating/Deactivating instrument filters


You can activate/deactivate instrument filters at any time in each layout independently. For example, if you want to show only woodwind staves whilst working on the woodwind section.

### PREREQUISITE

- You are in galley view.
- The instrument filter overlay is shown.
- You have added the instrument filters you want to use.

---

### PROCEDURE

1. In Write mode, open the layout in which you want to activate/deactivate instrument filters.
2. In the instrument filter overlay, click **Filter** .



**Filter** when activated



**Filter** when deactivated

3. Optional: If you activated instrument filters, select the instrument filter you want to use from the menu.

---

### RESULT

Instrument filters are activated/deactivated. When instrument filters are active, dashed lines are shown at the vertical positions of hidden staves and you can only select and edit music on visible staves.

TIP

- You can also activate/deactivate and select instrument filters from the **Write > Instrument Visibility** menu.
  - You can assign a key command for **Use Instrument Filter** on the **Key Commands** page in **Preferences**.
  - You can assign key commands for up to ten instrument filter presets on the **Key Commands** page in **Preferences**. The instruments filtered by these commands vary in each layout and project.
- 

RELATED LINKS

[Switching to galley/page view](#) on page 50

[Switching between layouts](#) on page 43

[Selecting notes/items](#) on page 401

[Editing items](#) on page 409

[Arranging tools](#) on page 431

[Hiding/Showing empty staves](#) on page 562

[Key Commands page in the Preferences dialog](#) on page 59

## Adding instrument filters

You can add any number of instrument filters to each layout independently.

PREREQUISITE

- You are in galley view.
  - The instrument filter overlay is shown.
- 

PROCEDURE

1. In Write mode, open the layout to which you want to add instrument filters.
  2. Select at least one item belonging to each instrument you want to include in the instrument filter.
  3. In the instrument filter overlay, click **Add Instrument Filter** +.
- 

RESULT

A new instrument filter containing the selected instruments is added to the layout open in the music area. Dorico Elements automatically activates instrument filters in the layout and selects the new instrument filter.


TIP

- You can also add, edit, and delete instrument filters in the **Manage Instrument Filters** dialog.
  - You can assign key commands for up to ten instrument filter presets on the **Key Commands** page in **Preferences**. The instruments filtered by these commands vary in each layout and project.
-

## Deleting instrument filters

You can delete instrument filters you no longer need from each layout independently.

### PROCEDURE

1. In Write mode, open the layout from which you want to delete instrument filters.
2. Choose **Write > Instrument Visibility > Edit Instrument Filter Presets** to open the **Manage Instrument Filters** dialog.
3. Select the instrument filter you want to delete.
4. In the action bar, click **Delete Filter Preset** .

### RESULT

The selected instrument filter is deleted from the layout open in the music area.

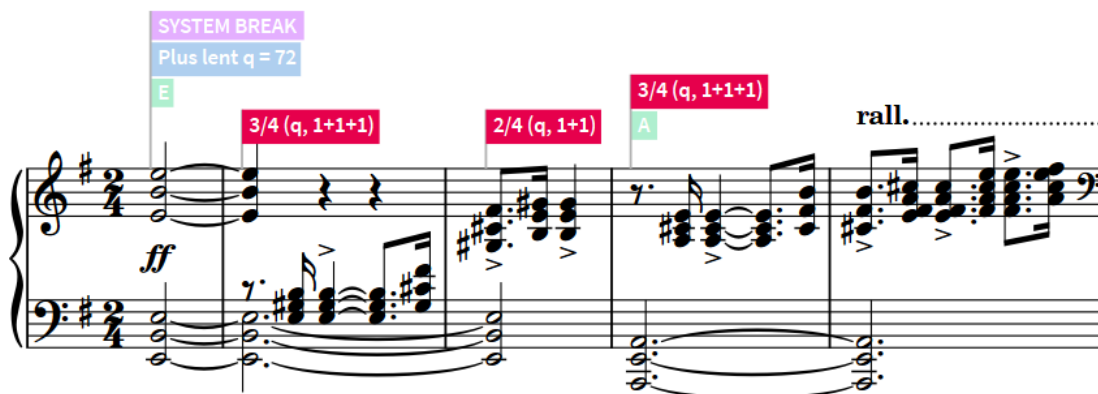
## Signposts

In Dorico Elements, signposts indicate the positions of important items or changes that cannot be seen in the score, such as key signatures with no accidentals, hidden items, and rhythmic feel changes.

Signposts have different colors depending on the item they mark because many items can show signposts, such as hidden bar numbers and time signatures. They are selectable, meaning you can use signposts to change properties of hidden/invisible items; for example, by selecting system break signposts in order to change the staff size from that position. Selected signposts appear solid, while unselected signposts appear translucent.

Signposts include a text summary of the hidden/invisible item to help you identify it. For example, time signature signposts include the time signature, expressed as a fraction, and its beat subdivision.

When multiple signposts exist at the same rhythmic position or in close proximity to each other, they stack vertically so that they do not overlap and remain legible.



The image shows a musical score snippet with several signposts above the staff. From left to right, the signposts are: a purple 'SYSTEM BREAK' signpost with a blue 'Plus lent q = 72' sub-signpost and a green 'E' icon; a red '3/4 (q, 1+1+1)' signpost; a red '2/4 (q, 1+1)' signpost; a green 'A' icon; a red '3/4 (q, 1+1+1)' signpost; and a 'rall.' text signpost. The score includes a treble clef, a key signature of one sharp (F#), and a 2/4 time signature. The music features various rhythmic patterns and dynamics like 'ff'.

Multiple signposts for different items above the staff, with time signature signposts selected

### NOTE

By default, signposts are not printed or included when you export graphics files.

### RELATED LINKS

[Annotations](#) on page 554

## Hiding/Showing signposts

You can hide/show all signposts or only hide/show signposts for specific items at any time in Setup, Write, and Engrave modes.

---

### PROCEDURE

- Hide/Show signposts in any of the following ways:
    - To hide/show all signposts, choose **View > Signposts > Hide Signposts**.
    - To hide/show signposts for specific items, choose **View > Signposts > [Type of item]**.
- 

## Insert mode

Insert mode changes how notes are input and how edits you make outside of note input affect the music. When Insert mode is activated, notes are pushed to subsequent rhythmic positions instead of being overwritten if you input new notes or lengthen existing notes. Similarly, deleting notes or reducing their duration with Insert mode activated pulls surrounding notes closer together without leaving rests between them.

For example, if you input four quarter notes with Insert mode activated, all subsequent notes are pushed four quarter note beats back to accommodate the new notes.

Edits outside of note input that are affected by Insert mode include copying/pasting notes, deleting notes, changing the duration of notes including by adding/removing rhythm dots, or inputting time signatures.

The voices and staves affected by Insert mode depend on the Insert mode scope. The current Insert mode scope is indicated in the Notes toolbox and by the caret during note input.

You can set a single rhythmic position in each flow as an Insert mode stop position, which prevents any material beyond the stop point being affected by inserted notes. For example, if you want to insert notes at the start of a flow but want to preserve material from a specific position later in the flow. Stop positions appear as a vertical translucent line that spans all staves.

- You can activate/deactivate Insert mode in Write mode by pressing **I** or clicking **Insert**  in the Notes toolbox.

### NOTE

You cannot have both Insert mode and Chord mode activated simultaneously.

---

When Insert mode is not activated, Dorico Elements does not add extra beats before an existing time signature if you change a previous time signature. When Insert mode is activated, Dorico Elements inserts beats before existing time signatures to fill the final bar.



3/4 time signature input without Insert mode activated



3/4 time signature input with Insert mode activated

### RELATED LINKS

[Inputting notes in Insert mode](#) on page 226

[Rhythmic position](#) on page 26

[Chord mode](#) on page 242




[Caret](#) on page 205  
[System track](#) on page 404  
[Inputting notes](#) on page 211  
[Copying and pasting notes/items](#) on page 433  
[Exploding music onto multiple staves](#) on page 441  
[Changing the duration of notes](#) on page 248  
[Inputting notes with rhythm dots](#) on page 219  
[Deleting notes/items](#) on page 431

## Insert mode scopes

Insert mode has different scopes, from affecting only selected voices to affecting all players and changing the duration of the current bar. All scopes apply until the Insert mode stop position or the end of the flow, whichever comes first.

You can change the Insert mode scope in Write mode in any of the following ways:

- Press **Alt/Opt-I** to cycle through the different Insert mode scopes.
- In the Notes toolbox, click and hold **Insert** , then click the scope you want.
- Choose **Write > Insert Scope > [Scope]**.

In Dorico Elements, there are the following Insert mode scopes:

### Voice



Insert mode only affects the selected voices. During note input, this is the voice indicated by the caret indicator. Outside of note input, this includes all selected voices, such as when you copy and paste material across multiple staves.

### Player



Insert mode affects all voices and instruments belonging to the selected players. During note input, dotted lines are shown on staves affected by the Insert mode scope across which the caret does not already extend.

### Global



Insert mode affects all players in the flow. During note input, dotted lines are shown on staves affected by the Insert mode scope across which the caret does not already extend.

### Global Adjustment of Current Bar



Insert mode affects all players in the flow, changes the duration of the current bar, and updates its time signature to reflect its new duration. For example, inputting notes extends the duration of bars while deleting notes shortens the duration of bars.

During note input, dotted lines are shown on staves affected by the Insert mode scope across which the caret does not already extend.

TIP

You can use the **Global Adjustment of Current Bar** Insert mode scope to create and delete pick-up bars by deleting notes/rests in the first bar in the flow. You can also use it to shorten the last bar in flows that start with a pick-up bar.

---

RELATED LINKS

- [Caret](#) on page 205
- [Deleting notes/items](#) on page 431
- [Arranging tools](#) on page 431
- [Players](#) on page 120
- [Voices](#) on page 1303
- [Time signatures](#) on page 1249
- [Pick-up bars](#) on page 1253


## Changing the Insert mode scope

You can change the Insert mode scope; for example, if you want to switch from inserting notes into the selected voice only to inserting rhythmic time for all players.

The current Insert mode scope is indicated in the Notes toolbox and by the caret during note input.

---

PROCEDURE

- In Write mode, change the Insert mode scope in any of the following ways:
    - Press **Alt/Opt-I** to cycle through the different Insert mode scopes.
    - In the Notes toolbox, click and hold **Insert** , then click the scope you want.
    - Choose **Write > Insert Scope > [Scope]**.
- 

RELATED LINKS

- [Notes toolbox](#) on page 187
- [Caret](#) on page 205
- [Inputting notes in Insert mode](#) on page 226


## Setting Insert mode stop positions

You can set a single rhythmic position in each flow as an Insert mode stop position, which prevents any material beyond the stop point being affected by inserted notes. For example, if you want to insert notes at the start of a flow but want to preserve material from a specific position later in the flow.

---

PROCEDURE

1. In Write mode, select the rhythmic position that you want to be the Insert mode stop position in any of the following ways:
  - Select an item in the music area.
  - In the system track, select the bar whose start barline you want to set as the stop position.
2. Set the Insert mode stop position in any of the following ways:
  - Press **Shift-Alt/Opt-I**.

- In the system track, click **Set Edit Stop Position** .
  - Choose **Write > Insert Scope > Set Edit Stop Position**.
- 

#### RESULT

The Insert mode stop position for the flow is set at the selected rhythmic position. It appears as a vertical translucent line that spans all staves.

Because each flow can only have a single stop position, any existing stop position elsewhere in the flow is deleted.

When Insert mode is activated, existing notes that would otherwise be pushed beyond the stop position are deleted.

#### TIP

You can also move stop positions to barlines by clicking the top handle and dragging to the right/left.

---

#### EXAMPLE



Insert mode stop position across two piano staves

---

#### RELATED LINKS


[System track](#) on page 404

## Deleting Insert mode stop positions

You can delete Insert mode stop positions after they have been set.

---

#### PROCEDURE

- In Write mode, delete Insert mode stop positions in any of the following ways:
  - Select an item at the rhythmic position of the Insert mode stop position and press **Shift-Alt/Opt-I**.
  - In the system track, click **Set Edit Stop Position**  above existing stop positions.
  - Click the stop position top handle and drag it in any direction until the mouse pointer is outside the music, then release the mouse.



**TIP**

When the mouse pointer is in the correct position, the stop position appears as a dotted line.

---

## Arranging tools

Arranging tools in Dorico Elements allow you to allocate notes to different staves and voices quickly and efficiently.

These tools include copying notes and items to multiple staves at the same time, and multiple times within a selected range, moving notes between staves, and changing the voices of notes.

RELATED LINKS

[Filters](#) on page 407

[Transposing tools](#) on page 444

[Selecting notes/items](#) on page 401

[Copying and pasting articulations](#) on page 724

[Changing the duration of notes](#) on page 248

[Repitching notes without changing their rhythm](#) on page 448

[Splitting notes by duration](#) on page 249

[Rhythmic grid](#) on page 204

[Insert mode](#) on page 427

[Chord mode](#) on page 242

[Musical transformations](#) on page 453

## Deleting notes/items

You can delete any notes/items you have input into your project independently of each other, such as deleting repeat endings without deleting the notes in them. However, you must be in Write mode. You cannot delete notes and items in Setup, Engrave, or Print modes.

You can also delete notes in the Key Editor, but not other notation items.

**NOTE**

You cannot delete initial clefs at the start of flows or clefs shown automatically at the start of each system. If you do not want any clef to appear on a staff, you can input an invisible clef.

---

PROCEDURE

1. In Write mode, select the notes, items, and/or the signposts of items you want to delete.

**NOTE**

- You must select barlines directly, not their signposts.
- If you delete some but not all dynamics from a dynamics group that is linked to other staves, the selected dynamics are also deleted from all linked staves.
- Deleting only tuplets does not delete the notes within them, and vice versa.
- To select multiple items of the same type, you can use large selections and/or filters.

---

2. Press **Backspace or Delete**.

---

**RESULT**

All selected notes/items are deleted from your project. Dorico Elements moves your selection to the most logical and nearby item to the deleted items. For example, if you deleted a note, Dorico Elements's first choice is the nearest note in the same voice.

If Insert mode was activated, notes following deleted notes move up to fill the gap. If Insert mode was deactivated, deleted notes are replaced by implicit rests as appropriate.

**TIP**

You can also delete markers by selecting them in the **Markers** section of the Video panel and clicking **Delete** in the action bar.

---

If a slur began or ended on a deleted note, the slur is automatically repositioned to the next/previous notehead. If only one note is left under a slur, the slur is automatically deleted.

Holds and pauses are not automatically deleted if they are not selected when you delete notes. They are positioned above the note/rest closest to their rhythmic position, or over whole bar rests if you delete all notes in a bar.

Any repeat barlines input as part of repeat endings are not deleted automatically when you delete repeat endings.

When you delete barlines, the two bars on either side combine into one bar, containing the same number of beats but without changing the time signature. This might cause note, rest, and beam groupings to change.

When you delete time signatures, subsequent bars are re-barred according to the previous time signature in the score, up until the next time signature or the end of the flow, whichever comes first. Flows without time signatures are notated in an open meter, but notes and items retain their duration and positions.

When you delete clefs and key signatures, the pitches of notes are not changed but they are automatically notated according to the previous clef and key signature on the staff, such as with additional accidentals, up to the next existing one or the end of the flow, whichever comes first. Flows without any key signatures are treated as if there were an open/atonal key signature rather than A minor or C major.

When you delete octave lines, any notes to which the deleted octave lines previously applied are shown at either concert pitch or transposed pitch, depending on your current setting for the layout.

If you delete some but not all dynamics in a dynamics group that is linked to other staves, the selected dynamics are also deleted from all linked staves. However, if you select and delete the whole group of dynamics from a single staff, those dynamics are not deleted from other linked staves. Deleting immediate dynamics immediately before/after hairpins can automatically adjust the length of hairpins, depending on the context.

When you delete rehearsal marks, any subsequent rehearsal marks are adjusted until the next change in the sequence or the end of the flow, whichever comes first. For example, if you delete

the first rehearsal mark, the second rehearsal mark shows either the letter A, the number 1, or the bar number, depending on your choice of sequence type.

Deleting tempo marks also removes them from the Tempo editor and the Tempo track in Play mode. The tempo in playback follows the previous tempo mark, or the default tempo of 120 bpm if there is no previous tempo mark.

#### AFTER COMPLETING THIS TASK

If you deleted notes/items because you want to change where they occur, you can input new notes/items at the new positions.

#### RELATED LINKS

[Signposts](#) on page 426

[Editing items](#) on page 409

[Selecting notes/items](#) on page 401

[Filters](#) on page 407

[Selecting lyrics using filters](#) on page 925

[Deleting rests](#) on page 1149

[Deleting notes in the Key Editor](#) on page 638

[Note and rest grouping](#) on page 774

[Turning existing notes into tuplets](#) on page 1273

[Turning tuplets into normal notes](#) on page 1273

[Insert mode](#) on page 427

[Insert mode scopes](#) on page 428

[Groups of dynamics](#) on page 853

[Linked dynamics](#) on page 855

[Accidental duration rules](#) on page 719

[Changing the rehearsal mark sequence type](#) on page 1097

[Inputting notes](#) on page 211

[Notations input](#) on page 259

## Copying and pasting notes/items

You can copy and paste items, including notes and notations, to other rhythmic positions and staves in different ways.

---

#### PROCEDURE

1. In Write mode, select the notes/items you want to copy.

#### TIP

To select multiple items of the same type, you can use large selections and/or filters.

2. Copy the selected notes/items to other rhythmic positions in any of the following ways:
    - **Alt/Opt**-click each position to which you want to paste them.
    - Press **Ctrl/Cmd-C**, select the position to which you want to paste them, then press **Ctrl/Cmd-V**.
    - To repeat the material directly after itself, press **R**.
    - To copy notes/items to the staff above, select them and choose **Edit > Paste Special > Duplicate to Staff Above**.
    - To copy notes/items to the staff below, select them and choose **Edit > Paste Special > Duplicate to Staff Below**.
-

#### RESULT

The selected notes/items are copied without deleting them from their original positions. By default, any MIDI CC points in the copied range are also pasted.

If you copied dynamics or slurs to other staves at the same rhythmic position, they are automatically linked by default.

#### TIP

You can assign key commands for **Duplicate to Staff Above** and **Duplicate to Staff Below** on the **Key Commands** page in **Preferences**.

---

#### RELATED LINKS

[Disabling automatic copying of MIDI data when pasting](#) on page 436  
[Copying and pasting articulations](#) on page 724  
[Copying and pasting lyrics](#) on page 922  
[Copying and pasting notes in the Key Editor](#) on page 637  
[Copying and pasting points in the Key Editor](#) on page 628  
[Copying dynamic points to other instruments](#) on page 649  
[Copying MIDI points to other instruments](#) on page 655  
[Filters](#) on page 407  
[Large selections](#) on page 403  
[Selecting/Deselecting notes and items individually](#) on page 401  
[Exploding music onto multiple staves](#) on page 441  
[Moving notes/items to other staves](#) on page 440  
[Resetting notes crossed to other staves](#) on page 768  
[Moving notes/items rhythmically](#) on page 437  
[Lengthening/Shortening items](#) on page 410  
[Changing the duration of notes](#) on page 248  
[Splitting notes by duration](#) on page 249  
[Disabling automatic linking of dynamics and slurs when pasting](#) on page 436  
[Repitching notes without changing their rhythm](#) on page 448  
[Key Commands page in the Preferences dialog](#) on page 59  
[Linked dynamics](#) on page 855  
[Linked slurs](#) on page 1169  
[Musical transformations](#) on page 453  
[Numbered bar regions](#) on page 1127  
[Insert mode](#) on page 427  
[Chord mode](#) on page 242

## Copying and pasting notes/items to multiple staves

You can copy and paste notes and other items to multiple staves at once; for example, to copy a single phrase to all the woodwind staves when they are playing in unison.

---

#### PROCEDURE

1. In Write mode, select the notes/items you want to copy to multiple staves.

#### TIP

To select multiple items of the same type, you can use large selections and/or filters.

---

2. Press **Ctrl/Cmd-C** to copy the selected notes/items.
3. Select an item on each staff to which you want to paste the selected items.

#### NOTE

The earliest selected item on the top selected staff determines the rhythmic position for pasted items on all staves.

---

4. Press **Ctrl/Cmd-V** to paste the selected notes/items.
- 

#### RESULT

The selected notes/items are copied to all of the selected staves. By default, any MIDI CC points in the copied range are also pasted.

If you copied dynamics or slurs to other staves at the same rhythmic position, they are automatically linked by default.

#### TIP

If you selected a range of notes/items on each staff, the selected notes/items are also pasted multiple times to fill the selected range.

---

#### RELATED LINKS

[Filters](#) on page 407

[Large selections](#) on page 403

[Disabling automatic copying of MIDI data when pasting](#) on page 436

[Linked dynamics](#) on page 855

[Linked slurs](#) on page 1169

[Resetting notes crossed to other staves](#) on page 768

## Copying and pasting notes/items to fill a selected range

You can copy and paste items, including notes and notations, multiple times within a selected range at once; for example, if you want to fill multiple bars with the same phrase.

#### NOTE

You can only copy and paste items that have a duration to fill a selection. For example, you can copy and paste gradual dynamics to fill a selection but not immediate dynamics.

---

#### PROCEDURE

1. In Write mode, select the notes/items you want to copy throughout a range.

#### TIP

To select multiple items of the same type, you can use large selections and/or filters.

---

2. Press **Ctrl/Cmd-C** to copy the selected notes/items.
  3. Select the range throughout which you want to paste the selected notes/items.
  4. Press **Ctrl/Cmd-V** to paste the selected notes/items.
- 

#### RESULT

The selected notes/items are copied as many times as will fit within the selected range without extending beyond it. By default, any MIDI CC points in the copied range are also pasted.



If you copied dynamics or slurs to other staves at the same rhythmic position, they are automatically linked by default.

**TIP**

If you selected a range on multiple staves, the selected items are also pasted to multiple staves.

---

RELATED LINKS

[Filters](#) on page 407

[Large selections](#) on page 403

[Splitting notes by duration](#) on page 249

## Disabling automatic linking of dynamics and slurs when pasting

By default, dynamics and slurs are automatically linked when you copy them to other staves at the same rhythmic position. You can disable this behavior so dynamics and slurs are not linked by default.

---

PROCEDURE

1. Press **Ctrl/Cmd-**, to open **Preferences**.
  2. In the category list, click **Note Input and Editing**.
  3. In the **Editing** section, deactivate **Link dynamics and slurs to existing items when pasting**.
  4. Click **Apply**, then **Close**.
- 

RELATED LINKS

[Preferences dialog](#) on page 58

[Linked dynamics](#) on page 855

[Linked slurs](#) on page 1169

## Disabling automatic copying of MIDI data when pasting

By default, all MIDI CC, MIDI pitch bend, and dynamic points are copied when you copy the notes to which they apply. You can disable this behavior for all future projects on your computer.

---

PROCEDURE

1. Press **Ctrl/Cmd-**, to open **Preferences**.
  2. In the category list, click **Note Input and Editing**.
  3. In the **Note Input** section, deactivate **Include MIDI CC, pitch bend and dynamics from Key Editor when copying music**.
  4. Click **Apply**, then **Close**.
- 

RELATED LINKS

[Preferences dialog](#) on page 58

[Copying and pasting notes/items](#) on page 433

[Copying and pasting notes in the Key Editor](#) on page 637

## Moving notes/items rhythmically

You can move notes and items to new rhythmic positions to the right/left along staves after they have been input. For example, if you want a *cresc.* dynamic to start a beat later. You can also move individual dynamics and playing techniques within a group.

### NOTE

- These steps do not apply to the following items: barlines, notehead brackets, glissando lines, notehead-attached horizontal lines, fingerings and fingering slides, jazz articulations, guitar bends, vibrato bar dives/returns, pedal retakes, and tremolo strokes. If you want to change the rhythmic positions of these items, you must delete them from their original positions and input new ones at the new positions.

We recommend deleting and inputting new arpeggio signs and vertical lines rather than moving them. If you move arpeggio signs and vertical lines to the rhythmic position of a rest, they are deleted.

- Because markers have a fixed position in time, moving markers relative to the notated music automatically changes the tempo on either side of the marker. If you want to move a marker to a new time position, you must change the timecode of the marker; for example, if you want to move it from 25 seconds to 28 seconds.

---

### PREREQUISITE



You have chosen the appropriate rhythmic grid resolution.

---

### PROCEDURE

1. In Write mode, select the notes, items, or signposts that you want to move.

### NOTE

- If you want tuplet notes to remain tuplets, you must also select their tuplet numbers/ratios, brackets, or tuplet signposts, otherwise notes become normal notes of their rhythmic value when you move them beyond the boundaries of tuplets.
  - You can only move a single slur, marker, repeat ending, or bar repeat region at a time.
  - When using the mouse, you can only move a single item at a time. You cannot move notes or the following items using the mouse: tuplets, lyrics, slash regions, time signatures, arpeggio signs, and vertical lines.
  - You can only select clefs that you have input. You cannot select initial clefs at the start of flows or clefs shown automatically at the start of each system.
  - To move a single dynamic within a group, you must click and drag it with the mouse. If you use the key commands, the whole group is moved.
  - Moving multiple playing techniques or dynamics in the same group at the same time ungroups them.
- 
2. Optional: If you selected notes and do not want them to overwrite existing notes they pass over as part of their move, activate one of the following:
    - If you want the selected notes to overlap with existing notes, activate Chord mode by pressing **Q** or clicking **Chords**  in the Notes toolbox.
    - If you want the selected notes to move through existing notes, activate Insert mode in Write mode by pressing **I** or clicking **Insert**  in the Notes toolbox.

NOTE

Moving notes rhythmically with Insert mode activated can affect the durations of existing notes the selected notes move through.

---

3. Move the notes, items, and/or signposts in any of the following ways:

- To move them to the right, press **Alt/Opt-Right Arrow**.
- To move them to the left, press **Alt/Opt-Left Arrow**.

NOTE

Most items move according to the current rhythmic grid resolution. A single selection of the following items moves to adjacent noteheads, bars, or barlines: dynamics, ornaments, slurs, lines, octave lines, pedal lines, playing techniques, rehearsal marks, repeat endings, and bar repeat regions.

---

- To move items to the right according to the current rhythmic grid resolution, press **Ctrl/Cmd-Alt/Opt-Right Arrow**.
- To move items to the left according to the current rhythmic grid resolution, press **Ctrl/Cmd-Alt/Opt-Left Arrow**.
- Click and drag the selected item to the right/left.

NOTE

The following items move to adjacent noteheads, bars, or barlines: dynamics, ornaments, slurs, horizontal lines, octave lines, pedal lines, playing techniques, rehearsal marks, repeat endings, and bar repeat regions.

---

RESULT

The selected notes, items, and/or signposts are moved to new rhythmic positions. Attachment lines link items to the rhythmic positions to which they apply.

Most items move according to the current rhythmic grid resolution. However, a single selection of some items automatically moves to adjacent noteheads, bars, or barlines. When multiple items are selected, they move as a block according to the current rhythmic grid resolution.

NOTE

Only a single instance of many items, such as tempo marks and clefs, can exist at each rhythmic position on each staff. If an item passes over another item of the same type as part of its move, the existing item is deleted or shortened accordingly.

You can undo this action, but any items deleted in the process are only restored if you moved items using the keyboard.

Items that can have multiple instances at the same rhythmic position on the same staff include dynamics, octave lines, playing techniques, horizontal lines, slash regions, and text items. However, if you move multiple items together, any existing items of the same type between the selected items or that they pass over as part of the move are deleted or shortened accordingly unless Insert mode is activated.

---

Notes are automatically positioned according to their rhythmic duration and position relative to other notes.

If a tuplet number/ratio or tuplet bracket is included in the selection, the whole tuplet is moved along the staff. If it crosses a barline, the tuplet is automatically adjusted to compensate.

However, tuplets are not automatically adjusted at the mid-point of bars, where it is convention to split tuplets to show the beat division. You must enter two tuplets manually to show the beat division at the mid-point of bars.

Items such as clefs, key signatures, and time signatures take effect from their new positions until the next item of the same type or the end of the flow, whichever comes first. Barlines on either side of a moved time signature are automatically updated up to the previous/next existing time signature, or the start/end of the flow.

If you moved divisi change signposts, any music on divisi staves outside of divisi passages is automatically hidden, and any unison ranges before/after divisi passages are automatically updated.

If you moved harp pedal diagrams and colors are shown for notes out of range, any notes that no longer fit with the prevailing harp pedal diagram appear red.

The position of holds and pauses you have moved might not appear to change. For example, if one staff has a bar rest and you move a fermata rhythmically within the bar, the fermata still appears above the bar rest.

The rhythmic duration of slurs is usually maintained. However, depending on the rhythms they cross as they move, slurs may cover longer/shorter durations than before the move.

Moving repeat endings does not automatically input, delete, or move repeat barlines.

When you move markers, their fixed position in time is not changed. Therefore, the tempo immediately preceding the marker automatically updates so that the marker occurs at the correct time. For example, moving a marker to the right increases the preceding tempo. Any gradual tempo changes between the preceding tempo change or the start of the flow and the marker are removed. The tempo change affects the positions of all other markers in the flow relative to the notated music.

#### RELATED LINKS

[Rhythmic grid](#) on page 204

[Notes toolbox](#) on page 187

[Note spacing](#) on page 579

[Chord mode](#) on page 242

[Insert mode](#) on page 427

[Note and rest grouping](#) on page 774

[Tuplet brackets](#) on page 1276

[Tuplet numbers/ratios](#) on page 1279

[Changing the duration of notes](#) on page 248

[Lengthening/Shortening items](#) on page 410

[Changing the staff-relative placement of items](#) on page 414

[Moving notes/items to other staves](#) on page 440

[Creating cross-staff beams/tremolos](#) on page 764

[Moving figured bass resolutions](#) on page 867

[Moving the center of messa di voce hairpins](#) on page 849

[Splitting pedal lines](#) on page 1052

[Moving items graphically](#) on page 481

[Hiding/Showing colors for notes out of range](#) on page 951

[Groups of dynamics](#) on page 853

[Groups of playing techniques](#) on page 1072

[Deleting notes/items](#) on page 431

[Input methods for lines](#) on page 367

[Input methods for ornaments, arpeggio signs, glissando lines, and jazz articulations](#) on page 325

[Input methods for guitar bends and guitar techniques](#) on page 338

[Input methods for clefs and octave lines](#) on page 314

[Input methods for repeats and tremolos](#) on page 386

- [Adding retakes with the popover](#) on page 360
- [Adding retakes with the panel](#) on page 362
- [Inputting fingerings](#) on page 262
- [Hiding/Showing fingering slides](#) on page 886
- [Showing brackets on noteheads](#) on page 954
- [Changing the timecodes of markers](#) on page 1102

## Moving notes/items to other staves

You can move notes and items to other staves of any type; for example, if you want to move individual notes from one keyboard staff to another after importing a keyboard part from a MIDI file.

### NOTE

- These steps do not apply to pedal lines or system objects.
- If you want notes to appear on a different staff but remain attached to their original staff, such as to create a cross-staff beam, you can cross notes to other staves instead.

---

### PROCEDURE

1. In Write mode, select the notes and/or items you want to move to another staff.

#### TIP

To select multiple items of the same type, you can use large selections and/or filters.

2. Move the selected notes/items another staff in one of the following ways:

- To move them to the staff above, press **Alt/Opt-N**.
- To move them to the staff below, press **Alt/Opt-M**.
- Choose **Edit > Paste Special > Move to Staff Above**.
- Choose **Edit > Paste Special > Move to Staff Below**.

#### TIP

You can also choose these options from the context menu.

---

### RESULT

The selected notes and/or items are moved to another staff by cutting them from their original staff and pasting them to the new staff. By default, notes are pasted into the first voice active on that staff.

Notes within tuplets remain tuplets even if you did not select the tuplet bracket, tuplet number/ratio, or tuplet signpost.

### RELATED LINKS

- [Filters](#) on page 407
- [Large selections](#) on page 403
- [Creating cross-staff beams/tremolos](#) on page 764
- [Moving notes/items rhythmically](#) on page 437
- [Copying and pasting notes/items to multiple staves](#) on page 434
- [Changing the duration of notes](#) on page 248
- [Changing the pitch of individual notes](#) on page 444
- [Changing the positions of system objects](#) on page 1197

[Input methods for playing techniques, pedal lines, string indicators, and harp pedal diagrams](#) on page 351

## Reducing music onto fewer staves

You can reduce music onto fewer staves than it was originally notated across; for example, to create a piano reduction of a choral piece.

---

### PROCEDURE

1. In Write mode, select the music you want to reduce.

#### TIP

We recommend reducing sections in rhythmic unison separately from sections with different rhythms.

2. Press **Ctrl/Cmd-C** to copy the music.
3. Select the staves onto which you want to reduce the selected music.
4. Choose **Edit > Paste Special > Reduce**. You can also choose this option from the context menu.

---

### RESULT

The selected music is reduced onto the selected staves.

If the rhythms match throughout the selection, Dorico Elements merges the music into a single voice by default. Unison notes are removed so that only a single note of the same pitch is pasted at a single rhythmic position, and clef changes, octave lines, and cues are also deleted. If the rhythms are different at any point in the selection, Dorico Elements uses as many voices as needed to preserve the rhythms.

Each destination staff receives the music of at least one instrument, and the division of the music to be reduced is calculated from the top selected staff downwards. For example, if you copy material from five instruments and reduce it to three, the top selected staff is assigned the music from the first and second instruments, the second selected staff is assigned music from the third and fourth instruments, and the third selected staff is assigned music from the fifth instrument.

### RELATED LINKS

[Moving notes/items to other staves](#) on page 440  
[Changing the voice of existing notes](#) on page 442

## Exploding music onto multiple staves

You can explode music onto more staves than it was originally notated for; for example, to get notes in dense piano chords onto all the woodwind staves quickly.

### PREREQUISITE

You have reset any cross-staff notes to their default staves.

---

### PROCEDURE

1. In Write mode, select the music you want to explode.
2. Press **Ctrl/Cmd-C** to copy the music.
3. Select the staves onto which you want to explode the selected music.

4. Choose **Edit > Paste Special > Explode**. You can also choose this option from the context menu.
- 

#### RESULT

The selected music is exploded onto the selected staves. By default, each destination staff receives at least one of the notes in the source chords, allocated from the top selected instrument staff downwards.

- If the number of notes in the chord matches the number of destination staves, each instrument receives one note.
- If the number of notes in the chord is less than the number of destination staves, then the same note is allocated to multiple staves. Notations, such as slurs and dynamics, are duplicated to each destination staff.
- If the number of notes in the chord is more than the number of destination staves, then the notes are spread as equally as possible across the destination staves. If the chord contained an odd number of notes, Dorico Elements prefers to allocate extra notes to the upper staves.

#### RELATED LINKS

[Creating cross-staff beams/tremolos](#) on page 764

[Insert mode](#) on page 427

[Chord mode](#) on page 242

## Changing the voice of existing notes

You can change the voice of notes after they have been input, including notes in slash voices. For example, you can change notes in an up-stem voice to a down-stem voice or a slash voice.

---





#### PROCEDURE

1. In Write mode, select the notes whose voice you want to change.

#### TIP

You can use large selections and filters to select many notes in the same voice quickly.

---

2. Change the voice in any of the following ways:
    - To change the selected notes to a new normal voice, press **Shift-V** or click **Create Voice**  in the Notes toolbox.
    - To change the selected notes to a new slash voice, press **Shift-Alt/Opt-V**. You can also click and hold **Create Voice**  in the Notes toolbox, then click **Create Slash Voice** .
    - To change the selected notes to an existing voice, press **V** or click **Next Voice**  in the Notes toolbox to cycle through active voices on the staff.
- 

#### RESULT

The voice of the selected notes is changed, which might cause Dorico Elements to change the stem directions of the selected notes and other notes on the staff. Rests appear as required around notes in different voices.

If you changed notes to a slash voice, they no longer play back.

#### TIP

You can also change the voice of selected notes by choosing **Edit > Notations > Voices > Change Voice > [Voice]**. You can also choose these options from the context menu. If there is only one voice on the staff, you can create a new voice for your selected notes.

---

#### AFTER COMPLETING THIS TASK

- You can later delete or hide rests and change the stem direction of notes manually.
- You can also change whole voices into slash voices.

#### RELATED LINKS

[Notes toolbox](#) on page 187

[Hiding/Showing voice colors](#) on page 1304

[Inputting notes into multiple voices](#) on page 221

[Inputting notes into slash voices](#) on page 223

[Large selections](#) on page 403

[Filters](#) on page 407

[Implicit rests in multiple-voice contexts](#) on page 1146

[Deleting rests](#) on page 1149

[Changing the stem direction of notes](#) on page 963

[Changing the slash voice type](#) on page 1142

[Changing the duration of notes](#) on page 248

[Tuplets](#) on page 1271

[Signposts](#) on page 426

## Swapping the contents of voices

You can swap the contents of two voices that contain musical material.

---

#### PROCEDURE

1. In Write mode, select the notes in two voices that you want to swap.
  2. Choose **Edit > Notations > Voices > Swap Voice Contents**. You can also choose this option from the context menu.
- 

#### RESULT

The contents of the voices are swapped. For example, the notes previously in an up-stem voice are now in a down-stem voice, and the notes previously in a down-stem voice are now in an up-stem voice.

#### NOTE

Depending on the pitches involved in the swap and their stem directions, the notes might overlap. Dorico Elements automatically positions notes with the noteheads partially overlapping, in order to minimize the horizontal space they occupy and maintain the clarity of the rhythm. However, if you want to change this arrangement, you can change the order of voices or change the voice column index.

---



EXAMPLE



An E is in the up-stem voice, an F in the down-stem voice.



After swapping their voice contents, the E is in the down-stem voice, and the F is in the up-stem voice.

---

RELATED LINKS

[Swapping the order of voices](#) on page 1307

[Voice column index](#) on page 1307

## Transposing tools

In Dorico Elements, you can change the pitches of existing notes in a variety of ways.

RELATED LINKS

[Arranging tools](#) on page 431

[Transposing instruments](#) on page 133

[Concert vs. transposed pitch](#) on page 170

[Transposing notes in the piano roll editor](#) on page 636

## Changing the pitch of individual notes

You can raise/lower the pitch and register of individual notes, including grace notes, after they have been input by octave divisions, staff position, and octaves.

---

PROCEDURE

1. In Write mode, select the notes whose pitches you want to change.
  2. Raise/Lower the pitches of the selected notes in any of the following ways:
    - To move notes up one staff position, such as from C to D, press **Alt/Opt-Up Arrow**.
    - To move notes down one staff position, such as from D to C, press **Alt/Opt-Down Arrow**.
    - To transpose notes up a single octave division, such as a half-step (semitone) in 12-EDO or a quarter tone in 24-EDO, press **Shift-Alt/Opt-Up Arrow**.
    - To transpose notes down a single octave division, such as a half-step (semitone) in 12-EDO or a quarter tone in 24-EDO, press **Shift-Alt/Opt-Down Arrow**.
    - To transpose notes up an octave, press **Ctrl/Cmd-Alt/Opt-Up Arrow**.
    - To transpose notes down an octave, press **Ctrl/Cmd-Alt/Opt-Down Arrow**.
- 

RESULT

The pitch or register of the selected notes is changed. Any figured bass shown on the affected staves is updated automatically.

If the pitch is now impossible to play on a fretted instrument, such as if a note would have to be played below the nut on the lowest string, it appears on tablature as a question mark.

#### NOTE

You can press **Alt/Opt-Up Arrow** and **Alt/Opt-Down Arrow** to change the staff positions of notes in percussion kits using grid and five-line staff presentation types. However, this also changes the instrument playing the note.

---

#### RELATED LINKS

- [Equal Division of the Octave \(EDO\) on page 918](#)
- [Adding notes above/below existing notes on page 247](#)
- [Respelling notes on page 449](#)
- [Inputting accidentals on page 233](#)
- [Transposing notes in the piano roll editor on page 636](#)
- [Figured bass on page 858](#)
- [Arranging tools on page 431](#)
- [Musical transformations on page 453](#)
- [Inverting pitches on page 453](#)
- [Reversing pitches/rhythms on page 454](#)
- [Rotating pitches/rhythms on page 456](#)
- [Mapping notes to pitches on page 458](#)
- [Mapping notes to scales on page 460](#)

## Transposing selections

You can transpose whole flows or specific selections, including selected key signatures, using the **Transpose** dialog.

#### TIP

Dorico Elements automatically shows the appropriate key signatures for transposing instruments in transposing layouts.

---

#### PROCEDURE

1. Optional: In Write mode, select the region you want to transpose.

#### NOTE

- If you want to transpose key signatures, you must include them in your selection.
  - If nothing is selected, the whole flow in which you last selected a note/item is transposed.
- 

2. Choose **Write > Transpose** to open the **Transpose** dialog.
3. Adjust the parameters required for your transposition, such as interval and quality.

#### TIP

- We recommend using the **Calculate interval** section to determine your required settings; for example, if you want to transpose from G $\flat$  major to G major.
  - Different intervals have different possible qualities. For example, you can specify a major third but not a major octave. Therefore, if you want to set your transposition parameters manually, we recommend selecting the interval before the quality.
- 

4. Optional: If you want to transpose any key signatures in the flow or included in your selection, activate **Transpose key signatures**.

5. Click **OK** to save your changes and close the dialog.

#### RESULT

All notes in your selection, or all notes in the flow if nothing was selected, are transposed according to the interval or number of divisions of the octave specified in the **Transpose** dialog. If your selection included key signatures and you activated **Transpose key signatures**, all key signatures in the selection are also transposed.

Any figured bass shown on the affected staves is also transposed accordingly.

Key signatures that apply to all staves are transposed on all staves in the layout, even if your selection did not include all staves. Key signatures that apply only to single staves are transposed if they are included in a selection, but this does not affect any other staff in the layout.

#### RELATED LINKS

[Large selections](#) on page 403

[Selecting/Deselecting notes and items individually](#) on page 401

[Figured bass](#) on page 858

[Enharmonic equivalent key signatures](#) on page 915

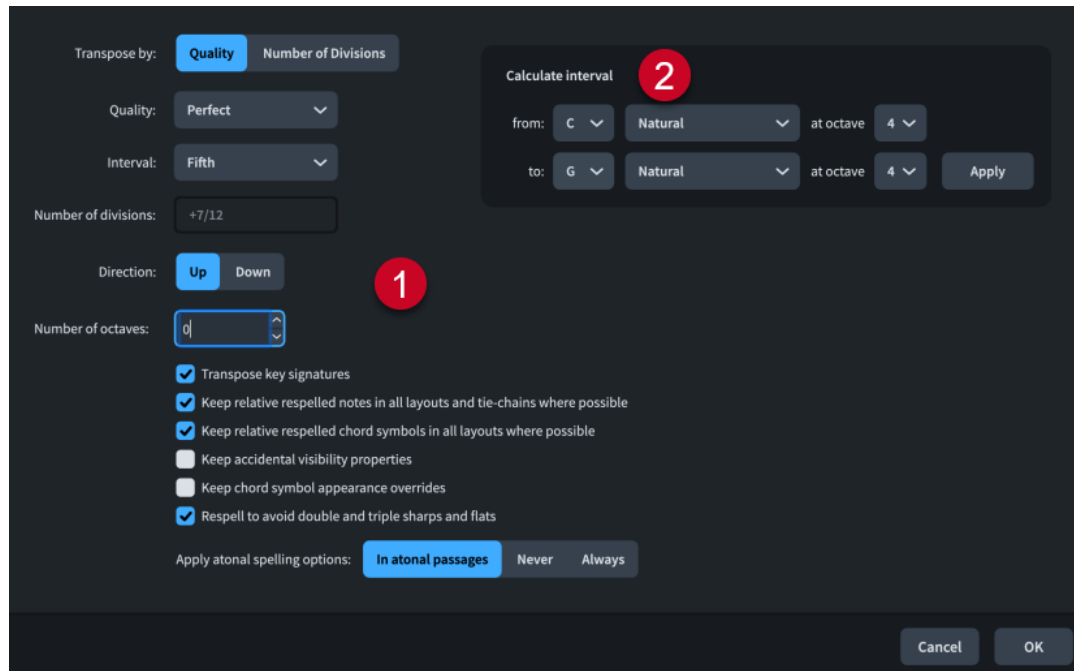
[Concert vs. transposed pitch](#) on page 170

[Making layouts transposing/concert pitch](#) on page 169

## Transpose dialog

The **Transpose** dialog allows you to transpose whole flows or selections of notes, including key signatures. You can transpose according to an interval and quality or by a set number of octave divisions.

- You can open the **Transpose** dialog in Write mode by choosing **Write > Transpose**.



The **Transpose** dialog contains the following sections:

### 1 Transposition options

Contains options that allow you to specify the transposition you want. For example, you can choose to transpose by an interval quality, such as a major third, or by a set number of divisions of the octave. You can choose the direction of the transposition, whether it includes

octaves, and the interval and quality or number of divisions by which you want to transpose your selection.

According to convention, different intervals have different possible qualities. For example, you can specify a major third but not a major octave. Therefore, we recommend selecting the interval before the quality.

Additional options also allow you to transpose any key signatures included in your selection, keep relative respelled notes and chord symbols where possible, and avoid double and triple accidentals.

#### NOTE

You can only use **Respell to avoid double and triple sharps and flats** when transposing music in tonality systems that are compatible with 12-EDO.

---

## 2 Calculate interval

Allows you to set transposition options according to a starting note and the resulting note you want. For example, if you want to transpose a selection relative to a C<sub>4</sub> becoming a G<sub>4</sub> but you are not certain of the interval and quality required, you can enter those two notes in the **Calculate interval** section, click **Apply**, and Dorico Elements automatically sets the required transposition options for you.

#### NOTE

The **Transpose** dialog does not allow transpositions that would result in impossible notations, such as sharper than a triple sharp, or that require a microtonal accidental that does not exist in the tonality system in place at the position of your selection.

---

#### RELATED LINKS

[Note tools popover](#) on page 462

[Equal Division of the Octave \(EDO\)](#) on page 918

[Tonality systems](#) on page 918

[Arranging tools](#) on page 431

[Musical transformations](#) on page 453

[Mapping notes to pitches](#) on page 458



[Mapping notes to scales](#) on page 460

## Transposing existing notes with the note tools popover

You can change the pitch of notes after they have been input using the note tools popover.

---

#### PROCEDURE

1. In Write mode, select the notes you want to transpose.
  2. Open the note tools popover in any of the following ways:
    - Press **Shift-I**.
    - In the Notations toolbox, click **Popovers** , then **Note Tools** .
  3. Enter the transposition interval you want into the popover.

For example, enter **t3** to transpose the notes up a third, or **t-min6** to transpose the notes down a minor sixth.
  4. Press **Return** to close the popover.
-

#### RESULT

The selected notes are transposed by the degree specified. Any figured bass shown on the affected staves is also transposed accordingly.

#### RELATED LINKS




- [Notations toolbox](#) on page 192
- [Note tools popover](#) on page 462
- [Figured bass](#) on page 858

## Repitching notes without changing their rhythm

You can repitch notes after you have input them while keeping their durations the same. For example, if you want to duplicate the rhythm but have different pitches.

---

#### PROCEDURE

1. In Write mode, select the first note you want to repitch.
2. Start note input in any of the following ways:
  - Press **Shift-N**.
  - In the Notes toolbox, click **Start Note Input** .
  - Double-click the staff.
3. Optional: If you want to repitch notes on multiple staves at once, extend the caret to those staves.
4. Activate **Lock to Duration** in any of the following ways:
  - Press **L**.
  - In the Notes toolbox, click **Lock to Duration** .
5. Enter the pitches you want.
6. Optional: Press **L** or click **Lock to Duration**  again to deactivate **Lock to Duration**.

#### NOTE

**Lock to Duration** automatically deactivates when you reach the last existing note on the staff. By default, normal note input continues using the previous note value selected before you activated **Lock to Duration**.

---

#### RESULT

Existing notes on the selected staff are repitched without their rhythms being changed. The caret automatically advances from note to note, even if there are large rests between notes on the staff.

#### TIP

You can set a maximum number of rests over which you want to advance when repitching notes in **Preferences > Note Input and Editing > Note Input > Lock Duration**.

---

#### RELATED LINKS

- [Caret](#) on page 205
- [Extending the caret to multiple staves](#) on page 209
- [Arranging tools](#) on page 431
- [Musical transformations](#) on page 453

[Mapping notes to pitches](#) on page 458  
[Mapping notes to scales](#) on page 460  
[Copying and pasting articulations](#) on page 724  
[Preferences dialog](#) on page 58

## Respelling notes

You can change the enharmonic spelling of notes so they are shown as their enharmonic equivalents; for example, to show the stepwise movement in a phrase clearly, or to avoid altered unisons in a chord. You can do this for all layouts or only in the current part layout.

By default, Dorico Elements uses an algorithm that automatically decides the spelling of pitches, based on key signature and context.

There are always at least three options for every pitch, as Dorico Elements allows enharmonic spellings to show up to two accidental glyphs. This means the same note can be spelled four ways if the original pitch can be spelled with the note name either two notes below or two notes above, using a maximum of two accidental glyphs. For example, B<sup>♯</sup> is a possible enharmonic spelling of G<sup>♯</sup> because a triple-flat uses a single accidental glyph, whereas an F<sup>♯</sup> uses two accidental glyphs.

---

### PROCEDURE

1. In the music area, open the layout in which you want to respell accidentals. You can do this in Write mode and Engrave mode.



#### NOTE

By default, respelling notes in score layouts also affects their spelling in all other layouts, but respelling notes in part layouts only affects their spelling in the current part layout.

2. Select the notes you want to respell.

#### NOTE

If you want to respell individual noteheads in tie chains, you must be in Engrave mode.

3. Respelling the selected notes in any of the following ways:
  - To respell them upwards, press **Alt/Opt+=** or click **Respell Using Note Name Above**  in the Keyboard panel toolbar.
  - To respell them downwards, press **Alt/Opt--** or click **Respell Using Note Name Below**  in the Keyboard panel toolbar.
  - To respell them automatically, choose **Write > Respell > Respell Notes Automatically** to open the **Respell Notes Automatically** dialog.
4. Optional: If you opened the **Respell Notes Automatically** dialog, change the settings for respelling as required, then click **OK** to close the dialog and respell the selected notes.

---

### RESULT

The enharmonic spelling of the selected notes is changed.

EXAMPLE



A G sharp



When respelled downwards, the G sharp becomes an F triple-sharp



When respelled upwards, the G sharp becomes an A flat



When respelled upwards again, the G sharp becomes a B triple-flat

---

AFTER COMPLETING THIS TASK

You can copy note spellings to other layouts, such as if you respelled notes in a part layout but want the same spelling to appear in the full score layout.

RELATED LINKS

[Keyboard panel](#) on page 197

[Switching between layouts](#) on page 43

[Selecting notes/items](#) on page 401

[Accidentals](#) on page 712

[Accidental selection during MIDI input](#) on page 234

[Key signatures](#) on page 911

[Tonality systems](#) on page 918

[Input methods for key signatures](#) on page 265

[Copying note spellings to other layouts](#) on page 452

[Resetting note spellings](#) on page 452

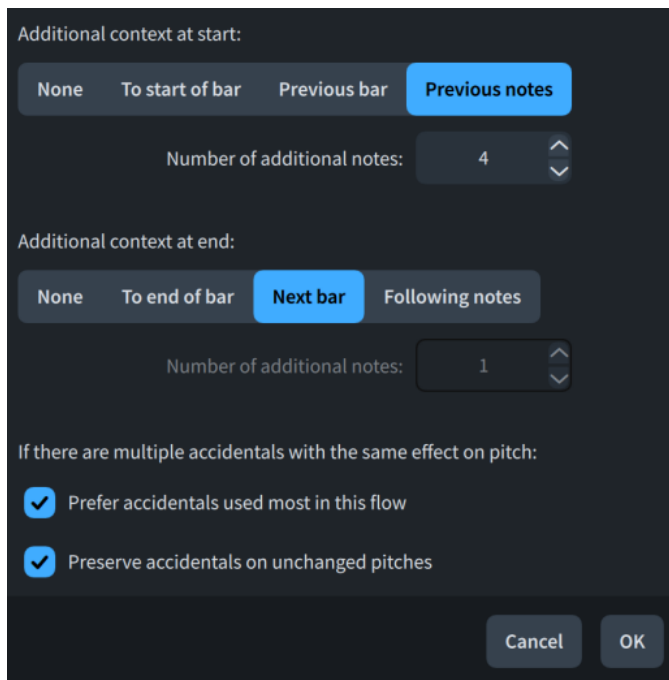
[Mapping notes to pitches](#) on page 458

[Mapping notes to scales](#) on page 460

## Respell Notes Automatically dialog

The **Respell Notes Automatically** dialog allows you to simplify the note spelling of all notes in specific selections based on the musical context, including respelling some notes upwards and other notes downwards.

- You can open the **Respell Notes Automatically** dialog in Write mode when at least one note is selected in the music area by choosing **Write > Respell > Respell Notes Automatically**.



The **Respell Notes Automatically** dialog contains the following options:

#### **Additional context at start**

Allows you to specify additional musical context before the selected notes that you want Dorico Elements to consider when calculating automatic note spellings.

- **None:** Only notes in the selection.
- **To start of bar:** Includes notes back to the start of the earliest selected bar.
- **Previous bar:** Includes notes back to the start of the previous bar.
- **Previous notes:** Includes a specified number of notes before the selection.
- **Number of additional notes:** Allows you to specify the number of additional notes you want to consider. Only available if you have activated **Previous notes**.

#### **Additional context at end**

Allows you to specify additional musical context after the selected notes that you want Dorico Elements to consider when calculating automatic note spellings.

- **None:** Only notes in the selection.
- **To end of bar:** Includes notes up to the end of the last selected bar.
- **Next bar:** Includes notes up to the end of the next bar.
- **Following notes:** Includes a specified number of notes after the selection.
- **Number of additional notes:** Allows you to specify the number of additional notes you want to consider. Only available if you have activated **Following notes**.

#### **Prefer accidentals used most in this flow**

Allows you to specify whether to choose accidentals based on how frequently they are used in the flow or the default accidental for the corresponding pitch delta. Useful in tonality systems that contain multiple accidentals with the same pitch delta.

#### **Preserve accidentals on unchanged pitches**

Allows you to specify whether existing accidentals on notes that are not respelled are retained or chosen according to your setting for **Prefer accidentals used most in this**



**flow.** Useful in tonality systems that contain multiple accidentals with the same pitch delta.

RELATED LINKS

[Selecting notes/items](#) on page 401

[Respelling notes](#) on page 449

[Changing the pitch of individual notes](#) on page 444

[Inputting accidentals](#) on page 233

[Accidental selection during MIDI input](#) on page 234

[Tonality systems](#) on page 918

## Copying note spellings to other layouts

You can copy note spellings to other layouts; for example, if you originally respelled notes in a part layout but want those spellings to appear in the full score layout as well.

---

PROCEDURE

1. In Write mode, open the layout containing the note spellings you want to copy.
2. Select the notes you want to respell.
3. Choose **Write > Respell > Propagate Note Spellings**.

---

RESULT

The spellings of the selected notes in the current layout are copied to all other layouts in which those notes appear.

RELATED LINKS

[Switching between layouts](#) on page 43

[Part formatting propagation](#) on page 596

## Resetting note spellings

You can reset changes to note spellings so they follow the spelling in score layouts; for example, if you want future revisions to note spellings you make in the full score layout to affect notes whose spelling you previously overrode in a part layout. You can do this in either one part layout only or in all layouts.

---

PROCEDURE

1. Optional: If you want to reset note spellings in one part layout only, open that layout in the music area.
2. In Write mode, select the notes whose spellings you want to reset.
3. Reset their note spellings in one of the following ways:
  - Choose **Write > Respell > Reset Note Spellings in Current Layout**.
  - Choose **Write > Respell > Reset Note Spellings in All Layouts**.

---

RESULT

The spellings of the selected notes are reset either in the current part layout only or in all layouts. Their link to the score note spelling is restored, meaning all future changes you make to the spelling of the selected notes in score layouts also affect their spelling in either the current part layout or all layouts.

RELATED LINKS

[Switching between layouts](#) on page 43

[Respelling notes](#) on page 449

[Transposing selections](#) on page 445

## Musical transformations

Dorico Elements provides multiple tools for transforming pitches and rhythms, including reversing and inverting pitches and rotating rhythms.

In Dorico Elements, the term “musical transformations” covers the following methods of changing the pitch and/or rhythm of notes:

### Inversion

The melodic contours of phrases are switched upside-down by forcing pitch intervals between notes in the opposite direction, such as a note originally a fifth above the previous note becoming a fifth below the previous note.

### Reversal

The order of notes, including pitches and/or rhythms, and items is reversed so they are played backwards; for example, the first note of a phrase becoming the last note. Also known as “retrograde”.

### Rotation

Notes, including pitches and/or rhythms, and items are shifted along by a specified number of steps either forwards or backwards, so that, for example, the first note in a phrase’s original pitch is given to the second note, the second note’s pitch to the third note, and so on.

### Repetition

The pitches of the specified number of notes at the start of a phrase is repeated across all subsequent notes in the selection.

### Pitch mapping

Specified pitches are transposed to become other specified pitches, such as mapping all C#s to Dbs.

### Scale mapping

All notes in the specified source scale are transposed to become the equivalent notes in the destination scale according to their scale degree.

RELATED LINKS

[Arranging tools](#) on page 431

[Note tools popover](#) on page 462

[Adding notes above/below existing notes](#) on page 247

[Transposing existing notes with the note tools popover](#) on page 447

## Inverting pitches

You can invert the pitches of selected notes, which switches the melodic contour of phrases upside-down by forcing pitch intervals between notes in the opposite direction, such as a note originally a fifth above the previous note becoming a fifth below the previous note. This transformation is also known as “inversion”.

---

PROCEDURE

1. In Write mode, select the notes you want to invert.

2. Do one of the following:
    - To invert pitches only, choose **Write > Transform > Pitches > Invert Pitches** to open the **Invert Pitches** dialog.
    - To invert and reverse pitches, choose **Write > Transform > Pitches > Reverse and Invert Pitches** to open the **Reverse and Invert Pitches** dialog.
    - To invert and reverse pitches and reverse rhythms, choose **Write > Transform > All > Reverse and Invert Pitches and Reverse Rhythms** to open the **Reverse and Invert Pitches and Reverse Rhythms** dialog.
  3. Change the settings as required for your inversion.
  4. Click **OK** to save your changes and close the dialog.
- 

#### RESULT

The selected notes are transformed according to your initial menu selection and your settings in the dialog.

#### TIP

You can also invert pitches using the note tools popover.

---

#### RELATED LINKS

[Reverse and Invert Pitches and Reverse Rhythms dialogs](#) on page 455

[Note tools popover](#) on page 462

[Large selections](#) on page 403

[Arranging tools](#) on page 431

[Inputting notes](#) on page 211

## Reversing pitches/rhythms

You can reverse notes, including pitches and/or rhythms, and staff-attached items so that selections are played backwards; for example, the first note of a phrase becomes the last note. This transformation is also known as “retrograde”.

---

#### PROCEDURE

1. In Write mode, select the notes and staff-attached items whose pitches and/or rhythms you want to reverse.  
For example, to reverse dynamics alongside notes, include dynamics in your selection.
2. Do one of the following:
  - To reverse pitches only, choose **Write > Transform > Pitches > Reverse Pitches**.
  - To reverse rhythms only, choose **Write > Transform > Rhythm > Reverse Rhythms**.
  - To reverse pitches and rhythms, choose **Write > Transform > All > Reverse Pitches and Rhythms**.
  - To reverse and invert pitches, choose **Write > Transform > Pitches > Reverse and Invert Pitches** to open the **Reverse and Invert Pitches** dialog.
  - To reverse and invert pitches and reverse rhythms, choose **Write > Transform > All > Reverse and Invert Pitches and Reverse Rhythms** to open the **Reverse and Invert Pitches and Reverse Rhythms** dialog.
3. Optional: If you chose to reverse and invert pitches, change the settings as required for your inversion.

4. Click **OK** to save your changes and close the dialog.
- 

#### RESULT

The selected notes and staff-attached items are transformed according to your initial menu selection and optionally your settings in the dialog.

#### TIP

You can also reverse pitches/rhythms using the note tools popover.

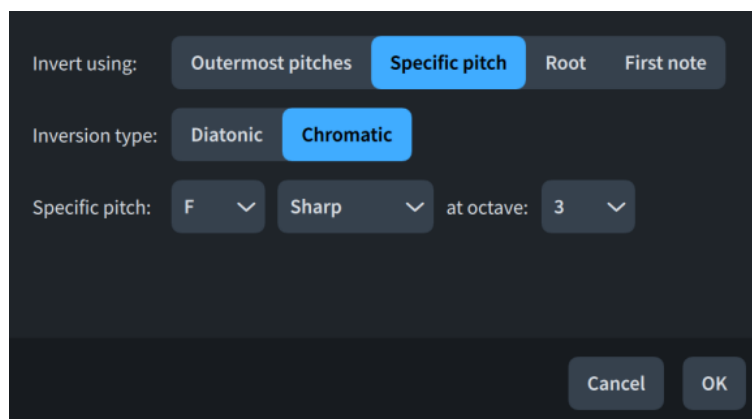
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## Reverse and Invert Pitches and Reverse Rhythms dialogs

The **Invert Pitches**, **Reverse and Invert Pitches**, and **Reverse and Invert Pitches and Reverse Rhythms** dialogs allow you to invert and reverse the pitches and reverse the rhythms of selected notes. These transformations are also known as “inversion” and “retrograde inversion”.

You can open these dialogs in Write mode when at least one note is selected in the music area in the following ways:

- To open the **Invert Pitches** dialog, choose **Write > Transform > Pitches > Invert Pitches**.
- To open the **Reverse and Invert Pitches** dialog, choose **Write > Transform > Pitches > Reverse and Invert Pitches**.
- To open the **Reverse and Invert Pitches and Reverse Rhythms** dialog, choose **Write > Transform > All > Reverse and Invert Pitches and Reverse Rhythms**.



The dialogs contain the following options:

#### Invert using

Allows you to change the inversion behavior.

- **Outermost pitches:** Inverts pitches within the range of the highest and lowest notes in the selection.
- **Specific pitch:** Inverts pitches around the specified pitch.
- **Root:** Inverts pitches around the root of the prevailing key. In open keys or music without key signatures, C is used.
- **First note:** Inverts pitches around the first note in the selection.

#### Inversion type

Allows you to change how intervals are handled in the inversion.

- **Diatonic:** Inversions use the interval degree, according to the scale degrees in the prevailing key signature. Diatonic inversions preserve the interval relationship

between pitches, which can result in, for example, a minor second interval below becoming a major second interval above.

- **Chromatic:** Inversions use the specified number of half-steps (semitones), regardless of the prevailing key signature.

Not available when **Outermost pitches** is chosen for **Invert using**.

### Specific pitch

Allows you to specify the central pitch for inversion. You can select the note name, accidental, and octave. The available accidentals depend on the prevailing tonality system.

Only available when **Specific pitch** is chosen for **Invert using**.

### When first note is a chord, use

Allows you to specify which pitch to use as the central pitch for inversion when the first note is part of a chord.

- **Top note of chord:** The highest note in the chord is used.
- **Bottom note of chord:** The lowest note in the chord is used.

Only available when **First note** is chosen for **Invert using**.

### RELATED LINKS

[Tonality systems](#) on page 918

## Rotating pitches/rhythms

You can rotate notes, including pitches and/or rhythms, and staff-attached items by a specified number of steps either forwards or backwards, so that, for example, the first note in a phrase's original pitch is given to the second note, the second note's pitch to the third note, and so on.

---

### PROCEDURE

1. In Write mode, select the notes and staff-attached items whose pitches and/or rhythms you want to rotate.  
For example, to rotate dynamics alongside notes, include dynamics in your selection.
2. Do one of the following:
  - To rotate pitches only, choose **Write > Transform > Pitches > Rotate Pitches** to open the **Rotate Pitches** dialog.
  - To rotate rhythms only, choose **Write > Transform > Rhythm > Rotate Rhythms** to open the **Rotate Rhythms** dialog.
  - To rotate pitches and rhythms, choose **Write > Transform > All > Rotate Pitches and Rhythms** to open the **Rotate Pitches and Rhythms** dialog.
3. Change the settings as required for your rotation.
4. Click **OK** to save your changes and close the dialog.

---

### RESULT

The selected notes and staff-attached items are rotated according to your settings in the dialog.

### TIP

You can also rotate pitches/rhythms using the note tools popover.

---

#### RELATED LINKS

[Note tools popover](#) on page 462

[Large selections](#) on page 403

[Arranging tools](#) on page 431

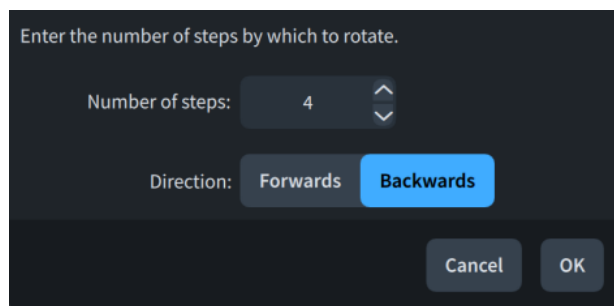
[Inputting notes](#) on page 211

## Rotate Pitches/Rhythms dialogs

The **Rotate Pitches**, **Rotate Rhythms**, and **Rotate Pitches and Rhythms** dialogs allow you to rotate the pitches and/or rhythms of selected notes.

You can open these dialogs in Write mode when at least one note is selected in the music area in the following ways:

- To open the **Rotate Pitches** dialog, choose **Write > Transform > Pitches > Rotate Pitches**.
- To open the **Rotate Rhythms** dialog, choose **Write > Transform > Rhythm > Rotate Rhythms**.
- To open the **Rotate Pitches and Rhythms** dialog, choose **Write > Transform > All > Rotate Pitches and Rhythms**.



The dialogs contain the following options:

#### Number of steps

Allows you to set the number of steps in the rotation.

#### Direction

Allows you to set the rotation direction.

- **Forwards:** Rotates forwards; that is, pitches/rhythms shift to the right.
- **Backwards:** Rotates backwards; that is, pitches/rhythms shift to the left.

## Repeating pitches across notes

You can repeat a specified number of pitches across all subsequent notes in the selection; for example, if you want to change the harmonic pattern for a passage.

---

#### PROCEDURE

1. In Write mode, make a selection that includes both of the following:
    - The notes whose pitches you want to repeat
    - The notes across which you want to repeat pitches
  2. Choose **Write > Transform > Pitches > Repeat Pitches** to open the **Repeat Pitches** dialog.
  3. Change the value in the value field.
  4. Click **OK** to save your changes and close the dialog.
-

#### RESULT

The specified number of pitches at the start of the selection is repeated across the following notes in the selection.

#### TIP

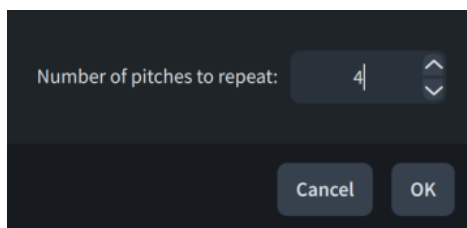
You can also repeat pitches using the note tools popover.

---

## Repeat Pitches dialog

The **Repeat Pitches** dialog allows you to set the number of pitches you want to repeat across all subsequent notes in the selection.

- You can open the **Repeat Pitches** dialog in Write mode when at least one note is selected in the music area by choosing **Write > Transform > Pitches > Repeat Pitches**.



The **Repeat Pitches** dialog contains the following option:

#### Number of pitches to repeat

Allows you to set the number of pitches you want to repeat across the selection, starting from the first selected note.

## Mapping notes to pitches

You can map multiple source pitches to destination pitches in a single transformation; for example, if you want to transform all C#, F#, and A#s into Dbs, Gbs, and Bbs.

---

#### PROCEDURE

1. In Write mode, select the notes whose pitches you want to map.
  2. Choose **Write > Transform > Pitches > Map Pitches** to open the **Map Pitches** dialog.
  3. Change the settings for **Map pitch** to specify the source pitch.
  4. Activate/Deactivate **Include enharmonic equivalents**.
  5. Change the settings for **To** to specify the destination pitch.
  6. Click **Add mapping**.
  7. Optional: Repeat steps 3 to 6 for each pitch you want to map.
  8. Click **OK** to save your changes and close the dialog.
- 

#### RESULT

The specified source pitches are mapped to the specified destination pitches according to your settings.

#### TIP

You can also map pitches using the note tools popover.

---

#### RELATED LINKS

[Note tools popover](#) on page 462

[Large selections](#) on page 403

[Respelling notes](#) on page 449

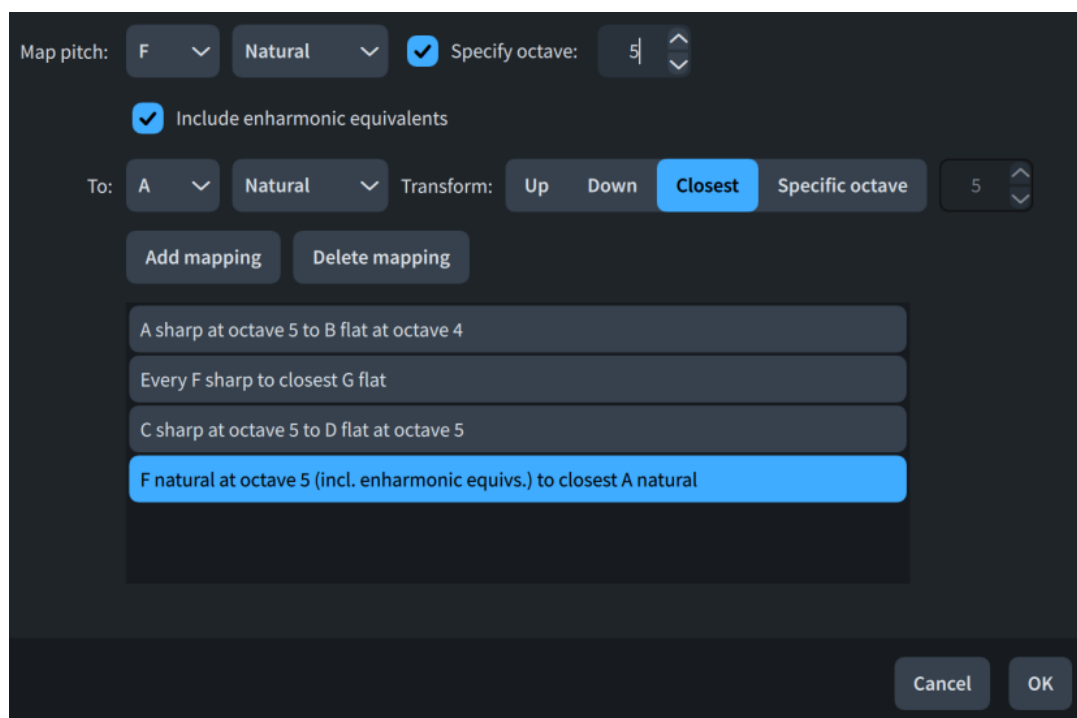
[Arranging tools](#) on page 431

[Inputting notes](#) on page 211

## Map Pitches dialog

The **Map Pitches** dialog allows you to set multiple pitch mappings in a single transformation; for example, if you want to transform all C#s, F#s, and A#s into Dbs, Gbs, and Bbs.

- You can open the **Map Pitches** dialog in Write mode when at least one note is selected in the music area by choosing **Write > Transform > Pitches > Map Pitches**.



The **Map Pitches** dialog contains the following options:

### Map pitch

Allows you to specify the source pitch you want to map to the destination pitch. You can select a note name and accidental, and you can also optionally specify the octave. The available accidentals depend on the prevailing tonality system.

### Include enharmonic equivalents

When activated, enharmonic equivalents to the specified source pitch are included in the mapping. For example, if you want to map A#s and Bbs to Gs.

When deactivated, enharmonic equivalents to the specified source pitch are excluded from the mapping.

### To

Allows you to specify the destination pitch to which you want to map the source pitch. You can select a note name and accidental. The available accidentals depend on the prevailing tonality system.



### Transform

Allows you to specify the octave selection for the mapping.

- **Up:** Destination pitches are higher than the source pitch.
- **Down:** Destination pitches are lower than the source pitch.
- **Closest:** Destination pitches use the octave the smallest interval from the source pitch.
- **Specific octave:** Destination pitches use the octave specified in the value field.

### Add mapping

Adds the set mapping to the mapping list.

### Delete mapping

Removes the selected mapping from the mapping list.

### Mapping list

Contains the set mappings for the transformation.

## Mapping notes to scales

You can map all notes in a specified source scale to equivalent degrees of a destination scale; for example, if you want to transform a passage from major to minor with the same root.

---

### PROCEDURE

1. In Write mode, select the notes whose pitches you want to map.
2. Choose **Write > Transform > Pitches > Map Scale** to open the **Map Scale** dialog.
3. Adjust the parameters required for your scale mapping, such as scale roots and scale patterns.
4. Click **OK** to save your changes and close the dialog.

---

### RESULT

The specified pitches in the source scale are mapped to the specified pitches in the destination scale according to your settings.

### TIP

You can also map scales using the note tools popover.

---

### RELATED LINKS

- [Note tools popover](#) on page 462
- [Large selections](#) on page 403
- [Respelling notes](#) on page 449
- [Arranging tools](#) on page 431
- [Inputting notes](#) on page 211

## Map Scale dialog

The **Map Scale** dialog allows you to map all notes in the specified source scale to equivalent degrees of the destination scale; for example, if you want to transform a passage from major to minor with the same root.

- You can open the **Map Scale** dialog in Write mode when at least one note is selected in the music area by choosing **Write > Transform > Pitches > Map Scale**.

Use source root    C    Sharp

Use destination root    D    Flat

Source scale pattern: Ionian (Major)

Destination scale pattern: Ionian (Major)

Source scale overrides:

Destination scale overrides:

Direction: **Closest**   Up   Down

Snap all pitches to destination scale

Treat enharmonic equivalents as matching source scale

Respell enharmonic equivalents to fit destination scale

Keep relative offsets from source scale

Cancel   OK

The **Map Scale** dialog contains the following options:

#### **Use source root**

When activated, allows you to specify the source scale root you want to map to the destination scale root. You can select a note name and accidental. The available accidentals depend on the prevailing tonality system.

When deactivated, Dorico Elements uses the scale root implied by the prevailing key signature.

#### **Use destination root**

When activated, allows you to specify the destination scale root to which you want to map the source scale root. You can select a note name and accidental. The available accidentals depend on the prevailing tonality system.

When deactivated, Dorico Elements uses the scale root implied by the prevailing key signature.

#### **Source scale pattern**

Allows you to select the scale type of the source scale.

#### **Destination scale pattern**

Allows you to select the scale type of the destination scale.

#### **Source scale overrides**

Allows you to customize the source scale by specifying pitches that deviate from its preset pattern. Notes are mapped relative to the customized scale pattern. For example, if you add a sharp sixth source scale override when mapping C major to C harmonic minor, A $\sharp$ s are treated as flattened sixths and become A $\flat$ s.

- To specify flat scale degrees, enter **b[n]**, such as **b2**.
- To specify sharp scale degrees, enter **#[n]**, such as **#6**.

#### Destination scale overrides

Allows you to customize the destination scale by specifying pitches that deviate from its preset pattern. Notes are mapped relative to the customized scale pattern. For example, if you add a flattened second destination scale override when mapping C major to C harmonic minor, D<sub>4</sub>s become D<sub>4</sub><sup>b</sup>s.

- To specify flat scale degrees, enter **b[n]**, such as **b2**.
- To specify sharp scale degrees, enter **#[n]**, such as **#6**.

#### Direction

Allows you to specify the octave selection for the mapping.

- **Closest:** Destination pitches use the octave the smallest interval from the source pitch.
- **Up:** Destination pitches are higher than the source pitch.
- **Down:** Destination pitches are lower than the source pitch.

#### Snap all pitches to destination scale

When activated, all notes are snapped to the nearest pitch in the destination scale, including notes outside the source scale. When deactivated, only notes in the source scale are mapped to the destination scale.

#### Treat enharmonic equivalents as matching source scale

When activated, notes that are enharmonic equivalents to notes in the source scale are included in the mapping. When deactivated, only notes whose enharmonic spelling is in the source scale are mapped to the destination scale.

#### Respell enharmonic equivalents to fit destination scale

When activated, enharmonic equivalent notes included in the mapping are respelled to fit the destination scale. When deactivated, enharmonic equivalent notes are transposed according to the scale mapping without being respelled.

Only available when **Treat enharmonic equivalents as matching source scale** is activated.

#### Keep relative offsets from source scale

When activated, Dorico Elements preserves the relative offsets between notes in the source scale. For example, if you map C major to D Aeolian, a B<sub>4</sub><sup>b</sup> would be mapped to C<sub>5</sub>.



When deactivated, Dorico Elements changes the relative offsets between notes in the source scale if different intervals are more appropriate in the destination scale. For example, if you map C major to D Aeolian, a B<sub>4</sub><sup>b</sup> would be mapped to C<sub>5</sub>.

## Note tools popover

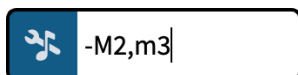
The note tools popover allows you to add notes above and below existing notes, transpose existing notes, and transform the pitches and rhythms of selected notes.

It makes much of the functionality provided by the **Add Notes Above or Below**, **Transpose**, **Reverse and Invert Pitches/Rhythms**, **Rotate Pitches/Rhythms**, **Map Pitches**, **Map Scale**, and **Repeat Pitches** dialogs accessible directly via the keyboard.

You can open the note tools popover in Write mode in any of the following ways when notes are selected, including during note input:

- Press **Shift-I**.
- In the Notations toolbox, click **Popovers**  then **Note Tools** .
- Choose **Write > Add Intervals**.

The icon on the left-hand side of the popover matches the corresponding button in the Notations toolbox on the right of the window.



Note tools popover with an example entry



Note Tools button in the Notations toolbox

The following tables contain examples of what you can enter into the note tools popover to transform selections, transpose notes, or add notes above/below existing notes.

## Intervals

---

Interval or quality	Popover entry
Interval degree	<b>1, 2, 3, 4, 5</b> , and so on, up to <b>15</b>
Unison, second, third, fourth, fifth, and so on, up to two octaves	
Major	<b>M, maj</b> , or <b>major</b>
Minor	<b>m, min</b> , or <b>minor</b>
Perfect	<b>p, per</b> , or <b>perf</b>
Diminished	<b>d, dim</b> , or <b>diminished</b>
Augmented	<b>a, aug</b> , or <b>augmented</b>
Diatonic	<b>diat</b> or <b>diatonic</b>
[n] octave divisions in any tonality system	<b>[n] d, [n] div</b> , or <b>[n] divisions</b>
[n] half-steps (semitones) in 12-EDO	<b>[n] s, [n] st, [n] semi</b> , or <b>[n] semitones</b>
[n] quarter tones in 24-EDO	<b>[n] q, [n] qt</b> , or <b>[n] quartertones</b>

### NOTE

- You must include an interval degree before a specified total number of octave divisions, such as **5 8 div**. Together, they specify the desired note name and accidental.
  - **M** and **m** entries for major and minor are case-sensitive.
-

## Note additions

---

Type of addition	Popover entry
Add notes a third above	<b>3</b> or <b>3rd</b>
Add notes a fourth below	<b>-4</b> or <b>-4th</b>
Add notes [n] octave divisions above, using the note name a fifth above	<b>5 8 div</b> in any tonality system <b>5 8 st</b> in 12-EDO <b>5 16 qt</b> in 24-EDO
Add notes [n] octave divisions below, using the note name a sixth below	<b>-6 9 div</b> in any tonality system <b>-6 9 st</b> in 12-EDO <b>-6 18 qt</b> in 24-EDO
Add chords containing multiple notes	<b>3,6</b> or <b>-3,3,4</b>
Add notes only to the top notes in chords	<b>top</b>
Add notes only to the bottom notes in chords	<b>bottom</b>

---

### NOTE

- When adding multiple notes, you must separate notes with commas, not spaces.
  - If you do not specify the interval quality, the interval degree follows the prevailing key signature. For example, in C major, if you enter **3** to add a third above a D<sub>4</sub>, the added note is an F<sub>4</sub>. You can specify the interval quality by including it before the interval degree, such as **maj3**.
- 

### EXAMPLE

- To add notes a major second below and minor third above the bottom notes in the selected chords, enter **-M2,m3 bottom**.
  - To add G<sub>4</sub>s above C<sub>4</sub>s in 24-EDO, enter **5 16 qt**.
- 

## Transposition

---

Example transposition	Popover entry
Transpose notes upwards by a third	<b>t3</b>
Transpose notes downwards by a sixth	<b>t-6</b>

---

### Example transposition

Transpose notes upwards by [n] octave divisions, using the note name a fifth above

### Popover entry

**t 5 8 div** in any tonality system

**t 5 8 st** in 12-EDO

**t 5 16 qt** in 24-EDO

Transpose notes downwards by [n] octave divisions, using the note name a sixth below

**t -6 9 div** in any tonality system

**t -6 9 st** in 12-EDO

**t -6 18 qt** in 24-EDO

---

### EXAMPLE

To transpose C<sub>4</sub> upwards by nine quarter tones in 24-EDO, you can enter **t 3 9 qt** for E<sup>♯</sup> or **t 4 9 qt** for F<sup>♯</sup>.

---

## Inversion

---

### Type of inversion

### Popover entry

Invert pitches within the range of the highest and lowest notes in the selection

**inv**, **invert**, **inversion**, or **mirror**

Specify the central pitch for inversion

**C4**, **eb4**, **F5**, **g#6**, and so on

For example, C<sub>4</sub>, E<sub>b4</sub>, F<sub>5</sub>, G<sub>#6</sub>, and so on

Specify the central octave division for inversion

**d1/24 4** or **A-3/24 5**

For example, D<sub>4</sub> or A<sub>#5</sub> in 24-EDO

Specify root of prevailing key as central pitch for inversion

**root**

### NOTE

In open keys or music without key signatures, C is used.

---

Specify first note as central pitch for inversion

**first**

Specify top note in first chord as central pitch for inversion

**top**

Specify bottom note in first chord as central pitch for inversion

**bottom**

Diatonic inversion

**diatonic** or **diat**

Chromatic inversion

**chromatic** or **chrom**

---

---

EXAMPLE

To invert pitches around Eb4, enter **inveb4**.

---

## Reversal

---

Type of reversal	Popover entry
Reverse the selection, including pitches and rhythms	<b>retrograde, ret, reverse, or rev</b>
Specify pitches only	<b>pitch</b> or <b>pt</b>
Specify rhythms only	<b>rhythm</b> or <b>rm</b>
Reverse and invert pitches	<b>ret invert, rev inv</b> , and so on

**TIP**

You can also include additional specifications for the inversion.

---

Include additional items belonging to the same player as the selection

**player**

Include only items belonging to the same voice as the selection

**voice**

---

EXAMPLE

To reverse the pitches and items in the selected voice only, enter **rev pt voice**.

---

## Rotation

---

Type of rotation	Popover entry
Rotate the selection, including pitches and rhythms	<b>rotate</b> or <b>rot</b>
Specify pitches only	<b>pitch</b> or <b>pit</b>
Specify rhythms only	<b>rhythm, rhy,</b> or <b>rm</b>
Specify number of steps forwards	<b>1, 2, 3, 4,</b> and so on
Specify number of steps backwards	<b>-1, backwards 2, bw 3, prev 4,</b> and so on

---

EXAMPLE

To rotate only the rhythms of the selected notes backwards three steps, enter **rot rm bw 3**.

---

## Repetition

---

Type of repetition	Popover entry
Repeat the first two pitches in the selection across the selection	<b>repeat 2 pitches</b>
Repeat the first eight pitches in the selection across the selection	<b>repeat 8 pitches</b>

---

This list is not comprehensive as you can repeat any number of pitches. It is intended to illustrate how you can structure your entry.

## Pitch mapping

---

Type of pitch mapping	Popover entry
Specify source and destination pitches	<b>c4=eb4,f4=g4,a4=bb5</b>
For example, to map C4 to Eb4, F4 to G4, and A4 to Bb4.	
<b>NOTE</b>	
<ul style="list-style-type: none"><li>Separate source and destination pitches with equals signs, and pairs of pitches with commas.</li><li>The octave number is optional.</li></ul>	
Include enharmonic equivalents of specified notes	<b>* after note name and octave, if specified</b>
Specify that destination pitch is higher than source pitch	<b>up</b>
Specify that destination pitch is lower than source pitch	<b>down</b>



---

### EXAMPLE

To map A#s and enharmonic equivalents, including Bbs, to the G below, enter **a#\*=Gdown**.

---

## Scale mapping

---

Type of scale mapping or scale	Popover entry
Scale mapping structure	<b>[source scale] to [destination scale], such as c M to c m or Fmin to Dmaj</b>



Type of scale mapping or scale	Popover entry
Snap pitches outside the source scale to the nearest pitch by interval in the destination scale	<b>snap</b>
Specify snapped pitches should be raised	<b>up</b> or <b>higher</b>
Specify snapped pitches should be lowered	<b>down</b> or <b>lower</b>
Respell notes to the specified scale	<b>spell [scale]</b> , such as <b>spell Cmaj</b>
Snap notes to the specified scale	<b>snap [scale]</b> , such as <b>snap cmin</b>
Scale roots	<b>c, Db, e, f#, g</b> , and so on
Alterations	<b>#4, b6</b> , and so on
Major	<b>maj</b> or <b>M</b>
Minor	<b>min</b> or <b>m</b>
Ionian major	<b>ion maj</b> or <b>ion M</b>
Harmonic minor	<b>harm m</b> or <b>hmc min</b>
Melodic minor (ascending)	<b>me m</b> or <b>mdc min</b>
Dorian	<b>dor</b> or <b>drn</b>
Phrygian	<b>phryg, phry</b> , or <b>phr</b>
Lydian	<b>lyd</b>
Mixolydian	<b>mixlyd, mlyd, mixo, mix</b> , or <b>ml</b>
Aeolian or natural minor	<b>aeol m, aeo m, aln min</b> , or <b>nat min</b>
Locrian	<b>loc</b>
Super Locrian (altered scale)	<b>super loc, sup loc</b> , or <b>spr loc</b>
Major pentatonic	<b>pent maj, 5tonic M</b> , or <b>5ton M</b>
Minor pentatonic	<b>pent min, 5tonic m, 5ton m</b>
Major blues	<b>blue maj</b> or <b>bls M</b>
Minor blues	<b>blue min</b> or <b>bls m</b>

Type of scale mapping or scale	Popover entry
Whole tone	<b>wholetone, whole-tone, wtone, wton, whole, or wt</b>
Half-whole diminished	<b>half whole dimin, halfwhole dimin, hw dim, half-tone dimin, half tone dimin, halftone dimin, htone dim, hton dim, half dim, or ht dim</b>
Half-whole octatonic	<b>half whole octa, halfwhole octa, hw oct, half-tone octa, half tone octa, halftone octa, htone oct, hton oct, half oct, or ht oct</b>
Whole-half diminished	<b>whole half dimin, wholehalf dimin, wh dim, whole tone dimin, whole-tone dimin, wholetone dimin, wtone dim, wton dim, whole dim, or wt dim</b>
Whole-half octatonic	<b>whole half octa, wholehalf octa, wh oct, whole tone octa, whole-tone octa, wholetone octa, wtone oct, wton oct, whole oct, or wt oct</b>
Locrian $\sharp 7$ or harmonic major mode 7	<b>loc maj mode7 or harm M mod7</b>
Super locrian $\sharp 7$ or harmonic minor mode 7	<b>sup loc min mode7 or spr loc m mod7</b>

---

#### NOTE

- You can use scale type entries in any combination, such as **me min, me m, mdc min,** and **mdc m.**
- **M** and **m** entries for major and minor are case-sensitive.
- You must separate roots from **M** and **m** with a space, such as **c M.**

---

#### EXAMPLE

To respell all  $F\flat$ s in a selection as  $E\sharp$ s, and snap  $A\flat$ s to  $A\sharp$ s, enter **spell snap Cmaj.**

---

#### RELATED LINKS

[Notations toolbox](#) on page 192

[Large selections](#) on page 403

[Equal Division of the Octave \(EDO\)](#) on page 918

[Adding notes above/below existing notes](#) on page 247

[Transposing existing notes with the note tools popover](#) on page 447

[Inverting pitches](#) on page 453

[Reversing pitches/rhythms](#) on page 454

[Reverse and Invert Pitches and Reverse Rhythms dialogs](#) on page 455

[Rotating pitches/rhythms](#) on page 456

[Rotate Pitches/Rhythms dialogs](#) on page 457

[Mapping notes to pitches](#) on page 458

[Map Pitches dialog](#) on page 459

[Mapping notes to scales](#) on page 460  
[Map Scale dialog](#) on page 460  
[Repeating pitches across notes](#) on page 457  
[Arranging tools](#) on page 431  
[Inputting notes](#) on page 211

## Splitting flows

You can split flows at specific rhythmic positions. For example, if you want the music from a specific bar onwards to be a new flow, separate from the preceding music.

---

### PROCEDURE

1. In Write mode, select a note or item at the position where you want to split the flow.
2. Choose **Write > Split Flow**.

---

### RESULT

The flow is split into two flows: the existing flow, and a new flow that begins from the position of the item you selected. By default, new flows in full score layouts start on a new page in page view, and are shown on a separate background in galley view.

### AFTER COMPLETING THIS TASK

You can set options for each flow independently in the **Notation Options** dialog.

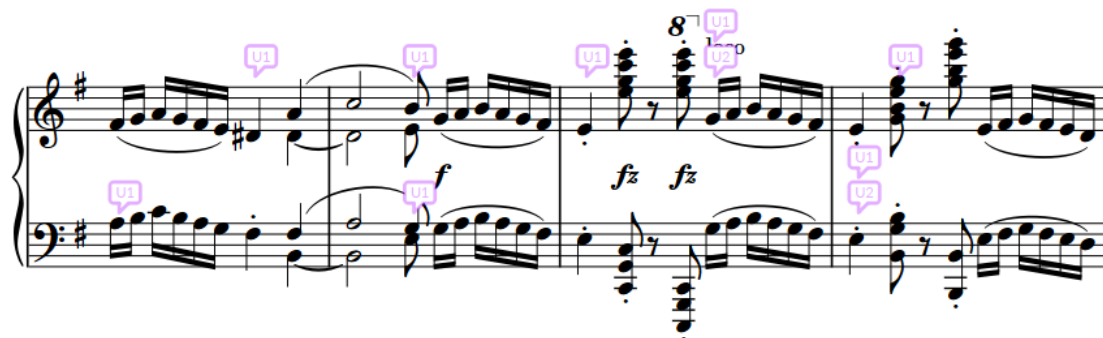
### RELATED LINKS

[Flows](#) on page 162  
[Adding flows](#) on page 163  
[Duplicating flows](#) on page 163  
[Deleting flows](#) on page 165  
[Notation Options dialog](#) on page 679  
[Deleting empty bars/beats at the end of flows](#) on page 731  
[Allowing/Disallowing multiple flows on the same page](#) on page 565  
[Switching between layouts](#) on page 43  
[Switching to galley/page view](#) on page 50

## Comments

Comments allow you to add notes or instructions at precise positions in your project without affecting the music. They are considered annotations in Dorico Elements, meaning they are not printed by default.

Comments exist outside of the music, so they do not affect note spacing, vertical spacing, or casting off. However, you can attach them to specific items and staves in order to show the precise subject of each comment.



A passage with comments and replies

By default, comments are shown in the music area. They appear as speech bubble symbols as close as possible to their attached position. Comments that are replies are stacked vertically below the original comment.

All comments in the current layout are listed in the Comments panel in Write mode. Clicking a comment, either in the Comments panel or in the music area, automatically moves the view to bring that rhythmic position into focus.

In addition to its content, each comment identifies the following:

- Author of the comment, using either the current user account name or a custom name  
On macOS, the user account name uses the long account name; on Windows, it uses the full name associated with the account. If Dorico Elements cannot determine your account name, a dialog appears into which you can add the name and initials you want to use for comments. You can also change these in **Preferences**.
- Date the comment was added
- Instrument to which the comment applies
- Bars to which the comment applies

#### NOTE

In the music area, only the initials of the author are shown. In the Comments panel, all information is shown.

---

You can hide/show comments at any time, and you can choose to include them, alongside other view options, when printing/exporting layouts.

#### RELATED LINKS

[Deleting notes/items](#) on page 431

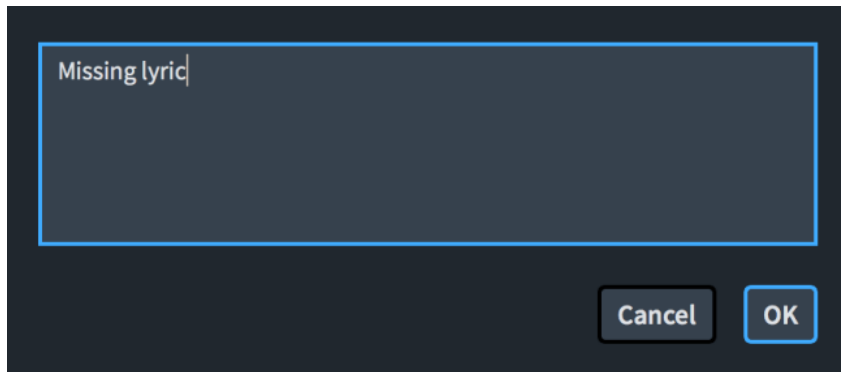
[Changing the author name used for comments](#) on page 475

[Annotations](#) on page 554

## Comment dialog



The **Comment** dialog allows you to enter and edit text as comments.

- You can open the **Comment** dialog by adding a comment, replying to a comment, or double-clicking an existing comment, either in the music area or in the Comments panel.

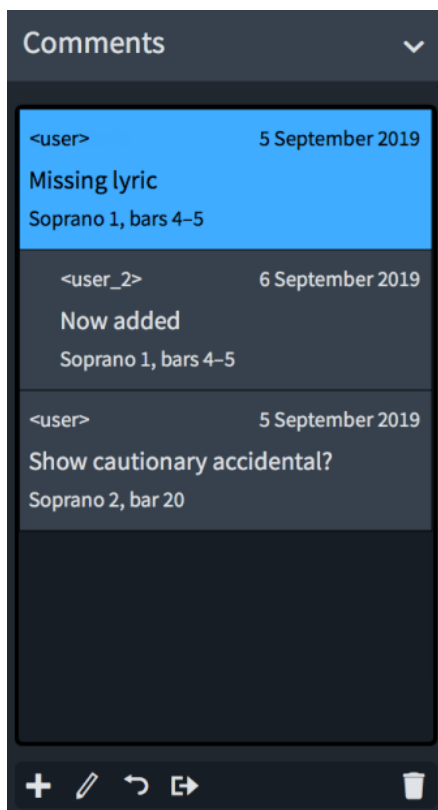


## Comments panel

The Comments panel shows all the comments in the current layout as a list. Replies to comments are indented to indicate their relationship to the original comment. The Comments panel is located in the right zone in Write mode.

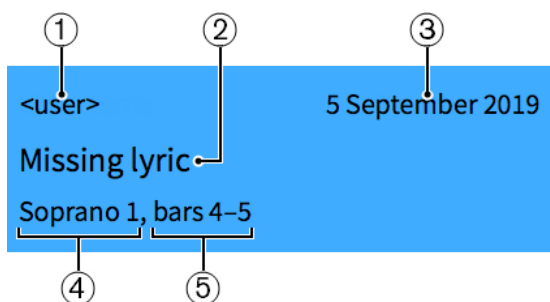
- You can hide/show the Comments panel by clicking **Panels** , then **Comments**  in the Notations toolbox.

You can also hide/show the right zone by pressing **Ctrl/Cmd-9**.



Comments panel

Each comment in the panel shows the following:



- 1 Author name:** This uses either the current user account or a custom name, depending on the preference that was set when the comment was added.
- 2 Comment content**
- 3 Date the comment was added to the project**
- 4 Instrument to which the comment applies**
- 5 Bars to which the comment applies**

The action bar at the bottom of the panel contains the following options:

#### Create Comment



Adds a comment to the selected rhythmic position and staff.

#### Edit Comment



Opens the selected comment in the **Comment** dialog and allows you to change its content.

#### Reply to Comment



Adds a comment that is a reply to the selected comment. Replies are shown indented in the Comments panel and stacked in the music area.

#### Export Comments



Exports all the comments in the project as an HTML file, which opens automatically in your default web browser. The HTML file is automatically saved in the same location as the project.

#### Delete Comment



Deletes the selected comments.

#### RELATED LINKS

[Notations toolbox](#) on page 192

[Changing the author name used for comments](#) on page 475

[Exporting comments](#) on page 476

## Adding comments

You can add comments at any rhythmic position in your project, including adding different comments to multiple staves at the same rhythmic position.

---

### PROCEDURE

1. In Write mode, select an item on the staff and at the rhythmic position where you want to add a comment. If you want your comment to apply to a range, select multiple items.
2. Press **Alt/Opt-C** to open the **Comment** dialog.
3. Enter your comment into the dialog.
4. Click **OK** to close the dialog and add the comment.

---

### RESULT

The text you entered into the dialog is saved as a comment. In the music area, it is indicated by a speech bubble symbol that contains your initials. In the Comments panel, the text you entered is shown alongside your full username, the date, and the instrument and bar number to which you added the comment.

---

### TIP

You can also add comments by clicking **Create Comment**  in the Comments panel, or by choosing **Write > Create Comment**.

---

### EXAMPLE



A comment in the music area

---

## Replying to comments

You can add replies to existing comments, which is useful when co-ordinating with others as this organizes the list of comments in the Comments panel into clear sections.

---

### PROCEDURE

1. In Write mode, select the comment to which you want to reply. You can do this in the music area and in the Comments panel.
2. Press **Alt/Opt-R** to open the **Comment** dialog.
3. Enter your reply into the dialog.
4. Click **OK** to close the dialog and add the reply.


---

### RESULT

The text you entered into the dialog is saved as a reply to the selected comment. In the music area, it is indicated by a speech bubble symbol that contains your initials and is positioned immediately below the selected comment.

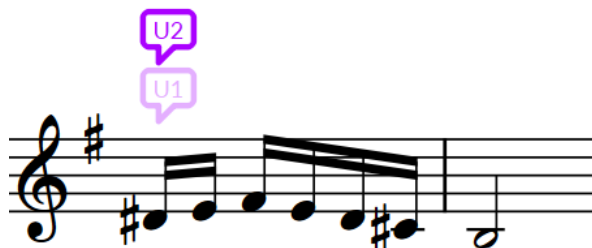
In the Comments panel, the reply is indented below the selected comment.

TIP

You can also reply to comments by clicking **Reply to Comment**  in the Comments panel, or by choosing **Write > Reply to Comment**.

---

EXAMPLE



A reply to a comment

---

## Editing existing comments

You can change the contents of existing comments after you have added them; for example, to correct misspellings or add further information.

---

PROCEDURE

1. Double-click the comment you want to edit to open the **Comment** dialog. You can do this in the music area and in the Comments panel.
  2. Change the text in the dialog.
  3. Click **OK** to save your changes and close the dialog.
- 

## Changing the author name used for comments

You can change the author name used for comments to either your user account name or a custom name. This affects subsequent comments you add to the project without changing the author name used for existing comments.

For the custom name, you can specify both the full name that is shown in the Comments panel and the initials shown in the music area.

---

PROCEDURE

1. Press **Ctrl/Cmd-** to open **Preferences**.
2. In the category list, click **General**.
3. In the **Comments** subsection, choose one of the following options for **Author name for comments**:
  - **User Name**
  - **Custom Name**
4. Optional: If you chose **Custom Name**, enter the full name you want to use into the **Full name** field.
5. Optional: If you chose **Custom Name**, enter the initials you want to use into the **Initials** field.






6. Click **Apply**, then **Close**.
- 

## Exporting comments

You can export all comments from all flows in the layout currently open in the music area to an HTML file. For example, if you want to view them all in a single place.

---

### PROCEDURE

1. In Write mode, open the layout whose comments you want to export.
  2. In the Notations toolbox, click **Panels** , then **Comments**  to show the Comments panel.
  3. In the **Comments** section action bar, click **Export Comments** .
- 

### RESULT

All comments in the layout currently open in the music area are saved as an HTML file, which opens automatically in your default web browser. The comments are displayed in a table.

The HTML file is automatically saved in the same location as the project. Its file name includes the layout name.

### RELATED LINKS

- [Switching between layouts](#) on page 43
- [Annotations](#) on page 554
- [Printing layouts](#) on page 538
- [Exporting layouts as graphics files](#) on page 542
- [Exporting lyrics](#) on page 924

## Hiding/Showing comments

You can hide/show comments at their positions in the music; for example, if you want to hide them when inputting music but show them when engraving.

Comments are considered annotations in Dorico Elements, meaning they are not printed by default.

---

### PROCEDURE

- Choose **View > Comments**.
- 

### RESULT

Comments are hidden/shown. When shown, comments appear in the music as speech bubbles.

# Engrave mode

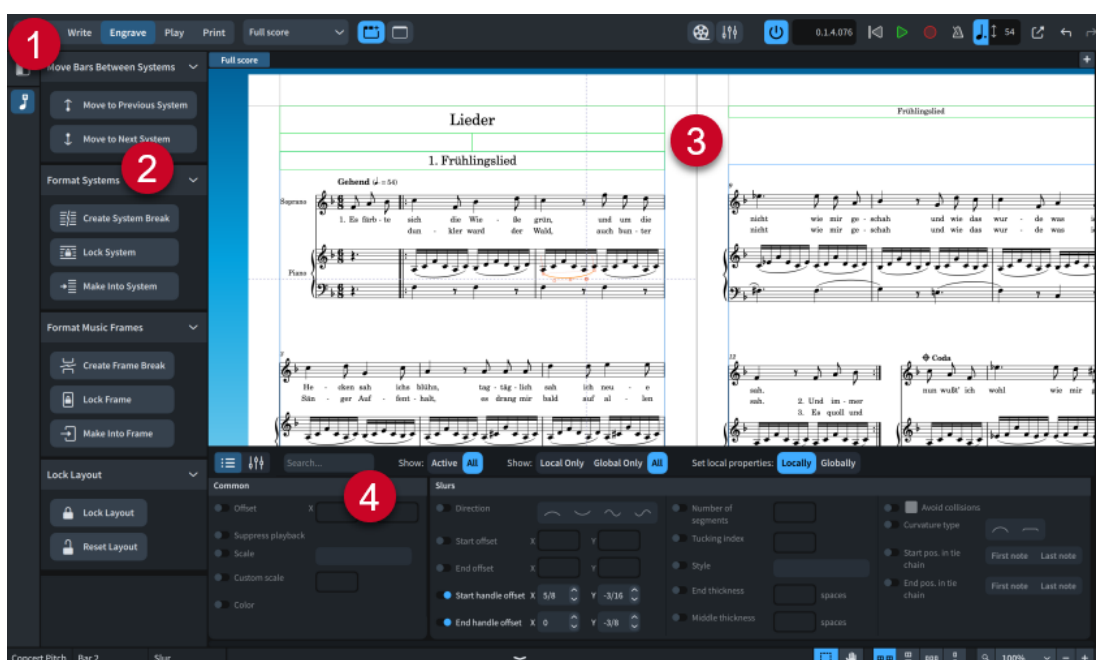
Engrave mode allows you to manipulate and modify every item in your project, but without deleting them, moving them rhythmically, or changing the pitch of notes. You can also determine the casting off in each layout of your project using system and frame breaks.

## Project window in Engrave mode

The project window in Engrave mode contains a toolbox and panels with all the tools and functions that allow you to format the pages, systems, and properties of individual notations in your score.

You can switch to Engrave mode in any of the following ways:

- Press **Ctrl/Cmd-3**.
- In the toolbar, click **Engrave**.
- Choose **Window > Engrave**.



The project window in Engrave mode contains the following:

- 1 Engrave toolbox**  
Allows you to hide/show the left zone.
- 2 Left zone**  
Contains the Formatting panel, which allows you to change how systems and frames are formatted on pages, including inserting system/frame breaks.
- 3 Music area**  
Displays layouts in page view. In Engrave mode, frame outlines and system/frame fullness indicators are shown on pages.
- 4 Lower zone**

Can display either the Properties panel or Mixer panel, according to the current selection in the lower zone toolbar.

#### RELATED LINKS

[Project window](#) on page 30

[Music area](#) on page 35

[Properties panel](#) on page 615

[Mixer panel](#) on page 667


[System fullness indicators](#) on page 480

[Frame fullness indicators](#) on page 480

[Hiding/Showing crosshairs](#) on page 484

## Formatting panel

The Formatting panel allows you to change how systems and frames are formatted on pages, including inserting system/frame breaks. It is located in the left zone in Engrave mode.

- You can show the Formatting panel by showing the left zone, then clicking **Graphic Editing**  in the Engrave toolbox.

The Formatting panel contains the following sections:

### Moving Bars Between Systems

The **Moving Bars Between Systems** allows you to move selected bars to other systems.

#### Move to Previous System



Moves the selected bars to the previous system. Inserts system breaks at the start and end of the system to which the bars were moved.

You can also move bars to the previous system by pressing **↑**.

#### Move to Next System



Moves the selected bars to the next system. Inserts system breaks at the start and end of the system to which the bars were moved.

You can also move bars to the next system by pressing **↓**.

## Format Systems

The **Format Systems** section allows you to change how the music in the layout currently open in the music area is arranged into systems.

#### Insert System Break



Forces music from the selected item onwards onto the next system. Depending on your staff size and other settings, this may mean the music is forced onto the next page.

You can insert system breaks by pressing **Shift-F**.

#### Lock System



Fixes the formatting of the selected systems, even if you change the formatting of surrounding musical material and other systems.

### Make into System



Forces all music between the selected items into the same system.

### Format Music Frames

The **Format Music Frames** section allows you to change how the music in the layout currently open in the music area is arranged into frames.

#### Insert Frame Break



Forces music from the selected item onwards onto the next frame, which is often on the next page. This allows you to control what music appears on each page.

You can insert frame breaks by pressing **Shift-F**.

#### Lock Frame



Fixes the formatting of the selected frames, even if you change the formatting of surrounding frames.

#### Make into Frame



Forces all music between the selected items into the same frame. You can use this option to force music onto a single page.

### Lock Layout

The **Lock Layout** section allows you to fix and reset all systems and pages in the current layout.

#### Lock Layout



Inserts system and frame breaks on all systems in the current layout as required to fix its current casting off.

#### Reset Layout



Removes all system and frame breaks from the current layout.

#### RELATED LINKS

[Hiding/Showing zones](#) on page 44

[Project window in Engrave mode](#) on page 477

[Frame breaks](#) on page 589

[System breaks](#) on page 586

[Page templates](#) on page 599

[Page formatting](#) on page 555

[Casting off](#) on page 581

## System fullness indicators

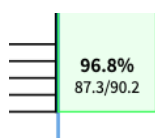
System fullness indicators are highlighted regions that are shown to the right of systems in Engrave mode. They use colors and percentages to indicate the horizontal fullness of the corresponding system.

The following colors are used in the system fullness indicator:

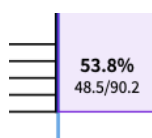
- Green: the system is comfortably full. Notes have enough horizontal space to be legible but are not too far apart. Systems that are 60-100% full are considered comfortably full.
- Purple: the system is under-full, meaning notes might appear overly stretched. Systems that are less than 60% full are considered under-full.
- Red: the system is over-full, meaning notes might appear squashed with not enough horizontal space between them. Systems that are more than 100% full are considered over-full.

The fullness of systems is also expressed using a percentage. The percentage indicated is calculated by dividing the number of spaces occupied in the system by the total number of available spaces in the system, which is measured from the start of the rhythmic space to the right of the initial clef/time signature/key signature up to the final barline in the system.

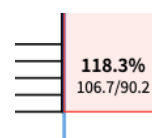
### System comfortably full



### System under-full



### System over-full



#### RELATED LINKS

[Project window in Engrave mode](#) on page 477

[Frame fullness indicators](#) on page 480

[Margins](#) on page 570

## Frame fullness indicators

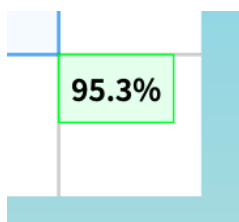
Frame fullness indicators are highlighted regions that are shown outside the bottom right corners of music frames in Engrave mode. They use colors and percentages to indicate the vertical fullness of the corresponding music frame, which in most cases represents a full page.

The following colors are used in the frame fullness indicator:

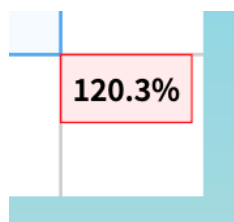
- Green: the frame is comfortably full. Staves and systems have enough vertical space to be legible but are not too far apart. Frames that are 60-100% full are considered comfortably full.
- Red: the frame is over-full, meaning staves and systems might appear squashed with not enough vertical space between them. Frames that are more than 100% full are considered over-full.

The fullness of frames is also expressed using a percentage. The percentage indicated is calculated by dividing the number of spaces occupied in the frame by the total number of available spaces in the frame, which is measured using the vertical distance between the top and bottom music frame padding margins.

### Frame comfortably full



### Frame over-full



#### RELATED LINKS

[Per-layout vertical spacing options](#) on page 577

[Changing the default staff/system spacing](#) on page 559

[Changing the vertical justification of staves/systems](#) on page 560

[Project window in Engrave mode](#) on page 477

[System fullness indicators](#) on page 480

[Margins](#) on page 570

## Moving items graphically

You can move items graphically without changing the rhythmic positions or notes to which they are attached; for example, to offset individual items on specific pages without moving other items of the same type elsewhere in the layout. You can do this for the current layout and frame chain only, or for all layouts and frame chains.

You can move individual instances of system objects, such as tempo marks or system-attached text, independently of other instances shown at different staff positions. You can also move each end of items with duration, such as gradual dynamics or octave lines, independently, allowing you to adjust their graphical length and angle.

#### NOTE

- These steps do not apply to the following: text in text frames, accidentals, notes, clefs, barlines, key signatures, or time signatures shown on staves.
- You can only move some items and handles in specific directions. For example, you can move articulations upwards/downwards but not to the right/left. Similarly, you can only move the end handles on octave lines to the right/left. When using the mouse, you can only move whole guitar bends and vibrato bar dives/returns upwards/downwards. You cannot move individual lyrics upwards/downwards, but you can move lyric lines upwards/downwards on a per-system basis.

#### PREREQUISITE

You have chosen the appropriate property scope for local properties.

#### PROCEDURE

1. In Engrave mode, select any of the following that you want to move.
  - Whole items or segments of items that cross system/frame breaks
  - Lines extending from items, such as figured bass hold lines or lyric extender lines
  - Individual handles on items

#### TIP

- You can cycle through handles on a selected item by pressing **Tab**.

2. Move the selected items in any of the following ways:

- To move items a standard amount to the right, left, up, or down, press **Alt/Opt** plus the corresponding arrow key. For example, press **Alt/Opt-Left Arrow** to move items to the left. This moves beams by 1/4 space and all other items by 1/8 space per press.
- To move items a large amount, press **Ctrl/Cmd** plus the standard key command; for example, **Ctrl/Cmd-Alt/Opt-Left Arrow**. This moves items by 1 space per press.
- To move items a moderate amount, press **Shift** plus the standard key command; for example, **Shift-Alt/Opt-Left Arrow**. This moves items by 1/2 space per press.
- To move items a small amount, press **Ctrl/Cmd - Shift** plus the standard key command; for example, **Ctrl/Cmd-Shift-Alt/Opt-Left Arrow**. This moves items by 1/32 space per press.
- Click and drag them in any direction.

NOTE

You cannot move vibrato bar scoops using the mouse.

---

RESULT

The selected items are moved graphically without changing the rhythmic positions or notes to which they are attached. Attachment lines link items to the rhythmic positions to which they apply, so it is always clear where they belong. If the property scope was set to **Locally**, this change only takes effect in the current layout and frame chain.

Moving some items, such as notehead brackets and jazz articulations, causes other nearby items, such as ties and slurs, to move automatically to avoid collisions. This might affect note spacing and casting off.

If you move dynamics linked to other dynamics, all dynamics linked to the selected dynamics in the current layout are also moved.

Moving items with continuation or hold lines, such as playing techniques or figured bass, moves them both together. Moving continuation/hold lines or continuation/hold line handles moves the continuation/hold lines independently of the item. Dorico Elements automatically lengthens hold lines between figured bass suspensions and resolutions when you move resolution figures.

Lengthening/Shortening lyric hyphens does not change the size or shape of the hyphens themselves. Instead, you increase/decrease the distance between the handles in which hyphens can appear.

By default, player labels erase their backgrounds if positioned in the staff so they do not collide with staff lines.

NOTE

- Moving the start handle of hairpins with the keyboard changes the vertical position of whole hairpins, not their angles. You must change the end offset position as well to change the angle of hairpins. Dragging hairpin handles with the mouse always changes the angle.
- Properties that control the graphic offsets of items are activated automatically when you move items. You can find these properties in the corresponding group of the Properties panel for the item, or in the **Common** group for some items, such as text items and lyrics.

Some offset properties have separate value fields for horizontal offsets on the X axis and vertical offsets on the Y axis. Similarly, items with length or duration have separate offset properties for each end.

You can also use these properties to move items graphically by changing the values in the value fields. Deactivating offset properties resets the selected items to their default positions.

---

#### RELATED LINKS

- [Changing the property scope](#) on page 617
- [Copying property settings to other layouts/frame chains](#) on page 599
- [Moving notes/items rhythmically](#) on page 437
- [Moving figured bass resolutions](#) on page 867
- [Lengthening/Shortening items](#) on page 410
- [Changing the vertical order of playing techniques](#) on page 1067
- [Properties panel](#) on page 615
- [Casting off](#) on page 581
- [Note spacing](#) on page 579
- [Moving accidentals graphically](#) on page 717
- [Changing the alignment of chord symbols relative to notes](#) on page 791
- [Guitar bends in Engrave mode](#) on page 1015
- [Notehead brackets in Engrave mode](#) on page 958
- [Positions of lyrics](#) on page 925
- [Lyric hyphens and lyric extender lines](#) on page 934
- [Octave lines in Engrave mode](#) on page 824
- [Sustain pedal lines in Engrave mode](#) on page 1046
- [Slurs in Engrave mode](#) on page 1171
- [Lines in Engrave mode](#) on page 1094
- [Frames](#) on page 605

## Selecting handles on items

In Engrave mode, you can select individual handles on items; for example, if you want to move the graphical end of a gradual dynamic without moving its start.

---

#### PROCEDURE

1. Select a handle in any of the following ways:
  - Select the whole item and press **Tab** until the handle you want is selected.
  - Click the handle you want.
2. Optional: Select handles on other items as well by **Ctrl/Cmd**-clicking them.

#### NOTE

You cannot select subsequent handles on other items by selecting the items and pressing **Tab**.

---

#### RELATED LINKS

- [Gradual dynamics](#) on page 842
- [Changing the shape/angle of ties](#) on page 1243



## Hiding/Showing crosshairs

You can hide/show crosshairs in Engrave mode for selected items and/or when dragging items using the mouse. Crosshairs can make it easier to align items graphically.

---

### PROCEDURE

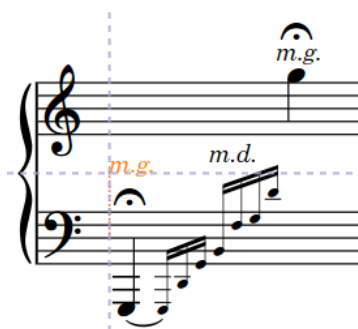
- In Engrave mode, do one or both of the following:
    - To hide/show crosshairs when dragging items, choose **Engrave > Crosshairs > Show When Dragging**.
    - To hide/show crosshairs for selected items, choose **Engrave > Crosshairs > Show When Selected**.
- 

### RESULT

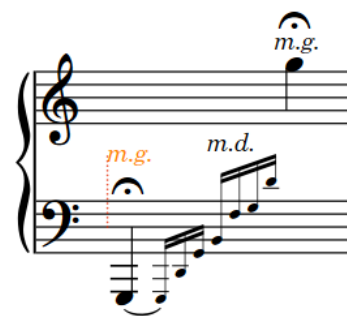
Crosshairs are hidden/shown in the corresponding context.

---

### EXAMPLE



Crosshairs shown



Crosshairs hidden

### RELATED LINKS

[Moving items graphically](#) on page 481

[Selecting/Deselecting notes and items individually](#) on page 401

[Large selections](#) on page 403

[Hiding/Showing signposts](#) on page 427

[Hiding non-printing elements](#) on page 416

[Annotations](#) on page 554

# Play mode

Play mode allows you to change how your music sounds in playback, including by adjusting the mix, changing the playback template, and assigning VST instruments.

## Project window in Play mode

The project window in Play mode contains all the tools and functions for setting up your project for playback. In Play mode, your project appears in a similar way to that used in a digital audio workstation, or “DAW”, such as Cubase.

You can switch to Play mode in any of the following ways:

- Press **Ctrl/Cmd-4**.
- In the toolbar, click **Play**.
- Choose **Window > Play**.



The project window in Play mode comprises the following:

### 1 Left zone

Can display either the Track Inspector or VST and MIDI panel, according to the current selection at the top of the left zone.

### 2 Track overview

Allows you to view the tracks in the selected flow, mute/solo instrument tracks, and select the track whose music you want to show in the Key Editor or whose sounds you want to edit in the Track Inspector.

### 3 Lower zone

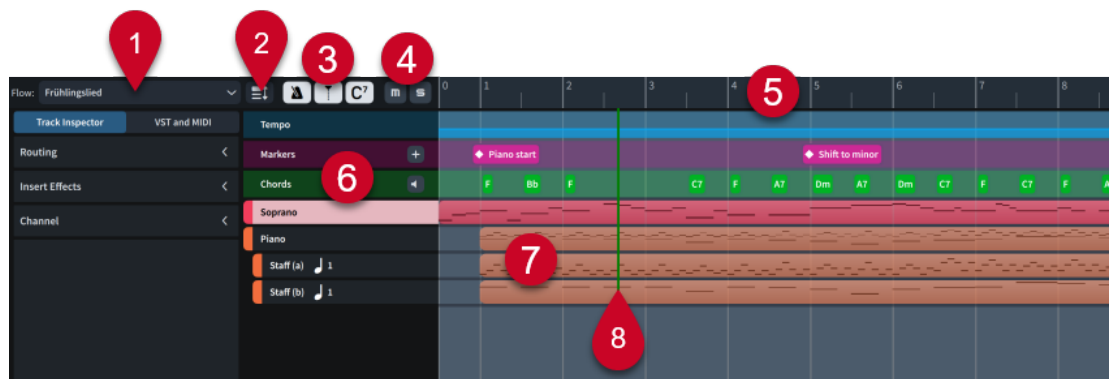
Can display either the Key Editor panel or Mixer panel, according to the current selection in the lower zone toolbar.

#### RELATED LINKS

- [Project window](#) on page 30
- [Track overview](#) on page 486
- [Track Inspector](#) on page 488
- [VST and MIDI panel](#) on page 491
- [Key Editor panel](#) on page 619
- [Mixer panel](#) on page 667
- [Hiding/Showing zones](#) on page 44

## Track overview

The track overview allows you to view the tracks in the selected layout and flow, and to mute and solo instrument tracks. It also allows you to select a single track whose music you want to show in the Key Editor, if it is unlocked, or whose sounds you want to edit in the Track Inspector. It is the central part of the window in Play mode.



The track overview contains the following:

### 1 Flow selector




Allows you to select the flow you want to show in the track overview. Only a single flow can be shown at a time. Only available when nothing is selected in any flow.

### 2 Track height button

Allows you to cycle through different heights for all tracks in the track overview.

### 3 Track visibility buttons

Allow you to hide/show the corresponding track.

- **Tempo** : Hides/Shows the Tempo track.
- **Markers** : Hides/Shows the Markers track.
- **Chords** : Hides/Shows the Chords track.

### 4 Mute /Solo buttons

Allow you to mute/solo tracks. Shown in track headers when tracks are sufficiently tall, and at the top of the track overview when tracks appear short. They apply to the corresponding track when shown in track headers, and the selected track when shown at the top of the track overview.

### 5 Ruler

Displays bar numbers and shows beat divisions.

### 6 Track headers

Display the name of each track and contain appropriate options for the track type.

### 7 Tracks

Rows that display an overview of the corresponding musical element, such as notes in instrument tracks and chord symbols in the chord symbols track.

### 8 Playhead

Shows the current rhythmic position in playback.

#### RELATED LINKS

- [Tracks](#) on page 494
- [Instrument tracks](#) on page 495
- [Tempo track](#) on page 496
- [Markers track](#) on page 497
- [Chords track](#) on page 498
- [Key Editor](#) on page 619
- [Showing instruments in the Key Editor](#) on page 623
- [Track Inspector](#) on page 488
- [Hiding/Showing tracks](#) on page 500
- [Muting/Soloing tracks](#) on page 507
- [Playhead](#) on page 501
- [Changing the height of tracks](#) on page 500
- [Zooming in/out of tracks](#) on page 501
- [Hiding/Showing zones](#) on page 44
- [Switching between layouts](#) on page 43

## Switching between flows in the track overview

You can change which flow is displayed in the track overview in Play mode manually. Only a single flow can be shown at a time.

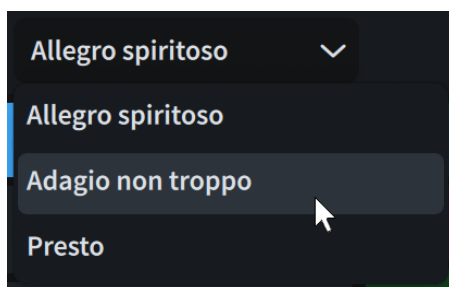
#### PREREQUISITE

You have deselected all notes/items. You cannot switch flows when notes/items are selected.

---

#### PROCEDURE

- In Play mode, click the flow selector at the top of the track overview and select a flow from the menu.



---

#### RELATED LINKS

- [Selecting/Deselecting notes and items individually](#) on page 401
- [Switching between layouts](#) on page 43

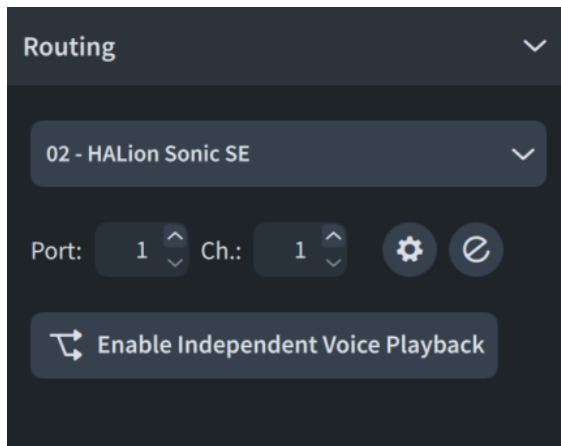
## Track Inspector

The Track Inspector allows you to edit sounds for the track currently selected in the track overview. It is located in the left zone in Play mode.

The Track Inspector contains the following sections:

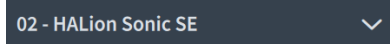
### Routing

Allows you to change the sound routing of the selected track.



The following routing controls are available:

#### Audio plug-in menu



Allows you to select the VST or MIDI instrument plug-in you want to use for the selected track. Only plug-ins already loaded in the project are available.

#### Port field

Allows you to change the endpoint to which the selected track is assigned by entering the port you want to use. Only necessary when using a plug-in that has multiple ports of 16 channels.

#### Channel field

Allows you to change the endpoint to which the selected track is assigned by entering the channel you want to use in the loaded VST or MIDI instrument.

#### NOTE

- You must assign a VST or MIDI instrument and a channel for the Chords track in order to hear chords in playback.
- If you manually load sounds into the channel you selected for your Chords track and later add more instruments to your project, the sounds for the new instruments overwrite the sounds you manually loaded in that channel.

---

#### Enable independent voice playback



Allows you to enable independent voice playback for the selected instrument track. This shows each voice belonging to the instrument as a separate voice track below the instrument track.

Dorico Elements automatically loads enough additional channels, and additional plug-in instances if necessary, to accommodate all voices belonging to the corresponding instrument project-wide, according to the current playback template. Voices are automatically assigned to endpoints according to their voice order.

### Disable independent voice playback



Allows you to disable independent voice playback for the selected instrument track and return it to using a single endpoint for all voices.

### Endpoint Setup



Opens the **Endpoint Setup** dialog for the corresponding plug-in instance.

### Edit Instrument



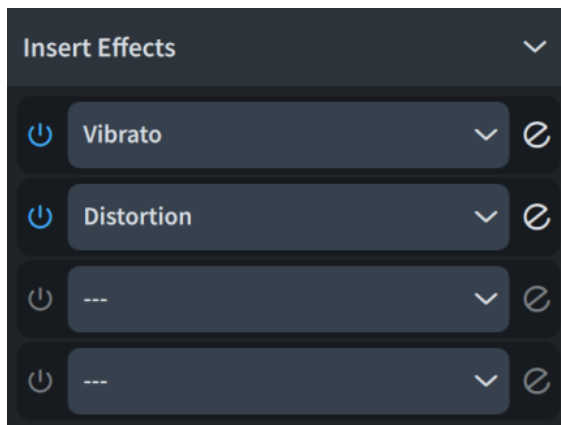
Opens the corresponding VST or MIDI instrument in a window, which allows you to edit its settings.

### Edits apply to

Allows you to determine whether changing the routing of the selected voice affects the current flow only or all flows in the project. Only applies to future changes you make immediately after choosing either **This flow** or **All flows**. Only available for voice tracks belonging to instruments with independent voice playback enabled.

### Insert Effects

Allows you to add and manage inserts on the Mixer channel for the selected instrument track. Each instrument track's Mixer channel has four insert slots.



Each slot contains the following:

#### Activate Insert



Activates/Deactivates the insert slot.

#### Insert menu



Allows you to select an insert to load into the slot.

### Edit Insert



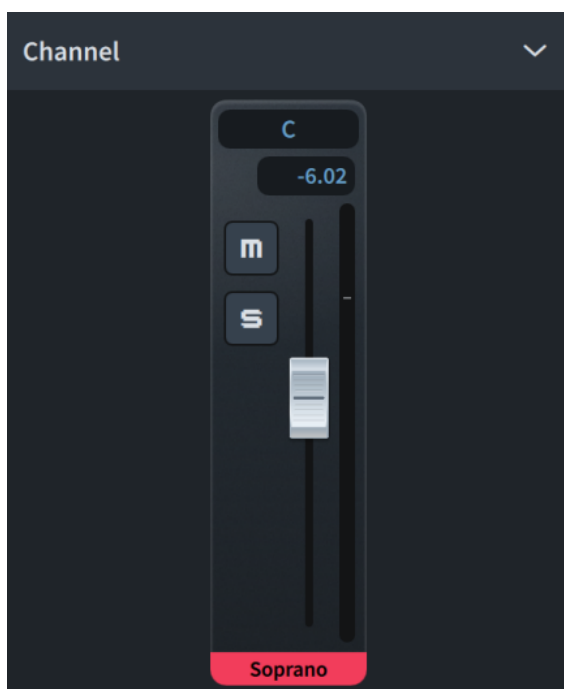
Opens the corresponding effect in a window, which allows you to edit its settings.

#### TIP

- You can also access inserts for all channels in the Mixer.
  - For more information about the plug-ins included with Dorico Elements, see the separate document **Plug-in Reference**.
- 

### Channel

Shows the Mixer channel strip for the selected track and allows you to adjust the channel.



#### TIP

You can also access all channels in the Mixer.

---

#### RELATED LINKS

[Track overview](#) on page 486

[Instrument tracks](#) on page 495

[Endpoint Setup dialog](#) on page 526

[Mixer](#) on page 667

[Mixer channel strips](#) on page 671

[Enabling independent voice playback](#) on page 506

[Changing the sound used for chord symbol playback](#) on page 499

[Loading VST/MIDI instruments manually](#) on page 493

## VST and MIDI panel

The VST and MIDI panel contains the VST and MIDI instruments available and used in your project, and allows you to edit their settings. It is located in the left zone in Play mode.

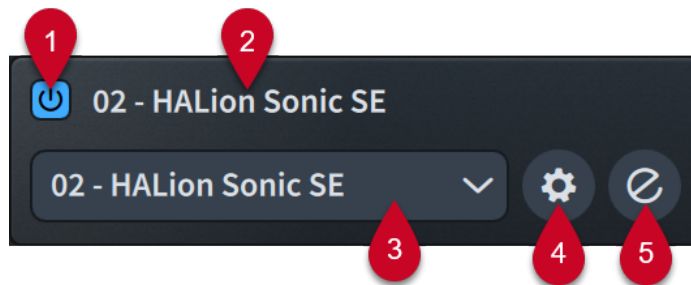
### VST Instruments

The **VST Instruments** section of the panel contains plug-in instances that each contain a VST instrument plug-in. Dorico Elements automatically loads plug-ins and enough plug-in instances for the instruments you add to your project according to the current playback template, but you can also load VST instruments manually.

#### NOTE

Dorico Elements only shows VST 3 instruments in the **VST Instruments** section by default. If you also want VST 2 instruments to be available, you must allow them. Only Kontakt and NotePerformer are allowed by default.

---



Each VST plug-in instance contains the following:

**1 Activate Instance**

Activates/Deactivates the plug-in instance.

**2 Name**

Displays the number and name of the plug-in instance. Plug-in instances are automatically numbered to help you differentiate between instances when you have multiple instances of the same plug-in.

**3 VST Instruments menu**

Displays the VST instrument currently loaded in the plug-in instance and allows you to select another available VST instrument from the menu.





**4 Endpoint Setup**

Opens the **Endpoint Setup** dialog for the corresponding plug-in instance.

**5 Edit Instrument**

Opens/Closes the VST instrument window.

The action bar at the bottom of the section contains the following options:

- **Add** : Adds a new empty plug-in instance.
- **Duplicate** : Creates a copy of the selected plug-in instance that you can edit separately from the original.
- **Save Endpoint Configuration** : Opens the **Save Endpoint Configuration** dialog, which allows you to save the current state of all plug-in instances in the section as a custom endpoint configuration.
- **Delete** : Deletes the selected plug-in instance.



## MIDI Instruments

The **MIDI Instruments** section of the panel contains plug-in instances that each contain a MIDI device to use for output during playback. Which MIDI devices are available depends on your operating system.

- On Windows, you can select any MIDI device that is plugged into your computer.
- On macOS, you can select any MIDI device that is plugged into your computer, and any other device set up in the Audio MIDI Setup application. For example, this allows you to use MIDI from one application in another application.

### TIP

We recommend plugging MIDI devices into your computer before starting Dorico Elements. Similarly, if your device is not recognized, we recommend restarting Dorico Elements.

---



Each MIDI plug-in instance contains the following:

### 1 Name

Displays the number and name of the plug-in instance. Plug-in instances are automatically numbered to help you differentiate between instances when you have multiple instances of the same plug-in.




### 2 MIDI Instruments menu

Displays the MIDI device currently loaded in the plug-in instance and allows you to select another available MIDI device from the menu.

### 3 Endpoint Setup

Opens the **Endpoint Setup** dialog for the corresponding plug-in instance.

The action bar at the bottom of the section contains the following options:

- **Add** : Adds a new empty plug-in instance.
- **Save Endpoint Configuration** : Opens the **Save Endpoint Configuration** dialog, which allows you to save the current state of all plug-in instances in the section as a custom endpoint configuration.
- **Delete** : Deletes the selected plug-in instance.

### RELATED LINKS

[Project window in Play mode](#) on page 485

[Playback templates](#) on page 518

[Endpoints](#) on page 525

[Endpoint Setup dialog](#) on page 526

[Custom endpoint configurations](#) on page 528

[Save Endpoint Configuration dialog](#) on page 529

[Allowing/Blocking VST plug-ins](#) on page 505

## Loading VST/MIDI instruments manually

Dorico Elements automatically loads plug-in instances as required, according to the instruments in the project and the current playback template. However, you can also load VST/MIDI instruments manually, either into new plug-in instances or into existing ones to replace existing VST/MIDI instruments.

### PREREQUISITE

- Any VST instruments you want to use are saved on your computer.
- You have connected any MIDI devices you want to use.

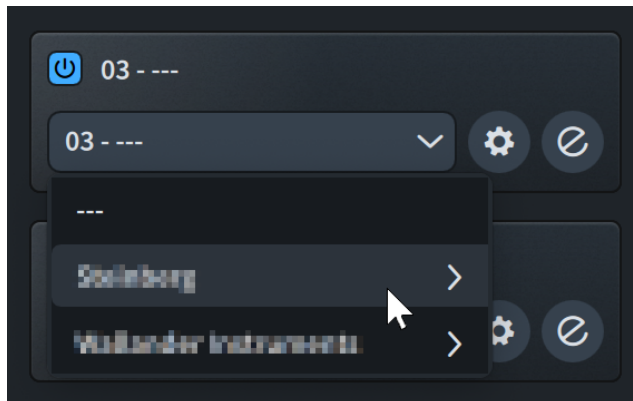
#### TIP


We recommend plugging MIDI devices into your computer before starting Dorico Elements. Similarly, if your device is not recognized, we recommend restarting Dorico Elements.

---

### PROCEDURE

1. In Play mode, choose **VST and MIDI** in the left zone to show the VST and MIDI panel.
2. Optional: If you want to load a VST/MIDI instrument into a new plug-in instance, click **Add +** in the corresponding section of the VST and MIDI panel.
3. In the plug-in instance into which you want to load a new VST/MIDI instrument, select the one you want to load from the menu.



4. Optional: If you loaded a VST instrument, click **Edit Instrument**  to open the VST/MIDI instrument window, where you can load sounds into channels.
- 

### AFTER COMPLETING THIS TASK

- You can assign instruments/voices and expression/percussion maps to endpoints in the VST/MIDI instruments you loaded.
- If you loaded a MIDI instrument, we strongly recommend disabling it for MIDI input to avoid feedback loops.

### RELATED LINKS

- [Playback templates](#) on page 518
- [VST and MIDI panel](#) on page 491
- [Endpoint Setup dialog](#) on page 526
- [Assigning instruments/voices to endpoints](#) on page 530
- [Assigning expression/percussion maps to endpoints](#) on page 531
- [Enabling/Disabling MIDI input devices](#) on page 258

## Tracks

Tracks are rows that represent a musical element across time, extending from left to right. They allow you to control multiple musical elements in a project simultaneously but independently of each other.

The term was established when audio mixing was done on tapes, and multitracking allowed separate elements of the music to be recorded and edited independently of each other before being combined into the final piece of music.

In modern programs, such as Cubase, tracks can contain many types of sounds, including audio recordings and software instruments. Tracks containing audio recordings often display the waveform of the audio, while tracks containing software instruments often display the pitches as rectangular note events positioned horizontally in time and vertically in pitch on a piano roll.

Dorico Elements provides the following types of tracks in Play mode:

### **Instrument tracks**

Display previews of the notes belonging to the corresponding instrument. Each instrument in the project has its own instrument track, including when a single player holds multiple instruments.

Selecting an instrument track shows its music in the Key Editor, if it is unlocked, and its track settings in the Track Inspector.

### **Tempo track**

Displays a preview of any tempo changes in the flow. Each project contains a single Tempo track.

Selecting the Tempo track shows the Tempo editor in the Key Editor panel, if it is unlocked, and its track settings in the Track Inspector.

### **Markers track**

Displays any markers in the flow, including their text. Each project contains a single Markers track.

### **Chords track**

Displays any chord symbols in the flow. Each project contains a single Chords track.

Selecting the Chords track shows its track settings in the Track Inspector.

### RELATED LINKS

[Track overview](#) on page 486

[Track Inspector](#) on page 488

[Key Editor](#) on page 619

[Showing instruments in the Key Editor](#) on page 623

[Tempo track](#) on page 496

[Chords track](#) on page 498

[Markers track](#) on page 497

[Changing the height of tracks](#) on page 500

[Hiding/Showing tracks](#) on page 500

[Hiding/Showing zones](#) on page 44

[Mixer channels](#) on page 669

## Instrument tracks

Instrument tracks allow you to preview notes belonging to the corresponding instrument and select the instrument you want to show in the Key Editor.

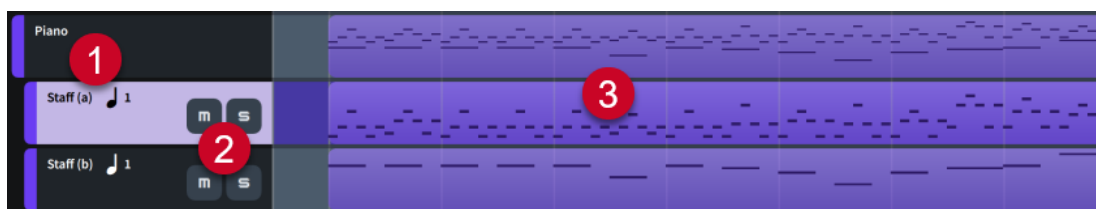
Each instrument in the project has its own instrument track in Play mode, including when a single player holds multiple instruments. Instrument tracks are labeled using the full instrument name set for each instrument.

When independent voice playback is enabled, each voice belonging to the corresponding instrument appears as a separate voice track below the instrument track.

Instruments are automatically assigned a color according to their player order in the current layout, so that you can tell them apart more easily. This color is used consistently for the corresponding instrument, including in the Mixer and Key Editor.

When an instrument track is selected in the track overview, you can do the following:

- View and edit its notes and data in the Key Editor panel, if it is unlocked.
- Use the Track Inspector to change the routing of the track.



Piano instrument track with two voice tracks below

Each instrument track comprises the following:

### 1 Track name

Shows the name of the track.

- Instrument tracks display the full instrument name set for the instrument.
- Voice tracks display the stem direction and number of the corresponding voice. For instruments with multiple staves, the staff of the corresponding voice is also included.

### 2 Mute **m**/Solo **s** buttons

Allow you to mute/solo the track. Shown in track headers when tracks are sufficiently tall, and at the top of the track overview when tracks appear short. They apply to the corresponding track when shown in track headers, and the selected track when shown at the top of the track overview.

### 3 Track preview

Displays a preview of notes belonging to the instrument.

#### RELATED LINKS

[Key Editor](#) on page 619

[Piano roll editor](#) on page 630

[Percussion editor](#) on page 631

[Showing instruments in the Key Editor](#) on page 623

[Velocity editor](#) on page 642

[Dynamics editor](#) on page 645

[Playing Techniques editor](#) on page 641

[MIDI CC editor](#) on page 651

[Player, layout, and instrument names](#) on page 172

[Changing instrument names](#) on page 175

- [Inputting notes into multiple voices](#) on page 221
- [Voices](#) on page 1303
- [Endpoint Setup dialog](#) on page 526
- [Muting/Soloing tracks](#) on page 507
- [Enabling independent voice playback](#) on page 506
- [Assigning instruments/voices to endpoints](#) on page 530
- [Changing the default player order](#) on page 123
- [Setting custom player orders](#) on page 123
- [Changing the height of tracks](#) on page 500

## Tempo track

The Tempo track displays tempo changes in the selected flow. It appears at the top of the track overview in Play mode, and is one of the tracks you can hide/show. Each project contains a single Tempo track.



Tempo track

When the Tempo track is selected in the track overview, you can do the following:

- Edit and input tempo changes in the Tempo editor in the Key Editor panel, if it is unlocked.
- Use the Track Inspector to change the sound used for the click.

### RELATED LINKS

- [Hiding/Showing tracks](#) on page 500
- [Track Inspector](#) on page 488
- [Key Editor](#) on page 619
- [Tempo editor](#) on page 656
- [Showing instruments in the Key Editor](#) on page 623
- [Tempo marks](#) on page 1204
- [Input methods for tempo marks](#) on page 280
- [Changing the type and appearance of absolute tempo changes](#) on page 1207
- [Signposts](#) on page 426
- [Hiding/Showing tempo marks](#) on page 1211
- [Exporting MIDI](#) on page 95

## Changing the sound used for the click

You can change the sound used for the click in playback by assigning the Tempo track to the required endpoint, including loading a new sound manually if required; for example, if you want to use a sound that is not provided by default.


### PREREQUISITE

- The Tempo track is shown.
- You have loaded the VST/MIDI instrument you want to use for the click.

---

### PROCEDURE

1. In Play mode, select the Tempo track in the track overview.
2. In the Track Inspector, in the **Routing** section, select the VST/MIDI instrument plug-in you want to use for the click from the audio plug-in menu.

- Optional: If the sound you want to use is not already loaded in the plug-in instance, click **Edit Instrument**  to open the corresponding VST or MIDI instrument in a window, then load the required sound into an available channel.
- Select the required endpoint in the plug-in instance using the following value fields, individually or together:
  - To assign the Tempo track to a different port in the selected plug-in instance, enter the required port in the **Port** field.

**NOTE**

Only necessary when using a plug-in that has multiple ports of 16 channels.

---

- To assign the Tempo track to a different channel in the selected port, enter the required channel in the **Ch.** field.
- 

RELATED LINKS

[Loading VST/MIDI instruments manually](#) on page 493

[Track Inspector](#) on page 488

[Endpoints](#) on page 525

[Endpoint Setup dialog](#) on page 526

## Markers track

The Markers track displays markers in the selected flow and allows you to input new markers. It appears at the top of the track overview in Play mode, and is one of the tracks you can hide/show. Each project contains a single Markers track.



The Markers track comprises the following:

- Add Marker**  
Opens the **Add Marker** dialog, which allows you to input a marker.
- Markers**  
Show the position of each marker in the flow, including their text.

RELATED LINKS

[Hiding/Showing tracks](#) on page 500

[Markers](#) on page 1099

[Videos](#) on page 180

[Editing marker text](#) on page 1101

## Inputting markers in the Markers track

You can input markers directly into the Markers track in Play mode.

PREREQUISITE

The Markers track is shown.


---

PROCEDURE

- In Play mode, move the playhead to the time position where you want to input a marker.

#### NOTE

You cannot input markers in negative time, such as when a video starts three bars into the flow, causing the initial timecode of the flow to be in negative time.

2. In the Markers track header, click **Add Marker**  to open the **Add Marker** dialog.
3. Enter the marker text you want into the **Text** field.
4. Optional: Change the timecode in the **Timecode** field.
5. Click **OK** to input the marker and close the dialog.

#### RESULT

A marker is input at the position of the playhead. It shows the text you entered, or the default text "Marker" if you did not change the marker text.

#### EXAMPLE



Marker in the Markers track

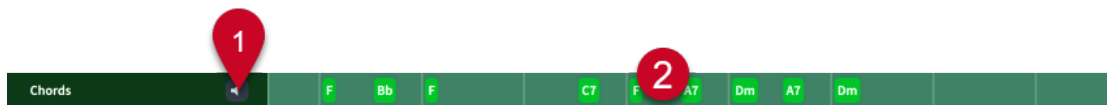
#### RELATED LINKS

- [Moving the playhead](#) on page 502
- [Add Marker dialog](#) on page 383
- [Editing marker text](#) on page 1101
- [Changing the start position of videos](#) on page 183

## Chords track

The Chords track displays chord symbols in the selected flow and allows you to hear the corresponding chords in playback. It appears at the top of the track overview in Play mode, and is one of the tracks you can hide/show. Each project contains a single Chords track.

When the Chords track is selected in the track overview, you can use the Track Inspector to change its routing.



The Chords track comprises the following:

- 1 **Enable Chords Playback**  
Allows you to include chords in, or exclude chords from, playback.
- 2 **Chords**  
Indicates where chord symbols exist in the flow and shows the chord symbol name.

#### RELATED LINKS

- [Chord symbols](#) on page 782
- [Track Inspector](#) on page 488
- [Loading VST/MIDI instruments manually](#) on page 493
- [Hiding/Showing tracks](#) on page 500

## Enabling chord symbol playback

You can include chord symbols in playback. They are played as sustained chords, with their duration taken from the gap between one chord symbol and the next. Chord symbols input via a MIDI keyboard use the voicing you played when inputting them, whereas chord symbols input via a computer keyboard use a default voicing.

### PREREQUISITE

The Chords track is shown.

---

### PROCEDURE

- In Play mode, activate **Enable Chords Playback**  in the Chords track header.
- 

### RELATED LINKS

[Hiding/Showing tracks](#) on page 500

[Track overview](#) on page 486


## Changing the sound used for chord symbol playback

You can change the sound used for chord symbol playback by assigning the Chords track to the required endpoint, including loading a new sound manually if required; for example, if you want to use a sound that is not used by any of the instrument tracks in your project.

### PREREQUISITE

- The Chords track is shown.
  - You have loaded the VST/MIDI instrument you want to use for chord symbol playback.
- 

### PROCEDURE

1. In Play mode, select the Chords track in the track overview.
2. In the Track Inspector, in the **Routing** section, select the VST/MIDI instrument plug-in you want to use for chord symbol playback from the audio plug-in menu.
3. Optional: If the sound you want to use is not already loaded in the plug-in instance, click **Edit Instrument**  to open the corresponding VST or MIDI instrument in a window, then load the required sound into an available channel.
4. Select the required endpoint in the plug-in instance using the following value fields, individually or together:
  - To assign the Chords track to a different port in the selected plug-in instance, enter the required port in the **Port** field.

### NOTE

Only necessary when using a plug-in that has multiple ports of 16 channels.

---

- To assign the Chords track to a different channel in the selected port, enter the required channel in the **Ch.** field.
- 

### RELATED LINKS

[Loading VST/MIDI instruments manually](#) on page 493

[Track Inspector](#) on page 488

[Endpoints](#) on page 525

[Endpoint Setup dialog](#) on page 526



## Resetting the voicing of chord symbols

When you input chord symbols via a MIDI keyboard, the voicing you used is retained for chord symbol playback. You can reset the voicing of chord symbols input using MIDI keyboards; for example, if you prefer to hear the default voicing for that chord symbol in playback.

---

### PROCEDURE

1. In Write mode, select the chord symbols whose voicing you want to reset.
  2. Choose **Edit > Notations > Chord Symbols and Diagrams > Clear Chord Symbol Played Pitches**. You can also choose this option from the context menu.
- 

### RELATED LINKS

[Inputting chord symbols](#) on page 303

## Hiding/Showing tracks




You can hide/show the Tempo, Markers, and Chords tracks at the top of the track overview independently of each other.

### NOTE

You cannot hide/show player and instrument tracks.

---

### PROCEDURE

- At the top of the track overview, hide/show tracks in the following ways:
    - To show/hide the Tempo track, activate/deactivate **Tempo** .
    - To show/hide the Markers track, activate/deactivate **Markers** .
    - To show/hide the Chords track, activate/deactivate **Chords** .
- 

### RELATED LINKS

[Track overview](#) on page 486

[Tracks](#) on page 494


[Key Editor panel](#) on page 619

## Changing the height of tracks



You can change the height of all types of tracks; for example, to preview more tracks simultaneously. This does not affect the width of tracks.

---

### PROCEDURE

- In Play mode, click **Track height**  at the top left of the track overview to cycle through different track heights.

### NOTE

When tracks appear short, **Mute**  and **Solo**  buttons appear at the top of the track overview. They only appear in each track header when there is sufficient vertical space.

---

RELATED LINKS

[Changing the height of the Key Editor](#) on page 625



[Zooming in/out of the Key Editor](#) on page 625

## Zooming in/out of tracks

You can change the width of tracks in the track overview; for example, to preview more bars simultaneously. This does not affect the height of tracks.

---

PROCEDURE

1. Zoom in horizontally in any of the following ways:
    - Click in the ruler and drag upwards.
    - **Ctrl/Cmd**-scroll upwards in the ruler.
    - Click **Zoom In**  at the bottom of the track overview.
  2. Zoom out horizontally in any of the following ways:
    - Click in the ruler and drag downwards.
    - **Ctrl/Cmd**-scroll downwards in the ruler.
    - Click **Zoom Out**  at the bottom of the track overview.
- 

RELATED LINKS

[Tracks](#) on page 494

[Track overview](#) on page 486

[Key Editor panel](#) on page 619

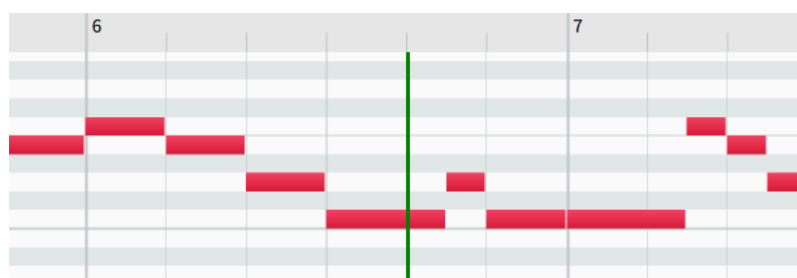
[Piano roll editor](#) on page 630

[Zooming in/out of the Key Editor](#) on page 625

## Playhead

The playhead is a vertical line that moves during playback, showing the current rhythmic position. It is also known as a “playback line”.

The playhead appears at all times in Play mode and during playback in other modes, and its current position is displayed in both the **Transport** window and the mini transport in the toolbar. You can also choose to show the playhead when playback is stopped in other modes.



The playhead in the Key Editor

Dorico Elements automatically keeps the playhead in view during playback by moving it along with the music, but you can also move the playhead manually. Dorico Elements tries to keep systems in the same place on the screen when it scrolls along with the playhead for consistency as you follow your music.

#### NOTE

The playhead never appears in Print mode.

---

#### RELATED LINKS

[Transport window](#) on page 515

[Mini transport](#) on page 33

[Hiding/Showing the playhead](#) on page 503

[Changing music area colors](#) on page 54

## Moving the playhead




The playhead automatically moves along with the music during playback, but you can also move the playhead manually in any mode.

You can move the playhead both when it is stopped and during playback, but not all methods of moving the playhead work during playback.

By default, the playhead is only shown during playback but you can choose to show the playhead at all times.

---

#### PROCEDURE

- Move the playhead in any of the following ways:
  - To move the playhead forwards, press **Num +** (plus on a numeric keypad) or click **Fast Forward**  in the **Transport** window.
  - To move the playhead backwards, press **Num -** (minus on a numeric keypad) or click **Rewind**  in the **Transport** window.
  - To move the playhead back to the start of the flow, press **Num .** (period on a numeric keypad) or click **Rewind to Beginning of Flow**  in the **Transport** window or mini transport.
  - To move the playhead to the start of the earliest selected item, press **Alt/Opt-P**.
  - To move the playhead forwards by frames, press **Ctrl/Cmd-Num + or Ctrl/Cmd-F9**.
  - To move the playhead backwards by frames, press **Ctrl/Cmd-Num - or Ctrl/Cmd-F7**.
  - In Play mode or the Key Editor, click the ruler at any position.

#### NOTE

You cannot click the ruler to move the playhead during playback.

---

#### RELATED LINKS

[Transport window](#) on page 515

[Mini transport](#) on page 33

[Preferences dialog](#) on page 58

[Frame rates](#) on page 185

## Hiding/Showing the playhead

You can hide/show the playhead when playback is stopped; for example, to help line up your music when working with timecodes and video. By default, the playhead is hidden when playback is stopped, except in Play mode, where it always appears.

---

### PROCEDURE

1. Press **Ctrl/Cmd-**, to open **Preferences**.
2. In the category list, click **Play**.
3. In the **Playhead** subsection, activate/deactivate **Show playhead when stopped**.
4. Click **Apply**, then **Close**.

---

### RESULT

The playhead is shown outside of playback when **Show playhead when stopped** is activated, and hidden when it is deactivated.

### NOTE

This does not apply to Play mode or Print mode. The playhead always appears in Play mode and never appears in Print mode.

---

## Playing back music


You can listen to the music you have written from the beginning of your project or from a specific point. You can use playback key commands in any mode.

### PREREQUISITE

- You have applied a playback template to the project that includes sounds for the instruments in your project.
- If you want to use different sounds for different voices, you have enabled independent voice playback for those instruments.

---


### PROCEDURE


1. Start playback in one of the following ways:
  - To play back from the earliest selected item, make a selection, then either press **P**, click **Play From Selection**  in the **Transport** window, or choose **Play > Play From Selection**.

### TIP

- To play back all instruments, select a single note.
- To play back only a single staff, select multiple items on the staff.
- To play back multiple staves, select items on multiple staves.

This does not affect which channels are soloed or muted in the Mixer.



- To continue playback from the playhead position, either press **Space or Enter**, click **Play**  in the mini transport, click **Play From Playhead Position**  in the **Transport** window, or choose **Play > Play From Playhead Position**.

- To play back from the last playback start position, press **Shift-Space** or choose **Play > Play From Last Start Position**. This works even if you have since deselected the item at that position.
  - To play back from the start of the flow, press **Shift-Alt/Opt-Space** or choose **Play > Play From Start of Flow**.
  - To play back from the start of the project, choose **Play > Play From Start of Project**.
2. Optional: Move the playhead during playback to later/earlier positions.
  3. Optional: To enable/disable the metronome click, click **Click**  in the **Transport** window or mini transport.

TIP

You can assign a key command for **Enable Click** on the **Key Commands** page in **Preferences**.

---

4. Stop playback in any of the following ways:
  - Press **Space or Enter** or **P**.
  - Press **Num 0** (0 on a numeric keypad).
  - In the mini transport, click **Stop** .
  - In the **Transport** window, click **Stop** .

TIP

If you notice a change in sound when stopping playback, you can deactivate **Reset controllers and send 'all notes off' when stopping playback** on the **Play** page in **Preferences**.

---

RELATED LINKS


- [Playback templates](#) on page 518
- [Applying/Resetting playback templates](#) on page 523
- [Allowing/Blocking VST plug-ins](#) on page 505
- [Enabling independent voice playback](#) on page 506
- [Playhead](#) on page 501
- [Mixer](#) on page 667
- [Muting/Soloing tracks](#) on page 507
- [Endpoint Setup dialog](#) on page 526
- [Transport window](#) on page 515
- [Mini transport](#) on page 33
- [Key Commands page in the Preferences dialog](#) on page 59
- [Status bar](#) on page 39
- [Preferences dialog](#) on page 58

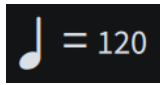
## Changing the tempo mode

You can switch the tempo mode at any time between using a single fixed tempo and following tempo changes; for example, if you have a project with multiple tempo changes but want to use a single fixed tempo when recording MIDI.

PROCEDURE

1. Change the tempo mode in any of the following ways:


- Click **Tempo Mode**  in the toolbar.
- Choose **Play > Fixed Tempo Mode**.

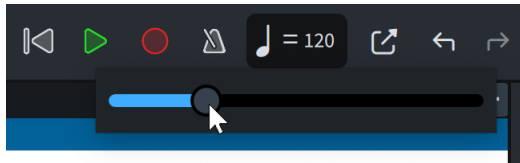


**Fixed Tempo Mode**



**Follow Tempo Mode**

2. Optional: When **Fixed Tempo Mode**  is active, change the metronome mark value by clicking the **Fixed Tempo Mode** number in the toolbar to show a slider, then dragging the slider to the right/left.



---

#### RESULT

In follow tempo mode, the tempo for playback and recording is set by tempo marks in the project.

In fixed tempo mode, the tempo for playback and recording is a single tempo, as determined by the **Fixed Tempo Mode** metronome mark value.

#### RELATED LINKS

[Toolbar](#) on page 31

[Tempo marks](#) on page 1204

[Tempo track](#) on page 496

[Tempo editor](#) on page 656

[MIDI recording](#) on page 252

[Playing back music](#) on page 503

[Transport window](#) on page 515


## Allowing/Blocking VST plug-ins



You can allow individual VST 2 instrument plug-ins that you want to use in Dorico Elements and block plug-ins you want to prevent Dorico Elements from using. Allowed plug-ins are subsequently available in any project.

Dorico Elements automatically blocks plug-ins that crash and plug-ins that Steinberg has not already qualified for use with Dorico Elements. Only Kontakt and NotePerformer are allowed by default.

---

#### PROCEDURE

1. Press **Ctrl/Cmd-**, to open **Preferences**.
2. In the category list, click **VST Plug-ins**.
3. In the **Allowed VST 2 Plug-ins** subsection, allow plug-ins in any of the following ways:
  - To allow individual blocked plug-ins, select them in the **Blocked Plug-ins** list and click **Allow selected plug-ins**  in the action bar.
  - To allow all blocked plug-ins, click **Allow All** in the **Blocked Plug-ins** list action bar.

- To allow a plug-in not included in the **Blocked Plug-ins** list, click **Add plug-in name**  in the **Allowed Plug-ins** list action bar, then enter the name of the plug-in in the new entry.
4. Block plug-ins in any of the following ways:
    - To block individual allowed plug-ins, select them in the **Allowed Plug-ins** list and click **Block selected plug-ins**  in the action bar.
    - To block all allowed plug-ins, click **Block All** in the **Allowed Plug-ins** list action bar.
  5. Click **Apply**, then **Close**.
  6. Quit Dorico Elements.
- 

#### RESULT

When Dorico Elements next opens, your allowed VST plug-in entries are available for use in the program.

#### RELATED LINKS

- [Preferences dialog](#) on page 58
- [Track Inspector](#) on page 488
- [Playing back music](#) on page 503
- [Playback templates](#) on page 518

## Enabling independent voice playback


By default, all voices belonging to a single instrument, including divisi staves, use the same endpoint for playback. You can enable independent voice playback for individual instruments; for example, to hear the different playing techniques in playback for a string divisi where some parts are *pizzicato* and some parts are *arco*.

#### NOTE

You cannot enable independent voice playback for unpitched percussion instruments and percussion kits.

---

#### PROCEDURE

1. In Play mode, in the track overview, select the instrument track for which you want to enable independent voice playback.
  2. In the Track Inspector, click **Enable Independent Voice Playback**  in the **Routing** section.
- 

#### RESULT

Independent voice playback is enabled for the selected instrument. Each voice belonging to the instrument appears as a separate voice track below the instrument track.

Dorico Elements automatically loads enough additional channels, and additional plug-in instances if necessary, to accommodate all voices belonging to the corresponding instrument project-wide, according to the current playback template. Voices are automatically assigned to endpoints according to their voice order.

#### NOTE

When independent voice playback is enabled, you can only change the routing and effects of each voice track.

---

#### AFTER COMPLETING THIS TASK

You can change the routing and effects of each voice track, including in each flow independently; for example, if some voices in some flows require a solo sound instead of an ensemble one.

#### RELATED LINKS

[Track overview](#) on page 486

[Track Inspector](#) on page 488

[Playback templates](#) on page 518

[Endpoints](#) on page 525

[Instrument tracks](#) on page 495

[Piano roll editor](#) on page 630

[Velocity editor](#) on page 642

[Dynamics editor](#) on page 645

[MIDI CC editor](#) on page 651

[Playing Techniques editor](#) on page 641

[Assigning instruments/voices to endpoints](#) on page 530

## Disabling independent voice playback

You can disable independent voice playback for individual instrument tracks and return them to using a single endpoint for all voices.

---

#### PROCEDURE

1. In Play mode, in the track overview, select the instrument track for which you want to disable independent voice playback.

#### NOTE

You must select the instrument track, not any of its voice tracks.

2. In the Track Inspector, click **Disable Independent Voice Playback**  in the **Routing** section.

---

#### RESULT





Independent voice playback is disabled for the selected instrument. Its voice tracks disappear from the track overview, and all voices belonging to the instrument return to using a single endpoint for playback.

## Muting/Soloing tracks

You can mute/solo individual tracks, instruments, and voices belonging to instruments with independent voice playback enabled. This can be useful if you want to ensure only certain instruments are played back while you are working on a specific section of a project.

---

#### PROCEDURE

1. Mute tracks in any of the following ways:
  - In the Mixer, click **Mute**  in the corresponding channels.
  - In Play mode, click **Mute**  for the corresponding tracks in the track overview.
2. Solo tracks in any of the following ways:
  - In the Mixer, click **Solo**  in the corresponding channels.
  - In Play mode, click **Solo**  for the corresponding tracks in the track overview.



- To solo selected instruments and mute other instruments, select at least one note belonging to each instrument you want to solo, then press **Alt/Opt-S** or choose **Play > Solo Selected Instruments**.
- 

#### RESULT

The corresponding tracks are muted/soloed. This affects playback until you change which tracks are muted/soloed, meaning you do not have to reselect the tracks you want to hear each time.

#### NOTE

- Soloing tracks automatically mutes all other tracks. If you solo a track that was muted, it is automatically unmuted.
  - You can also play back only specific tracks/staves temporarily by selecting notes/items on each track/staff you want to hear, then starting playback.
- 

#### EXAMPLE



**Mute** when enabled



**Solo** when enabled

---

#### RELATED LINKS

[Track overview](#) on page 486

[Mixer](#) on page 667



[Playing back music](#) on page 503

## Deactivating mute/solo instrument states

You can deactivate the mute and solo states of all instruments in your project; for example, if you want to hear all instruments in playback after soloing a small selection.

---

#### PROCEDURE

- Deactivate mute/solo instrument states in the following ways:
    - To deactivate all mute instrument states, press **Alt/Opt-U** or click **Deactivate All Mute States**  in the Mixer.
    - To deactivate all solo instrument states, press **Shift-Alt/Opt-S** or click **Deactivate All Solo States**  in the Mixer.
- 


#### RESULT

All instruments in the project have the corresponding state removed. For example, removing both mute and solo instrument states reverts all instruments to their default state, causing all instruments to be included in playback.

## Muting notes/items individually

You can mute individual notes and items to exclude them from playback without deleting them; for example, to hear chords without their arpeggios, a passage with multiple dynamics at a single volume level, or without tempo changes from specific tempo marks.

### PREREQUISITE

- The lower zone is shown.
- **Properties**  is selected in the lower zone toolbar.

---

### PROCEDURE

1. In Write mode, select the notes/items you want to mute.
2. In the Properties panel, activate **Suppress playback** in the **Common** group.

---

### RELATED LINKS

[Properties panel](#) on page 615

[Hiding/Showing zones](#) on page 44

[Changing the tempo mode](#) on page 504

## Hiding/Showing colors for muted notes/items

You can hide/show colors for individual notes/items whose playback you have suppressed, which causes them to appear gray.

---

### PROCEDURE

- Choose **View > Note And Rest Colors > Suppressed Playback**.

---

### RELATED LINKS

[Viewing options for notes and rests](#) on page 951

[Hiding/Showing rest colors](#) on page 1148

[Hiding/Showing voice colors](#) on page 1304

## Repeats in playback

Dorico Elements supports the playback of repeat structures, including repeat endings, repeat barlines, and repeat markers, provided all the correct jumps and sections are in place.

There is no limit to the number of repeat structures you can have in a single flow and still obtain correct playback.

By default, Dorico Elements plays sections between repeat barlines twice and includes repeats in playback, except after repeat jumps, such as D.S. al Coda.

During playback, the bars/beats and time displays in the mini transport and **Transport** window reflect the playhead position in repeat structures.

Dynamics and tempo marks are reflected in repeats. Repeats are also included in both audio and MIDI exports.

#### NOTE

When repeat structures are unbalanced and would play back infinitely, Dorico Elements automatically excludes repeats from playback.

---

#### RELATED LINKS

[Transport window](#) on page 515  
[Mini transport](#) on page 33  
[Repeat endings](#) on page 1107  
[Repeat markers](#) on page 1113  
[Types of barlines](#) on page 735  
[Tremolos](#) on page 1264  
[Rhythm slashes](#) on page 1132  
[Bar repeats](#) on page 1120

## Including/Excluding repeats in playback after repeat jumps


By default, Dorico Elements plays back all playthroughs in all types of repeat structures. You can manually include/exclude repeats indicated by repeat markers, repeat endings, and repeat barlines in playback after individual repeat jumps.

#### NOTE

You can only include/exclude repeats after repeat jumps, such as *D.C. al Fine* and *D.S. al Coda*.

---

#### PREREQUISITE

- The lower zone is shown.
  - **Properties**  is selected in the lower zone toolbar.
- 

#### PROCEDURE

1. Select the repeat jumps after which you want to include/exclude repeats in playback. You can do this in Write mode and Engrave mode.
  2. In the Properties panel, activate **Replay repeats** in the **Repeat Markers** group.
  3. Activate/Deactivate the corresponding checkbox.
- 


#### RESULT

Repeats are included in playback after the selected repeat jumps when the checkbox is activated, and excluded from playback when the checkbox is deactivated.

## Changing the number of playthroughs at repeat barlines

End repeat barlines typically indicate that the preceding music is played through twice. You can change the number of playthroughs for each end repeat barline individually.

#### PREREQUISITE

- The lower zone is shown.
- **Properties**  is selected in the lower zone toolbar.

#### PROCEDURE

1. Select the end repeat barlines whose number of playthroughs you want to change. You can do this in Write mode and Engrave mode.
2. In the Properties panel, activate **Play n times** in the **Time Signatures** group.
3. Change the value in the value field.

#### NOTE

The minimum value is 2.

---


#### RESULT

The number of times the music preceding the selected end repeat barlines is played through is changed.

When repeats are included in playback, repeat counts are shown at system object positions for end repeat barlines set to have three or more playthroughs.

---

#### EXAMPLE



The image shows two musical staves. The left staff has a final repeat barline with the default 2 playthroughs. The right staff has a final repeat barline with 4 playthroughs set and the repeat count shown as "Play 4 times".

Final repeat barline with the default 2 playthroughs set

Final repeat barline with 4 playthroughs set and repeat count shown

---

#### RELATED LINKS

[Repeat counts](#) on page 1118

[Types of barlines](#) on page 735

[Input methods for bars, beats, and barlines](#) on page 287

[Including/Excluding repeats in playback after repeat jumps](#) on page 510

[Changing the total number of playthroughs in repeat endings](#) on page 1107

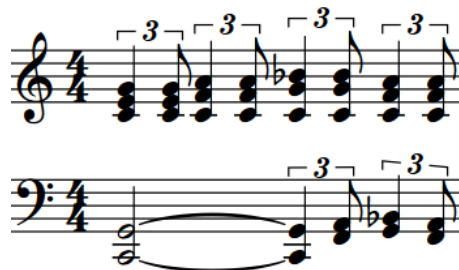
[Properties panel](#) on page 615

## Swing playback

Swing is a style of performance where equally-notated notes are played in a regular pattern of alternating longer and shorter notes, which commonly entails eighth notes being played as a quarter note triplet followed by an eighth note triplet.



A swing phrase with simplified straight notation



How the same phrase sounds with a 2:1 swing ratio

Swing playback allows you to hear the uneven rhythms you want whilst retaining their simplified notation, including if the second eighth note beat is divided into two 16th notes. In Dorico Elements, you can enable swing playback for certain sections and for individual instruments only. You can swing either eighth notes or 16th notes.

Based on academic research into the rendering of swing by musicians, swing patterns in Dorico Elements are tempo-dependent by default. This means that the swing feels more pronounced at lower tempos, and straighter at higher tempos.

### RELATED LINKS

[Enabling swing playback](#) on page 513

## Swing ratios and rhythmic feels

Swing ratios express the strength of the swing using beat units. For example, a swing ratio of 2:1 means the first note in each pair is twice as long as the second, creating a triplet swing.

A swing ratio of 1:1 means the music is played straight, while a swing ratio of 5:1 means each pair of notes is played as if they were sextuplets, with the first note in the pair lasting five divisions and the second note lasting one.



Swing ratio 1:1



Swing ratio 5:1

The following rhythmic feels and swing ratios are provided by default in Dorico Elements:

### 2:1 swing 16ths (fixed)

Extends the first note in a pair of 16th notes to be twice as long as the second, creating a strict triplet 2:1 ratio. This is also known as a “triplet swing”. This ratio is maintained regardless of the tempo by default.

### **2:1 swing 8ths (fixed)**

Extends the first note in a pair of eighth notes to be twice as long as the second, creating a strict triplet 2:1 ratio. This is also known as a “triplet swing”. This ratio is maintained regardless of the tempo by default.

### **3:1 swing 16ths (fixed)**

Extends the first note in a pair of 16th notes to be three times as long as the second, creating a dotted 16th-32nd ratio (dotted semiquaver-demisemiquaver). This ratio is maintained regardless of the tempo by default.

### **3:1 swing 8ths (fixed)**

Extends the first note in a pair of eighth notes to be three times as long as the second, creating a dotted eighth-16th ratio (dotted quaver-semiquaver). This ratio is maintained regardless of the tempo by default.

### **Heavy swing 16ths**

Produces a tempo-dependent 16th note swing ratio of between 3:1 at low tempos and 1.5:1 at high tempos.

### **Heavy swing 8ths**

Produces a tempo-dependent eighth note swing ratio of between 3:1 at low tempos and 1.5:1 at high tempos.

### **Light swing 16ths**

Produces a tempo-dependent 16th note swing ratio of between 1.5:1 at low tempos and 1:1 at high tempos.

### **Light swing 8ths**

Produces a tempo-dependent eighth note swing ratio of between 1.5:1 at low tempos and 1:1 at high tempos.

### **Medium swing 16ths**

Produces a tempo-dependent 16th note swing ratio of between 2:1 at low tempos and 1.5:1 at high tempos.

### **Medium swing 8ths**

Produces a tempo-dependent eighth note swing ratio of between 2:1 at low tempos and 1.5:1 at high tempos.

### **Straight (no swing)**

Produces no swing; that is, even eighth notes in the ratio 1:1 at all tempos.

You can change the swing ratio used for specific sections and for individual players.

## **Enabling swing playback**

You can enable swing playback for specific sections in your project and for individual instruments independently; for example, if you want only the trumpet player to swing for a twelve-bar section, or if you only want swing playback in one flow.

---

### PROCEDURE

#### **1.** In Write mode, select one of the following:

- If you want to enable swing playback from a specific rhythmic position onwards, select a single item at the start of the bar where you want swing playback/a different rhythmic feel to start.

- If you want to enable swing playback within a section then return to straight playback, select multiple items that span the duration where you want swing playback/a different rhythmic feel.

#### NOTE

- If you want to enable swing playback for a single instrument, select items that belong to that instrument only.
- If you select an item in the middle of a bar, the rhythmic feel change only takes effect from the start of the next bar.

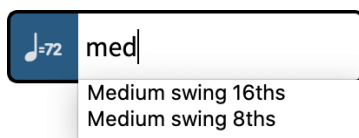
---

#### 2. Open the tempo popover in any of the following ways:

- Press **Shift-T**.
- In the Notations toolbox, click **Popovers**  then **Tempo** .

#### 3. Enter the appropriate entry for the rhythmic feel you want into the popover.

When you start entering a rhythmic feel into the tempo popover, a menu appears that shows valid rhythmic feels containing the letters/words you enter, which you can select.



#### NOTE

If you do not enter the name of a rhythmic feel that exists in your project, the text you entered into the popover is input as a tempo mark and does not enable swing playback.

---

#### 4. Input the rhythmic feel change and close the popover in one of the following ways:

- To input a rhythmic feel change for all staves, press **Return**.
- To input a rhythmic feel change only for the selected instrument, press **Alt/Opt-Return**.

---

#### RESULT

The rhythmic feel used for swing playback is changed from the start of the bar containing the earliest selected item, or the start of the next bar if you selected an item in the middle of a bar. If you selected multiple items, the rhythmic feel is automatically reset at the position of the last selected item.

If you pressed **Alt/Opt-Return**, the rhythmic feel change only applies to the instrument on whose staff you selected an item or items. Rhythmic feels added to single instruments apply to all staves belonging to those instruments.

A signpost appears showing the name of the rhythmic feel you input. It is shown above the top staff in the system for rhythmic feel changes that apply to all staves, and directly above the top staff of the instrument for rhythmic feel changes that apply only to single instruments.

#### RELATED LINKS

[Tempo popover](#) on page 280

[Signposts](#) on page 426

[Hiding/Showing signposts](#) on page 427

## Deleting rhythmic feel changes

You can delete rhythmic feel changes you have enabled for specific sections or for individual players only.

### PREREQUISITE

Rhythmic change signposts are shown.

---

### PROCEDURE

1. In Write mode, select the signposts of the rhythmic changes you want to delete.
2. Press **Backspace or Delete**.

---

### RESULT

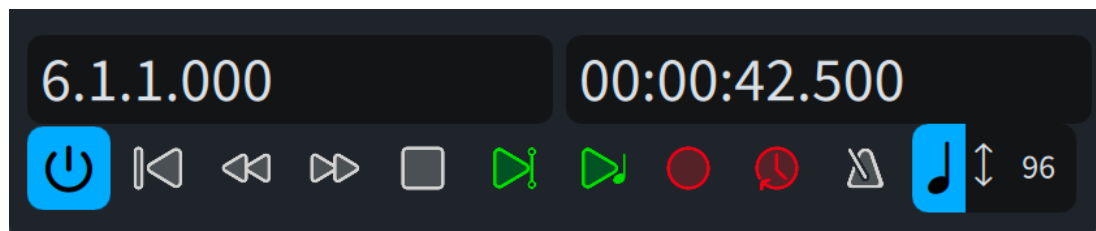
The rhythmic changes are deleted. The affected staves return to the default non-swing playback until the next existing rhythmic change signpost, if applicable.

## Transport window

The **Transport** window contains playback and MIDI recording functions, such as rewinding and fast-forwarding. It contains additional and more precise versions of the playback functions available in the toolbar.

You can hide/show the **Transport** window in any of the following ways:

- Press **F2**.
- In the toolbar, click **Show Transport Bar** .



The **Transport** window contains the following information and functions:

### Bars/Beats display

**6.1.1.000**

Shows the position of the playhead relative to bars and beats in the current flow in the following order of units: bars, beats, 16th notes, 120ths of a 16th note.

### Time display

Shows the position of the playhead in one of the following formats:

- Elapsed time in the following order of units: hours, minutes, seconds, milliseconds
- Timecode in the following order of units: hours, minutes, seconds, frames

**00:00:42.500**

Time display showing elapsed time

**00:00:42:12**

Time display showing the timecode

You can change the content shown in the time display by clicking it.



### Activate Project



Activates/Deactivates playback in the project. When playback is deactivated, transport and playback functions are disabled.

### Rewind to Beginning of Flow



Moves the playhead back to the beginning of the flow.

### Rewind



Moves the playhead back by a half note each time you click.

### Fast Forward



Moves the playhead forwards by a half note each time you click.

### Stop



Stops playback.

### Play From Playhead Position



Plays back from the position of the playhead.

### Play From Selection



Plays back from the position of the first selected item in the music area.

If you select items on multiple staves, or multiple items on a single staff, only the selected staves are played back.

### Record

Starts/Stops MIDI recording.



**Record** outside of MIDI recording



**Record** during MIDI recording

### Retrospective Record



Retrieves any MIDI notes you played during the previous playback and allows you to input them on any staff, even if you were not recording them explicitly.

### Click

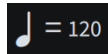


Plays/Mutes the metronome click during playback and recording.

### Tempo Mode

Displays the tempo used for both playback and recording. The value changes according to the playhead position, and its appearance changes according to its mode.

- You can change the tempo mode by clicking the beat unit.
- You can change the metronome mark value used in fixed tempo mode by clicking the number to show a slider, then dragging the slider to the right/left.



**Fixed Tempo Mode**



**Follow Tempo Mode**

#### RELATED LINKS

[Toolbar](#) on page 31

[Mini transport](#) on page 33

[Playing back music](#) on page 503

[Changing the tempo mode](#) on page 504

[MIDI recording](#) on page 252

[Changing the sound used for the click](#) on page 496

[Timecodes](#) on page 1103

## Changing the content shown in the transport display

You can switch between showing the timecode, the total elapsed time, and the current rhythmic position of the playhead expressed in bars, beats, and ticks in both the mini transport in the toolbar and the **Transport** window.

---

#### PROCEDURE

- In either the mini transport in the toolbar or the **Transport** window, click the transport display until the content you want appears.

In the **Transport** window, this is the display on the right.

---

#### RESULT

Each time you click in the mini transport display, it cycles through showing the rhythmic position of the playhead, elapsed time, and the timecode.

In the **Transport** window, it only switches between the timecode and elapsed time, as the rhythmic position of the playhead is shown permanently on the left of the window.

#### TIP

You can change what is shown in the mini transport by default for all future projects on the **Play** page in **Preferences**.

---

#### RELATED LINKS

[Toolbar](#) on page 31

[Mini transport](#) on page 33

[Timecodes](#) on page 1103

[Preferences dialog](#) on page 58

## Playback templates

Dorico Elements uses playback templates to allocate sounds from VST instruments and MIDI devices to the instruments in your project.

Playback templates combine the following information in order to obtain correct playback:

- The instrument sounds, articulations, and playback techniques provided by plug-ins, such as VST instruments
- The expression/percussion maps required to obtain those sounds
- The endpoint configurations required for the sounds for each instrument

When you add instruments to players in a project, Dorico Elements automatically loads plug-ins for them according to the current playback template and sets up expression maps and percussion maps as required. Dorico Elements also automatically loads enough plug-in instances, as many plug-ins can only load a limited number of sounds in each instance.

You can override playback templates and make your own manual changes to the sounds used by instruments in your project, such as by changing the expression maps assigned to endpoints. You can then save such changes as custom endpoint configurations, which you can include in your own custom playback templates.

You can also export custom playback templates; for example, to share them with other users. Playback templates are saved as `.dorico_pt` files.

### NOTE

- Playback templates are available in all projects you open or create on your computer, meaning any changes you make to playback templates affect all projects that use those playback templates.
- Dorico Elements automatically loads sounds for any new instruments you add to the project, using the sounds included in the current playback template. Therefore, we recommend that you always include a factory default playback template at the bottom of custom playback templates as a fallback to ensure that all instruments are assigned sounds.
- Any changes you make within plug-ins are saved when you save the project but are not communicated to Dorico Elements, which can lead to unexpected low notes sounding in playback because Dorico Elements is still using the expression and percussion maps for the original sounds. If you make changes in plug-ins, you must manually assign the correct expression and percussion maps to the appropriate endpoints.

---

### RELATED LINKS

- [Edit Playback Template dialog](#) on page 520
- [Applying/Resetting playback templates](#) on page 523
- [Creating custom playback templates](#) on page 523
- [Exporting playback templates](#) on page 525
- [Endpoint Setup dialog](#) on page 526
- [Assigning expression/percussion maps to endpoints](#) on page 531
- [Endpoints](#) on page 525
- [Custom endpoint configurations](#) on page 528
- [Edit Endpoint Configurations dialog](#) on page 530
- [Allowing/Blocking VST plug-ins](#) on page 505

## Apply Playback Template dialog

The **Apply Playback Template** dialog allows you to change the playback template applied to the current project and to import/export playback templates. It also allows you to access the **Edit Playback Template** dialog.

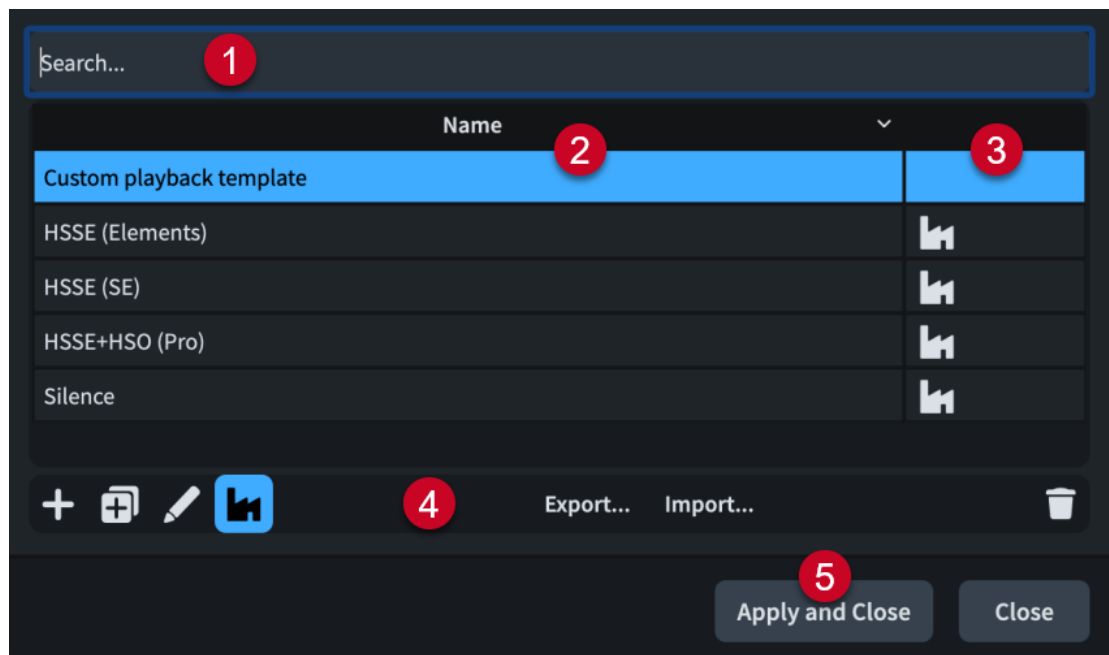
- You can open the **Apply Playback Template** dialog by choosing **Play > Playback Template**.

The **Apply Playback Template** dialog shows all the playback templates available on your computer in a table. Dorico Elements provides the following factory default playback templates:

- HSSE (Elements)**: Intended for use with HALion Sonic SE.
- HSSE+HSO (Pro)**: Intended for use with both HALion Sonic SE and HALion Symphonic Orchestra.
- Silence**: Prevents Dorico Elements from loading sounds.

### TIP

- Choosing the **Silence** template makes Dorico Elements project files significantly smaller; for example, if you want to send them electronically.
- We recommend that you only use the **HSSE+HSO (Pro)** playback template if you own a separate HALion Symphonic Orchestra license, as Dorico Elements only includes HALion Sonic SE.



The **Apply Playback Template** dialog comprises the following:

### 1 Search field

Allows you to filter playback templates in the list according to your entry.

### 2 Name column




Contains a list of the playback templates available on your computer. You can click the column header to change the sorting order.

### 3 Factory column

Contains the factory symbol if the playback template in the corresponding row is a factory default playback template. You can click the column header to change the sorting order.

#### 4 Action bar



Contains the following options for playback templates:

- **Add Playback Template** : Opens the **Edit Playback Template** dialog and allows you to create a new playback template.
- **Duplicate Playback Template** : Opens the **Edit Playback Template** dialog and allows you to create a new playback template that starts as a duplicate of the selected one.
- **Edit Playback Template** : Opens the **Edit Playback Template** dialog and allows you to edit the existing selected playback template.

##### NOTE

You cannot edit factory default playback templates.

---

- **Show Factory** : Allows you to hide/show factory default playback templates in the table.
- **Export**: Opens the File Explorer/macOS Finder, where you can select the location to which you want to export the currently selected playback templates as `.dorico_pt` files. You can then import the `.dorico_pt` files into Dorico Elements on other computers and share them with other users.
- **Import**: Opens the File Explorer/macOS Finder, where you can select the `.dorico_pt` files that you want to import as playback templates.
- **Delete** : Deletes the selected playback templates.

##### NOTE

You cannot delete factory default playback templates.

---

#### 5 Apply and Close

Applies the selected playback template to the project and closes the dialog.




##### RELATED LINKS

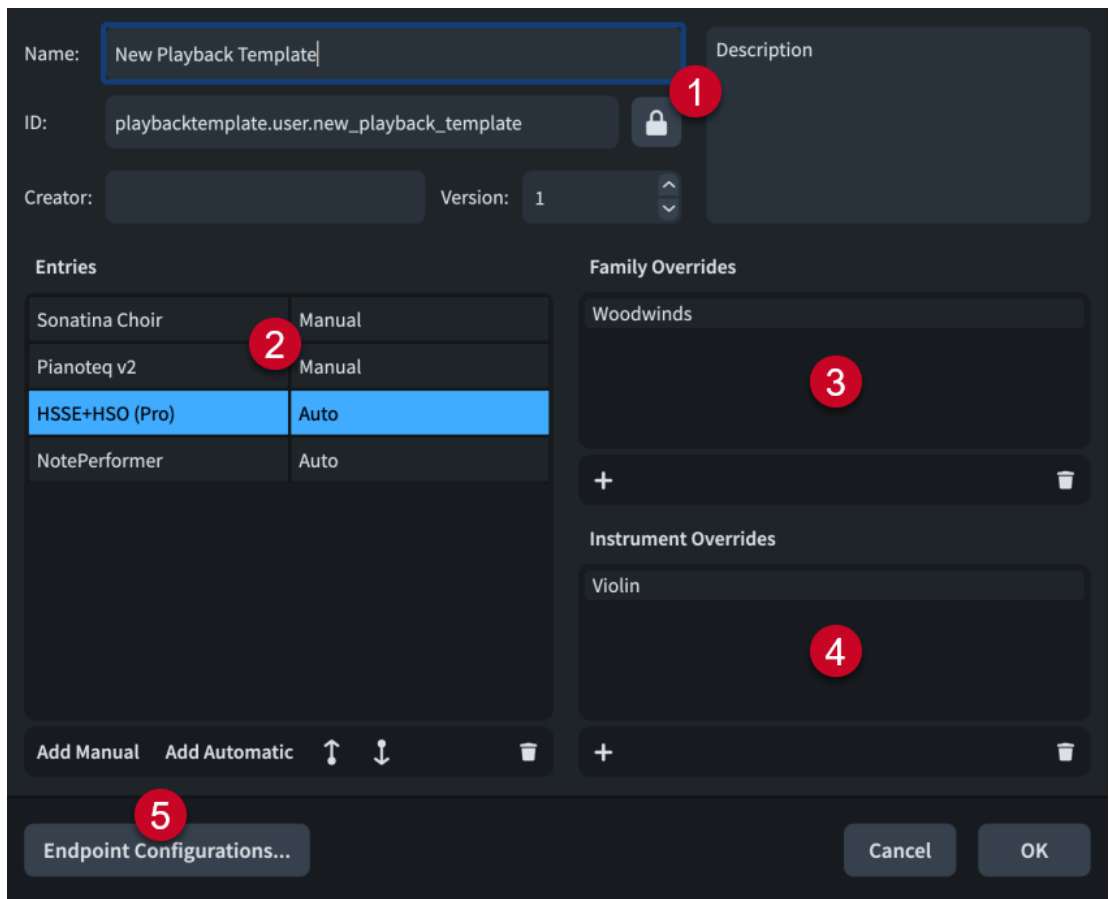
[Edit Endpoint Configurations dialog](#) on page 530

## Edit Playback Template dialog

The **Edit Playback Template** dialog allows you to create new custom playback templates and edit existing ones. You can use any combination of custom endpoint configurations and existing playback templates and specify the order in which they should be used.

Playback templates are available in all projects you open or create on your computer.

- You can open the **Edit Playback Template** dialog from inside the **Apply Playback Template** dialog by clicking **Add Playback Template** , **Duplicate Playback Template** , or **Edit Playback Template** .



The **Edit Playback Template** dialog contains the following sections and options:

## 1 Playback template data

Allows you to specify the following identifying information for the selected custom playback template:

- **Name:** Allows you to set the name of the playback template that appears in the program; for example, in the **Apply Playback Template** dialog.
- **ID:** Allows you to set the unique ID of the playback template. Dorico Elements automatically populates the **ID** field with the information you enter into the **Name** field.
- **Creator:** Allows you to name the creator if you are sharing your playback template with other users.
- **Version:** Allows you to indicate the playback template version so you can identify the most recent one; for example, you can increase the **Version** number each time you make changes to the playback template.
- **Description:** Allows you to add any other information about the playback template.

### NOTE

All fields in the playback template data section, except for **Name**, are locked by the **Lock Info** button. You must click this button in order to change the information in the fields.

## 2 Entries

Contains a table of all the custom endpoint configurations and existing playback templates used by the selected custom playback template. Entries are listed in order of priority, meaning that Dorico Elements assigns sounds from the top entry first. We recommend that




you always include a factory default playback template at the bottom of the list as a fallback to ensure that all instruments are assigned sounds.

In most cases, listing entries in your order of preference in the **Entries** section is sufficient to achieve your desired playback. However, if multiple entries in your custom playback template provide sounds for the same instrument, you must set family and/or instrument overrides; for example, if you only want to use woodwind sounds from the first entry and use all other sounds from the second entry.

The column on the right identifies the type of the entry in the corresponding row.

- **Manual:** Entries that cannot load sounds automatically, including custom endpoint configurations
- **Auto:** Entries that can load sounds automatically; that is, factory default playback templates



The action bar at the bottom of the section contains the following options:

- **Add Manual:** Allows you to add a manual entry to the playback template.
- **Add Automatic:** Allows you to add an automatic entry to the playback template.
- **Move Up** : Moves the selected entry up the list.
- **Move Down** : Moves the selected entry down the list.
- **Delete** : Removes the selected entry from the playback template.

### 3 Family Overrides

Contains a list of family overrides applied to the selected entry and allows you to add/remove overrides. Family overrides allow you to specify the instrument family sounds you want to use; for example, if you only want to use the woodwind sounds from an entry that also includes brass and string sounds.



The action bar at the bottom of the section contains the following options:

- **Add Instrument Family** : Allows you to select an instrument family to apply as an override to the selected entry.
- **Delete Instrument Family** : Removes the selected family override from the selected entry.

### 4 Instrument Overrides

Contains a list of instrument overrides applied to the selected entry and allows you to add/remove overrides. Instrument overrides allow you to specify individual instrument sounds you want to use; for example, if you only want to use a solo violin sound from an entry that also includes ensemble string sounds.

The action bar at the bottom of the section contains the following options:

- **Add Instrument** : Allows you to select an instrument to apply as an override to the selected entry.
- **Delete Instrument** : Removes the selected instrument override from the selected entry.

### 5 Endpoint Configurations

Opens the **Edit Endpoint Configurations** dialog, which allows you to rename and delete custom endpoint configurations, and view the plug-ins and players they contain.

#### RELATED LINKS

[Endpoints](#) on page 525

[Edit Endpoint Configurations dialog](#) on page 530

[Custom endpoint configurations](#) on page 528

## Applying/Resetting playback templates

You can change the playback template applied to the current project; for example, if you want to use a different sound library for playback. Re-selecting playback templates resets them to their default settings.

---

### PROCEDURE

1. Choose **Play > Playback Template** to open the **Apply Playback Template** dialog.
2. Select the playback template you want to use.
3. Click **Apply and Close**.

---

### RESULT

The playback template applied to the current project is changed. If you re-selected the playback template already in use, the playback template is reset.

Sounds are loaded into plug-in instances in their score order.

### TIP

- You can change the default playback template used for all future projects on the **Play** page in **Preferences**.
- You can also load sounds just for instruments without assigned sounds by choosing **Play > Load Sounds for Unassigned Instruments**.

---

### RELATED LINKS




[Preferences dialog](#) on page 58

## Creating custom playback templates

You can create custom playback templates that can include combinations of factory default playback templates, custom endpoint configurations, and other non-factory default playback templates that cannot load sounds automatically.

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### PROCEDURE




1. Choose **Play > Playback Template** to open the **Apply Playback Template** dialog.
2. Open the **Edit Playback Template** dialog to create a new playback template in one of the following ways:
  - To create an empty playback template, click **Add Playback Template**  in the action bar.
  - To create a copy of an existing playback template, select it and click **Duplicate Playback Template**  in the action bar.
3. In the **Edit Playback Template** dialog, click **Lock Info**  to unlock the data fields.
4. Enter information for your playback template in the relevant fields.
5. In the **Entries** section, add the custom endpoint configurations and/or factory default playback templates you want.
  - To add a custom endpoint configuration or non-factory default playback template, click **Add Manual** and select the one you want from the menu.
  - To add a factory default playback template, click **Add Automatic** and select the one you want from the menu.




TIP

We recommend that you always include a factory default playback template at the bottom of the list as a fallback to ensure that all instruments are assigned sounds.

---

6. Optional: To change the order of entries and their order of preference in the playback template, select an entry and click one of the following options in the action bar:
    - To move the selected entry upwards, click **Move Up** .
    - To move the selected entry downwards, click **Move Down** .
  7. Optional: Repeat step 6 until all the entries are in the correct order of preference.
  8. Optional: Select an entry for which you want to specify instrument family overrides.
  9. In the **Family Overrides** section action bar, click **Add Instrument Family**  and select the one you want from the menu.

For example, if you only want to use the woodwind sounds from a sound library that also has string sounds, select **Woodwinds**.
  10. Optional: Select an entry for which you want to specify individual instrument overrides.
  11. In the **Instrument Overrides** section action bar, click **Add Instrument**  and select the one you want in the instrument picker.

For example, if you only want to use the piano sound from a sound library that has other keyboard instrument sounds, select **Piano**.
  12. Optional: Repeat steps 8 to 11 for other entries for which you want to specify instrument family and instrument overrides.
  13. Click **OK** to save your changes and close the dialog.
- 

RESULT

Your new custom playback template is created. It is available to use in the current project and all projects you create/open on your computer.

RELATED LINKS

[Apply Playback Template dialog](#) on page 519

[Edit Playback Template dialog](#) on page 520

[Endpoint Setup dialog](#) on page 526

[Custom endpoint configurations](#) on page 528

[Allowing/Blocking VST plug-ins](#) on page 505

## Importing playback templates

You can import playback templates into projects; for example, if someone you are working with exported their custom playback template for you to use. Playback templates are saved as `.dorico_pt` files.

---

PROCEDURE

1. Choose **Play > Playback Template** to open the **Apply Playback Template** dialog.
  2. Click **Import** to open the File Explorer/macOS Finder.
  3. Locate and select the playback template file you want to import.
  4. Click **Open**.
-

#### RESULT

The selected playback template is imported. It becomes available in the current project and all projects you create/open on your computer.

#### TIP

You can also import playback templates by dragging `.dorico_pt` files into a Dorico Elements project window.

---

## Exporting playback templates

You can export playback templates so you can send them to other users or use them on other computers. By default, any playback templates you create are available in all projects on your computer.

---

#### PROCEDURE

1. Choose **Play > Playback Template** to open the **Apply Playback Template** dialog.
  2. Select the playback templates you want to export.
  3. Click **Export** to open the File Explorer/macOS Finder.
  4. Specify a name and location for the playback template files.
  5. Click **Choose**.
- 

#### RESULT

The selected playback templates are exported and saved in the selected location as separate `.dorico_pt` files.

## Endpoints

“Endpoint” is the term used for the unique combination of inputs and outputs that together allow the correct sounds to be played for each instrument.

In Dorico Elements, each endpoint brings together the following:

- A VST instrument or MIDI output device instance
- A specific channel on that VST instrument or MIDI output device
- The patch or program assigned to that channel
- The expression map and/or percussion map that describes the instrument or instruments that can be played by that patch or program, and the playback techniques and articulations provided

Each instrument in your project is connected to a specific endpoint. Assigning an expression/percussion map to the same endpoint allows Dorico Elements to translate any playing technique changes and articulations you input into the key switches and controller switches necessary to produce the required sounds for the instrument in playback.

When you use a factory default playback template, Dorico Elements sets up endpoints and expression/percussion maps automatically. If you want to load other plug-ins or change the patches within HALion Sonic SE, you can do so in the **Endpoint Setup** dialog.

NOTE

Any changes you make within plug-ins are not communicated to Dorico Elements; for example, changing a sound that the expression map expects to use a modulation wheel for dynamics to one that uses note velocity instead. This can lead to unexpected low notes sounding in playback because Dorico Elements is still using the expression and percussion maps for the original sounds. If you make changes in plug-ins, you must manually assign the correct expression and percussion maps to the appropriate endpoints.

You can then save your changes as a custom endpoint configuration if you want to reuse them in other projects.


RELATED LINKS

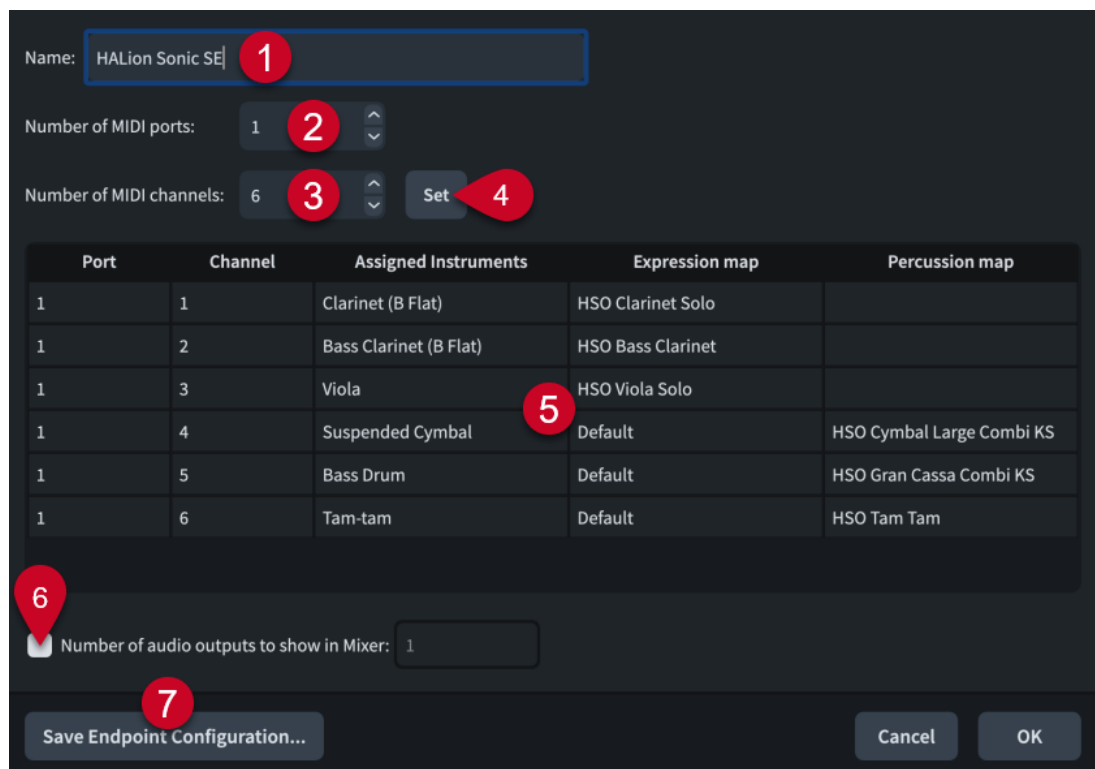
[Custom endpoint configurations](#) on page 528

[Edit Endpoint Configurations dialog](#) on page 530

## Endpoint Setup dialog

The **Endpoint Setup** dialog displays which expression and percussion maps are currently linked to each endpoint in the corresponding plug-in instance, and allows you to change these settings. It also allows you to save your current settings as custom endpoint configurations, which you can then include in custom playback templates.

- You can open the **Endpoint Setup** dialog by clicking **Endpoint Setup**  in each plug-in instance in the VST and MIDI panel, or in the **Routing** section of the Track Inspector.



The **Endpoint Setup** dialog contains the following options and sections:

### 1 Name

Allows you to change the name of the selected plug-in instance. This affects the name shown in the VST and MIDI panel and in the Mixer.

## 2 Number of MIDI ports

Displays the number of MIDI ports the corresponding plug-in instance currently uses.

You can change the number of MIDI ports; for example, if you are using a plug-in that uses more than one port. Dorico Elements does not load multiple MIDI ports by default.

## 3 Number of MIDI channels

Displays the number of MIDI channels the corresponding plug-in instance currently uses.

You can change the number of channels; for example, if you have a monotimbral plug-in such as a piano sampler which only has one MIDI channel, or a multitimbral plug-in with 16 MIDI channels and 16 audio outputs.

## 4 Set

Sets the plug-in instance to have the number of MIDI ports and channels specified in the **Number of MIDI ports** and **Number of MIDI channels** value fields. This changes the number of rows in the table.

## 5 Endpoint setup table

Contains the settings for the corresponding plug-in instance, arranged into the following columns:

- **Port:** Displays the port used by the instrument in the corresponding row of the table.

NOTE

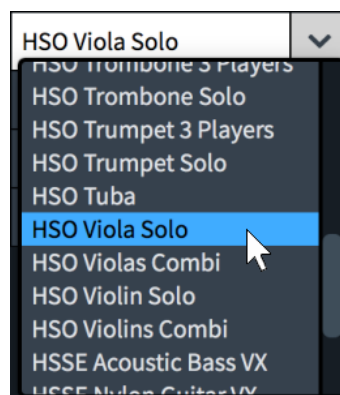
You cannot change the port from within the **Endpoint Setup** dialog. You must change the port in the Track Inspector.

- **Channel:** Displays the channel used by the instrument in the corresponding row of the table.

NOTE

You cannot change the channel from within the **Endpoint Setup** dialog. You must change the channel in the Track Inspector.

- **Assigned Instruments:** Displays the full name of the instrument in the corresponding row, as set for that instrument in the **Edit Instrument Names** dialog, and its instrument number, if applicable.
- **Expression map:** Displays the expression map currently assigned to the instrument in the corresponding row. You can change the expression map by double-clicking it and selecting another expression map from the menu.



- **Percussion map:** Displays the percussion map currently assigned to the instrument in the corresponding row. You can change the percussion map by double-clicking it and selecting another percussion map from the menu.

## 6 Number of audio outputs to show in Mixer

Allows you to change the number of audio outputs shown in the Mixer; for example, if you want to hide unused outputs when using plug-ins that provide more audio outputs than Dorico Elements uses.

## 7 Save Endpoint Configuration

Opens the **Save Endpoint Configuration** dialog, which allows you to enter a name for the current endpoint configuration and save it as a custom endpoint configuration.

### RELATED LINKS

[Track Inspector](#) on page 488

[VST and MIDI panel](#) on page 491

[Playback templates](#) on page 518

[Expression Maps dialog](#) on page 683

[Edit Instrument Names dialog](#) on page 176

[Mixer](#) on page 667

## Custom endpoint configurations

Custom endpoint configurations save the current state and settings of plug-ins in your project, such as the number and type of VST/MIDI instruments loaded and the instruments and expression/percussion maps assigned to endpoints.

You can save custom endpoint configurations that include the settings for all plug-ins currently loaded or only a single one.

Custom endpoint configurations are available in all projects you open or create on your computer. You can view, rename, and delete the custom endpoint configurations on your computer in the **Edit Endpoint Configurations** dialog.

## Saving custom endpoint configurations

You can save any overrides you have made to endpoint configurations, such as changing the instruments and expression maps assigned to particular endpoints. This allows you to use these overrides in custom playback templates and re-use the same endpoint configurations in other projects.

### PREREQUISITE

- You have opened a project containing all instruments and plug-ins that are necessary for the custom endpoint configuration.
- You have created any necessary expression maps and playback technique combinations.
- You have created any necessary custom playing techniques.

---

### PROCEDURE

1. Load the plug-ins you want.


You can do this by applying a playback template or by adding plug-in instances manually in the VST and MIDI panel in Play mode.

2. Change the settings for the endpoints as required.

For example, change the instruments or expression maps assigned to each endpoint.

3. Open the **Save Endpoint Configuration** dialog in one of the following ways:

- To save a custom endpoint configuration for only a single plug-in instance, open the **Endpoint Setup** dialog for that plug-in instance and click **Save Endpoint Configuration**.

- To save a custom endpoint configuration that includes all VST instrument or MIDI instrument plug-in instances, click **Save Endpoint Configuration**  in the action bar of the corresponding section of the VST and MIDI panel.
4. Enter a name for your custom endpoint configuration in the **Name** field.

**NOTE**

If you enter a name that already exists, or select an existing custom endpoint configuration from the menu, the existing custom endpoint configuration is overwritten.

---

5. Click **OK** to save your changes and close the dialog.
- 

**RESULT**

The current state of either the selected plug-in instance or all plug-in instances in the corresponding section is saved as a custom endpoint configuration. This includes any custom playing techniques included in any of the expression/percussion maps.

**AFTER COMPLETING THIS TASK**

You can include custom endpoint configurations in custom playback templates, which allows you to use endpoint configurations in other projects.

**RELATED LINKS**

[Playback templates](#) on page 518

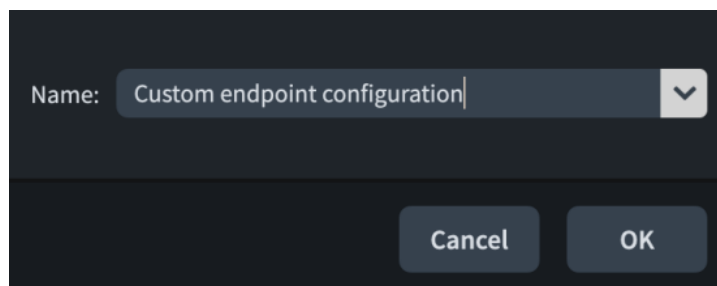
[Adding/Editing switches in expression maps](#) on page 697

## Save Endpoint Configuration dialog

The **Save Endpoint Configuration** dialog allows you to save the current state and settings of plug-ins in your project. Saving custom endpoint configurations allows you to re-use them in other projects and include them in custom playback templates.

You can open the **Save Endpoint Configuration** dialog in Play mode in any of the following ways:

- In the VST and MIDI panel, click **Save Endpoint Configuration** in the **VST Instruments** or **MIDI Instruments** action bar. This saves the current state of all plug-ins in the corresponding section of the panel.
- In the **Endpoint Setup** dialog, click **Save Endpoint Configuration**. This saves the current state of the selected plug-in only.



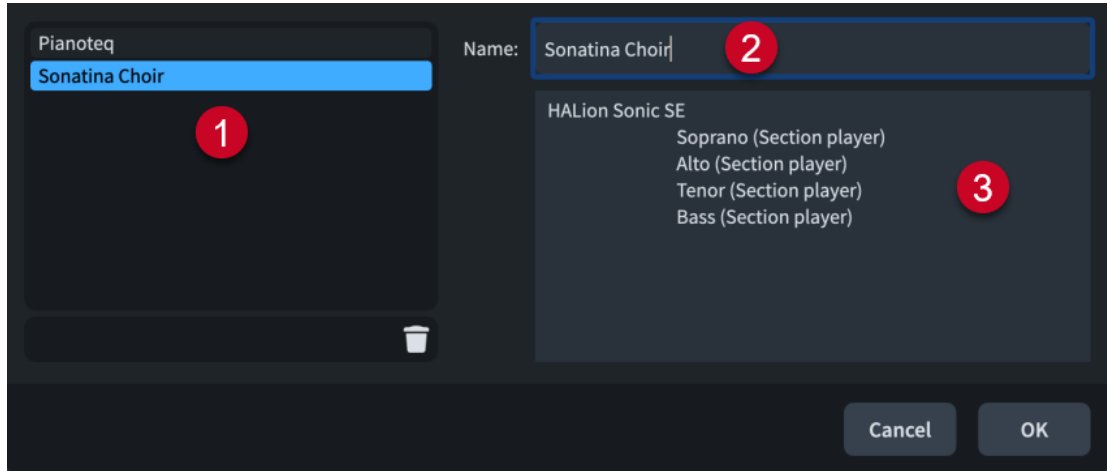
The **Save Endpoint Configuration** dialog contains a **Name** field that allows you to enter a name for the endpoint configuration you are saving. The arrow at the end of the field allows you to select an existing custom endpoint configuration to use to populate the field.

If you enter a name that already exists, you can overwrite the existing custom endpoint configuration. When you overwrite existing custom endpoint configurations, Dorico Elements moves the previous version to your recycle bin.

## Edit Endpoint Configurations dialog

The **Edit Endpoint Configurations** dialog allows you to rename and delete custom endpoint configurations, and view the plug-ins and players they contain.


- You can open the **Edit Endpoint Configurations** dialog by clicking **Endpoint Configurations** in the **Edit Playback Template** dialog.



The **Edit Endpoint Configurations** dialog comprises the following:

### 1 Endpoint configurations list

Contains all the endpoint configurations on your computer.

**Delete Endpoint Configuration**  in the action bar at the bottom of the list allows you to delete the selected endpoint configuration from your computer.

### 2 Name

Allows you to set the name of the selected endpoint configuration that appears in the program; for example, in the **Edit Playback Template** dialog.

### 3 Plug-ins and players list

Contains all the plug-ins and players contained within the selected endpoint configuration. If the endpoint configuration contains multiple instances of the same plug-in, each plug-in instance is listed separately.

## Assigning instruments/voices to endpoints

You can assign instruments to any endpoint; for example, if you have loaded a plug-in with multiple ports and want to change the endpoint of an existing instrument to an endpoint on one of your new ports. For instruments with independent voice playback enabled, you can assign each voice to a different endpoint.

### PREREQUISITE

- If you want to assign different voices belonging to the same instrument to different endpoints, you have enabled independent voice playback.
- If you want to assign instruments to endpoints in specific plug-in instances, you have loaded those plug-in instances. You can do this by applying a suitable playback template or by loading VST/MIDI instruments manually.

### PROCEDURE

1. In Play mode, in the track overview, select the instrument/voice track whose assigned endpoint you want to change.

2. Optional: If you selected a voice track, choose one of the following options for **Edits apply to** in the **Routing** section of the Track Inspector:
  - To change the assigned endpoint for the selected voice in the current flow only, choose **This flow**.
  - To change the assigned endpoint for the selected voice in all flows, choose **All flows**.
3. Optional: To assign the instrument/voice to an endpoint in a different plug-in instance, select that plug-in instance from the audio plug-in menu in the **Routing** section of the Track Inspector.
4. Change the endpoint using the following value fields, individually or together:
  - To assign the instrument/voice to a different port in the selected plug-in instance, enter the required port in the **Port** field.

NOTE

Only necessary when using a plug-in that has multiple ports of 16 channels.

- To assign the instrument/voice to a different channel in the selected port, enter the required channel in the **Ch.** field.
- 

RELATED LINKS

[Track overview](#) on page 486

[Track Inspector](#) on page 488

[Endpoints](#) on page 525

[Expression Maps dialog](#) on page 683

[Instrument tracks](#) on page 495

[Applying/Resetting playback templates](#) on page 523

[Loading VST/MIDI instruments manually](#) on page 493

[Enabling independent voice playback](#) on page 506

## Assigning expression/percussion maps to endpoints


You can assign expression/percussion maps to the endpoints in your project; for example, if you have created a custom percussion map and must link it to the endpoint for the corresponding VST patch.

PREREQUISITE

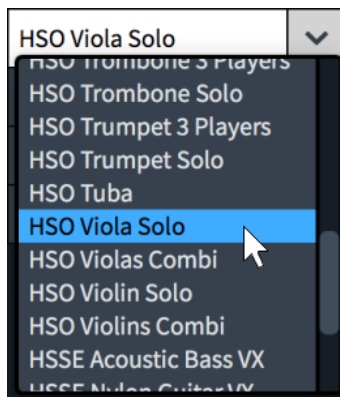
You have made or imported any expression/percussion maps that you require but do not exist on your computer.

---

PROCEDURE

1. In Play mode, in the VST and MIDI panel, click **Endpoint Setup**  in the plug-in instance in which you want to change the expression/percussion maps assigned to endpoints to open the **Endpoint Setup** dialog.
2. Double-click the expression/percussion map you want to change.
3. Click the disclosure arrow to the right of the field.  
A menu appears containing all maps of the same type currently loaded in your project.





4. Select the expression/percussion map you want from the menu.
  5. Press **Return**.
  6. Optional: Repeat steps 2 to 5 for any other endpoints whose assigned expression/percussion maps you want to change.
  7. Click **OK** to save your changes and close the dialog.
- 

RELATED LINKS

[VST and MIDI panel](#) on page 491

[Expression maps](#) on page 682

[Percussion maps](#) on page 700

# Print mode

Print mode allows you to print your layouts or to export them as graphics files, such as PDF and SVG.

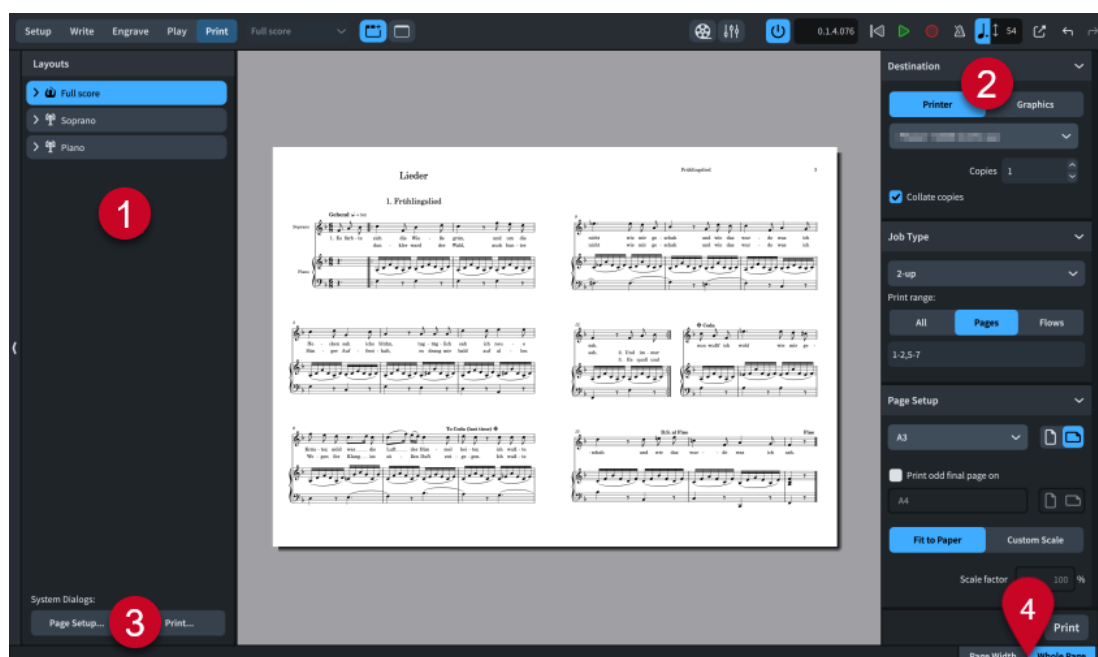
- When printing layouts, you can specify the paper size and other options, such as duplex or booklet printing.
- When exporting layouts, you can specify different graphics file types and the information you want to include in their exported file names.

## Project window in Print mode

The project window in Print mode contains the print preview area and panels that provide all the necessary tools and functions for printing and exporting layouts.

You can switch to Print mode in any of the following ways:

- Press **Ctrl/Cmd-5**.
- In the toolbar, click **Print**.
- Choose **Window > Print**.



The following panels and options are available in Print mode:

### 1 Layouts panel

Shows a list of all layouts in your project and allows you to select the layouts you want to print or export.

#### NOTE

The layout selector in the toolbar is disabled in Print mode. To show a different layout in the print preview area, select it in the **Layouts** panel.

#### 2 Print Options panel

Contains options for printing or exporting your layouts.

#### 3 System Dialogs (macOS only)

Contains macOS-specific printing options.

#### 4 View options

Allows you to change the print preview area to show pages in one of the following views:

- **Page Width:** The page fills the width of the print preview area, which might not show the whole page depending on the orientation and format of the page.
- **Whole Page:** Shows the whole page in the print preview area.

#### TIP

You can go directly to the first page in the layout by pressing **Home**, and to the last page by pressing **End**. You can change these key commands on the **Key Commands** page in **Preferences**.

#### RELATED LINKS

[Project window](#) on page 30

[Print Options panel](#) on page 535

[Toolbar](#) on page 31

[Print preview area](#) on page 37

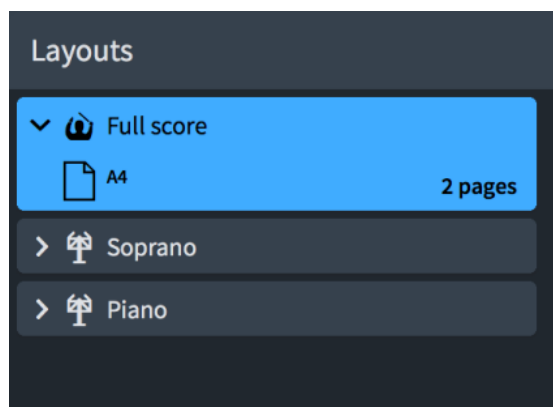
[Key Commands page in the Preferences dialog](#) on page 59

## Layouts panel (Print mode)

In Print mode, the **Layouts** panel shows a list of all layouts in your project and allows you to select layouts to preview, print, and export. It is located on the left of the window.

You can hide/show the **Layouts** panel in Print mode in any of the following ways:

- Press **Ctrl/Cmd-7**.
- Click the disclosure arrow on the left edge of the main window.
- Choose **Window > Show Left Zone**.



The **Layouts** panel contains all the layouts in your project, displayed as cards. Each layout card shows the following:






**1 Disclosure arrow**

Expands/Collapses the layout card.

**2 Layout type**

Shows the type of layout from the following options:

- Full score layout 
- Instrumental part layout 
- Custom score layout 

**3 Layout name**

Shows the name of the layout. Dorico Elements automatically adds default names depending on the name of the instrument that is assigned to a player and on the type of layout that is added. For example, if you assign a flute to a player, the instrumental part layout automatically gets the same name. If you add an empty instrumental part layout, the layout name shows **Empty part** and an incremental number if you add multiple empty part layouts.

**4 Page size and orientation**

Shows the size and orientation of the layout as set on the **Page Setup** page in **Layout Options**.

**5 Layout length**

Shows the number of pages in the layout. You can use this in combination with its page size and orientation to determine the best job type for printing/exporting.

**TIP**

A layout with two pages might best be printed as 2-up, while a layout with five pages might best be printed as spreads with the final page printed on a different paper size. A layout with 12 pages might best be printed as a booklet.

The selected layouts are printed/exported when you click **Print** or **Export** in the Print Options panel. If you have selected some layouts set to print and some set to export graphics, the button reads **Print and Export**.

**RELATED LINKS**

[Project window in Print mode](#) on page 533

[Page arrangements for printing/exporting](#) on page 547

[Booklet printing](#) on page 548

## Print Options panel

The Print Options panel contains options for printing or exporting your layouts. It is located on the right of the window in Print mode.

You can hide/show the Print Options panel in any of the following ways:

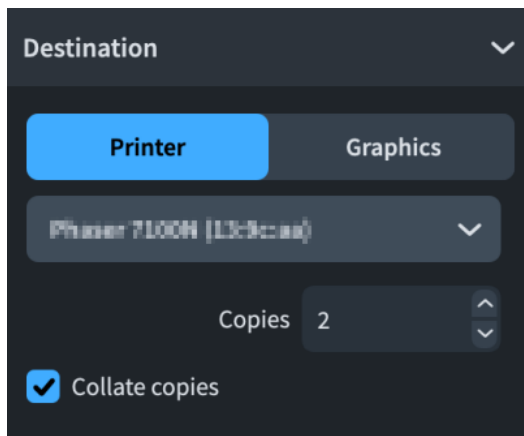
- Press **Ctrl/Cmd-9**.
- Click the disclosure arrow on the right edge of the main window.
- Choose **Window > Show Right Zone**.

All the options that you set in the Print Options panel are saved with your project. The options are divided into the following sections:

#### Destination

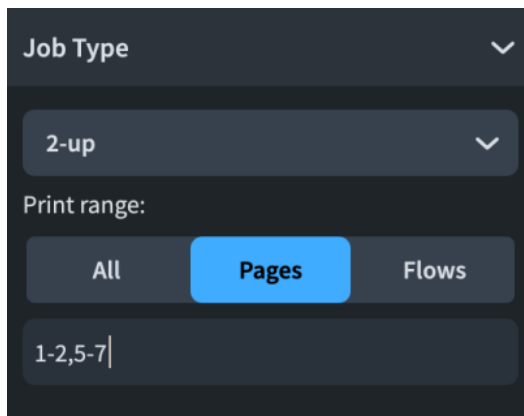
Allows you to select a physical printer for printing or a file location for exporting a graphics file.

- For layouts set to print, you can change the number of copies.
- For layouts set to export as graphics files, you can specify the format, color mode, image resolution, file name, and directory of the saved file.



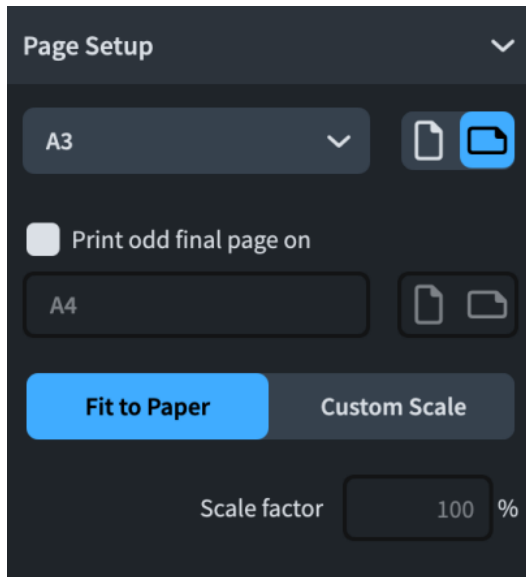
#### Job Type

Allows you to choose the pages to be printed or exported, and how they are arranged. You can choose all pages, a range of pages, or a range of flows.



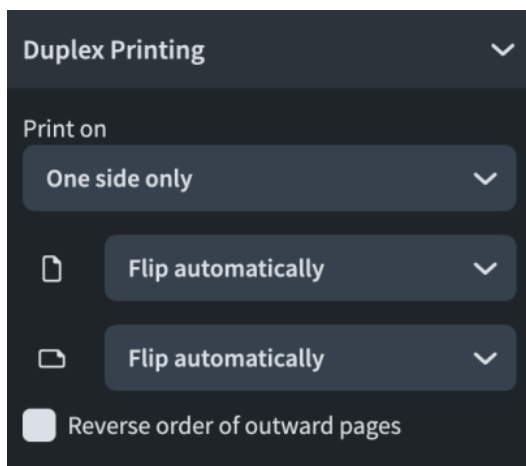
#### Page Setup

Allows you to set the paper size and orientation. You can specify the scale factor of the image to be printed or exported.



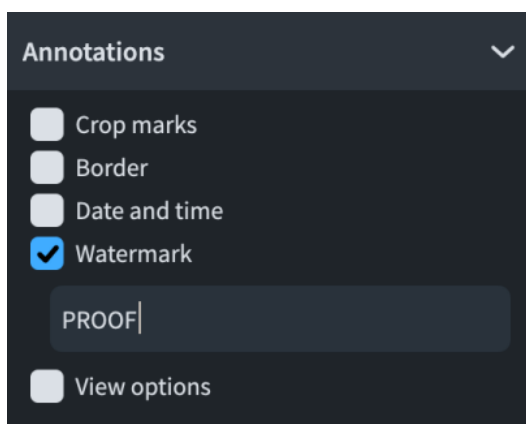
### Duplex Printing

Allows you to specify whether to print on one or on both sides of each sheet of paper. Only available when **Printer** is selected in the **Destination** section.



### Annotations

Allows you to activate options that are often required by publishing houses or printing agencies, such as crop marks or a border around the printed image.



### Print button

Allows you to print/export selected layouts according to the settings you have set in the Print Options panel.

Depending on your selection, the print button can appear in one of the following ways:

- **Print**
- **Export**
- **Print and Export**

For example, if you selected layouts that are all set to print, **Print** is shown. If you selected some layouts set to export graphics and some layouts set to print, **Print and Export** is shown.

#### RELATED LINKS

[Project window in Print mode](#) on page 533

[Exporting layouts as graphics files](#) on page 542

[Printers](#) on page 546

[Duplex printing](#) on page 549

[Page arrangements for printing/exporting](#) on page 547

[Page vs. paper size](#) on page 550

[Graphics file formats](#) on page 552

[Annotations](#) on page 554

## Printing layouts

You can print hard copies of individual layouts or multiple layouts together. You can specify print settings for each layout independently; for example, you can set different numbers of copies or select different printers for layouts in the same project.

Dorico Elements uses settings for layouts to create automatic print settings, so you might find that many print options are already appropriate for the layouts you want to print. For example, if you are connected to a printer that can print A3 paper and the page size of your full score layout is set to A3 in **Layout Options**, Dorico Elements automatically selects A3 in the **Page Setup** section of the Print Options panel.

#### TIP

- If you want to save layouts in graphics files formats, such as PDF or PNG, we recommend that you export them.
- You can select individual layouts and set up their printing options without printing straight away. Once you have set up the printing options you want for different layouts, you can then select all the layouts you want to print and click **Print**. Your existing print settings are applied, even if your selection contains layouts with different print settings.

For example, you can set your full score layout to print **3** booklet copies and the part layouts to print **1** 2-up copy each. You can then select all layouts to print them together and the previously set values are followed.

---

#### PROCEDURE

1. In the **Layouts** panel, select the layouts that you want to print.

NOTE

The layout selector in the toolbar is disabled in Print mode. To show a different layout in the print preview area, select it in the **Layouts** panel.

---

2. In the Print Options panel, enter the number of copies you want into the **Copies** field in the **Destination** section.

NOTE

The **Copies** field appears blank when you have selected layouts with different values.

---

3. Activate/Deactivate **Collate copies**.
  4. In the **Destination** section, choose **Printer** and select a printer from the menu.
  5. In the **Job Type** section, select the page arrangement you want from the menu.
  6. Optional: Specify a range of pages/flows.
  7. In the **Page Setup** section, select a paper size from the menu.
  8. Choose the paper orientation you want.
  9. Optional: If you selected **Spreads** or **2-up** for the job type, activate/deactivate **Print odd final page on** to specify the paper size on which you want to print final pages for layouts with odd numbers of pages.
  10. Select a paper size and paper orientation for the odd final page.
  11. Choose one of the following size options:
    - **Fit to Paper**
    - **Custom Scale**
  12. Optional: If you selected **Custom Scale**, enter the scale factor you want into the **Scale factor** field.
  13. In the **Duplex Printing** section, select one of the printing options from the **Print on** menu.
  14. Optional: If you selected a duplex printing option, use the bottom two menus to select how the printed image is flipped when printing on the reverse side of the paper.
  15. In the **Annotations** section, activate each annotation you want to add to the selected layouts.
  16. Click **Print**.
- 

RESULT

The selected layouts are printed according to the print settings you have applied.

If your selection included part layouts set to concert pitch that contain transposing instruments, Dorico Elements shows a warning and offers to switch them all to transposed pitch before printing/exporting. You can also select which layouts you want to switch to transposed pitch or proceed anyway with no changes.

TIP

- You can choose to show a warning when printing/exporting concert or transposed pitch full score and custom score layouts in **Preferences > General > Files**.
  - You can assign key commands to different printing and exporting commands on the **Key Commands** page in **Preferences**.
-



#### RELATED LINKS

- [Preferences dialog](#) on page 58
- [Key Commands page in the Preferences dialog](#) on page 59
- [Printers](#) on page 546
- [Paper size and orientation setup](#) on page 551
- [Export File Names dialog](#) on page 545
- [Page arrangements for printing/exporting](#) on page 547
- [Print Options panel](#) on page 535
- [Duplex printing](#) on page 549
- [Annotations](#) on page 554
- [Changing the page size and/or orientation](#) on page 556
- [Exporting layouts as graphics files](#) on page 542

## Specifying ranges of pages/flows

By default, Dorico Elements prints/exports all pages in the selected layouts. You can specify ranges of either pages or flows for each layout independently.

#### NOTE

You can only print booklets using the complete range of pages. You cannot specify page or flow ranges.

---

#### PROCEDURE

1. In the **Layouts** panel, select the layouts for which you want to specify ranges of pages/flows.
2. In the Print Options panel, in the **Job Type** section, choose one of the following options for **Print range**:
  - To specify ranges of pages, choose **Pages**.
  - To specify ranges of flows, choose **Flows**.
3. If you chose **Pages**, enter the pages you want into the value field.
  - To specify a range of pages, enter the first page and last page separated with a dash, such as **1-4**.
  - To specify individual pages or separate ranges, enter each page/range separated with commas, such as **1,3,5-8**.

#### NOTE

Separate ranges are exported as separate files.

---

4. If you chose **Flows**, click **Choose** to open the **Print Flows** dialog. Select the flows you want to print/export, then click **OK**.
- 

#### RESULT

The pages set to be printed/exported from the selected layouts are changed. Ranges of flows include all pages on which those flows appear, in full or in part.

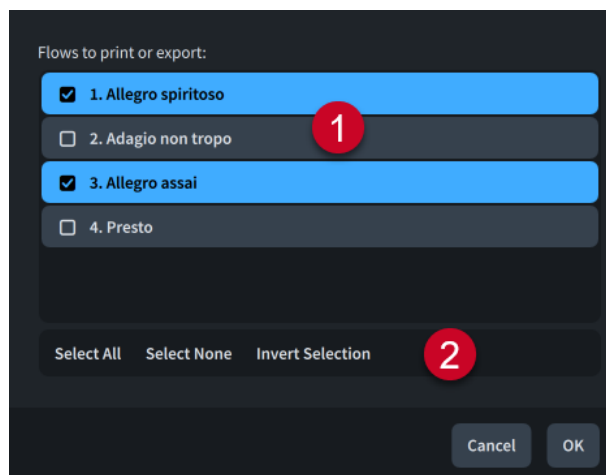
#### RELATED LINKS

- [Print Options panel](#) on page 535
- [Export File Names dialog](#) on page 545
- [Page arrangements for printing/exporting](#) on page 547
- [Exporting flows](#) on page 80

## Print Flows dialog

The **Print Flows** dialog allows you to select the flows you want to print/export from the selected layouts. Ranges of flows include all pages on which those flows appear, in full or in part.

- You can open the **Print Flows** dialog in Print mode by clicking **Choose** in the **Job Type** section of the Print Options panel. **Choose** is available when the selected layouts are set to print/export a range of flows.



### 1 Flows to print or export

Contains a list of all the flows in the selected layouts. Flows are included in the page range to be printed/exported when their checkbox is activated.

### 2 Selection options

Allow you to select/deselect flows. The following selection options are available:

- **Select All:** Selects all flows.
- **Select None:** Deselects all flows.
- **Invert Selection:** Switches your selection to include all flows not previously selected.

## Specifying printing options (macOS only)

Dorico Elements allows you to access the standard printing options of your operating system.

### NOTE

If you use the standard printing options of your operating system, the settings in the Print Options panel are ignored. macOS-specific print settings are not saved with your project. These must be set each time you want to print, whereas the Dorico Elements print options are always saved with your project.

---

### PROCEDURE

1. In the **Layouts** panel, click **Page Setup** in the **OS X Dialogs** section to open the macOS **Page Setup** dialog.
  2. In the **Page Setup** dialog, set the paper size.
  3. Click **OK**.
  4. In the **OS X Dialogs** section, click **Print** to open the macOS **Print**.
  5. In the **Print** dialog, set up the printing options you want.
-

## Exporting layouts as graphics files

You can export layouts as a variety of graphics files, such as PDF or PNG.

### TIP

You can export layouts with different image settings and export paths simultaneously.

---

### PROCEDURE

1. In the **Layouts** panel, select the layouts you want to export.

### NOTE

The layout selector in the toolbar is disabled in Print mode. To show a different layout in the print preview area, select it in the **Layouts** panel.

---

2. In the Print Options panel, choose **Graphics** in the **Destination** section.
3. Optional: Change the image settings for the selected layouts.
4. Optional: Change the export path for the selected layouts.
5. Optional: If you want to change the file name recipe, click **File Name Options** to open the **Export File Names** dialog.
6. Optional: In the **Export File Names** dialog, change the file name recipe for your selected graphics file formats.

### TIP

We recommend including the **Page number** token for PNG, SVG, and TIFF files as each page in layouts using these formats is exported as a separate file.

---

7. Optional: Specify a range of pages/flows.
8. In the **Page Setup** section, choose the page orientation you want.
9. In the **Annotations** section, activate each annotation you want to add to the selected layouts.

### NOTE

Watermarks are only included in layouts exported as **Color** graphics.

---

10. Click **Export**.
- 

### RESULT

The selected layouts are exported as the selected graphics format using the file name recipe set for their graphics file format in the **Export File Names** dialog. They are saved in the folder set in the **Destination folder** field, or in the same folder as the project file if the set export path is no longer accessible.

Exported layouts use the page size set for the layout on the **Page Setup** page in **Layout Options**.

If your selection included part layouts set to concert pitch that contain transposing instruments, Dorico Elements shows a warning and offers to switch them all to transposed pitch before printing/exporting. You can also select which layouts you want to switch to transposed pitch or proceed anyway with no changes.

TIP

- You can choose to show a warning when printing/exporting concert or transposed pitch full score and custom score layouts in **Preferences > General > Files**.
  - You can assign key commands to different printing and exporting commands on the **Key Commands** page in **Preferences**.
- 

RELATED LINKS

- [Specifying ranges of pages/flows](#) on page 540
- [Changing the page size and/or orientation](#) on page 556
- [Export File Names dialog](#) on page 545
- [Annotations](#) on page 554
- [Graphics file formats](#) on page 552
- [Image resolution](#) on page 552
- [Monochrome and color graphics processing](#) on page 553
- [Embedding of fonts in PDF and SVG files](#) on page 553
- [Preferences dialog](#) on page 58
- [Key Commands page in the Preferences dialog](#) on page 59
- [Layout Options dialog](#) on page 677
- [Page vs. paper size](#) on page 550
- [Exporting flows](#) on page 80

## Changing the image settings for layouts

You can change the graphics file format, color mode, and image resolution of layouts individually; for example, if you want to export some layouts as PDF files but others as PNG files.

---

PROCEDURE

1. In the **Layouts** list, select the layouts whose export path you want to change.
2. In the Print Options panel, choose **Graphics** in the **Destination** section.
3. Select a graphics file format from the menu.
4. Optional: If you selected **PNG** or **TIFF**, select a resolution from the **Resolution** menu.

TIP

The **Resolution** setting does not affect **PDF** and **SVG** files as they are vector formats.

---

5. Choose a color mode.
  - **Mono** exports the graphic in black and white.
  - **Color** exports the graphic in full color.

NOTE

- For layouts that you want to export with watermarks, or that contain colored or not completely transparent elements, you must choose **Color**. If you select **Mono**, such elements appear black in the exported file.
  - When exporting graphics files with a resolution of 72 dpi, we recommend that you select **Color**. If you select **Mono**, staff lines can disappear.
-

#### RESULT

The image settings for the selected layouts are changed. This also changes the file name recipe used for the corresponding layouts when you export them.

#### RELATED LINKS

[Graphics file formats](#) on page 552

[Image resolution](#) on page 552

[Monochrome and color graphics processing](#) on page 553

[Embedding of fonts in PDF and SVG files](#) on page 553

[Hiding/Showing noteheads](#) on page 949


## Changing the export path for layouts

You can specify an export path to any folder to which you want to export layouts as graphics files. You can specify a different export path for each layout and still export them all simultaneously.

By default, Dorico Elements exports graphics files into the same folder as your project file. If you have not saved your project yet, graphics files are saved in your **Dorico Projects** folder.

---

#### PROCEDURE

1. In the **Layouts** list, select the layouts whose export path you want to change.
2. In the **Destination** section of the Print Options panel, click **Choose Folder**  beside the **Destination folder** field to open the File Explorer/macOS Finder.
3. Locate and select the destination folder you want.
4. Click **Select Folder** (Windows)/**Open** (macOS) to insert the new path in the **Destination folder** field.
5. Optional: Repeat steps 1 to 4 for other layouts whose export path you want to change.
6. Optional: If you want to change the file name recipe, click **File Name Options** to open the **Export File Names** dialog.
7. Optional: In the **Export File Names** dialog, change the file name recipe for your selected graphics file formats.

#### TIP

We recommend including the **Page number** token for PNG, SVG, and TIFF files as each page in layouts using these formats is exported as a separate file.

---

#### RESULT

The export path for the selected layouts is changed. When exported, the layouts use the file name recipe set for their graphics file format in the **Export File Names** dialog.

#### NOTE

If the export path specified is no longer accessible, such as if you receive a project from someone who uses a different operating system, Dorico Elements automatically updates the export path to the same location as the project file.

---

## Export File Names dialog

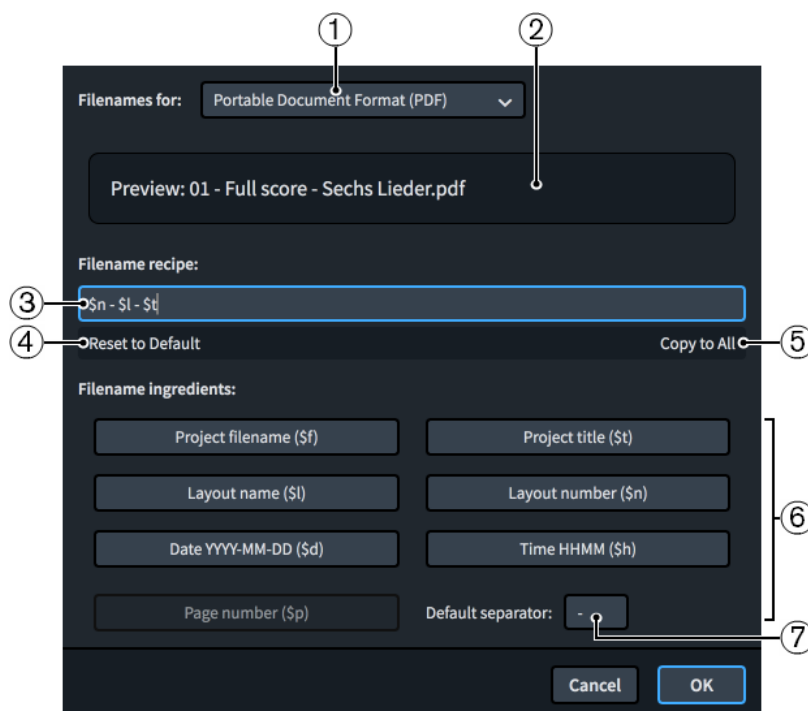
The **Export File Names** dialog allows you to determine the contents of file names for each graphics file format independently. You can use universal ingredients that update to show the correct information for each layout automatically, and you can enter text that is the same for all layouts.

You can open the **Export File Names** dialog in any of the following ways:

- In Print mode, click **File Name Options** in the **Destination** section of the Print Options panel when the currently selected layout is set to **Graphics**.
- In **Preferences > General > Exporting Files**, click **Edit**.

### NOTE

Your settings are linked between both ways of accessing the dialog and are saved as the default for all future projects.



The **Export File Names** dialog contains the following options:

### 1 File names for

Allows you to select different graphics file formats. You can set different file name recipes for each graphics file format.

### 2 Preview

Displays an example file name based on the current recipe. The layout used for the preview is the one shown in the layout selector in the toolbar.

For example, the preview for a full score PDF file name using the default recipe might be 01 - Full score - Lieder.pdf.

### 3 File name recipe

Displays the recipe for the selected graphics file format. You can enter text directly into this field, and click ingredients to add them automatically.

For example, the default PDF file name recipe is **\$n - \$l - \$t**.

#### 4 **Reset to Default**

Resets the file name recipe to the default for the selected graphics file format.

#### 5 **Copy to All**

Copies the file name recipe to all layouts in the project.

#### 6 **File name ingredients**

Allow you to add ingredients to the file name recipe quickly that are automatically populated as appropriate for each layout. For example, the ingredient **\$I** becomes **Piano** when used to export a piano part layout.

The buttons for each ingredient display both the information to which the ingredient refers and the characters for it.

When you click file name ingredients, they are added to the end of the file name recipe. They are automatically separated from the previous ingredient using the default separator.

##### NOTE

The page number ingredient is not available for the PDF file name recipe as it is a multi-page format.

---

#### 7 **Default separator**

Allows you to set the characters used to separate ingredients in the file name recipe by default.

##### RELATED LINKS

[Exporting layouts as graphics files](#) on page 542

## Printers

You can print layouts from Dorico Elements projects to any printer to which your computer is connected.

You can select different printers for each layout in your project. This allows you to send layouts to the most appropriate printer for their requirements. You can select a printer when **Printer** is chosen in the **Destination** section of the Print Options panel.

Dorico Elements uses the same printer as designated by the operating system by default, unless you specify another printer. In this case, the settings in the following sections in the Print Options panel can change:

- In the **Page Setup** section, the list of available paper sizes lists only paper sizes that the chosen printer provides.
- In the **Duplex Printing** section, the option for automatic duplex printing is only available if the chosen printer has this function.

##### NOTE

The printer menu in the **Destination** section only shows the name of a printer if all currently selected layouts are set to print to the same printer. If you select a new printer from the menu, all selected layouts are set to print to that printer.

---

##### RELATED LINKS

[Print Options panel](#) on page 535

[Printing layouts](#) on page 538

## Page arrangements for printing/exporting

Dorico Elements provides several page arrangements that you can use for printing/exporting your layouts.

In the **Job Type** section of the Print Options panel, you can specify how you want the layouts to be printed/exported. You can select the following job types from the **Job Type** menu:

### Normal

Prints one page on each sheet of paper. This produces single-sided pages; for example, for instrumental parts that do not have regular page turns and must be bound in a continuous line.

### Spreads

Prints two pages on each sheet of paper, with odd-numbered pages on the right-hand side and even-numbered pages on the left-hand side.

You can also specify a paper size on which to print odd final pages; for example, if you are printing a layout containing five pages.

### 2-up

Prints two pages on each sheet of paper. The first page in the range is printed on the left-hand side of the first sheet of paper. This can be useful for printing instrument parts as it reduces the number of edges that must be bound, because pages can also be folded in half.

You can also specify a paper size on which to print odd final pages; for example, if you are printing a layout containing five pages.

### Booklet

Prints two pages on each sheet of paper according to imposition requirements. This means that if the paper is folded, the pages are laid out like a book. This can be useful for scores and choir parts in particular as they often contain more pages than instrumental parts.

#### NOTE

You can only print booklets using the complete range of pages. You cannot specify page or flow ranges.

---

#### NOTE

- Depending on the job type that you choose, Dorico Elements switches the page orientation automatically. The changed orientation is immediately displayed in the music area. If this is not what you want, you can override the orientation in the **Page Setup** section.
  - All of the job types allow printing either onto a single side of each sheet of paper or on both sides of the paper.
  - It is usual to print booklets, spreads, and 2-up onto paper in landscape orientation. Printing one page to each sheet typically uses portrait orientation, unless the layout itself uses landscape orientation.
- 

Also in the **Job Type** section, you can choose which pages you want to print/export.

### All

Allows you to print/export all pages in the selected layouts.



### Pages

Allows you to set a range of pages to be printed/exported. Choosing **Pages** makes the value field available.

- To specify a range, enter the first page and last page separated with a dash, such as **1-4**.
- To specify individual pages or separate ranges, enter each page/range separated with commas, such as **1,3,5-8**.

### Flows

Allows you to set a range of flows to be printed/exported. When **Flows** is chosen, you can click **Choose** to open the **Print Flows** dialog, which allows you to select the flows you want to print/export.

#### RELATED LINKS

[Paper size and orientation setup](#) on page 551

[Specifying ranges of pages/flows](#) on page 540

[Margins](#) on page 570

## Booklet printing

Booklets are documents printed on both sides of the paper and folded to resemble the pages in a book. When printed as a booklet, pages are reordered so that you can fold the printed pages and read the content in the same order as they were in the project.

Printing layouts as a booklet can be much quicker than printing pages single-sided or double-sided. For example, if your full score is twenty pages long and you print it on both sides automatically, you must then bind one edge of the printed pages in order to keep them together. However, if you print the full score as a booklet, you can simply fold the printed pages in the middle.

Booklet printing settings reorder pages so that they appear in the correct order on the printed page. For example, a layout containing four pages printed as a booklet is laid out as follows:

- First side: page four on the left, page one on the right
- Reverse side: page two on the left, page three on the right

If the layout you are printing as a booklet contains an odd number of pages, Dorico Elements automatically places any empty last pages at the end of the booklet. This follows the convention of showing odd-numbered pages on the right. For example, if you print a layout containing six pages as a booklet, a total of eight pages are printed with the last two pages in the booklet left blank. If you want the empty pages to be positioned differently, you can add extra pages to the layout; for example, a title page.

#### NOTE

- You can only print booklets using the complete range of pages. You cannot specify page or flow ranges.
- If the order of inward pages is incorrect when you are printing booklets using manual duplexing, you can activate **Reverse order of outward pages** in the **Duplex Printing** section of the Print Options panel, which instructs Dorico Elements to output the first set of pages in the opposite order.

---

#### RELATED LINKS

[Printing layouts](#) on page 538

[Duplex printing](#) on page 549

## Duplex printing

Dorico Elements allows duplex printing, which means that you can print on both sides of each sheet of paper.

If your printer supports automatic duplex printing, you can use this function in Dorico Elements. If your printer can only print on one side of each sheet of paper, there is a manual duplex printing option.

The **Print on** menu in the **Duplex Printing** section of the Print Options panel contains the following options:

### One side only

Prints on one side of each sheet of paper.

### Both sides manually

Prints on both sides of each sheet of paper. Use this option if your printer lacks an automatic duplex printing function. After all outward pages have been sent to the printer, a message box informs you to turn over the stack of printed pages and put them back into the printer. Click **OK** to continue printing the inward pages.

### Both sides automatically

Prints on both sides of each sheet of paper automatically. This option is only available if your printer supports this type of printing.

The other menus in the **Duplex Printing** section allow you to set how the printed image is flipped when printing on the reverse side of the paper.

### Flip image (portrait)



Determines how the image is flipped for reverse side printing in portrait orientation.

- **Flip automatically** uses the printer's default settings for printing on the reverse side. If you find that the printer flips on a different edge than expected, use one of the other options.
- **Flip long side** sets the printer to flip the pages on the long edge.
- **Flip short side** sets the printer to flip the pages on the short edge.

### Flip image (landscape)



Determines how the image is flipped for reverse side printing in landscape orientation.

- **Flip automatically** uses the printer's default settings for printing on the reverse side. If you find that the printer flips on a different edge than expected, use one of the other options.
- **Flip long side** sets the printer to flip the pages on the long edge.
- **Flip short side** sets the printer to flip the pages on the short edge.

**Reverse order of outward pages** at the bottom of the section instructs Dorico Elements, when activated, to output the first set of pages in the opposite order when printing booklets using manual duplexing. This is necessary for some printers so that you do not have to reverse sort the pages manually before returning them to the printer to print the other sides.

#### RELATED LINKS

[Printing layouts](#) on page 538

## Page vs. paper size

In Dorico Elements, page sizes and paper sizes use different settings. This means that you can print layouts with any page size onto paper with a different paper size.

For each layout in your project, you can define a page size on the **Page Setup** page in **Layout Options**, which sets the dimensions of the layout.

When exporting layouts as graphics files, the layout's page size is always used. When printing layouts, you must usually choose a paper size that is provided by the printer that you are using.

Normally, the layout's page size and the printed paper size match. However, if you define a layout with an unusual page size that is not supported by your printer, such as 10" x 13", one of the standard page sizes for instrumental parts, you may have to print the layout onto a different paper size. You can change the paper size in the **Page Setup** section of the Print Options panel according to your needs. As long as your printer supports sufficiently large paper for your page size settings, and they match a standard paper size, your dimensions are included in the menu. Changing the paper size has no effect on your layout's page size, and does not, therefore, affect the way the music is laid out.

If you do not select a specific paper size, Dorico Elements automatically chooses a paper size that is based on your computer's locale settings. For example, if these are set to a European country, an international ISO standard might be used, such as A4. If they are set to a North American country, one of their typical standards might be used, such as US Letter.

If you have defined a page size for your layout that is larger than a typical standard, Dorico Elements automatically chooses the next larger paper size, provided that your printer supports this. For example, if the layout's page size is larger than A4/US Letter, A3/Tabloid is used.

If you print to a different paper size than the layout's page size, Dorico Elements automatically scales the image to fit the paper. You can change this setting by specifying a custom scale factor in the **Page Setup** section.

### RELATED LINKS

[Layout Options dialog](#) on page 677

[Changing the page size and/or orientation](#) on page 556

[Printing layouts](#) on page 538

[Exporting layouts as graphics files](#) on page 542

[Margins](#) on page 570

## Paper orientation

Paper orientation is the direction of rectangular paper for viewing and printing. Paper can have either landscape or portrait orientation.

Instrumental parts are most often printed using portrait orientation, as this allows two or three pages to be spread out at a time on most music stands.

Full scores for conductors are also commonly printed using portrait orientation, as this allows more staves to fit on the page than with landscape orientation. However, full scores for small ensembles might use landscape orientation as fewer staves have to fit on the page. Having more horizontal room on the page allows more bars to fit on each page, reducing the number of page turns required.

In Dorico Elements, you can set the orientation of pages independently of the paper orientation; for example, you can print portrait pages on landscape paper. You can also separately set the paper orientation of the odd final page in layouts using the **Spreads** and **2-up** page arrangements.

RELATED LINKS

[Changing the page size and/or orientation](#) on page 556

## Paper size and orientation setup

Layouts can have different paper sizes and orientation settings.

NOTE

If you have selected **Graphics** in the **Destination** section of the Print Options panel, you can only change the paper orientation. No other options are available.

---



The **Page Setup** section of the Print Options panel contains the following options when you have chosen **Printer** in the **Destination** section:

### Paper size

Allows you to select one of the available paper sizes from the menu. The paper sizes available depend on the capabilities of the selected printer.

### Paper orientation

Allows you to choose one of the following paper orientation options:

- **Portrait** 
- **Landscape** 

### Print odd final page on

For **Spreads** and **2-up** job types only: If this is activated, you can select a different paper size or orientation for the odd final page.

This setting is useful when printing layouts with an odd number of pages on A3 paper in landscape orientation. For example, if your layout contains five pages, the first four pages fit onto two sheets of A3, while the fifth page would occupy only the left-hand side of a third sheet of A3. This setting allows you to print the odd final page on A4 paper in portrait orientation instead.

### Fit to Paper

The whole page is scaled to fit the paper size selected. For example, if you select a layout with a page size of A4 and select a paper size of A3, pages in the layout are enlarged to fit the larger paper size.

### Custom Scale

The page is scaled to the set percentage of its original size. For example, if you are printing a layout with a page size of A3, select a paper size of A4, and set **Custom Scale** to **100**, the original page remains at its original size, exceeding the boundaries of the A4 paper.

RELATED LINKS

[Page arrangements for printing/exporting](#) on page 547

[Changing the page size and/or orientation](#) on page 556

[Margins](#) on page 570

## Graphics file formats

Dorico Elements supports multiple graphics file formats as which you can export your layouts.

### PDF

Stands for Portable Document Format. Exporting layouts to PDF allows you to create a platform-independent document that contains a fixed version of each layout; for example, to send to someone who does not have access to Dorico Elements.

### PNG

Stands for Portable Network Graphics. PNG files are losslessly compressed, meaning they produce high-quality images.

### SVG

Stands for Scalable Vector Graphics. Because SVG is an XML-based text format, it can be scaled to any size without any loss of quality. Dorico Elements renders SVG graphics using drawing instructions rather than rasterizing them, resulting in better resolutions and smaller file sizes.

### TIFF

Stands for Tagged Image File Format. TIFF files are not compressed, which means their file sizes can be larger than other formats and the quality of the image is not reduced.

#### RELATED LINKS

[Exporting layouts as graphics files](#) on page 542

[Monochrome and color graphics processing](#) on page 553

[Embedding of fonts in PDF and SVG files](#) on page 553

## Image resolution

Image resolution refers to the number of pixels contained in an image. The larger the number of pixels, the sharper and clearer the image appears.

In Dorico Elements, you can export PNG and TIFF files with different image resolutions. The image resolution is measured in dots per inch, or “dpi”.

- **72**
- **150**
- **300**
- **600**
- **1200**

#### NOTE

A resolution of 72 dpi is suitable for display on screen so that you can embed the graphic in an e-mail or on a web page. If you choose 300, 600, or 1200 dpi, a high-resolution image is saved that you can include as an illustration in a word processing or desktop publishing document.

---

#### RELATED LINKS

[Exporting layouts as graphics files](#) on page 542

## Monochrome and color graphics processing

Dorico Elements applies different settings when you export monochrome and color graphics. The most appropriate setting depends on your intended purpose for the graphics.

Most musical scores are monochrome, meaning they use only black ink and are normally printed on white/near-white paper. Some educational books occasionally use colors to highlight particular notations; for example, to identify clefs, or to color notes according to their pitch. If you export graphics files and print them with your own printer, you can leave **Color** selected in the **Destination** section.

However, if you export graphics files in PDF format for direct printing on a platesetter or for further production work in a page layout program, select **Mono**, unless your layout actually contains elements with color or opacity set. If you select **Mono**, Dorico Elements uses a different color space for the resulting PDF, ensuring that the printed image only uses black ink. If you choose **Color**, then the black items in your layout are exported as rich black; that is, black produced by combining multiple colored inks. This can cause problems in production when making color separations at the pre-press stage.

Dorico Elements specifies colors using the RGB color model, rather than the CMYK color model that is used by platesetters and other professional printing machines. If you have colored objects in your layouts and your layouts are printed professionally, you must post-process the graphics files that are exported from Dorico Elements in another graphics application to convert the colors from RGB to CMYK.

## Embedding of fonts in PDF and SVG files

How fonts are handled in PDF and SVG files mainly depends on the fonts that you use in the project.

### PDF Files

The music and text fonts, and their sub-sets, that are supplied with Dorico Elements are embedded in PDF files during the export. If you open the PDF files on a different computer, they look the same, even if that computer does not have the fonts installed that are used in the document. If you use different fonts, make sure that these permit embedding.

### SVG Files

SVG (Scalable Vector Graphics) files do not embed fonts directly. Some font characters, such as note heads, articulations, and accidentals, are converted into outlines, so that they do not depend on the font from which they are taken. Other font characters, such as time signature and tuplet digits, are only encoded using references to the font from which they are taken. The latter also applies to regular text, such as staff labels, tempo instructions, and dynamics. This means that the SVG file looks incorrect if rendered by a web browser on a computer that does not have the fonts installed. The appearance of SVG files depends on the browser or the rendering software, and on the fonts that are installed on the computer.

To ensure that the SVG file appears correctly if embedded in a web page, you can open the SVG file in an illustration program and convert all font characters to outline paths, then re-export the SVG file and embed that file. Alternatively, you can use web fonts to ensure that the necessary fonts are available on the web server.

SVG graphics that are exported from Dorico Elements conform to the SVG Tiny 1.1 specification, which defines a subset of features in the full SVG specification.

For information about using web fonts with SVG, refer to the Help Center on the Steinberg website.

RELATED LINKS

[Exporting layouts as graphics files](#) on page 542

[Graphics file formats](#) on page 552

[Image resolution](#) on page 552

[Monochrome and color graphics processing](#) on page 553

## Annotations

Annotations provide additional information for printed or exported documents, such as the date and time it was printed. Publishers and printing agencies can use these to identify and register printed images correctly or to embed exported graphics files into a desktop publishing application.

When printing/exporting your layouts for publication, you can include typical annotations. You can also allow Dorico Elements to print or export any view options that you have activated in your project.

### NOTE

Crop marks and the border can only be printed if the page size is smaller than the paper size.

---

The **Annotations** section of the Print Options panel contains the following options:

#### Crop marks

Adds short vertical and horizontal lines at each of the four corners of the page.

#### Border

Adds an outline around the edge of the page dimensions.

#### Date and time

Adds the date and time of printing at the bottom of each page.

#### Watermark

Adds large translucent text across the middle of each page. This is useful for indicating that this version is a draft, proof, or perusal score.

In the **Watermark** field at the bottom of the section, you can enter the text that you want to show on each page.

### TIP

Watermarks are only included in layouts exported as **Color** graphics.

---

#### View options

Adds all active view options, such as signposts, comments, and note and rest colors, to the printout or exported graphic.

RELATED LINKS

[Signposts](#) on page 426

[Comments](#) on page 470

[Printing layouts](#) on page 538

[Exporting layouts as graphics files](#) on page 542

[Hiding non-printing elements](#) on page 416

# Page formatting

The formatting of pages in Dorico Elements is determined by a number of factors, including the layout's staff size, page margins, the page template applied to them, any casting off values applied to them, system and frame breaks, and frame padding.

The most important factors that determine how pages are formatted in Dorico Elements are:

## Staff size

Staff size refers to the distance between the top and bottom lines of staves. The most appropriate staff size depends on the intended purpose and contents of the layout. In many cases, changing the staff size is the quickest way to produce legible layouts.

## Staff spacing

Staff spacing mostly involves the height of staves and the necessary gaps between staves and systems.

## Casting off

"Casting off" is the term used to encompass fixing the layout of pages of music, such as setting the number of systems per page.

## System and frame breaks

System and frame breaks allow you to adjust layouts at a more granular level, by determining which bars are shown on each system and where music is pushed into the next frame.

## Page margins

Page margins determine the dimensions of pages in layouts. Frames cannot exceed the boundaries set by the margins of the layout, which you can change on the **Page Setup** page in **Layout Options**. You can change the size of margins on each edge of each page.

## Page templates

All pages in your layouts inherit their layout formats from page templates. Although you cannot create or edit page templates in Dorico Elements, we recommend being familiar with them as a concept, so you are aware of how pages are formatted. For example, if you override a page template, such as by editing the title directly in the music area, empty pages that are no longer required might not be deleted automatically.

### TIP

The default page templates in Dorico Elements contain tokens for the project title, lyricist, and composer on the first pages in layouts, and the flow title (score layouts) or layout name (part layouts) at the top of subsequent pages. Part layouts also automatically show the layout name in the top left of the first page. These tokens refer to information in the **Project Info** dialog, so we recommend entering information in the **Project Info** dialog in order to show it in your layouts.

## Flow headings

Flow headings show the number and title of each flow immediately above their first system automatically. They have no fixed vertical position and follow the music if it moves. The default flow heading contains tokens to display the flow number and flow



title; in a new project, this appears as “1. Flow 1”. In Dorico Elements, you cannot edit flow headings or create new ones.

You can hide/show flow headings on a per-layout basis. Deleting or editing individual flow headings is considered a page template override, which is a type of page format change.

### Music frame margins

Music frames have margins at the top and bottom. Music frame margins provide padding to ensure that musical material displayed within the frame remains on the page. For example, if music frames have no padding, the top line on the top staff in the frame is positioned at the top of the frame. Any notes that require ledger lines above the staff might then be positioned off the top of the page. You can change the music frame margins for each layout.

We recommend familiarizing yourself with these concepts, and how to use them together and in different contexts, in order to produce well-formatted layouts.

#### RELATED LINKS

[Layout Options dialog](#) on page 677

[Staff size](#) on page 573

[Staff spacing](#) on page 576

[Casting off](#) on page 581

[System breaks](#) on page 586

[Frame breaks](#) on page 589

[Page templates](#) on page 599

[Flow headings](#) on page 603

[Hiding/Showing flow headings](#) on page 567

[Removing page template overrides](#) on page 602

[Tacets](#) on page 592

[Margins](#) on page 570

[Hiding/Showing empty staves](#) on page 562

[Hiding/Showing used chord diagrams grids](#) on page 809

[Layouts](#) on page 165

[Flows](#) on page 162

[Players](#) on page 120

[Project Info dialog](#) on page 75

[Project templates](#) on page 78

## Changing the page size and/or orientation

You can change the page size and/or orientation of each layout independently. For example, you can use a large, landscape page in full score layouts and a small, portrait page for part layouts.

---

#### PROCEDURE

1. Press **Ctrl/Cmd-Shift-L** to open **Layout Options**.
2. In the **Layouts** list, select the layouts in which you want to change the page size and/or orientation.

By default, the layout currently open in the music area is selected when you open the dialog. You can select other layouts by using the selection options in the action bar, clicking and dragging across multiple layouts, **Shift**-clicking adjacent layouts, and **Ctrl/Cmd**-clicking individual layouts.

3. In the category list, click **Page Setup**.

4. In the **Page Size** section, select a page size from the **Size** menu.  
For example, you can select fixed page sizes, such as **A3** or **Letter**, or select **Custom** to define your own page size.
  5. Optional: If you selected **Custom**, change the **Width** and **Height** of the page by changing the values in the value fields.
  6. Choose one of the following options for **Orientation**:
    - **Portrait**
    - **Landscape**
  7. Optional: Repeat steps 2 to 6 for other layouts whose page size/orientation you want to change.
  8. Click **Apply**, then **Close**.
- 

#### RESULT

The page size and/or orientation is changed for all the selected layouts.

#### NOTE

Changing the page size of layouts might not change the paper size automatically selected for those layouts in the Print Options panel in Print mode. For example, if your default printer cannot print the page size selected for layouts, the largest paper size the printer can handle is selected. Similarly, if you had already set options for printing layouts before changing the page size in **Layout Options**, Dorico Elements attempts to preserve your original print options.

Similarly, the page orientation is independent of the paper orientation. We recommend that you check that layouts have the correct paper orientation set for their page orientation in the Print Options panel in Print mode before printing/exporting, as it is possible to print landscape layouts on portrait paper and vice versa.

---

#### RELATED LINKS

- [Paper size and orientation setup](#) on page 551
- [Printing layouts](#) on page 538
- [Exporting layouts as graphics files](#) on page 542

## Changing page margins

You can change the page margins of each layout independently; for example, if you want wider margins for layouts in your project that will be spiral bound.

---

#### PROCEDURE

1. Press **Ctrl/Cmd-Shift-L** to open **Layout Options**.
2. In the **Layouts** list, select the layouts in which you want to change the page margins.  
By default, the layout currently open in the music area is selected when you open the dialog. You can select other layouts by using the selection options in the action bar, clicking and dragging across multiple layouts, **Shift**-clicking adjacent layouts, and **Ctrl/Cmd**-clicking individual layouts.
3. In the category list, click **Page Setup**.
4. In the **Page Margins** section, choose one of the following options for **Page margins**:
  - **Same**: All pages in the selected layouts have the same margins.

- **Different:** Left and right pages in the selected layouts can have completely different margins.
  - **Mirrored:** Left and right pages in the selected layouts use the same margin values but they correspond to the inside/outside edges of pages.
5. Optional: Change the margins by changing the values in the value fields.
  6. Click **Apply**, then **Close**.
- 

#### RESULT

The page margins in the selected layouts are changed.

#### RELATED LINKS

[Margins](#) on page 570

[Changing the first system indent](#) on page 1198

[Hiding/Showing staff labels](#) on page 1181

[Hiding/Showing used chord diagrams grids](#) on page 809

## Applying page template sets to layouts

You can change the page template set used by each layout in your project; for example, if you want a custom score layout to use the **Default Part** page template set because that set shows the layout name on the first page.

By default, full score and custom score layouts use the **Default Full Score** page template set and part layouts use the **Default Part** page template set.

---

#### PROCEDURE

1. Press **Ctrl/Cmd-Shift-L** to open **Layout Options**.
  2. In the **Layouts** list, select the layouts whose page template set you want to change.  
By default, the layout currently open in the music area is selected when you open the dialog. You can select other layouts by using the selection options in the action bar, clicking and dragging across multiple layouts, **Shift**-clicking adjacent layouts, and **Ctrl/Cmd**-clicking individual layouts.
  3. In the category list, click **Page Setup**.
  4. In the **Page Template** section, select the page template set you want from the **Page template set** menu.
  5. Click **Apply**, then **Close**.
- 

#### RESULT

The selected page template set is applied to the selected layouts.

#### RELATED LINKS

[Page template sets](#) on page 600

[Changing when the First page template is used](#) on page 566

[Allowing/Disallowing multiple flows on the same page](#) on page 565

[Hiding/Showing flow headings](#) on page 567

## Changing the default staff size

You can change the default size of staves in each layout independently. For example, you can have a small staff size in full score layouts but a larger staff size in part layouts.

### NOTE

If the size of system object font styles is set to **Staff-relative**, the staff size of the top staff in each instrument family group affects the size of system objects if they are shown above that bracketed group. Font styles that are set to **Absolute** are unaffected by staff size.

---

### PROCEDURE

1. Press **Ctrl/Cmd-Shift-L** to open **Layout Options**.
2. In the **Layouts** list, select the layouts whose staff size you want to change.  
By default, the layout currently open in the music area is selected when you open the dialog. You can select other layouts by using the selection options in the action bar, clicking and dragging across multiple layouts, **Shift**-clicking adjacent layouts, and **Ctrl/Cmd**-clicking individual layouts.
3. In the category list, click **Page Setup**.
4. In the **Space Size** section, select the staff size you want from the **Rastral size** menu.

### NOTE

If you select **Custom**, you can set a custom value in the **Space size** field, expressed in your preferred unit of measurement.

You can also set a **Custom** value by changing the value when any **Rastral size** is selected.

---

5. Optional: Repeat steps 2 to 4 for other layouts.
  6. Click **Apply**, then **Close**.
- 

### RESULT

The staff size is changed throughout the selected layouts.

### TIP

You can also change the size of individual staves.

---

### RELATED LINKS

- [Staff size](#) on page 573
- [Brackets and braces](#) on page 776
- [System objects](#) on page 1196

## Changing the default staff/system spacing

You can change the default gaps between staves and systems in each layout independently. For example, you can have smaller gaps between staves in full score layouts to accommodate more

staves, and larger gaps between systems in part layouts to give players space to add pencil markings.

**TIP**

- If the staves in a layout are very close together, just decreasing the staff size might be sufficient to produce good results.
- We recommend that you set the ideal gaps to the minimum value acceptable to you, as Dorico Elements automatically allocates additional space for other items, such as system objects and dynamics, and avoids collisions between notes and staves above/below.

---

**PROCEDURE**

1. Press **Ctrl/Cmd-Shift-L** to open **Layout Options**.
2. In the **Layouts** list, select the layouts in which you want to change the default staff/system spacing.  
By default, the layout currently open in the music area is selected when you open the dialog. You can select other layouts by using the selection options in the action bar, clicking and dragging across multiple layouts, **Shift**-clicking adjacent layouts, and **Ctrl/Cmd**-clicking individual layouts.
3. In the category list, click **Vertical Spacing**.
4. In the **Ideal Gaps** section, change the values for the different contexts as required.
5. Click **Apply**, then **Close**.

---

**RESULT**

The minimum gaps between staves and systems in the corresponding contexts are changed. This affects how much space Dorico Elements allows for staves/systems in its casting off estimations and whether frames are considered full enough to justify vertically automatically.

**RELATED LINKS**

- [Staff spacing](#) on page 576
- [Locking layouts](#) on page 584
- [Note spacing](#) on page 579
- [Changing the first system indent](#) on page 1198
- [Hiding/Showing staff labels](#) on page 1181
- [Hiding/Showing empty staves](#) on page 562
- [Changing the default player order](#) on page 123

## Changing the vertical justification of staves/systems

You can change the minimum fullness threshold above which Dorico Elements automatically vertically justifies staves and systems, which means they are evenly distributed to fill the height of frames. You can also control whether staves and systems are both vertically justified or only systems are vertically justified.

---

**PROCEDURE**

1. Press **Ctrl/Cmd-Shift-L** to open **Layout Options**.
2. In the **Layouts** list, select the layouts in which you want to change the automatic vertical justification of staves/systems.  
By default, the layout currently open in the music area is selected when you open the dialog. You can select other layouts by using the selection options in the action bar, clicking

and dragging across multiple layouts, **Shift**-clicking adjacent layouts, and **Ctrl/Cmd**-clicking individual layouts.

3. In the category list, click **Vertical Spacing**.
  4. In the **Ideal Gaps** section, choose one of the following options for **Gap to use for divided staves**:
    - **Staff to staff**
    - **Braced staff to braced staff**
  5. In the **Vertical Justification** section, change the values for the following options, individually or together:
    - **Justify distance between staves and systems when frame is at least [n]% full**
    - **Justify distance only between systems when frame is at least [n]% full**
  6. Activate/Deactivate **Justify staves when frame with single system is above this threshold**.
  7. Click **Apply**, then **Close**.
- 

#### RESULT

The automatic vertical justification of staves and systems in the selected layouts is changed. Braced staves are never vertically justified.


---

#### EXAMPLE



A page of musical notation with four systems. Each system contains four staves: Violin (Vn), Viola (Vc), Soprano (S), and Organ (Org). The staves are vertically justified, meaning the distance between them is consistent across systems. The systems are also vertically justified, meaning the distance between the systems is consistent. The notation includes various musical symbols, clefs, and lyrics.

A page with staves and systems both justified



The same page of musical notation as the previous example, but with only the systems vertically justified. The staves within each system are not vertically justified, resulting in varying distances between staves within each system, while the distance between the systems remains consistent.

The same page with only systems justified

---

#### RELATED LINKS

[Per-layout vertical spacing options on page 577](#)

## Hiding/Showing empty staves

You can hide/show empty staves differently in each layout independently. For example, you can show all staves, including empty staves, in a full score layout for the conductor but hide empty staves in a full score layout intended for reference only.

---

### PROCEDURE

1. Press **Ctrl/Cmd-Shift-L** to open **Layout Options**.
2. In the **Layouts** list, select the layouts in which you want to hide/show empty staves.  
By default, the layout currently open in the music area is selected when you open the dialog. You can select other layouts by using the selection options in the action bar, clicking and dragging across multiple layouts, **Shift**-clicking adjacent layouts, and **Ctrl/Cmd**-clicking individual layouts.
3. In the category list, click **Vertical Spacing**.
4. In the **Staff Visibility** section, choose one of the following options for **Hide empty staves**:
  - **After first system**
  - **All systems**
  - **Never**
5. Activate/Deactivate **Allow individual staves of multi-staff instruments to be hidden**.
6. Optional: For **Players excluded from Hide Empty Staves**, activate the checkbox for each instrument you want to be shown regardless of your choice for **Hide empty staves**.
7. Click **Apply**, then **Close**.

---

### RESULT

Empty staves in the selected layouts are hidden/shown according to your choice. If you activated **Allow individual staves of multi-staff instruments to be hidden**, any single empty staves in multi-staff instruments, such as piano or harp, can be hidden in the selected layouts.

### RELATED LINKS

- [Extra staves](#) on page 1193
- [Divisi](#) on page 1199
- [Per-layout vertical spacing options](#) on page 577
- [Hiding/Showing blank staves after final flows](#) on page 564
- [Changing the default player order](#) on page 123
- [Hiding/Showing system dividers](#) on page 1195
- [Instrument filters](#) on page 421

## Hiding/Showing staves from system/frame breaks

You can manually change staff visibility from the rhythmic positions of system/frame breaks onwards by hiding, showing, and resetting individual staves. For example, if you have hidden empty staves in the layout but want specific empty staves to appear in some sections, or you want to hide staves with music on them in some layouts.

---

### PROCEDURE

1. Optional: If you want to change staff visibility manually from a rhythmic position that does not yet have a system/frame break, select an item at the position from which you want to change staff visibility.
2. Open the **Manual Staff Visibility** dialog in one of the following ways:

- If a system/frame break signpost exists at the position where you want to change staff visibility, select it and press **Return** or double-click it.
  - If no system/frame break exists, choose **Edit > Notations > Staff > Manual Staff Visibility**. You can also choose this option from the context menu.
3. Change staff visibility as required.  
For example, you can activate and change the setting for individual staves, or use the options in the action bar to change the setting for all staves simultaneously.
  4. Click **OK** to save your changes and close the dialog.
- 

#### RESULT

Staff visibility is changed from the selected rhythmic position or system/frame break signpost onwards until the next staff visibility change or the end of the flow, whichever comes first and whether the staves are empty or not.

If a system/frame break signpost did not yet exist at the selected rhythmic position, a system break with your staff visibility settings is inserted at the selected rhythmic position.

#### RELATED LINKS

[Frame breaks](#) on page 589

[System breaks](#) on page 586

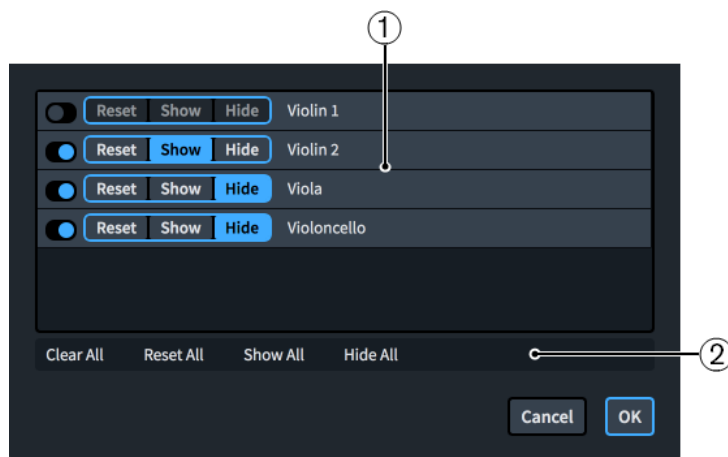
[Staff spacing](#) on page 576

## Manual Staff Visibility dialog

The **Manual Staff Visibility** dialog allows you to hide, show, and reset individual staves manually from system/frame breaks.

You can open the **Manual Staff Visibility** dialog in Write mode in any of the following ways:

- Choose **Edit > Notations > Staff > Manual Staff Visibility** when an item is selected in the music area. You can also choose this option from the context menu.
- Select a system/frame break signpost and press **Return**, or double-click a system/frame break signpost.



The **Manual Staff Visibility** dialog comprises the following:

### 1 Staff list

Contains all the staves that exist at the selected rhythmic position, including hidden empty staves. Activating staves includes them in the manual staff visibility change.

For each staff, the following staff visibility options are available:



- **Reset:** Resets the visibility of the staff to the default setting in the layout, as set on the **Vertical Spacing** page in **Layout Options**.
- **Show:** Shows the staff from the selected rhythmic position onwards, whether it is empty or not.
- **Hide:** Hides the staff from the selected rhythmic position onwards, whether it is empty or not.

## 2 Action bar

Contains options that allow you to change the staff visibility setting of all staves simultaneously.

- **Clear All:** Deactivates all staves.
- **Reset All:** Activates all staves and sets them to **Reset**.
- **Show All:** Activates all staves and sets them to **Show**.
- **Hide All:** Activates all staves and sets them to **Hide**.

## Hiding/Showing blank staves after final flows

You can hide/show additional blank staves to fill the page after the final flow in each layout independently; for example, if you want to emulate the convention of showing additional blank staves between the final system and the bottom of the page when formatting part layouts for recording sessions.

---

### PROCEDURE

1. Press **Ctrl/Cmd-Shift-L** to open **Layout Options**.
2. In the **Layouts** list, select the layouts in which you want to hide/show blank staves after the ends of flows.  
By default, the layout currently open in the music area is selected when you open the dialog. You can select other layouts by using the selection options in the action bar, clicking and dragging across multiple layouts, **Shift**-clicking adjacent layouts, and **Ctrl/Cmd**-clicking individual layouts.
3. In the category list, click **Page Setup**.
4. In the **Flows** section, activate/deactivate **Fill frame with blank staves**.
5. If you activated **Fill frame with blank staves**, activate/deactivate **Show blank staves in systems identical to final flow**.
6. Customize the appearance of blank staves in one of the following ways:
  - If you activated **Show blank staves in systems identical to final flow** and want to show clefs that follow the previous flow on blank staves, choose **Include clefs**.
  - If you activated **Show blank staves in systems identical to final flow** and want to hide clefs on blank staves, choose **Exclude clefs**.
  - If you deactivated **Show blank staves in systems identical to final flow**, change the number of staff lines in blank staves by changing the value for **Number of staff lines for blank staves**.

---

### RESULT

Blank staves are shown after the final flow in the selected layouts when **Fill frame with blank staves** is activated, and hidden when it is deactivated. When shown, blank staves appear below the final system in the final flow and fill the width of the final system if it is not fully horizontally justified.

When **Show blank staves in systems identical to final flow** is activated, blank staves follow the staff grouping of the final flow, such as two bracketed staves in a part layout with two players assigned to it. When it is deactivated, single blank staves without clefs are shown.

#### NOTE

You cannot input music or change brackets/braces on blank staves.

---

#### RELATED LINKS

[Per-layout vertical spacing options](#) on page 577

[Changing the horizontal justification of final systems](#) on page 569

[Staff labels](#) on page 1180

[Brackets and braces](#) on page 776

## Starting layouts on left-hand pages

By default, all layouts start on a right-hand page, as convention dictates that odd numbered pages are always on the right-hand page. However, you can set individual layouts to start on a left-hand page; for example, to facilitate page turns better in that layout.

---

#### PROCEDURE

1. Press **Ctrl/Cmd-Shift-L** to open **Layout Options**.
  2. In the **Layouts** list, select the layouts you want to start on a left-hand page.  
By default, the layout currently open in the music area is selected when you open the dialog. You can select other layouts by using the selection options in the action bar, clicking and dragging across multiple layouts, **Shift**-clicking adjacent layouts, and **Ctrl/Cmd**-clicking individual layouts.
  3. In the category list, click **Page Setup**.
  4. In the **Page Numbers** section, change the value for **Initial page number** to an even number.
  5. Click **Apply**, then **Close**.
- 

#### RESULT

The first page in the selected layouts is shown on a left-hand page when the initial page number is even.

## Allowing/Disallowing multiple flows on the same page

You can allow/disallow new flows to be shown on the same page as previous flows if there is space; for example, to reduce the number of pages required for parts in works with multiple movements. By default, new flows are allowed on the same page in part layouts and are not allowed in full score layouts.

---

#### PROCEDURE

1. Press **Ctrl/Cmd-Shift-L** to open **Layout Options**.
2. In the **Layouts** list, select the layouts in which you want to allow multiple flows to be shown on each page.  
By default, the layout currently open in the music area is selected when you open the dialog. You can select other layouts by using the selection options in the action bar, clicking

and dragging across multiple layouts, **Shift**-clicking adjacent layouts, and **Ctrl/Cmd**-clicking individual layouts.

3. In the category list, click **Page Setup**.
  4. In the **Flows** section, choose one of the following options for **New flows**:
    - **Always start new page**
    - **Allow on existing page**
  5. Click **Apply**, then **Close**.
- 

#### RESULT

**Always start new page** ensures flows in the selected layouts always begin at the start of the next page after the end of the previous flow.

**Allow on existing page** allows flows in the selected layouts to continue immediately after each other, including within the same music frame if there is sufficient space. Flow headings are automatically shown above the start of flows if you have chosen to show flow headings in the selected layouts.

#### NOTE

Flows are not automatically split into separate music frames. You must insert frame breaks manually to divide flows into separate music frames if required.

---

#### RELATED LINKS

[Tokens](#) on page 607

[Casting off](#) on page 581

[Assigning flows to layouts](#) on page 168

[Assigning players to flows](#) on page 164

[Hiding/Showing information in running headers above flow headings](#) on page 568

[Hiding/Showing blank staves after final flows](#) on page 564

## Changing when the First page template is used

You can change the circumstances when the **First** page template is used in each layout independently; for example, if you want to use it for the start of every flow in the full score but only want to use it for the first flow in part layouts, even when subsequent flows start at the top of the page.

---

#### PROCEDURE

1. Press **Ctrl/Cmd-Shift-L** to open **Layout Options**.
2. In the **Layouts** list, select the layouts in which you want to change when the **First** page template is used.

By default, the layout currently open in the music area is selected when you open the dialog. You can select other layouts by using the selection options in the action bar, clicking and dragging across multiple layouts, **Shift**-clicking adjacent layouts, and **Ctrl/Cmd**-clicking individual layouts.
3. In the category list, click **Page Setup**.
4. In the **Flows** section, choose one of the following options for **Use 'First' page template**:
  - **Never**
  - **First flow only**

- **Any flow starting at top of page**

5. Click **Apply**, then **Close**.

---

#### RESULT

- Choosing **Never** means the **First** page template is not used for any page in the selected layouts.
- Choosing **First flow only** means the **First** page template is used for the first page in the layout but no other pages, even if some subsequent flows start at the top of a page.
- Choosing **Any flow starting at top of page** means the **First** page template is used for all pages in the layout that begin with the start of a flow.

#### RELATED LINKS

[Layout Options dialog](#) on page 677

[Types of page templates](#) on page 601

## Hiding/Showing flow headings

You can hide/show flow headings in each layout independently; for example, if your project only contains a single flow and you only want to show the project title. You can also hide the heading for the first flow but show flow headings for subsequent flows.

---

#### PROCEDURE

1. Press **Ctrl/Cmd-Shift-L** to open **Layout Options**.
  2. In the **Layouts** list, select the layouts in which you want to hide/show flow headings.  
By default, the layout currently open in the music area is selected when you open the dialog. You can select other layouts by using the selection options in the action bar, clicking and dragging across multiple layouts, **Shift**-clicking adjacent layouts, and **Ctrl/Cmd**-clicking individual layouts.
  3. In the category list, click **Page Setup**.
  4. In the **Flows** section, choose one of the following options for **Show flow headings**:
    - **Never**
    - **Not for first flow**
    - **For all flows**
  5. Click **Apply**, then **Close**.
- 

#### RESULT

Flow headings are shown above the first system in each flow in the selected layouts when you choose **For all flows**, hidden when you choose **Never**, and hidden above the first system in the first flow but shown above all other flows when you choose **Not for first flow**.

They are automatically positioned above each flow and below the preceding flow according to the margins set for each layout.

#### NOTE

Hiding flow headings does not hide the flow title shown at the top of the second page onwards by default.

---

RELATED LINKS

[Flow headings](#) on page 603

[Allowing/Disallowing multiple flows on the same page](#) on page 565

[Hiding/Showing information in running headers above flow headings](#) on page 568

[Changing when the First page template is used](#) on page 566

## Hiding/Showing information in running headers above flow headings

You can hide/show flow titles, page numbers, and flow page numbers separately when they appear above flow headings at the top of a new page in each layout independently. Hiding such information in running headers is a custom in publishing.

---

PROCEDURE

1. Press **Ctrl/Cmd-Shift-L** to open **Layout Options**.
2. In the **Layouts** list, select the layouts in which you want to hide/show information in running headers above flow headings.  
By default, the layout currently open in the music area is selected when you open the dialog. You can select other layouts by using the selection options in the action bar, clicking and dragging across multiple layouts, **Shift**-clicking adjacent layouts, and **Ctrl/Cmd**-clicking individual layouts.
3. In the category list, click **Page Setup**.
4. In the **Flows** section, choose one of the following options for **Flow title in header**:
  - **Show above flow heading**
  - **Hide above flow heading**
5. Choose one of the following options for **Page number in header**:
  - **Show above flow heading**
  - **Hide above flow heading**
6. Choose one of the following options for **Flow page number in header**:
  - **Show above flow heading**
  - **Hide above flow heading**
7. Click **Apply**, then **Close**.

---

RESULT

The corresponding information is hidden/shown when they appear above flow headings at the top of the page.

NOTE

In order to hide running header information, the top of the music frame containing the flow heading frame must be lower than the top of text frames containing the corresponding information. If the top of the music frame is the same height as a running header text frame, any corresponding information in the text frame is shown, regardless of your setting.

---

RELATED LINKS

[Frames](#) on page 605

[Page templates](#) on page 599

[Hiding/Showing page numbers](#) on page 1034

## Changing the horizontal justification of final systems

You can change whether the final systems of flows always fill the width of frames or only do so above a certain fullness threshold in each layout independently. By default in Dorico Elements, the final systems of flows only justify to the full width of the frame when they are more than half full.

---

### PROCEDURE

1. Press **Ctrl/Cmd-Shift-L** to open **Layout Options**.
2. In the **Layouts** list, select the layouts in which you want to change the justification of the final systems in flows.  
By default, the layout currently open in the music area is selected when you open the dialog. You can select other layouts by using the selection options in the action bar, clicking and dragging across multiple layouts, **Shift**-clicking adjacent layouts, and **Ctrl/Cmd**-clicking individual layouts.
3. In the category list, click **Note Spacing**.
4. Change the justification of final systems in flows in one of the following ways:
  - If you always want the final systems in flows to justify fully, deactivate **Only justify final system in flow when more than [n]% full**.
  - If you want to change the minimum fullness of final systems before they justify, change the value for **Only justify final system in flow when more than [n]% full**.
5. Click **Apply**, then **Close**.

---

### RESULT

The automatic justification of the final systems in flows in the selected layouts is changed.

### TIP

You can also change the width of individual systems independently of your default settings by changing their start/end positions.

---

### EXAMPLE



Final system below fullness threshold, unjustified



Final system justified

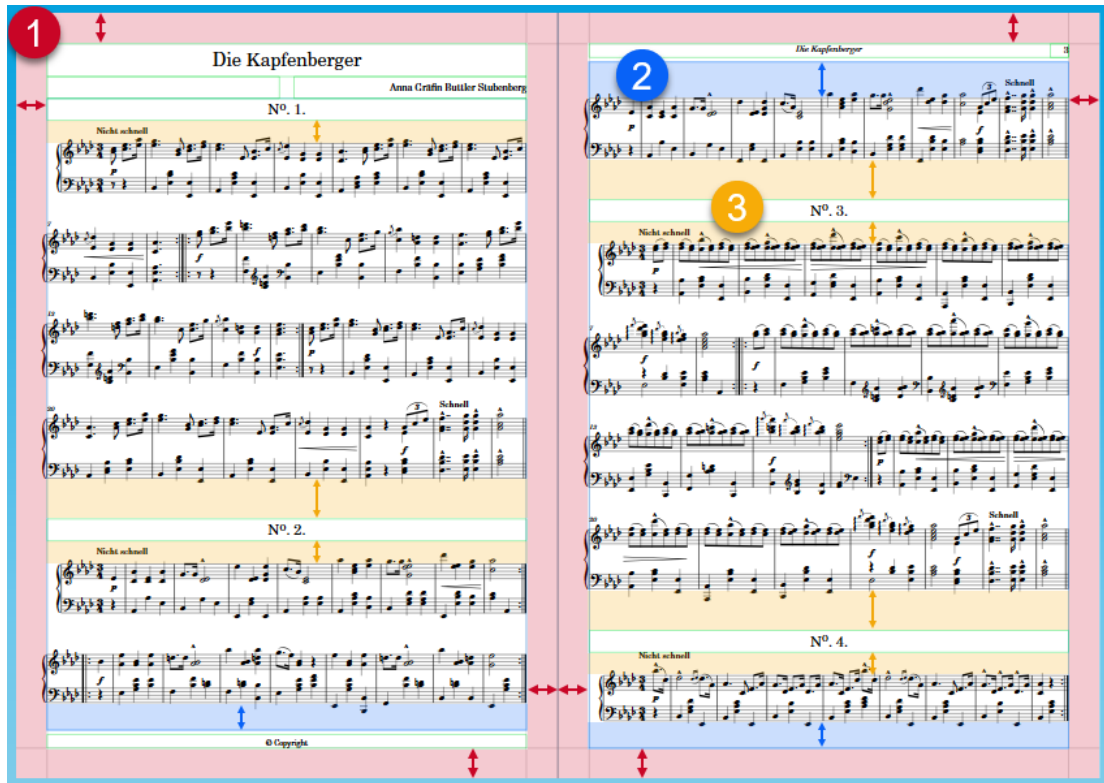
---

### RELATED LINKS

- [Note spacing](#) on page 579
- [Changing the first system indent](#) on page 1198
- [Fixing the number of bars per system](#) on page 582
- [Hiding/Showing blank staves after final flows](#) on page 564
- [Hiding/Showing bar rests in empty bars](#) on page 1150
- [Deleting rests](#) on page 1149

# Margins

Margins determine the spacing around music on pages, such as on all four edges of each page and above/below flow headings.



In Dorico Elements, there are the following types of margins:

## 1 Page margins

The gaps between the four edges of pages and the boundary of the content on them. For example, systems that are horizontally justified span the full width of pages between the left and right page margins. You cannot position frames beyond the page margins.

## 2 Music frame margins

The gaps at the top and bottom of music frames. Also known as “music frame padding”.

- Top music frame margins set the gap between the top edges of music frames and the top staff line of the highest staff in the frame.
- Bottom music frame margins set the gap between the bottom edges of music frames and the bottom staff line of the lowest staff in the frame.

## 3 Flow heading margins

The gaps above and below flow headings. When flow headings are positioned at the top of music frames, the flow heading bottom margin sets the gap at the top of the music frame, rather than the music frame margin.

- Flow heading top margins set the gap between the top of flow headings and the bottom staff line of the preceding flow, if applicable.
- Flow heading bottom margins set the gap between the bottom of flow headings and the top staff line of the next flow.

#### NOTE

Notes and notations above the highest staff and below the lowest staff extend into margins.

---

#### RELATED LINKS

[Flow headings](#) on page 603

[Changing page margins](#) on page 557

[Changing the margins above/below tacets](#) on page 594

[Changing the page size and/or orientation](#) on page 556

[Changing the default staff/system spacing](#) on page 559

[Changing the vertical justification of staves/systems](#) on page 560

[Changing the horizontal justification of final systems](#) on page 569

[System fullness indicators](#) on page 480

[Frame fullness indicators](#) on page 480

## Changing the margins above/below flow headings

You can change the margins both above and below flow headings, which control the gap between the preceding flow and the flow heading, and the gap between the flow heading and the start of the next flow.

#### PREREQUISITE

Flow headings are shown in the layouts in which you want to change the margins above/below flow headings.

---

#### PROCEDURE

1. Press **Ctrl/Cmd-Shift-L** to open **Layout Options**.
  2. In the **Layouts** list, select the layouts in which you want to change the margins above/below flow headings.  
  
By default, the layout currently open in the music area is selected when you open the dialog. You can select other layouts by using the selection options in the action bar, clicking and dragging across multiple layouts, **Shift**-clicking adjacent layouts, and **Ctrl/Cmd**-clicking individual layouts.
  3. In the category list, click **Page Setup**.
  4. In the **Flows** section, change the values for the following options, individually or together:
    - **Flow heading top margin**
    - **Flow heading bottom margin**
  5. Click **Apply**, then **Close**.
- 

#### RESULT

The margins above/below flow headings in the selected layouts are changed.

- **Flow heading top margin** sets the gap between the top of flow headings and the end of the preceding flow.
- **Flow heading bottom margin** sets the gap between the bottom of flow headings and the start of the next flow.

For example, when the bottom margin is set to **0**, the bottom of the lowest frame in the flow heading aligns with the top staff line of the first system in the flow below the flow heading.



EXAMPLE

A musical score snippet showing two staves. The top staff contains a treble clef, a key signature of one sharp (F#), and a 4/4 time signature. It features a series of chords, with a dynamic marking of *ff* (fortissimo) below the first chord. Below the staff is a green horizontal bar containing the text "2. Andante maestoso". The bottom staff contains a melody with a dynamic marking of *p* (piano) below it. The margins between the top staff and the heading bar, and between the heading bar and the bottom staff, are relatively wide.

Flow heading with default margins above/below

A musical score snippet identical to the one on the left, but with significantly reduced margins between the top staff and the heading bar, and between the heading bar and the bottom staff. The heading bar and the musical notation are more compactly packed.

Flow heading with decreased margins above/below

---

RELATED LINKS

[Flow headings](#) on page 603

[Per-layout vertical spacing options](#) on page 577

[Hiding/Showing used chord diagrams grids](#) on page 809

[Changing the margins above/below tacets](#) on page 594

## Changing the default music frame margins

You can change the default margins in all music frames in each layout independently. For example, you might want more padding at the top of music frames in part layouts containing lots of notes above the staff.

PROCEDURE

1. Press **Ctrl/Cmd-Shift-L** to open **Layout Options**.
2. In the **Layouts** list, select the layouts whose music frame margins you want to change.  
By default, the layout currently open in the music area is selected when you open the dialog. You can select other layouts by using the selection options in the action bar, clicking and dragging across multiple layouts, **Shift**-clicking adjacent layouts, and **Ctrl/Cmd**-clicking individual layouts.
3. In the category list, click **Page Setup**.
4. In the **Music Frame Margins** section, change the values for the following options, individually or together:
  - **Top**
  - **Bottom**
5. Click **Apply**, then **Close**.

RESULT

The margins within all music frames in the selected layouts are changed.

- **Top** sets the gap between the top edges of music frames and the top staff line of the highest staff in the frame.
- **Bottom** sets the gap between the bottom edges of music frames and the bottom staff line of the lowest staff in the frame.

For example, when the bottom music frame margin is set to **0**, the bottom staff line of the lowest staff in the frame aligns with the bottom edge of the music frame.

NOTE

Notes and notations above the highest staff and below the lowest staff extend into music frame margins.

---

RELATED LINKS

[Changing page margins](#) on page 557

[Changing the default staff/system spacing](#) on page 559

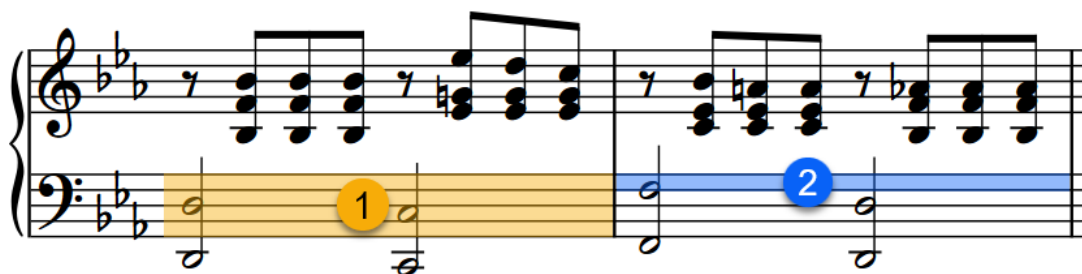
[Hiding/Showing used chord diagrams grids](#) on page 809

## Staff size

Staff size refers to the distance between the top and bottom lines of staves, and can be expressed as a point size or in another supported unit of measurement, such as millimeters. For individual staves, you can use a scale size of the default staff size in the layout. The most appropriate staff size depends on the intended purpose of the layout.

For example, full orchestral scores that are quite dense need a much smaller staff size than individual parts, which require large enough notes so that performers can read them easily. Staves can overlap and the music can become illegible if the staff size is too large in dense scores.

In Dorico Elements, you can set the staff size using the rastral size and the space size, depending on which measurement is more appropriate for the selected layouts.



- 1 Rastral size is the size of the full staff, measured from the bottom line to the top line.
- 2 Space size is the distance between two staff lines.

When changing the staff size of each layout in **Layout Options**, we recommend that you use one of the preset rastral sizes, as these are based on traditional and generally accepted staff sizes that are all widely used in music engraving.

NOTE

The size of staves can affect the size of system objects.

---

RELATED LINKS

[System objects](#) on page 1196

[Changing your preferred unit of measurement](#) on page 51

[Changing the default staff size](#) on page 559

[Staff spacing](#) on page 576

## Changing the staff size from system/frame breaks


You can change the staff size of all staves from the rhythmic position of system/frame breaks onwards in layouts. For example, you can have smaller staves only on pages with more staves, and larger staves on other pages with fewer staves.

### NOTE

If the size of system object font styles is set to **Staff-relative**, the staff size of the top staff in each instrument family group affects the size of system objects if they are shown above that bracketed group. Font styles that are set to **Absolute** are unaffected by staff size.

---

### PREREQUISITE

- You have inserted system/frame breaks at the positions from which you want to change the staff size.
  - Signposts are shown for system/frame breaks.
  - The lower zone is shown.
  - **Properties**  is selected in the lower zone toolbar.
- 

### PROCEDURE

1. In Engrave mode, select the system/frame break signposts from which you want to change the staff size.
  2. In the Properties panel, activate **Space size** in the **Format** group.
  3. Change the value in the value field.
- 

### RESULT

The staff size of all staves in the layout is changed until the next change in staff size or the end of the flow, whichever comes first. Increasing **Space size** increases the staff size. Decreasing the value decreases the staff size.

By default, the next flow uses the default staff size in the layout.

### RELATED LINKS

[Changing the default staff size](#) on page 559

[Inserting system breaks](#) on page 586

[Inserting frame breaks](#) on page 590

[Hiding/Showing system break signposts](#) on page 588

[Hiding/Showing frame break signposts](#) on page 592

## Changing the size of staves for individual players

You can change the size of all staves belonging to individual players in each flow, independently of other players' staves and your layout settings. For example, piano accompaniment parts often include the solo line of the instrument the piano is accompanying on a smaller staff.

You can change the size of staves to a set scale size, expressed as a percentage of the normal staff size in the layout, or set a custom scale.

### TIP

If you want to change the staff size to represent an alternative version of a passage, you can instead add an ossia staff, which you can show for specific regions.

---

#### PROCEDURE

1. Select an item on the staff whose size you want to change. You can do this in Write mode and Engrave mode.

#### NOTE

You can only change the size of a single staff at a time.

---

2. Choose **Edit > Notations > Staff Size > [Staff size]**. You can also choose this option from the context menu.
  3. Optional: If you chose **Custom Staff Size**, set the staff size in the **Custom Staff Size** dialog that opens.
- 

#### RESULT

The size of the selected staff is changed in the current flow. This also works in combination with the other ways of changing the staff size, such as changing the size of all staves in the layout or changing the size of staves from specific system/frame breaks.

#### NOTE

- Changing the size of individual staves affects all staves belonging to the same player and for the whole flow.
  - If the size of system object font styles is set to **Staff-relative**, the staff size of the top staff in each instrument family group affects the size of system objects if they are shown above that bracketed group. Font styles that are set to **Absolute** are unaffected by staff size.
- 

#### EXAMPLE



A piano part with smaller staff above

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#### RELATED LINKS

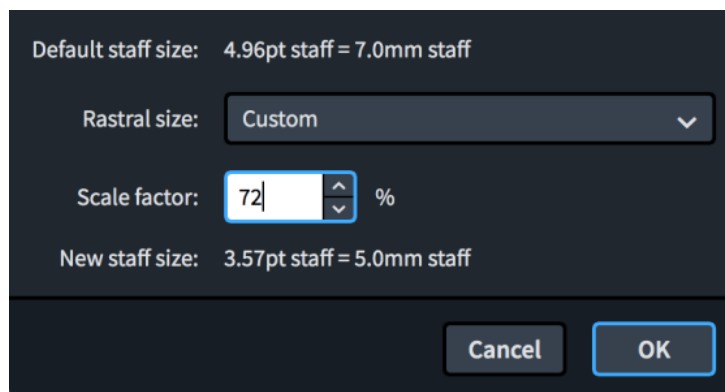
[Brackets and braces](#) on page 776

[System objects](#) on page 1196

## Custom Staff Size dialog

The **Custom Staff Size** dialog allows you to change the size of individual staves by a custom scale factor.

- You can open the **Custom Staff Size** dialog by selecting an item on a staff and choosing **Edit > Notations > Staff Size > Custom Staff Size**.



The **Custom Staff Size** dialog contains the following options:

#### **Default staff size**

Displays the default size of staves in the current layout. This size is set on the **Page Setup** page in **Layout Options**.

The default staff size is expressed as both a point size and in your preferred unit of measurement.

#### **Rastral size**

Allows you to select the rastral size on which you want to base your custom staff size.

#### **Scale factor**

Sets the custom staff size, expressed as a percentage of the selected rastral size.

#### **New staff size**

Displays the new custom staff size for the selected staff as a result of the changes you have made in the dialog.

The new staff size is expressed as both a point size and in your preferred unit of measurement.

## Staff spacing

The vertical positioning of staves and systems within frames is known as staff spacing. Staff spacing calculations consider the height of staves and the necessary gaps between staves and systems.

- You can change the default vertical and staff spacing settings for each layout independently on the **Vertical Spacing** page in **Layout Options**.

The options available allow you to set your ideal spacing, which Dorico Elements then produces as closely as possible. We recommend familiarizing yourself with the available vertical spacing options.

#### RELATED LINKS

[Layout Options dialog](#) on page 677

[Staff size](#) on page 573

[Staves](#) on page 1192

[Frame fullness indicators](#) on page 480

[Changing the default staff/system spacing](#) on page 559

[Changing the staff spacing in galley view](#) on page 579

[Changing the default staff size](#) on page 559

[Margins](#) on page 570

[Casting off](#) on page 581

[Frame breaks](#) on page 589

[Making selections into frames](#) on page 591

[Fixing the number of systems per frame](#) on page 583

[Note spacing](#) on page 579

## Per-layout vertical spacing options

Dorico Elements provides multiple options that you can use to control the default vertical spacing and justification of staves and systems in each layout.

- You can access per-layout vertical spacing options by opening the **Layout Options** dialog and clicking **Vertical Spacing** in the category list.

The **Vertical Spacing** page contains the following sections and options:

### Ideal Gaps

Contains multiple scenarios that allow you to set the gap you want Dorico Elements to allow between staves and systems in the corresponding context, including the default scaling of these gaps in galley view, as Dorico Elements does not automatically avoid collisions between staves and items in galley view. The options are accompanied by diagrams to help you visualize the contexts to which each option applies.

We recommend setting the ideal gaps to the minimum value acceptable to you because Dorico Elements never reduces the gap between staves to less than your set values. Setting smaller values gives Dorico Elements greater flexibility when determining staff spacing, particularly in very full frames, such as reducing the space between staves with no dynamics to allow more space between staves with dynamics. Similarly, we recommend setting vertical spacing options after you have finished inputting notes and items, as this allows you to consider the entire project when setting these options.

Depending on the context, the options are affected by automatic vertical justification in different ways:

- **Staff to staff, Staff group to staff, Staff to staff group, Staff group to staff group, Inter-system gap, and Timecode staff to staff**

These gaps do not apply in frames that are automatically justified.

- **Braced staff to braced staff and Ossia staff to staff**

These gaps always apply, including in frames that are automatically justified, because braced and ossia staves are never justified. This includes extra staves.

#### NOTE

- Divisi staves are vertically justified when they use the **Staff to staff** gap. When they use the **Braced staff to braced staff** gap, the staves in each divisi section use only the gap set for braced staves and are not vertically justified.
- If the staves in a layout are very close together, just decreasing the staff size might be sufficient to produce good results.
- When calculating the number of systems that can fit in each frame in a layout, Dorico Elements considers the height of staves, the minimum gaps between staves, the maximum distances between very high/low notes and staves, and other items that require vertical space, such as pedal lines and tempo marks. However, this calculation happens before horizontal spacing is finalized, which can result in either more or fewer systems being allocated to frames than ideally fit. In such circumstances, you can use fixed casting off settings and system/frame breaks to change which systems appear in frames.

## Minimum Gaps

Contains options for the minimum gaps you want Dorico Elements to allow for items in addition to the staff spacing gaps.

- **Automatically resolve collisions between adjacent staves and systems:** When activated, Dorico Elements automatically allows extra space between staves and systems to avoid collisions. When deactivated, Dorico Elements only uses your set gaps for vertical spacing, which produces evenly-spaced staves and systems but with the possibility of collisions between items.
- **Minimum inter-staff gap with content:** Allows you to set the extra space you want to allow between staves when items are present.
- **Minimum inter-system gap with content:** Allows you to set the extra space you want to allow between systems when items are present.

### NOTE

Minimum gaps do not affect casting off. For example, increasing the **Minimum inter-system gap with content** value changes the space above/below systems on a page but does not push systems to later pages. Instead, you can change the ideal gaps.

---

## Vertical Justification

Contains options that allow you to control the frame fullness thresholds above which you want staves and/or systems to justify vertically automatically.

- **Justify distance between staves and systems when frame is at least [n]% full:** When frames are filled above this threshold, the staves and systems they contain are all automatically vertically justified, meaning they are evenly distributed to fill the height of the frame. Frames filled below this threshold are not automatically justified, instead staves follow your ideal gap settings. This can leave gaps between the bottom staff/system and the bottom of the frame.
- **Justify distance only between systems when frame is at least [n]% full:** When frames are filled above this threshold, only the distance between systems in the frame is justified. Staves follow your per-layout ideal gap settings. This helps keep a clear distance between systems on very full pages.
- **Justify staves when frame with single system is above this threshold:** When activated, all the staves in a single system taller than the set threshold are vertically justified, which distributes them evenly to fill the height of the frame.

## Staff Visibility

Contains options allowing you to control when and which empty staves are hidden in the layout.

- **Hide empty staves:** Allows you to control when empty staves are hidden. For example, it is a common practice to show all staves in the first system even if some are empty, but this is not always required.
- **Allow individual staves of multi-staff instruments to be hidden:** Allows you to control whether individual empty staves belonging to multi-staff instruments can be hidden independently or all multi-staff instrument staves must always be shown.
- **Players excluded from Hide Empty Staves:** Allows you to identify specific players whose staves you always want to show, even if their staff is empty on systems where you have hidden empty staves.

RELATED LINKS

- [Layout Options dialog](#) on page 677
- [Changing the default staff/system spacing](#) on page 559
- [Frame fullness indicators](#) on page 480
- [Page formatting](#) on page 555
- [Casting off](#) on page 581
- [Margins](#) on page 570
- [Staff size](#) on page 573
- [Brackets and braces](#) on page 776
- [Staves](#) on page 1192
- [Ossia staves](#) on page 1194
- [Tablature](#) on page 1200
- [Hiding/Showing staves from system/frame breaks](#) on page 562
- [Making selections into systems](#) on page 587
- [Making selections into frames](#) on page 591
- [Changing the vertical position of markers](#) on page 1100
- [Changing the vertical position of timecodes](#) on page 1104

## Changing the staff spacing in galley view

You can change the vertical space between staves in galley view in each layout independently, expressed as a percentage of the set ideal gaps. Increasing the gaps between staves in layouts with very high/low notes can be useful because Dorico Elements does not perform automatic collision avoidance in galley view.

---

PROCEDURE

1. Press **Ctrl/Cmd-Shift-L** to open **Layout Options**.
2. In the **Layouts** list, select the layouts in which you want to change the staff spacing in galley view.  
By default, the layout currently open in the music area is selected when you open the dialog. You can select other layouts by using the selection options in the action bar, clicking and dragging across multiple layouts, **Shift**-clicking adjacent layouts, and **Ctrl/Cmd**-clicking individual layouts.
3. In the category list, click **Vertical Spacing**.
4. In the **Ideal Gaps** section, change the value for **In galley view, expand ideal staff gaps to**.
5. Click **Apply**, then **Close**.

---

RELATED LINKS

- [Instrument filters](#) on page 421
- [Switching to galley/page view](#) on page 50
- [Switching between layouts](#) on page 43

## Note spacing

The positions of notes and rests relative to each other, and the automatic gaps between them, are known as note spacing.

- You can change the default note spacing values for each layout independently on the **Note Spacing** page in **Layout Options**.



The options available include changing the default space for quarter notes (crotchets) and the scale space for grace notes and cues. You can also change the minimum percentage value for how full final systems must be before they are justified.

RELATED LINKS

[Layout Options dialog](#) on page 677

[Staff spacing](#) on page 576

[Changing the default staff size](#) on page 559

[Changing the horizontal justification of final systems](#) on page 569

## Changing the default note spacing

You can change the default note spacing in each layout independently. For example, you can have tighter note spacing in full score layouts compared to part layouts. The options available include changing the default space for quarter notes and the scale space for grace notes and cues.

---

PROCEDURE

1. Press **Ctrl/Cmd-Shift-L** to open **Layout Options**.
2. In the **Layouts** list, select the layouts in which you want to change note spacing.  
By default, the layout currently open in the music area is selected when you open the dialog. You can select other layouts by using the selection options in the action bar, clicking and dragging across multiple layouts, **Shift**-clicking adjacent layouts, and **Ctrl/Cmd**-clicking individual layouts.
3. In the category list, click **Note Spacing**.
4. Change the values of the options you want to change.
5. Click **Apply**, then **Close**.

---

RESULT

The default note spacing is changed in the selected layouts.

RELATED LINKS

[Changing the horizontal justification of final systems](#) on page 569

[Positions of lyrics](#) on page 925

[Casting off](#) on page 581

[Locking layouts](#) on page 584

## Per-layout note spacing options

Dorico Elements provides multiple options that you can use to control the default note spacing in each layout. You can also change how full the final system in flows must be before it is automatically justified.

- You can access per-layout note spacing options by opening the **Layout Options** dialog and clicking **Note Spacing** in the category list.

The **Note Spacing** page in **Layout Options** contains the following options:

**Default space for crotchet/quarter note**

Sets the default note spacing for quarter notes (crotchets). The spacing of other durations is scaled proportionally. Increasing the value increases note spacing,

decreasing the value decreases note spacing. This is reflected in the preview as you change the value.

#### **Minimum space for short notes**

Sets the minimum note spacing for notes with short durations. This can be independent of the default note spacing value.

#### **Custom spacing ratio**

Sets the spacing of notes in relation to other notes according to their rhythmic values. For example, setting **Custom spacing ratio** to **2** means half notes (minims) take up twice as much space as quarter notes, and eighth notes (quavers) take up half as much space as quarter notes.

#### **Scale space for grace notes by**

Sets the note spacing for grace notes as a percentage of the note spacing normally used for notes of their duration. The value cannot be greater than 100%. Increasing the value increases the note spacing for grace notes, decreasing the value decreases the note spacing for grace notes.

#### **Scale space for cue notes by**

Sets the note spacing for cues as a percentage of the note spacing normally used for notes of their duration. The value cannot be greater than 100%. Increasing the value increases the note spacing for cues, decreasing the value decreases the note spacing for cues.

#### **Make space for lyrics**

Controls whether or not lyrics are included in note spacing calculations. When deactivated, lyrics are excluded from note spacing calculations, producing a result where notes are spaced as if lyrics were not there.

We recommend using this option with caution and only if you intend to space lyrics manually, such as in tightly-spaced hymnals.

#### **Only justify final system in flow when more than [n]% full**

Allows you to change how full the final system in each flow must be before it is justified to the full width of the frame. By default, final systems that are 50% full or less are not justified.

#### **Use optical spacing for beams between staves**

When activated, stems in cross-staff beams are evenly spaced, which can mean the noteheads are unevenly spaced. When deactivated, noteheads in cross-staff beams are evenly spaced, which can mean stems appear unevenly spaced.

#### RELATED LINKS

[Layout Options dialog](#) on page 677

[Changing to optical cross-staff beam spacing](#) on page 766

[Creating cross-staff beams/tremolos](#) on page 764

[Changing the paragraph style used for lyrics](#) on page 934

## **Casting off**

“Casting off” is the term used to encompass fixing the layout of pages of music, such as setting the number of systems per page.

When calculating how much music can fit in each system and on each page, Dorico Elements considers multiple aspects of the layout, including note spacing and vertical spacing settings. You can change these settings to change the default casting off in each layout.

In Dorico Elements, you can set fixed numbers of bars per system and systems per music frame throughout each layout independently.

You can control the casting off at a more granular level by moving bars to other systems, inserting system/frame breaks, making selections into systems/frames, and locking/resetting the casting off in the current layout.

#### RELATED LINKS

[Per-layout note spacing options](#) on page 580

[Per-layout vertical spacing options](#) on page 577

[Moving bars to other systems](#) on page 583

[Locking layouts](#) on page 584

[Resetting casting off](#) on page 585

[Margins](#) on page 570

[System breaks](#) on page 586

[Frame breaks](#) on page 589

[Allowing/Disallowing breaks within bars](#) on page 585

[Splitting multi-bar rests](#) on page 1154

[Hiding/Showing blank staves after final flows](#) on page 564

## Fixing the number of bars per system

You can define a fixed number of bars you want included in each system in each layout independently; for example, if you want four bars per system in a lead sheet.

---

#### PROCEDURE

1. Press **Ctrl/Cmd-Shift-L** to open **Layout Options**.
2. In the **Layouts** list, select the layouts in which you want to fix the number of bars per system.  
By default, the layout currently open in the music area is selected when you open the dialog. You can select other layouts by using the selection options in the action bar, clicking and dragging across multiple layouts, **Shift**-clicking adjacent layouts, and **Ctrl/Cmd**-clicking individual layouts.
3. In the category list, click **Staves and Systems**.
4. In the **Casting Off** section, activate **Fixed number of bars per system**.
5. Change the value in the value field.
6. Click **Apply**, then **Close**.

---

#### RESULT

The number of bars automatically contained in each system in the selected layouts is changed. If any of the layouts contain two-bar or four-bar repeat regions, Dorico Elements automatically adjusts casting off to ensure phrases are not split across systems.

#### RELATED LINKS

[Bar repeats](#) on page 1120

[Inserting system breaks](#) on page 586

[Inserting frame breaks](#) on page 590

[Changing the horizontal justification of final systems](#) on page 569

## Fixing the number of systems per frame

You can define a fixed number of systems you want included in each music frame in each layout independently. Because the default page templates have a single music frame per page, fixing the number of systems per frame usually fixes the number of systems per page.

---

### PROCEDURE

1. Press **Ctrl/Cmd-Shift-L** to open **Layout Options**.
2. In the **Layouts** list, select the layouts in which you want to fix the number of systems per frame.  
By default, the layout currently open in the music area is selected when you open the dialog. You can select other layouts by using the selection options in the action bar, clicking and dragging across multiple layouts, **Shift**-clicking adjacent layouts, and **Ctrl/Cmd**-clicking individual layouts.
3. In the category list, click **Staves and Systems**.
4. In the **Casting Off** section, activate **Fixed number of systems per frame**.
5. Change the value in the value field.
6. Activate/Deactivate **Scale number of systems by frame height**.
7. Click **Apply**, then **Close**.

---

### RESULT

The number of systems automatically contained in each music frame in the selected layouts is changed.



If you activated **Scale number of systems by frame height**, the number of systems contained in each frame is adjusted according to the size of the music frame. For example, pages with smaller frames, such as the first page, contain fewer systems than your casting off setting.

## Moving bars to other systems

You can move bars to the next or previous system; for example, if you want specific bars to appear in the same system.

---

### PROCEDURE

1. In Engrave mode, select an item in the bar you want to move to another system.  
For example, select an item in the earliest bar you want to move to the next system, or select an item in the last bar you want to move to the previous system.
2. Move bars to another system in one of the following ways:
  - To move all bars between the start of the current system and the selection to the previous system, press **←** or click **Move to Previous System**  in the **Move Bars Between Systems** section of the Formatting panel.
  - To move all bars between the selection and the end of their current system to the next system, press **→** or click **Move to Next System**  in the **Move Bars Between Systems** section of the Formatting panel.

---

### RESULT

The selected bars are moved to the previous or next system. System breaks are inserted at the start and end of each new system.

#### NOTE

- System breaks inserted at the start of systems have **Wait for next system break** activated in the **Format** group of the Properties panel by default. Because this property tells Dorico Elements to include all music in the system until the next system break or the end of the flow, if you later delete subsequent system breaks, this can create very full, tightly spaced systems.
  - You can change how many systems are locked as a consequence of moving bars to other systems in **Preferences > Note Input and Editing > Note Input > Breaks**.
- 

#### RELATED LINKS

- [Making selections into frames](#) on page 591
- [Making selections into systems](#) on page 587
- [Properties panel](#) on page 615
- [Preferences dialog](#) on page 58

## Locking layouts


You can lock the current casting off throughout individual layouts.

#### PREREQUISITE

The left zone is shown.

---

#### PROCEDURE

1. In Engrave mode, open the layout whose casting off you want to lock.
  2. In the Formatting panel, click **Lock Layout**  in the **Lock Layout** section.
- 

#### RESULT

System and frame breaks are inserted at the start of every system as required to lock the current casting off in the layout open in the music area.

#### NOTE

- The system and frame breaks have **Wait for next system break** and **Wait for next frame break** activated in the **Format** group of the Properties panel by default. Because this property tells Dorico Elements to include all music in the system until the next system break, frame break, or the end of the flow, if you later delete subsequent system or frame breaks, this can create very full, tightly spaced systems.
  - You can assign a key command for **Lock Layout** on the **Key Commands** page in **Preferences**.
- 

#### RELATED LINKS

- [Formatting panel](#) on page 478
- [Hiding/Showing zones](#) on page 44
- [Switching between layouts](#) on page 43
- [System breaks](#) on page 586
- [Frame breaks](#) on page 589
- [Casting off](#) on page 581
- [Properties panel](#) on page 615
- [Key Commands page in the Preferences dialog](#) on page 59

## Resetting casting off


You can delete all system and frame breaks in individual layouts and return the layouts to their default casting off and spacing settings.

### PREREQUISITE

The left zone is shown.

---

### PROCEDURE

1. In Engrave mode, open the layout whose casting off you want to reset.
2. In the Formatting panel, click **Reset Layout**  in the **Lock Layout** section.

---

### RESULT

All system and frame breaks in the layout open in the music area are deleted. The layout returns to following its default casting off and spacing settings.

### NOTE

- The system and frame breaks have **Wait for next system break** and **Wait for next frame break** activated in the **Format** group of the Properties panel by default. Because this property tells Dorico Elements to include all music in the system until the next system break, frame break, or the end of the flow, if you later delete subsequent system or frame breaks, this can create very full, tightly spaced systems.
- You can assign a key command for **Reset Layout** on the **Key Commands** page in **Preferences**.

---

## Allowing/Disallowing breaks within bars

You can choose whether or not to allow Dorico Elements to insert system/frame breaks within bars. For example, you might disallow breaks within bars when formatting lead sheets that only require breaks at barlines.

---

### PROCEDURE

1. Press **Ctrl/Cmd-**, to open **Preferences**.
2. In the category list, click **Note Input and Editing**.
3. In the **Note Input** section, activate/deactivate **Snap system and frame breaks to barlines when creating** in the **Breaks** subsection.
4. Click **Apply**, then **Close**.

---

### RESULT

System/Frame breaks are allowed within bars when the option is activated, and disallowed when it is deactivated.

When breaks are disallowed within bars, inserted breaks snap to the barline before the earliest selected item. When making systems/frames from selections, the first break snaps to the barline before the earliest selected item while the second break snaps to the barline after the last selected item.

### RELATED LINKS

[Preferences dialog](#) on page 58

[Frame breaks](#) on page 589

[Casting off](#) on page 581

## System breaks

System breaks occur when musical material reaches the right page margin and must continue on a new system, usually below the previous system on the same page or on a new page. Dorico Elements automatically arranges music across systems so that notes are correctly spaced and legible, but you can also control system breaks manually.

System breaks that you have inserted manually are indicated by signposts, which you can hide/show at any time. They are also layout-specific, meaning each layout can have system breaks at different rhythmic positions.



System break signpost, selected

### NOTE

- By default, system/frame breaks snap to the barline before the earliest selected item. You can change whether breaks are allowed at rhythmic positions within bars.
- You can also control the content of systems by fixing the number of bars per system in each layout.

### RELATED LINKS

[Allowing/Disallowing breaks within bars](#) on page 585  
[Frame breaks](#) on page 589  
[Signposts](#) on page 426  
[Hiding non-printing elements](#) on page 416  
[Note spacing](#) on page 579  
[System fullness indicators](#) on page 480  
[Per-layout note spacing options](#) on page 580  
[Staff spacing](#) on page 576  
[Per-layout vertical spacing options](#) on page 577  
[Splitting multi-bar rests](#) on page 1154  
[Hiding/Showing staves from system/frame breaks](#) on page 562  
[Hiding/Showing staff labels at system/frame breaks](#) on page 1183  
[Changing the staff size from system/frame breaks](#) on page 574  
[Locking layouts](#) on page 584  
[Resetting casting off](#) on page 585  
[Properties panel](#) on page 615

## Inserting system breaks

You can insert system breaks at any rhythmic position; for example, so that musical phrases fit in systems for readability.


### PREREQUISITE

- You have allowed/disallowed breaks within bars.

- If you want to insert system breaks in the middle of multi-bar rests, you have either hidden multi-bar rests in the layout or split multi-bar rests at the required positions.

---

#### PROCEDURE

1. In Engrave mode, select a note or item at the rhythmic position you want to appear at the start of the next system.
2. Insert a system break in any of the following ways:
  - Press **Shift-S**.
  - In the Formatting panel, click **Create System Break**  in the **Format Systems** section.
3. Choose **Edit > System Break**.

---

#### RESULT

A system break is inserted at the rhythmic position of the earliest selected item. If breaks are disallowed within bars, it snaps to the preceding barline. All notations after the system break are moved to the next system.

#### NOTE

If you insert a system break in the middle of a phrase in a two-bar or four-bar repeat region, Dorico Elements does not automatically move the system break to before/after the phrase, causing it to be split across the system break.

---

#### RELATED LINKS

- [Formatting panel](#) on page 478
- [Allowing/Disallowing breaks within bars](#) on page 585
- [Per-layout note spacing options](#) on page 580
- [Per-layout vertical spacing options](#) on page 577
- [Hiding/Showing multi-bar rests](#) on page 1152
- [Splitting multi-bar rests](#) on page 1154
- [Locking layouts](#) on page 584

## Making selections into systems

You can force all musical material between two selected rhythmic positions into a single system; for example, if you want specific bars to appear in the same system.

#### PREREQUISITE

- You have allowed/disallowed breaks within bars.
- The left zone is shown.

---

#### PROCEDURE

1. In Engrave mode, select an item at the rhythmic position that you want to be the start of the system.

#### NOTE

We recommend that you select noteheads or barlines. Selecting other items, such as slurs, can cause system breaks to be inserted earlier/later than you might have intended.

2. **Ctrl/Cmd**-click one of the following:



- A notehead that you want to be at the end of the system
- An item that you want to be at the start of the next system

3. In the **Format Systems** section of the Formatting panel, click **Make into System** .

---

#### RESULT

A fixed system is created by inserting system breaks at the start/end of your selection. The system contains all musical material between the two selected items.

If breaks are disallowed within bars, the first break snaps to the barline before the earliest selected item, while the second break snaps to the barline after the last selected item.

If breaks are allowed within bars, the content of the system depends on your selections.

- If you selected items, such as barlines or slurs, the start of your first selected item is positioned at the start of the system, and the end of your last selected item is positioned at the start of the next system.
- If you selected noteheads, the last selected notehead is also included in the system, rather than being positioned at the start of the next system.
- If you selected ties, all musical material between the first and last notes tie chains is included in the system, regardless of where in the tie chains you made selections.

#### NOTE

The system break inserted at the start of the selection has **Wait for next system break** activated in the **Format** group of the Properties panel by default. Because this property tells Dorico Elements to include all music in the system until the next system break or the end of the flow, if you later delete subsequent system breaks, this can create very full, tightly spaced systems.

Deactivating **Wait for next system break** allows Dorico Elements to cast off subsequent music as normal.

---

#### RELATED LINKS

- [Formatting panel](#) on page 478
- [Hiding/Showing zones](#) on page 44
- [Allowing/Disallowing breaks within bars](#) on page 585
- [System fullness indicators](#) on page 480
- [Locking layouts](#) on page 584
- [Properties panel](#) on page 615

## Hiding/Showing system break signposts

You can hide/show system break signposts at any time.

---

#### PROCEDURE

- Choose **View > Signposts > System Breaks**.
- 

#### RELATED LINKS

- [Signposts](#) on page 426
- [System breaks](#) on page 586
- [Hiding non-printing elements](#) on page 416
- [Selecting/Deselecting notes and items individually](#) on page 401

## Deleting system breaks

You can delete system breaks after you have inserted them.

### PREREQUISITE

System break signposts are shown.

---

### PROCEDURE

1. Select the system break signposts of the system breaks you want to delete.
2. Press **Backspace or Delete**.

---

### RELATED LINKS

[Resetting casting off](#) on page 585

## Frame breaks

Frame breaks occur when musical material reaches the right page margin at the bottom of a frame and must continue on a new system in the next frame in the music frame chain, which is usually on the next page. Dorico Elements automatically arranges music in frames so that systems are correctly spaced and legible, but you can also control frame breaks manually; for example, to insert page turns at specific positions in part layouts.

Frame breaks that you have inserted manually are indicated by signposts, which you can hide/show at any time. They are also layout-specific, meaning each layout can have frame breaks at different rhythmic positions.



Frame break signpost, selected

### NOTE

- By default, system/frame breaks snap to the barline before the earliest selected item. You can change whether breaks are allowed at rhythmic positions within bars.
- You can also control the content of music frames by fixing the number of systems per music frame in each layout.

---

### RELATED LINKS

[Allowing/Disallowing breaks within bars](#) on page 585

[Frames](#) on page 605

[Music frame chains](#) on page 613

[Signposts](#) on page 426

[Hiding non-printing elements](#) on page 416

[Note spacing](#) on page 579

[Per-layout note spacing options](#) on page 580

[Per-layout vertical spacing options](#) on page 577

[Frame fullness indicators](#) on page 480

[Hiding/Showing staves from system/frame breaks](#) on page 562  
[Hiding/Showing staff labels at system/frame breaks](#) on page 1183  
[Changing the staff size from system/frame breaks](#) on page 574  
[Locking layouts](#) on page 584  
[Resetting casting off](#) on page 585  
[Properties panel](#) on page 615

## Inserting frame breaks


You can insert frame breaks at any rhythmic position; for example, to create page turns at appropriate places in the current layout.

### PREREQUISITE

- You have allowed/disallowed breaks within bars.
- If you want to insert frame breaks in the middle of multi-bar rests, you have either hidden multi-bar rests in the layout or split multi-bar rests at the required positions.

---

### PROCEDURE

1. In Engrave mode, select a note or item at the rhythmic position you want to appear at the start of the next frame.
2. Insert a frame break in any of the following ways:
  - Press **Shift-F**.
  - In the Formatting panel, click **Create Frame Break**  in the **Format Music Frames** section.
3. Choose **Edit > Frame Break**.

---

### RESULT

A frame break is inserted at the rhythmic position of the earliest selected item. If breaks are disallowed within bars, it snaps to the preceding barline. All notations after the frame break are moved to the next music frame.

### NOTE

If you insert a frame break in the middle of a phrase in a two-bar or four-bar repeat region, Dorico Elements does not automatically move the frame break to before/after the phrase, causing it to be split across the frame break.

---

### RELATED LINKS

[Allowing/Disallowing breaks within bars](#) on page 585  
[Per-layout note spacing options](#) on page 580  
[Per-layout vertical spacing options](#) on page 577  
[Hiding/Showing multi-bar rests](#) on page 1152  
[Splitting multi-bar rests](#) on page 1154  
[Locking layouts](#) on page 584

## Making selections into frames

You can force all musical material between two selected rhythmic positions into a single frame; for example, if you want specific bars to appear on the same page.

### PREREQUISITE

- You have allowed/disallowed breaks within bars.
- The left zone is shown.


---

### PROCEDURE

1. In Engrave mode, select an item at the rhythmic position that you want to be the start of the frame.

#### NOTE

We recommend that you select noteheads or barlines. Selecting other items, such as slurs, can cause frame breaks to be inserted earlier/later than you might have intended.

2. **Ctrl/Cmd**-click one of the following:
  - A notehead that you want to be at the end of the frame
  - An item that you want to be at the start of the next frame
3. In the **Format Music Frames** section of the Formatting panel, click **Make into Frame** .

---

### RESULT

A fixed frame is created by inserting frame breaks at the start/end of your selection. The frame contains all musical material between the two selected items.

If breaks are disallowed within bars, the first break snaps to the barline before the earliest selected item, while the second break snaps to the barline after the last selected item.

If breaks are allowed within bars, the content of the frame depends on your selections.

- If you selected items, such as barlines or slurs, the beginning your first selected item is positioned at the start of the frame, and the end of your last selected item is positioned at the start of the next frame.
- If you selected noteheads, the last selected notehead is also included in the frame, rather than being positioned at the start of the next frame.
- If you selected ties, all musical material between the first and last notes tie chains is included in the frame, regardless of where in the tie chains you made selections.

#### NOTE

The frame break inserted at the start of the selection has **Wait for next frame break** activated in the **Format** group of the Properties panel by default. Because this property tells Dorico Elements to include all music in the frame until the next frame break, if you later delete subsequent frame breaks, this can create very full frames with tightly spaced, or overlapping, systems.

Deactivating **Wait for next frame break** allows Dorico Elements to cast off subsequent music as normal.

---

## Hiding/Showing frame break signposts

You can hide/show frame break signposts at any time.

---

### PROCEDURE

- Choose **View > Signposts > Frame Breaks**.
- 

### RELATED LINKS

[Signposts](#) on page 426

[Frame breaks](#) on page 589

[Hiding non-printing elements](#) on page 416

[Selecting/Deselecting notes and items individually](#) on page 401

## Deleting frame breaks

You can delete frame breaks after you have inserted them.

### PREREQUISITE

Frame break signposts are shown.

---

### PROCEDURE

1. Select the frame break signposts of the frame breaks you want to delete.
  2. Press **Backspace or Delete**.
- 

### RELATED LINKS

[Resetting casting off](#) on page 585

## Tacets

Tacet is the indication used to show that a player does not play anything in an entire flow, which might be a movement in a symphony or cue in a film score. In Dorico Elements, you can generate tacets automatically.

Dorico Elements shows tacets for flows in part layouts when the following conditions are met:

- You have removed the player from the flows in which they do not play.
- The flows are assigned to the part layout.
- The flows are assigned to the page template frame chain in the part layout.
- You have chosen to show tacets in the part layout.



## 2. Andante

Tacet


## 3. Menuetto

Allegretto

F. Hn in G 2

An extract of a part layout where the player is tacet in the second flow

### NOTE

We do not recommend that you use **Copy Staff Spacing** and **Lock Frame**  on pages where tacets are the first or last system in frames. Because tacets do not contain any bars, Dorico Elements cannot insert system or frame breaks at the ends of tacets in order to lock the frame contents.

However, you can insert system and frame breaks at the start of tacets.

---

You can change the text shown in tacets and the margin above/below them in each layout independently.

### RELATED LINKS

[Assigning players to flows](#) on page 164

[Allowing/Disallowing multiple flows on the same page](#) on page 565

[Staff spacing](#) on page 576

[System breaks](#) on page 586

[Frame breaks](#) on page 589

[Flow headings](#) on page 603

## Hiding/Showing tacets

You can hide/show tacets in each layout independently; for example, if you want to show empty bars or multi-bar rests in some layouts to allow those players to add in notes on those staves later.

### PREREQUISITE

- You have removed the player from the flows in which they do not play.
- The flows are assigned to the part layout.
- The flows are assigned to the page template frame chain in the part layout.

### PROCEDURE

1. Press **Ctrl/Cmd-Shift-L** to open **Layout Options**.

2. In the **Layouts** list, select the layouts in which you want to hide/show tacets.  
By default, the layout currently open in the music area is selected when you open the dialog. You can select other layouts by using the selection options in the action bar, clicking and dragging across multiple layouts, **Shift**-clicking adjacent layouts, and **Ctrl/Cmd**-clicking individual layouts.
  3. In the category list, click **Players**.
  4. In the **Tacets** section, activate/deactivate **Show tacet for flows where no players are assigned**.
  5. Click **Apply**, then **Close**.
- 

#### RESULT

Tacets are shown in the selected layouts when **Show tacet for flows where no players are assigned** is activated and the prerequisite criteria are also met.

When it is deactivated, any flows to which the player is not assigned do not appear in the layout. When the player is assigned to those flows, all bars in the flow are shown in the part, split into empty bars and multi-bar rests as appropriate for the flow.

#### RELATED LINKS

[Multi-bar rests](#) on page 1152

[Assigning players to flows](#) on page 164

[Hiding/Showing multi-bar rests](#) on page 1152

## Editing tacet text

You can change the text shown in tacets in each layout independently.

---

#### PROCEDURE

1. Press **Ctrl/Cmd-Shift-L** to open **Layout Options**.
  2. In the **Layouts** list, select the layouts whose tacet text you want to edit.  
By default, the layout currently open in the music area is selected when you open the dialog. You can select other layouts by using the selection options in the action bar, clicking and dragging across multiple layouts, **Shift**-clicking adjacent layouts, and **Ctrl/Cmd**-clicking individual layouts.
  3. In the category list, click **Players**.
  4. In the **Tacets** section, enter the text you want in the **Tacet text** field.
  5. Click **Apply**, then **Close**.
- 

#### RESULT

The text shown in all tacets in the selected layouts is changed.

## Changing the margins above/below tacets

You can change the margins both above/below tacets in each layout independently; for example, if you want smaller gaps between flow headings and tacets in some layouts to facilitate page turns better.

---

#### PROCEDURE

1. Press **Ctrl/Cmd-Shift-L** to open **Layout Options**.

2. In the **Layouts** list, select the layouts in which you want to change the margins above/below tacets.  
By default, the layout currently open in the music area is selected when you open the dialog. You can select other layouts by using the selection options in the action bar, clicking and dragging across multiple layouts, **Shift**-clicking adjacent layouts, and **Ctrl/Cmd**-clicking individual layouts.
  3. In the category list, click **Players**.
  4. In the **Tacets** section, change the values for the following options, individually or together:
    - **Margin above tacet**
    - **Margin below tacet**
  5. Click **Apply**, then **Close**.
- 

#### RESULT

Changing the value for **Margin above tacet** increases/decreases the minimum gap between tacets and whatever precedes them.

Changing the value for **Margin below tacet** increases/decreases the minimum gap between tacets and whatever follows them.

#### RELATED LINKS

[Flow headings](#) on page 603

[Margins](#) on page 570

[Per-layout vertical spacing options](#) on page 577

## Condensing

Condensing is the process of showing the music for multiple players on fewer staves than normal, usually by allowing multiple instruments of the same type to share a staff, such as Flutes 1-2 or Horns 1-4.

In Dorico Elements, you cannot enable automatic condensing as it is only available in Dorico Pro. However, if you import or open a project that contains layouts with condensing enabled, those staves remain condensed.

#### NOTE

- You cannot select anything on condensed staves.
  - Condensing is never enabled in galley view, so you can switch to galley view to see all staves separately. This does not disable condensing in the current layout.
  - Having condensing enabled in any layout in a project can cause Dorico Elements to operate more slowly, due to the large number of calculations involved.
- 

#### RELATED LINKS

[Staff labels on condensed staves](#) on page 1190

[Switching to galley/page view](#) on page 50

[Divisi](#) on page 1199



## Part formatting propagation

The propagation of part formatting involves copying the layout options and system formatting that determine the layouts of pages in specific part layouts and applying them to other part layouts. This can save time when formatting similar parts.

System formatting includes the positions of system and frame breaks, but also note spacing changes that affect the horizontal space that notes require.

In Dorico Elements, you can copy layout options and system formatting both together and independently of each other from a selected source layout to other destination layouts. For example, for source layouts whose formatting relies primarily on their **Casting Off** settings in **Layout Options**, it is likely that copying only their layout options is sufficient to produce the required formatting in the destination layouts without adding system/frame breaks on every system.

You can also copy the layout-specific property settings from the layout currently open in the music area to all other layouts in which those items appear.

### NOTE

- Part formatting propagation is only available for part layouts. You cannot propagate part formatting from/to full score or custom score layouts.
- We do not recommend using layouts with multiple music frame chains as either source or destination layouts as you can get unexpected results.


## Copying part formatting to other layouts

You can copy all the formatting from one part layout to other part layouts; for example, to save time if multiple part layouts in your project require similar formatting. You can include layout options, such as page size and margins, and other page formatting, such as system and frame breaks.

### NOTE

- Part formatting propagation is only available for part layouts. You cannot propagate part formatting from/to full score or custom score layouts.
- We do not recommend using layouts with multiple music frame chains as either source or destination layouts as you can get unexpected results.

### PROCEDURE

1. In Setup mode, in the **Layouts** panel, select the part layout whose part formatting you want to copy.
2. In the action bar, click **Layout Settings**  and choose **Propagate Part Formatting** to open the **Propagate Part Formatting** dialog.

### TIP

You can also right-click layouts and choose this option from the context menu.

3. In the **Copy formatting from** list, select the part layout whose part formatting you want to copy.

By default, the layout whose card you used to open the dialog is selected.

4. In the **Propagate formatting to** list, select the part layouts to which you want to copy part formatting.  
You can use the selection options in the action bar, click and drag across multiple layouts, **Shift**-click adjacent layouts, and **Ctrl/Cmd**-click individual layouts.
  5. Activate/Deactivate **Include layout options**.
  6. Activate/Deactivate **Include system formatting**.
  7. Click **OK** to copy part formatting to the selected layouts and close the dialog.
- 

#### RESULT

Part formatting from the selected source layout is copied to the selected destination layouts.

- If you activated **Include layout options**, layout options are copied from the source layout to the destination layouts.
- If you activated **Include system formatting**, Dorico Elements copies the distribution of bars in systems, systems on pages, and note spacing changes from the source layout to the destination layouts.

#### TIP


If the formatting of the source layout relies primarily on its **Casting Off** settings in **Layout Options**, it is likely that only activating **Include layout options** is sufficient to produce very similar formatting in the destination layouts without adding system/frame breaks on every system.

---

## Propagate Part Formatting dialog

The **Propagate Part Formatting** dialog allows you to copy the page formatting and layout options from a source layout to destination layouts.

You can open the **Propagate Part Formatting** dialog in Setup mode in any of the following ways:

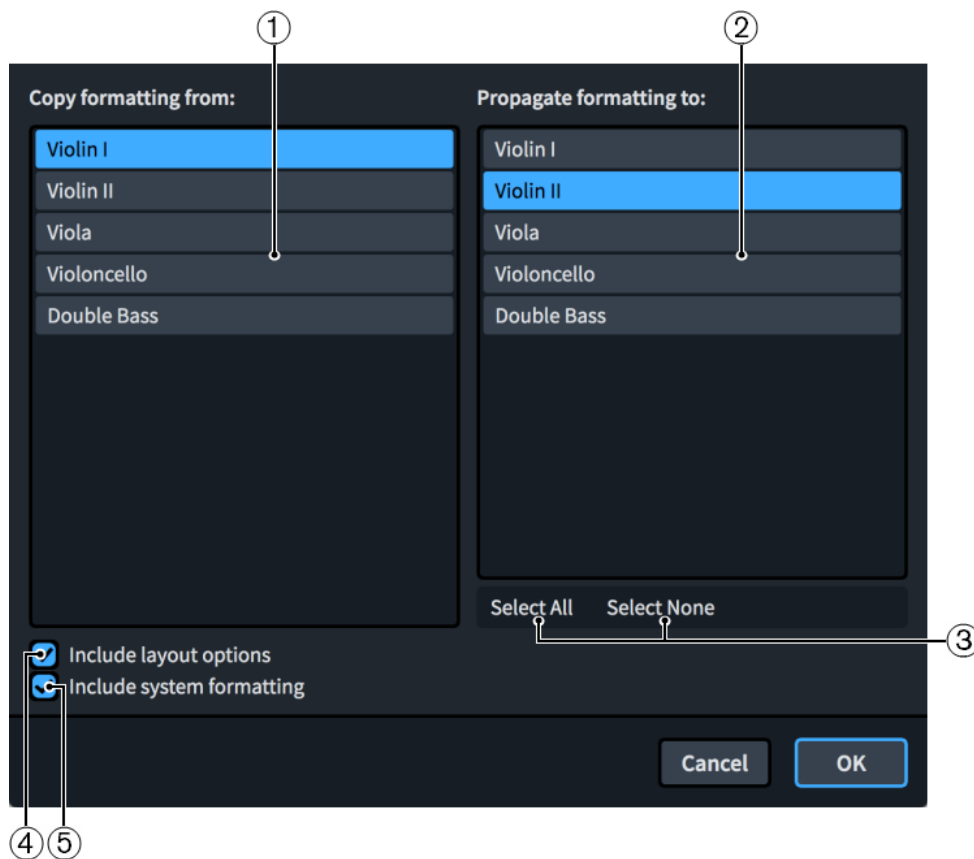
- In the **Layouts** panel, select a part layout, then click **Layout Settings**  in the action bar and choose **Propagate Part Formatting**. This automatically selects that layout as the source layout in the **Copy formatting from** list.

#### TIP

You can also right-click layouts and choose this option from the context menu.

---

- Choose **Setup > Propagate Part Formatting**.



The **Propagate Part Formatting** dialog contains the following sections and options:

**1 Copy formatting from list**

Contains a list of all the part layouts in the project. You can only select a single part layout as the source layout.

**2 Propagate formatting to list**

Contains a list of all the part layouts in the project. You can select multiple part layouts as destination layouts.

**3 Selection options**

Allow you to select/deselect all the part layouts in the **Propagate formatting to list**.

**4 Include layout options**

Allows you to copy layout options relating to part formatting from the source layout to the destination layouts. These options include page size, page margins, the default page template set, space size, vertical spacing, note spacing, casting off, multi-bar rest settings, and staff labels.

**5 Include system formatting**

Allows you to copy the distribution of bars in systems, systems on pages, and note spacing changes from the source layout to the destination layouts. Dorico Elements achieves this by copying system breaks, frame breaks, and note spacing changes, inputting additional system and frame breaks as required, and deleting any existing system breaks, frame breaks, and note spacing changes in the destination layouts.

RELATED LINKS

[Layout Options dialog](#) on page 677

[Layouts panel \(Setup mode\)](#) on page 114

## Copying property settings to other layouts/frame chains

Local properties are layout- and frame chain-specific, meaning that by default, changing local properties for an item in one layout does not affect the same item in other layouts or other frame chains. You can copy the properties set on notes and items to all other layouts and frame chains in which they appear; for example, to show gradual dynamics with the same style in part layouts after changing their style in the full score layout.

---

### PROCEDURE

1. Select the notes or items whose properties you want to copy to other layouts. You can do this in Write mode and Engrave mode.

#### NOTE

Only the properties that are available in the current mode are copied.

2. Choose **Edit > Propagate Properties**.

---

### RESULT

All properties set on the selected notes/items are copied to all layouts and frame chains in which those notes/items appear.

#### TIP

If you know in advance that you want your changes to affect all layouts and frame chains, you can change the property scope before changing property settings.

---

### RELATED LINKS

[Large selections](#) on page 403

[Local vs. global properties](#) on page 616

[Resetting the appearance of items](#) on page 415

[Resetting the position of items](#) on page 415

## Page templates

Page templates in Dorico Elements allow you to achieve consistent page formatting by applying the same arrangements of frames to multiple pages and in different layouts.

#### NOTE

You can set the page size, margins, page orientation, and staff size for each layout in **Layout Options**.

All pages in your scores and parts inherit their default formatting from page templates.

Dorico Elements provides different types of page templates so that there is appropriate page formatting for first pages independently of subsequent pages, as the first page typically includes additional information, such as the title, composer, and copyright. Dorico Elements uses tokens to display this additional information.

Page templates are contained in page template sets. By default, Dorico Elements provides separate page template sets for full score and part layouts. Page template sets are automatically applied to every layout that you create.

#### NOTE

- In Dorico Elements, you cannot edit page templates or create new ones; this is only available in Dorico Pro.
- Changing individual pages in layouts is considered a page template override in Dorico Elements. This includes, for example, editing the title or running header in Write mode. Pages with page template overrides are not automatically deleted, even if they are empty because the layout became shorter.

If you want to change the information shown at the tops of pages, that is, the title and running header text that you cannot select, we recommend that you do so in the **Project Info** dialog to avoid page template overrides. The big title at the top of the first page is the project title. The running header on subsequent pages uses the flow title for the top flow on that page in scores, and the layout name in parts.

---

#### RELATED LINKS

- [Types of page templates](#) on page 601
- [Removing page template overrides](#) on page 602
- [Layout Options dialog](#) on page 677
- [Flow headings](#) on page 603
- [Project Info dialog](#) on page 75
- [Tokens](#) on page 607
- [Applying page template sets to layouts](#) on page 558
- [Page formatting](#) on page 555
- [Project templates](#) on page 78

## Page template sets

In Dorico Elements, page templates are provided as parts of page template sets. Page template sets group page templates and flow headings together, so there is suitable page formatting available for all possible situations in your project.

New projects contain the following page template sets by default:

- **Default Full Score:** Used for full score and custom score layouts by default.
- **Default Part:** Used for part layouts by default.

The default page template sets contain page templates for first (**First**) and subsequent (**Default**) pages.

Page template sets also contain flow headings that allow you to show flow titles above the start of each flow automatically, including when they start on the same page as a previous flow. The default page template sets each contain a single flow heading.

The default page template sets are applied automatically to the appropriate layouts in each new project. You can apply different page template sets to each layout independently.

#### NOTE

In Dorico Elements, you cannot edit page template sets or create new ones; this is only available in Dorico Pro.

---

#### RELATED LINKS

- [Flow headings](#) on page 603
- [Applying page template sets to layouts](#) on page 558

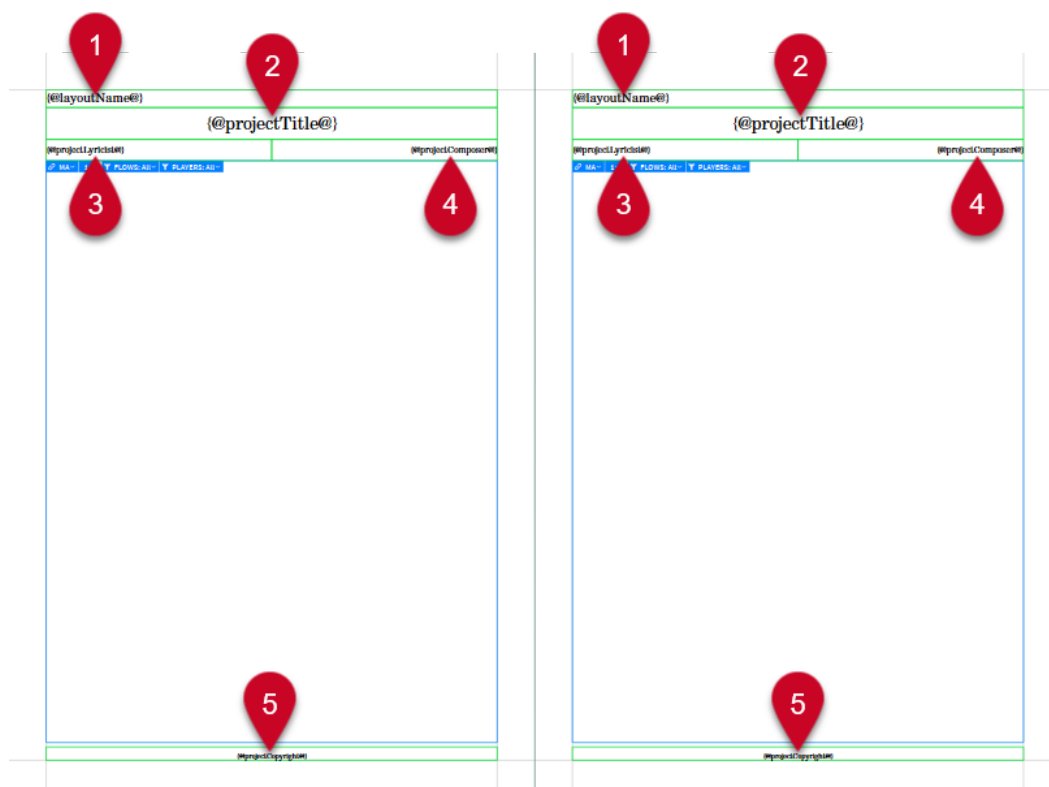
## Types of page templates

Page template sets contain different types of page templates, which are used in different circumstances. For example, **First** page templates are usually used for the first page of music in a layout.

In Dorico Elements, there are the following types of page templates:

### First

A page template that is usually used for the first page of music in a layout. It contains a single large music frame and multiple text frames to display information, such as the project title and composer.



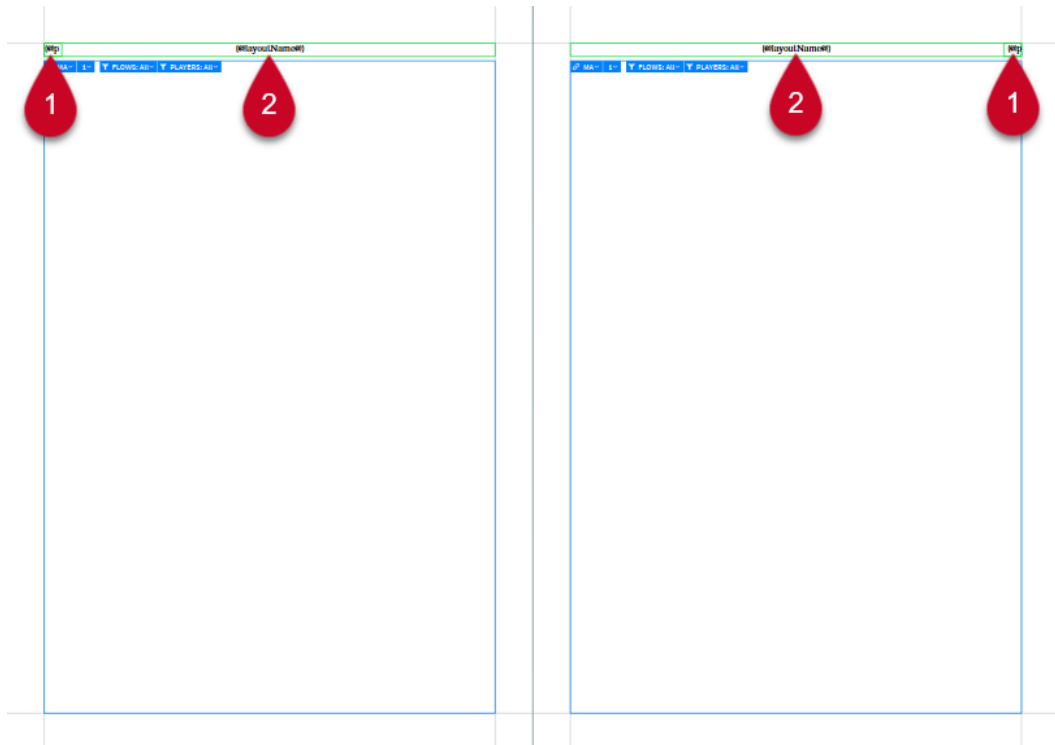
**First** page template open in the page template editor

The **First** page template contains the following tokens in text frames:

- 1 **Layout name** (Default Part page template set only)
- 2 **Project title**
- 3 **Project lyricist**
- 4 **Project composer**
- 5 **Project copyright**

### Default

A page template that is usually used for the second page of music onwards. It contains a single large music frame and text frames to show the running header and page number.



**Default** page template open in the page template editor

The **Default** page template contains the following tokens in text frames:

- 1 Page number**
- 2 Default Full Score** page template set: **Flow title** (optionally **Project title** for projects created from the Hub with **Project will use multiple flows** deactivated)  
**Default Part** page template set: **Layout name**

#### RELATED LINKS

[Project Info dialog](#) on page 75

[Tokens](#) on page 607

[Page template sets](#) on page 600

[Changing when the First page template is used](#) on page 566

[Changing flow titles](#) on page 179

[Flow headings](#) on page 603

[Hub](#) on page 69

## Removing page template overrides

You can remove overrides that you have made to individual pages and return them to following the page template format.

Page template overrides include editing the title or running header on individual pages, rather than by changing the contents of fields in the **Project Info** dialog.

Removing overrides from empty pages deletes them from the layout.

#### PREREQUISITE

The right zone is shown.

---

#### PROCEDURE

1. In Engrave mode, open the layout whose page template overrides you want to remove.
  2. Optional: If you want to remove overrides from individual pages, select items on those pages.
  3. Remove page template overrides in one of the following ways:
    - To remove overrides from selected pages only, choose **Engrave > Remove Page Override(s)**.
    - To remove overrides from all pages, choose **Engrave > Remove All Page Overrides..**
- 

#### RESULT

Any overrides you made to the page template format are removed from either the selected pages only or from all pages in the layout currently open in the music area. Empty pages that are considered overrides are deleted.

If you removed overrides from selected pages only, any other pages with overrides in the layout are unaffected.

#### RELATED LINKS

[Hiding/Showing zones](#) on page 44

[Switching between layouts](#) on page 43

[Frames](#) on page 605

[Project Info dialog](#) on page 75

[Customizing flow headings](#) on page 604

## Flow headings

Flow headings allow you to show the titles of flows immediately above their first system automatically. They function like templates, in much the same way as page templates, allowing the same flow heading formatting to be applied to multiple flows in different layouts.

Flow headings exist as part of page template sets. By default, Dorico Elements provides one flow heading in each page template set, which contains tokens to display the flow number and flow title; in a new project, this appears as "1. Flow 1". This is used automatically for all flow headings.

You can change the tokens included in flow headings; for example, if you want to remove flow numbers and only show flow titles.

### 3. Menuetto

F. Hn in G 2

Allegretto



A flow heading above the third flow in a part layout

Any changes you make in the **Edit Flow Heading** dialog are automatically reflected on the pages that use those flow headings. For example, if you delete a token, that token is removed from all flow headings in all layouts that use the same page template set, so long as the pages on which the flow headings appear do not have page template overrides.

Flow headings are automatically inserted inside music frames above the first system of the flow to which they apply, meaning they do not have a fixed vertical position on the page like other



frames and follow the music if it moves. They also occupy vertical space within music frames. You can change the margins for the space above and below flow headings.

#### NOTE

Changing individual flow headings in layouts is considered a page template override in Dorico Elements. This includes, for example, deleting a token from a flow heading on one page, rather than in the **Edit Flow Heading** dialog. Pages with page template overrides no longer get updated if you edit the flow heading and are not automatically deleted, even if they are empty because the layout became shorter.

Changing individual flow headings in layouts is considered a page template override in Dorico Elements. This includes, for example, deleting a token from a flow heading. Pages with page template overrides are not automatically deleted, even if they are empty because the layout became shorter.

---

#### RELATED LINKS

[Tacets](#) on page 592

[Hiding/Showing flow headings](#) on page 567

[Changing the margins above/below flow headings](#) on page 571

[Hiding/Showing information in running headers above flow headings](#) on page 568

[Removing page template overrides](#) on page 602

[Margins](#) on page 570

[Frames](#) on page 605

[Tokens](#) on page 607

## Customizing flow headings

You can change the tokens included in flow headings; for example, if you want to remove flow numbers and only show flow titles. This affects all flow headings in all layouts that use the same page template set; for example, customizing the flow heading in a part layout updates flow headings in all other part layouts.

---

#### PROCEDURE

1. In Engrave mode, open a layout that uses the page template set containing the flow heading you want to customize.
  2. Choose **Engrave > Edit Flow Heading** to open the **Edit Flow Heading** dialog.
  3. Change the tokens included in the flow heading.
  4. Click **OK** to save your changes and close the dialog.
- 

#### RELATED LINKS

[Switching between layouts](#) on page 43

[Page template sets](#) on page 600

[Applying page template sets to layouts](#) on page 558

[Removing page template overrides](#) on page 602

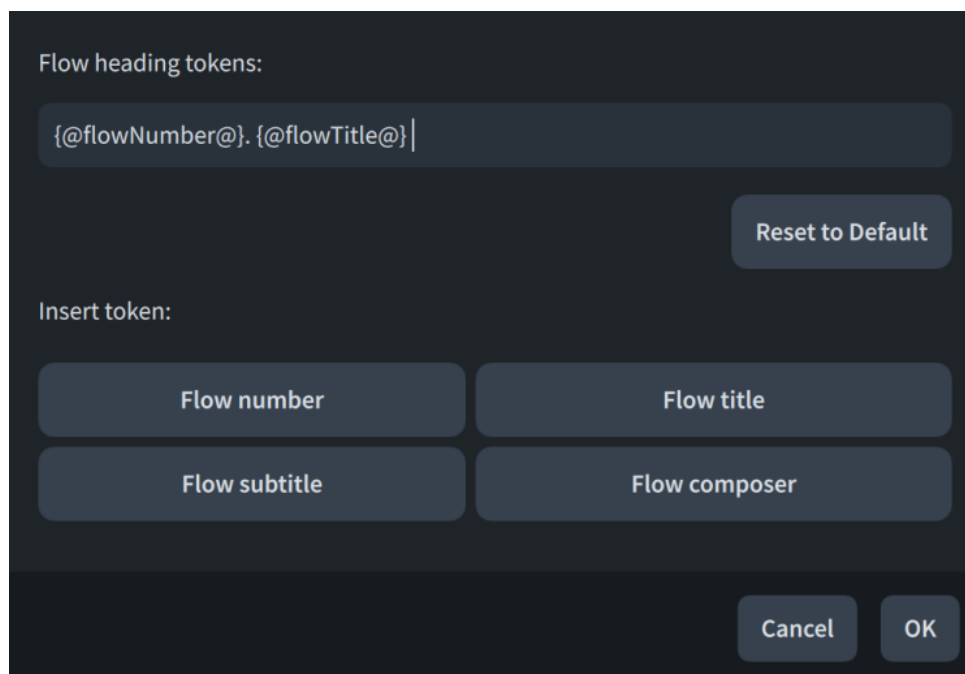
[Project Info dialog](#) on page 75

[Tokens](#) on page 607

## Edit Flow Heading dialog

The **Edit Flow Heading** dialog allows you to change the tokens included in flow headings; for example, if you want to remove flow numbers and only show flow titles. This affects all flow headings in all layouts that use the same page template set.

- You can open the **Edit Flow Heading** dialog in Engrave mode by choosing **Engrave > Edit Flow Heading**.



The **Edit Flow Heading** dialog contains the following options:

### Flow heading tokens

Displays the tokens included in the flow heading. You can enter text directly into this field, and click tokens to add them automatically.

### Reset to Default

Resets the tokens in the flow heading.

### Insert token

Allows you to add tokens to the flow heading.

### RELATED LINKS

[Engrave mode](#) on page 477

[Removing page template overrides](#) on page 602

[Project Info dialog](#) on page 75

[Tokens](#) on page 607

[Export File Names dialog](#) on page 545

## Frames

Dorico uses boxes called frames to position music, additional text, and graphics inside the margins of pages. In Dorico Elements, you cannot input or edit frames, but frames on page templates control the formatting of pages in your project.

In Dorico Elements, there are the following types of frames:

### Music frames

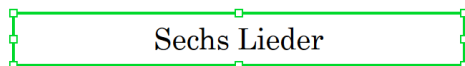
Music frames display the music of selected players and flows or blank staves.



A music frame displaying the start of a piano piece

### Text frames

Text frames display text, which you can enter directly or by using tokens.



A text frame displaying a project title, "Sechs Lieder"

### Graphics frames

Graphics frames display the images that you load into them, which can be in a variety of formats.



A graphics frame with image loaded

### EXAMPLE

The first page of a piano piece. It contains a music frame, text frames for the title, dedication, and composer, a flow heading frame inside the top of the music frame, and graphics frames in the top corners.

### RELATED LINKS

- [Project window in Engrave mode on page 477](#)
- [Flows in Dorico on page 22](#)
- [Layouts in Dorico on page 26](#)
- [Frame breaks on page 589](#)
- [Tokens on page 607](#)
- [Page templates on page 599](#)

[Flow headings](#) on page 603  
[Changing page margins](#) on page 557

## Tokens

Tokens are codes that you can use as substitutes for information stored in your project, such as titles, composers, and the time and date. This can reduce the risk of mistakes or outdated information appearing in your project. Tokens are also known as “wildcards” or “text codes”.

For example, if you use a token for the title of your project, you can change the project title in the **Project Info** dialog as often as you want, and the project title in every layout in your project is updated automatically.

Tokens can refer to information in the **Project Info** dialog, including for the whole project or each flow individually. Tokens can also refer to the current time and date or the time and date the project was last saved.

### NOTE

- You can only use tokens in text frames. You cannot use tokens in text items. Full text frame functionality is only available in Dorico Pro, but we have included the available tokens for your reference.
- Flow tokens refer to the nearest flow below the top edge of their text frame and on the same page. When the top edge of a text frame containing a flow token is in line with or above the top staff line of the first staff in a system, it then refers to that flow.

You can specify the flow number to which you want flow tokens to refer, such as **{@flow2title@}**. This always shows the specified flow, regardless of the token’s position.

You can see the flow number of each flow in the **Flows** panel in Setup mode.

- You can access all the available tokens from the context menu when the cursor is inside a text frame. In the context menu, tokens are organized into submenus.

---

The following tokens are available in Dorico Elements:

### General tokens

---

Description	Token
Project file name	<b>{@projectfilename@}</b>
Path to the project’s save location, including the project file name	<b>{@projectfilepath@}</b>

---

### Player tokens

---

Description	Token
Player list	<b>{@playerlist@}</b>
Player names	<b>{@playernames@}</b>

---

## Layout tokens

---

Description	Token
Layout name	{@layoutname@}
Layout number, as set in the <b>Layouts</b> panel in Setup mode	{@layoutnumber@}
Layout transposition	{@layouttransposition@}

### NOTE

Uses your instrument language setting.

---

## Staff label tokens

---

Music symbol	Token
Full staff labels of the players in the current layout	{@staffLabelsFull@}
Abbreviated staff labels of the players in the current layout	{@staffLabelsShort@}

### NOTE

- You can use staff label tokens as an alternative way to name part layouts, instead of using the default **{@layoutName@}** token shown at the top left of the first page in part layouts.
  - Staff label tokens might not exactly match the appearance of staff labels shown before initial barlines; however, staff label tokens respect your per-layout options for how transpositions appear in staff labels.
- 

## Music symbol tokens

---

Music symbol	Token
Flat accidental: $\flat$	{@flat@}
Sharp accidental: $\sharp$	{@sharp@}
Natural accidental: $\natural$	{@natural@}
Treble clef (G clef)	{@gClef@}
Bass clef (F clef)	{@fClef@}
Alto clef (C clef)	{@cClef@}

Music symbol	Token
Fermata above	{@U+E4C0@}

#### TIP

- This list is not comprehensive, as you can enter the code point for any SMuFL symbol within a token. You can find the necessary code points in the SMuFL specification online.
- Music symbol tokens in text frames automatically use the **Music text** character style, which is set to Bravura Text by default.
- You can include music symbol tokens in fields in the **Project Info** dialog. For example, if you enter **Symphony in B{flat@} major** into the **Title** field, the title displayed in text frames using the corresponding title token is Symphony in B♭ major.
- You can also enter music symbols in text items and text frames using the **Insert Music Text** dialog.

## Project/Flow information tokens

Field in the Project Info dialog	Token for Project page	Token for Flow pages
Title	{@projecttitle@}	{@flowtitle@}
Subtitle	{@projectsubtitle@}	{@flowsubtitle@}
Dedication	{@projectdedication@}	{@flowdedication@}
Composer	{@projectcomposer@}	{@flowcomposer@}
Arranger	{@projectarranger@}	{@flowarranger@}
Lyricist	{@projectlyricist@}	{@flowlyricist@}
Artist	{@projectartist@}	{@flowartist@}
Copyist	{@projectcopyist@}	{@flowcopyist@}
Publisher	{@projectpublisher@}	{@flowpublisher@}
Editor	{@projecteditor@}	{@floweditor@}
Copyright	{@projectcopyright@}	{@flowcopyright@}
Work number	{@projectworknumber@}	{@flowworknumber@}
Composer dates	{@projectcomposerdates@}	{@flowcomposerdates@}
Composition year	{@projectcompositionyear@}	{@flowcompositionyear@}

Field in the Project Info dialog	Token for Project page	Token for Flow pages
Other information	{@projectotherinfo@}	{@flowotherinfo@}

## Flow tokens

Per-flow token function	Token
Flow number of the current flow, according to its position in the project	{@flownumber@}
Flow number of the current flow, according to its position in the current layout	{@flowInLayoutNumber@}
Flow number of the current flow shown in lower case Roman numerals, such as iii or xvi	{@flowNumberRomanLower@}
Flow number of the current flow shown in upper case Roman numerals, such as III or XVI	{@flowNumberRomanUpper@}
Duration of the current flow in minutes and seconds, using smart quotes	{@flowDuration@}
Duration of the current flow in minutes and seconds, using straight quotes	{@flowDurationStraightQuotes@}
Duration of the current flow in minutes and seconds, using primes	{@flowDurationPrimes@}
Duration of the specified flow “n” in minutes and seconds, such as {@flow3Duration@}	{@flownDuration@}, {@flownDurationStraightQuotes@} , or {@flownDurationPrimes@}

## Page number tokens

Page number token function	Token
Page number	{@page@}
Total number of pages in the layout	{@pageCount@}
Number of this page within the current flow, counting from 1 for the first page of the flow and including pages with no displayed page number	{@flowPage@}
Total number of pages in the current flow	{@flowPageCount@}

Page number token function	Token
The displayed page number on which the specified flow “n” begins, such as <b>{@flow3FirstPage@}</b>	<b>{@flownFirstPage@}</b>

**NOTE**

**{@flowPage@}** and **{@flowPageCount@}** tokens only consider the flow that is active at the beginning of the first system of the music frame closest to the top left corner of the page on which the tokens are used.

**Time/Date tokens: project last saved**

Time/Date description	Time/Date example	Token
Standard date and time string (locale dependent)	Sun Dec 31 11:10:12 2017	<b>{@projectdate@}</b>
Four-digit year	2017	<b>{@projectdateyear@}</b>
Two-digit year	17	<b>{@projectdateyearshort@}</b>
Full month name (locale dependent)	October	<b>{@projectdatemonth@}</b>
Short month name (locale dependent)	Oct	<b>{@projectdatemonthshort@}</b>
Month as a decimal number, range 1-12	10	<b>{@projectdatemonthnum@}</b>
Full weekday name (locale dependent)	Friday	<b>{@projectdateday@}</b>
Abbreviated weekday name (locale dependent)	Fri	<b>{@projectdatedayshort@}</b>
Day of month as decimal number, range 1-31	24	<b>{@projectdatedaynum@}</b>
ISO 8601 date	2017-12-31	<b>{@projectdateymd@}</b>
Month day, year	December 31, 2017	<b>{@projectdatemdy@}</b>
Day month year	31 December 2017	<b>{@projectdatedmy@}</b>
Time representation (locale dependent)	11:10:12	<b>{@projectdatetime@}</b>



Time/Date description	Time/Date example	Token
Hours:minutes, hour in 24-hour clock range	23:10	<b>{@projectdatetimeHHMM@}</b>
Hours:minutes:seconds, hour in 24-hour clock range	13:02:24	<b>{@projectdatetimeHHMMSS@}</b>
Hour in 24-hour clock range	23	<b>{@projectdatetimehour24@}</b>
Hour in 12-hour clock range	11	<b>{@projectdatetimehour12@}</b>
Minute as decimal number, range 00-59	10	<b>{@projectdatetimeminute@}</b>
Second as decimal number, range 00-59	44	<b>{@projectdatetimesecond@}</b>

### Time/Date tokens: current time and date

Time/Date description	Time/Date example	Token
Standard date and time string (locale dependent)	Sun Dec 31 11:10:12 2017	<b>{@date@}</b>
Four-digit year	2017	<b>{@dateyear@}</b>
Two-digit year	17	<b>{@dateyearshort@}</b>
Full month name (locale dependent)	October	<b>{@datemonth@}</b>
Short month name (locale dependent)	Oct	<b>{@datemonthshort@}</b>
Month as a decimal number, range 1-12	10	<b>{@datemonthnum@}</b>
Full weekday name (locale dependent)	Friday	<b>{@dateday@}</b>
Abbreviated weekday name (locale dependent)	Fri	<b>{@datedayshort@}</b>
Day of month as decimal number, range 1-31	24	<b>{@datedaynum@}</b>
ISO 8601 date	2017-12-31	<b>{@dateymd@}</b>
Month day, year	December 31, 2017	<b>{@datemdy@}</b>

Time/Date description	Time/Date example	Token
Day month year	31 December 2017	<b>{@datedmy@}</b>
Time representation (locale dependent)	11:10:12	<b>{@datetime@}</b>
Hours:minutes, hour in 24-hour clock range	23:10	<b>{@datetimeHHMM@}</b>
Hours:minutes:seconds, hour in 24-hour clock range	13:02:24	<b>{@datetimeHHMMSS@}</b>
Hour in 24-hour clock range	23	<b>{@datetimehour24@}</b>
Hour in 12-hour clock range	11	<b>{@datetimehour12@}</b>
Minute as decimal number, range 00-59	10	<b>{@datetimeminute@}</b>
Second as decimal number, range 00-59	44	<b>{@datetimesecond@}</b>

---

#### RELATED LINKS

- [Project Info dialog](#) on page 75
- [Player, layout, and instrument names](#) on page 172
- [Flow names and flow titles](#) on page 178
- [Insert Music Text dialog](#) on page 373
- [Renumbering layouts](#) on page 171
- [Reordering flows](#) on page 164
- [Instrument transpositions in staff labels](#) on page 1185
- [Changing the language for instrument names](#) on page 57
- [Concert vs. transposed pitch](#) on page 170
- [Editing layout transposition text](#) on page 895

## Music frame chains

A music frame chain is a collection of music frames that show the same selection of music in a set order, often in sequence. Music frame chains can include any number of frames, including only a single music frame.

The default page templates contain a single frame chain that is set to display all flows and all players in the layout. Therefore, Dorico Elements automatically creates enough pages and frames to display all flows in all the layouts that use those page templates.

#### NOTE

In Dorico Elements, you cannot create new frame chains or change the flows and players assigned to frame chains; this is only available in Dorico Pro.

---

#### RELATED LINKS

- [Page templates](#) on page 599

[Layouts in Dorico on page 26](#)

# Properties

Properties are settings that apply to individual notes and items and allow you to edit them, such as by changing their appearance or position. You can access properties in the Properties panel.

Properties can affect items only in the current layout and frame chain, known as “local properties”, or in all layouts and frame chains, known as “global properties”.

Many properties also have equivalent default settings available that control the appearance or position of all instances of the corresponding type of note or notation. You can access the available default settings in **Notation Options**.


## RELATED LINKS

[Notation Options dialog](#) on page 679

[Chord symbol appearance presets](#) on page 783

## Properties panel

The Properties panel in Write mode provides options that allow you to edit individual notes and notations, such as by changing their appearance or position. It is located in the lower zone at the bottom of the window in Write mode and Engrave mode.

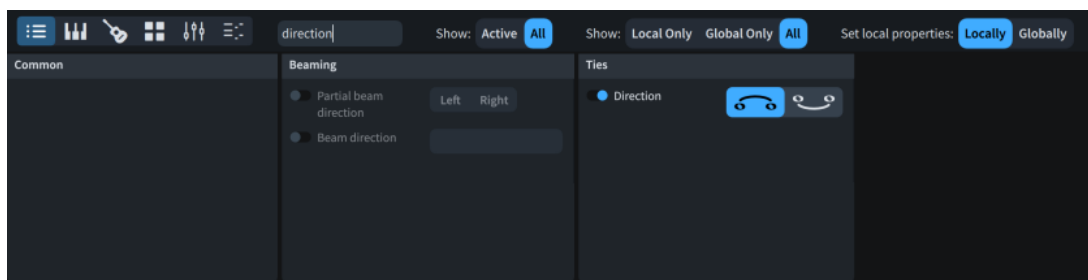
- You can show the Properties panel by showing the lower zone, then clicking **Properties**  in the lower zone toolbar.

The Properties panel contains a group of properties for each notation item. When you select a note or item in the music area, the Properties panel displays the groups and options that you might require to edit the selected note or item. If there are more available groups than can fit in the panel simultaneously, you can scroll to the right/left along the displayed groups.

All the properties that are available in the Properties panel in Write mode are also available in Engrave mode, but additional properties in Engrave mode allow you to edit items in more detail.

### NOTE

- If you select multiple different types of notation items, only the groups that they have in common are displayed. For example, if you select a slur, the **Common** and **Slurs** groups are displayed in the Properties panel. However, if you select a slur and a note, only the **Common** group is displayed.
- If the property scope is set to **Locally**, changing local properties only affects the current layout and frame chain. You can set the property scope to **Globally** if you want subsequent changes to local properties to affect all layouts and frame chains. You can also copy property changes to other layouts and frame chains later.
- In Write mode, you can only change the properties of complete notes and items. For example, you can only change the line style of whole pedal lines, even if they extend across multiple systems. In Engrave mode, you can change individual parts of notes and items separately; for example, the curvature direction of a single tie within a tie chain.
- You can activate properties by clicking their activation switch or property name.



Properties panel in Write mode, filtered by a search term

The Properties panel toolbar contains the following options:

### Search

Allows you to filter properties according to your entry.

### Show (active status)

Allows you to filter properties according to their activated status.

- **Active:** Shows only activated properties.
- **All:** Shows all properties.

### Show (property scope)

Allows you to filter properties according to their property scope.

- **Local Only:** Shows only local properties.
- **Global Only:** Shows only global properties.
- **All:** Shows all properties.

### Set local properties

Allows you to change the scope of subsequent local properties you change.

- **Locally:** Local properties only take effect locally.
- **Globally:** Local properties take effect globally.

### RELATED LINKS

[Project window in Write mode](#) on page 186

[Project window in Engrave mode](#) on page 477

[Hiding/Showing zones](#) on page 44

[Copying property settings to other layouts/frame chains](#) on page 599

[Changing your preferred unit of measurement](#) on page 51

[Moving items graphically](#) on page 481

[Selecting handles on items](#) on page 483

[Resetting the appearance of items](#) on page 415

[Resetting the position of items](#) on page 415

## Local vs. global properties

Properties can affect items either in the current layout and frame chain only or in all layouts and frame chains. This allows you to have the same items appear differently in different layouts, such as if you want to show gradual dynamics as hairpins in part layouts but as “cresc.” text in full score layouts.

### Local properties

Local properties are layout- and frame chain-specific. By default, changing local properties for an item in one layout does not affect the same item in other layouts

or other frame chains. This is particularly useful for local properties that control the graphical position of items, as usually this needs to be different in the part layout compared to the full score.

You can force local properties to apply globally by changing the property scope in the Properties panel to **Globally** before changing their setting. Local properties that have been set globally appear with a bolder font in the Properties panel than local properties that have been set locally. You can also show only local properties in the Properties panel by using the property scope filter.

#### NOTE

Changing local properties with the property scope set to **Globally** overrides any local settings for those properties for the selected notes or items in other layouts.

---

### Global properties

Global properties affect items in all layouts and frame chains, including new layouts you subsequently create. They appear with a bolder font in the Properties panel than local properties. You can also show only global properties in the Properties panel by using the property scope filter.

#### RELATED LINKS

[Layouts](#) on page 165


[Music frame chains](#) on page 613

[Copying property settings to other layouts/frame chains](#) on page 599

## Changing the property scope

You can change the property scope of local properties; for example, if you want the subsequent properties you change to affect all layouts and frame chains.

#### PREREQUISITE

- The lower zone is shown.
- **Properties**  is selected in the lower zone toolbar.

---

#### PROCEDURE

- In the Properties panel, choose one of the following options for **Set local properties**:
    - **Locally**
    - **Globally**
- 

#### RESULT

The property scope is changed. All subsequent local properties you change take effect only in the current layout and frame chain if you chose **Locally**, or in all layouts and frame chains if you chose **Globally**.

#### NOTE

- The property scope includes local properties that control the graphical position of items. Because it is common for items to require different graphical positions in different layouts, we recommend that you change the property scope to **Globally** only when required.
- This only applies to subsequent properties you change. If you want to change the property scope of existing properties, you can copy property settings to other layouts and frame chains.

- You can change the default property scope for all future projects on the **Note Input and Editing** page in **Preferences**.
- 

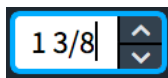
RELATED LINKS

[Copying property settings to other layouts/frame chains](#) on page 599  
[Preferences dialog](#) on page 58

## Changing values in numeric value fields

You can change the values in numeric value fields in multiple different ways, such as doubling or halving the existing values. In Dorico Elements, value fields are most commonly used in the Properties panel and in options dialogs.

Numeric value fields have up/down buttons. They are also known as “spin boxes”.



A numeric value field in the Properties panel

PREREQUISITE

For value fields that are only accessible when their corresponding property/option is activated, you have activated their property/option.

---

PROCEDURE

- Change the value in numeric value fields in any of the following ways:
  - Enter a number directly.
  - To increase/decrease the value by 1/8 space, click the up/down buttons.
  - To increase/decrease the value by 1/32 space, **Ctrl/Cmd - Shift**-click the up/down buttons.
  - To increase/decrease the value by 1/2 space, **Shift**-click the up/down buttons.
  - To increase/decrease the value by 1 space, **Ctrl/Cmd**-click the up/down buttons.
  - To increase the current value by a specific amount, enter **+=** followed by the amount into the spin box. For example, enter **+=2** to increase the current value by two.
  - To decrease the current value by a specific amount, enter **-=** followed by the amount into the spin box. For example, enter **-=3.5** to decrease the current value by three and a half.
  - To multiply the current value by a specific amount, enter **\*** followed by the amount into the spin box. For example, enter **\*3** to triple the current value.
  - To divide the current value by a specific amount, enter **/** followed by the amount into the spin box. For example, enter **/2** to halve the current value.

NOTE

You must replace the existing value with your calculation entry.

---

RELATED LINKS

[Layout Options dialog](#) on page 677  
[Changing your preferred unit of measurement](#) on page 51

# Key Editor

The Key Editor is a MIDI editor that comprises multiple components. It allows you to edit notes and other playback items, including note velocity, MIDI CC, and tempo. You can access the Key Editor in the Key Editor panel in the lower zone.

The Key Editor contains the following editors, which you can show in different combinations:

- Piano roll editor
- Percussion editor
- Playing Techniques editor
- Velocity editor
- Dynamics editor
- MIDI Pitch Bend editor
- MIDI CC editor
- Tempo editor

The Key Editor also provides different tools and controls, according to the requirements of each editor.

## RELATED LINKS

[Piano roll editor](#) on page 630

[Percussion editor](#) on page 631

[Playing Techniques editor](#) on page 641

[Velocity editor](#) on page 642

[Dynamics editor](#) on page 645

[MIDI Pitch Bend editor](#) on page 650


[MIDI CC editor](#) on page 651

[Tempo editor](#) on page 656

[Histogram tool](#) on page 659

## Key Editor panel

The Key Editor panel allows you to view and edit notes, either in a continuous piano roll for pitched instruments or in the percussion editor for unpitched instruments. It is located in the lower zone at the bottom of the window in Write mode and Play mode.

- You can show the Key Editor panel by showing the lower zone, then clicking **Key Editor**  in the lower zone toolbar.

By default, the Key Editor displays the instrument on whose staff you have selected an item. However, you can also select the instruments you want to show in the Key Editor manually.





**1 Key Editor panel toolbar**

Contains tools that allow you to select and edit notes and items in the Key Editor.

**2 Key Editor ruler**

Displays bar numbers and shows beat divisions that match the current rhythmic grid resolution.

**3 Playhead**

Shows the current rhythmic position in playback.

**4 Header**

Displays the name of each editor and can contain further options, according to the editor.

**5 Primary editor**

Contains either the piano roll editor, percussion editor, or Tempo editor, depending on your most recent selection and whether the Key Editor is locked.

**6 Playing Techniques editor**

Displays where playing techniques are in use for the corresponding instrument or voice. Only available when a single instrument/voice is shown in the Key Editor.

**7 Additional editors**

You can add/close multiple additional editors below the piano roll/percussion editor, such as the Velocity and MIDI CC editors. You can save configurations of editors for use in other projects.

**8 Add Editor**

Allows you to add additional editors to the Key Editor.

**9 Presets**

Allows you to save, apply, and delete Key Editor configurations.

**10 Zoom controls**

Allow you to change the zoom manually, such as making notes wider and/or taller.

**11 Scroll bars**

Allow you to scroll vertically and horizontally in the Key Editor.

RELATED LINKS

[Hiding/Showing zones](#) on page 44

[Track overview](#) on page 486

[Voices](#) on page 1303

[Rhythmic grid](#) on page 204

[Changing the Key Editor rhythmic grid resolution](#) on page 626

[Adding/Closing editors in the Key Editor](#) on page 627

[Showing instruments in the Key Editor](#) on page 623

[Key Editor configurations](#) on page 664

[Played vs. notated note durations](#) on page 639

[Histogram tool](#) on page 659

[Transform tool](#) on page 663

## Key Editor panel toolbar

The Key Editor panel toolbar contains tools that allow you to select and edit notes and items in the Key Editor. It is located at the top of the Key Editor panel in the lower zone.

### Select



Allows you to select items in the Key Editor, such as notes in the piano roll editor or velocity bars in the Velocity editor, including by clicking and dragging marquee selections.

You can also select **Select** by pressing **Shift-Alt/Opt-1**.

### Draw



Allows you to input notes in the piano roll and percussion editors. The end positions and minimum durations of notes follow the current Key Editor rhythmic grid resolution.

You can also select **Draw** by pressing **Shift-Alt/Opt-2**.

### Drumstick



Allows you to set a different rhythmic duration for each unpitched percussion instrument independently, and input sequences of notes with the corresponding duration by clicking and dragging in the percussion editor.

Also allows you to delete notes by clicking them.

Only available in the percussion editor.

You can also select **Drumstick** by pressing **Shift-Alt/Opt-3** when the percussion editor is shown.

### Line



Allows you to draw straight lines between two points. Not available in the piano roll editor or percussion editor.

### Transform



Allows you to make Transform selections, and use Transform controls on the selected range. Only available in the Velocity and MIDI CC editors.

### Sync Region



Copies data from the primary track to secondary tracks. Only available in the Dynamics and MIDI CC editors, and when multiple instruments are shown in the Key Editor.

### Delete



Deletes the selected items.

You can also delete selected items by pressing **Backspace or Delete**.

### Played Durations



Allows you to change when notes start/end in playback without affecting their notated durations. Displays the played durations of notes as a rectangle, above a thinner line that shows their notated duration.

### Notated Durations



Allows you to change the rhythmic duration of notes, which affects the position and notation of those notes. Displays the full, notated durations of notes as rectangles.

### Rhythmic Grid



Allows you to change the rhythmic grid resolution for the Key Editor. The Key Editor rhythmic grid resolution affects the minimum duration of the notes you input, the number of grid lines, and certain aspects of inputting and editing, such as the amount by which you can drag notes to the right/left. The button updates to show the current rhythmic grid resolution.

### Playing Techniques



Hides/Shows the Playing Techniques editor.

### Voice selector



Allows you to select the voice whose notes you want to appear highlighted in the piano roll and into which you want to input notes. Automatically updates according to your current selection.

When multiple instruments are shown in the Key Editor, only voices belonging to the primary instrument are available.

### Resize Lower Zone



Allows you to change the height of the lower zone.

#### TIP

- You can right-click and hold in the Key Editor to access tools in the quick tool selector.

- You can also select tools by pressing **Shift-Alt/Opt-1** to **Shift-Alt/Opt-6**. The tool selected by each key command depends on the tools currently available in the Key Editor panel toolbar, counted from left to right.
- 

#### RELATED LINKS

- [Notes in the Key Editor](#) on page 630
- [Playing Techniques editor](#) on page 641
- [Velocity editor](#) on page 642
- [Dynamics editor](#) on page 645
- [MIDI CC editor](#) on page 651


## Showing instruments in the Key Editor

You can show specific instruments in the Key Editor, change the primary instrument, and lock the Key Editor to keep those instruments in view. For example, if you want to draw MIDI points for all string instruments in your project simultaneously.

By default, the Key Editor is unlocked and follows the current selection in either the music area or track overview.

For example, if your most recent selection was a Flute note or the Flute track, that Flute is shown in the piano roll editor. If your most recent selection was a tempo mark or the Tempo track, the Tempo editor is shown in the Key Editor, provided you had not already added the Tempo editor manually.

#### PREREQUISITE

- The lower zone is shown.
- **Key Editor**  is selected in the lower zone toolbar.
- Your most recently selected item belonged to an instrument, so that either the piano roll or percussion editor is shown in the Key Editor.

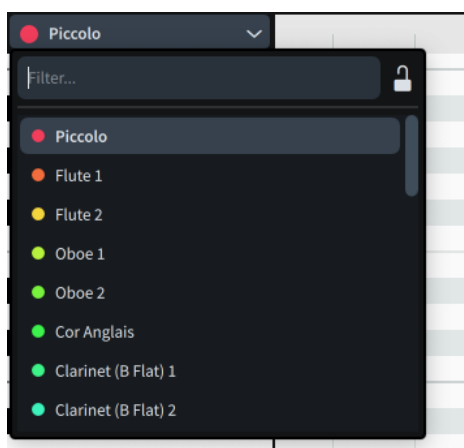
#### NOTE

You cannot add editors to the Key Editor when the Tempo editor is the primary editor.

---

#### PROCEDURE

1. In the piano roll/percussion editor header, click the instrument menu, then select the instrument you want to show as the primary instrument.



2. To lock the Key Editor and keep the selected instrument in view, click **Lock Key Editor** .

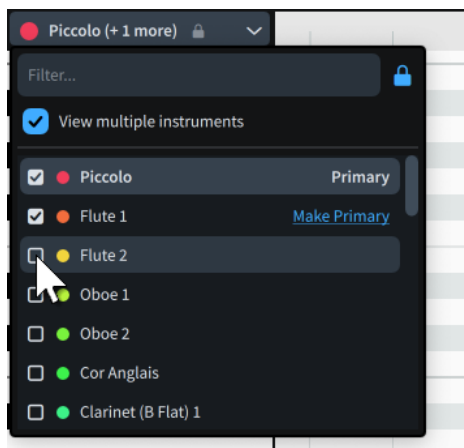
3. To show multiple instruments in the Key Editor simultaneously, activate **View multiple instruments**.

NOTE

You can only show multiple pitched instruments in the Key Editor. You cannot show multiple unpitched percussion instruments, or unpitched percussion instruments in addition to pitched instruments.

---

4. Activate each instrument you want to show in the Key Editor.



5. Optional: Click **Make Primary** beside the instrument you want to designate as the new primary instrument.
- 

RESULT

The Key Editor shows the selected instruments. If you locked the Key Editor, including if you optionally selected multiple instruments, it no longer follows your most recent selection.

TIP

You can assign key commands for the following commands on the **Key Commands** page in **Preferences**:

- **Lock Key Editor to Selection** automatically shows in the Key Editor the instruments on whose staves you have selected notes/items in the music area, and locks the Key Editor to that selection.
  - **Toggle Key Editor Locked View** locks/unlocks the Key Editor.
- 

AFTER COMPLETING THIS TASK

- You can view, input, and edit notes, dynamic points, and MIDI points for all the instruments shown in the Key Editor.
- You can copy dynamic and MIDI points from the primary instrument to secondary instruments.

RELATED LINKS

- [Hiding/Showing zones](#) on page 44
- [Adding/Closing editors in the Key Editor](#) on page 627
- [Piano roll editor](#) on page 630
- [Percussion editor](#) on page 631
- [Dynamics editor](#) on page 645
- [MIDI CC editor](#) on page 651

[MIDI Pitch Bend editor](#) on page 650

[Tempo editor](#) on page 656

[Track overview](#) on page 486

[Enabling independent voice playback](#) on page 506


[Copying dynamic points to other instruments](#) on page 649

[Copying MIDI points to other instruments](#) on page 655

## Changing the height of the Key Editor



You can change the height of the whole Key Editor and each editor within it. For example, you can make the piano roll editor taller when inputting notes, and make the Velocity editor taller when changing note velocity.

### PREREQUISITE

- The lower zone is shown.
- **Key Editor**  is selected in the lower zone toolbar.

---

### PROCEDURE

- Do one of the following:
  - To change the height of the whole Key Editor, click and drag **Resize Lower Zone**  or the top edge of the lower zone upwards/downwards.
  - To change the height of individual editors, click and drag their splitters  upwards/downwards. When the mouse pointer is in the correct position, it appears as a split arrow.

### TIP

You can assign a key command for **Cycle Lower Zone Size** on the **Key Commands** page in **Preferences**, which makes the lower zone fill 25%, 50%, then 75% of the project window.

---

### RELATED LINKS


[Key Commands page in the Preferences dialog](#) on page 59

[Opening multiple project windows](#) on page 49

## Zooming in/out of the Key Editor


You can change the zoom level in the Key Editor; for example, you can zoom in vertically and horizontally to make notes appear taller and wider in the piano roll editor. This does not affect the height of the Key Editor.




### PREREQUISITE

- The lower zone is shown.
- **Key Editor**  is selected in the lower zone toolbar.

---

### PROCEDURE

1. Zoom in horizontally in any of the following ways:
  - Press **H**.
  - Click **Zoom In**  at the bottom of the Key Editor.
  - Click in the Key Editor ruler and drag upwards.

- **Ctrl/Cmd**-scroll upwards in the Key Editor ruler.
2. Zoom out horizontally in any of the following ways:
    - Press **G**.
    - Click **Zoom Out**  at the bottom of the Key Editor.
    - Click in the Key Editor ruler and drag downwards.
    - **Ctrl/Cmd**-scroll downwards in the Key Editor ruler.
  3. Zoom in vertically in any of the following ways:
    - Press **Ctrl/Cmd-Shift-H**.
    - Click **Zoom In**  on the right of the Key Editor.
    - **Ctrl/Cmd**-scroll upwards in the area to the left of the piano roll/percussion editor.
  4. Zoom out vertically in any of the following ways:
    - Press **Ctrl/Cmd-Shift-G**.
    - Click **Zoom Out**  on the right of the Key Editor.
    - **Ctrl/Cmd**-scroll downwards in the keyboard to the left of the piano roll.
- 


#### RELATED LINKS

- [Key Editor panel](#) on page 619
- [Zooming in/out of tracks](#) on page 501
- [Hiding/Showing zones](#) on page 44

## Scrolling in the Key Editor

You can scroll in any direction in the Key Editor; for example, to view higher/lower notes in the piano roll editor, or MIDI points in later bars in the MIDI CC editor.

#### PREREQUISITE

- The lower zone is shown.
  - **Key Editor**  is selected in the lower zone toolbar.
- 

#### PROCEDURE


- In the Key Editor, scroll in any of the following ways:
    - Click and drag the sliders on the right and bottom edges of the Key Editor.
    - Swipe in any direction on a touchpad.
    - To scroll vertically when using a mouse wheel, scroll upwards/downwards.
    - To scroll horizontally when using a mouse wheel, **Shift**-scroll upwards/downwards.
- 

## Changing the Key Editor rhythmic grid resolution

You can change the rhythmic grid resolution used for the Key Editor, independently of the rhythmic grid used outside of the Key Editor. The Key Editor rhythmic grid resolution affects the minimum duration of the notes you input, the number of grid lines, and certain aspects of inputting and editing, such as the amount by which you can drag notes to the right/left.


#### PREREQUISITE

- The lower zone is shown.

- **Key Editor**  is selected in the lower zone toolbar.
- If you want to use key commands, your most recent selection must have been in the Key Editor panel.

---

#### PROCEDURE

- Change the Key Editor rhythmic grid resolution in any of the following ways:
  - In the Key Editor panel toolbar, click **Rhythmic Grid**  and choose the resolution you want.
  - To decrease the rhythmic grid resolution, press **Alt/Opt-]**.
  - To increase the rhythmic grid resolution, press **Alt/Opt-[**.

---

#### RELATED LINKS


[Rhythmic grid](#) on page 204

[Notes in the Key Editor](#) on page 630

## Adding/Closing editors in the Key Editor

You can add/close all types of editors in the Key Editor, excluding the piano roll and percussion editors. You can also change the editor type shown in an existing editor.

#### PREREQUISITE



- The lower zone is shown.
- **Key Editor**  is selected in the lower zone toolbar.
- Your most recently selected item belonged to an instrument, so that either the piano roll or percussion editor is shown in the Key Editor.

#### NOTE

You cannot add editors to the Key Editor when the Tempo editor is the primary editor.

---

#### PROCEDURE

- Change the editors shown in the Key Editor in one of the following ways:
  - To add a new editor, click **Add Editor**  at the bottom left of the Key Editor.
  - To change the editor type shown in an existing editor, click the menu in its header and select an editor from the menu.
  - To close editors, click **Close Editor**  in their headers.

---


#### AFTER COMPLETING THIS TASK

You can save Key Editor configurations for use in other projects.

## Selecting items in the Key Editor

You can select notes and items, such as MIDI or dynamic points, in the Key Editor in the same ways.

#### PREREQUISITE



- The lower zone is shown.
- **Key Editor**  is selected in the lower zone toolbar.



- You have selected the instruments you want to show in the Key Editor.
- You have added the editors whose points you want to select.

---

#### PROCEDURE

1. Select the **Select** tool in any of the following ways:
  - Press **Shift-Alt/Opt-1**.
  - In the Key Editor panel toolbar, click **Select** .
  - In the Key Editor, right-click and hold to show the quick tool selector, move the mouse pointer to **Select** , then release the mouse.
2. Select notes or items in any of the following ways:
  - Click a single note or point.
  - **Ctrl/Cmd**-click or **Shift**-click multiple notes or points.
  - In one editor, click and drag across an area where you want to select everything.  
A blue rectangle indicates which notes or points will be selected when you release the mouse. We recommend that you click in one corner of the area you want to select and drag diagonally across to the other corner.

---

## Copying and pasting points in the Key Editor



You can copy and paste points in the Key Editor, including to other editors and repeating them directly after themselves in the same editor. For example, if you want to copy a pattern of MIDI points between different MIDI controllers.

#### NOTE

These steps describe copying/pasting points within/between editors belonging to the same instrument. However, you can also copy/paste dynamic and MIDI points between instruments.

---

#### PREREQUISITE

- The lower zone is shown.
- **Key Editor**  is selected in the lower zone toolbar.
- **Select**  is selected in the Key Editor panel toolbar.
- You have selected the instruments you want to show in the Key Editor.
- You have added the editors whose points you want to copy/paste.

---

#### PROCEDURE

1. In one of the open editors, select the points you want to copy.
2. Copy the selected points in any of the following ways:
  - Press **Ctrl/Cmd-C**.
  - Choose **Edit > Copy**.
3. Move the playhead to the position to which you want to paste the selected points.
4. Select the header of the editor into which you want to paste the selected points.
5. Paste the selected points in any of the following ways:
  - Press **Ctrl/Cmd-V**.

- Choose **Edit > Paste**.
- 

#### RESULT

The selected points are copied to the selected position and editor, without deleting them from their original positions. They apply to all instruments shown in the Key Editor.

#### NOTE

- All the points of gradual dynamics and combined/force dynamics input in Write mode are copied, even if you only selected a single point.
  - You can also repeat points immediately after themselves by selecting them, then pressing **R**. In each repetition, the earliest selected point replaces the last selected point.
  - You can also copy points by selecting them, then **Alt/Opt**-dragging them to the position where you want to paste them.
- 

#### RELATED LINKS

[Showing instruments in the Key Editor](#) on page 623

[Moving the playhead](#) on page 502



[Copying dynamic points to other instruments](#) on page 649

[Copying MIDI points to other instruments](#) on page 655

## Deleting points in the Key Editor

You can delete selected points from multiple editors simultaneously.

#### PREREQUISITE

- The lower zone is shown.
  - **Key Editor**  is selected in the lower zone toolbar.
  - **Select**  is selected in the Key Editor panel toolbar.
  - You have selected the instruments you want to show in the Key Editor.
  - You have added the editors whose points you want to delete.
- 


#### PROCEDURE

1. In any of the open editors, select the points you want to delete.

#### TIP

You can select points in multiple editors simultaneously.

---

2. Delete the selected points in any of the following ways:
    - Press **Backspace or Delete**.
    - In the Key Editor panel toolbar, click **Delete** .
- 

#### RESULT

The selected points are deleted.

Deleting dynamic points that overrode dynamics input in Write mode reverts those dynamics to their default points. Deleting the points of dynamics input in Write mode also deletes the corresponding dynamics.

Deleting tempo points also deletes their corresponding tempo marks or tempo mark signposts from layouts.

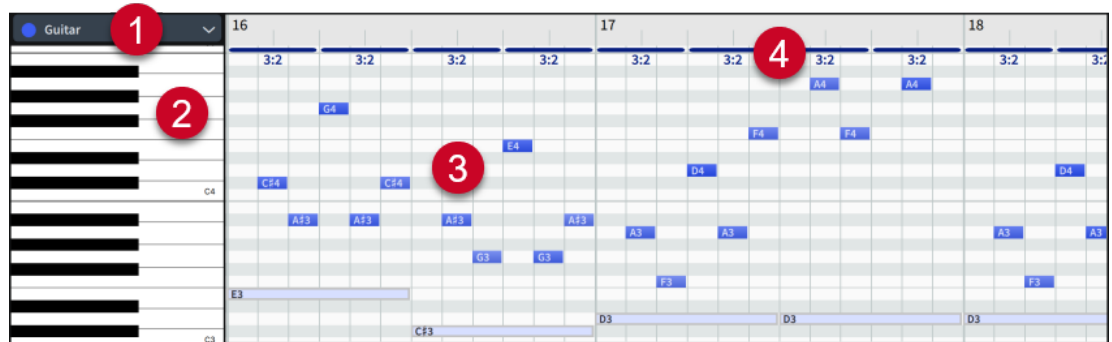
## Notes in the Key Editor

In the Key Editor, notes appear as colored rectangles in either the piano roll editor for pitched instruments, or the percussion editor for unpitched percussion instruments and percussion kits.

### Piano roll editor

The piano roll editor displays MIDI notes for pitched instruments in a continuous sequence. It is located in the Key Editor in the lower zone.

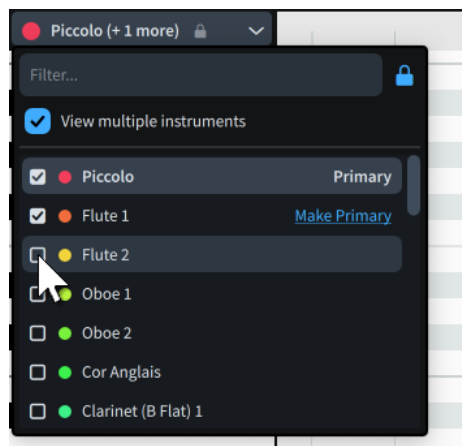
- You can show the piano roll editor by showing a pitched instrument in the Key Editor.



The piano roll editor comprises the following:

#### 1 Instrument menu

Allows you to select the instruments you want to show in the piano roll editor, and to change the primary instrument when multiple instruments are shown.



#### 2 Piano keyboard

Provides a reference for pitches.

#### 3 Piano roll

Displays the notes belonging to the instruments shown in the Key Editor. The horizontal position of notes indicates their rhythm, and their width indicates their duration. The vertical position of notes indicates their pitch. When notes are sufficiently tall and wide, pitches are also displayed inside each note.

Instruments are automatically assigned a color according to their player order in the current layout, so that you can tell them apart more easily. This color is used consistently for the corresponding instrument, including in the Mixer and Key Editor.

When multiple instruments are shown, notes belonging to the primary instrument appear solid and bold in the piano roll editor, while notes belonging to secondary instruments appear with gray outlines and pastel colors.

#### 4 Tuplets

Bars and ratios at the top of the piano roll editor indicate tuplets in the active voice.

You can input and edit notes in the piano roll editor, including moving and transposing them. This also updates their notation in all applicable layouts.

#### RELATED LINKS

[Played vs. notated note durations](#) on page 639

[Showing instruments in the Key Editor](#) on page 623

[Track overview](#) on page 486

[Mixer](#) on page 667

[Tuplets](#) on page 1271

[Voices](#) on page 1303

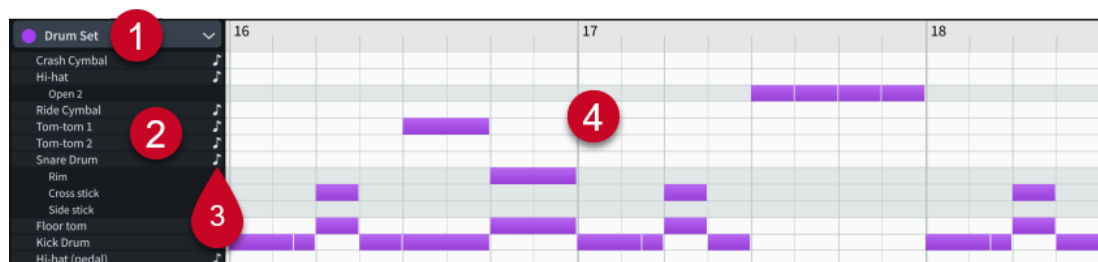
[Inputting notes into multiple voices](#) on page 221

[Changing the voice of existing notes](#) on page 442

## Percussion editor

The percussion editor displays MIDI notes for unpitched percussion instruments in a continuous sequence. It is located in the Key Editor in the lower zone.

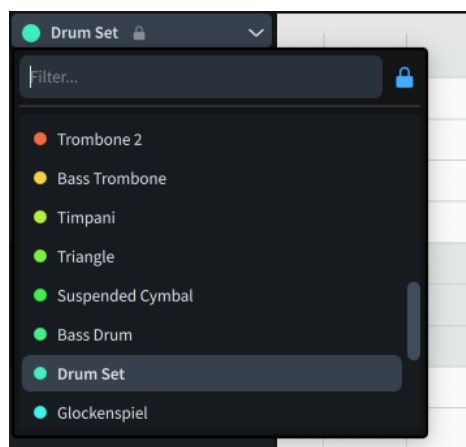
- You can show the percussion editor by showing an unpitched percussion instrument or percussion kit in the Key Editor.



The percussion editor comprises the following:

#### 1 Instrument menu


Allows you to select the instrument you want to show in the percussion editor. You can only show one percussion kit or individual percussion instrument at a time.



## 2 Percussion instrument names and playing techniques

In the percussion editor, each unpitched percussion instrument has its own row, including when they are in a percussion kit. Alternative playing techniques are listed beneath the corresponding unpitched percussion instrument.

## 3 Percussion Rhythmic Grid

Allows you to set a different default note duration for each unpitched percussion instrument independently. Only available when the **Drumstick**  tool is selected.

## 4 Percussion editor

Displays the notes belonging to the instruments shown in the Key Editor. The vertical position of notes indicates their instrument and playing technique, where applicable. The horizontal position of notes indicates their rhythm, and their width indicates their duration.

Instruments are automatically assigned a color according to their player order in the current layout, so that you can tell them apart more easily. This color is used consistently for the corresponding instrument, including in the Mixer and Key Editor. Percussion kits are assigned a single color for the whole kit.

### RELATED LINKS

[Percussion maps](#) on page 700

[Showing instruments in the Key Editor](#) on page 623

[Inputting notes using the Drumstick tool](#) on page 633


[Track overview](#) on page 486

[Playing techniques for unpitched percussion instruments](#) on page 1282

## Inputting notes in the Key Editor




You can input notes in the Key Editor, in either the piano roll editor for pitched instruments, or in the percussion editor for unpitched percussion instruments and percussion kits. Notes you input in the Key Editor also appear in all applicable layouts.

### PREREQUISITE

- The lower zone is shown.
- **Key Editor**  is selected in the lower zone toolbar.
- You have selected the instruments you want to show in the Key Editor.
- If you want to input notes into a specific voice for an instrument, you have created that voice in Write mode and input at least one note into it.
- You have chosen the appropriate rhythmic grid resolution.

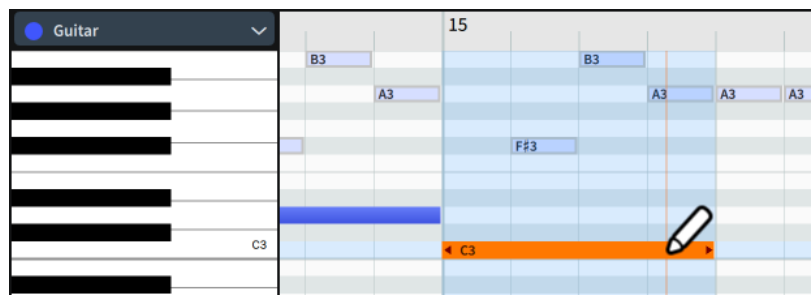
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### PROCEDURE

1. Optional: If you want to input notes into a specific voice, select it from the voice selector in the Key Editor panel toolbar.
2. Select the **Draw** tool in any of the following ways:
  - Press **Shift-Alt/Opt-2**.
  - In the Key Editor panel toolbar, click **Draw** .
  - In the Key Editor, right-click and hold to show the quick tool selector, move the mouse pointer to **Draw** , then release the mouse.
3. Click **Rhythmic Grid**  and choose the default note duration you want.
4. Input notes in any of the following ways:

- To input single notes with the default note duration, click in the piano roll/percussion editor at each rhythmic position where you want to input a note.
- To input notes with any duration, click and drag horizontally in the piano roll/percussion editor at the required pitch position and for the required duration.

As you drag, highlights help you to reference durations against the ruler, pitches against the piano keyboard in the piano roll editor, and notes against instruments/playing techniques in the percussion editor.



---

#### RESULT

For pitched instruments, notes are input at the pitches indicated by the piano keyboard on the left of the piano roll, and into the active voice indicated by the voice selector in the Key Editor panel toolbar.

For unpitched percussion instruments and kits, notes are input into the instrument in the corresponding row of the percussion editor.

When you click once, notes are input with the default note duration, set by the Key Editor rhythmic grid resolution. When you click and drag, their duration is determined by the width of your drag.

#### AFTER COMPLETING THIS TASK

You can change both the notated and played durations of notes.


#### RELATED LINKS

- [Hiding/Showing zones](#) on page 44
- [Zooming in/out of the Key Editor](#) on page 625
- [Changing the height of the Key Editor](#) on page 625
- [Changing the Key Editor rhythmic grid resolution](#) on page 626
- [Inputting notes into multiple voices](#) on page 221
- [Changing the voice of existing notes](#) on page 442
- [Enabling independent voice playback](#) on page 506
- [Played vs. notated note durations](#) on page 639




## Inputting notes using the Drumstick tool

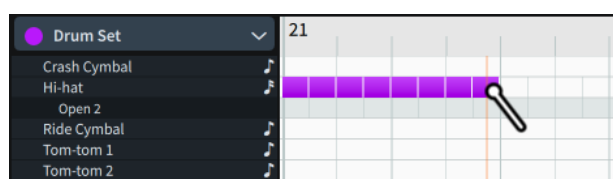
The **Drumstick** tool allows you to input notes with a different rhythmic duration for each unpitched percussion instrument independently.

#### PREREQUISITE

- The lower zone is shown.
- **Key Editor**  is selected in the lower zone toolbar.
- You have selected the unpitched percussion instrument or percussion kit you want to show in the Key Editor.

#### PROCEDURE

1. Select the **Drumstick** tool in any of the following ways:
  - Press **Shift-Alt/Opt-3**.
  - In the Key Editor panel toolbar, click **Drumstick** .
  - In the Key Editor, right-click and hold to show the quick tool selector, move the mouse pointer to **Drumstick** , then release the mouse.
2. In the percussion editor header, click **Percussion Rhythmic Grid**  for each instrument and choose its required note duration.  
For example, you might set quarter notes for the kick drum, and eighth notes for the hi-hat.
3. Input notes in any of the following ways:
  - To input single notes, click in the percussion editor at each rhythmic position where you want to input a note.
  - To input multiple notes, click and drag horizontally in the percussion editor.




---

#### RESULT

Notes are input with the note duration set for the corresponding instrument, either a single note per click, or to fill the region in which you clicked and dragged.

#### TIP


When **Drumstick**  is selected, you can also delete notes by clicking them.

---

## Moving notes in the Key Editor


You can move notes rhythmically in the Key Editor. This also affects how the selected notes are notated in all applicable layouts.

#### PREREQUISITE

- The lower zone is shown.
- **Key Editor**  is selected in the lower zone toolbar.
- You have selected the instruments you want to show in the Key Editor.
- You have chosen the appropriate rhythmic grid resolution.

---

#### PROCEDURE

1. In the Key Editor panel toolbar, click **Notated Durations**  to show notated note durations.
2. In the piano roll/percussion editor, select the notes you want to move rhythmically.
3. Move the selected notes in any of the following ways:
  - To move them to the right, press **Alt/Opt-Right Arrow**.
  - To move them to the left, press **Alt/Opt-Left Arrow**.
  - Click and drag them to the right/left.

TIP

As you drag, highlights help you to reference durations against the ruler, pitches against the piano keyboard in the piano roll editor, and notes against instruments/playing techniques in the percussion editor.

---

RESULT

The selected notes are moved to new rhythmic positions. If you selected multiple notes, they are moved together as a block.

Key commands move notes according to the current rhythmic grid resolution. Clicking and dragging moves notes according to the current Key Editor rhythmic grid resolution.

RELATED LINKS

[Hiding/Showing zones](#) on page 44

[Rhythmic grid](#) on page 204


[Changing the Key Editor rhythmic grid resolution](#) on page 626

[Moving percussion notes between instruments/playing techniques](#) on page 637


## Lengthening/Shortening notes in the Key Editor

You can change the notated duration of notes in the Key Editor. This also affects how the selected notes are notated in all applicable layouts.

PREREQUISITE

- The lower zone is shown.
- **Key Editor**  is selected in the lower zone toolbar.
- You have selected the instruments you want to show in the Key Editor.
- You have chosen the appropriate rhythmic grid resolution.

PROCEDURE

1. In the Key Editor panel toolbar, click **Notated Durations**  to show notated note durations.
2. In the piano roll/percussion editor, select the notes you want to lengthen/shorten.
3. Lengthen/Shorten the selected notes in any of the following ways:
  - To lengthen notes by the current rhythmic grid resolution, press **Shift-Alt/Opt-Right Arrow**.
  - To shorten notes by the current rhythmic grid resolution, press **Shift-Alt/Opt-Left Arrow**.
  - To double the length of notes, press **Ctrl/Cmd-Shift-Alt/Opt-Right Arrow**.
  - To halve the length of notes, press **Ctrl/Cmd-Shift-Alt/Opt-Left Arrow**.
  - Click and drag the right end of one of the selected notes to the length you want.

TIP

As you drag, highlights help you to reference durations against the ruler, pitches against the piano keyboard in the piano roll editor, and notes against instruments/playing techniques in the percussion editor.

---



#### RESULT

The selected notes are lengthened/shortened.

Key commands lengthen/shorten notes according to the current rhythmic grid resolution. Clicking and dragging lengthens/shortens notes according to the current Key Editor rhythmic grid resolution.

#### RELATED LINKS

[Selecting items in the Key Editor](#) on page 627

[Note durations](#) on page 247

[Played vs. notated note durations](#) on page 639

[Rhythmic grid](#) on page 204


[Changing the Key Editor rhythmic grid resolution](#) on page 626

[Enabling independent voice playback](#) on page 506

## Transposing notes in the piano roll editor

You can transpose notes in the piano roll editor by moving them vertically to other pitch positions. This also affects how the selected notes are notated in all applicable layouts.

#### PREREQUISITE

- The lower zone is shown.
- **Key Editor**  is selected in the lower zone toolbar.
- You have selected the instruments you want to show in the Key Editor.

---

#### PROCEDURE

1. In the piano roll editor, select the notes you want to transpose.
2. Transpose the notes in any of the following ways:
  - To move notes up one staff position, such as from C to D, press **Alt/Opt-Up Arrow**.
  - To move notes down one staff position, such as from D to C, press **Alt/Opt-Down Arrow**.
  - To transpose notes up a single octave division, such as a half-step (semitone) in 12-EDO or a quarter tone in 24-EDO, press **Shift-Alt/Opt-Up Arrow**.
  - To transpose notes down a single octave division, such as a half-step (semitone) in 12-EDO or a quarter tone in 24-EDO, press **Shift-Alt/Opt-Down Arrow**.
  - To transpose notes up an octave, press **Ctrl/Cmd-Alt/Opt-Up Arrow**.
  - To transpose notes down an octave, press **Ctrl/Cmd-Alt/Opt-Down Arrow**.
  - Click and drag them upwards/downwards.

#### TIP

As you drag, highlights help you to reference durations against the ruler, and pitches against the piano keyboard.

---

#### RESULT

The selected notes are transposed according to their new pitch positions in the piano roll editor.

#### RELATED LINKS

[Hiding/Showing zones](#) on page 44


[Equal Division of the Octave \(EDO\)](#) on page 918

[Transposing tools](#) on page 444

## Moving percussion notes between instruments/playing techniques

You can move notes to other instruments and playing techniques in the percussion editor; for example, if you want hi-hat notes to be played on a cymbal instead. This also affects how the selected notes are notated in all applicable layouts.

### PREREQUISITE

- The lower zone is shown.
- **Key Editor**  is selected in the lower zone toolbar.
- You have selected the unpitched percussion instrument or percussion kit you want to show in the Key Editor.

---

### PROCEDURE

1. In the percussion editor, select the notes you want to move to other instruments/playing techniques.
2. Move the notes in any of the following ways:
  - To move notes to the instrument above, press **Alt/Opt-Up Arrow**.
  - To move notes to the instrument below, press **Alt/Opt-Down Arrow**.
  - To cycle notes upwards through the playing techniques of their current instrument, press **Shift-Alt/Opt-Up Arrow**.
  - To cycle notes downwards through the playing techniques of their current instrument, press **Shift-Alt/Opt-Down Arrow**.
  - Click and drag them upwards/downwards.

### TIP

As you drag, highlights help you to reference durations against the ruler, and notes against instruments/playing techniques.

---

### RESULT

The selected notes are moved to the instrument/playing technique in the corresponding row in the percussion editor.

### RELATED LINKS



[Percussion editor](#) on page 631

[Playing techniques for unpitched percussion instruments](#) on page 1282

## Copying and pasting notes in the Key Editor

You can copy and paste notes in the piano roll and percussion editors, including to other pitched instruments and voices, and repeating them directly after themselves.

### PREREQUISITE

- The lower zone is shown.
- **Key Editor**  is selected in the lower zone toolbar.
- **Select**  is selected in the Key Editor panel toolbar.
- You have selected the instruments you want to show in the Key Editor.

#### PROCEDURE

1. In the piano roll/percussion editor, select the notes you want to copy.
2. Copy the selected notes in any of the following ways:
  - Press **Ctrl/Cmd-C**.
  - Choose **Edit > Copy**.
3. Move the playhead to the position to which you want to paste the selected notes.
4. Optional: If you want to paste notes to another instrument, make that instrument the primary instrument.
5. Optional: If you want to paste notes into another voice, select that voice from the voice selector in the Key Editor toolbar.
6. Paste the selected notes in any of the following ways:
  - Press **Ctrl/Cmd-V**.
  - Choose **Edit > Paste**.

---

#### RESULT

The selected notes are copied to the selected position, instrument, and voice, without deleting them from their original positions. By default, any MIDI CC points in the copied range are also pasted.

#### TIP

- You can also repeat notes immediately after themselves by selecting them, then pressing **R**.
- You can also copy notes by selecting them, then **Alt/Opt**-dragging them to the position where you want to paste them.

---

#### RELATED LINKS

[Moving the playhead](#) on page 502

[Disabling automatic copying of MIDI data when pasting](#) on page 436

[Copying dynamic points to other instruments](#) on page 649


[Copying MIDI points to other instruments](#) on page 655

[Copying and pasting notes/items](#) on page 433

## Deleting notes in the Key Editor



You can delete notes in the Key Editor. This also removes notes from all applicable layouts.


#### PREREQUISITE

- The lower zone is shown.
- **Key Editor**  is selected in the lower zone toolbar.
- You have selected the instruments you want to show in the Key Editor.

---

#### PROCEDURE


1. Optional: If **Select**  is selected in the Key Editor panel toolbar, select the notes you want to delete in the piano roll/percussion editor.
2. Delete notes in any of the following ways:
  - Press **Backspace or Delete**.
  - In the Key Editor panel toolbar, click **Delete** .

- In the Key Editor panel toolbar, click **Drumstick** , then click each note you want to delete in the percussion editor.
- 

## Played vs. notated note durations

In the Key Editor, you can show notes with their played duration or notated duration.


### Played duration

When **Played Durations**  is selected in the Key Editor panel toolbar, notes in the piano roll/percussion editor are each shown with two components:

- A filled, light-colored rectangle showing the played duration of the note.
- A thin, darker rod showing the notated duration of the note.

This allows you to change the played, sounding duration of notes. For example, notes with staccato articulations are played for less time than their notated duration, whereas notes under slurs are played for longer than their notated duration.

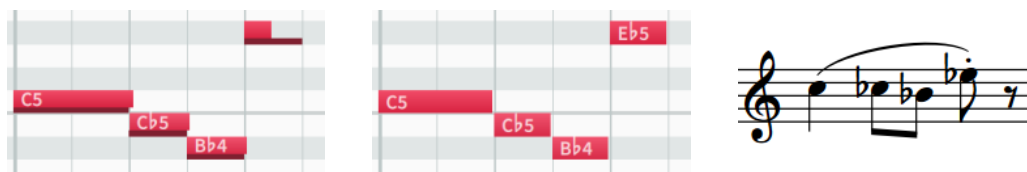
### Notated duration

When **Notated Durations**  is selected in the Key Editor panel toolbar, notes in the piano roll/percussion editor appear as single rectangles whose width corresponds to the notated duration of the note. This allows you to change the duration of notes.

---

#### EXAMPLE

The following examples all contain the same musical phrase, shown in different ways.



The image shows three representations of a musical phrase. On the left, 'Played duration' shows a piano roll with three notes: C5, Cb5, and Bb4. Each note is represented by a light red rectangle (played duration) and a thin dark red rod (notated duration). The played duration for C5 is shorter than its notated duration, while for Cb5 and Bb4, it is longer. In the middle, 'Notated duration' shows the same three notes as single red rectangles, where the width of each rectangle corresponds to its notated duration. On the right, 'Score' shows the musical phrase on a treble clef staff with a slur over the notes C5, Bb4, and Cb5, followed by a fermata.

Played duration                      Notated duration                      Score

---


#### RELATED LINKS

- [Key Editor panel toolbar](#) on page 621
- [Slurs in playback](#) on page 1178
- [Articulations in playback](#) on page 728
- [Changing the duration of notes](#) on page 248
- [Lengthening/Shortening notes in the Key Editor](#) on page 635

## Changing the played duration of notes

You can change the played duration of notes individually, both at the start and end of notes. For example, you can make notes sound for longer, or start sounding later.


#### PREREQUISITE

- The lower zone is shown.
- **Key Editor**  is selected in the lower zone toolbar.

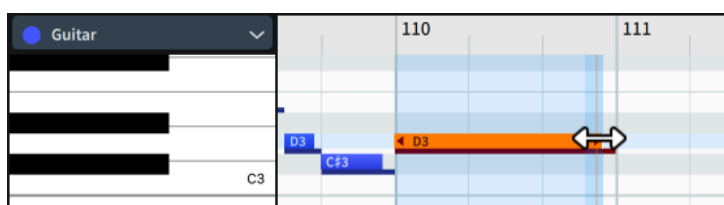
- You have selected the instruments you want to show in the Key Editor.

---

PROCEDURE

1. In the Key Editor panel toolbar, click **Played Durations**  to show played note durations.
2. In the piano roll/percussion editor, select the notes whose played duration you want to change.
3. Click and drag the start or end of one of the notes to the right/left.

When the mouse pointer is in the correct position, it appears as a split arrow.




---

RESULT

The played duration of the selected notes is changed.

TIP

You can assign key commands for increasing/decreasing playback start/end offsets in **Preferences > Key Commands > Note Editing**. You can use these commands when **Played Durations**  is selected in the Key Editor panel toolbar.

---

RELATED LINKS

[Selecting items in the Key Editor](#) on page 627

[Key Commands page in the Preferences dialog](#) on page 59

## Resetting playback overrides

You can remove all changes made to how individual notes play back; for example, if you previously changed the played duration of notes and want to revert them to their default start position, length, and velocity.

Removing playback overrides also removes any offsets to the start and end position of notes imported from MIDI files with preserved note positions.

NOTE

Any note velocities that are set on notes are reflected in playback, including from imported MIDI files or MIDI recording. If you want dynamics you input in Write mode to be reflected in playback instead, you must remove playback overrides.

---

PROCEDURE

1. Select the notes whose playback overrides you want to reset.  
You can do this in the music area, piano roll editor, percussion editor, or Velocity editor.
2. Choose **Play > Reset Playback Overrides**.

---

RESULT


All playback overrides are removed from the selected notes.

#### RELATED LINKS

- [Large selections](#) on page 403
- [Selecting/Deselecting notes and items individually](#) on page 401
- [Music area](#) on page 35
- [Piano roll editor](#) on page 630
- [Percussion editor](#) on page 631
- [Resetting note velocity](#) on page 644
- [MIDI recording](#) on page 252
- [Importing MIDI](#) on page 85
- [Opening projects/files](#) on page 72

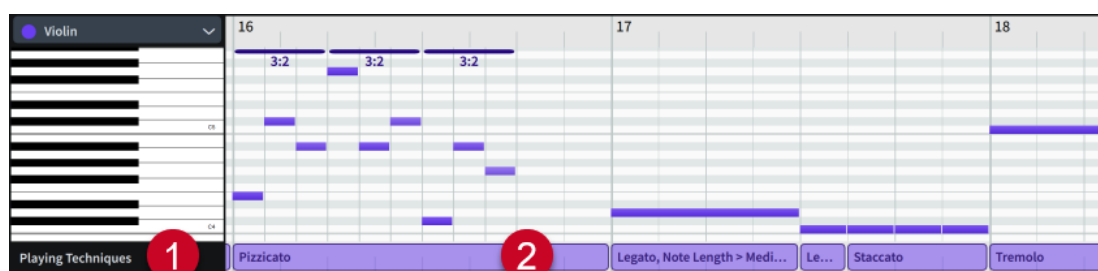
## Playing Techniques editor

The Playing Techniques editor displays where playing techniques are in use for the corresponding instrument or voice; for example, as a result of inputting playing techniques, slurs, or articulations. It is located in the Key Editor in the lower zone.

- You can hide/show the Playing Techniques editor by clicking **Playing Techniques**  in the Key Editor panel toolbar.

#### NOTE

You can only show the Playing Techniques editor when a single instrument/voice is shown in the Key Editor.



The Playing Techniques editor comprises the following:

#### 1 Editor header

Displays the name of the editor.

#### 2 Playing technique regions

Display the playing technique and note length condition that apply to notes in the region. You can hover your mouse pointer over playing technique regions to see the following related information:

- Any playback techniques, switches, and other effects in place, such as adjustments for articulations
- Expression map used for the region
- Channel in the VST or MIDI instrument used for the region
- VST or MIDI instrument used for the region

#### NOTE

You cannot change playing techniques in the Playing Techniques editor. You can only change them in Write mode.

---

#### RELATED LINKS

[Hiding/Showing zones](#) on page 44

[Playing techniques](#) on page 1062

[Input methods for playing techniques, pedal lines, string indicators, and harp pedal diagrams](#) on page 351

[Playback techniques](#) on page 706

[Expression maps](#) on page 682

[Showing instruments in the Key Editor](#) on page 623

[Moving percussion notes between instruments/playing techniques](#) on page 637

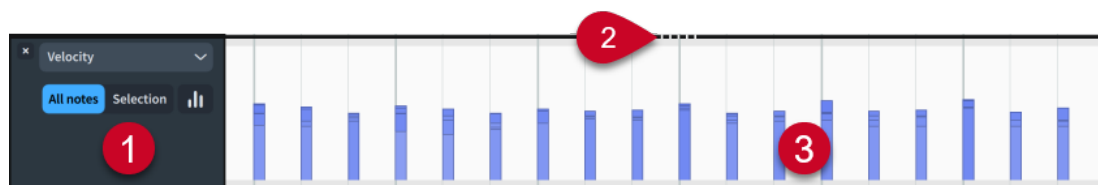
[Enabling independent voice playback](#) on page 506

## Velocity editor

The velocity editor allows you to view and edit the velocity of notes belonging to the instruments/voices shown in the Key Editor. It is located in the Key Editor in the lower zone.

- You can show the Velocity editor by adding an editor to the Key Editor, then selecting **Velocity** from the editor menu.





Velocity is often used to control the dynamics of non-sustaining instruments.



The Velocity editor comprises the following:

### 1 Editor header

Contains the following options:

- Editor menu:** Allows you to change the MIDI controller or editor type shown in the editor. MIDI controllers into which you have already input points appear in the first menu level.
- Velocity edit scope:** Allows you to change the scope of changes you make to velocity values. Only available when **Draw** , **Line** , or **Transform**  is selected in the Key Editor panel toolbar.
  - All notes:** Allows you to edit the velocity of all notes shown in the Velocity editor.
  - Selection:** Allows you to edit the velocity of selected notes only.
- Histogram** : Shows the Histogram tool in the editor.

### 2 Splitter

Allows you to change the height of the editor by clicking and dragging. If multiple editors are open, this affects the height of the editors either side of the splitter.

### 3 Velocity bars

Velocities appear as vertical bars in the Velocity editor. Every note has its own velocity bar and a velocity value. When multiple notes exist at the same rhythmic position, such as in chords, the velocities for all notes appear stacked on top of each other, ordered by their value.

Velocity bars with higher values appear with bolder colors.

You can select velocity bars directly in the Velocity editor or by selecting their corresponding notes, in either the piano roll editor, percussion editor, or music area.

TIP

- Clicking and dragging velocity bars causes a read-out to appear temporarily, showing their value.
  - You can use the Histogram and Transform tools to change velocity values.
- 


RELATED LINKS

- [Key Editor panel](#) on page 619
- [Key Editor panel toolbar](#) on page 621
- [Histogram tool](#) on page 659
- [Transform tool](#) on page 663
- [Hiding/Showing zones](#) on page 44
- [Adding/Closing editors in the Key Editor](#) on page 627
- [Showing instruments in the Key Editor](#) on page 623
- [Inputting notes](#) on page 211
- [Inputting notes into multiple voices](#) on page 221
- [Inputting notes in the Key Editor](#) on page 632
- [Voices](#) on page 1303








## Changing the velocity of notes

You can change the velocity of notes individually, including for a single note in a chord, or to create a consistent increase/decrease in velocity across a range of notes.



PREREQUISITE

- The lower zone is shown.
  - **Key Editor**  is selected in the lower zone toolbar.
  - You have selected the instruments you want to show in the Key Editor.
  - You have added the Velocity editor to the Key Editor.
- 

PROCEDURE

1. Select one of the following tools, depending on how you want to change velocities:
  - To change the velocity of selected notes, select **Select** by pressing **Shift-Alt/Opt-1** or clicking **Select**  in the Key Editor panel toolbar.
  - To change the velocity using free shapes, select **Draw** by pressing **Shift-Alt/Opt-2** or clicking **Draw**  in the Key Editor panel toolbar.
  - To change the velocity using consistent slopes, select **Line** by clicking **Line**  in the Key Editor panel toolbar.
2. Optional: If you selected **Select** , select the notes whose velocity you want to change, such as individual notes in chords. This also selects their velocity bars.
3. Optional: If you selected either the **Draw**  tool or **Line**  tool, choose one of the following velocity edit scopes in the Velocity editor header:
  - **All notes**
  - **Selection**
4. In the Velocity editor, change the velocity in one of the following ways:
  - If you selected **Select** , click and drag the top of one of the selected velocity bars upwards/downwards.



- If you selected **Draw** , click and draw any shape across the required range.
  - If you selected **Line** , click and drag a line across the required range.
- 

#### RESULT

The velocity of the affected notes is changed. If you selected the **Selection** velocity edit scope, this only applies to selected velocity bars.

#### TIP


You can also use the Transform and Histogram tools to change velocities on a large scale in different ways.

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
## Resetting note velocity

You can remove changes you have made to the velocity of notes and reset them to their default velocity. You can do this for all notes belonging to an instrument, all notes in a specific voice, or only selected notes.

#### PREREQUISITE

- The lower zone is shown.
  - **Key Editor**  is selected in the lower zone toolbar.
  - You have selected the instruments you want to show in the Key Editor.
  - You have added the Velocity editor to the Key Editor.
- 

#### PROCEDURE

1. In the Velocity editor header, activate **Histogram**  to show the Histogram tool.
  2. At the top of the Histogram tool, choose one of the following filters:
    - **All notes**
    - **Voice**
    - **Selection**
  3. Click **Reset**.
- 

#### RESULT

Any changes you have made to the velocity of notes in the selected filter are reset.

#### NOTE

This also resets the played duration of the selected notes.

---

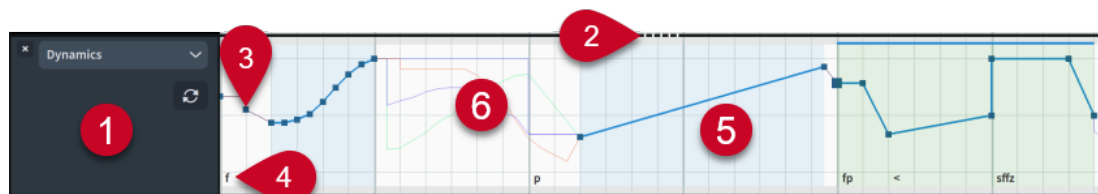
#### RELATED LINKS

- [Histogram tool](#) on page 659
- [Selecting items in the Key Editor](#) on page 627
- [Resetting playback overrides](#) on page 640

## Dynamics editor

The Dynamics editor allows you to view, input, and edit dynamics for the instruments/voices shown in the Key Editor. It is located in the Key Editor in the lower zone.


- You can show the Dynamics editor by adding an editor to the Key Editor, then selecting **Dynamics** from the editor menu.



The Dynamics editor comprises the following:

### 1 Editor header

Contains the following options:

- Editor menu:** Allows you to change the MIDI controller or editor type shown in the editor. MIDI controllers into which you have already input points appear in the first menu level.
- Sync** : Copies all points in the editor from the primary instrument to secondary instruments. Only available when multiple instruments are shown in the Key Editor.

### 2 Splitter

Allows you to change the height of the editor by clicking and dragging. If multiple editors are open, this affects the height of the editors either side of the splitter.

### 3 Dynamic point

An immediate change in dynamic, input either in Write mode or using the **Draw** tool in the Dynamics editor. Immediate dynamic points are constant by default.

The maximum range of dynamic levels is from 8 to -8, loudest to quietest.

- Dynamic level 3 is equivalent to the dynamic *fff*.
- Dynamic level 0 is equivalent to the dynamic *mf*.
- Dynamic level -3 is equivalent to the dynamic *ppp*.

#### NOTE

- Clicking and dragging dynamic points causes a read-out to appear temporarily, showing their dynamic level.
- Only points that are identical for all instruments shown in the Key Editor are editable.

### 4 Dynamic text

Shows the dynamic level or crescendo/diminuendo symbol of dynamics input in Write mode; that is, dynamic points that correspond to notation items.

### 5 Dynamic region

Blue highlighted regions contain multiple points, input by clicking and dragging in a single motion in the Dynamics editor with either the **Draw** tool or **Line** tool. By default, dynamic points in regions input in the Dynamics editor are linear.

Green highlighted regions represent gradual dynamics and combined/force dynamics, such as *fp* and *sffz*, input in Write mode.

Thin blue bars at the top of the Editor represent dynamic groups.

#### NOTE

- Only points that are identical for all instruments shown in the Key Editor are editable.
- Dynamic regions that you input in the Dynamics editor override default playback adjustments for dynamics, such as humanization and increased dynamics for notes with accents. However, the dynamic curve setting still applies to dynamic regions.
- Default playback adjustments for dynamics, such as humanization and increased dynamics for notes with accents, still apply to notes within gradual dynamics that you input in Write mode.
- Start and end points for *messa di voce* regions are linked and always have the same value.
- Because the points of combined/force dynamics correspond to parameters of their envelopes, they function differently than other dynamic points. Combined dynamics have three points, while force dynamics have four points.

For example, if you change the value of the second point of a force dynamic, the third point also moves because it controls the duration of the second point; they always have the same value. Similarly, you cannot move combined/force dynamic points outside their regions.

---

## 6 Dynamic value line

When multiple instruments are shown in the Key Editor, a value line is shown for each instrument, using its color.


#### RELATED LINKS

- [Key Editor panel](#) on page 619
- [Hiding/Showing zones](#) on page 44
- [Adding/Closing editors in the Key Editor](#) on page 627
- [Showing instruments in the Key Editor](#) on page 623
- [Dynamics](#) on page 828
- [Groups of dynamics](#) on page 853
- [Input methods for dynamics](#) on page 296
- [Changing dynamic levels](#) on page 835
- [Rhythmic grid](#) on page 204

## Inputting dynamic points


You can input single dynamic points and dynamic regions in the Dynamics editor. Dynamic points that you input in the Dynamics editor do not appear in layouts.


#### PREREQUISITE

- The lower zone is shown.
- **Key Editor**  is selected in the lower zone toolbar.
- You have selected the instruments you want to show in the Key Editor.
- You have added the Dynamics editor to the Key Editor.

---

#### PROCEDURE

1. Select one of the following tools, depending on the type of dynamic points you want to input:
  - To input single dynamic points, or dynamic regions containing multiple dynamic points at regular intervals, select **Draw** by pressing **Shift-Alt/Opt-2** or clicking **Draw**  in the Key Editor panel toolbar.

- To input smooth dynamic regions, select **Line** by clicking **Line**  in the Key Editor panel toolbar.
2. Input dynamic points in one of the following ways:
    - To input single dynamic points, click in the Dynamics editor at each position where you want a dynamic point.
    - To input a dynamic region containing multiple dynamic points at regular intervals, click and drag in a single motion in the Dynamics editor.
    - To input smooth dynamic regions, click and drag in the Dynamics editor from where you want the region to start to where you want it to end.
- 

#### RESULT

Dynamic points are input for all instruments shown in the Key Editor.

- If you used the **Draw** tool, separate dynamic points are input at each position you clicked.
- If you clicked and dragged in a single motion using the **Draw** tool, dynamic points are input at 32nd note intervals in a dynamic region.
- If you used the **Line** tool, two dynamic points are input in a dynamic region, one at each end of the dragged range.

By default, dynamic points input using the **Draw** tool are constant, while dynamic points in dynamic regions are linear.

Dynamic regions appear with highlighted regions in the Dynamics editor.

Dynamic points input in the Dynamics editor affect playback, but are not shown in layouts.



#### NOTE

- Inputting dynamic points/events at the positions of dynamics input in Write mode overrides default playback adjustments for those dynamics. Single dynamic points only override the dynamic level. Dynamic regions also override, for example, humanization and increased dynamics for notes with accents. However, the dynamic curve setting still applies to dynamic regions.
  - For sound libraries that use MIDI CC 1 to control dynamics, the MIDI CC editor for CC 1 displays values from the dynamics you input, including dynamic points, combined with humanization.
- 

## Moving dynamic points

You can move individual dynamic points, including moving them upwards and downwards to change their dynamic level. For example, if you want individual dynamics to take effect slightly earlier, or to adjust the volume of specific existing dynamics.

#### PREREQUISITE

- The lower zone is shown.
  - **Key Editor**  is selected in the lower zone toolbar.
  - **Select**  is selected in the Key Editor panel toolbar.
  - You have selected the instruments you want to show in the Key Editor.
  - You have added the Dynamics editor to the Key Editor.
- 

#### PROCEDURE

1. In the Dynamics editor, select the dynamic points you want to move.

TIP

To move dynamics input in Write mode rhythmically, you can select only their start point, including for gradual dynamics and combined/force dynamics that have multiple points.

---

2. Move the selected dynamic points in any of the following ways:

- Click and drag them in any direction.

NOTE

You can only move dynamics input in Write mode either horizontally or vertically at a time.

---

- To move dynamic points to the right/left only, hold **Shift** while dragging them to the right/left.
- To move dynamic points upwards/downwards only, hold **Shift** while dragging them upwards/downwards.
- To move a single dynamic input in Write mode to the next notehead on the staff, press **Alt/Opt-Right Arrow**.
- To move a single dynamic input in Write mode to the previous notehead on the staff, press **Alt/Opt-Left Arrow**.
- To move dynamic points to the right according to the current rhythmic grid resolution, press **Ctrl/Cmd-Alt/Opt-Right Arrow**.
- To move dynamic points to the left according to the current rhythmic grid resolution, press **Ctrl/Cmd-Alt/Opt-Left Arrow**.

NOTE

When multiple dynamics are selected, you can only move them according to the current rhythmic grid resolution.

---

RESULT

The selected dynamic points are moved to new positions. Moving them to the right/left affects their rhythmic positions. Moving them upwards/downwards affects their dynamic level.

Moving the end points of gradual dynamics to the right/left lengthens/shortens the corresponding gradual dynamics rhythmically. Their notated length is automatically updated in all applicable layouts.

NOTE

- Moving dynamic points for linked dynamics affects all linked dynamics.
  - You cannot drag dynamics input in Write mode beyond other existing dynamic points during the same move. Releasing the mouse causes the moved dynamic points to change the value of the existing dynamic point.
- 

RELATED LINKS

[Linked dynamics](#) on page 855

[Gradual dynamics](#) on page 842


[Changing dynamic levels](#) on page 835

[Lengthening/Shortening items](#) on page 410

## Copying dynamic points to other instruments



When multiple instruments are shown in the Key Editor, you can copy dynamic points from the primary instrument to secondary instruments. You can copy only individual points and regions, or all points belonging to the primary instrument in the selected flow.

### PREREQUISITE

- The lower zone is shown.
- **Key Editor**  is selected in the lower zone toolbar.
- You have added the Dynamics editor to the Key Editor.
- Multiple instruments are shown in the Key Editor.

---

### PROCEDURE

1. Optional: If you want to sync individual dynamic points or regions only, click **Sync Region**  in the Key Editor panel toolbar to select **Sync Region**.
2. In the Dynamics editor, do one of the following:
  - To copy individual dynamic points or regions, click each dynamic point and region, or click and drag across multiple dynamic points and regions.
  - To copy all dynamic points in the current flow, click **Sync**  in the editor header.

---

### RESULT

The corresponding dynamic points are copied from the primary instrument to secondary instruments, and become editable for all instruments shown in the Key Editor.

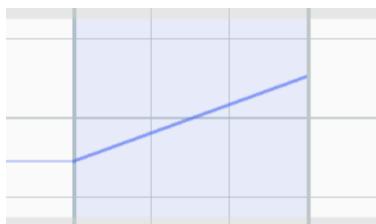
Existing dynamic points in the affected regions belonging to secondary instruments are overwritten.

### TIP

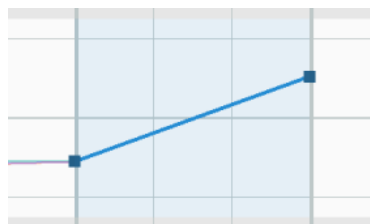
When multiple instruments are shown in the Key Editor, you can input dynamic points for all instruments directly.

---

### EXAMPLE



Dynamic region in primary instrument only



Dynamic region copied to secondary instruments

---

### RELATED LINKS

[Adding/Closing editors in the Key Editor](#) on page 627

[Showing instruments in the Key Editor](#) on page 623

[Selecting items in the Key Editor](#) on page 627

[Switching between flows in the track overview](#) on page 487

[Copying and pasting points in the Key Editor](#) on page 628

## MIDI Pitch Bend editor

The MIDI Pitch Bend editor allows you to view, input, and edit MIDI pitch bend controller data for the instruments shown in the Key Editor. It is located in the Key Editor in the lower zone.




- You can show the MIDI Pitch Bend editor by adding an editor to the Key Editor, then selecting **MIDI Pitch Bend** from the editor menu.



The MIDI Pitch Bend editor comprises the following:

### 1 Editor header

Contains the following options:

- **Editor menu:** Allows you to change the MIDI controller or editor type shown in the editor. MIDI controllers into which you have already input points appear in the first menu level.
- **Sync** : Copies all points in the editor from the primary instrument to secondary instruments. Only available when multiple instruments are shown in the Key Editor.
- **Convert to Constant Point** : Makes the selected points constant. Only applies to points in regions.
- **Convert to Linear Point** : Makes the selected points linear. Only applies to points in regions.
- **Value field:** Displays the value of the earliest selected MIDI point. You can change this value in the value field, or click and drag the point upwards/downwards in the editor. The available range for MIDI pitch bend is -100% to +100%.

### 2 Splitter

Allows you to change the height of the editor by clicking and dragging. If multiple editors are open, this affects the height of the editors either side of the splitter.

### 3 MIDI point

A single change to the MIDI pitch, input using the **Draw** tool. Individual MIDI points are constant by default. Only points that are identical for all instruments shown in the Key Editor are editable.

### 4 MIDI region

A highlighted region that contains multiple points, input by clicking and dragging in a single motion with either the **Draw** tool or **Line** tool.

By default, MIDI points in regions are linear, and the last point is constant. Only points that are identical for all instruments shown in the Key Editor are editable.

### 5 MIDI value line

When multiple instruments are shown in the Key Editor, a value line is shown for each instrument, using its color.

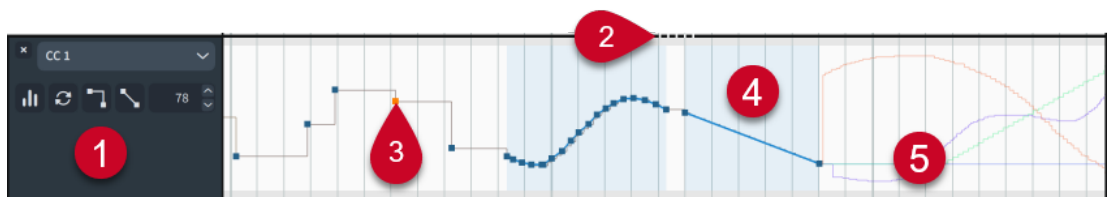
## MIDI CC editor

The MIDI CC editor allows you to view, input, and edit data in any MIDI controller for the instruments shown in the Key Editor. It is located in the Key Editor in the lower zone.

- You can show the MIDI CC editor by adding an editor to the Key Editor, then selecting a MIDI controller from the editor menu.

### TIP





- You can add multiple MIDI CC editors to the Key Editor simultaneously; for example, to copy MIDI points between two MIDI controllers.
- Dorico Elements displays generated values as non-editable value lines. For sound libraries that use MIDI CC 1 to control dynamics, the MIDI CC editor for CC 1 displays values from the dynamics you input, including dynamic points, combined with humanization.



The MIDI CC editor comprises the following:

### 1 Editor header

Contains the following options:

- **Editor menu:** Allows you to change the MIDI controller or editor type shown in the editor. MIDI controllers into which you have already input points appear in the first menu level.
- **Histogram** : Shows the Histogram tool in the editor.
- **Sync** : Copies all points in the editor from the primary instrument to secondary instruments. Only available when multiple instruments are shown in the Key Editor.
- **Convert to Constant Point** : Makes the selected points constant. Only applies to points in regions.
- **Convert to Linear Point** : Makes the selected points linear. Only applies to points in regions.
- **Value field:** Displays the value of the earliest selected MIDI point. You can change this value in the value field, or click and drag the point upwards/downwards in the editor. The available range for MIDI CC is 0 to 127.

### 2 Splitter

Allows you to change the height of the editor by clicking and dragging. If multiple editors are open, this affects the height of the editors either side of the splitter.

### 3 MIDI point

A single change to the MIDI value, input using the **Draw** tool. Individual MIDI points are constant by default. Only points that are identical for all instruments shown in the Key Editor are editable.

### 4 MIDI region

A highlighted region that contains multiple points, input by clicking and dragging in a single motion with either the **Draw** tool or **Line** tool.



By default, MIDI points in regions are linear, and the last point is constant. Only points that are identical for all instruments shown in the Key Editor are editable.

## 5 MIDI value line

When multiple instruments are shown in the Key Editor, a value line is shown for each instrument, using its color.

### TIP

- Clicking and dragging MIDI points causes a read-out to appear temporarily, showing their value.
  - You can use the Histogram and Transform tools to change MIDI CC values.
  - MIDI CC data is included when exporting MIDI files.
- 


### RELATED LINKS

- [Key Editor panel](#) on page 619
- [Histogram tool](#) on page 659
- [Transform tool](#) on page 663
- [Adding/Closing editors in the Key Editor](#) on page 627
- [Showing instruments in the Key Editor](#) on page 623
- [MIDI Pitch Bend editor](#) on page 650
- [Copying and pasting points in the Key Editor](#) on page 628
- [Exporting MIDI](#) on page 95
- [Dynamics](#) on page 828
- [Dynamics editor](#) on page 645
- [Pedal lines in playback](#) on page 1061
- [Dynamics in playback](#) on page 857



## Inputting MIDI points

You can input MIDI CC points into any MIDI controller, including pitch bend, in the MIDI CC and MIDI Pitch Bend editors.

### PREREQUISITE

- The lower zone is shown.
  - **Key Editor**  is selected in the lower zone toolbar.
  - You have selected the instruments you want to show in the Key Editor.
  - You have added at least one MIDI CC or MIDI Pitch Bend editor to the Key Editor.
- 

### PROCEDURE

1. Select one of the following tools, depending on the MIDI points you want to input:
  - To input single MIDI points, or MIDI regions containing multiple points at regular intervals, select **Draw** by pressing **Shift-Alt/Opt-2** or clicking **Draw**  in the Key Editor panel toolbar.
  - To input smooth MIDI regions, select **Line** by clicking **Line**  in the Key Editor panel toolbar.
2. Input MIDI points in one of the following ways:
  - To input single MIDI points, click in the MIDI CC or MIDI Pitch Bend editor at each position where you want a MIDI point.

- To input a MIDI region containing multiple MIDI points at regular intervals, click and drag in a single motion in the MIDI CC or MIDI Pitch Bend editor.
- To input smooth MIDI regions, click and drag in the MIDI CC or MIDI Pitch Bend editor from where you want the region to start to where you want it to end.

**TIP**

The horizontal line in the middle of the MIDI Pitch Bend editor represents the unmodified pitch.

---

**RESULT**

MIDI points are input for all instruments shown in the Key Editor.

- If you used the **Draw** tool, separate MIDI points are input at each position you clicked.
- If you clicked and dragged in a single motion using the **Draw** tool, MIDI points are input at small intervals in a MIDI region.
- If you used the **Line** tool, two MIDI points are input in a MIDI region, one at each end of the dragged range.

By default, single MIDI points are constant, MIDI points in regions are linear, and the last MIDI point in regions is constant.



MIDI regions appear highlighted with colored backgrounds in the MIDI CC and MIDI Pitch Bend editors.

## Making MIDI points constant/linear

You can make selected MIDI points in regions constant or linear after they have been input; for example, if you want some points in a region to be constant.

By default, MIDI points are constant when you input them separately, and linear when you click and drag them as a region. The last MIDI point in a region is constant.

**PREREQUISITE**

- The lower zone is shown.
- **Key Editor**  is selected in the lower zone toolbar.
- **Select**  is selected in the Key Editor panel toolbar.
- You have selected the instruments you want to show in the Key Editor.
- You have added at least one MIDI CC or MIDI Pitch Bend editor to the Key Editor.



**PROCEDURE**

1. In the MIDI CC or Pitch Bend editor, select the MIDI points in regions you want to make constant/linear.

**NOTE**

You can only make MIDI points in regions constant/linear.

---

2. Do one of the following:
    - To make the selected points constant, click **Convert to Constant Point**  in the editor header.
    - To make the selected points linear, click **Convert to Linear Point**  in the editor header.
-

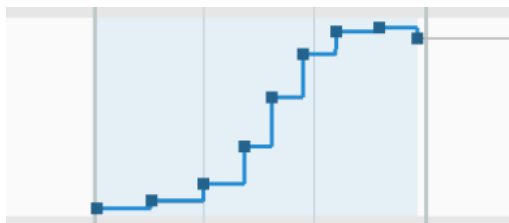
#### RESULT

The selected MIDI points become constant or linear.

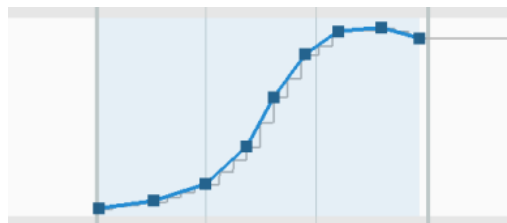
Value lines always appear horizontal after constant points. Value lines appear angled after linear points if the next point has a different value, indicating a smooth transition between the points.

---

#### EXAMPLE



Constant points in the MIDI CC editor





Linear points in the MIDI CC editor

---

## Moving MIDI points

You can move individual MIDI points in the MIDI CC and MIDI Pitch Bend editors, including moving them upwards and downwards to change their values.

#### PREREQUISITE

- The lower zone is shown.
  - **Key Editor**  is selected in the lower zone toolbar.
  - **Select**  is selected in the Key Editor panel toolbar.
  - You have selected the instruments you want to show in the Key Editor.
  - You have added at least one MIDI CC or MIDI Pitch Bend editor to the Key Editor.
- 

#### PROCEDURE

1. In the MIDI CC or Pitch Bend editor, select the MIDI points you want to move.

#### NOTE

You can only move MIDI points in a single editor at a time.

---

2. Move the selected MIDI points in any of the following ways:
  - Click and drag them in any direction.
  - To move them upwards/downwards only, hold **Shift** while dragging them upwards/downwards.
  - To move them to the right/left only, hold **Shift** while dragging them to the right/left.

#### TIP


You can also move MIDI points according to the current rhythmic grid resolution, as indicated in the status bar, by pressing **Alt/Opt-Right Arrow** / **Alt/Opt-Left Arrow**.

---

## Copying MIDI points to other instruments



When multiple instruments are shown in the Key Editor, you can copy MIDI points from the primary instrument to secondary instruments. You can copy only individual points and regions, or all points belonging to the primary instrument in the selected flow.

### PREREQUISITE

- The lower zone is shown.
- **Key Editor**  is selected in the lower zone toolbar.
- You have added at least one MIDI CC or MIDI Pitch Bend editor to the Key Editor.
- Multiple instruments are shown in the Key Editor.

---

### PROCEDURE

1. Optional: If you want to sync individual MIDI points or regions only, click **Sync Region**  in the Key Editor panel toolbar to select **Sync Region**.
2. In the MIDI CC or MIDI Pitch Bend editor, do one of the following:
  - To copy individual MIDI points or regions, click each MIDI point and region, or click and drag across multiple MIDI points and regions.
  - To copy all MIDI points in the current flow, click **Sync**  in the editor header.

---

### RESULT

The corresponding MIDI points are copied from the primary instrument to secondary instruments, and become editable for all instruments shown in the Key Editor.

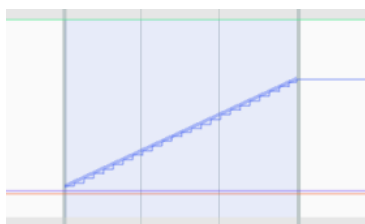
Existing MIDI points in the affected regions belonging to secondary instruments are overwritten.

### TIP

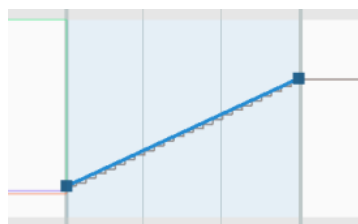
When multiple instruments are shown in the Key Editor, you can input MIDI points for all instruments directly.

---

### EXAMPLE



MIDI region in primary instrument only



MIDI region copied to secondary instruments

---

### RELATED LINKS

[Adding/Closing editors in the Key Editor](#) on page 627

[Showing instruments in the Key Editor](#) on page 623

[Selecting items in the Key Editor](#) on page 627

[Copying and pasting points in the Key Editor](#) on page 628

## Tempo editor

The Tempo editor allows you to view, input, and edit tempo changes. It is located in the Key Editor in the lower zone.

You can show the Tempo editor in any of the following ways:

- Add an editor to the Key Editor, then select **Tempo** from the editor menu.
- When the Key Editor is unlocked, select either a tempo mark or the Tempo track in Play mode.

### NOTE

This shows the Tempo editor as the primary editor. To return to showing the piano roll/percussion editor and/or other editors in the Key Editor, you must select a note/item belonging to an instrument in the music area.



The Tempo editor comprises the following:

### 1 Editor header

Contains the following options:

- **Editor menu:** Allows you to change the MIDI controller or editor type shown in the editor. MIDI controllers into which you have already input points appear in the first menu level.
- **Range max. value field:** Allows you to set the maximum metronome mark value in the editor.
- **Tempo value field:** Displays the metronome mark value of the earliest selected tempo point, without decimal places. You can change this value in the value field, or click and drag the point upwards/downwards in the editor.

### 2 Splitter

Allows you to change the height of the editor by clicking and dragging. If multiple editors are open, this affects the height of the editors either side of the splitter.

### 3 Tempo point

An immediate change in tempo, input either in Write mode or using the **Draw** tool in the Tempo editor. Absolute tempo changes comprise a single constant point.

### TIP

Clicking and dragging in the Tempo editor causes a read-out to appear temporarily, showing the metronome mark value of the mouse pointer position.

### 4 Tempo mark text

Shows the text of tempo marks input in Write mode; that is, tempo points that correspond to notation items.

### 5 Tempo region

A highlighted region with a linear point at the start and a constant point at the end, input by clicking and dragging in a single motion in the Tempo editor with the **Line** tool.

Tempo regions can also represent gradual tempo changes input in Write mode, such as *rallentando*.

Tempo points input in the Tempo editor appear as signposts in the music. Signposts are not printed by default, so if you want tempo points to appear in layouts as tempo marks, we recommend that you show them.

All tempo points input in the Tempo editor are included when exporting MIDI files.

#### RELATED LINKS

[Key Editor panel](#) on page 619

[Tempo track](#) on page 496

[Adding/Closing editors in the Key Editor](#) on page 627

[Showing instruments in the Key Editor](#) on page 623


[Tempo marks](#) on page 1204

[Input methods for tempo marks](#) on page 280

## Inputting tempo changes in the Tempo editor



You can input single tempo changes and tempo regions in the Tempo editor. Tempo changes input in the Tempo editor do not appear in layouts, but instead are shown as signposts.

#### PREREQUISITE

- The lower zone is shown.
- **Key Editor**  is selected in the lower zone toolbar.
- You have added the Tempo editor to the Key Editor.

---

#### PROCEDURE

1. Select one of the following tools, depending on the type of tempo change you want to input:
  - To input single absolute tempo changes, or multiple absolute tempo changes at regular intervals, select **Draw** by pressing **Shift-Alt/Opt-2** or clicking **Draw**  in the Key Editor panel toolbar.
  - To input tempo regions, select **Line** by clicking **Line**  in the Key Editor panel toolbar.
2. Input tempo changes in one of the following ways:
  - To input single absolute tempo changes, click in the Tempo editor at each position where you want a tempo change.
  - To input multiple absolute tempo changes at regular intervals, click and drag in the Tempo editor.
  - To input tempo regions, click and drag in the Tempo editor from where you want the region to start, to where you want it to end.

#### TIP

Clicking and dragging in the Tempo editor causes a read-out to appear temporarily, showing the metronome mark value of the mouse pointer position.

---

#### RESULT

- If you used the **Draw** tool and clicked multiple times, separate tempo changes are input at each position you clicked.

- If you clicked and dragged in a single motion using the **Draw** tool, tempo changes are input at 32nd note intervals.
- If you used the **Line** tool, two tempo changes are input in a tempo region, one at each end of the dragged range.

This affects the speed of playback, but the tempo changes are not shown in layouts. Instead, they appear as signposts.

Tempo changes input in the Tempo editor are included when exporting MIDI files.

#### RELATED LINKS

[Key Editor panel toolbar](#) on page 621



[Signposts](#) on page 426

[Hiding/Showing tempo marks](#) on page 1211

## Moving tempo changes in the Tempo editor

You can move tempo changes to new rhythmic positions in the Tempo editor. This affects their rhythmic position in all applicable layouts.

#### PREREQUISITE

- The lower zone is shown.
- **Key Editor**  is selected in the lower zone toolbar.
- **Select**  is selected in the Key Editor panel toolbar.
- You have added the Tempo editor to the Key Editor.

---

#### PROCEDURE

1. In the Tempo editor, select the tempo changes you want to move.
2. To move the selected tempo changes without changing their metronome mark value, hold **Shift** while dragging them to the right/left.

#### NOTE

You cannot drag tempo regions and single tempo changes input in Write mode beyond other existing tempo changes during the same move. Releasing the mouse causes the moved tempo change to change the value of the existing tempo change.

---

#### RESULT

The selected tempo changes are moved rhythmically. When you move multiple selected absolute tempo changes, they maintain their positions relative to each other. This also affects their rhythmic positions in any layouts in which they appear.

#### AFTER COMPLETING THIS TASK



You can also move tempo changes vertically, which changes their metronome mark value.

## Changing the tempo in the Tempo editor

You can change the metronome mark value of individual tempo changes in the Tempo editor, expressed in beats per minute.

#### PREREQUISITE

- The lower zone is shown.

- **Key Editor**  is selected in the lower zone toolbar.
- **Select**  is selected in the Key Editor panel toolbar.
- You have added the Tempo editor to the Key Editor.

#### PROCEDURE

1. In the Tempo editor, select the tempo changes whose metronome mark values you want to change.
2. To change the metronome mark values of the selected tempo changes without moving them rhythmically, hold **Shift** while dragging them upwards/downwards.

Clicking and dragging in the Tempo editor causes a read-out to appear temporarily, showing the metronome mark value of the mouse pointer position.

#### RESULT

The metronome mark values of the selected tempo changes are changed proportionally. This affects the speed of playback, and the displayed metronome mark of any tempo changes also shown in layouts.

#### TIP


You can also change the metronome mark value of selected tempo changes using the **Tempo** value field in the Tempo editor header.

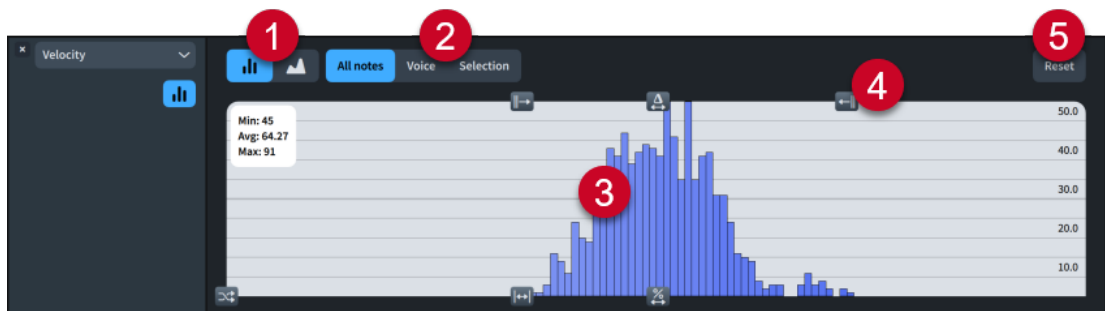
#### RELATED LINKS

[Selecting items in the Key Editor](#) on page 627

## Histogram tool



The Histogram tool displays velocity and MIDI CC values as a chart, with values grouped according to their frequency distribution. It allows you to change values on a large scale, including across entire tracks; for example, increasing all velocity values proportionally.

- You can show the Histogram tool in the Velocity and MIDI CC editors by clicking **Histogram**  in the corresponding editor header.



### 1 Chart shape

Allows you to change the shape of the Histogram chart.

- **Bars** : Values are displayed as bars.
- **Area** : Values are displayed as an area.

### 2 Histogram filter

Allows you to filter the values shown in the Histogram tool.



- **All/All notes:** Shows all values for all instruments currently shown in the Key Editor.
- **Voice:** Shows only notes in the selected voice. Only available in the Velocity editor.
- **Selection:** Shows only values for selected items.

### 3 Histogram chart

Shows values according to the selected filter. The X axis represents numerical values, while the Y axis represents the frequency distribution of the corresponding values.

### 4 Histogram controls

Allow you to change the values currently in view.

### 5 Reset

Resets all values currently in view.

#### TIP

If you want to change values on a smaller scale, you can use the Transform tool.

---

#### RELATED LINKS

- [Key Editor panel](#) on page 619
- [Hiding/Showing zones](#) on page 44
- [Adding/Closing editors in the Key Editor](#) on page 627
- [Showing instruments in the Key Editor](#) on page 623
- [Changing the velocity of notes](#) on page 643
- [Voices](#) on page 1303
- [Inputting notes into multiple voices](#) on page 221
- [Changing the voice of existing notes](#) on page 442
- [Transform tool](#) on page 663
- [Velocity editor](#) on page 642
- [MIDI CC editor](#) on page 651

## Histogram controls

Histogram controls allow you to change velocity and MIDI CC values on a large scale, in different ways.

- You can access Histogram controls when the Histogram tool is shown in the Key Editor.

#### Delta



Represents the center point of values. Allows you to move all displayed values to the right/left. This maintains explicit gaps between values.

#### Scale



Proportionally scales values. This maintains proportional relationships between values; that is, gaps between values widen when you scale multiply to the right, and narrow when you scale multiply to the left.

#### Spread



Spreads out values to both the right and left of the center point.

#### Lower Limit



Represents the lowest value. Allows you to raise low values.

#### Upper Limit



Represents the highest value. Allows you to lower high values.

#### Randomize



Allows you to randomize values by clicking on the button and dragging upwards/downwards. The higher your mouse pointer, the wider and more extreme the randomization. Randomization uses standard distribution on an approximate bell-shape.

## Changing values using the Histogram tool


You can use the Histogram tool to change velocity and MIDI CC values on a large scale, including across entire tracks; for example, increasing all velocity values proportionally.

#### TIP

If you want to change values on a smaller scale, you can use the Transform tool.



---

#### PREREQUISITE

- The lower zone is shown.
- **Key Editor**  is selected in the lower zone toolbar.
- You have selected the instruments you want to show in the Key Editor.
- You have added at least one Velocity or MIDI CC editor to the Key Editor.

---

#### PROCEDURE


1. In the header of each editor in which you want to use the Histogram tool, activate **Histogram**  to show the Histogram tool.
2. Optional: Choose the appropriate Histogram tool filter for each editor.
3. Use the available Histogram controls as required.  
For example, you can click and drag **Scale**  to the right to increase the values currently in view proportionally.

---

## Changing the Histogram tool filter

You can change the values shown in, and therefore affected by, the Histogram tool using the available filters. For example, if you only want the Histogram tool to affect values you have already selected.


#### PREREQUISITE

- The lower zone is shown.
- **Key Editor**  is selected in the lower zone toolbar.

- You have added at least one Velocity or MIDI CC editor to the Key Editor.

---


PROCEDURE

1. In the header of each editor in which you want to use the Histogram tool, activate **Histogram**  to show the Histogram tool.
  2. At the top of each Histogram tool, choose one of the following filters:
    - **All** (MIDI CC editor) or **All notes** (Velocity editor)
    - **Voice** (Velocity editor only)
    - **Selection**
- 




## Changing the Histogram chart shape

You can switch between showing values in the Histogram tool as bars or as an area.

PREREQUISITE

- The lower zone is shown.
  - **Key Editor**  is selected in the lower zone toolbar.
  - You have selected the instruments you want to show in the Key Editor.
  - You have added at least one Velocity or MIDI CC editor to the Key Editor.
- 

PROCEDURE

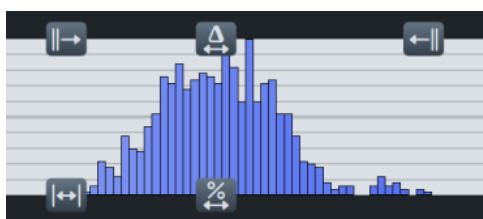
1. In the header of each editor in which you want to use the Histogram tool, activate **Histogram**  to show the Histogram tool.
  2. At the top of each Histogram tool, choose one of the following chart shapes:
    - **Bars** 
    - **Area** 
- 

RESULT

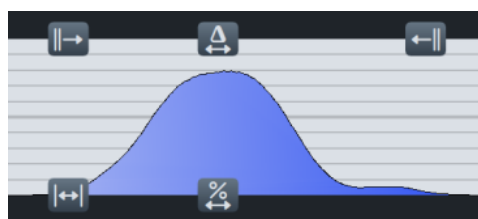
The shape of the Histogram chart in each editor is changed.

---

EXAMPLE



**Bars**



**Area**

---

RELATED LINKS


[Hiding/Showing zones](#) on page 44

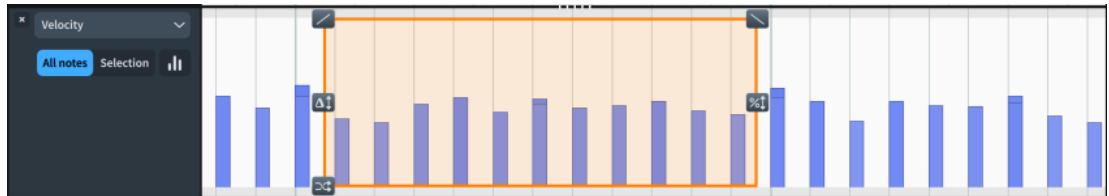
[Adding/Closing editors in the Key Editor](#) on page 627

[Showing instruments in the Key Editor](#) on page 623

## Transform tool

The Transform tool allows you to change consecutive velocity and MIDI CC values within a selected range in a variety of ways. For example, you can increase all velocity values proportionally, but only in two specific bars.

- You can use the Transform tool in the Velocity and MIDI CC editors by clicking **Transform**  in the Key Editor panel toolbar, then clicking and dragging in one of those editors to make a Transform selection.



Transform selection in the Velocity editor

### TIP

If you want to change values on a larger scale, you can use the Histogram tool.

### RELATED LINKS

- [Key Editor panel](#) on page 619
- [Key Editor panel toolbar](#) on page 621
- [Histogram tool](#) on page 659
- [Velocity editor](#) on page 642
- [MIDI CC editor](#) on page 651

## Transform controls

Transform controls allow you to change consecutive velocity and MIDI CC values within a Transform selection in different ways.

- You can access Transform controls when you have made a Transform selection in the Key Editor.

### Tilt Left



Allows you to lower values according to an angled line by clicking on the button and dragging downwards. This lowers values on the left more than on the right.

### Tilt Right



Allows you to lower values according to an angled line by clicking on the button and dragging downwards. This lowers values on the right more than on the left.

### Delta



Represents the center point of values. Allows you to move all displayed values to upwards/downwards. This maintains explicit value gaps between bars.

### Scale



Proportionally moves values upwards/downwards. This maintains proportional relationships between bars; that is, gaps between bars widen when you scale multiply upwards and narrow when you scale multiply downwards.

### Randomize



Allows you to randomize values by clicking on the button and dragging upwards. The higher your mouse pointer, the wider and more extreme the randomization. Randomization uses standard distribution on an approximate bell-shape.

#### RELATED LINKS

[Histogram controls](#) on page 660

[Changing the velocity of notes](#) on page 643

## Changing values using the Transform tool


You can make Transform selections around consecutive velocity and MIDI CC values, then use Transform controls to change the selected values in a variety of ways; for example, increasing all values proportionally.

#### TIP



If you want to change values on a larger scale, you can use the Histogram tool.

---

#### PREREQUISITE

- The lower zone is shown.
- **Key Editor**  is selected in the lower zone toolbar.
- You have selected the instruments you want to show in the Key Editor.
- You have added at least one Velocity or MIDI CC editor to the Key Editor.

#### PROCEDURE

1. In the Key Editor panel toolbar, click **Transform**  to select the Transform tool.
  2. In the editor in which you want to change values, click and drag across the required range.
  3. Use the available Transform controls as required.  
For example, you can click and drag **Scale**  upwards to increase values proportionally.
- 

#### RELATED LINKS

[Hiding/Showing zones](#) on page 44

[Key Editor panel toolbar](#) on page 621

[Adding/Closing editors in the Key Editor](#) on page 627

[Showing instruments in the Key Editor](#) on page 623

## Key Editor configurations


Key Editor configurations allow you to open specific combinations of editors simultaneously. This can be much quicker than adding/closing the required editors manually.

For example, if you regularly switch between showing the Velocity and Dynamics editors, and several MIDI CC editors, you can save Key Editor configurations for these combinations, then apply each configuration as required.

## Saving Key Editor configurations



You can save configurations of editors in the Key Editor; for example, if you regularly use the Velocity and Dynamics editors together. You can access Key Editor configurations in all projects on your computer.

### PREREQUISITE

- The lower zone is shown.
- **Key Editor**  is selected in the lower zone toolbar.
- You have added the editors you want to save in your Key Editor configuration.

---

### PROCEDURE

1. Save the editors currently open in the Key Editor as a Key Editor configuration in one of the following ways:
  - To save a new Key Editor configuration, click **Presets**  at the bottom left of the Key Editor, then choose **Save Configuration**.
  - To replace an existing Key Editor configuration, click **Presets**  at the bottom left of the Key Editor, choose **Replace Configuration**, then select the configuration you want to replace.
2. If you saved a new Key Editor configuration, enter a name for the configuration in the **Configuration Name** dialog that opens.
3. Click **OK** to save your changes and close the dialog.

---

### RELATED LINKS


[Hiding/Showing zones](#) on page 44

[Adding/Closing editors in the Key Editor](#) on page 627

## Applying Key Editor configurations


You can apply Key Editor configurations to projects, which adds the editors saved in that configuration to the Key Editor and replaces any editors that were already open.

### PREREQUISITE

- The lower zone is shown.
- **Key Editor**  is selected in the lower zone toolbar.
- You have saved at least one Key Editor configuration on your computer.

---

### PROCEDURE

1. At the bottom left of the Key Editor, click **Presets** .
2. Select the configuration you want to apply.


---

## Deleting Key Editor configurations

You can delete Key Editor configurations; for example, if you no longer require a specific configuration after finishing a project.


### PREREQUISITE

- The lower zone is shown.

- **Key Editor**  is selected in the lower zone toolbar.

---

PROCEDURE

1. At the bottom left of the Key Editor, click **Presets** .
  2. Choose **Delete Configuration**.
  3. Select the configuration you want to delete.
-

# Mixer

The Mixer allows you to control the volume, panning, and sounds of channels in playback.

You can access the Mixer in the following places:

- In the Mixer panel in the lower zone
- In the **Mixer** window

## RELATED LINKS

[Mixer window](#) on page 668


[Mixer channels](#) on page 669

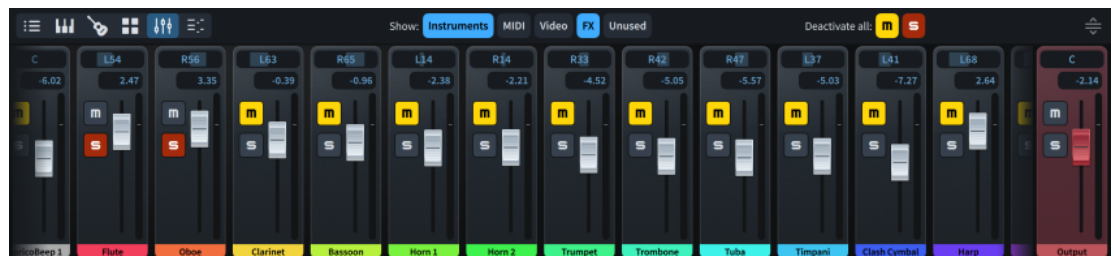
[Zones and panels](#) on page 38

## Mixer panel

The Mixer panel allows you to control the volume and panning of channels in playback. It is located in the lower zone at the bottom of the window in Write, Engrave, and Play modes.

When additional channels are available beyond those currently in view, channels at the right/left edges of the Mixer appear faded.

- You can show the Mixer panel by showing the lower zone, then clicking **Mixer**  in the lower zone toolbar.





The Mixer panel toolbar contains the following options:

### Channel type buttons

Allow you to hide/show channels according to their type, and in any combination.

### Deactivate all

Allows you to deactivate all mute  and solo  states by clicking the corresponding button. Indicates whether any channels have an active mute or solo state.

### Resize Lower Zone



Allows you to change the height of the lower zone.

## RELATED LINKS

[Mixer channels](#) on page 669

[Zones and panels](#) on page 38


[Hiding/Showing zones](#) on page 44



## Mixer window

The Mixer allows you to control the volume, panning, and sounds of channels in playback. It provides access to channel strips, which are not available in the Mixer panel.

You can hide/show the **Mixer** window in any of the following ways:

- Press **F3**.
- In the toolbar, click **Show Mixer** .




The **Mixer** window comprises the following:

### 1 Channel type buttons

Allow you to hide/show channels according to their type, and in any combination.

### 2 Deactivate all

Allows you to deactivate all mute  and solo  states by clicking the corresponding button. Indicates whether any channels have an active mute or solo state.

### 3 Channel strips

Allow you to change the sound of the channel; for example, by loading inserts or changing its equalization.

### 4 Channels

Allow you to change the volume and pan position of the corresponding track or aspect of playback. There are audio and MIDI channels for each instrument/voice track, and additional channels, such as for the click and master output.

#### TIP

- In order to control the volume levels in your project, we recommend that you first input dynamics and adjust the dynamic curve to suit your project before using the track faders.
- When additional channels are available beyond those currently in view, channels at the right/left edges of the Mixer appear faded.

Any changes you make in the **Mixer** window are automatically saved and applied to the project.

#### RELATED LINKS

[Toolbar](#) on page 31

[Mixer channel strips](#) on page 671

[Muting/Soloing tracks](#) on page 507


[Changing the volume of channels](#) on page 673

## Hiding/Showing the Mixer window

You can hide and show the **Mixer** window at any time; for example, if you do not want it in view when working on the music in the music area.

---

### PROCEDURE

- Hide/Show the **Mixer** window in any of the following ways:
    - Press **F3**.
    - In the toolbar, click **Show Mixer** .
    - Choose **Window > Mixer**.
- 

## Mixer channels

Mixer channels allow the source connected to them, such as instrument tracks, to produce sound. You can access all channels in the Mixer panel and **Mixer** window, and individual channels in the Track Inspector for the corresponding track.



Each channel in the Mixer panel provides the following controls and displays:

- 1 Pan control**

Allows you to position the sound/MIDI output of the channel on the stereo spectrum for stereo playback.
- 2 Fader value**

Displays the current volume as a value, corresponding to the position of the fader.

  - Audio channels use dB.
  - MIDI channels use MIDI volume, from 0 to 127.
- 3 Fader**

Allows you to control the volume level of the channel.

#### 4 Channel meter

Indicates the output volume of the channel in real time.

#### 5 Mute

Allows you to mute the channel. Indicates whether the channel has an active mute state.

#### 6 Solo

Allows you to solo the channel. Indicates whether the channel has an active solo state.

#### 7 Channel name

Displays the name of the channel.

Instrument channels display the full instrument name set for that instrument in the **Edit Instrument Names** dialog and its instrument number, if applicable.

#### RELATED LINKS

[Track Inspector](#) on page 488

[Edit Instrument Names dialog](#) on page 176

[Instrument numbering](#) on page 129

## Types of Mixer channels

There are different types of channels available in the Mixer. The channel type can affect the controls available for the corresponding channel.

### Instruments

There is a channel for each instrument/voice track in your project. When instrument channels are shown, all applicable channels are included, even if they are spread across multiple plug-in instances.

There is an additional instrument channel named “DoricoBeep”, which allows you to control the volume of the metronome click.

### MIDI

Every VST instrument in your project has its own MIDI channel in addition to its VST channel. These MIDI channels allow you to change the MIDI volume and MIDI pan of each instrument.

### Video

Allows you to control the volume of video audio.

### FX

Allows you to control the volume of send effects, such as reverb. By default, this channel has REVerence loaded automatically.

#### TIP

For more information about REVerence, see the separate document **Plug-in Reference**.

---

### Output

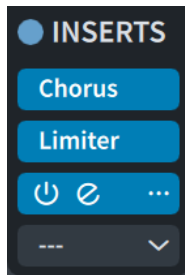
Allows you to control the master output volume. The **Output** channel is always shown.

## Mixer channel strips

Each channel in the Mixer has its own channel strip, which contains the channel controls. Channel strips are located at the top of the **Mixer** window.

Each channel strip contains the following types of controls:

### Inserts



Each channel has four slots into which you can load an insert. You can select inserts from the menu.

The header allows you to expand/collapse the section for all channels.

The indicator can have one of the following states:

- **Disabled** : No inserts are loaded into the channel.
- **Enabled** : At least one insert is loaded into the channel, and inserts are enabled.
- **Bypassed** : At least one insert is loaded into the channel, and all inserts are bypassed.

The following controls are available for slots with loaded inserts:

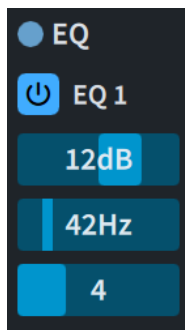
- **Enable Insert** : Enables/Bypasses the insert slot.
- **Edit Insert** : Opens the plug-in window for the loaded plug-in, which allows you to edit its settings.
- **Insert menu** : Opens the plug-in menu, which allows you to select a different plug-in to load into the insert slot.

### TIP

- For more information about the plug-ins included with Dorico Elements, see the separate document **Plug-in Reference**.
- You can access inserts for individual channels in the Track Inspector for the corresponding track.

---

### EQ



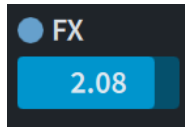
Each channel has four bands for default EQ.

The indicator allows you to enable  and disable  the section. The header allows you to expand/collapse the section for all channels.

The following controls are available for each EQ band:

- **Enable EQ** : Enables/Bypasses the corresponding band.
- **Gain**: Sets the amount of attenuation/boost for the corresponding band in dB.
- **Frequency**: Sets the frequency of the corresponding band in Hz.
- **Q**: Controls the width of the band; that is, how many frequencies above/below it also affects, and by how much.

#### FX



Each channel has a single FX slot. By default, it sends to the FX channel, which has reverb loaded on it.

The indicator allows you to enable  and disable  the section. The header allows you to expand/collapse the section for all channels.

#### RELATED LINKS

- [Loading inserts into channels](#) on page 675
- [Track Inspector](#) on page 488

## Hiding/Showing channels

You can hide/show channels in the Mixer according to their type; for example, you can hide MIDI channels while working on instrument channels.

#### PREREQUISITE

The Mixer is shown, either in the lower zone or in the **Mixer** window.

---

#### PROCEDURE

- At the top of the Mixer, activate/deactivate each channel type.

---

#### RESULT

Channels are shown in the Mixer when their type button is activated, and hidden when it is deactivated.

## Scrolling through channels

When many channels are shown in the Mixer, you can scroll through them in order to view channels that do not fit in the view.

#### PREREQUISITE

The Mixer is shown, either in the lower zone or in the **Mixer** window.

---

#### PROCEDURE

- In the Mixer, scroll through channels in any of the following ways:

- Scroll upwards/downwards on a mouse wheel, or swipe upwards/downwards on a touchpad.
  - Click and drag, anywhere outside of channel faders, to the right/left.
- 

## Changing the height of channels

You can change the vertical space occupied by channels and channel strips in the **Mixer** window; for example, to make channel strips taller when loading inserts or changing EQ settings.

### PREREQUISITE

The **Mixer** window is shown.

---

### PROCEDURE

- In the Mixer, on the line between channel strips and channels, click and drag upwards/downwards.

When the mouse pointer is in the correct position, it appears as a split arrow.



## Changing the volume of channels

You can change and reset the volume of individual channels in the Mixer; for example, to balance instruments in an orchestral project.

### PREREQUISITE

The Mixer is shown, either in the lower zone or in the **Mixer** window.

---

### PROCEDURE

- In the Mixer, change the volume of channels in any of the following ways:
  - To increase their volume, drag their faders upwards.
  - To decrease their volume, drag their faders downwards.
  - To reset their volume to the default value, **Ctrl/Cmd**-click or double-click their fader values.



---

#### RESULT

The volume of the corresponding channels is changed.

#### TIP

You can change the default output level for all future projects on the **Play** page in **Preferences**. By default, this is set to **-6 dB** to avoid clipping in projects with large ensembles.

---

#### RELATED LINKS

[Mixer panel](#) on page 667

[Mixer window](#) on page 668

[Preferences dialog](#) on page 58

## Panning channels

You can change the pan position of individual channels on the stereo spectrum; for example, if you want the pan positions of instruments in an orchestral project to match their positions on a real-life stage.

#### PREREQUISITE

The Mixer is shown, either in the lower zone or in the **Mixer** window.

---

#### PROCEDURE

- In the Mixer, click at the required position in the pan control at the top of each channel. You can also click and drag to the right/left in the pan control.



## Loading inserts into channels

You can load up to four inserts into each channel, excluding MIDI channels. For example, you can load specific EQ plug-ins instead of using the default EQ channel strips, and apply amp modeling plug-ins to clean guitar channels.

### TIP

For more information about the plug-ins included with Dorico Elements, see the separate document **Plug-in Reference**.

---

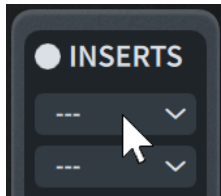
### PREREQUISITE


The **Mixer** window is shown.

---

### PROCEDURE

1. In the Mixer, click **Inserts** in any channel strip to expand all inserts sections.
2. Click an insert slot and select the plug-in you want to load from the menu.



3. Optional: If you want to edit settings for the new plug-in, click **Edit Insert**  to open its plug-in window.
  4. Optional: If you loaded EQ plug-ins, deactivate the EQ channel strip in the corresponding channels.
- 

### RELATED LINKS

[Mixer window](#) on page 668

[Mixer channel strips](#) on page 671

[Changing the sound used for the click](#) on page 496

## Enabling/Bypassing inserts



You can enable/bypass individual inserts without affecting their settings; for example, if you want to compare how a channel sounds with and without a specific insert.

### PREREQUISITE

The **Mixer** window is shown.

---

### PROCEDURE

1. In the Mixer, click **Inserts** in any channel strip to expand all inserts sections.
  2. In each insert slot you want to enable/bypass, do one of the following:
    - To enable/bypass individual inserts, click **Enable Insert**  in the corresponding slots.
    - To enable/bypass all inserts for channels, click the **Inserts** indicator  in the corresponding channel strips.
-



#### RESULT

The corresponding inserts are enabled/bypassed.

- Enabled inserts appear blue.
- Bypassed inserts appear yellow.

## Removing inserts


You can remove individual inserts you have loaded into channels.

#### PREREQUISITE

The **Mixer** window is shown.

---

#### PROCEDURE

1. In the Mixer, click **Inserts** in any channel strip to expand all inserts sections.
  2. In the slot whose insert you want to remove, click the insert menu  and select --- from the menu.
- 

## Changing the reverb plug-in

You can change the plug-in used for reverb on the FX channel; for example, if you want to use a specific reverb sound. By default, the reverb plug-in REVerence is loaded into the FX channel.

#### TIP



For more information about the plug-ins included with Dorico Elements, see the separate document **Plug-in Reference**.

---

#### PREREQUISITE

- The **Mixer** window is shown.
  - The FX channel is shown.
- 

#### PROCEDURE

1. In the Mixer, click **Inserts** in any channel strip to expand all inserts sections.
  2. In the FX channel strip, click the insert menu  in the REVerence insert slot, and select the reverb plug-in you want to use from the menu.
  3. Optional: If you want to edit settings for the new plug-in, click **Edit Insert**  to open its plug-in window.
- 

#### RELATED LINKS

[Mixer window](#) on page 668

[Mixer channel strips](#) on page 671

[Hiding/Showing channels](#) on page 672

# Library


In Dorico Elements, the library is the total compilation of visual items and options that are available in all projects on your computer. It combines factory default settings, custom items/options you have saved as default, and items/options only available in the current project.

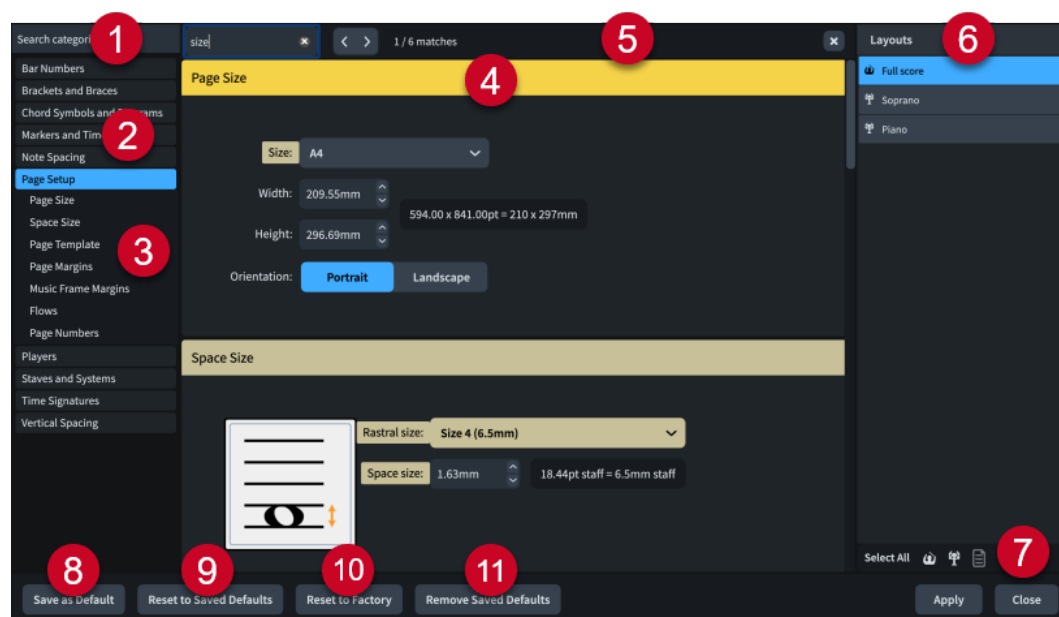
## Layout Options dialog

The **Layout Options** dialog allows you to change various aspects of each layout independently. For example, you can change the physical properties of the layout, such as page size, staff size, or margins, and how the music appears and is laid out, such as note spacing or staff labels.

Options in **Layout Options** affect only the selected layouts but apply to all flows in those layouts.

You can open **Layout Options** in any of the following ways:

- Press **Ctrl/Cmd-Shift-L**.
- Choose **Library > Layout Options**.
- In Setup mode, click **Layout Options**  in the **Layouts** panel.



The **Layout Options** dialog contains the following:

### 1 Search categories field

Allows you to filter categories and section titles according to your entry.

TIP

You can set the focus to the **Search categories** field by pressing **Ctrl/Cmd-L**. You can set the focus away by pressing **Tab**.

### 2 Category list

Contains the categories of options that you can view and change in the dialog. When you click a category in this list, any applicable section titles appear below the category in the list and its options appear as a page in the main body of the dialog.

### 3 Section titles

Shows the titles of any sections on the selected category's page. You can click these section titles to navigate directly to that section of the page.

### 4 Section

Pages are divided into sections, which can contain multiple options. Sections that contain many options are divided into subsections. For options that have multiple possible settings, the active setting is highlighted.

### 5 Search pages bar

Allows you to search section titles and options on the currently selected page according to your entry and navigate through matches. The number of matches is displayed in the bar. Matches appear highlighted on the page, and the current option appears with a brighter highlight.

You can show the **Search pages** bar by pressing **Ctrl/Cmd-F**.

The bar contains the following options:

- **Search pages field:** Allows you to enter the term you want to search for. You can set the focus to the **Search pages** field by pressing **Ctrl/Cmd-F**.
- **Previous match:** Allows you to navigate to the previous match on the page. You can also navigate to the previous match by pressing **Ctrl/Cmd-Shift-G**.
- **Next match:** Allows you to navigate to the next match on the page. You can also navigate to the next match by pressing **Ctrl/Cmd-G**.
- **Close:** Closes the bar and removes all match highlights. You can also close the bar by pressing **Esc**.




### 6 Layouts list

Contains all the layouts in your project. By default, the layout currently open in the music area is selected when you open the dialog. You can select multiple layouts in any of the following ways:

- Click one of the selection options in the action bar.
- **Ctrl/Cmd**-click to select multiple layouts.
- **Shift**-click to select multiple adjacent layouts.
- Click and drag across multiple layouts.

### 7 Action bar

Contains selection options that allow you to select layouts in the **Layouts** list according to their type.

- **Select All:** Selects all layouts, regardless of their type.
- **Select All Full Score Layouts** : Selects all full score layouts only.
- **Select All Part Layouts** : Selects all part layouts only.
- **Select All Custom Score Layouts** : Selects all custom score layouts only.

### 8 Save as Default

Saves all options currently set and applied in the dialog as the default for the selected layout type in new projects. For example, you can save new default settings for part layouts without affecting the default settings for full score layouts. Only available when a single layout is selected.

### 9 Reset to Saved Defaults

Resets all the options in the dialog for the selected layouts back to your saved defaults, according to their layout type.

#### 10 Reset to Factory

Resets all the options in the dialog for the selected layouts back to the default factory settings, according to their layout type. This only affects the current project and does not delete your saved defaults, meaning future projects still start with your saved defaults.

#### 11 Remove Saved Defaults

Deletes your previous saved defaults for the selected layout type without resetting the options in the current project. After removing your saved defaults, all layouts of the selected type in future projects start with the default factory settings.

#### RELATED LINKS

[Layouts](#) on page 165

[Staves](#) on page 1192

[Page formatting](#) on page 555

[Condensing](#) on page 595

[Changing your preferred unit of measurement](#) on page 51

[Changing values in numeric value fields](#) on page 618

## Notation Options dialog

The **Notation Options** dialog allows you to change how music is notated by default in each flow independently. For example, there are options for beam, note, and rest grouping, voices, accidentals, and barlines.


Options in **Notation Options** affect only the selected flows but apply to all layouts in which those flows appear.

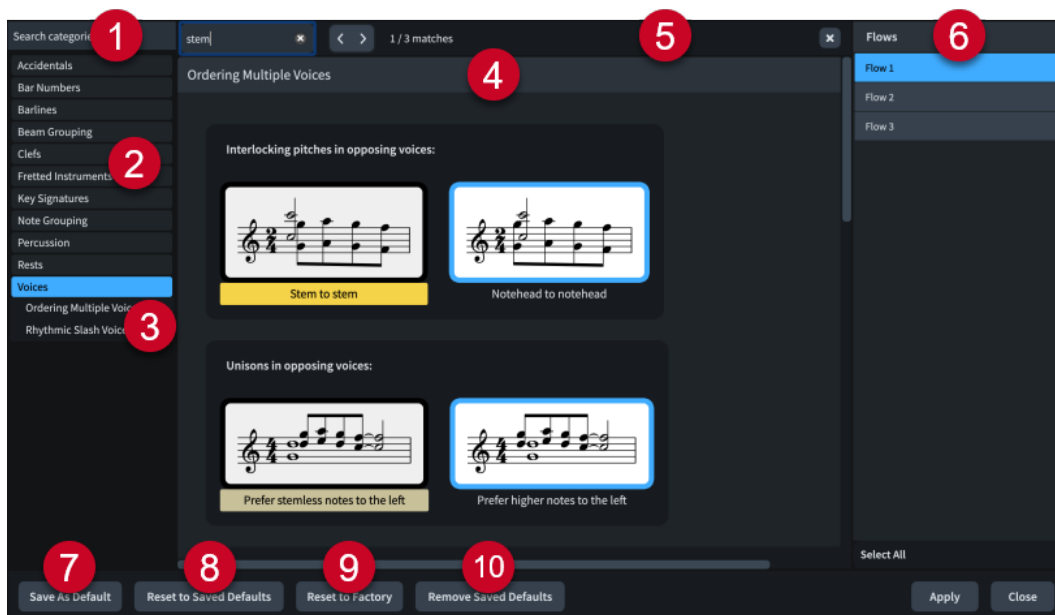
#### TIP

If you want to change notes and notations individually, you can use properties in the Properties panel.

---

You can open **Notation Options** in any of the following ways:

- Press **Ctrl/Cmd-Shift-N**.
- Choose **Library > Notation Options**.
- In Setup mode, click **Notation Options**  in the **Flows** panel.



The **Notation Options** dialog contains the following:

### 1 Search categories field

Allows you to filter categories and section titles according to your entry.

TIP

You can set the focus to the **Search categories** field by pressing **Ctrl/Cmd-L**. You can set the focus away by pressing **Tab**.

### 2 Category list

Contains the categories of options that you can view and change in the dialog. When you click a category in this list, any applicable section titles appear below the category in the list and its options appear as a page in the main body of the dialog.

### 3 Section titles

Shows the titles of any sections on the selected category's page. You can click these section titles to navigate directly to that section of the page.

### 4 Section

Pages are divided into sections, which can contain multiple options. Sections that contain many options are divided into subsections. For options that have multiple possible settings, the active setting is highlighted.

### 5 Search pages bar

Allows you to search section titles and options on the currently selected page according to your entry and navigate through matches. The number of matches is displayed in the bar. Matches appear highlighted on the page, and the current option appears with a brighter highlight.

You can show the **Search pages** bar by pressing **Ctrl/Cmd-F**.

The bar contains the following options:

- **Search pages field:** Allows you to enter the term you want to search for. You can set the focus to the **Search pages** field by pressing **Ctrl/Cmd-F**.
- **Previous match:** Allows you to navigate to the previous match on the page. You can also navigate to the previous match by pressing **Ctrl/Cmd-Shift-G**.

- **Next match:** Allows you to navigate to the next match on the page. You can also navigate to the next match by pressing **Ctrl/Cmd-G**.
- **Close:** Closes the bar and removes all match highlights. You can also close the bar by pressing **Esc**.

#### 6 Flows list

Contains all the flows in your project. By default, the flow in which you have selected an item in the music area or that is selected in the **Flows** panel in Setup mode is selected when you open the dialog. You can select multiple flows in any of the following ways:

- Click **Select All** in the action bar to select all flows in the project.
- **Ctrl/Cmd**-click to select multiple flows.
- **Shift**-click to select multiple adjacent flows.
- Click and drag across multiple flows.

#### 7 Save as Default

Saves all options currently set and applied in the dialog as the default for new projects. Only available when a single flow is selected.

#### 8 Reset to Saved Defaults

Resets all the options in the dialog for the selected flows back to your saved defaults.

#### 9 Reset to Factory

Resets all the options in the dialog for the selected flows back to the default factory settings. This only affects the current project and does not delete your saved defaults, meaning future projects still start with your saved defaults.

#### 10 Remove Saved Defaults

Deletes your previous saved defaults without resetting the options in the current project. After removing your saved defaults, all future projects start with the default factory settings.

#### RELATED LINKS

[Flows](#) on page 162

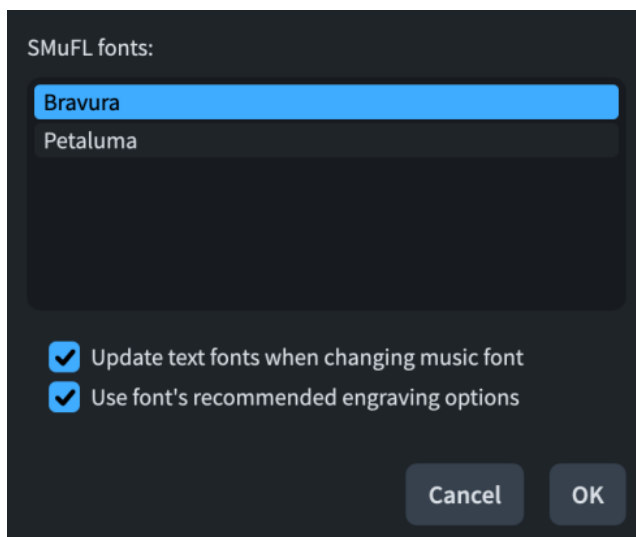
[Changing your preferred unit of measurement](#) on page 51

[Changing values in numeric value fields](#) on page 618

## Music Fonts dialog

The **Music Fonts** dialog allows you to change the font used for notations and glyphs project-wide. Any font you use for notations and glyphs must be SMuFL-compliant.

- You can open the **Music Fonts** dialog by choosing **Library > Music Fonts**.



The **Music Fonts** dialog contains all available SMuFL fonts you have installed on your computer that have the appropriate metadata for Dorico Elements to recognize them. By default, Dorico Elements comes with the following SMuFL-compliant fonts:

- **Bravura:** The default music font, inspired by traditional classical music engraving.
- **Petaluma:** Handwritten music font style, similar to the traditional style used for jazz music.

Changing the music font used in the **Music Fonts** dialog changes the fonts used for notations, glyphs, and other items that are not text, such as clefs, dynamics, and bold tuplet numbers/ratios.

The **Music Fonts** dialog also contains the following options:

#### **Update text fonts when changing music fonts**

Allows you to include/exclude text fonts when changing the music font. For example, deactivating this option allows you to change the appearance of notes and notations without affecting the appearance of flow titles and staff labels.

- For the Bravura music font, the equivalent text font is Academico.
- For the Petaluma music font, the equivalent text font is Petaluma Script.

#### **Use font's recommended engraving options**

Allows you to import the default settings that come with the font.

#### **NOTE**

Certain items that are marked as optional in SMuFL fonts, such as clef changes and non-bold tuplet numbers/ratios, are not affected when you change the music font.

---

## Expression maps

Expression maps tell Dorico Elements how to use appropriately the patches and sounds in the VST instruments that you have loaded into your project.

Expressing a range of dynamics on instruments means changing the volume and attack of notes. Because the strength of attack changes the character of the start of sounds as well as their volume, loud sounds often require stronger attacks and quiet sounds often require softer attacks.

Different patches and instruments have different approaches to changing dynamics and volume in playback. For example, some patches only change the velocity whereas others use a controller in combination with changing the velocity.

Dorico Elements also uses expression maps to specify the playback techniques that are supported by each patch in your project. For example, string instruments such as the violin have different techniques, because they can play *arco*, *pizzicato*, and *col legno*, and their bow position can be anywhere between *sul ponticello* and *sul tasto*.

In addition to the HALion Symphonic Orchestra expression maps, there are the following expression maps in Dorico Elements:

- **CC11 Dynamics:** Uses MIDI controller 11 to play dynamics.

**NOTE**

This only applies to instruments that can change their dynamic while notes are sounding, such as violin or flute.

---

- **Default:** Uses note velocity to control dynamic volume.
- **Modulation Wheel Dynamics:** Uses a modulation wheel to control dynamic volume.
- **Transpose down 1 octave:** Used by some instrument patches that sound an octave higher than written so that they can be played without needing a full range keyboard.
- **Transpose up 1 octave:** Allows the bottom octave of keyboards to be used for key switches instead of notes, but is also used by some bass instrument patches that sound an octave lower than written so that they can be played without needing a full range keyboard.

You can edit, create, and import/export expression maps in the **Expression Maps** dialog. Expression maps are saved as `.doricolib` files.

**NOTE**

Although Dorico Elements approaches expression maps in a different way to Cubase, Dorico Elements correctly imports many switches from expression maps you import from Cubase, such as *pizzicato*, harmonics, and flutter tongue.

---

RELATED LINKS

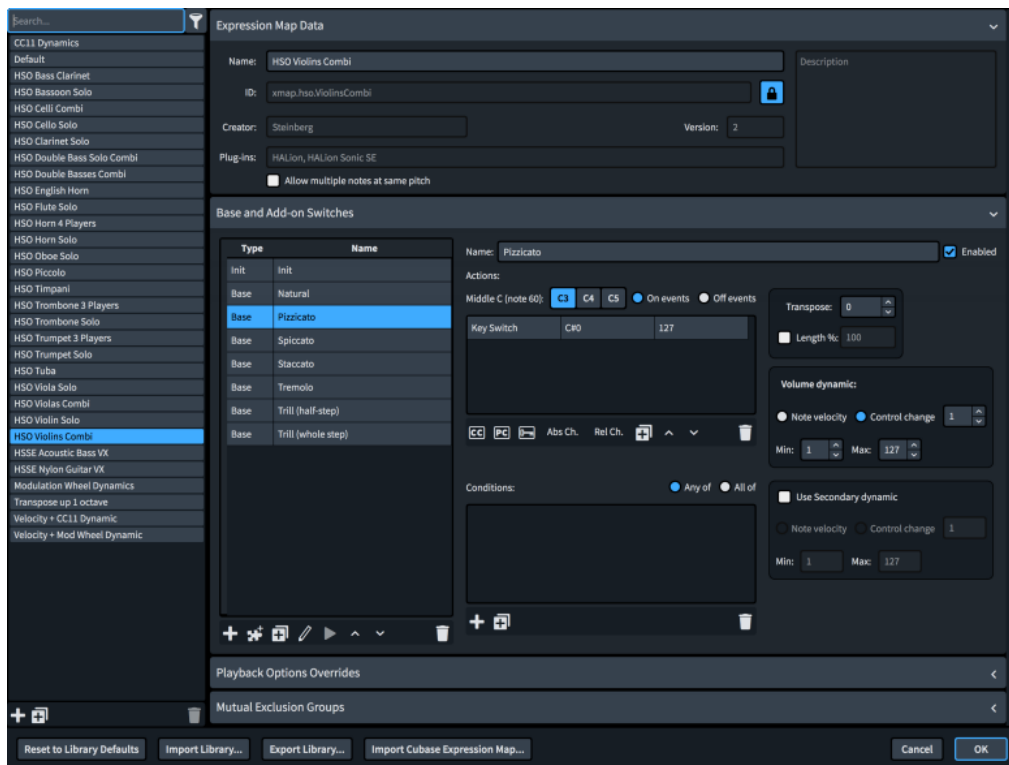
- [Percussion maps](#) on page 700
- [Types of actions](#) on page 695
- [Creating new expression maps](#) on page 696

## Expression Maps dialog

The **Expression Maps** dialog allows you to create new expression maps, edit existing expression maps, and import/export expression maps. You can also import expression maps made in Cubase.

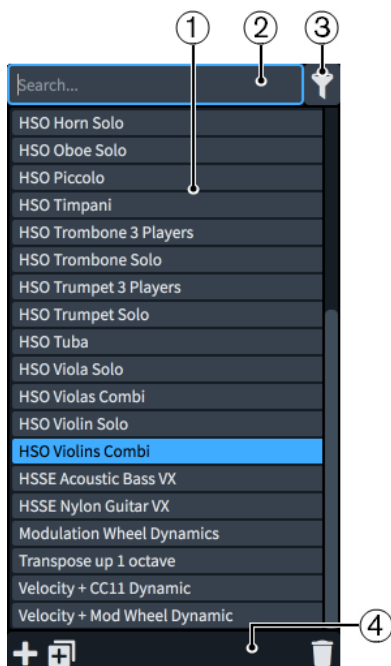
- You can open the **Expression Maps** dialog by choosing **Library > Expression Maps**.








The **Expression Maps** dialog contains the following sections and options:

### Expression maps list



- 1 Expression maps list:** Contains the expression maps currently available in your project.
- 2 Search field:** Allows you to filter expression maps according to your entry.
- 3 Show only expression maps used in this project:** Allows you to filter the expression maps list so it only includes expression maps used in the current project.
- 4 Expression maps list action bar:** Contains the following options:

- **Add Expression Map** : Adds a new expression map that contains no existing settings.
- **Duplicate Expression Map** : Creates a copy of an existing expression map that you can edit separately from the original.
- **Delete Expression Map** : Deletes the selected expression maps.

#### NOTE

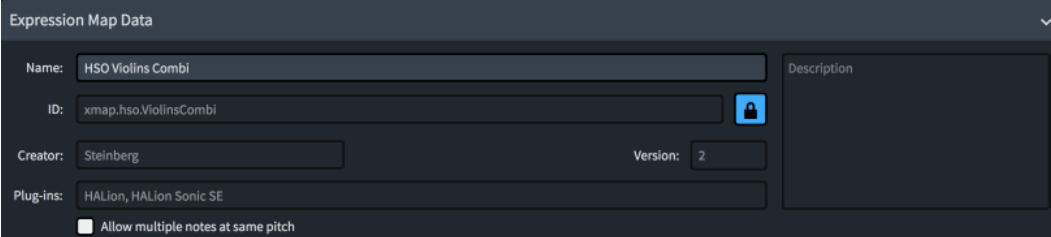
You can only delete custom expression maps. You cannot delete any default expression maps.

---

## Expression Map Data

This section allows you to specify identifying information for the selected expression map.

You can hide/show the **Expression Map Data** section by clicking the section header.



The **Expression Map Data** section contains the following options:

### Name

Allows you to set the name of the expression map that appears in the program; for example, in the **Endpoint Setup** dialog.

### ID

Allows you to set the unique ID of the expression map. You can enter any content in the ID field.

It can be useful to include the instrument and sound library for which you created the map, as well as your name; for example, **xmap.user.paulsmith.h50.violinpizz**.

### Creator

Allows you to name the creator if you are sharing your expression map with other users.

### Version

Allows you to indicate the expression map version, so you can identify the most recent one.

### Plug-ins

Allows you to list the names of plug-ins to which the expression map applies, with each name separated by a comma. You can leave this field blank.



### Allow multiple notes at same pitch

Allows you to set whether or not the plug-in can treat identical pitches in multiple voices belonging to the same instrument as multiple separate notes when independent voice playback is disabled.

### Description

Allows you to add any other information about the expression map.

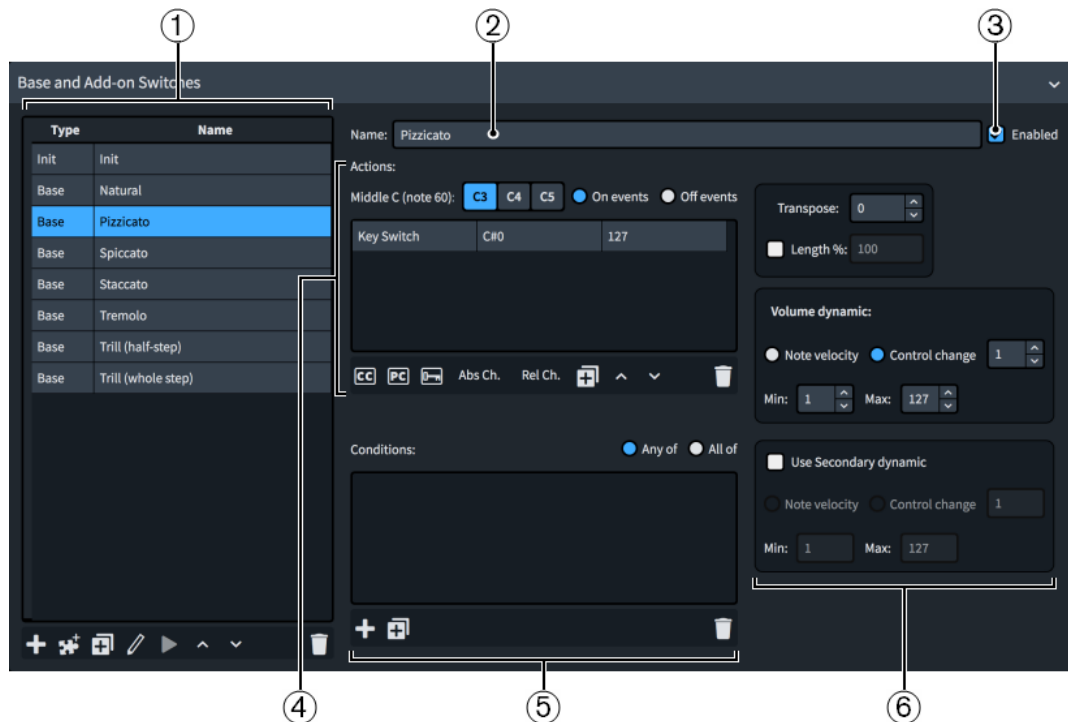
## NOTE

All fields in the **Expression Map Data** section are locked by the **Lock Info**  button. You must click this button to unlock **Lock Info**  in order to change the information in the fields.

## Base and Add-on Switches

This section allows you to view, edit, and control the switches for playback techniques in the selected expression map.

You can hide/show the **Base and Add-on Switches** section by clicking the section header.



The **Base and Add-on Switches** section contains the following:

- 1 **Switches table:** Contains the switches in the currently selected expression map. Allows you to add new switches and edit existing ones.
- 2 **Name:** Allows you to change the name that appears for the currently selected switch in the Switches table; for example, so it appears the same as in your sound library.

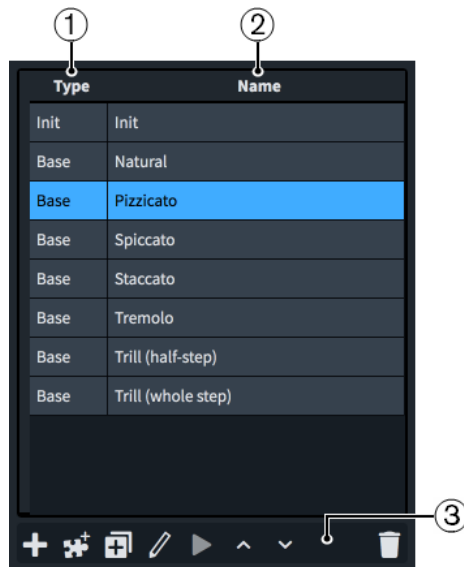
## TIP

You can still see which playback techniques are triggered by switches with custom names by hovering the mouse pointer over the corresponding row in the Switches table.

- 3 **Enabled:** Allows you to enable/disable the currently selected switch without removing it from the expression map.
- 4 **Actions:** Contains any actions required to produce the selected playback technique. Allows you to add new actions and edit existing ones.
- 5 **Conditions:** Contains any conditions that determine the circumstances in which the currently selected switch is used. Allows you to add new conditions and edit existing ones. Only available for **Base** switches.
- 6 **Technique controls:** Contains controls that affect the switch currently selected in the Switches table. Only available for **Base** switches.






## Switches table




Contains the switches in the currently selected expression map.



The Switches table comprises the following:

- Type column:** Displays the switch type. Switches can be any of the following types:
  - **Base**
  - **Add-on**
  - **Init**
- Name column:** Displays the name of the switch. By default, this is the same as the playback technique or playback technique combination it triggers.

In simple cases, each switch triggers an individual playback technique, such as **Staccato** or **Accent**. However, some plug-ins have separate samples for different combinations of playback techniques. For example, **Staccato + Accent** might require a separate set of key switches to **Staccato** and **Accent** individually.
- Switches table action bar:** Contains the following options:
  - **Add Base Switch** : Allows you to add a new base switch to the expression map by selecting the playback techniques you want the switch to trigger in the **Playback Technique Combinations** dialog that opens.
  - **Add Technique Add-on Switch** : Allows you to add a new add-on switch to the expression map by selecting the playback techniques you want the switch to trigger in the **Playback Technique Combinations** dialog that opens.
  - **Duplicate Technique** : Creates a copy of an existing switch that you can edit separately from the original.
  - **Edit Technique** : Opens the **Playback Technique Combinations** dialog, which allows you to edit the combination of playback techniques triggered by the selected switch. You can also edit the playback techniques of existing switches by double-clicking them in the Switches table.
  - **Audition** : Plays two notes using the currently selected switch and any corresponding actions to demonstrate their effect on playback. Only available for expression maps used in the project.

- **Transpose Up 1 Octave** : Raises the octave of all key switch actions for the selected switch.
- **Transpose Down 1 Octave** : Lowers the octave of all key switch actions for the selected switch.
- **Delete Technique** : Deletes the selected switch.

Selecting a switch in the Switches table allows you to edit its controls and actions. Different options are available in the **Base and Add-on Switches** section depending on the switch type.

#### NOTE

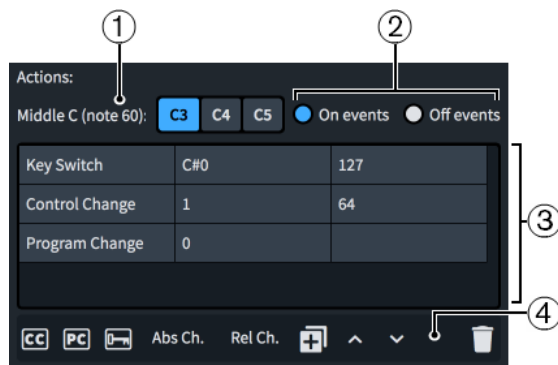
- Most instruments have a “natural” playback technique, which is the most common way of playing the instrument. Dorico Elements requires every instrument to have a defined natural playback technique.
- You can only select one switch at a time in the Switches table.

## Actions

Displays in a table any actions required to produce the selected playback technique. Allows you to determine how the switch that triggers each playback technique is controlled, either by adding new actions or editing existing ones.

#### NOTE

Depending on your plug-in, multiple types of actions can be required for each switch.



The **Actions** subsection comprises the following:








- 1 **Middle C (note 60):** Allows you to choose the pitch for middle C, as there are different conventions for this. We recommend that you consult the documentation for your sound libraries to check whether each one considers middle C to be C3, C4, or C5, and change this setting accordingly.
- 2 **On events/Off events:** Allows you to specify whether actions affect the start or end of notes. For example, you might want an event that resets the playback technique back to normal to apply only to the end of notes.  
**On events** affects the start of notes. **Off events** affects the end of notes.
- 3 **Actions table:** Contains the following columns:
  - First column: Displays the action type. Actions can be a control change, program change, or key switch.
  - Second column: Controls the first parameter of the MIDI event. For key switches, this indicates the pitch. For control changes, this indicates the control change number. For program changes, this indicates the program number.

- Third column: Controls the second parameter of the MIDI event. For key switches, this indicates the velocity. For control changes, this indicates the amount of control change within the range 0 to 127. Program changes do not have a second parameter.

#### NOTE

- You can change the values of cells in the **Actions** table by double-clicking them, or selecting them and pressing **Return**.
- You can only select one action at a time in the **Actions** table.

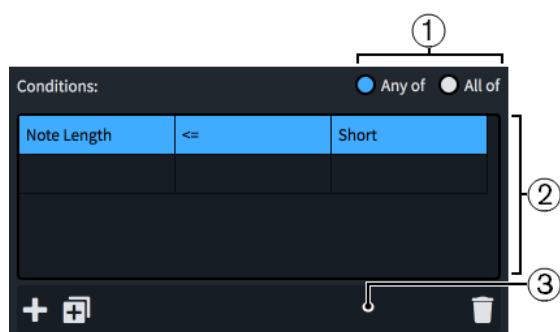
4 **Actions table action bar:** Contains the following options:

- **Add Control Change Action** : Adds a control change action with default settings.
- **Add Program Change Action** : Adds a program change action with default settings.
- **Add Key Switch Note Action** : Adds a key switch action with default settings.
- **Add Absolute Channel Change Action:** Adds an absolute channel change action with default settings.
- **Add Relative Channel Change Action:** Adds a relative channel change action with default settings.
- **Duplicate Action** : Creates a copy of an existing action that you can edit separately from the original.
- **Move Action Up** : Moves the selected action up the table, which changes its order in the message sequence.
- **Move Action Down** : Moves the selected action down the table, which changes its order in the message sequence.
- **Delete Action** : Deletes the selected action.

## Conditions

Displays in a table any conditions that determine the circumstances in which the base switch currently selected in the Switches table is used. Allows you to add new conditions and edit existing ones. Only available for **Base** switches.

For example, you can set conditions instructing the expression map to use a different legato sound with a quicker attack for short notes than for longer notes automatically.



The **Conditions** subsection comprises the following:




- 1 **Any of/All of:** Allows you to set whether the switch is used when one or more conditions are met or only when all conditions are met.
- 2 **Conditions table:** Contains the following columns:
  - First column: Displays the condition type.

- Second column: Controls how the condition type in the first column relates to the note length set in the third column using operators. The following operators are available:
  - ==: Equal to
  - !=: Not equal to
  - <: Less than
  - <=: Less than or equal to
  - >: More than
  - >=: More than or equal to
- Third column: Controls the note length used by the condition. The following note length values are available:
  - **Very short**: A dotted 16th note at 120 bpm, or 0.1875 seconds
  - **Short**: A dotted eighth note at 120 bpm, or 0.375 seconds
  - **Medium**: A dotted quarter note at 120 bpm, or 0.75 seconds
  - **Long**: A dotted half note at 120 bpm, or 1.5 seconds
  - **Very long**: Any longer duration

#### NOTE

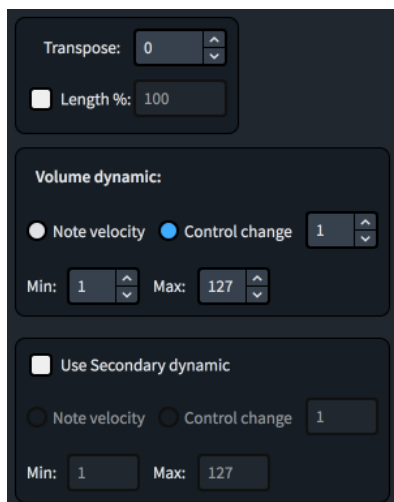
- You can change the values of cells in the **Conditions** table by double-clicking them, or selecting them and pressing **Return**.
- You can only select one condition at a time in the **Conditions** table.

### 3 **Conditions action bar**: Contains the following options:

- **Add Technique** : Adds a new technique condition with default settings.
- **Duplicate Technique** : Creates a copy of an existing technique condition that you can edit separately from the original.
- **Delete Technique** : Deletes the selected technique condition.

## Technique controls

Contains controls that affect the base switch currently selected in the Switches table. Only available for **Base** switches.



The following technique controls are available:

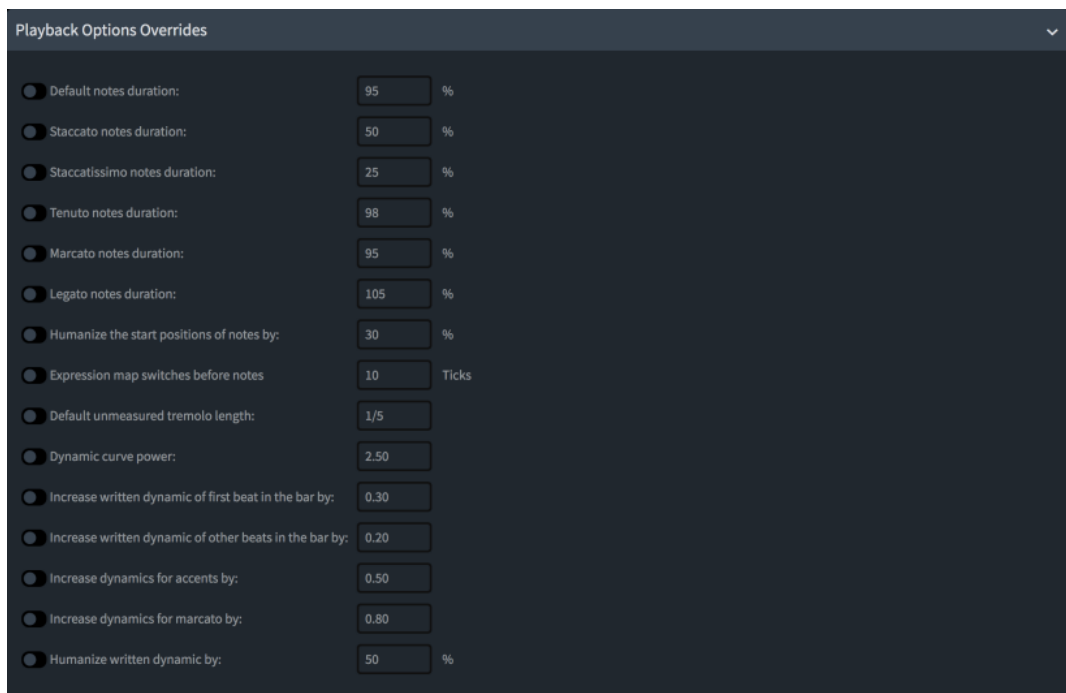
- **Transpose:** Allows you to set the MIDI transposition in half-steps (semitones).
- **Length %:** Allows you to modify played note durations, which overrides the default value; for example, if you want the selected switch to produce short gaps between notes.
  - For notes a quarter note or shorter in duration, the value applies to the entire note.
  - For notes longer than a quarter note, the value only applies to the last quarter note of their overall duration.
- **Volume dynamic:** Allows you to choose whether the volume dynamic for the selected switch is controlled by its **Note velocity** or a **Control change**.

#### NOTE

If you choose **Control change**, you must specify the controller by number. You can consult the documentation for the VST instrument and/or MIDI controller you are using to find the appropriate controller number.

- **Volume dynamic Min/Max:** Allow you to set the minimum and maximum range for dynamics using either note velocity or MIDI CC, depending on the sound library.
- **Use Secondary dynamic:** Allows you to define an additional volume control for sound libraries that use both note velocity and control changes for volume dynamic.
- **Secondary dynamic Min/Max:** Allow you to set the minimum and maximum range for dynamics using either note velocity or MIDI CC, depending on the sound library.

## Playback Options Overrides



Allows you to override specific playback options for the selected expression map only. Activating a playback option overrides it. The available playback options include the default duration of notes with different articulations, unmeasured tremolo notes, and the effect that beat position and articulations have on dynamics.

You can hide/show the **Playback Options Overrides** section by clicking the section header.



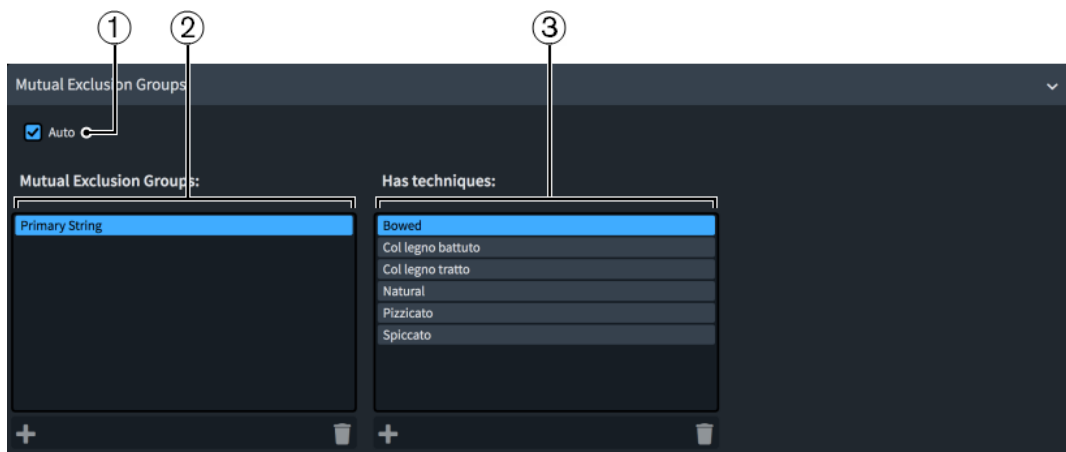
## Mutual Exclusion Groups

Allows you to define playback techniques that are mutually exclusive; that is, cannot be in use concurrently. For example, players cannot play vibrato and non-vibrato at the same time. Putting playback techniques into the same exclusion group means only one can be used at a time.

You can allow Dorico Elements to define mutual exclusion groups automatically or define them yourself manually.

Mutual exclusion groups apply only to the selected expression map. This allows you to set different mutual exclusion groups in each expression map; for example, if one of your sound libraries supports a particular playback technique combination for an instrument but another sound library does not.

You can hide/show the **Mutual Exclusion Groups** section by clicking the section header.





The **Mutual Exclusion Groups** section contains the following options and columns:

- 1 **Auto**: Allows Dorico Elements to define mutual exclusion groups automatically.

### NOTE

Activating **Auto** permanently deletes any manual exclusion groups you have created.



- 2 **Mutual Exclusion Groups** column: Allows you to add and delete mutual exclusion groups manually. The action bar at the bottom of the column contains the following options:

- **Add** : Opens a dialog that allows you to create a new mutual exclusion group and enter a name for it.
- **Delete** : Deletes the selected mutual exclusion group.

### NOTE

You can only select one mutual exclusion group at a time.

- 3 **Has techniques** column: Allows you to change the playback techniques included in the selected mutual exclusion group. The action bar at the bottom of the column contains the following options:

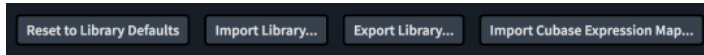
- **Add** : Opens the **Playback Technique Combinations** dialog that allows you to select playback techniques to add to the selected mutual exclusion group.
- **Delete** : Deletes the selected playback technique from the mutual exclusion group.

NOTE

You can only select one playback technique at a time.

---

## Expression map/Library management options



At the bottom of the **Expression Maps** dialog, there are the following expression map and library management options:

### Reset to Library Defaults

Allows you to revert any changes you have made to the expression maps from the Default Library.

### Import Library

Opens the File Explorer/macOS Finder, where you can select the `.doricolib` files that you want to import as expression maps.

You can also import Dorico and Cubase expression maps by dragging and dropping them into the **Expression Maps** dialog.

### Export Library

Opens the File Explorer/macOS Finder, where you can select the location to which you want to export the currently selected expression maps as a `.doricolib` file. You can then import the `.doricolib` file into other projects and share it with other users.

### Import Cubase Expression Map

Opens the File Explorer/macOS Finder, where you can select the Cubase `.expressionmap` files you want to import as expression maps.

NOTE

Cubase expression maps that you have imported often require some editing to function correctly in Dorico Elements. However, switch data is preserved.

---

#### RELATED LINKS

[Types of switches](#) on page 695

[Types of actions](#) on page 695

[Playback techniques](#) on page 706

[Endpoint Setup dialog](#) on page 526

[Edit Playback Techniques dialog](#) on page 707

[Enabling independent voice playback](#) on page 506

[Creating new expression maps](#) on page 696

[Adding/Editing switches in expression maps](#) on page 697


[Adding/Editing mutual exclusion groups in expression maps](#) on page 699

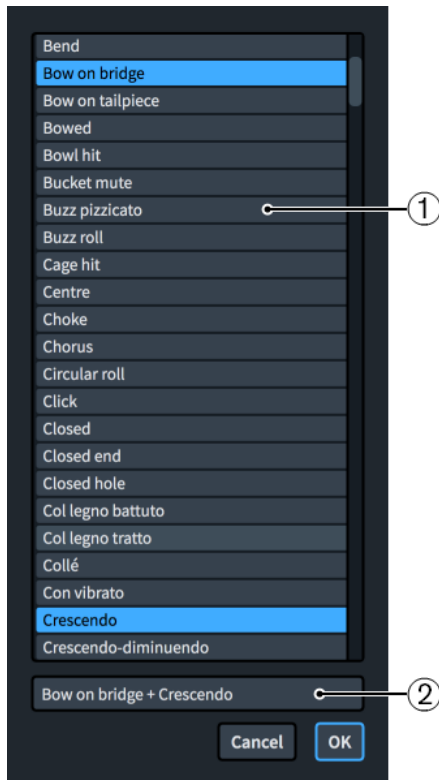
## Playback Technique Combinations dialog

The **Playback Technique Combinations** dialog allows you to create combinations of playback techniques that you want to apply simultaneously. Playback techniques are used by expression maps to assign the correct sounds to the required playing techniques in the music.

You can open the **Playback Technique Combinations** dialog in the following ways:

- In the **Expression Maps** dialog, click **Add Technique**  in the Switches table action bar.

- In the **Expression Maps** dialog, select an existing playback technique in the Switches table and click **Edit Technique**  in the **Techniques** action bar. You can also double-click the playback technique.



### 1 Techniques list

Allows you to select playback techniques to include in a new switch or to change the playback techniques in an existing switch.

You can select multiple playback techniques to combine by **Ctrl/Cmd**-clicking each playback technique.

### 2 Name

Displays the name of the selected playback technique. If you select multiple playback techniques, each name is automatically separated by a + symbol.

#### NOTE

You cannot rename playback techniques or playback technique combinations in the **Playback Technique Combinations** dialog. You can rename the switches that include them in the **Base and Add-on Switches** section of the **Expression Maps** dialog. You can rename individual playback techniques in the **Edit Playback Techniques** dialog.

---

#### RELATED LINKS

[Expression Maps dialog](#) on page 683

[Edit Playback Techniques dialog](#) on page 707

[Adding/Editing switches in expression maps](#) on page 697

## Types of switches

Switches are used in expression maps to trigger the required playback technique or combination of playback techniques. Dorico Elements supports multiple types of switches.

### Base

A fundamental change to the playing technique or articulation, such as changing from *arco* to *pizzicato* or unmuted to muted. Base switches are mutually exclusive, meaning a new base switch replaces the previous one.

### Add-on

A switch that applies in addition to the existing base switch. For example, some sound libraries allow you to use the same legato switch in addition to different base switches. Add-on switches do not remove or change base switches. Add-on switches can only trigger simple key switch notes and controller values.

### Init

A switch that sends instructions when playback starts, such as ensuring a MIDI controller always starts at a set value. By default, every expression map contains an empty init switch. Init switches can only trigger simple key switch notes and controller values.

#### RELATED LINKS

[Expression Maps dialog](#) on page 683

[Adding/Editing switches in expression maps](#) on page 697

[Adding/Editing mutual exclusion groups in expression maps](#) on page 699

## Types of actions

Actions are used in expression maps to determine how individual switches are controlled in order to trigger the required playback technique or combination of playback techniques. Dorico Elements supports multiple types of actions, as different sound libraries require different actions.

### Control change actions

Control change actions use MIDI CC events to modulate sounds. They are particularly useful when using sound libraries whose sounds can be manipulated incrementally, such as increasing/decreasing the string vibrato intensity.

### Program change actions

Program change actions use MIDI PC events to switch to different sounds. They are particularly useful when using sound libraries, such as General MIDI, that use separate programs for each playback technique or combinations of instrument sounds and effects presets.

### Key switch actions

Key switch actions use MIDI note events to switch to different sounds. They are particularly useful when recording MIDI live, as you can press the specified notes on a MIDI keyboard to trigger key switch actions while simultaneously playing the notes you want to record. Usually, key switch actions are mapped to notes in the lowest octave of the MIDI keyboard as they are rarely used for note input.

Key switch actions are also known as “note events”.

### Absolute channel change actions

Absolute channel change actions switch to a specific, explicitly numbered channel. They are particularly useful for sound libraries that have separate plug-in instances for each individual instrument. For example, you might use an absolute channel change

action to switch from “natural” on channel **1** to “pizzicato” on channel **2** in your viola section plug-in instance.

### Relative channel change actions

Relative channel change actions switch to a channel numbered relative to the starting channel. They are particularly useful for sound libraries that have multiple instruments with separate playback technique channels in the same plug-in instance, as they can switch between playback techniques according to their relative channel number rather than an absolute number. For example, if you have four trumpet instruments loaded in the same plug-in instance, each with three channels for different playback techniques, and want to use the same switches for all four trumpets, you might use a relative channel change action to switch from the “natural” original channel to “muted” on the **+1** relative channel.

Relative channel numbers relate to the original channel number of the endpoint for the corresponding instrument. A **0** relative channel change switches back to the original channel.

#### TIP




You can add actions to individual switches in the **Expression Maps** dialog.

---

## Creating new expression maps

You can create new expression maps from scratch, and you can duplicate existing expression maps and edit the settings; for example, when using third-party sound libraries or MIDI devices that do not provide expression maps.

#### PROCEDURE

1. Choose **Library > Expression Maps** to open the **Expression Maps** dialog.
2. Create a new expression map in one of the following ways:
  - To create an empty expression map, click **Add Expression Map**  in the expression maps list action bar.
  - To create a copy of an existing expression map, select it in the expression maps list and click **Duplicate Expression Map**  in the action bar.
3. In the **Expression Map Data** section, click **Lock Info**  to unlock the fields.
4. In the **Expression Map Data** section, enter information for your expression map in the relevant fields.
5. Activate/Deactivate **Allow multiple notes at same pitch**.
6. Optional: In the **Base and Add-on Switches** section, add any new switches you require to trigger playback techniques or combinations of playback techniques.
7. In the Switches table, select a switch whose actions, conditions, and/or controls you want to edit.
8. Change any settings for the selected switch as required.

For example, you can add actions for all switch types or, for base switches only, choose whether the volume of a selected base switch is controlled by its **Note velocity** or a **Control change**.
9. Optional: Repeat steps 7 and 8 for all switches whose settings you want to change.
10. In the **Playback Options Overrides** section, activate each playback option you want to override for the expression map and change their values.

11. In the **Mutual Exclusion Groups** section, activate/deactivate **Auto**.
  12. Optional: If you deactivated **Auto**, add or edit mutual exclusion groups manually.
  13. Click **OK** to save your changes and close the dialog.
- 

RELATED LINKS

[Expression Maps dialog](#) on page 683

[Endpoint Setup dialog](#) on page 526

[Playback Technique Combinations dialog](#) on page 693

[Adding/Editing mutual exclusion groups in expression maps](#) on page 699





## Adding/Editing switches in expression maps

You can create new and edit existing switches that trigger playback techniques or combinations of playback techniques in individual expression maps; for example, to add an add-on switch to an existing base switch, or to create a new base switch with note length conditions.

Playback technique combinations are useful for expression maps that require different sets of key switches for **Staccato + Accent** compared to **Staccato** and **Accent** individually, for example.

---





PROCEDURE

1. Choose **Library > Expression Maps** to open the **Expression Maps** dialog.
2. In the expression maps list, select the expression map to which you want to add switches or whose existing switches you want to edit.
3. Optional: In the Switches table in the **Base and Add-on Switches** section, add a new switch to trigger a playback technique or playback technique combination or edit an existing one in one of the following ways:
  - To add a new base switch, click **Add Base Switch** .
  - To add a new add-on switch, click **Add Technique Add-on Switch** .
  - To create a copy of an existing switch, select it and click **Duplicate Technique** .
  - To change the playing techniques triggered by an existing switch, select it and click **Edit Technique** .
4. Optional: If you added a new base/add-on switch or edited an existing switch, select the playback techniques you want the switch to trigger in the **Playback Technique Combinations** dialog.

TIP

You can select a single playback technique or combine multiple playback techniques. To select multiple playback techniques, **Ctrl/Cmd**-click each playback technique.



- 
5. Optional: Click **OK** to add the selected playback techniques and close the **Playback Technique Combinations** dialog.
  6. In the Switches table, select the switch whose actions, conditions, and/or controls you want to edit.
  7. In the **Actions** subsection, choose the event type from one of the following options:
    - **On events**
    - **Off events**
  8. In the **Actions** table, add an action of the selected event type for the currently selected switch in one of the following ways:

- Click **Add Control Change Action** .
  - Click **Add Program Change Action** .
  - Click **Add Key Switch Note Action** .
  - Click **Add Absolute Channel Change Action**.
  - Click **Add Relative Channel Change Action**.
  - Select an existing action and click **Duplicate Action** .
9. Double-click each cell whose value you want to change and change the value.
10. Choose one of the following pitches for **Middle C (note 60)**:
- **C3**
  - **C4**
  - **C5**

#### NOTE

Steps 11 to 15 only apply to base switches. For init and add-on switches, you can skip to step 16.

---

11. Optional: Repeat steps 6 to 10 for each action you require for the currently selected switch.
12. In the **Conditions** table, add a condition for the currently selected base switch in one of the following ways:
- To create a new condition, click **Add Technique**  in the action bar.
  - To create a copy of an existing condition, select it and click **Duplicate Technique**  in the action bar.
13. Double-click each cell whose value you want to change and select the required option from the menu.
14. Optional: Repeat steps 12 and 13 for each condition you want to add to the selected base switch.
15. Choose one of the following condition options:
- To use the switch when at least one condition is met, choose **Any of**.
  - To use the switch when all conditions are met, choose **All of**.
16. Change any of the other settings in the **Base and Add-on Switches** section as required. For example, choose whether the volume of the selected base switch is controlled by its **Note velocity** or a **Control change**.
17. Click **OK** to save your changes and close the **Expression Maps** dialog.
- 

#### RELATED LINKS

[Playback techniques](#) on page 706

[Expression Maps dialog](#) on page 683




[Playback Technique Combinations dialog](#) on page 693

## Adding/Editing mutual exclusion groups in expression maps

By default, Dorico Elements automatically defines mutual exclusion groups. You can create new and edit existing mutual exclusion groups in individual expression maps manually.

---

### PROCEDURE

1. Choose **Library > Expression Maps** to open the **Expression Maps** dialog.
  2. In the expression maps list, select the expression map to which you want to add mutual exclusion groups or whose existing mutual exclusion groups you want to edit.
  3. Optional: If **Auto** is activated in the **Mutual Exclusion Groups** section, deactivate **Auto**.
  4. Optional: If you want to add a new mutual exclusion group, click **Add**  in the **Mutual Exclusion Groups** column action bar.
  5. Enter a name for the new mutual exclusion group in the dialog that opens.
  6. Click **OK** to add the group and close the dialog.
  7. In the **Mutual Exclusion Groups** column, select the mutual exclusion groups whose playback techniques you want to change.
  8. Change the playback techniques in the selected mutual exclusion group in any of the following ways:
    - To add new playback techniques to the mutual exclusion group, click **Add**  in the **Has techniques** column action bar to open the **Playback Technique Combinations** dialog, select the playback techniques you want to add, then click **OK**.
    - To remove playback techniques from the mutual exclusion group, select them in the **Has techniques** column, and click **Delete**  in the action bar.
  9. Click **OK** to save your changes and close the **Expression Maps** dialog.
- 

## Importing expression maps

You can import expression maps into projects, including `.expressionmap` files exported from Cubase. Expression maps exported from Dorico are saved as `.doricolib` files.

---

### PROCEDURE

1. Choose **Library > Expression Maps** to open the **Expression Maps** dialog.
  2. Click **Import Library** to open the File Explorer/macOS Finder.
  3. Locate and select the expression map file you want to import.
  4. Click **Open**.
- 

### RESULT

The selected expression map is imported into your project. It appears in the expression maps list.

### NOTE

- You can also import Dorico and Cubase expression maps by dragging and dropping them into the **Expression Maps** dialog.
  - Although Dorico Elements approaches expression maps in a different way to Cubase, Dorico Elements correctly imports many switches from expression maps you import from Cubase, such as *pizzicato*, harmonics, and flutter tongue.
-



## Exporting expression maps

You can export expression maps for use in other projects. Expression maps are saved as `.doricolib` files.

---

### PROCEDURE

1. Choose **Library > Expression Maps** to open the **Expression Maps** dialog.
2. In the expression maps list, select the expression maps you want to export.
3. Click **Export Library** to open the File Explorer/macOS Finder.
4. In the File Explorer/macOS Finder, specify a name and location for the library file.
5. Click **Save**.

---

### RESULT

The selected expression maps are exported as a `.doricolib` file and saved in the selected location.

## Percussion maps

Unpitched percussion instruments are played back using patches that map unpitched sounds onto different MIDI notes. The pitches required to produce different unpitched sounds vary by device, sound library, manufacturer, and so on, and have no connection to the position of percussion instruments on five-line staves.

The following list contains some examples of unpitched percussion instruments from the General MIDI percussion map.

- Bass drum: C2 (MIDI note 36, two octaves below middle C)
- Kick drum: D2 (MIDI note 38)
- Closed hi-hat: F#2 (MIDI note 42)
- Cowbell: G#3 (MIDI note 56)
- Open triangle: A5 (MIDI note 81)

Dorico Elements uses percussion maps to connect the written representation of notes and playing techniques for percussion instruments to the samples required to play those sounds back.

### NOTE

A percussion map describes which unpitched percussion instruments and their playback techniques are present in a particular patch, and how to play them back. For example, it describes which MIDI note to play, and if another MIDI note is needed as a key switch to trigger particular playing techniques.

---

A set of percussion maps for the unpitched percussion patches that are part of the HALion Symphonic Orchestra and HALion Sonic SE factory libraries is provided with Dorico Elements. They are automatically chosen when you add percussion instruments to your project.

You can define custom percussion maps for third-party sound libraries or MIDI devices in the **Percussion Maps** dialog, in order to obtain correct playback.

### RELATED LINKS

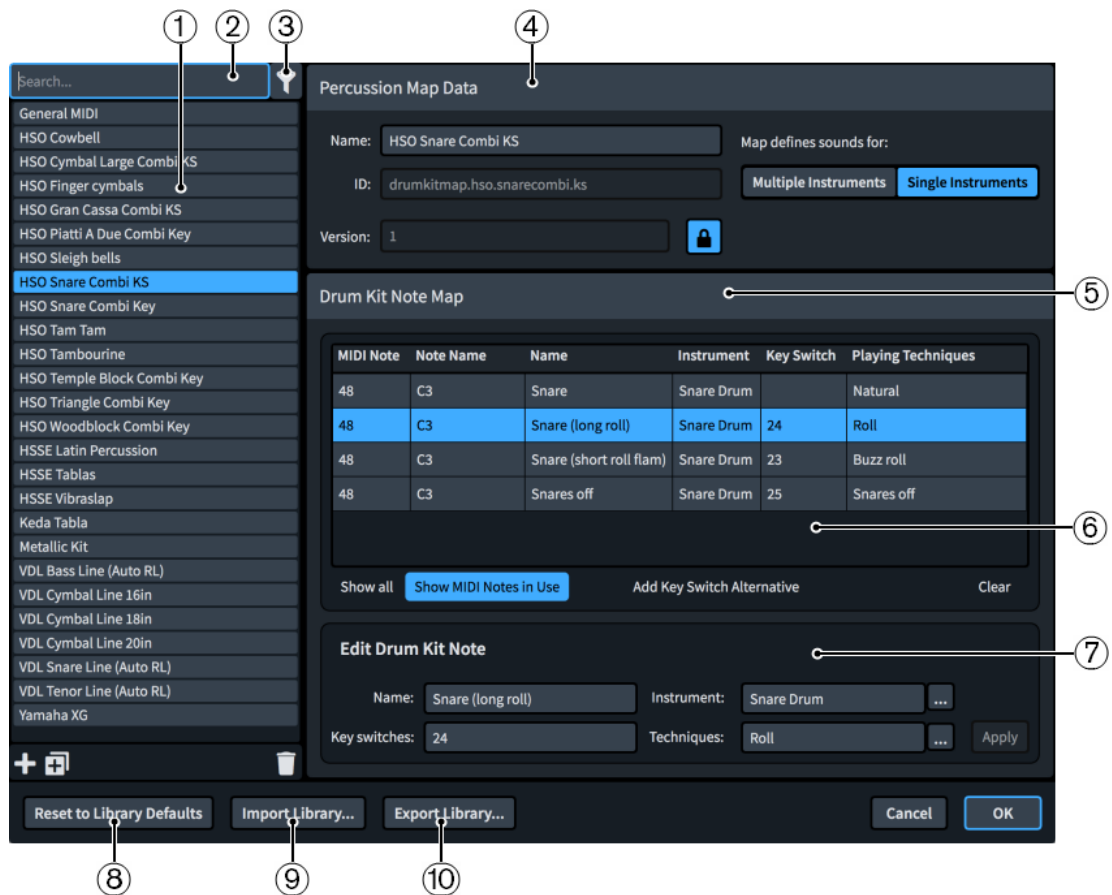
[Unpitched percussion](#) on page 1282

[Universal Indian Drum Notation](#) on page 1301  
[Importing percussion maps](#) on page 705  
[Exporting percussion maps](#) on page 705

## Percussion Maps dialog

In the **Percussion Maps** dialog, you can define custom percussion maps for third-party sound libraries or MIDI devices in order to obtain correct playback.

- You can open the **Percussion Maps** dialog by choosing **Library > Percussion Maps**.



The **Percussion Maps** dialog is divided into the following sections:

### 1 Percussion maps list

Contains the percussion maps currently available in your project.

You can add and delete percussion maps using the following buttons in the action bar at the bottom of the percussion maps list:

- Add Percussion Map** : Adds a new percussion map that contains no existing settings.
- Duplicate Percussion Map** : Creates a copy of an existing percussion map that you can edit separately from the original.
- Delete Percussion Map** : Deletes the selected percussion maps.

#### NOTE

You can only delete custom percussion maps. You cannot delete any default percussion maps.

## 2 Search field

Allows you to filter percussion maps according to your entry.

## 3 Show only percussion maps used in this project

Allows you to filter the percussion maps list so it only includes percussion maps used in the current project.

## 4 Percussion Map Data section

Allows you to specify the following identifying information for the selected percussion map:

- **Name:** Allows you to specify the displayed name for the percussion map that appears in the **Endpoint Setup** dialog.
- **ID:** Allows you to set the unique ID of the percussion map. You can enter any content in the ID field.

It can be useful to include the instrument and sound library for which you created the map, as well as your name; for example, **xmap.user.paulsmith.hso.cowbell**.

- **Version:** Allows you to indicate the percussion map version so you can identify the most recent one.
- **Map defines sounds for:** Allows you to choose one of the following options, as appropriate for the current percussion map:
  - **Multiple Instruments:** Choose this if the patch for which you are creating a map contains many different percussion instruments, such as the General MIDI drum map.
  - **Single Instruments:** Choose this if the patch for which you are creating a map contains only a single percussion instrument, perhaps with multiple playback techniques for that instrument. For example, a snare drumline patch in Virtual Drumline or another specialist sound library.

This can also be useful when your VST instrument has several patches that have the same playback technique mappings. For example, there are both large and small cymbal patches in HALion Symphonic Orchestra which provide natural strike and roll sounds. Creating a single individual instrument percussion map allows you to use the same mapping for these sounds for multiple patches.

### NOTE

- **ID** and **Version** are locked by the **Lock Info** button. You must click this button in order to change the information in the fields.
- The **Endpoint Setup** dialog is where you set which percussion map Dorico Elements uses for each channel on your VST instrument or MIDI output device.

---

## 5 Drum Kit Note Map section

Contains subsections that allow you to view, edit, and control the drum kit notes in the selected percussion map.

## 6 Drum Kit Note Map table

By default, the table shows the drum kit notes in use by the selected percussion map in numerical order. The table also contains the following columns, which display the corresponding available data about the selected drum kit note:

- **MIDI Note:** Shows the MIDI note number, such as "48".
- **Note Name:** Shows the pitch and octave of the note, such as "C3".
- **Name:** Shows the name of the technique, such as Snare "(long roll)".
- **Instrument:** Shows the unpitched percussion instrument, such as "Snare Drum".

- **Key Switch:** Shows the number of the key switch that triggers the note, such as “24”.
- **Playback Techniques:** Shows the playback techniques triggered by the note, such as “Roll”.

At the bottom of the table, there are the following options:

- **Show all:** Shows all MIDI notes from 0 to 127.
- **Show MIDI Notes in Use:** Only shows the MIDI notes in use by the selected percussion map.
- **Add Key Switch Alternative:** Duplicates the selected drum kit note.
- **Clear:** Deletes the selected drum kit note.

You can change the data for the currently selected drum kit note in the **Edit Drum Kit Note** subsection.

## 7 Edit Drum Kit Note subsection

Allows you to specify data in the following fields for the drum kit note currently selected in the **Drum Kit Note Map** table:

- **Name:** The displayed name for the specific combination of instrument and playback technique. You may choose to input the name used in the manufacturer’s documentation for your VST instrument or MIDI output device.
- **Instrument:** Allows you to select an instrument for the drum kit note selected in the **Drum Kit Note Map** section from a list of all the unpitched percussion instruments you can create in Dorico Elements.
- **Key switches:** Allows you to specify the MIDI note number of the key you want to use as a key switch if this sound requires another MIDI note to be played to trigger this specific combination of instrument and playback techniques.

### NOTE

Key switches are not compulsory.

- **Techniques:** Allows you to select playback techniques to apply to the instrument selected in the **Instrument** field from a list of the available playback techniques.

## 8 Reset to Library Defaults

Allows you to revert any changes you have made to the percussion maps from the Default Library.

## 9 Import Library

Opens the File Explorer/macOS Finder, where you can select the `.doricolib` files that you want to import as percussion maps.

## 10 Export Library

Opens the File Explorer/macOS Finder, where you can select the location to which you want to export the currently selected percussion maps as a `.doricolib` file. You can then import the `.doricolib` file into other projects and share it with other users.






# Creating new percussion maps

You can create new percussion maps from scratch and you can duplicate existing percussion maps and edit the settings; for example, to obtain correct playback when using third-party sound libraries or MIDI devices.

---

### PROCEDURE

1. Choose **Library > Percussion Maps** to open the **Percussion Maps** dialog.

2. Create a new percussion map in any of the following ways:
  - To create an empty percussion map, click **Add Percussion Map**  in the action bar.
  - To create a copy of an existing percussion map, select it in the percussion maps list and click **Duplicate Percussion Map**  in the action bar.
3. In the **Percussion Map Data** section, click **Lock Info**  to unlock the fields.
4. Enter the display name you want for the percussion map in the **Name** field.  
This name appears in the **Endpoint Setup** dialog.
5. Enter any unique identification name in the **ID** field.  
It can be useful to include the instrument and sound library for which you created the map, as well as your name, in the identification name for percussion maps; for example, **xmap.user.paulsmith.hso.cowbell**.
6. Choose one of the following options for **Map defines sounds for**, as appropriate for the current percussion map:
  - **Multiple Instruments**
  - **Single Instruments**
7. In the **Drum Kit Note Map** section, click **Show all** to show unmapped notes.
8. Select the row corresponding to the MIDI note for which you want to create a new mapping.
9. In the **Edit Drum Kit Note** subsection, click  beside the **Instrument** field to open a dialog containing a list of percussion instruments.
10. Select the instrument that corresponds to the sound produced by the selected MIDI note.
11. Click **OK**.
12. In the **Edit Drum Kit Note** subsection, click  beside the **Techniques** field to open the **Playback Technique Combinations** dialog.
13. Select the appropriate playback techniques for the sound produced by the selected MIDI note.  
For example, **Ctrl/Cmd**-click **Buzz roll** and **Rim**.
14. Click **OK**.
15. In the **Edit Drum Kit Note** subsection, enter the display name you want for this combination of instrument and playing technique in the **Name** field.
16. Optional: If the key switch for this sound requires a MIDI note number, specify it in the **Key switches** field.
17. Click **Apply**.
18. Optional: Repeat these steps for each MIDI note until you have created all the required mappings for your project.
19. Click **OK** to save your changes and close the dialog.

---

#### RESULT

The new percussion map is created.

#### AFTER COMPLETING THIS TASK

- You must assign percussion maps to the same endpoints as the VST instruments or MIDI devices that provide the corresponding patches.
- You can export the percussion map if you want to use it in other projects.

RELATED LINKS

[Percussion maps](#) on page 700

[Assigning expression/percussion maps to endpoints](#) on page 531

[Endpoint Setup dialog](#) on page 526

## Importing percussion maps

You can import percussion maps into projects. Percussion maps are saved as `.doricolib` files.

---

PROCEDURE

1. Choose **Library > Percussion Maps** to open the **Percussion Maps** dialog.
2. Click **Import Library** to open the File Explorer/macOS Finder.
3. Locate and select the percussion map file you want to import.
4. Click **Open**.

---

RESULT

The selected percussion map is imported into your project. It appears in the percussion maps list.

## Exporting percussion maps

You can export percussion maps so you can use them in other projects. Percussion maps are saved as `.doricolib` files.

---

PROCEDURE

1. Choose **Library > Percussion Maps** to open the **Percussion Maps** dialog.
2. In the percussion maps list, select the percussion maps you want to export.
3. Click **Export Library** to open the File Explorer/macOS Finder.
4. In the File Explorer/macOS Finder, specify a name and location for the library file.
5. Click **Save**.

---

RESULT


The selected percussion maps are exported as a `.doricolib` file and saved in the selected location.




## Defining how combinations of articulations and single-note tremolos sound in playback

You can define specific playback behaviors for particular combinations of articulations and single-note tremolos in playing technique-specific noteheads for unpitched percussion instruments.

---

PROCEDURE

1. In Setup mode, open the **Percussion Instrument Playing Techniques** dialog in any of the following ways:
  - For an individual percussion instrument: In the **Players** panel, click the instrument menu  in the instrument label, and choose **Edit Percussion Playing Techniques** from the menu.

- For percussion instruments that are part of percussion kits: In the **Players** panel, click the instrument menu  in the kit instrument label and choose **Edit Percussion Kit** to open the **Edit Percussion Kit** dialog. In the main editing area, select the instrument whose playing techniques you want to edit, then click **Edit Percussion Playing Techniques**.
2. In the list at the top of the dialog, select the playing technique-specific notehead whose playback behaviors you want to define.
  3. Click **Add Technique**  in the action bar at the bottom left of the dialog.
  4. Click **Choose Playing Techniques**  beside the **Playback playing technique** field to open the **Playback Technique Combinations** dialog.
  5. Select the playback techniques you want.

TIP

You can select a single playback technique or combine multiple playback techniques. To select multiple playback techniques, **Ctrl/Cmd**-click each playback technique.

---

6. Click **OK** to add the selected playback techniques and close the **Playback Technique Combinations** dialog.
  7. Choose one of the following options:
    - **Replace**: Allows you to use this playing technique instead of the default playing technique defined for this combination of notehead and staff position.
    - **Add**: Allows you to add this playing technique on top of the default playing technique defined for this combination of notehead and staff position.
  8. Choose any articulations and the tremolo stroke that you want from the available options.
  9. Click **OK** to save your changes and close the dialog.
- 

RESULT

The behavior of the selected playing technique in playback is changed.

RELATED LINKS

- [Percussion Instrument Playing Techniques dialog](#) on page 1283
- [Creating new playing technique-specific noteheads](#) on page 1287
- [Playback Technique Combinations dialog](#) on page 693

## Playback techniques

Playback techniques link together the notations you input into your music and techniques/articulations in sound libraries in order to produce the correct sounds in playback. They are used by expression and percussion maps to trigger the appropriate commands, such as key switches or control changes.

When you input notations, such as playing techniques, tremolos, jazz articulations, or articulations, the corresponding expression maps look for the appropriate playback techniques. For example, inputting *pizz.* playing techniques causes expression maps to use the **Pizzicato** playback technique to switch to the *pizzicato* sound for playback. If the expression map cannot locate the sound, the playback technique applied either remains the same as the previous playback technique or reverts to the natural playback technique.

Custom playing techniques that use playback techniques which do not already exist in expression maps do not play back automatically. In order for them to play back appropriately,

you must add them to the expression maps for each instrument for which you want to use them. You must also assign an action for each custom playing technique that determines how the switch that triggers the technique is controlled.

You can map playback techniques as required for different sound libraries in the **Expression Maps** dialog, including creating new combinations of existing playback techniques, such as **Legato** and **Tremolo**, which allows them to be used simultaneously.

You can see which playback techniques are in use at any particular rhythmic position in the Playing Techniques editor for the corresponding instrument/voice.

#### TIP

- If you have input a playing technique but cannot hear a change in the sound, you might be using a combination of playback techniques that the expression map does not expect. For example, if you input a new playing technique without cancelling an existing playing technique, the expression map cannot process the two corresponding playback techniques together if the expression map does not have an entry for those two techniques combined.

To avoid playback technique clashes, you can add playback techniques that cannot be in use concurrently to the same mutual exclusion group in the corresponding expression maps. Alternatively, you can create a combination of those playback techniques in order to use them simultaneously.

- You can enable independent voice playback for individual instruments to hear different playing techniques, tremolos, jazz articulations, or articulations in different voices simultaneously.

---

#### RELATED LINKS

[Expression maps](#) on page 682

[Expression Maps dialog](#) on page 683

[Playback Technique Combinations dialog](#) on page 693

[Enabling independent voice playback](#) on page 506

[Creating new expression maps](#) on page 696

[Adding/Editing mutual exclusion groups in expression maps](#) on page 699

[Playing Techniques editor](#) on page 641

[Playing techniques](#) on page 1062

[Tremolos](#) on page 1264

[Jazz articulations](#) on page 1028

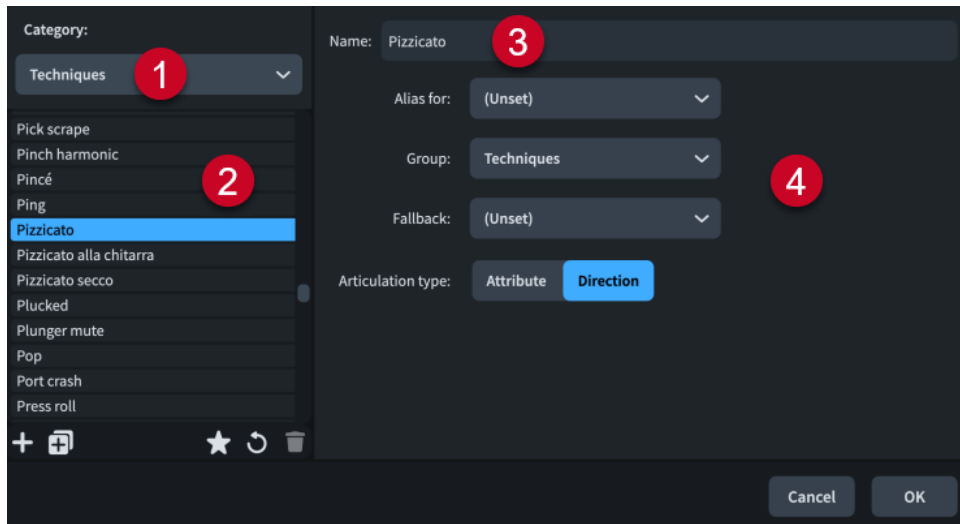
[Articulations](#) on page 723

## Edit Playback Techniques dialog

The **Edit Playback Techniques** dialog allows you to define new playback techniques and edit existing ones. Playback techniques are used by expression maps to assign the correct sounds to the required notations in the music, such as playing techniques, tremolos, jazz articulations, and articulations.

- You can open the **Edit Playback Techniques** dialog by choosing **Library > Playback Techniques**.





The **Edit Playback Techniques** dialog contains the following sections and options:







### 1 Category menu

Allows you to filter the list of playback techniques by selecting a category from the menu, such as **Techniques** or **Dynamics**.

### 2 Playback techniques list

Contains all the playback techniques in the project within the currently selected category.

The action bar at the bottom of the list contains the following options:

- **New** : Adds a new blank playback technique.
- **New from Selection** : Creates a copy of an existing playback technique that you can edit separately from the original.
- **Save as Default** : Saves the selected playback technique to your user library, allowing you to use it in multiple projects. Appears as  for playback techniques saved as default.
- **Revert to Factory** : Removes all your changes to the selected playback technique, returning it to its saved settings.
- **Delete** : Deletes the selected playback technique.

#### NOTE

You cannot delete predefined playing techniques or any playing technique that is currently used in your project.

### 3 Name

Allows you to edit or enter the name of the playback technique. This is the name shown in lists in the **Edit Playing Techniques**, **Expression Maps**, **Playback Technique Combinations**, and **Percussion Maps** dialogs.

### 4 Playback options

- **Alias for**: Allows you to select another playback technique whose sound mapping you want to apply to the selected playback technique as well.
- **Group**: Sets the group in which this playback technique appears.
- **Fallback**: Allows you to specify another playback technique that can be used if the present one is not available.
- **Articulation type**: Sets the duration over which the playback technique takes effect. **Attribute** applies only to the note at the rhythmic position where the playing technique

is found, such as a staccato articulation, while **Direction** applies to all following notes until it is replaced by another playing technique, such as *pizzicato*.

RELATED LINKS

[Expression Maps dialog](#) on page 683

[Playback Technique Combinations dialog](#) on page 693

[Adding/Editing mutual exclusion groups in expression maps](#) on page 699

# **Notation reference**

# Introduction

This notation reference contains information about the accepted conventions for presenting different notations and how to change their appearance and placement in Dorico Elements, both for individual items and by changing default settings.

It also contains instructions for inputting more complex notations, such as cross-staff glissando lines, which are described in the corresponding chapter.

Tasks in the notation reference outline the default per-layout changes you can make in **Layout Options**, such as changing the frequency of bar numbers, and the individual changes you can make to items, which often involve using properties in the Properties panel.

More detailed default options, such as how notes should be beamed in different meters or spacing gaps between different items, are available in Dorico Pro.

You can find basic input methods for notations in the Write mode chapter.

## RELATED LINKS

[Write mode](#) on page 186

[Layout Options dialog](#) on page 677

[Properties panel](#) on page 615

[Notations input](#) on page 259

# Accidentals

Accidentals are shown beside notes to indicate their pitch, both when notated on a staff and written out in text. In music based in Western tonality, they usually show that the pitch of a note has been altered so that it does not conform to the prevailing key signature.

In Dorico Elements, each note has its own fixed pitch that is independent of the prevailing key signature, and accidentals are automatically hidden and shown as appropriate. For example, if you input F#s and then add a D major key signature before them, they do not turn into F#s; they remain F#s and show natural accidentals. However, if you input the D major key signature first, any Fs you then input without stating an accidental are input as F#s.



There are different conventions for accidental duration rules, such as not repeating the same accidental on subsequent notes of the same pitch in the same bar. In music that has no key signatures, some or all notes might require accidentals, depending on the notation convention in use.

You can use accidental duration rules to determine when accidentals are shown.

## RELATED LINKS

[Accidental duration rules](#) on page 719

[Inputting notes](#) on page 211

[Inputting accidentals](#) on page 233

## Deleting accidentals


You can delete accidentals according to their type, and you can delete all accidentals from a selection of notes with different accidentals at the same time. This changes the pitch of the selected notes.

### NOTE

These steps do not apply to cautionary accidentals, such as those shown on natural notes that follow the same notes with an accidental but in a different octave. In Dorico Elements, you can only hide, show, or parenthesize cautionary accidentals individually.

### PROCEDURE


1. In Write mode, select the notes whose accidentals you want to delete.
2. Delete accidentals in any of the following ways:
  - To delete naturals, press **0**.
  - To delete flats, press **-**.

- To delete sharps, press .
  - In the Notes panel, click the accidentals you want to delete.
- 

#### RESULT

The corresponding accidentals are deleted from the selected notes. This changes their pitch. For example, deleting the sharp from a G# turns it into G.

#### NOTE

- Deleting accidentals causes accidentals to appear on any subsequent notes of the same pitch in the same bar. When you select single notes or multiple notes in the same voice at the same rhythmic position, their pitches are shown in the status bar and as depressed keys in the Keyboard panel.
  - To delete accidentals from a selection of notes with different accidentals, we recommend that you revert them all to natural by pressing **0** or clicking **Natural** in the Notes panel. This is because re-inputting an accidental over a selection of notes with different accidentals adds that accidental to every note in the selection. For example, two G#s followed by two Gbs become four G#s if you re-input a sharp. If you click **Sharp** or press  twice, all accidentals are deleted.
- 

#### RELATED LINKS

[Inputting accidentals](#) on page 233

[Changing the pitch of individual notes](#) on page 444

[Notes panel](#) on page 191


[Status bar](#) on page 39

[Keyboard panel](#) on page 197

## Hiding/Showing or parenthesizing accidentals

You can hide/show individual accidentals, or show them in round or square brackets, including cautionary accidentals shown by default. For example, you can show cautionary accidentals on subsequent notes in tie chains that cross system/frame breaks by showing accidentals in round brackets. You can do this for the current layout and frame chain only, or for all layouts and frame chains.

#### PREREQUISITE

- The lower zone is shown.
  - **Properties**  is selected in the lower zone toolbar.
  - You have chosen the appropriate property scope for local properties.
- 

#### PROCEDURE

1. Select the notes whose accidentals you want to hide/show or parenthesize. You can do this in Write mode and Engrave mode.

#### NOTE

You can only select individual noteheads within tie chains in Engrave mode.

---

2. In the Properties panel, activate **Accidental** in the **Notes and Rests** group.
3. Select one of the following options from the menu:
  - **Hide**

- **Show**
  - **Round brackets**
  - **Square brackets**
- 

#### RESULT

Accidentals on the selected notes are shown, hidden, or shown in round or square brackets. If the property scope was set to **Locally**, this change only takes effect in the current layout and frame chain.

#### NOTE

- Hiding accidentals does not affect the pitch of notes in playback.
  - If you are hiding/showing many accidentals, we recommend that you consider changing the accidental duration rule.
  - You can assign key commands for different accidental hiding, showing, and parenthesizing commands on the **Key Commands** page in **Preferences**.
- 

#### AFTER COMPLETING THIS TASK

You can also hide/show or parenthesize accidentals on artificial harmonics shown using diamond noteheads, independently of the normal noteheads that indicate the stopped pitch.


#### RELATED LINKS

- [Properties panel](#) on page 615
- [Hiding/Showing zones](#) on page 44
- [Accidental duration rules](#) on page 719
- [Hiding/Showing or parenthesizing cautionary accidentals](#) on page 720
- [Hiding/Showing or parenthesizing harmonic accidentals](#) on page 971
- [Preferences dialog](#) on page 58
- [Ties](#) on page 1232
- [Changing the property scope](#) on page 617
- [Copying property settings to other layouts/frame chains](#) on page 599

## Changing the size of accidentals

You can change the size of accidentals individually without changing the size of the noteheads to which they apply; for example, to show editorial accidentals at a smaller size than normal accidentals. You can do this for the current layout and frame chain only, or for all layouts and frame chains.

#### PREREQUISITE

- The lower zone is shown.
  - **Properties**  is selected in the lower zone toolbar.
  - You have chosen the appropriate property scope for local properties.
- 

#### PROCEDURE

1. In Engrave mode, select the accidentals whose size you want to change.
  2. In the Properties panel, activate **Accidental scale** in the **Notes and Rests** group.
  3. Change the value in the value field.
  4. Press **Return**.
-

#### RESULT

The scale size of the selected accidentals is changed. For example, changing the value to 50 scales the selected accidentals to half their normal size. If the property scope was set to **Locally**, this change only takes effect in the current layout and frame chain.

## Stacking of accidentals

If multiple accidentals are required for a chord in a single voice, or for notes in multiple voices at the same rhythmic position, they are stacked to the left of the chord in columns.

For chords with multiple accidentals, accidentals are generally stacked as follows:

1. The highest accidental is inserted in the first column immediately to the left of the notes.
2. The lowest accidental is added to the same column, provided that it does not collide with the first accidental.
3. The remaining highest and lowest accidentals are alternated in successive columns located further left from the chord.

In Dorico Elements, additional rules help to produce a stack of accidentals that uses as few columns as possible. The following list contains some of the rules that are applied:

- Columns closer to the notes contain more accidentals than columns further from the notes.
- Accidentals on notes that are an octave apart are stacked in the same column. This also applies to accidentals that are a sixth or more apart, depending on the combination of accidentals.
- Accidentals in the same column never collide. The minimum interval between accidentals that is required to prevent collisions depends on the types of accidentals.
- Accidentals that are a second apart are arranged in adjacent columns, with the higher accidental in the right-hand column.

These rules minimize the amount of extra space that is required between successive notes or chords and ensure that accidentals appear as close as possible to the noteheads to which they apply. At the same time, they produce a contour that resembles a C-curve on the left-hand side of the chord.

### Accidental stacking rules for dense chords

Dorico Elements uses special stacking calculations in dense chords with multiple accidentals to ensure legibility. Chords are considered dense when they have six or more accidentals within the span of an octave.

For dense chords, accidentals are stacked as follows:

1. The highest accidental is inserted in the first column to the left of the notes.
2. The next accidental on a note that is located at least a seventh below the highest note is stacked into the same column. This continues with the remaining notes until no more accidentals fit into the first column.
3. Steps 1 and 2 are repeated for the following columns until all accidentals are stacked.
4. The columns are grouped, interspersed, and re-stacked. This results in a stack with alternating accidentals, reminiscent of the way accidentals are arranged in a key signature.

By default for dense chords, Dorico Elements uses a lattice arrangement of accidentals, rather than the usual zig-zag arrangement. In very dense chords, the lattice arrangement can be wider and require more columns.



RELATED LINKS

[Changing the column of accidentals](#) on page 716

[Moving accidentals graphically](#) on page 717

## Kerning of accidental columns

Dorico Elements applies kerning to accidental columns to ensure that the columns to the left of a chord occupy as little horizontal space as possible.

In typography, kerning adjusts the space between individual characters to increase legibility. In Dorico Elements, as well as in music engraving in general, kerning allows accidentals to interlock.

---

EXAMPLE

If a low note is followed by a high note with an accidental, the accidental can be tucked above the low note to prevent the note spacing from being distorted.


Similarly, in the case of multiple columns of accidentals on a chord, the overall width of the stack of accidentals is reduced if, for example, a flat in the second column is kerned underneath a sharp in the first column belonging to a note a third higher. This also reduces the need to distort note spacing to accommodate accidentals.

---

## Changing the column of accidentals

You can change the column of individual accidentals; for example, so they appear closer to the stem than other accidentals in the chord. You can do this for the current layout and frame chain only, or for all layouts and frame chains.

PREREQUISITE

- The lower zone is shown.
- **Properties**  is selected in the lower zone toolbar.
- You have chosen the appropriate property scope for local properties.

---

PROCEDURE

1. In Engrave mode, select the notes or accidentals whose accidental column you want to change.
  2. In the Properties panel, activate **Accidental column** in the **Notes and Rests** group.
  3. Change the value in the value field.
- 

RESULT

The column of the selected accidentals is changed. Accidentals with lower **Accidental column** values are placed closer to noteheads, while accidentals with higher values are placed further from noteheads. If necessary, Dorico Elements automatically changes the column of other accidentals at the same rhythmic position.

If the property scope was set to **Locally**, this change only takes effect in the current layout and frame chain.

RELATED LINKS

[Properties panel](#) on page 615

[Hiding/Showing zones](#) on page 44

[Stacking of accidentals](#) on page 715

[Tucking index properties](#) on page 825

[Changing the property scope](#) on page 617

[Copying property settings to other layouts/frame chains](#) on page 599

## Moving accidentals graphically


You can move individual accidentals graphically to the right or left; for example, to reduce the horizontal spacing required for accidentals in a single dense chord. You can do this for the current layout and frame chain only, or for all layouts and frame chains.

### NOTE

You cannot move accidentals rhythmically. If you want to change the notes to which accidentals apply, you must delete them from their original notes and input new accidentals on the new notes or change the pitch of existing notes.

---

### PREREQUISITE

- The lower zone is shown.
- **Properties**  is selected in the lower zone toolbar.
- You have chosen the appropriate property scope for local properties.

---

### PROCEDURE

1. In Engrave mode, select the accidentals you want to move. You can also select their noteheads.
2. In the Properties panel, activate **Accidental X offset** in the **Notes and Rests** group.
3. Move the accidentals in one of the following ways:
  - To move them to the right, increase the value in the value field.
  - To move them to the left, decrease the value in the value field.

---

### RESULT

The selected accidentals are moved graphically. If necessary, Dorico Elements automatically increases note spacing to accommodate the accidentals and avoid collisions.

If the property scope was set to **Locally**, this change only takes effect in the current layout and frame chain.

### RELATED LINKS

[Inputting accidentals](#) on page 233

[Changing the pitch of individual notes](#) on page 444

## Altered unisons

Altered unisons occur when two or more notes of the same name in the same octave have different accidentals in the same chord, such as D# and Db.

In Dorico Elements, this is notated with a split stem by default. Split stems show the main body of a chord with a stem branch coming off the main stem that connects noteheads in altered unisons to the chord. This allows all notes to appear with their corresponding accidental directly beside them. A split stem is also known as a “cherry stalk” or a “tree”.

You can show individual altered unisons with a single stem, meaning noteheads appear directly beside each other, and the two accidentals are shown beside each other to the left of the chord.

You can also change the default appearance of all altered unisons in each flow independently on the **Accidentals** page in **Notation Options**.

#### NOTE

If a chord contains notes a second interval apart and one of those notes has an altered unison, it is always shown with a split stem, regardless of your setting. This is to ensure clarity in clusters.

---

#### EXAMPLE



A single stem altered unison



A split stem altered unison

---

#### RELATED LINKS


[Inputting chords](#) on page 240

[Notation Options dialog](#) on page 679

## Changing how altered unisons appear

You can change how individual altered unisons appear, including within chords containing other altered unisons, and independently of your per-flow settings. You can do this for the current layout and frame chain only, or for all layouts and frame chains.

#### PREREQUISITE

- The lower zone is shown.
  - **Properties**  is selected in the lower zone toolbar.
  - You have chosen the appropriate property scope for local properties.
- 

#### PROCEDURE

1. Select the altered unison notes whose appearance you want to change. You can do this in Write mode and Engrave mode.
  2. In the Properties panel, activate **Split stem** in the **Notes and Rests** group.
  3. Activate/Deactivate the corresponding checkbox.
- 

#### RESULT

The selected altered unison notes are shown with split stems when the checkbox is activated, and with single stems when the checkbox is deactivated. If the property scope was set to **Locally**, this change only takes effect in the current layout and frame chain.

#### TIP

- **Split stem** applies to individual notes. You can have altered unisons appear differently within the same chord by setting their properties independently.
  - You can change the default appearance of all altered unisons in each flow independently in **Notation Options > Accidentals > Altered Unisons**.
-

#### RELATED LINKS

[Properties panel](#) on page 615

[Changing the property scope](#) on page 617

[Copying property settings to other layouts/frame chains](#) on page 599

[Notation Options dialog](#) on page 679

## Microtonal accidentals

Microtonal accidentals indicate pitches beyond the standard accepted chromatic scale in Western tonality, such as a quarter sharp or quarter flat. Microtonal accidentals are only shown in Dorico Elements if you open a project that already contains them. They are available for input only where the corresponding key signature and tonality system apply.

## Accidental duration rules

Accidental duration rules determine how long accidentals apply, such as within a bar, at a different octave, or just for a single note. Dorico Elements allows you to use different accidental duration rules.

- You can find the available accidental duration rules on the **Accidentals** page in **Notation Options**.

### Common practice

In common practice, an accidental affects all notes of the same pitch in the same octave within the same bar, unless it is cancelled by another accidental. If it is not cancelled, it is automatically cancelled in the following bar.

It is customary to show cautionary accidentals on subsequent notes in certain circumstances. For example, in the key of G major, an F $\sharp$  in a bar following an F $\natural$  shows a cautionary sharp sign, even though the sharp is included in the key signature. Cautionary accidentals are also known as “courtesy accidentals”.

When using the common practice accidental duration rule, you can choose to hide, show, or parenthesize cautionary accidentals in different circumstances.

In Dorico Elements, common practice is the default accidental duration rule.

### Second Viennese School

The Second Viennese School accidental duration rule states that each accidental only applies to a single note. All notes show an accidental regardless of key signature, including naturals.

This accidental duration rule was used by Schoenberg and other composers of the Second Viennese School.

You can customize the options within the Second Viennese School accidental duration rule when changing the accidental duration rule, including choosing whether immediate repetitions of the same note within the same bar require a restatement of the accidental.

### Modernist

The Modernist accidental duration rule states that only notes that have been altered from the key signature show accidentals. Naturals are not shown. However, accidentals that are shown only apply to the notes on which they are written, as with the Second Viennese School.

Charles Ives and Robert Crumb used this variation.

You can customize the options within the Modernist accidental duration rule when changing the accidental duration rule, including choosing whether or not the same accidental on the same pitch is restated later in the bar if the subsequent pitches occur immediately and if subsequent pitches occur after other, different notes. Similarly, there are options for accidentals on notes in different octaves in the same bar and following bar. There is also an option controlling the restatement of accidentals within beam groups.

RELATED LINKS

[Notation Options dialog](#) on page 679

## Changing the accidental duration rule

You can change the accidental duration rule in each flow independently; for example, if the Modernist accidental duration rule is appropriate for certain flows in your project but common practice is appropriate for others. In Dorico Elements, common practice is the default accidental duration rule.

---

PROCEDURE

1. Press **Ctrl/Cmd-Shift-N** to open **Notation Options**.
2. In the **Flows** list, select the flows in which you want to change the accidental duration rule.  
By default, only the current flow is selected when you open the dialog. You can select other flows by clicking **Select All** in the action bar, clicking and dragging across multiple flows, **Shift**-clicking adjacent flows, and **Ctrl/Cmd**-clicking individual flows.
3. In the category list, click **Accidentals**.
4. In the **Basic** section, choose one of the following options for **Accidental duration rule**:
  - **Common Practice**
  - **Second Viennese School**
  - **Modernist**
5. Optional: Customize the options for your chosen accidental duration rule.

TIP

Options in the **Basic** section can apply to all accidental duration rules.

- 
6. Click **Apply**, then **Close**.
- 

## Hiding/Showing or parenthesizing cautionary accidentals

You can hide/show cautionary accidentals, or show them in parentheses, in different circumstances by default in flows that use the common practice accidental duration rule.

PREREQUISITE

The flows in which you want to hide, show, or parenthesize cautionary accidentals use the common practice accidental duration rule.

---

PROCEDURE

1. Press **Ctrl/Cmd-Shift-N** to open **Notation Options**.

2. In the **Flows** list, select the flows in which you want to hide, show, or parenthesize cautionary accidentals.  
By default, only the current flow is selected when you open the dialog. You can select other flows by clicking **Select All** in the action bar, clicking and dragging across multiple flows, **Shift**-clicking adjacent flows, and **Ctrl/Cmd**-clicking individual flows.
  3. In the category list, click **Accidentals**.
  4. In the **Cautionary accidentals** section, change each option as required.
  5. Click **Apply**, then **Close**.
- 

#### RESULT

Cautionary accidentals are hidden, shown, or parenthesized in the corresponding circumstances in the selected flows.

#### TIP

For flows using the Modernist accidental duration rule, options for cautionary accidentals are available in the **Modernist Options** section of the **Accidentals** page.

---

## Changing the cancellation of double accidentals

You can change the convention of double accidental cancellation in each flow independently; for example, if some flows in your project require archaic cancellation. You can do this in combination with any accidental duration rule.

By default, Dorico Elements uses modern cancellation.

---

#### PROCEDURE

1. Press **Ctrl/Cmd-Shift-N** to open **Notation Options**.
  2. In the **Flows** list, select the flows in which you want to change the double accidental cancellation convention.  
By default, only the current flow is selected when you open the dialog. You can select other flows by clicking **Select All** in the action bar, clicking and dragging across multiple flows, **Shift**-clicking adjacent flows, and **Ctrl/Cmd**-clicking individual flows.
  3. In the category list, click **Accidentals**.
  4. In the **Basic** section, choose one of the following options for **Single accidentals cancelling double accidentals**:
    - To show naturals immediately before single accidentals that come after double accidentals, choose **Use archaic cancellation**.
    - To replace double accidentals with single accidentals without showing naturals, choose **Use modern cancellation**.
  5. Click **Apply**, then **Close**.
- 

#### RESULT

The double accidental cancellation convention is changed in the selected flows.

EXAMPLE



Archaic cancellation



Modern cancellation

---

# Articulations

Articulations are markings that are drawn above or below notes and chords. Articulations tell a performer how to attack a note or how long to play a note relative to its notated duration.

In Dorico Elements, articulations are defined as something that alters the way a note is played, in a way that is consistent across all instruments. Because instructions like bowing directions, harmonics, or tonguing apply to different instrument groups, in Dorico Elements such directions are defined as playing techniques.



A musical phrase with accent, staccato, and staccatissimo articulations

Articulations are categorized into the following types:

## Articulations of force

Indicate a stronger attack at the start of notes, and include articulations such as accent and marcato. Marcato is also sometimes known as a “strong accent”. Dorico Elements shows these articulations at the start of a note or tie chain by default.

## Articulations of duration

Indicate a shorter duration than notated, and include articulations such as staccatissimo, staccato, tenuto, and staccato-tenuto. Staccato-tenuto is also sometimes known as a “louré”. If a note includes ties, Dorico Elements shows articulations of duration above the last note in the chain by default.

## Articulations of stress

Indicate notes that should be emphasized or not emphasized where that contradicts the prevailing meter, using stressed and unstressed marks. Dorico Elements shows these articulations at the start of a note or tie chain by default.

Dorico Elements positions articulations automatically on the notehead or stem side of notes and chords, according to the musical context. A note or chord can display one of each type of articulation.

## RELATED LINKS

[Inputting articulations](#) on page 259

[Articulations in playback](#) on page 728

[Positions of articulations](#) on page 724

[Changing the positions of articulations on tie chains](#) on page 726

[Playback techniques](#) on page 706



## Copying and pasting articulations

You can copy an existing phrase and paste only its slurs, articulations, and jazz articulations to another phrase, without affecting the pitches of notes.

---

### PROCEDURE

1. In Write mode, make a selection containing the slurs, articulations, and jazz articulations you want to copy.
2. Press **Ctrl/Cmd-C** to copy the selected phrase.
3. Select the first note to which you want to paste articulations.
4. Choose **Edit > Paste Special > Paste Articulations**. You can also choose this option from the context menu.

---

### RESULT

Slurs, articulations, and jazz articulations included in the selection are pasted to notes from the selected note onwards.

### RELATED LINKS

- [Large selections](#) on page 403
- [Copying and pasting notes/items](#) on page 433
- [Repitching notes without changing their rhythm](#) on page 448
- [Arranging tools](#) on page 431

## Deleting articulations

Individual articulation markings cannot be selected and deleted separately from their notehead in Write mode, so articulations must be deleted by selecting the note or notes to which they are attached, and deselecting the articulation.

---

### PROCEDURE

1. In Write mode, select the notes whose articulations you want to delete.
2. Deselect the articulations in any of the following ways:
  - Press the key commands of the articulations you want to delete.
  - In the Notes panel, click the articulations you want to delete.

---

### RELATED LINKS

- [Notes panel](#) on page 191
- [Hiding/Showing zones](#) on page 44
- [Key commands for articulations](#) on page 260

## Positions of articulations

There are established conventions for the position and placement of articulations relative to notes, the staff, and staff lines, which ensure articulations are always clearly visible. For

the smallest articulations, such as staccato marks, correct placement relative to staff lines in particular is vital.

## Placement of articulations

Articulations are placed on the notehead side by default, with the following exceptions:

- In single-voice contexts, marcato is always placed above the staff, regardless of the stem direction of the note or chord on which it is used. In multiple-voice contexts, marcato can also be placed below the staff.
- If multiple voices are active, articulations are placed at the end of the stem side of a note or chord. This clarifies which articulations belong to the up-stemmed notes and which to the down-stemmed notes.
- If a note is placed on the middle staff line or on the space immediately on either side, articulations that are less than a space in height are centered in the next unoccupied space. This normally only applies to staccato and tenuto. If a note in the middle of the staff has a staccato-tenuto articulation, the component parts of the articulation are split up and placed in separate spaces.
- If an articulation cannot fit within a staff space, or if the note is placed high or low on the staff, the articulation is placed outside the staff.
- If a note or chord is tied and the tie is placed above or below the notehead, articulations that are placed on the notehead side of a note or chord are offset by an additional 1/4 space in order to avoid the end of the tie.

Articulations on the notehead side are always centered horizontally on the notehead. This also applies to articulations on the stem side, except if the only articulation is a staccato or staccatissimo. In this case, the articulation is centered on the stem.

## Articulations in tie chains

By default, articulations of force and stress are shown on the first note/chord in tie chains, while articulations of duration are shown on the last note/chord.

You can change where in tie chains articulations appear individually.

### RELATED LINKS

[Moving items graphically](#) on page 481

[Changing the placement of articulations relative to notes](#) on page 727

[Changing the placement of articulations relative to slurs](#) on page 727

## Order of articulations

If there are multiple articulations on the same notes, their vertical position and proximity to noteheads/stems depends on their type.

Articulations are positioned in the following order:

1. Articulations of duration are positioned closest to notehead/stems.
2. Articulations of force are positioned outside articulations of duration.
3. Articulations of stress are positioned furthest from noteheads/stems.

## Order of articulations in relation to slurs

Articulations of duration are positioned as follows:

- Inside slurs that start/end on a note or chord with an articulation.
- Inside the curvature of a slur.
- Inside tuplet brackets.

Articulations of force are positioned as follows:

- Outside slurs that start/end on a note or chord with an articulation, except if they can be positioned within the staff.
- Inside the curvature of a slur if they fit between the slur and the note or stem, to which they belong, without colliding.
- Outside tuplet brackets.




Force and stress articulations outside the ends of the slur      Duration articulations inside the ends of the slur

## Changing the positions of articulations on tie chains

You can change where in tie chains articulations appear individually. By default, articulations of force and stress are shown on the first note/chord in tie chains, while articulations of duration are shown on the last note/chord.

### PREREQUISITE

- The lower zone is shown.
- **Properties**  is selected in the lower zone toolbar.

---

### PROCEDURE

1. Select the tied notes/chords whose articulation position you want to change. You can do this in Write mode and Engrave mode.
2. In the **Articulations** group of the Properties panel, activate **Pos. in tie chain** under the corresponding heading for the articulation whose position you want to change.  
For example, activate **Pos. in tie chain** under the **Articulations of force** heading to change the position of accents.
3. Choose one of the following options:
  - **First note**
  - **Last note**

---

### RESULT

The position of articulations in the selected tie chains is changed.


### RELATED LINKS

[Hiding/Showing zones](#) on page 44  
[Properties panel](#) on page 615

## Changing the placement of articulations relative to notes

You can change whether individual articulations are placed on the notehead side or stem side of notes. You can do this for the current layout and frame chain only, or for all layouts and frame chains.

### PREREQUISITE

- The lower zone is shown.
- **Properties**  is selected in the lower zone toolbar.
- You have chosen the appropriate property scope for local properties.

---

### PROCEDURE

1. Select the notes/chords whose articulation placement you want to change. You can do this in Write mode and Engrave mode.
2. In the **Articulations** group of the Properties panel, activate **Placement** under the corresponding heading for the articulations whose placement you want to change. For example, activate **Placement** under the **Articulations of force** heading to change the placement of accents.
3. Select one of the following options from the menu:
  - **Notehead side**
  - **Stem side**

---

### RESULT

The articulation is placed on the selected side of the notes or chords. If the property scope was set to **Locally**, this change only takes effect in the current layout and frame chain. If this creates a collision with other markings, such as playing techniques, Dorico Elements automatically makes adjustments to make sure all markings are clear and legible.

## Changing the placement of articulations relative to slurs


You can change whether individual articulations of duration are placed inside or outside slur endpoints. You can do this for the current layout and frame chain only, or for all layouts and frame chains.

### NOTE

These steps only apply to articulations of duration. They do not apply to articulations of force or stress.

---

### PREREQUISITE

- The lower zone is shown.
- **Properties**  is selected in the lower zone toolbar.
- You have chosen the appropriate property scope for local properties.

---

### PROCEDURE

1. Select the notes/chords whose articulation placement you want to change. You can do this in Write mode and Engrave mode.
2. In the Properties panel, activate **Inside slur endpoint** in the **Articulations** group.

3. Activate/Deactivate the corresponding checkbox.
- 

#### RESULT

Articulations of duration are placed inside slur endpoints when the checkbox is activated, and outside slur endpoints when the checkbox is deactivated. If the property scope was set to **Locally**, this change only takes effect in the current layout and frame chain.

#### RELATED LINKS

[Slur endpoints relative to articulations](#) on page 1158

[Hiding/Showing zones](#) on page 44

[Properties panel](#) on page 615

[Changing the property scope](#) on page 617

[Copying property settings to other layouts/frame chains](#) on page 599

## Articulations in playback

Articulations affect how notes sound in playback. Depending on whether your sound library has specific samples for different articulations, Dorico Elements changes playback in different ways to reflect articulations.

- If your sound library includes samples for articulations, Dorico Elements loads the required samples using playback techniques. Additionally, Dorico Elements makes notes with staccatos sound shorter and notes with accents sound louder.
- If your sound library does not include samples for articulations, Dorico Elements adjusts notes according to the articulation without loading different samples. For example, making notes with staccatos sound shorter and notes with accents sound louder.

Because articulations apply to whole notes, samples are triggered at the start of notes, including tie chains.

#### TIP

You can enable independent voice playback for individual instruments to hear different sounds in different voices simultaneously; for example, if you have slurs in one voice and staccatos in another voice.

---

#### RELATED LINKS

[Playback techniques](#) on page 706

[Enabling independent voice playback](#) on page 506

# Bars

Bars indicate a usually regular pattern of beats, determined by the prevailing time signature. Bars are separated from adjacent bars by vertical barlines, and each bar has a unique bar number.

Dorico Elements automatically numbers bars and shows barlines between bars as required for the prevailing time signature.

## RELATED LINKS

[Barlines](#) on page 734

[Bar numbers](#) on page 742

[Note and rest grouping](#) on page 774

[Time signatures](#) on page 1249

[Pick-up bars](#) on page 1253

[Input methods for bars, beats, and barlines](#) on page 287

[Input methods for time signatures and pick-up bars](#) on page 270

## Bar length

Bars usually last the same duration and start and end at the same positions for all players. However, some music involves bars of different lengths coinciding, and there are situations where some players may have no bars indicated at all.

You can change the duration of a bar by changing its time signature or, in music in open meter, by inputting barlines where required. You can hide time signatures you do not want to show in the music; for example, if you are writing music with an irregular meter and you require barlines only to group material together, but not to imply any sense of meter.

## RELATED LINKS



[Hiding/Showing time signatures](#) on page 1261

## Deleting bars/beats

You can delete whole bars and specific beats of music from your project completely by using the bars and barlines popover.

---

### PROCEDURE

1. In Write mode, select one of the following:
  - The first bar you want to delete, or the first note or rest in that bar.
  - An item at the rhythmic position from which you want to delete beats.
2. Open the bars and barlines popover in any of the following ways:
  - Press **Shift-B**.
  - In the Notations toolbox, click **Popovers**  then **Bars and Barlines** .
3. Enter - (minus), followed by the number of bars or beats you want to delete into the popover.

For example, enter **-6** to delete six bars, meaning the bar you selected and the subsequent five bars, or **-2q** to delete two quarter note beats, starting from the selected rhythmic position.

4. Press **Return** to close the popover.
- 

#### RESULT

The number of bars or beats specified is deleted. Just as when Insert mode is activated, music to the right of the selection moves up to fill in the gap.

#### NOTE

- Any signposts in the selection are also deleted.
  - Deleting some, but not all, beats from bars according to the prevailing time signature deletes the contents of those beats only. If you want to shorten a bar's duration, such as at the end of flows that start with a pick-up bar, you must instead either input a time signature with the required number of beats then hide the time signature, or input a barline and delete any excess bars if necessary. You can also use the **Global Adjustment of Current Bar** Insert mode scope and delete notes/rests.
- 

#### RELATED LINKS

[Bars and barlines popover](#) on page 288

[Pick-up bars](#) on page 1253

[Deleting notes/items](#) on page 431

[Deleting rests](#) on page 1149

[Insert mode](#) on page 427

[Signposts](#) on page 426

[Input methods for bars, beats, and barlines](#) on page 287

[Input methods for time signatures and pick-up bars](#) on page 270

## Deleting bars/beats with the system track

You can delete whole bars and selected beats from your project completely using the system track.

#### PREREQUISITE

The system track is shown.

---

#### PROCEDURE

1. In the system track in Write mode, select the region that you want to delete.
2. Click **Delete** in the system track. It can also appear above the system track if your selection is narrow.



**Delete** button in the system track



The system track changes color when you hover over the **Delete** button.

---

#### RESULT

The selected region is deleted. Just as when Insert mode is activated, music to the right of the selection moves up to fill in the gap.

NOTE

- Any signposts in the selection are also deleted.
  - Deleting some, but not all, beats from bars according to the prevailing time signature deletes the contents of those beats only. If you want to shorten a bar's duration, such as at the end of flows that start with a pick-up bar, you must instead either input a time signature with the required number of beats then hide the time signature, or input a barline and delete any excess bars if necessary. You can also use the **Global Adjustment of Current Bar** Insert mode scope and delete notes/rests.
- 

RELATED LINKS

[System track](#) on page 404

[Insert mode](#) on page 427



[Signposts](#) on page 426

## Deleting empty bars/beats at the end of flows

You can trim flows by deleting any empty bars or beats left at the end.

---

PROCEDURE

1. In Write mode, select an item in the flow you want to trim.
  2. Open the bars and barlines popover in any of the following ways:
    - Press **Shift-B**.
    - In the Notations toolbox, click **Popovers**  then **Bars and Barlines** .
  3. Enter **trim** into the popover.
  4. Press **Return** to close the popover.
- 

RESULT

Empty bars/beats at the end of the selected flow are deleted.

TIP

You can also trim flows by choosing **Write > Trim Flow**.

---

RELATED LINKS

[Bars and barlines popover](#) on page 288

[Splitting flows](#) on page 470

[Input methods for bars, beats, and barlines](#) on page 287

[Deleting rests](#) on page 1149

## Deleting the contents of bars

You can delete just the contents of bars without deleting barlines or the bars themselves.

---

PROCEDURE

1. In Write mode, select the bars whose contents you want to delete.

TIP

Notes, rests, and other objects are highlighted orange when selected.

---



2. Press **Backspace or Delete**.
- 

RELATED LINKS

[Large selections](#) on page 403

[Filters](#) on page 407

[Insert mode](#) on page 427

## Splits in bars

You can split bars rhythmically by changing the number of beats in each bar. You can split bars visually across system or frame breaks, which might be required in music with an irregular meter or in passages of polymeter.

### Splitting bars by inputting new time signatures

You can split bars into two or more bars by changing the time signature at any rhythmic position. New time signatures apply until the next existing time signature or the end of the flow, whichever comes first.

**NOTE**

If you change the time signature in the middle of an existing bar, we recommend inputting another time signature at the start of the preceding bar reflecting its new rhythmic duration to avoid confusion.

---

### Splitting bars by inputting new barlines

You can also split bars by inputting new barlines that are not normal (single) barlines anywhere within a bar without affecting the time signature. However, inputting a normal (single) barline anywhere within an existing bar resets the prevailing time signature from that point onwards.

For example, selecting the third quarter note (crotchet) in a 4/4 bar and inserting a new barline causes a new 4/4 bar to start from the added barline. This leaves the equivalent of a 2/4 bar without a time signature to the left of the barline, but the bars to the right of the added barline are in 4/4 and continue to be in 4/4 until the next time signature or the end of the flow, whichever comes first.

Signposts are shown at the position of each barline that you add manually within bars.

The image shows two musical staves. The left staff has two 4/4 bars, each containing four quarter notes. The right staff has a 4/4 bar split by a normal barline halfway through. A red signpost above the barline is labeled '4/4 (q, 1+1+1+1)'. The notes in the first bar of the right staff are quarter notes, and the notes in the second bar are also quarter notes.

Two 4/4 bars with quarter notes

Adding a normal barline halfway through the first 4/4 bar restarts the time signature from that point.

RELATED LINKS

[Input methods for bars, beats, and barlines](#) on page 287

[Input methods for time signatures and pick-up bars](#) on page 270

[Inserting system breaks](#) on page 586

[Inserting frame breaks](#) on page 590

[Inputting notes in Insert mode](#) on page 226

[Insert mode](#) on page 427

# Barlines

Barlines are vertical lines that cross staves in order to show how music is divided into bars, according to the time signature. The most commonly used barline is the single barline between adjacent bars, but there are different types, such as double or repeat barlines.



The final system in a piece in 12/8 containing a key change with double barline, three normal barlines, and a final barline at the end

Dorico Elements automatically shows barlines as required for the prevailing time signature. For example, Dorico Elements automatically shows dashed barlines between the different meters in aggregate time signatures. If you change the time signature, Dorico Elements moves the barlines as required so that subsequent music is barred correctly.

By default, Dorico Elements uses single barlines in flows and final barlines at the end of flows. You can change the default barline used in and at the end of each flow independently.

Barlines automatically extend across staff groups that are joined by a bracket or brace.

## RELATED LINKS

- [Types of barlines](#) on page 735
- [Input methods for bars, beats, and barlines](#) on page 287
- [Barlines across staff groups](#) on page 739
- [Changing the default barline type in flows](#) on page 736
- [Changing the default barline at the end of flows](#) on page 737
- [Repeats in playback](#) on page 509
- [Repeat counts](#) on page 1118
- [Bars](#) on page 729
- [Bar numbers](#) on page 742
- [Time signatures](#) on page 1249
- [Types of time signatures](#) on page 1250
- [Input methods for time signatures and pick-up bars](#) on page 270
- [Note and rest grouping](#) on page 774
- [Deleting notes/items](#) on page 431

## Per-flow notation options for barlines

You can find options for the per-flow the appearance of barlines on the **Barlines** page in **Notation Options**.

For example, you can change the type of barline used in and shown at the end of each flow by default, whether single barlines between staves only appear between staves or extend across staves, and whether barlines join all staves at the end of each system and at the end of the final system in a flow.

Musical examples demonstrate how each option affects the appearance of your music.

RELATED LINKS

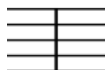
[Notation Options dialog](#) on page 679

## Types of barlines

There are multiple types of barlines in Dorico Elements, which can all be input, moved, and deleted in the same ways.

### Normal (Single)

A standard single barline that spans the entire height of the staff. For single-line staves, the barline extends one space above and below the staff line by default.



### Double

A double barline consists of two lines, both the width of a single barline, positioned half a space apart by default. It is often used to denote significant changes in the music, or to mark the placement of rehearsal marks, key signature changes, and tempo changes.



### Final

A final barline consists of two lines: one of normal width, the other thick. It marks where the music ends.

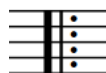
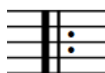


### Start repeat

A start repeat line consists of a thick barline, followed by a normal barline, followed by one of the following arrangements of dots:

- Two dots, one each in the middle two spaces of a five-line staff
- Four dots, one each in all four spaces of a five-line staff

It shows the start of a repeated section. It is used alongside end repeat lines, which show the end of a repeated section.



### End repeat

An end repeat line is the mirror of a start repeat line, so it consists of either two or four dots, followed by a normal barline, followed by a thick barline. It shows the end of a repeated section. It is used alongside start repeat lines, which show the start of a repeated section.



### End/Start repeat

This line combines the start repeat and end repeat barlines, with either two single barlines with a single shared thick barline in the middle, or two thick barlines and no single barlines. On either side, there are either two or four repeat dots. It is used when a repeated section is immediately followed by another, separate repeated section.



#### RELATED LINKS

[Input methods for bars, beats, and barlines](#) on page 287

[Repeats in playback](#) on page 509

[Repeat counts](#) on page 1118

[Barlines across staff groups](#) on page 739

## Changing the default barline type in flows

By default, Dorico Elements uses single barlines to separate bars in flows. You can change which type of barline automatically separates bars in each flow independently. For example, short or tick barlines are frequently used for most barlines in chant notation.

---

#### PROCEDURE

1. Press **Ctrl/Cmd-Shift-N** to open **Notation Options**.
  2. In the **Flows** list, select the flows whose default barline type you want to change.  
By default, only the current flow is selected when you open the dialog. You can select other flows by clicking **Select All** in the action bar, clicking and dragging across multiple flows, **Shift**-clicking adjacent flows, and **Ctrl/Cmd**-clicking individual flows.
  3. In the category list, click **Barlines**.
  4. Choose one of the following options for **Default barline type**:
    - **Normal**
    - **Double**
    - **Dashed**
    - **Final**
    - **Tick (Top)**
    - **Tick (Bottom)**
    - **Short (Center)**
    - **Short (Top)**
    - **Thick**
    - **Start Repeat**
    - **End Repeat**
    - **End and Start Repeat**
  5. Click **Apply**, then **Close**.
-

#### RESULT

The default barline type in the selected flows is changed. This does not override any explicit barlines you have input, such as repeat barlines in repeat endings, or the final barlines in the selected flows.

#### RELATED LINKS

[Types of barlines](#) on page 735

[Repeat endings](#) on page 1107

[Input methods for bars, beats, and barlines](#) on page 287

## Changing the default barline at the end of flows

By default, Dorico Elements uses final barlines at the end of flows. You can choose which type of barline is placed automatically at the end of each flow independently; for example, you might show double barlines at the end of flows to indicate there should be no gap before the following flow.

---

#### PROCEDURE

1. Press **Ctrl/Cmd-Shift-N** to open **Notation Options**.
2. In the **Flows** list, select the flows whose default end barline you want to change.  
By default, only the current flow is selected when you open the dialog. You can select other flows by clicking **Select All** in the action bar, clicking and dragging across multiple flows, **Shift**-clicking adjacent flows, and **Ctrl/Cmd**-clicking individual flows.
3. In the category list, click **Barlines**.
4. Choose one of the following options for **Automatic barline at end of flow**:
  - **Final barline**
  - **Double barline**
  - **Normal barline**
  - **Dashed barline**
  - **Thick barline**
  - **No barline**
5. Click **Apply**, then **Close**.

---

#### RESULT

The default final barline at the end of the selected flows is changed.

#### NOTE

You can override individual final barlines by inputting a barline of a different type, but you cannot delete individual final barlines.


---

## Changing the barline shown before repeat barlines

You can change the barline shown at the end of individual systems that are followed by start repeat barlines at the beginning of the next system. For example, if you want to show normal barlines at the end of some systems following by start repeat barlines but double barlines at the end of others.

These steps can also apply to barlines shown before key signature changes that coincide with start repeat barlines.

#### PREREQUISITE

- The lower zone is shown.
- **Properties**  is selected in the lower zone toolbar.

---

#### PROCEDURE

1. Select the barlines at the end of systems followed by start repeat barlines whose barline type you want to change. You can do this in Write mode and Engrave mode.
2. In the Properties panel, activate **Barline at end of system** in the **Time Signatures** group.
3. Select one of the following options from the menu:
  - **Normal**
  - **Double**
  - **Final**
  - **Dashed**
  - **Tick (top)**
  - **Short (center)**
  - **Thick**
  - **Triple**
  - **Short (top)**
  - **Tick (bottom)**
  - **None**

---

#### RESULT

The barline type shown at the selected barlines is changed.

#### RELATED LINKS

- [Hiding/Showing zones](#) on page 44
- [Properties panel](#) on page 615
- [Casting off](#) on page 581
- [System breaks](#) on page 586

## Hiding/Showing systemic barlines on single-staff systems

By default, systemic barlines are shown at the start of systems containing two or more staves and hidden on single-staff systems. You can hide/show systemic barlines on single-staff systems on the first system and after the first system in each flow independently.

Showing systemic barlines on single-staff systems is a convention used in hand-copied lead sheets, usually in combination with hiding clefs and key signatures from the second system onwards.

---

#### PROCEDURE

1. Press **Ctrl/Cmd-Shift-N** to open **Notation Options**.
2. In the **Flows** list, select the flows in which you want to hide/show systemic barlines after the first system.

By default, only the current flow is selected when you open the dialog. You can select other flows by clicking **Select All** in the action bar, clicking and dragging across multiple flows, **Shift**-clicking adjacent flows, and **Ctrl/Cmd**-clicking individual flows.

3. In the category list, click **Barlines**.
  4. In the **Systemic Barline** subsection, choose one of the following options for **Barline at start of first system**:
    - Show for one or more staves
    - Show for two or more staves
  5. Choose one of the following options for **Barline at start of systems following first system**:
    - Show for one or more staves
    - Show for two or more staves
  6. Click **Apply**, then **Close**.
- 

#### RELATED LINKS

[Hiding/Showing used chord diagrams grids](#) on page 809

[Hiding/Showing clefs at the start of systems](#) on page 818

[Hiding/Showing key signatures at the start of systems](#) on page 914

## Barlines across staff groups

In order to make it easier to find a particular instrument within a score, barlines can extend across instrumental and staff groups.

### Barlines across default staff groups

When a barline only appears on individual staves, it is much harder to locate individual lines at a glance. However, when barlines continue across instrumental groups in the score, instrument families are shown as blocks, which makes finding an instrument much easier.

A musical score for a full orchestra. Each instrument has its own staff, and barlines are placed only on the individual staff lines. The instruments listed are: Flute, Oboe, Clarinet in Bb, Bassoon, Horn in F 1, Horn in F 2, Trumpet in Bb, Trombone, Tuba, Tympani, Violin I, Violin II, Viola, Violoncello, and Double Bass.

Barlines on individual staves

The same musical score as above, but with barlines extending across the entire group of staves for each instrument family. For example, a single barline spans across all the woodwind staves, and another spans across all the brass staves, making the instrument families appear as solid blocks.

Barlines across instrumental groups

By default, barlines automatically extend across staff groups that are joined by a bracket or brace, except for vocal staves, across which barlines never automatically extend. Which staves are included in a bracket depends on the instrumentation and context, but usually staves for instruments from the same family, such as woodwind or strings, are bracketed together.



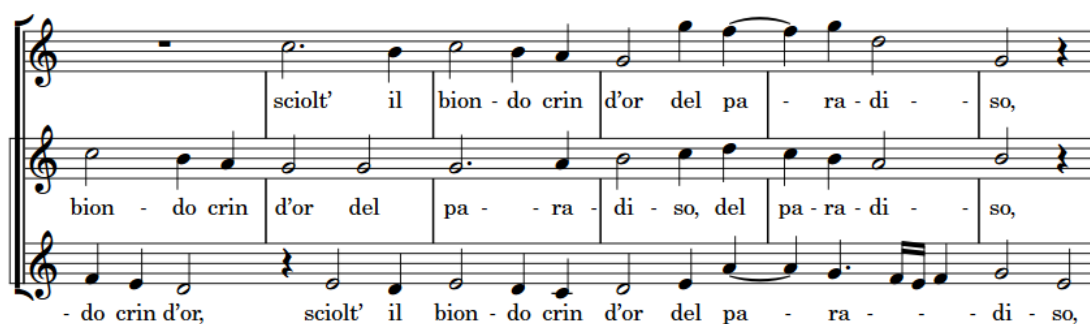
Dorico Elements automatically brackets staves according to the ensemble type set for each layout.

### Barlines across grand staff instruments

Dorico Elements automatically joins barlines across grand staff instrument staves as they are braced. Because staves cannot be bracketed and braced simultaneously, grand staff instruments are excluded from brackets and therefore are not joined with barlines to any other staves.

### Barline joins between staves

You can change whether single barlines only appear between staves or extend across the staves as well in each flow independently on the **Barlines** page in **Notation Options**. Barline joins only between staves are known as “Mensurstriche”. They are commonly used when typesetting early music to aid readability for modern performers while minimizing the visual impact on the originally unmetred notation.



The image shows a musical score with three staves. The top staff is a treble clef, the middle is an alto clef, and the bottom is a bass clef. The lyrics are: "sciolt' il bion - do crin d'or del pa - ra - di - so, bion - do crin d'or del pa - - ra - di - so, del pa - ra - di - - so, - do crin d'or, sciolt' il bion - do crin d'or del pa - - - di - so,". Barlines are drawn between the staves, illustrating the 'Mensurstriche' concept.

Barlines drawn between staves

### Custom barline groups

You can create custom barline joins and bracket groups by manually arranging your players into groups. Player groups are bracketed together according to the ensemble type set for each layout.

#### RELATED LINKS

- [Brackets according to ensemble type](#) on page 778
- [Showing barlines across all staves at time signature changes](#) on page 741
- [Designating players as soloists](#) on page 124
- [Adding player groups](#) on page 159
- [Adding players to groups](#) on page 159
- [Deleting player groups](#) on page 161
- [Player group labels](#) on page 1188
- [Notation Options dialog](#) on page 679

## Changing the default barline joins

You can change whether barline joins automatically extend across staff groups that are joined by a bracket or brace, or break between each instrument, in each layout independently.

---

#### PROCEDURE

1. Press **Ctrl/Cmd-Shift-L** to open **Layout Options**.
2. In the **Layouts** list, select the layouts in which you want to change the default barline joins.

By default, the layout currently open in the music area is selected when you open the dialog. You can select other layouts by using the selection options in the action bar, clicking and dragging across multiple layouts, **Shift**-clicking adjacent layouts, and **Ctrl/Cmd**-clicking individual layouts.

3. In the category list, click **Brackets and Braces**.
  4. In the **Bracketing** section, choose one of the following options for **Barline joins**:
    - **Follow primary brackets**
    - **Separate at each instrument**
  5. Click **Apply**, then **Close**.
- 

#### RELATED LINKS


[Brackets and braces](#) on page 776

[Brackets according to ensemble type](#) on page 778

## Showing barlines across all staves at time signature changes

You can join all staves with a barline at time signature changes in individual layouts, regardless of your bracketing style.

#### PREREQUISITE

- The lower zone is shown.
  - **Properties**  is selected in the lower zone toolbar.
- 

#### PROCEDURE

1. Select the time signature changes where you want to join all staves with a barline. You can do this in Write mode and Engrave mode.
  2. In the Properties panel, activate **Barline joins all staves** in the **Time Signatures** group.
- 

#### RESULT

All staves in the layout currently open in the music area are joined by a barline at the selected time signature changes.

#### RELATED LINKS

[Hiding/Showing zones](#) on page 44

[Properties panel](#) on page 615

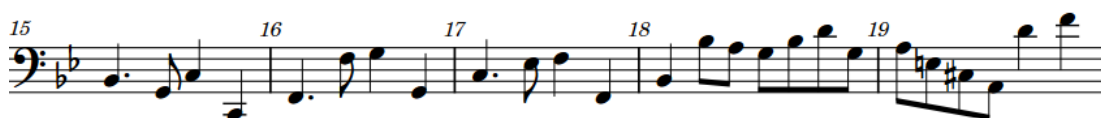
# Bar numbers

Bar numbers provide crucial reference points in music and make the chronological sequence of music clear. By providing a unique number for each bar, they enable accurate references to specific parts of pieces and allow players to co-ordinate themselves easily in rehearsals and concerts.

In Dorico Elements, bar numbers appear automatically, following the most common practice of showing a bar number at the start of each system in all layouts by default. You can hide and show bar numbers in each layout independently, including showing them at a specified regular interval or in every bar, which is frequently used in film music scores.

## TIP

The majority of options relating to bar numbers are on the **Bar Numbers** page in **Layout Options**. This is because it is very common to display bar numbers differently in different layouts, such as in every bar in full score layouts but only at the start of each system in part layouts.



Bar numbers shown every bar in a part layout

## RELATED LINKS

[Positions of bar numbers](#) on page 746

[Bar number changes](#) on page 749

[Layout Options dialog](#) on page 677

[Bars](#) on page 729

[Pick-up bars](#) on page 1253

[Barlines](#) on page 734

[Track overview](#) on page 486

## Hiding/Showing bar numbers

You can hide/show bar numbers in each layout independently, including showing them at different frequencies. For example, you can show bar numbers every bar in full score layouts but only at the start of each system in part layouts.

## PROCEDURE

1. Press **Ctrl/Cmd-Shift-L** to open **Layout Options**.
2. In the **Layouts** list, select the layouts in which you want to hide/show bar numbers.  
By default, the layout currently open in the music area is selected when you open the dialog. You can select other layouts by using the selection options in the action bar, clicking and dragging across multiple layouts, **Shift**-clicking adjacent layouts, and **Ctrl/Cmd**-clicking individual layouts.
3. In the category list, click **Bar Numbers**.

4. In the **Frequency** subsection, choose one of the following options for **Show bar numbers**:
    - **Every system**
    - **Every n bars**
    - **Every bar**
    - **None**
  5. Optional: If you chose **Every n bars**, set a custom frequency for bar numbers by changing the value for **Interval**.
  6. Click **Apply**, then **Close**.
- 

#### RESULT

Bar numbers are hidden in the selected layouts when you choose **None**, and shown at the corresponding frequency when you choose any other option.

Changing the **Interval** value changes how frequently bar numbers are shown. For example, setting an interval value of **10** means that bar numbers are shown every tenth bar.

#### TIP

You can also hide individual bar numbers in layouts where bar numbers are shown by selecting them and activating **Hide bar number** in the **Time Signatures** group of the Properties panel.

---

#### RELATED LINKS

[Changing the distance between bar numbers and the staff/other objects](#) on page 747

[Changing the system-relative placement of bar numbers](#) on page 748

[Hiding/Showing bar number ranges on multi-bar rests](#) on page 744

[Showing bar numbers above specific staves](#) on page 746

[Hiding/Showing guide bar numbers](#) on page 745

[Positions of bar numbers](#) on page 746

[Numbered bar regions](#) on page 1127

## Hiding/Showing bar number enclosures

You can optionally show bar numbers in either a rectangular or circular enclosure in each layout independently; for example, if you want bar numbers to appear with rectangle enclosures in the full score layout, so the conductor can easily see them, but with no enclosures in part layouts, where pages tend to be less busy.

Bar numbers in enclosures automatically erase their backgrounds.

---

#### PROCEDURE

1. Press **Ctrl/Cmd-Shift-L** to open **Layout Options**.
2. In the **Layouts** list, select the layouts in which you want to change the bar number enclosure type.

By default, the layout currently open in the music area is selected when you open the dialog. You can select other layouts by using the selection options in the action bar, clicking and dragging across multiple layouts, **Shift**-clicking adjacent layouts, and **Ctrl/Cmd**-clicking individual layouts.
3. In the category list, click **Bar Numbers**.
4. In the **Appearance** subsection, choose one of the following options for **Enclosure type**:

- **None**
- **Rectangle**
- **Circle**

5. Click **Apply**, then **Close**.

---

#### RESULT

The enclosure type of all bar numbers in the selected layouts is changed.

---

#### EXAMPLE

10

Bar number with no enclosure

10

Bar number with a rectangle enclosure

10

Bar number with a circle enclosure

---

#### RELATED LINKS

[Layout Options dialog](#) on page 677

## Hiding/Showing bar number ranges on multi-bar rests

You can hide/show bar number ranges on multi-bar rests; for example, so it is clear in part layouts which bars the player does not play. Multi-bar rests can include bar repeat regions, if you have chosen to consolidate bar repeat regions as well as empty bars into multi-bar rests.

---

#### PROCEDURE

1. Press **Ctrl/Cmd-Shift-L** to open **Layout Options**.
  2. In the **Layouts** list, select the layouts in which you want to hide/show bar number ranges on multi-bar rests.  
By default, the layout currently open in the music area is selected when you open the dialog. You can select other layouts by using the selection options in the action bar, clicking and dragging across multiple layouts, **Shift**-clicking adjacent layouts, and **Ctrl/Cmd**-clicking individual layouts.
  3. In the category list, click **Bar Numbers**.
  4. In the **Showing and Hiding** subsection, activate/deactivate **Show ranges of bar numbers under multi-bar rests and consolidated bar repeats**.
  5. Click **Apply**, then **Close**.
- 

#### RESULT

Bar number ranges are shown beneath multi-bar rests and consolidated bar repeats in the selected layouts when the option is activated, and hidden when it is deactivated.

#### RELATED LINKS

[Hiding/Showing bar numbers](#) on page 742

[Hiding/Showing multi-bar rests](#) on page 1152

[Numbered bar regions](#) on page 1127

## Hiding/Showing guide bar numbers

You can hide/show guide bar numbers on every bar and above every system in page view and galley view independently; for example, to make it easier to check the bar number in scores with many staves. Guide bar numbers are not printed.

---

### PROCEDURE

- Hide/Show guide bar numbers in any of the following ways:
  - To hide/show guide bar numbers in page view, choose **View > Bar Numbers > Page View**.
  - To hide/show guide bar numbers in galley view, choose **View > Bar Numbers > Galley View**.

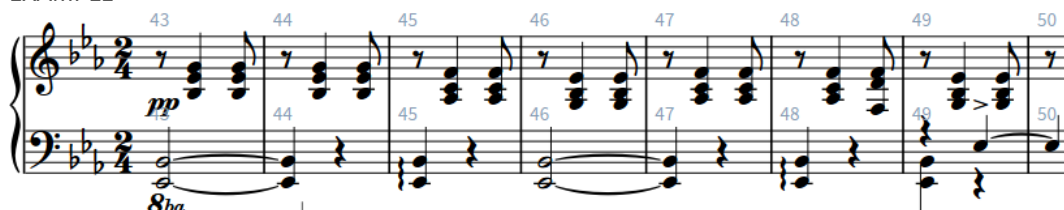
---

### RESULT

Guide bar numbers are hidden/shown for every bar and above every staff in the corresponding view type.

---

### EXAMPLE



The image shows a musical score in page view. The top staff is a treble clef with a 2/4 time signature and a key signature of two flats. The bottom staff is a bass clef with a 2/4 time signature and a key signature of two flats. The score consists of seven measures, numbered 43 through 50. Guide bar numbers are displayed above the treble clef staff for each measure. The first measure (43) has a piano (*pp*) dynamic marking. The second measure (44) has an 8va. marking. The score is in a 2/4 time signature and a key signature of two flats.

Guide bar numbers shown in page view

---

### RELATED LINKS

[Switching to galley/page view on page 50](#)

## Changing the bar number paragraph style used in layouts

You can choose which paragraph style is used for bar numbers in each layout independently. By default, full score layouts and part layouts use different paragraph styles for bar numbers.

---

### PROCEDURE

1. Press **Ctrl/Cmd-Shift-L** to open **Layout Options**.
2. In the **Layouts** list, select the layouts in which you want to change the paragraph style used for bar numbers.

By default, the layout currently open in the music area is selected when you open the dialog. You can select other layouts by using the selection options in the action bar, clicking and dragging across multiple layouts, **Shift**-clicking adjacent layouts, and **Ctrl/Cmd**-clicking individual layouts.
3. In the category list, click **Bar Numbers**.
4. In the **Appearance** subsection, select a paragraph style from the **Paragraph style** menu.
5. Click **Apply**, then **Close**.

---

### RESULT

The selected paragraph style is used for all bar numbers in the selected layouts.

## Positions of bar numbers

Bar numbers are typically shown at the start of each system, above the staff, and aligned with the initial barline.

You can change the default positions and frequency of bar numbers in each layout independently on the **Bar Numbers** page in **Layout Options**, and you can move individual bar numbers in Engrave mode. For example, you might want to show bar numbers every bar in full score layouts but only at the start of each system in part layouts.

## Changing the horizontal position of bar numbers

You can change the horizontal position of bar numbers in each layout independently. For example, you can have bar numbers centered in the middle of bars in full score layouts but centered on barlines in part layouts.

---

### PROCEDURE

1. Press **Ctrl/Cmd-Shift-L** to open **Layout Options**.
2. In the **Layouts** list, select the layouts in which you want to change the horizontal position of bar numbers.  
By default, the layout currently open in the music area is selected when you open the dialog. You can select other layouts by using the selection options in the action bar, clicking and dragging across multiple layouts, **Shift**-clicking adjacent layouts, and **Ctrl/Cmd**-clicking individual layouts.
3. In the category list, click **Bar Numbers**.
4. In the **Horizontal Position** subsection, choose one of the following options for **Horizontal position**:
  - To show bar numbers above barlines, at the top left of the bar, choose **Centered on barline**.
  - To show bar numbers above the staff, in the middle of the bar, choose **Centered on bar**.
5. Click **Apply**, then **Close**.

---

### RESULT

The horizontal position of bar numbers is changed in the selected layouts.

### RELATED LINKS

[Showing bar numbers above specific staves](#) on page 746

[Moving items graphically](#) on page 481

## Showing bar numbers above specific staves

You can change the staves above which bar numbers appear, which allows you to show bar numbers at multiple vertical positions in each system. For example, in large orchestral scores, you might show bar numbers both at the top of the system and above the string section.

---

### PROCEDURE

1. Press **Ctrl/Cmd-Shift-L** to open **Layout Options**.
2. In the **Layouts** list, select the layouts in which you want to change the vertical positions of bar numbers.

By default, the layout currently open in the music area is selected when you open the dialog. You can select other layouts by using the selection options in the action bar, clicking and dragging across multiple layouts, **Shift**-clicking adjacent layouts, and **Ctrl/Cmd**-clicking individual layouts.

3. In the category list, click **Bar Numbers**.
  4. In the **Placement** subsection, activate the checkbox for each player in the **Show above specific players** list above whose top staff you want to show bar numbers.
  5. Click **Apply**, then **Close**.
- 

#### RESULT

The vertical positions of bar numbers are changed in the selected layouts. For players holding multiple instruments, bar numbers appear above their top instrument staff.

#### NOTE

You can change the distances between bar numbers and the staff/other objects and your vertical spacing settings for the gaps between staves in order to accommodate bar numbers shown between staves.

---

#### RELATED LINKS

[Changing the default staff/system spacing](#) on page 559

[Per-layout vertical spacing options](#) on page 577

[Moving instruments](#) on page 137

## Changing the distance between bar numbers and the staff/other objects

You can change the minimum distance between bar numbers and the staff, and set a separate value for the distance between bar numbers and other objects, in each layout independently. For example, you can position bar numbers further from the staff/other objects in full score layouts than in part layouts.

---

#### PROCEDURE

1. Press **Ctrl/Cmd-Shift-L** to open **Layout Options**.
  2. In the **Layouts** list, select the layouts in which you want to change the minimum distance of bar numbers from the staff.  

By default, the layout currently open in the music area is selected when you open the dialog. You can select other layouts by using the selection options in the action bar, clicking and dragging across multiple layouts, **Shift**-clicking adjacent layouts, and **Ctrl/Cmd**-clicking individual layouts.
  3. In the category list, click **Bar Numbers**.
  4. Optional: In the **Placement** subsection, change the value for **Minimum distance from staff**.
  5. Optional: In the **Placement** subsection, change the value for **Minimum distance from other objects**.
  6. Activate/Deactivate **Align bar numbers across width of system**.
  7. Click **Apply**, then **Close**.
-



#### RESULT

Increasing the values positions bar numbers further away from the staff and/or other objects, either above or below the staff depending on your setting for **Placement relative to staff**.  
Decreasing the values positions bar numbers closer to the staff and/or other objects.

When **Align bar numbers across width of system** is activated, bar numbers automatically vertically align within systems, with their position determined by the bar number furthest from the staff.

#### NOTE

- These options affect the minimum distance between bar numbers and the staff and other objects, so bar numbers might be positioned further away than this to avoid collisions.
- If you want bar numbers within systems to appear closer to the staff than bar numbers at the start of systems, such as in part layouts with treble clefs, we recommend deactivating **Align bar numbers across width of system**.

---

#### RELATED LINKS

[Hiding/Showing bar numbers](#) on page 742

## Changing the system-relative placement of bar numbers

You can show bar numbers either above or below each system in each layout independently. For example, bar numbers can appear below the system in full score layouts but above the system in individual part layouts.

#### NOTE

This does not affect the placement of bar numbers shown above specific staves.

---

#### PROCEDURE

1. Press **Ctrl/Cmd-Shift-L** to open **Layout Options**.
2. In the **Layouts** list, select the layouts in which you want to change the bar number placement.  
By default, the layout currently open in the music area is selected when you open the dialog. You can select other layouts by using the selection options in the action bar, clicking and dragging across multiple layouts, **Shift**-clicking adjacent layouts, and **Ctrl/Cmd**-clicking individual layouts.
3. In the category list, click **Bar Numbers**.
4. In the **Placement** subsection, choose one of the following options for **Placement relative to system**:
  - **Show above top staff of system**
  - **Show below bottom staff of system**
5. Click **Apply**, then **Close**.

---

#### RESULT

The placement of bar numbers relative to the system is changed in the selected layouts.

## Hiding bar numbers at time signatures shown at system object positions

You can choose to hide bar numbers at the same rhythmic position as time signatures shown at system object positions, as the resulting collision can be difficult to resolve in a visually clear way when bar numbers are centered on barlines.

---

### PROCEDURE

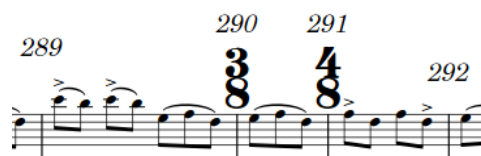
1. Press **Ctrl/Cmd-Shift-L** to open **Layout Options**.
  2. In the **Layouts** list, select the layouts in which you want to hide bar numbers at time signatures shown at system object positions.  
By default, the layout currently open in the music area is selected when you open the dialog. You can select other layouts by using the selection options in the action bar, clicking and dragging across multiple layouts, **Shift**-clicking adjacent layouts, and **Ctrl/Cmd**-clicking individual layouts.
  3. In the category list, click **Bar Numbers**.
  4. In the **Showing and Hiding** subsection, activate/deactivate **Show bar numbers at time signatures at system object positions**.
  5. Click **Apply**, then **Close**.
- 

### RESULT

Bar numbers are shown at time signatures shown at system object positions when the option is activated, and hidden when it is deactivated.

---

### EXAMPLE



Bar numbers shown at time signatures at system object positions



Bar numbers hidden at time signatures at system object positions

---

### RELATED LINKS

[Time signatures](#) on page 1249

[Large time signatures](#) on page 1254

## Bar number changes

Bar numbers follow a continuous sequence, with each bar having a unique bar number that continues from the previous bar number. However, you can make manual changes to the bar number sequence, including changing to a subordinate sequence.

In Dorico Elements, you can make the following types of changes to bar number sequences using the **Insert Bar Number Change** dialog:

### Primary

Adds a change to the main bar number sequence, which the bars in your project follow in a continuous sequence in each flow separately by default.

### **Subordinate**

Adds a secondary bar number sequence that uses letters rather than numbers to indicate the sequence. This can be useful in situations where a new version of a piece has been created with more bars inserted, but the original bar numbers are required.

### **Don't Include**

Excludes the selected bar from the current bar number sequence. If bar numbers are shown every bar, no bar number is shown in bars in which you have chosen **Don't Include**.

### **Continue Primary**

Returns the bar number sequence to the **Primary** sequence without counting intervening bars; for example, after a section of bars following the **Subordinate** bar number sequence.

#### RELATED LINKS

[Subordinate bar numbers](#) on page 751

## **Adding bar number changes**

You can manually add bar number changes to bar number sequences; for example, if you want bar numbers in the second flow in your project to appear to continue the sequence from the first flow, rather than start again from bar one.

---

#### PROCEDURE

1. In Write mode or Engrave mode, select one of the following:
  - An item in the bar from the beginning of which you want to change the bar number sequence.
  - An existing bar number or barline from which you want to change the bar number sequence.
2. Choose **Edit > Notations > Bar Numbers > Add Bar Number Change** to open the **Insert Bar Number Change** dialog. You can also choose this option from the context menu.
3. Choose one of the following options for **Type**:
  - **Primary**
  - **Subordinate**
  - **Don't Include**
  - **Continue Primary**
4. Optional: If you chose **Primary** or **Subordinate**, change the bar number where you want the bar number sequence change to start by changing the value in the corresponding value field.
5. Click **OK** to save your changes and close the dialog.

---

#### RESULT

The bar number sequence changes, starting from the beginning of the bar in which you selected an item, or from the position of a selected bar number or barline.

This affects the corresponding bar number sequence from the changed bar number until the next bar number change, or until the end of the flow.

## Deleting bar number changes

You can delete any bar number changes you have added.

---

### PROCEDURE

1. In Write mode, select the bar number changes you want to delete.
  2. Press **Backspace or Delete**.
- 

### RESULT

The bar number changes are deleted. Subsequent bars follow the previous bar number sequence until the next bar number change, or until the end of the flow.

## Subordinate bar numbers

Subordinate bar numbers are useful for numbering repeat endings, and for situations when the music is being altered, but the original bar numbers cannot be changed.

For example, you can use subordinate bar numbers to show where music has been added if a previous, shorter version has already been rehearsed. In this situation, players have likely started to associate certain parts of the piece with particular bar numbers, so if four bars need to be added after bar **10**, they would be numbered **10a** to **10d**. The bar number of the following bar then continues from **11** exactly as it did before the new bars were added.

They might also be useful if you want different bar numbers for a repeat ending.

Subordinate bar numbers are shown with lowercase letters.

You can show both primary bar numbers and subordinate letters or only subordinate alphabetical letters in subordinate bar number sequences.



Lowercase subordinate bar number

## Adding subordinate bar numbers

You can create a subordinate bar number sequence that is independent of your primary bar number sequence. This can be useful if you want to insert new bars without changing the bar numbers of existing subsequent bars.

---

### PROCEDURE

1. In Write mode or Engrave mode, select one of the following:
  - An item in the bar from the beginning of which you want subordinate bar numbers to start.
  - An existing bar number or barline from which you want subordinate bar numbers to start.
2. Choose **Edit > Notations > Bar Numbers > Add Bar Number Change** to open the **Insert Bar Number Change** dialog. You can also choose this option from the context menu.
3. Choose **Subordinate** for **Type** to activate the **Subordinate** value field.

4. Optional: If you want to change the primary bar number that accompanies subordinate bar numbers, activate **Primary** and change the value in the value field.  
For example, if you want the bar number sequence **6, 7a, 7b** rather than **6, 7, 7a**.
  5. Change the first letter in the subordinate bar number sequence by changing the value in the **Subordinate** value field.  
The corresponding alphabetical letter is shown to the right of the value field. For example, entering **1** into the value field is shown as **a**, **2** appears as **b**, and so on.
  6. Activate/Deactivate **Hide primary bar numbers**.
  7. Click **OK** to save your changes and close the dialog.
- 

#### RESULT

The subordinate bar number sequence starts from the bar in which you selected an item, or from the position of a selected bar number or barline.

- If you activated **Primary** and changed the value, the primary bar number shown alongside subordinate bar numbers is changed.
- If you deactivated **Hide primary bar numbers**, bar numbers in the subordinate sequence show both a number and an alphabetical letter. If you activated **Hide primary bar numbers**, they appear only with alphabetical letters.

For example, if you start a subordinate bar number sequence from what was originally bar 5 without changing the **Primary** value, the sequence starts from 4a and continues until the next specified bar number change, or until the end of the flow.

## Returning to the primary bar number sequence

You can specify the point where you want to return to the primary bar number sequence after a section of subordinate bar numbers.

---

#### PROCEDURE

1. In Write mode or Engrave mode, select one of the following:
    - An item in the bar from the beginning of which you want to return to the primary bar number sequence.
    - An existing bar number or barline from which you want to return to the primary bar number sequence.
  2. Choose **Edit > Notations > Bar Numbers > Add Bar Number Change** to open the **Insert Bar Number Change** dialog. You can also choose this option from the context menu.
  3. Choose **Continue Primary** for **Type**.  
Text indicating the new bar number appears below the value fields for **Primary** and **Subordinate**. For example, **Primary sequence will continue from bar 5**.
  4. Click **OK** to save your changes and close the dialog.
- 

#### RESULT

The primary bar number sequence resumes from the bar in which you selected an item, or from the position of a selected bar number or barline.

TIP

You do not have to add subordinate bar number changes in chronological order. You can enter a return to the primary bar number sequence first, before adding the subordinate bar number sequence.

---

## Bar numbers and repeats

By default in Dorico Elements, repeats are not included in the bar number count. For example, if the first ending ends in bar 10, the second ending starts in bar 11, even though the first section is repeated and therefore more than ten bars have been played.

Including repeats in the bar number count, so that bar numbers reflect the total number of bars played rather than the number of bars written on the page, can make music with multiple playthroughs clearer, as you can refer to a specific bar number for each playthrough instead of, for example, “bar eight the third time round”.

*2 (12)*



Bar number for subsequent repeat shown in parentheses beside the initial bar number

In Dorico Elements, you cannot automatically include repeats in the bar number count. However, you can add bar number changes manually if you want bar numbers to reflect the total number of bars played.

### RELATED LINKS

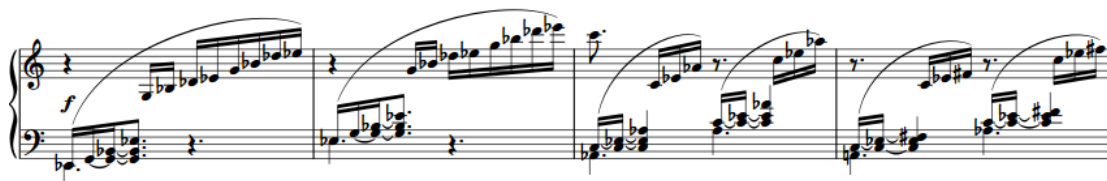
[Adding bar number changes](#) on page 750

# Beaming

A beam is a line that connects notes with tails to show rhythmic grouping, which varies according to the metrical structure of the prevailing time signature.

This way of grouping notes helps performers calculate quickly exactly how to play their given rhythm and helps them follow both their part and, if applicable, the conductor.

If appropriate for the current meter and position in the bar, beams are automatically formed in Dorico Elements when you input two or more adjacent notes or chords that are an eighth note (quaver) or shorter in duration.



Multiple beam groups in a 6/8 time signature

Dorico Elements has sophisticated underlying rules for producing beam groupings that follow the accepted conventions of music theory, including crossing the half-bar in time signatures like 4/4, beaming all eighth notes together in 3/4, beam groups that include tuplets, and many other situations.

You can control how notes are beamed in multiple ways in Dorico Elements.

- You can set beam grouping defaults in each flow in your project independently on the **Beam Grouping** page in **Notation Options**.
- You can set beam groups by controlling subdivisions of time signatures.
- You can beam notes together and split beams manually.

## RELATED LINKS

[Inputting notes](#) on page 211

[Secondary beams](#) on page 768

[Tuplets within beams](#) on page 771

[Rests within beams](#) on page 771

## Per-flow notation options for beam grouping

You can find options to control the default beam grouping rules in each flow independently on the **Beam Grouping** page in **Notation Options**.

The available options include beams crossing the half-bar in time signatures like 4/4, beaming all eighth notes together in 3/4, how to handle secondary beam groups, stemlets, and beams over rests.

Musical examples demonstrate how each option affects the appearance of your music.

## RELATED LINKS

[Notation Options dialog](#) on page 679

[Beam slants](#) on page 760

## Beam grouping according to meters

According to accepted conventions, notes are beamed differently in different time signatures to make the meter clear and easily readable. In Dorico Elements, default beam groupings are determined by time signatures.

Dorico Elements has default beaming settings for common time signatures, based on general conventions and your chosen settings. For example, although the time signatures of 3/4 and 6/8 contain the same number of beats, they imply different meters and so are beamed differently. In 3/4, phrases of eighth notes are beamed together within each bar and phrases of other durations are beamed in quarter notes (crotchets) by default, but in 6/8, phrases are beamed in dotted quarter notes.



Default eighth note beam grouping in 3/4



Default eighth note beam grouping in 6/8

Dorico Elements groups and beams notes in irregular time signatures, such as 5/8 or 7/8, according to the most common practices for those time signatures.



Default beam grouping in 5/8



Default beam grouping in 7/8

For situations where you want to control the beat grouping in more detail, you can input a custom time signature with an explicit rhythmic subdivision. Dorico Elements then automatically beams phrases according to this subdivision. For example, entering **[7]/8** into the time signatures popover means all seven eighth notes (quavers) are beamed together, whereas entering **[2+2+3]/8** subdivides the seven eighth notes into two, then two, then three.

### NOTE

The duration of beam groups in Dorico Elements depends on the beat grouping in the prevailing time signature and your per-flow beam grouping settings in **Notation Options**.

---

### RELATED LINKS

[Note and rest grouping](#) on page 774

[Creating custom beat groupings for meters](#) on page 774

[Inputting time signatures with the popover](#) on page 274

## Beaming notes together manually

You can beam notes in the same voice together manually, including notes across barlines as well as system/frame breaks. For example, if you want to beam a phrase differently to how it is usually beamed in the prevailing time signature.

Beams by default stay within bars and systems, so to have beams cross barlines, system breaks, and frame breaks, you must force the phrase to beam together.



TIP

- If you want a single beam to span multiple staves, you can create cross-staff beams.
  - Inputting time signatures with custom beat groupings is often the quickest and most consistent way to control beam grouping.
- 

PROCEDURE

1. Select the notes you want to beam together. You can do this in Write mode and Engrave mode.
  2. Choose **Edit > Notations > Beaming > Beam Together**. You can also choose this option from the context menu.
- 

RESULT

Selected notes in the same voice are beamed together, even if they cross barlines or system/frame breaks.

If there are notes either side of the new beam group that were previously beamed to part or all of your selection, they either beam together as separate beams, or appear unbeamed. This depends on how many notes are left either side in the bar, and on the beam grouping settings for the flow.

NOTE

- Even if part of the beamed group previously had a centered beam, the new beam is not centered.
  - You can assign a key command for **Beam Together** on the **Key Commands** page in **Preferences**.
- 

EXAMPLE



Phrase with default beaming



Notes in each bar beamed together

---

RELATED LINKS

- [Allowing/Disallowing triplets to span barlines](#) on page 1274
- [Changing the voice of existing notes](#) on page 442
- [Centered beams](#) on page 762
- [Creating cross-staff beams/tremolos](#) on page 764
- [Beam grouping according to meters](#) on page 755
- [Creating custom beat groupings for meters](#) on page 774
- [Key Commands page in the Preferences dialog](#) on page 59

## Unbeaming notes

You can separate all notes in a beamed group so that each note shows its own tail; for example, if you are engraving vocal music that requires syllabic beaming.

---

### PROCEDURE

1. Select the notes you want to make unbeamed. You can do this in Write mode and Engrave mode.
  2. Choose **Edit > Notations > Beaming > Make Unbeamed**. You can also choose this option from the context menu.
- 

### RESULT

The selected notes are unbeamed and show their own tails.

---

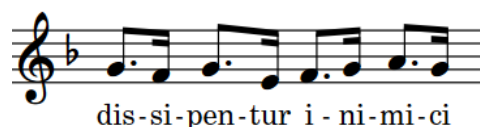
### TIP

You can assign a key command for **Make Unbeamed** on the **Key Commands** page in **Preferences**.

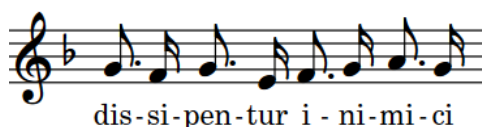
---

---

### EXAMPLE



Phrase with default beaming



All notes unbeamed

---

## Splitting beam groups

You can split beams into two beam groups at specific rhythmic positions. You can also split secondary beams within beamed groups.

---

### PROCEDURE

1. Select the noteheads to the right of where you want to split beams. You can do this in Write mode and Engrave mode.
2. Split the beam or secondary beam in one of the following ways:
  - Choose **Edit > Notations > Beaming > Split Beam**.
  - Choose **Edit > Notations > Beaming > Split Secondary Beam**.

---

### TIP

You can also choose these options from the context menu.

---

### RESULT

Beams/Secondary beams are split to the left of each selected note, but the notes either side of the split remain grouped if there are at least two beamed notes on each side that can be in a beam group.

TIP

- To unbeam the entire selection and give all notes in the group individual tails, you can make all notes unbeamed.
  - You can change how beams and secondary beams are split by default in each flow independently on the **Beam Grouping** page in **Notation Options**
  - You can assign key commands for **Split Beam** and **Split Secondary Beam** on the **Key Commands** page in **Preferences**.
- 

EXAMPLE



Phrase with default beaming



Two beams split at the second 16th note

---

RELATED LINKS

[Per-flow notation options for beam grouping](#) on page 754

[Beam grouping according to meters](#) on page 755

[Key Commands page in the Preferences dialog](#) on page 59

## Resetting beam grouping

You can remove all changes made to the beam grouping of notes and chords. This can also be useful if, for example, MusicXML files you have imported have incorrect beaming.

---

PROCEDURE

1. Select the notes/chords whose beaming you want to reset. You can do this in Write mode and Engrave mode.
  2. Choose **Edit > Notations > Beaming > Reset Beaming**. You can also choose this option from the context menu.
- 


RESULT

Beam grouping is reset to your default settings in **Notation Options** for the current flow and time signature.

## Changing the thickness of beams

You can change the thickness of individual beams, which can be useful in certain engraving situations. You can do this for the current layout and frame chain only, or for all layouts and frame chains.

PREREQUISITE

- The lower zone is shown.
- **Properties**  is selected in the lower zone toolbar.
- You have chosen the appropriate property scope for local properties.

---

#### PROCEDURE

1. In Engrave mode, select all the noteheads in the beams whose thickness you want to change.

#### NOTE

For the best results, we recommend selecting all notes in each beam.

---

2. In the Properties panel, activate **Thickness** in the **Beaming** group.
  3. Change the value in the value field.
- 

#### RESULT

The thickness of all beam lines in the selected beams is changed. If the property scope was set to **Locally**, this change only takes effect in the current layout and frame chain.

#### RELATED LINKS

[Hiding/Showing zones](#) on page 44

[Changing the property scope](#) on page 617

[Copying property settings to other layouts/frame chains](#) on page 599

[Beam slants](#) on page 760

[Changing the gaps between beam lines](#) on page 770

## Beam placement relative to the staff

The default staff-relative placement of beams is determined by the staff positions of the notes within the beamed group and their resulting stem directions.

This means that the note furthest from the middle line of the staff determines the placement of the beam, although there are exceptions to this rule and other considerations that can influence the staff-relative placement of beams.

Changing the staff-relative placement of beams involves changing the direction of the stems in the beam. Therefore, Dorico Elements categorizes changing the staff-relative placement of beams as a stem change.

## Changing the staff-relative placement of beams

You can change the side of the staff on which beams appear by forcing the stem direction to change. You can do this for the current layout and frame chain only, or for all layouts and frame chains.

#### PREREQUISITE

You have chosen the appropriate property scope for local properties.

---

#### PROCEDURE

1. Select at least one note in each of the beamed phrases whose staff-relative placement you want to change. You can do this in Write mode and Engrave mode.
2. Force the stem direction of notes in the selected beams in any of the following ways:
  - Choose **Edit > Notations > Stem > Force Stem Up**.
  - Choose **Edit > Notations > Stem > Force Stem Down**.

TIP

- You can also choose these options from the context menu.
  - You can also change the staff-relative placement of selected beams by pressing **F**.
- 

RESULT

The beam appears on the side of the staff that corresponds to its forced stem direction. If the property scope was set to **Locally**, this change only takes effect in the current layout and frame chain.

RELATED LINKS

[Changing the property scope](#) on page 617

[Copying property settings to other layouts/frame chains](#) on page 599

## Removing beam placement changes

You can undo changes to the staff-relative placement of beams in order to remove the stem direction change. This reverts selected beams to their default placement.

---

PROCEDURE

1. Select at least one note in each of the beamed phrases whose staff-relative placement change you want to remove. You can do this in Write mode and Engrave mode.
  2. Choose **Edit > Notations > Stem > Remove Forced Stem**. You can also choose this option from the context menu.
- 

RESULT

The selected beams revert to their default staff-relative placement.

## Beam slants

The slant of a beam controls how steeply the beam deviates from horizontal, according to the pitches of the notes within the beamed group.

- When the last note of the phrase is higher than the first, the beam slants upwards.
- When the last note of the phrase is lower than the first, the beam slants downwards.
- If the group makes a concave shape, where inner notes are closer to the beam than the outer ones at either end of the beam, then the beaming is horizontal by default.  
Beams are also horizontal if all the pitches are the same, or for certain patterns of repeated pitches.

When a beam is drawn inside the staff, each end of the beam, meaning the end of the stem of the note at either end of the beam, must be snapped to a staff line position. A beam line may sit on a staff line, be centered on a staff line, or hang from a staff line. Ted Ross describes these three positions as “sit”, “straddle”, and “hang” respectively in “Teach Yourself the Art and Practice of Music Engraving”.



A phrase containing multiple different beam slants and directions

The amount by which a beam slants is typically determined by the interval between the first and last note in the beamed group, provided the pattern of notes in the beam does not dictate a horizontal beam instead. Smaller intervals require a shallower slant and larger intervals require a steeper one.

However, the desired amount of slant is not the only factor that must be considered. The innermost beam line should not come too close to the innermost notehead, and the beam itself, if possible, should be positioned relative to the staff lines such that it does not form a wedge. A wedge is a tiny triangle formed by the horizontal staff line, the vertical stem, and the angled line of the slanted beam, which can be visually confusing.

Determination of the amount of slant for a beam is therefore a balancing act that must weigh up several factors: the desired amount of slant, valid snapping positions for each end of the beam, ensuring a minimum distance between the note closest to the beam and the innermost beam line, and avoiding wedges where possible.

In Dorico Elements, you can change the beam slants of individual beams.


#### RELATED LINKS

[Rests within beams](#) on page 771

## Changing beam slants

You can change the slants, or angles, of individual beams. You can do this for the current layout and frame chain only, or for all layouts and frame chains.

#### PREREQUISITE

- The lower zone is shown.
- **Properties**  is selected in the lower zone toolbar.
- You have chosen the appropriate property scope for local properties.

You have chosen the appropriate property scope for local properties.

---

#### PROCEDURE

1. In Engrave mode, select the square handles on the beam corners of the beams whose slants you want to change.
2. Move the handles in any of the following ways:
  - To move beam handles upwards/downwards a standard amount, press **Alt/Opt** plus the corresponding arrow key. For example, press **Alt/Opt-Up Arrow** to move them upwards by 1/4 space per press.
  - To move beam handles a large amount, press **Ctrl/Cmd** plus the standard key command; for example, **Ctrl/Cmd-Alt/Opt-Up Arrow**. This moves beam handles by 1 space per press.

- To move beam handles a moderate amount, press **Shift** plus the standard key command; for example, **Shift-Alt/Opt-Up Arrow**. This moves beam handles by 1/2 space per press.
  - To move beam handles a small amount, press **Ctrl/Cmd - Shift** plus the standard key command; for example, **Ctrl/Cmd-Shift-Alt/Opt-Up Arrow**. This moves beam handles by 1/32 space per press.
  - Click and drag them upwards/downwards.
3. Optional: Repeat steps 1 and 2 to move the other end of the selected beams.
- 

#### RESULT

The slants of the selected beams are changed. If the property scope was set to **Locally**, this change only takes effect in the current layout and frame chain.

#### TIP

You can also use **Beam direction** in the **Beaming** group of the Properties panel to change the slant of beams. The property is available when you select noteheads within the beam group, and its options all ensure that beam ends are positioned correctly relative to staff lines.

---

#### RELATED LINKS

[Changing the property scope](#) on page 617

[Copying property settings to other layouts/frame chains](#) on page 599

## Centered beams

Centered beams are beams that are vertically positioned between notes within the same beamed group, with stems for notes above the beam pointing downwards and stems for notes below the beam pointing upwards.

Centered beams are also known as “kneed” or “elbowed” beams due to their often angular shape.



When a beamed phrase spans a large pitch range, normal beams are often positioned very close to some notes in the phrase but very far from other notes in the phrase, making some stems very long. Having a centered beam in a phrase that spans a large pitch range can reduce the maximum distance between noteheads and the beam, but can also place the beam within the staff, which can obscure staff lines.

By default, Dorico Elements allows beams that include notes on both sides of the middle staff line to appear centered. You can also create custom centered beams for beams that include notes only on one side of the middle staff line.



A phrase with high and low notes with default beaming



The same phrase with high and low notes, but with a centered beam

#### TIP

To center beams between the staves of grand staff instruments, you can create cross-staff beams.

#### RELATED LINKS

[Changing the staff-relative placement of beams](#) on page 759

[Creating cross-staff beams/tremolos](#) on page 764

## Creating centered beams

You can center beams between the notes in the beamed group. You can do this for the current layout and frame chain only, or for all layouts and frame chains.

#### NOTE

As this action requires changing the direction of some stems in order to appear correctly, it is located in the **Stem** submenu rather than the **Beaming** submenu.

#### PREREQUISITE

You have chosen the appropriate property scope for local properties.

#### PROCEDURE

1. Select at least one note in each of the beams you want to center. You can do this in Write mode and Engrave mode.
2. Create a centered beam in one of the following ways:
  - If the selected beams include notes on both sides of the middle staff line, choose **Edit > Notations > Stem > Force Centered Beam**.
  - If the selected beams include notes only on one side of the middle staff line, choose **Edit > Notations > Stem > Custom Centered Beam** to open the **Custom Centered Beam** dialog.

#### TIP

You can also choose these options from the context menu.

3. Optional: If you created a custom centered beam, change the stem direction of each note in the selected beams as required in the **Custom Centered Beam** dialog, then click **OK**.

#### RESULT

Beams are centered between the notes in the selected beam groups. If the property scope was set to **Locally**, this change only takes effect in the current layout and frame chain.



If you select notes in multiple beams, each beam is centered separately. If you want to create a single centered beam, you can beam the notes in those beam groups together. You can do this both before and after centering the beams.

#### NOTE

- Dorico Elements automatically angles the beam based on the shape of the phrase, but you can change the angles or slants of beams manually.
  - You can assign a key command for **Force Centered Beam** on the **Key Commands** page in **Preferences**.
- 

#### RELATED LINKS

[Beaming notes together manually](#) on page 755

[Changing beam slants](#) on page 761

[Removing stem direction changes](#) on page 965

## Removing centered beams

You can remove centered beams and revert beams to their default placements either above or below the phrase.

---

#### PROCEDURE

1. Select at least one note in each centered beam that you want to revert to the default placement. You can do this in Write mode and Engrave mode.
  2. Choose **Edit > Notations > Stem > Remove Centered Beam**. You can also choose this option from the context menu.
- 

#### RESULT

The centered beams are removed.

#### TIP

You can assign a key command for **Remove Centered Beam** on the **Key Commands** page in **Preferences**.

---

## Creating cross-staff beams/tremolos

Cross-staff beams and cross-staff tremolos work in a similar way to normal beams and tremolos, but allow a phrase that covers a wide pitch range to be shown on multiple staves. You can create cross-staff beams/tremolos by inputting all notes in the phrase on one staff and crossing some notes to appear on another staff.

#### PREREQUISITE

You have input a phrase on one staff.

---

#### PROCEDURE

1. Select the notes you want to cross to another staff. You can do this in Write mode and Engrave mode.

#### NOTE

You can only cross notes to other staves held by the same player.

---

2. Cross the notes to other staves in any of the following ways:

- To cross notes to the staff above, press **N**.
- To cross notes to the staff below, press **M**.
- Choose **Edit > Notations > Cross Staff > Cross to Staff Above**.
- Choose **Edit > Notations > Cross Staff > Cross to Staff Below**.

**TIP**

You can also choose these options from the context menu.

---

**RESULT**

The selected notes are shown on a different staff, with a cross-staff beam shown if the notes are part of a beam group. This does not change the staff to which the notes belong.

**NOTE**

- When crossing notes to a staff that already contains notes, the stem direction of the existing notes on the staff can change. This is due to how multiple voices at the same rhythmic position are handled. Therefore, you may have to change the stem direction of notes manually.
  - If you want notes to belong to a different staff, you can move them to another staff.
- 

**EXAMPLE**



Notes shown on their original staves



Cross-staff beams created by crossing some notes to the other staff

---

**RELATED LINKS**

- [Resetting notes crossed to other staves](#) on page 768
- [Moving notes/items to other staves](#) on page 440
- [Moving notes/items rhythmically](#) on page 437
- [Notes crossed to staves with existing notes in other voices](#) on page 1309
- [Note positions in multiple-voice contexts](#) on page 1306
- [Inputting notes](#) on page 211
- [Stem direction](#) on page 961
- [Hiding/Showing voice colors](#) on page 1304
- [Tremolos](#) on page 1264

## Changing to optical cross-staff beam spacing

You can make the stems in cross-staff beams, rather than the noteheads, evenly spaced in each layout independently. This can make it easier to perceive the evenness of rhythmic spacing in cross-staff beams than when noteheads are evenly spaced.

---

### PROCEDURE

1. Press **Ctrl/Cmd-Shift-L** to open **Layout Options**.
2. In the **Layouts** list, select the layouts that you want to change to optical cross-staff beam spacing.  
By default, the layout currently open in the music area is selected when you open the dialog. You can select other layouts by using the selection options in the action bar, clicking and dragging across multiple layouts, **Shift**-clicking adjacent layouts, and **Ctrl/Cmd**-clicking individual layouts.
3. In the category list, click **Note Spacing**.
4. Activate **Use optical spacing for beams between staves**.
5. Click **Apply**, then **Close**.

---

### RESULT

Optical cross-staff beam spacing is enabled in the selected layouts.

---

### EXAMPLE



Default spacing: The distance between noteheads is even.



Optical spacing for cross-staff beaming: The distance between stems is even.

---

### RELATED LINKS

[Note spacing](#) on page 579

## Cross-staff beam placement in multiple staves

When instruments have three or more staves, cross-staff beams can be placed in multiple ways. For example, the beam can be placed between the top and the middle staves, and also between the middle and bottom staves.

If a beam only crosses two staves, the cross-staff beam goes between those two staves.

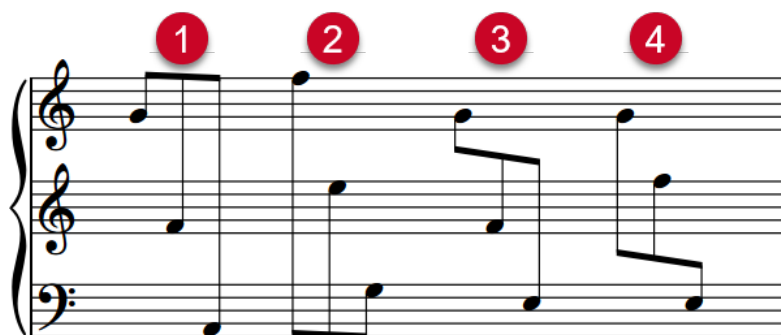


A cross-staff beam across the upper two staves on an instrument with three staves



A cross-staff beam across the lower two staves on an instrument with three staves

If a beam group contains notes on all three staves, the placement of the beam depends on the stem directions of the notes in each staff.



- 1 If all notes in the beam group are stem-up, the beam is placed above the top staff.
- 2 If all notes in the beam group are stem-down, the beam is placed below the bottom staff.
- 3 If notes are stem-down on the top staff and stem-up on the bottom two staves, the beam is placed between the top and middle staves.
- 4 If notes are stem-down on the top two staves and stem-up on the bottom staff, the beam is placed between the bottom and middle staves.

#### NOTE

If you have not specified stem directions, Dorico Elements might place the beam above/below the staff into which the notes were originally input, even if the stem directions mean it should be placed between other staves.

If you want the beam to be placed between specific staves, you can change the stem directions of notes in the beam group.

---

#### RELATED LINKS

[Changing the stem direction of notes](#) on page 963

## Resetting notes crossed to other staves

You can reset notes that have been crossed to other staves so that they appear on their default staff. We recommend resetting cross-staff notes before copying and pasting them to other staves to avoid unexpected beaming.

---

### PROCEDURE

1. Select the cross-staff notes you want to reset. You can do this in Write mode and Engrave mode.
2. Choose **Edit > Notations > Cross Staff > Reset to Original Staff**. You can also choose this option from the context menu.

---

### RESULT

The selected cross-staff notes are reset and appear on their default staff.

### TIP

You can assign a key command for this option on the **Key Commands** page in **Preferences**.

---

## Beam corners

Beam corners can occur when a change of stem direction within a beam is combined with a break in the secondary beam group. This can be at the end of a subdivision or at a change in rhythmic speed.

Beam corners do not follow accepted rules regarding the order and rhythmic meaning of secondary beams, and can be confusing for the reader.



Dorico Elements avoids beam corners by analyzing the pitches and stems within a phrase, and implementing stem directions that avoid a beam corner.

## Secondary beams

Secondary beams are the lines that are added between the primary beam and the notehead as the rhythmic division gets smaller.

The primary beam is the outermost beam line that joins all of the notes in the beamed group. Depending on the durations of the notes in the beamed group, the primary beam may in fact be two or more lines; that is, for notes of a 16th or shorter in duration.

Secondary beams are additional beam lines that join only some of the notes in the group, creating subdivisions of the beam in order to make the metrical groupings of the beam clearer.



A phrase of 64th notes, with secondary beams subdivided to show 16th and eighth note groups

You can set per-flow options for splitting secondary beams and their appearance on the **Beam Grouping** page in **Notation Options**.

#### RELATED LINKS

[Rests within beams](#) on page 771


[Notation Options dialog](#) on page 679

[Changing the gaps between beam lines](#) on page 770

## Changing the direction of partial beams

Dorico Elements automatically inputs a partial beam if one is required. You can change on which side of stems individual partial beams appear.

#### PREREQUISITE

- The lower zone is shown.
- **Properties**  is selected in the lower zone toolbar.

---

#### PROCEDURE

1. Select the notes whose partial beam direction you want to change. You can do this in Write mode and Engrave mode.
2. In the Properties panel, activate **Partial beam direction** in the **Beaming** group.
3. Choose one of the following options:
  - **Left**
  - **Right**

---

#### RESULT

The partial beam appears on the corresponding side of the stem.

---

#### EXAMPLE



Partial beam direction **Left**



Partial beam direction **Right**

---

## Changing the number of beam lines in secondary beams

You can change the number of beam lines shown in secondary beams individually, independently of your default setting for the current flow.

#### PREREQUISITE

- The lower zone is shown.

- **Properties**  is selected in the lower zone toolbar.

---

#### PROCEDURE

1. Select the notes to the right of where you want to change the number of secondary beaming lines. You can do this in Write mode and Engrave mode.
2. Optional: If any of the notes you selected do not immediately follow existing splits in the secondary beam, split the secondary beams in any of the following ways:
  - In the Properties panel, activate **Split secondary beam** in the **Beaming** group.
3. In the Properties panel, select the note value that corresponds to the number of beam lines you want shown from the **Split secondary beam** menu.

---

#### NOTE

The **Beaming** group is only shown in the Properties panel if your selection only contains notes.

---

#### RESULT

The number of beam lines shown immediately to the left of each selected note is changed.

---

#### NOTE

- Deactivating the property returns the selected notes to showing their default number of beam lines.
- The number of beam lines shown at a split in the secondary beam cannot be the same or greater than the number of beam lines in the secondary beam. For example, if you split a secondary beam containing 64th notes, the maximum number of beam lines shown at the split in that beam is three, the equivalent of 32nd notes.
- You can change the default number of secondary beam lines shown in each flow independently on the **Beam Grouping** page in **Notation Options**.

---


#### RELATED LINKS

- [Notation Options dialog](#) on page 679
- [Resetting beam grouping](#) on page 758

## Changing the gaps between beam lines

You can change the gaps that separate beam lines in individual beams, which can be useful in certain engraving situations. You can do this for the current layout and frame chain only, or for all layouts and frame chains.

#### PREREQUISITE

- The lower zone is shown.
- **Properties**  is selected in the lower zone toolbar.
- You have chosen the appropriate property scope for local properties.

---

#### PROCEDURE

1. In Engrave mode, select all the noteheads in the beams whose beam line gaps you want to change.

NOTE

For the best results, we recommend selecting all notes in each beam.

---

2. In the Properties panel, activate **Separation** in the **Beaming** group.
  3. Change the value in the value field.
- 

RESULT

The gaps that separate beam lines in the selected beams are changed. If the property scope was set to **Locally**, this change only takes effect in the current layout and frame chain.

RELATED LINKS

[Hiding/Showing zones](#) on page 44

[Changing the property scope](#) on page 617

[Copying property settings to other layouts/frame chains](#) on page 599

[Changing the thickness of beams](#) on page 758

[Beam slants](#) on page 760

## Tuplets within beams

Tuplets that contain notes that produce beams, such as eighth notes, are beamed together. However, special beam grouping rules apply to tuplets within beams that also contain non-tuplet notes.

The default setting for a tuplet in a beamed group with secondary beams is to split the secondary beam and to show the tuplet with a bracket. The primary beam is not split. If necessary, you can hide/show tuplet brackets individually.

The default setting for a tuplet in a beamed group with only a primary beam is to separate the tuplet entirely. However, you can change this setting on the **Beam Grouping** page in **Notation Options**.



16th note triplet beamed together with non-tuplet 16th notes



Eighth note (quaver) triplet beamed separately from non-tuplet eighth notes

RELATED LINKS

[Tuplets](#) on page 1271

[Tuplet brackets](#) on page 1276

[Tuplet numbers/ratios](#) on page 1279

## Rests within beams

There are different conventions for how beams interact with rests, including whether beams should extend over rests or split at rests.

You can change how primary and secondary beams interact with rests in each flow independently on the **Beam Grouping** page in **Notation Options**.



RELATED LINKS

[Note and rest grouping](#) on page 774

[Beam slants](#) on page 760

[Notation Options dialog](#) on page 679

[Changing the direction of partial beams](#) on page 769

## Stemlets

Stemlets are short stems that extend from beams to rests within beam groups. They can help make music easier to read, as they help to maintain a regular pattern of stems within beams.

In the examples, beaming all notes and rests together to show the boundaries of quarter note (crotchet) beats makes the syncopation of the notes easier to read. The stemlets on the rests help make clear where within the quarter note beats each note occurs.



A syncopated phrase without stemlets



The same phrase with stemlets

In Dorico Elements, you cannot add stemlets or change where they are shown. However, stemlets are shown if you import or open a project that contains them.

## Fanned beams

Fanned beams show either an *accelerando* or *rallentando* by having multiple beam lines either converging on, or diverging from, a single beam line at the other end. Fanned beams are also known as “feathered beams”.

A single fanned beam can have multiple changes of direction within it.

The grouping can use either two or three beams, with three beams indicating a greater change of speed than two beams. The slowest part of the phrase is where the beams converge, and the fastest is where the beams are the most spread out.

In Dorico Elements, you cannot create fanned beams or change their direction. However, fanned beams are shown if you import or open a project that contains them.

---

EXAMPLE



Fanned beam accelerando with three lines



Fanned beam accelerando with two lines



Fanned beam rallentando with three lines



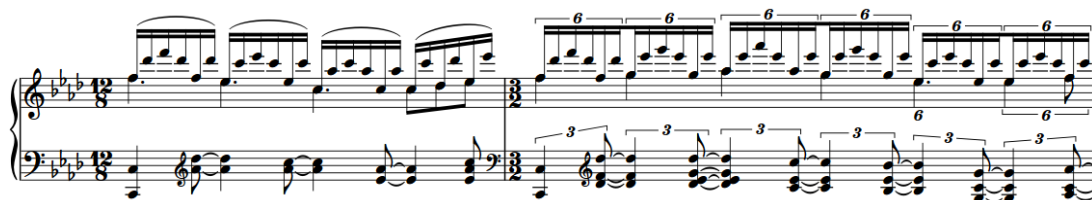
Fanned beam rallentando with two lines

---

# Note and rest grouping

There are generally accepted conventions for how notes and rests of different durations are notated and grouped in different contexts and meters. In Dorico Elements, notes are automatically notated to fit within bars and are grouped according to your per-flow settings.

Depending on the prevailing time signature, there can be many different ways to beam notes together. For example, you might want to beam all notes in the bar together in time signatures that cannot be divided in half and are often not divided at all, such as 3/4.



A passage containing different meters. Notes are grouped and beamed differently in the different meters, and notes that cross beats and barlines are automatically shown as tied notes.

Tied notes are affected by your note and rest grouping settings, as there are different conventions for how notes within tie chains should be divided to indicate significant beat boundaries within bars, and in which contexts they can cross beat boundaries.

Similar options apply to dotted notes, which are often notated as a single dotted note if they start at the beginning of bars, but as a tie chain that shows significant beat boundaries in the bar if they start part-way through bars.

## TIP

- You can change the default note grouping and beam grouping settings for each flow independently on the **Note Grouping** and **Beam Grouping** pages in **Notation Options**.  
Musical examples demonstrate how each option affects the appearance of your music.
- You can also specify custom beat groupings within individual time signatures.

## RELATED LINKS

[Beaming](#) on page 754

[Beam grouping according to meters](#) on page 755

[Note grouping in slash regions](#) on page 1133

[Notation Options dialog](#) on page 679

[Forcing the duration of notes/rests](#) on page 250

[Types of time signatures](#) on page 1250

[Numbered bar regions](#) on page 1127

[Allowing/Disallowing noteheads in opposing voices to overlap](#) on page 1305

## Creating custom beat groupings for meters

If your music requires a different beat grouping for a particular meter than the default setting for that time signature, you can specify your preferred beat grouping within the time signature.




You can choose whether or not the time signature shows this custom beat grouping. You can also input time signatures only on single staves.

#### NOTE

The duration of beam groups in Dorico Elements depends on the beat grouping in the prevailing time signature and your per-flow beam grouping settings in **Notation Options**. For example, entering **[1+1+1+1]/4** into the time signatures popover inputs a time signature with four quarter note (crotchet) groups. Because this creates a time signature with a half-bar, beam grouping options for time signatures with a half-bar apply.

---

#### PROCEDURE

1. In Write mode, do one of the following:
    - Start note input.
    - Select an item at the rhythmic position where you want to input a time signature with custom beat grouping. If you want to input a time signature with custom beat grouping on a single staff, select an item that belongs to that staff only.
  2. Optional: If you want to input a time signature with custom beat grouping onto multiple specific staves at once, extend the caret to those staves.
  3. Optional: If you want Dorico Elements to add beats at the end of the region affected by the new time signature if required, activate Insert mode in any of the following ways:
    - Press **I**.
    - In the Notes toolbox, click **Insert** .
  4. Open the time signatures popover in any of the following ways:
    - Press **Shift-M**.
    - In the Notations toolbox, click **Popovers**  then **Time Signatures (Meter)** .
  5. Enter the division you want in square brackets into the popover.  
For example, to divide a 7/8 time signature into 2+3+2, enter **[2+3+2]/8** into the popover. To divide a 5/4 time signature into 2+3 rather than 3+2, enter **[2+3]/4** into the popover.
  6. Input the time signature and close the popover in one of the following ways:
    - To input a time signature on all staves, press **Return**.
    - To input a time signature only on the selected staff or staves across which the caret extends, press **Alt/Opt-Return**.
- 

#### RESULT

The time signature specified is input and beam and beat grouping in subsequent bars follows the division you specified.

#### TIP

You can change the appearance of numerators in individual time signatures so that they show a single number or beat groups.

---

#### RELATED LINKS

[Time signatures popover](#) on page 271

[Time signature styles](#) on page 1256

# Brackets and braces

Brackets and braces are thick straight and curved lines in the left-hand margin that show instrument groupings.

## Brackets

A bracket is a thick black line, the width of a beam, that groups staves together, most commonly according to instrument family. It often has winged ends that point inwards towards the score.

It is always positioned directly to the left of a systemic barline. If secondary brackets are used in addition to a bracket, they are positioned further away from the start of the system to allow space for the bracket.



An example of a bracket, connecting instruments in the string family. A sub-bracket connects the two violin lines.

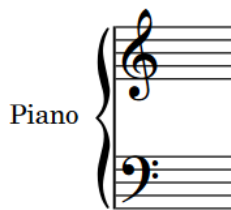
By default in Dorico Elements, barlines join the same staves that are joined by brackets and braces, meaning that bracketed groups of staves and braced pairs of staves appear with barlines extending across the group.

## Braces

A brace is a wavy or curly line that joins multiple staves belonging to the same instrument, usually a grand staff instrument such as the piano or harp. If necessary, a brace can extend to three or more staves, although two is most common.

The brace is also sometimes used instead of a sub-bracket to show groupings of identical instruments within a family whose staves are joined by a bracket.

It is positioned outside the systemic barline, and if used in place of a sub-bracket, outside of the bracket as well.



A brace connecting two piano staves

#### NOTE

- Staves cannot be bracketed and braced simultaneously. Therefore, braced staves are excluded from bracketed groups. They also cannot show sub-brackets or sub-sub-brackets.
- System objects are only shown above instrument families that are bracketed or braced together.
- Blank staves can only show brackets/braces when they are shown after final flows. You cannot show brackets/braces on blank staves in music frames.

#### RELATED LINKS

[Barlines across staff groups](#) on page 739

[Player groups](#) on page 158

[Adding player groups](#) on page 159

[Brackets according to ensemble type](#) on page 778

[Changing the default barline joins](#) on page 740

[System objects](#) on page 1196

[Staff labels](#) on page 1180

[Player group labels](#) on page 1188

## Changing bracket grouping according to ensemble type

You can change which staves are included in brackets by changing the ensemble type for each layout independently; for example, if a part layout containing all percussion players requires different bracketing than used for percussion staves in the full score layout.

The default setting is **Orchestral**. We recommend that you change this setting for projects containing small ensembles.

---

#### PROCEDURE

1. Press **Ctrl/Cmd-Shift-L** to open **Layout Options**.
2. In the **Layouts** list, select the layouts in which you want to change the ensemble type for bracket grouping.  
By default, the layout currently open in the music area is selected when you open the dialog. You can select other layouts by using the selection options in the action bar, clicking and dragging across multiple layouts, **Shift**-clicking adjacent layouts, and **Ctrl/Cmd**-clicking individual layouts.
3. In the category list, click **Brackets and Braces**.
4. Choose one of the following options for **Ensemble type**:
  - **No brackets**
  - **Orchestral**
  - **Small ensemble**

- **Wind band**
- **Big band**
- **British brass band**

5. Click **Apply**, then **Close**.

---

#### RESULT

The default bracket grouping is changed in the selected layouts.

#### TIP

- There are further options for bracketing on the **Brackets and Braces** page, such as hiding/showing brackets when there is only a single instrument in the bracket group and hiding/showing braces when only a single staff is shown.
  - Player groups and soloists also influence which staves are bracketed together.
  - You can also input custom bracket/brace grouping for specific staves, independently of the bracket grouping setting in the layout. However, you cannot change brackets/braces on blank staves.
- 

#### RELATED LINKS

- [Barlines across staff groups](#) on page 739
- [Hiding/Showing blank staves after final flows](#) on page 564
- [Player groups](#) on page 158
- [Designating players as soloists](#) on page 124
- [Staff labels](#) on page 1180
- [Player group labels](#) on page 1188

## Brackets according to ensemble type

In Dorico Elements, default staff grouping is determined by the ensemble type chosen for each layout. This affects which staves are bracketed together and joined by barlines.

The following ensemble types are available on the **Brackets and Braces** page in **Layout Options**:

### No brackets

All staves appear separately, with no brackets. Grand staff instruments are still shown with braces.

This is the default setting for full score layouts in projects started from **Solo** and small **Jazz** project templates.

### Orchestral

Staves are bracketed according to their instrument family. For example, adjacent string instruments are bracketed together separately from adjacent woodwind instruments. However, vocal staves are not joined by barlines.

This is the default setting for all layouts in new projects and projects started from **Orchestral, Choral and Vocal**, and **Concert band** project templates, and for custom score and part layouts in projects started from all other project templates.

### Small ensemble

All staves in the project are bracketed together, regardless of their instrument family, excluding braced staves.

This is the default setting for full score layouts in projects started from **Chamber** and **Pit band** project templates.

#### **Wind band**

Staves are bracketed according to their instrument type. For example, Flute 1 and Flute 2 are bracketed together, but separately from the other woodwind instruments.

#### **Big band**

Staves are bracketed according to their instrument family, except for brass instruments, which are all bracketed according to their instrument type.

Rhythm section instruments are bracketed together.

Percussion and timpani are bracketed together.

#### **British brass band**

Brass instruments are bracketed according to their instrument type, except for horns and trumpets, which are bracketed together.

Any other instruments in the score are bracketed according to their instrument family.

Percussion and timpani are bracketed separately.

This is the default setting for full score layouts in projects started from the **Big band** project template.

#### NOTE

- Staves cannot be bracketed and braced simultaneously. Therefore, braced staves, such as the piano and other grand staff instruments, are excluded from brackets. They also split brackets if they are placed within a bracketed group.
- By default, there must be at least two adjacent instruments to show a bracket. You can choose to show brackets on single instruments in each layout independently on the **Brackets and Braces** page in **Layout Options**.
- Player groups and soloists also influence which staves are bracketed together.
- Vocal staves are never joined by barlines, even when bracketed together.
- System objects are only shown above instrument families that are bracketed or braced together.

---

#### RELATED LINKS

[Layout Options dialog](#) on page 677

[Project templates](#) on page 78

[System objects](#) on page 1196

## Secondary brackets

Secondary brackets are a second level of staff grouping. They are positioned to the left of brackets and allow you to mark groups of staves within a bracketed group. In Dorico Elements, secondary brackets can appear as a brace or as a sub-bracket.

By default, secondary brackets appear as sub-brackets: thin lines with square corners that extend beyond the bracket. You can change the appearance of secondary brackets and hide/show them for adjacent identical instruments in bracketed groups in each layout independently.





Secondary bracket as a sub-bracket



Secondary bracket as a brace

#### NOTE

You cannot show sub-sub-brackets in addition to braces, you can only show sub-sub-brackets in addition to sub-brackets.

---

## Hiding/Showing secondary brackets

You can hide/show secondary brackets for adjacent identical instruments in bracketed groups in each layout independently. You can also choose only to show secondary brackets when sub-bracketed groups contain at least two staves.

#### PROCEDURE

1. Press **Ctrl/Cmd-Shift-L** to open **Layout Options**.
  2. In the **Layouts** list, select the layouts in which you want to hide/show secondary brackets.  
By default, the layout currently open in the music area is selected when you open the dialog. You can select other layouts by using the selection options in the action bar, clicking and dragging across multiple layouts, **Shift**-clicking adjacent layouts, and **Ctrl/Cmd**-clicking individual layouts.
  3. In the category list, click **Brackets and Braces**.
  4. Choose one of the following options for **Instruments of the same kind within a bracketed group**:
    - **Use secondary brackets**
    - **No secondary brackets**
  5. Choose one of the following options for **When only one staff of sub-bracketed group is shown**:
    - **Draw sub-bracket**
    - **Do not draw sub-bracket**
  6. Click **Apply**, then **Close**.
- 

#### RESULT

Secondary brackets are shown in the selected layouts when you choose **Use secondary brackets**, and hidden when you choose **No secondary brackets**.

If you chose **Use secondary brackets** and **Do not draw sub-bracket**, secondary brackets are only shown when sub-bracketed groups contain at least two staves.

## Showing secondary brackets as sub-brackets/braces

Secondary brackets extend beyond brackets, allowing you to mark groups of staves within a bracketed group. You can show secondary brackets as either braces positioned outside the bracket or as sub-brackets in each layout independently.

---

### PROCEDURE

1. Press **Ctrl/Cmd-Shift-L** to open **Layout Options**.
2. In the **Layouts** list, select the layouts in which you want to change the appearance of secondary brackets.  
By default, the layout currently open in the music area is selected when you open the dialog. You can select other layouts by using the selection options in the action bar, clicking and dragging across multiple layouts, **Shift**-clicking adjacent layouts, and **Ctrl/Cmd**-clicking individual layouts.
3. In the category list, click **Brackets and Braces**.
4. Choose one of the following options for **Secondary bracket appearance**:
  - **Brace**
  - **Sub-bracket**
5. Click **Apply**, then **Close**.

---

### RESULT

The appearance of all secondary brackets in the selected layouts is changed.

### NOTE

Because you cannot show sub-sub-brackets in addition to braces, sub-sub-brackets are not shown in layouts where sub-brackets appear as braces.

---

## Sub-sub-brackets

Sub-sub-brackets are a tertiary level of staff grouping with the same design as sub-brackets. They are positioned outside of both brackets and sub-brackets, allowing you to mark groups of staves within bracketed and sub-bracketed groups. Sub-sub-brackets can only appear as brackets in Dorico Elements.

Sub-sub-brackets cannot extend beyond their sub-bracket and cannot be shown on staves with a brace as either the primary or secondary group.



# Chord symbols

Chord symbols describe the vertical harmony of the music at a specific moment. They are frequently used in jazz and pop music, where players often improvise around chord progressions.

The image shows a musical score in 4/4 time with a key signature of one flat (Bb). The score consists of two systems, each with a Clarinet staff (top) and a Piano staff (bottom). The Clarinet staff contains a melodic line with various notes and rests. The Piano staff contains a harmonic accompaniment with chords and single notes. Above the Clarinet staff, chord symbols are placed above slashes: C7, G7/D, C7, F, G#dim7 Gm7, F, C7, F, C7. Above the Piano staff, the same chord symbols are placed above slashes: C7, G7/D, C7, F, G#dim7 Gm7, F, C7, F, C7. The piano part shows the corresponding chord voicings for these symbols.

Chord symbols shown above slashes on the Clarinet and Piano staves to help the players improvise around the notated Cornet melody.

You can input chord symbols using the chord symbols popover and you can automatically generate chord symbols based on existing music.

In Dorico Elements, chord symbols exist globally at the corresponding rhythmic positions by default. This means that you only have to input chord symbols once, but they can appear above multiple or no staves as required. However, in some circumstances it is necessary to show different chord symbols for different players at the same rhythmic position. In such cases, you can input local chord symbols.

Dorico Elements automatically shows the appropriate chord symbols for transposing instruments in transposing layouts, including for fretted instruments whose transposition you have changed to reflect a capo. You can also define capos for chord symbols and show only main chord symbols, only capo chord symbols, or both.

You can hide/show chord symbols project-wide above specific instrument staves, including if multiple instruments belong to the same player, and in different layouts. You can also show chord symbols only within chord symbol/slash regions and hide/show individual chord symbols.

If you have input chord symbols but no players in the current layout are set to show them, they are indicated by signposts.

Depending on the style of music, there are different conventions regarding how to present chord names.

Dorico Elements provides a comprehensive set of chord symbol appearance presets that you can choose from.

## RELATED LINKS

[Inputting chord symbols](#) on page 303

[Chord symbol appearance presets](#) on page 783

[Hiding/Showing chord symbols](#) on page 789

[Chord diagrams](#) on page 805  
[Capos](#) on page 142  
[Capo vs. main chords](#) on page 142  
[Hiding/Showing signposts](#) on page 427  
[Chords track](#) on page 498  
[Enabling chord symbol playback](#) on page 499

## Chord components

Chord symbols consist of a root and a quality, with intervals, alterations, and an altered bass note included if required.

### Root

The root note of the chord, expressed either as a note name or as a specific degree of a scale.

### Quality

Defines the type of chord, such as major, minor, diminished, augmented, half-diminished, or with added note, such as six or nine.

### Interval

Chord symbols can include one or more added intervals, such as a major seventh or ninth. Intervals in chord symbols are also known as “extensions”.

### Alterations

Define notes in chords that are different to what is normally expected of that chord. For example, a sharpened fifth, flattened ninth, suspensions, or omissions.

### Altered bass note

A chord symbol has an altered bass note if the lowest pitch of a chord is not its root note, such as Cm7<sup>b</sup>5/E<sup>b</sup>.

## Chord symbol appearance presets

There are many conventions for the appearance of chord symbols, so Dorico Elements provides a choice of preset conventions that you can use and edit.

For example, you can edit default preset chord symbols, you can edit individual chord symbols without changing the default appearance for that chord symbol, and you can edit individual components within chord symbols.

- You can access chord symbol presets in the **Chord Symbols Options** dialog by choosing **Library > Chord Symbols**.

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### Chord symbol preset example

### Chord symbol preset name

B<sup>b</sup>maj7(<sup>#</sup>11)<sub>(<sup>#</sup>9)</sub>/F

Default

B<sup>b</sup>maj7(<sup>#</sup>9 <sup>#</sup>11)/F

Boston

Chord symbol preset example	Chord symbol preset name
$B^bMA7\left(\begin{smallmatrix} \#11 \\ \#9 \end{smallmatrix}\right) / F$	Brandt-Roemer
$B^b\Delta\begin{smallmatrix} +11 \\ +9 \end{smallmatrix} / F$	Indiana
$B^bMaj7\begin{smallmatrix} +11 \\ +9 \end{smallmatrix} / F$	New York
$\frac{b7\Delta\begin{smallmatrix} \#11 \\ \#9 \end{smallmatrix}}{4}$	Nashville
$B^bMA7\left(\begin{smallmatrix} \#11 \\ \#9 \end{smallmatrix}\right) / F$	Jazz Standards
$\frac{B^bmaj7\begin{smallmatrix} +11 \\ +9 \end{smallmatrix}}{F}$	Ross
$B^bM7\left(\begin{smallmatrix} \#11 \\ \#9 \end{smallmatrix}\right)_{onF}$	Japanese

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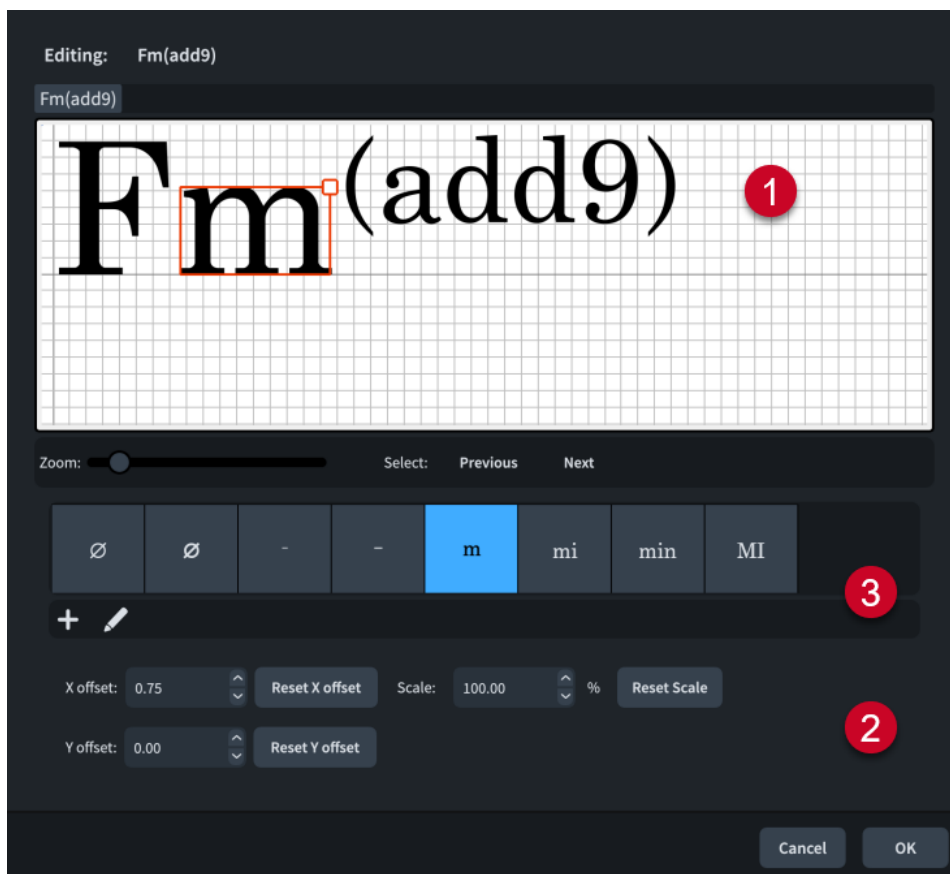
These presets use specific combinations of the options in the **Chord Symbols Options** dialog. You can also adjust these options individually to suit your requirements.

- **Default** uses a set of symbols intended to be as unambiguous as possible. For example, **Default** avoids the use of symbols for major seventh, augmented, diminished, and half-diminished. This is the default preset for new projects.
- **Custom** is automatically selected when you change any of the preset options.

## Edit Chord Symbol Appearance dialog

The **Edit Chord Symbol Appearance** dialog allows you to edit the appearance and arrangement of single chord symbol instances, without changing the project default appearance of that chord symbol. For example, if you want the first Gmaj7 chord symbol to appear differently than all subsequent Gmaj7 chord symbols.

- You can open the **Edit Chord Symbol Appearance** dialog in Engrave mode by selecting the chord symbol you want to customize and pressing **Return**, or double-clicking a chord symbol.



The **Edit Chord Symbol Appearance** dialog contains the following sections:

### 1 Editor

Allows you to arrange and edit the components that make up the chord symbol.

As well as using the controls at the bottom of the dialog, you can move individual components in any of the following ways after selecting them in the editor:

- Press the standard key commands for moving items. For example, press **Alt/Opt-Right Arrow** to move components to the right, or press **Ctrl/Cmd-Alt/Opt-Right Arrow** to move components to the right by larger increments.
- Click and drag each component.

#### NOTE

You cannot move the first component in chord symbols.

In addition to using **Scale**, you can also change the size of components by clicking and dragging the square handle in the top right corner after selecting a component in the editor.

### 2 Controls



Allow you to move individual components and change their size. You can also reset their position and size.

- **X offset** moves components horizontally. Increasing the value moves components to the right, decreasing the value moves components to the left.
- **Y offset** moves components vertically. Increasing the value moves components upwards, decreasing the value moves components downwards.

- **Scale** changes the size of components. Increasing the value increases the size of components proportionally, decreasing the value decreases the size of components proportionally.
- **Reset X offset** resets the horizontal position of the selected component.
- **Reset Y offset** resets the vertical position of the selected component.
- **Reset Scale** resets the size of the selected component.

### 3 Components list

You can create new components and edit existing components by clicking the respective button in the action bar.

- **Add Component** 
- **Edit Component** 

Clicking either button opens the **Edit Chord Symbol Component** dialog, in which you can create new components and edit existing components. Editing components from inside the **Edit Chord Symbol Appearance** dialog only affects the selected chord symbol.


#### RELATED LINKS

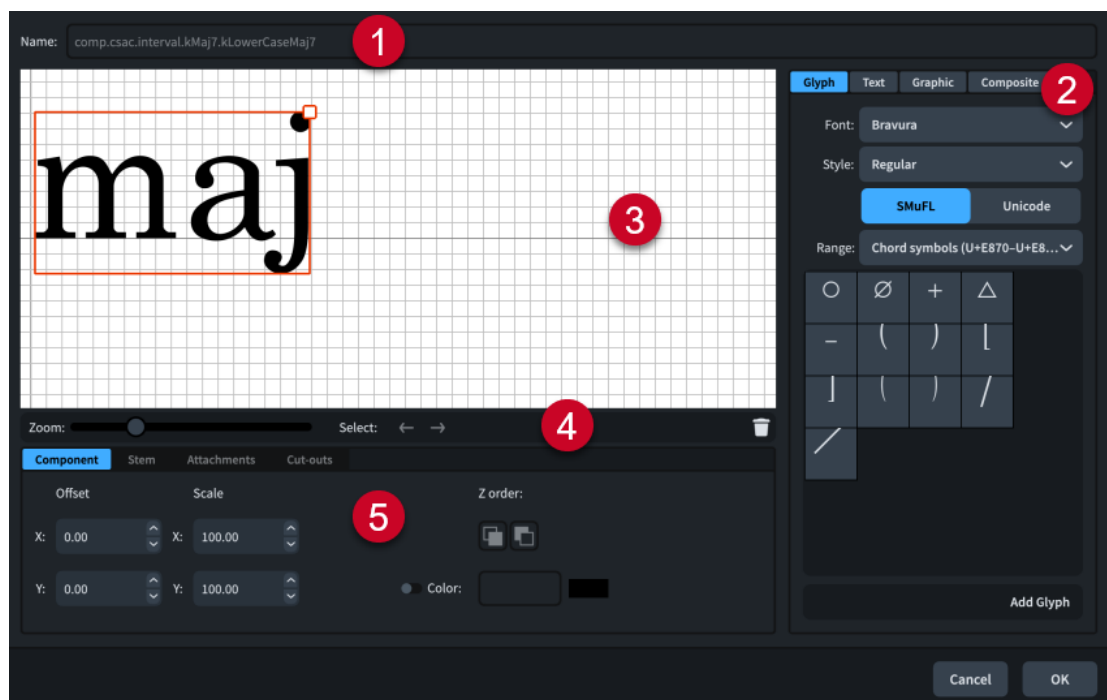
[Chord symbol appearance presets](#) on page 783

[Moving items graphically](#) on page 481

## Edit Chord Symbol Component dialog

The **Edit Chord Symbol Component** dialog allows you to create custom chord symbol components and edit existing components for single instances of chord symbols.

- You can open the **Edit Chord Symbol Component** dialog from inside the **Edit Chord Symbol Appearance** dialog by selecting the component you want to duplicate in the components list, and clicking **Add Component**  in the components list action bar.



The **Edit Chord Symbol Component** dialog contains the following sections:

#### 1 Name

Contains an automatically generated name for the chord symbol component. You cannot change this name.

## 2 Component selector

Allows you to choose components to add to your chord symbol component. You can add different types of components by clicking the respective tab titles.

- **Glyph**, for example, ♯ or ♮. You can use different styles of glyphs by selecting different fonts and font styles/weights from the menus. You can search using **SMuFL** or **Unicode** ranges. Click **Add Glyph** to add the selected glyph to the chord symbol component.

### NOTE

A full list of the different ranges of glyphs is available on the SMuFL website.


- **Text**, including numbers and other text. You can use numbers and text from the available **Preset text** list or select any font available from the menu and enter your preferred text into the text box at the bottom. Click **Add Text** to add the selected or input text to the chord symbol component.
- **Graphic**: Allows you to load a new graphics file or select an existing graphic from the **Select existing** list in SVG, PNG, or JPG format. You can see a preview of the graphic in the **Preview** box. Click **Add Graphic** to add the selected graphic to the chord symbol component.
- **Composite**: Allows you to select a composite from the list. Click **Add Composite** to add the selected composite to the chord symbol component.

## 3 Editor

Allows you to arrange and edit the components that make up your chord symbol component. You can arrange and edit components using the controls at the bottom of the dialog.

## 4 Editor action bar

Contains selection and view options for the editor.

- **Zoom**: Allows you to change the zoom level in the editor.
- **Select**: Allows you to select the next/previous component.
- **Delete** : Deletes the selected component.

## 5 Controls

Contains controls that allow you to edit individual components. Controls are divided into tabs according to the aspect of the selected component they affect. For chord symbols, the **Component** and **Attachments** tabs are available.

The **Component** tab contains the following options:

- **Offset**: Controls the position of the selected component. **X** moves it horizontally, **Y** moves it vertically.
- **Scale**: Controls the size of the selected component. For graphics, **X** controls its width, **Y** controls its height.

### NOTE

Although some components scale their height and width independently, others retain their aspect ratio, meaning only one value affects their overall size.

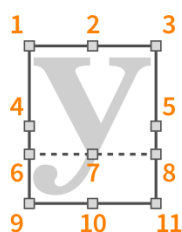
- **Z order**: Allows you to **Bring Forward** or **Send Backward** the selected component in relation to other components when they overlap.
- **Color**: Allows you to change the color of the selected component.



The **Attachments** tab is only available if the chord symbol component comprises at least two separate components. It contains the following options:

- **Attachment from:** Sets the attachment point on the component to the left of the selected component to which the selected component attaches. We recommend that you select a right edge attachment point for **Attachment from**.
- **Attachment to:** Sets the attachment point on the selected component which attaches to the component to its left. We recommend that you select a left edge attachment point for **Attachment to**.

There are eight attachment points for glyphs and graphics, and eleven for text, due to the extra space required for letters that extend below the baseline. The example diagram helps you visualize how these points relate to components.



The attachment points have the following names in the **Edit Chord Symbol Component** dialog:

- 1 **Top Left**
- 2 **Top Center**
- 3 **Top Right**
- 4 **Middle Left**
- 5 **Middle Right**
- 6 **Baseline Left** (text only)
- 7 **Baseline Center** (text only)
- 8 **Baseline Right** (text only)
- 9 **Bottom Left**
- 10 **Bottom Center**
- 11 **Bottom Right**

#### RELATED LINKS

[Chord symbol appearance presets](#) on page 783

[Edit Chord Symbol Appearance dialog](#) on page 784

## Positions of chord symbols

In layouts where chord symbols are shown, they are positioned either above all instrument staves set to show chord symbols or only above the top staff in each system.

By default, chord symbols are left-aligned with noteheads.

### Alignment of chord symbols across the system

Chord symbols are aligned at the same vertical position across the width of the system by default. You can disable the automatic alignment of chord symbols within systems in the **Position** section of the **Chord Symbols Options** dialog.

RELATED LINKS

[Hiding/Showing capo chord symbols](#) on page 147

[Moving notes/items rhythmically](#) on page 437

[Moving items graphically](#) on page 481

[Chord symbol regions](#) on page 793


## Hiding/Showing chord symbols

You can hide/show chord symbols above particular staves or only within chord symbol/slash regions project-wide on a per-player basis. By default, chord symbols appear above rhythm section instrument staves, such as keyboards, guitars, and bass guitars.

Any player on whose staff you input chord symbols is automatically set to show chord symbols for all instruments and in the current layout type.

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PROCEDURE

1. In Setup mode, select a player in the **Players** panel for whom you want to hide/show chord symbols.
2. In the action bar, click **Player Settings**  and choose one of the following options:
  - To show chord symbols above all instrument staves held by the player, choose **Chord Symbols > Show for All Instruments**.
  - To show chord symbols only above rhythm section instrument staves held by the player, choose **Chord Symbols > Show for Rhythm Section Instruments**.
  - To show chord symbols only in chord symbol/slash regions on instrument staves held by the player, choose **Chord Symbols > Show in Chord Symbol and Slash Regions**.
  - To hide chord symbols above all instrument staves held by the player, choose **Chord Symbols > Hide for All Instruments**.

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RESULT

Chord symbols are hidden/shown above the corresponding instrument staves held by the selected player, depending on the layouts in which chord symbols are shown for that player in your project.

TIP

- You can also right-click players and choose these options from the context menu.
- You can choose to show chord symbols only once at the top of each system in each layout independently.
- You can also hide/show individual chord symbols in layouts where chord symbols are shown by selecting them and activating **Hidden** in the **Chord Symbols** group of the Properties panel. Signposts are shown at the position of each hidden chord symbol. However, signposts are not printed by default.

You can assign a key command for **Hide/Show Item** on the **Key Commands** page in **Preferences**, which applies to chord symbols, playing techniques, figured bass, text items, and time signatures.

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RELATED LINKS

[Players panel](#) on page 107

[Layouts](#) on page 165

[Inputting chord symbols](#) on page 303

- [Chord symbol regions](#) on page 793
- [Inputting chord symbol regions](#) on page 311
- [Inputting slash regions](#) on page 398
- [Signposts](#) on page 426
- [Hiding/Showing chord diagrams](#) on page 806
- [Showing only chord symbols or chord diagrams](#) on page 808
- [Showing chord symbols above one/multiple staves](#) on page 790
- [Changing the staff-relative placement of chord symbols](#) on page 792
- [Capo vs. main chords](#) on page 142
- [Hiding/Showing capo chord symbols](#) on page 147
- [Key Commands page in the Preferences dialog](#) on page 59
- [Layout Options dialog](#) on page 677
- [Chord symbol appearance presets](#) on page 783

## Hiding/Showing chord symbols in layouts


You can hide/show chord symbols in different types of layouts. By default, chord symbols appear in all applicable layouts for rhythm section instruments.

### NOTE

If chord symbols are hidden for all instruments in the current layout, signposts are shown above the top staff.

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### PROCEDURE

1. In Setup mode, select a player in the **Players** panel.
2. In the action bar, click **Player Settings**  and choose one of the following options:
  - To show chord symbols for the selected player in all layouts, choose **Chord Symbols > Show in Full Score and Parts**.
  - To show chord symbols for the selected player only in full score/custom score layouts and not in part layouts, choose **Chord Symbols > Show in Full Score Only**.
  - To show chord symbols for the selected player only in part layouts and not in full score/custom score layouts, choose **Chord Symbols > Show in Parts Only**.

### TIP

You can also right-click players and choose these options from the context menu.

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## Showing chord symbols above one/multiple staves

You can choose to show chord symbols above all instrument staves set to show chord symbols or only above the top staff in each system in each layout independently.

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### PROCEDURE

1. Press **Ctrl/Cmd-Shift-L** to open **Layout Options**.
2. In the **Layouts** list, select the layouts in which you want to change the vertical position of chord symbols.

By default, the layout currently open in the music area is selected when you open the dialog. You can select other layouts by using the selection options in the action bar, clicking

and dragging across multiple layouts, **Shift**-clicking adjacent layouts, and **Ctrl/Cmd**-clicking individual layouts.

3. In the category list, click **Chord Symbols and Diagrams**.
  4. In the **Chord Symbols** section, choose one of the following options for **Show chord symbols**:
    - **Above specific players' staves**
    - **Above top staff of system**
  5. Click **Apply**, then **Close**.
- 

#### RESULT

The vertical position of chord symbols is changed in the selected layouts.

#### RELATED LINKS

[Inputting chord symbols](#) on page 303

[Showing only chord symbols or chord diagrams](#) on page 808


[Capo vs. main chords](#) on page 142

[Hiding/Showing capo chord symbols](#) on page 147

## Changing the alignment of chord symbols relative to notes

You can change the horizontal alignment of individual chord symbols relative to notes, independently of your project-wide setting. For example, you might center-align wide chord symbols to avoid collisions with barlines. You can do this for the current layout and frame chain only, or for all layouts and frame chains.

#### PREREQUISITE

- The lower zone is shown.
  - **Properties**  is selected in the lower zone toolbar.
  - You have chosen the appropriate property scope for local properties.
- 

#### PROCEDURE

1. Select the chord symbols whose alignment you want to change. You can do this in Write mode and Engrave mode.
  2. In the Properties panel, activate **Alignment** in the **Chord Symbols** group.
  3. Select one of the following alignment options from the menu:
    - **Left**
    - **Center**
    - **Right**
- 

#### RESULT

The alignment of the selected chord symbols is changed. Note spacing is automatically adjusted to avoid collisions with adjacent chord symbols.

If the property scope was set to **Locally**, this change only takes effect in the current layout and frame chain.

TIP

You can change the default horizontal alignment of all chord symbols project-wide in the **Position** section of the **Chord Symbols Options** dialog.

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EXAMPLE

Left-aligned G#dim7 chord symbol on beat 3

Center-aligned G#dim7 chord symbol on beat 3


Right-aligned G#dim7 chord symbol on beat 3

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## Changing the staff-relative placement of chord symbols

You can show individual chord symbols either above or below the staff. You can do this for the current layout and frame chain only, or for all layouts and frame chains.

PREREQUISITE

- The lower zone is shown.
  - **Properties**  is selected in the lower zone toolbar.
  - You have chosen the appropriate property scope for local properties.
- 

PROCEDURE

1. Select the chord symbols whose staff-relative placement you want to change. You can do this in Write mode and Engrave mode.
  2. In the Properties panel, activate **Placement** in the **Chord Symbols** group.
  3. Choose one of the following options:
    - **Above**
    - **Below**
- 

RESULT

The staff-relative placement of the selected chord symbols is changed. If the property scope was set to **Locally**, this change only takes effect in the current layout and frame chain.

TIP

- You can choose to show chord symbols between the staves of grand staff instruments in each layout independently in **Layout Options > Chord Symbols and Diagrams > Chord Symbols**.
  - You can change the default placement of all chord symbols project-wide in the **Position** section of the **Chord Symbols Options** dialog.
- 

RELATED LINKS

- [Chord symbol appearance presets](#) on page 783
- [Layout Options dialog](#) on page 677
- [Erasing the background of chord symbols](#) on page 798
- [Changing the property scope](#) on page 617

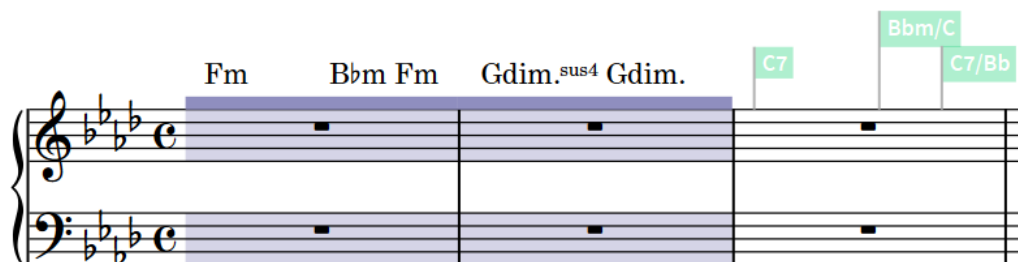
## Chord symbol regions

Chord symbol regions specify passages where you want to show chord symbols. They are particularly useful for players and layouts that do not need chord symbols for most of the project but have improvisation sections that require chord symbols to be shown.

Chord symbol regions allow you to show chord symbols only where players require them, instead of showing chord symbols throughout the project and manually hiding the ones you do not want to show.

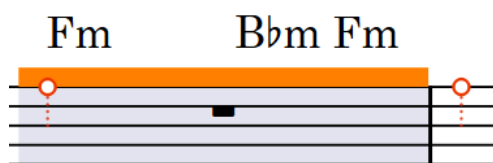
When you input chord symbol regions in Dorico Elements, the corresponding players are automatically set to show chord symbols in chord symbol/slash regions. This is because it is common to use both slashes and chord symbols to aid players in improvisation sections. Any chord symbols outside chord symbol/slash regions are automatically hidden and are indicated by signposts.

By default, chord symbol regions are highlighted with a solid colored line above the top staff line and a colored background. As you zoom out, the colored backgrounds become more opaque, which is especially useful when viewing full score layouts in galley view. These highlights are considered annotations, are not printed by default, and you can hide/show them.



Chord symbol region followed by chord symbol signposts after the end of the chord symbol region

In Write mode, each region has a handle at the start and end, which you can use to move and lengthen/shorten regions.



Handles on a selected chord symbol region

### RELATED LINKS

[Inputting chord symbol regions](#) on page 311

[Slash regions](#) on page 1132

[Hiding/Showing chord symbols](#) on page 789

[Hiding/Showing signposts](#) on page 427

[Annotations](#) on page 554

## Hiding/Showing chord symbol region highlights

You can hide/show colored highlights for chord symbol regions at any time; for example, if you want to show the highlights when inputting music but hide them when engraving.

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### PROCEDURE

- Choose **View > Highlight Chord Symbol Regions**.
- 

## Transposing chord symbols

You can transpose chord symbols after you have input them, independently of any notes.

### TIP

- Dorico Elements automatically shows the appropriate chord symbols for transposing instruments in transposing layouts.
  - If you want to transpose chord symbols to reflect a capo, you can instead show capo chord symbols.
- 

### PROCEDURE

1. In Write mode, select the chord symbols you want to transpose.
2. Choose **Write > Transpose** to open the **Transpose** dialog.
3. Adjust the parameters required for your transposition, such as interval and quality.

### TIP

- We recommend using the **Calculate interval** section to determine your required settings; for example, if you want to transpose from G $\flat$  major to G major.
  - Different intervals have different possible qualities. For example, you can specify a major third but not a major octave. Therefore, if you want to set your transposition parameters manually, we recommend selecting the interval before the quality.
- 
4. Click **OK** to save your changes and close the dialog.
- 

### RESULT

The selected chord symbols are transposed.

### RELATED LINKS

- [Transpose dialog](#) on page 446
- [Concert vs. transposed pitch](#) on page 170
- [Making layouts transposing/concert pitch](#) on page 169
- [Capos](#) on page 142

## Respelling chord symbols

You can change the enharmonic spelling of chord symbols for transposing instruments; for example, to choose a simpler enharmonic equivalent spelling. This changes the enharmonic

spelling of chord symbols in all transposing layouts and for all instruments with the same transposition.

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#### PROCEDURE

1. In Write mode, open a layout with the transposition for which you want to respell chord symbols.  
For example, to respell a chord symbol for all instruments in B $\flat$ , open the part layout for an instrument in B $\flat$ .
  2. Select the chord symbol you want to respell.
  3. Press **Return** to open the chord symbols popover for the selected chord symbol.  
The existing entry for the chord symbol is shown inside the popover.
  4. Change the root name of the chord, but leave other details as they were, such as quality, interval, or alterations.  
For example, change just the root of D $\flat$ maj13 from **D $\flat$**  to **C $\sharp$** .
  5. Press **Return** to close the popover.
- 

#### RESULT

The spelling of the chord symbol is changed in transposing layouts for all instruments with the same transposition. For example, changing the spelling of a chord symbol for a Clarinet in B $\flat$  also changes the spelling of that chord symbol in the part layout for a Trumpet in B $\flat$ .

#### RELATED LINKS

[Chord symbols popover](#) on page 305

[Respelling notes](#) on page 449

[Fretted instrument tuning](#) on page 138


[Defining capos for chord symbols/diagrams](#) on page 147

[Hiding/Showing capo chord symbols](#) on page 147

## Showing chord symbols as modes

You can show individual chord symbols as their modal equivalent if one exists for that chord symbol.

#### PREREQUISITE

- The lower zone is shown.
  - **Properties**  is selected in the lower zone toolbar.
- 

#### PROCEDURE

1. Select the chord symbols you want to show as a mode. You can do this in Write mode and Engrave mode.
  2. In the Properties panel, activate **Show as mode** in the **Chord Symbols** group.
  3. Select the mode you want from the menu.
- 

#### RESULT

The selected chord symbols are respelled according to the selected mode. This does not affect the notes included in the chord symbols.



## Resetting the enharmonic spelling of chord symbols

You can remove enharmonic spelling overrides for chord symbols you have respelled and return them to their default spelling. You can remove overrides for instruments with a single transposition only, such as instruments in B $\flat$ , or for all instrument transpositions.

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### PROCEDURE

1. In Write mode, select the chord symbol whose spelling you want to reset.
  - If you want to reset the enharmonic spelling of the chord symbol for a single instrument transposition only, select the chord symbol on a staff belonging to an instrument with that transposition. For example, select it on the staff of any instrument in B $\flat$  to reset the chord symbol for all instruments in B $\flat$ .
  - If you want to reset the enharmonic spelling of the chord symbol for all instrument transpositions, select the chord symbol on any staff that belongs to a transposing instrument.
2. Press **Return** to open the chord symbols popover for the selected chord symbol. The existing entry for the chord symbol is shown inside the popover.
3. Reset the enharmonic spelling of the chord symbol in any of the following ways:
  - To reset the enharmonic spelling of the chord symbol for instruments only with the selected transposition, enter **Alt/Opt-S** into the chord symbols popover.
  - To reset the enharmonic spelling of the chord symbol for all instrument transpositions, enter **Shift-Alt/Opt-S** into the popover.
4. Press **Return** to close the popover.

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### RESULT

The enharmonic spelling of the selected chord symbol in transposing layouts is reset, either just for instruments with the specified transposition or for all transposing instruments.

## Hiding/Showing the root and quality of chord symbols

You can hide the root and quality of chord symbols if they follow another chord symbol with the same root and quality, but have a different altered bass note.

### PREREQUISITE

- The lower zone is shown.
- **Properties**  is selected in the lower zone toolbar.

---

### PROCEDURE

1. Select the chord symbols whose root and quality you want to hide. You can do this in Write mode and Engrave mode.
2. In the Properties panel, activate **Hide root and quality** in the **Chord Symbols** group.
3. Activate/Deactivate the corresponding checkbox.

---

### RESULT

The root and quality of the selected chord symbols are hidden when the checkbox is activated, and shown when the checkbox is deactivated.

When the property is deactivated, chord symbols follow your project-wide setting.

TIP

You can choose to show the root and quality of chord symbols always, even if successive chord symbols have the same root and quality, in the **Altered Bass Notes** section of the **Chord Symbols Options** dialog.

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RELATED LINKS

- [Chord symbol appearance presets](#) on page 783
- [Edit Chord Symbol Appearance dialog](#) on page 784
- [Hiding/Showing zones](#) on page 44
- [Properties panel](#) on page 615

## Changing the arrangement of compound chord symbols

You can change the arrangement of individual polychord and altered bass note chord symbols, independently of your project-wide settings. For example, if you want to show some polychord chord symbols stacked vertically but others in a horizontal row. You can do this for the current layout and frame chain only, or for all layouts and frame chains.

PREREQUISITE

- The lower zone is shown.
- **Properties**  is selected in the lower zone toolbar.
- You have chosen the appropriate property scope for local properties.

PROCEDURE

1. Select the compound chord symbols whose arrangement you want to change. You can do this in Write mode and Engrave mode.
2. In the Properties panel, activate **Compound chord arrangement** in the **Chord Symbols** group.
3. Select one of the following options from the menu:
  - **Diagonal arrangement**
  - **Stacked arrangement**
  - **Linear arrangement**

RESULT


The arrangement of the selected compound chord symbols is changed. If the property scope was set to **Locally**, this change only takes effect in the current layout and frame chain.

TIP

You can change the default arrangement of all polychord and altered bass note chord symbols project-wide and independently of each other in the **Chord Symbols Options** dialog.

---

EXAMPLE



**Diagonal arrangement**                      **Stacked arrangement**                      **Linear arrangement**

---


RELATED LINKS

- [Chord components](#) on page 783
- [Chord symbol appearance presets](#) on page 783
- [Edit Chord Symbol Appearance dialog](#) on page 784
- [Inputting chord symbols](#) on page 303
- [Changing the property scope](#) on page 617
- [Copying property settings to other layouts/frame chains](#) on page 599

## Erasing the background of chord symbols

You can erase the background of individual chord symbols; for example, to ensure chord symbols remain legible when crossing barlines. You can do this for the current layout and frame chain only, or for all layouts and frame chains.

PREREQUISITE

- The lower zone is shown.
- **Properties**  is selected in the lower zone toolbar.
- You have chosen the appropriate property scope for local properties.

PROCEDURE

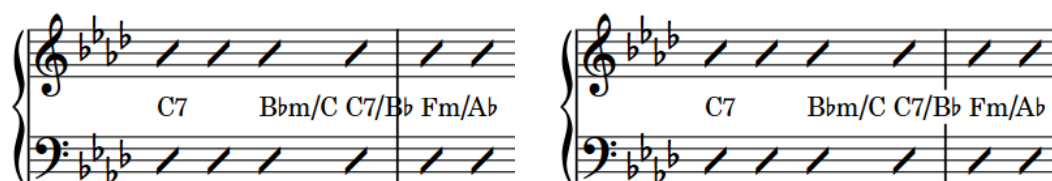
1. In Engrave mode, select the chord symbols whose backgrounds you want to erase.
2. In the Properties panel, activate **Erase background** in the **Chord Symbols** group.

RESULT

The backgrounds of the selected chord symbols are erased. If the property scope was set to **Locally**, this change only takes effect in the current layout and frame chain.

Deactivating **Erase background** returns the selected chord symbols to the default non-erased background.

EXAMPLE



**Chord symbol with non-erased background**                      **Chord symbol with erased background**

---

RELATED LINKS


[Changing the alignment of chord symbols relative to notes](#) on page 791

[Changing the staff-relative placement of chord symbols](#) on page 792

## Changing the erasure padding of chord symbols

You can change the erasure padding of individual chord symbols, including changing the padding between chord symbols and each edge of their erased areas independently. You can do this for the current layout and frame chain only, or for all layouts and frame chains.

PREREQUISITE

- The lower zone is shown.
- **Properties**  is selected in the lower zone toolbar.
- You have chosen the appropriate property scope for local properties.

PROCEDURE

1. In Engrave mode, select the chord symbols whose erasure padding you want to change.
2. In the Properties panel, activate the **Erasure padding** properties, individually or together, in the **Chord Symbols** group.
  - **L** changes the padding between chord symbols and their left edge.
  - **R** changes the padding between chord symbols and their right edge.
  - **T** changes the padding between chord symbols and their top edge.
  - **B** changes the padding between chord symbols and their bottom edge.
3. Change the values in the value fields.

RESULT

Increasing the values increases the padding, decreasing the values decreases the padding. If the property scope was set to **Locally**, this change only takes effect in the current layout and frame chain.

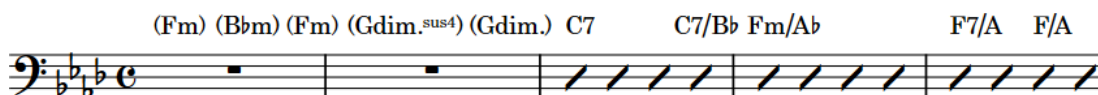
TIP

You can change the default erasure padding of all chord symbols project-wide in the **Design** section of the **Chord Symbols Options** dialog. However, this does not allow you to change the padding of each edge independently.

---

## Parenthesized chord symbols

Parentheses around chord symbols are often used to indicate an alternative set of chord changes or that chords are optional. In Dorico Elements, you can show parentheses around any chord symbol that uses appearance presets.



A phrase containing parenthesized chord symbols

You can add chord symbol parentheses both when inputting chord symbols and by parenthesizing existing chord symbols.

By default, parenthesized chord symbols show parentheses on both sides. You can show only a single left or right parenthesis on individual parenthesized chord symbols.

#### NOTE

- You cannot show parentheses on custom chord symbols; that is, chord symbols whose appearance you have overridden.
- You can change the default appearance of chord symbol parentheses project-wide, including suppressing parentheses around alterations inside parenthesized chord symbols in different circumstances, in the **Parentheses** section of the **Chord Symbols Options** dialog.

#### RELATED LINKS

[Chord symbol appearance presets](#) on page 783

[Inputting chord symbols](#) on page 303

[Bracketed noteheads](#) on page 953

[Showing single brackets on figured bass](#) on page 861


## Parenthesizing chord symbols

You can show individual chord symbols in parentheses; for example, to indicate optional chords. You can do this for the current layout and frame chain only, or for all layouts and frame chains.

#### NOTE

You cannot show parentheses on custom chord symbols; that is, chord symbols whose appearance you have overridden.

#### PREREQUISITE

- The lower zone is shown.
- **Properties**  is selected in the lower zone toolbar.
- You have chosen the appropriate property scope for local properties.

#### PROCEDURE

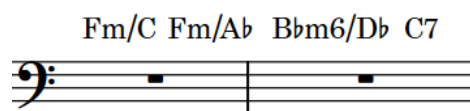
1. Select the chord symbols you want to parenthesize. You can do this in Write mode and Engrave mode.
2. In the Properties panel, activate **Parenthesized** in the **Chord Symbols** group.

#### RESULT

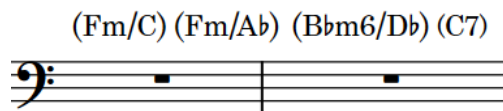
Parentheses are shown around each selected chord symbol. If the property scope was set to **Locally**, this change only takes effect in the current layout and frame chain.

Deactivating **Parenthesized** removes parentheses from the selected chord symbols.

#### EXAMPLE



Chord symbols without parentheses




Chord symbols with parentheses

## Showing single parentheses on chord symbols

You can show only a single left or right parenthesis on individual parenthesized chord symbols; for example, to indicate that all chord symbols between two parenthesized chord symbols are optional. You can do this for the current layout and frame chain only, or for all layouts and frame chains.

### PREREQUISITE

- The lower zone is shown.
- **Properties**  is selected in the lower zone toolbar.
- You have chosen the appropriate property scope for local properties.

---

### PROCEDURE

1. Select the parenthesized chord symbols on which you want to show a single parenthesis. You can do this in Write mode and Engrave mode.
2. In the Properties panel, activate **Parenthesis to show** in the **Chord Symbols** group.
3. Choose one of the following options:
  - **Start**
  - **End**

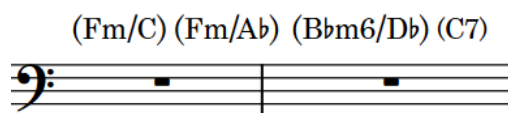
---

### RESULT

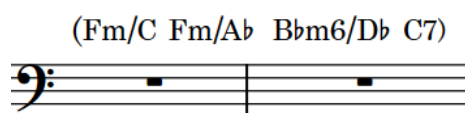
Parentheses are hidden on the corresponding side of the selected chord symbols, leaving a single parenthesis on the other side. If the property scope was set to **Locally**, this change only takes effect in the current layout and frame chain.

---

### EXAMPLE



Parentheses around all chord symbols



Parentheses at the start of the first chord and end of the last chord

---


### RELATED LINKS

- [Showing brackets around one/all noteheads in tie chains](#) on page 956
- [Large selections](#) on page 403
- [Properties panel](#) on page 615
- [Changing the property scope](#) on page 617
- [Copying property settings to other layouts/frame chains](#) on page 599

## Changing the style of chord symbol parentheses

You can change the parenthesis style for individual chord symbols. For example, you might show stacked chord symbols with slender/tall parentheses due to their height.

### PREREQUISITE

- The lower zone is shown.
- **Properties**  is selected in the lower zone toolbar.

---

PROCEDURE

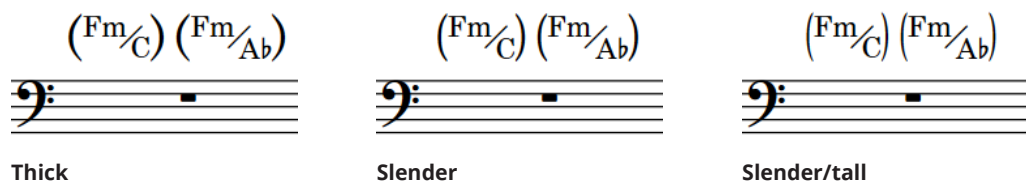
1. Select the parenthesized chord symbols whose parenthesis style you want to change. You can do this in Write mode and Engrave mode.
  2. In the Properties panel, activate **Parenthesis style** in the **Chord Symbols** group.
  3. Select one of the following options from the menu:
    - **Thick**
    - **Slender**
    - **Slender/tall**
- 

RESULT

The parenthesis style of the selected parenthesized chord symbols is changed.

---


EXAMPLE



## Changing the size of chord symbol parentheses

You can change the size of chord symbol parentheses without changing the size of the chord symbols to which they apply; for example, to ensure that parentheses appear the same size on adjacent chord symbols with different heights. You can do this for the current layout and frame chain only, or for all layouts and frame chains.

PREREQUISITE

- The lower zone is shown.
  - **Properties**  is selected in the lower zone toolbar.
- 

PROCEDURE

1. Select the parenthesized chord symbols whose parenthesis size you want to change. You can do this in Write mode and Engrave mode.
  2. In the Properties panel, activate **Parenthesis scale %** in the **Chord Symbols** group.
  3. Change the value in the value field.

The scale size is expressed as a percentage of the parenthesis glyph rather than the chord symbol, allowing you to create a consistent parenthesis size regardless of the chord symbol height.
- 

RESULT

The size of parentheses around the selected chord symbols is changed.

---

TIP

You can change the default height of all chord symbol parentheses project-wide in the **Parentheses** section of the **Chord Symbols Options** dialog.

---

RELATED LINKS


[Chord symbol appearance presets](#) on page 783

[Large selections](#) on page 403

## Moving chord symbol parentheses graphically

You can move individual chord symbol parentheses graphically to the right or left. For example, to increase the space between particular chord symbols and their parentheses. You can do this for the current layout and frame chain only, or for all layouts and frame chains.

PREREQUISITE

- The lower zone is shown.
  - **Properties**  is selected in the lower zone toolbar.
  - You have chosen the appropriate property scope for local properties.
- 

PROCEDURE

1. In Engrave mode, select the parenthesized chord symbols whose parentheses you want to move.
  2. In the Properties panel, activate the following properties, individually or together, in the **Chord Symbols** group:
    - **Open parenthesis offset**
    - **Closed parenthesis offset**
  3. Move the corresponding parentheses in one of the following ways:
    - To move them to the right, increase the value in the value field.
    - To move them to the left, decrease the value in the value field.
- 

RESULT

The corresponding parentheses for the selected parenthesized chord symbols are moved graphically. If the property scope was set to **Locally**, this change only takes effect in the current layout and frame chain.

TIP

You can change the default gap between all chord symbols and parentheses project-wide in the **Parentheses** section of the **Chord Symbols Options** dialog.

---

## Chord symbols imported from MusicXML

Chord symbols are imported from MusicXML files. However, chords that specify Neapolitan, Italian, French, German, Pedal, Tristan, and Other values for the kind of element are ignored



during import, as there is no information to specify what notes these chord symbols are meant to describe.

RELATED LINKS

[Generating chord symbols from notes](#) on page 311

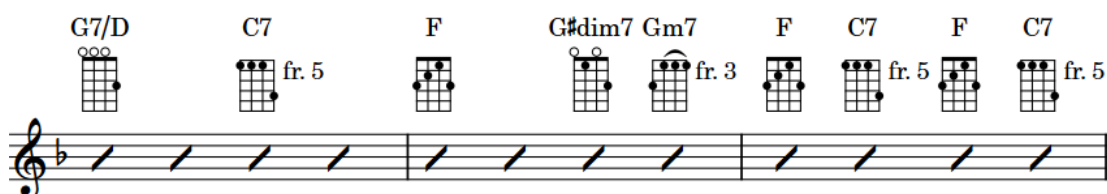
# Chord diagrams

Chord diagrams represent the pattern of strings and frets on fretted instruments and use dots to indicate the stopped finger positions required to produce the corresponding chord. This demonstrates the specific shape of chords in a compact way and is useful if a particular voicing is required.

In Dorico Elements, chord diagrams are part of chord symbols, meaning you can show them below chord symbols wherever they are shown. For players set to show chord diagrams, you can show only the chord symbol or chord diagram for individual chord symbols.

You can show chord diagram shapes for any fretted instrument, including different tunings and string arrangements, such as guitar DADGAD tuning. This can be different to the instrument above which they appear; for example, if you want to show chord diagram shapes for standard guitar tuning above the bass staff.

You can also show chord diagrams for all chord symbols used in a flow in a grid at the start of the flow, as is common in lead sheets for pop and rock music. You can show used chord diagrams grids independently of showing them alongside chord symbols in the music.



A sequence of chord symbols with chord diagrams for banjo

The positions of stopped frets relative to each other are known as “shapes” in Dorico Elements. Any playable shape can be re-used for other chords whose pitches match the shape, including any new chord diagram shapes you have created. This includes shapes being available for other instruments, other tunings, and other positions along the fretboard, so long as any open strings included in the shape can be played with a barré at other fret positions.

A single chord can appear with different chord diagram shapes for different instruments and tunings, as their open string pitches and the number of strings they have varies.

## RELATED LINKS

[Chord symbols](#) on page 782

[Hiding/Showing chord diagrams](#) on page 806

[Showing only chord symbols or chord diagrams](#) on page 808

[Hiding/Showing used chord diagrams grids](#) on page 809

[Hiding/Showing fingerings in chord diagrams](#) on page 810

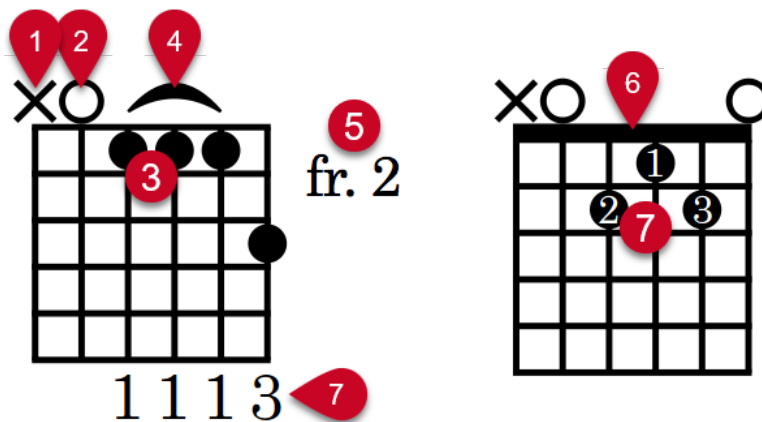
[Changing the chord diagram shape](#) on page 812

[Creating new chord diagram shapes](#) on page 813

[Capos](#) on page 142

## Chord diagram components

Chord diagrams use a combination of symbols, dots, and lines to convey the information about strings, fret positions, and finger positions that performers require to play the corresponding chord.



- 1 Omitted string**  
Indicates a string that must not sound.
- 2 Open string**  
Indicates a string that must sound but must be left open; that is, not stopped.
- 3 Dots**  
Indicate the fret positions where strings should be stopped, usually with left-hand fingers.
- 4 Barré**  
Indicates that multiple strings must be stopped with the same finger, usually pressed flat against the fretboard.
- 5 Starting fret number**  
Indicates the number of the highest fret in the chord diagram when this is not the first fret.
- 6 Nut**  
Represents the top of the fretboard, or “nut”, and appears in chord diagrams whose highest fret is the first fret.
- 7 Fingerings**  
Indicate the finger used to stop the string. Fingerings can be positioned inside dots or at the ends of strings.

## Hiding/Showing chord diagrams

You can hide/show chord diagrams for any type of fretted instrument alongside all chord symbols on a per-player basis. You can also change the fretted instrument or tuning for which chord diagrams are shown.

### NOTE

You cannot show chord diagrams when chord symbols are hidden entirely. However, you can show only the chord symbol or chord diagram for individual chord symbols.


---

#### PREREQUISITE

- You have input the chord symbols for which you want to show chord diagrams.
- Chord symbols are shown above the staves where you want to show chord diagrams.
- If you want to show chord diagrams using a custom fretted instrument tuning, you have imported the tuning or changed the tuning of a fretted instrument in the project accordingly.

---

#### PROCEDURE

1. In Setup mode, in the **Players** panel, select a player for whom you want to hide/show chord diagrams.
2. In the action bar, click **Player Settings**  and choose one of the following options:
  - To show chord diagrams, choose **Chord Diagrams > [Fretted instrument and tuning]**. For example, to show chord diagrams for a guitar in DADGAD tuning, choose **Chord Diagrams > DADGAD guitar tuning**.
  - To hide chord diagrams, choose **Chord Diagrams > No Chord Diagrams**.

---

#### RESULT

Chord diagrams are shown alongside all chord symbols for the selected player, as appropriate for the selected fretted instrument and tuning. Dorico Elements shows the simplest shape available for each chord; that is, shapes with the most open strings, easy barré positions, or finger positions closest to the nut.

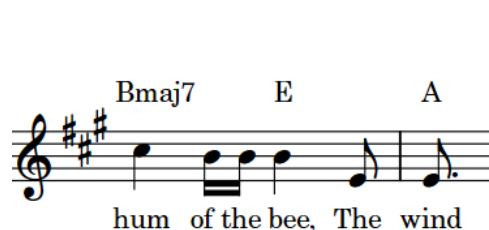
If no chord diagram is available for a chord symbol, an empty chord diagram is shown.

#### TIP

- You can also hide/show chord diagrams by right-clicking players and choosing these options from the context menu.
- You can edit empty chord diagrams to save a new chord diagram shape.

---

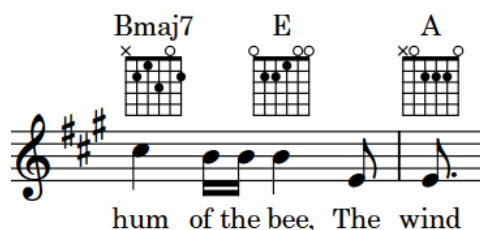
#### EXAMPLE



Bmaj7 E A

hum of the bee, The wind

Chord symbols shown but chord diagrams hidden



Bmaj7 E A

hum of the bee, The wind

Chord diagrams shown (standard guitar tuning)

---


#### RELATED LINKS

- [Players panel](#) on page 107
- [Inputting chord symbols](#) on page 303
- [Hiding/Showing chord symbols](#) on page 789
- [Fretted instrument tuning](#) on page 138

## Showing only chord symbols or chord diagrams

You can show only the chord symbol or chord diagram for individual chord symbols on staves set to show chord diagrams. For example, if you want to show both the symbol and diagram for the first time each chord appears but only show chord symbols for subsequent instances. You can do this for the current layout and frame chain only, or for all layouts and frame chains.

### PREREQUISITE

- You have shown chord diagrams for the players on whose staves you want to show only chord symbols or chord diagrams.
- The lower zone is shown.
- **Properties**  is selected in the lower zone toolbar.
- You have chosen the appropriate property scope for local properties.

---

### PROCEDURE

1. Select the chord symbols whose shown symbols/diagrams you want to change. You can do this in Write mode and Engrave mode.
2. In the Properties panel, activate **Show only** in the **Chord Symbols** group.
3. Choose one of the following options:
  - **Chord Symbol**
  - **Chord Diagram**

---

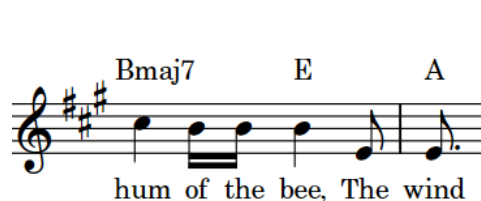
### RESULT

The selected chord symbols show only symbols or diagrams. In systems containing both chord symbols and chord diagrams, chord symbols are aligned further from the staff than chord diagrams.

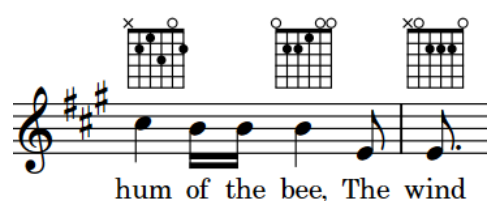
If the property scope was set to **Locally**, this change only takes effect in the current layout and frame chain.

---

### EXAMPLE



Chord symbols shown



Chord diagrams shown (standard guitar tuning)

---

### RELATED LINKS

[Changing the property scope](#) on page 617

[Copying property settings to other layouts/frame chains](#) on page 599

## Hiding/Showing used chord diagrams grids

You can hide/show grids that contain all chord diagrams used in each flow in each layout independently. By default, used chord diagrams grids display standard guitar tuning chord diagrams but you can change this to show chord diagrams for any fretted instrument or tuning.

Used chord diagrams grids are commonly used in lead sheets for pop and rock music. They are typically shown instead of chord diagrams alongside chord symbols in the music to save vertical space and so they can appear at a larger scale size, making the details of each chord diagram easier to read.

### PREREQUISITE

- If you want to show chord diagrams using a custom fretted instrument tuning, you have imported the tuning or changed the tuning of a fretted instrument in the project accordingly.
- We recommend that you have input chord symbols and changed the shape of any chord symbols you want to appear with a specific voicing.

### NOTE

It is customary not to show chord diagrams alongside chord symbols when showing a used chord diagrams grid, and you cannot change the chord diagram shape when chord diagrams are hidden.

---

### PROCEDURE

1. Press **Ctrl/Cmd-Shift-L** to open **Layout Options**.
  2. In the **Layouts** list, select the layouts in which you want to hide/show used chord diagrams grids at the start of flows.  
By default, the layout currently open in the music area is selected when you open the dialog. You can select other layouts by using the selection options in the action bar, clicking and dragging across multiple layouts, **Shift**-clicking adjacent layouts, and **Ctrl/Cmd**-clicking individual layouts.
  3. In the category list, click **Chord Symbols and Diagrams**.
  4. In the **Chord Diagrams** section, activate/deactivate **Show chord diagrams used at start of flow**.
  5. Optional: Change the settings for used chord diagrams grids as required.  
For example, you can change the fretted instrument tuning for chord diagrams in the grid, their scale size, and the distance between chord diagrams and/or rows of chord diagrams.
  6. Click **Apply**, then **Close**.
- 

### RESULT

Chord diagrams for all chord symbols used in the flow are shown in a grid above the start of each flow in the selected layouts, and are positioned according to the settings for the selected layouts. If flow headings are shown, the used chord diagrams grid appears below them. The order of chord diagrams in the grid is determined by the order in which they first appear in the flow. Each different voicing appears as a separate chord diagram but each voicing appears only once in the grid.

If you input more chord symbols or change the voicing of existing chord diagrams, the used chord diagrams grids update automatically to include them.

NOTE

- Even if no chord symbols exist in a flow, vertical space for the used chord diagrams grid is added at the start of the flow.
  - You cannot select or edit individual chord diagrams in used chord diagrams grids.
- 

EXAMPLE

## The Music We Love Most

George P. Morris Esq.

Augusta Browne

The image displays a musical score for 'The Music We Love Most'. At the top, there are ten chord diagrams arranged in two rows. The first row contains A, D, Emaj7, F#m, and Bmaj7. The second row contains E, F#7, Bm, and F7. Each diagram shows a guitar fretboard with dots for fingerings and 'x' for muted strings. Below the diagrams is a single-staff musical notation in treble clef, key signature of two sharps (F# and C#), and 6/8 time. The tempo is marked 'Molto animato' and the dynamics are 'f' (forte). The notation shows a sequence of eighth notes and quarter notes.

Used chord diagrams grid at the start of a flow

---

AFTER COMPLETING THIS TASK

You can change the margins of pages, music frames, and/or flow headings if required to accommodate used chord diagrams grids.

RELATED LINKS

[Capos on page 142](#)

[Defining capos for used chord diagrams grids on page 149](#)

[Hiding/Showing systemic barlines on single-staff systems on page 738](#)

[Margins on page 570](#)

## Hiding/Showing fingerings in chord diagrams

You can hide/show fingerings in chord diagrams shown alongside chord symbols and in used chord diagrams grids independently of each other and in each layout independently. You can choose whether fingerings appear inside dots or at the ends of strings.

---

PROCEDURE

1. Press **Ctrl/Cmd-Shift-L** to open **Layout Options**.
2. In the **Layouts** list, select the layouts in which you want to hide/show fingerings in chord diagrams.  
By default, the layout currently open in the music area is selected when you open the dialog. You can select other layouts by using the selection options in the action bar, clicking and dragging across multiple layouts, **Shift**-clicking adjacent layouts, and **Ctrl/Cmd**-clicking individual layouts.
3. In the category list, click **Chord Symbols and Diagrams**.

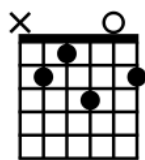
4. In the **Chord Diagrams** section, activate/deactivate the following options, individually or together:
    - To hide/show fingerings in chord diagrams shown alongside chord symbols, activate/deactivate **Show fingerings in chord diagrams**.
    - To hide/show fingerings in used chord diagrams grids, activate/deactivate **Show fingerings in chord diagrams at start of flow**.
  5. Choose one of the following options for **Fingerings position**:
    - **Inside dot**
    - **At end of string**
  6. Click **Apply**, then **Close**.
- 

#### RESULT

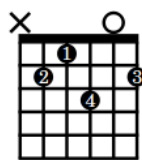
Fingerings are shown in the corresponding position in chord diagrams in the selected layouts when the options are activated, and hidden when they are deactivated. This also affects whether fingerings appear in the **Edit Chord Diagram** dialog.

---

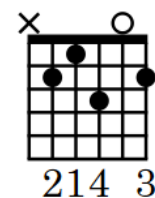
#### EXAMPLE



Fingerings hidden



Fingerings shown inside dots



Fingerings shown at the ends of strings

---

#### AFTER COMPLETING THIS TASK

You can change the fingerings shown in chord diagrams when editing their shape.

#### RELATED LINKS

[Creating new chord diagram shapes](#) on page 813

[Edit Chord Diagram dialog](#) on page 814

[Fingering](#) on page 871

[Hiding/Showing fingering](#) on page 878

## Resetting chord diagram fingerings

You can reset changes you have made to fingerings in individual chord diagrams without resetting other changes to the shape.

---

#### PROCEDURE

1. Select the chord diagrams whose fingerings you want to reset. You can do this in Write mode and Engrave mode.
  2. Choose **Edit > Notations > Chord Symbols and Diagrams > Reset Chord Diagram Fingering Numbering**. You can also choose this option from the context menu.
-



## Changing the chord diagram shape

You can change the chord diagram shape shown at individual rhythmic positions; for example, if you require a shape with a different voicing. Many chords have multiple playable shapes.

You can also apply your changes to all other instances of the same chord for instruments with compatible tunings.

---

### PROCEDURE

1. Select the chord diagram whose shape you want to change. You can do this in Write mode and Engrave mode.

#### NOTE

You can only change the shape of a single chord diagram at a time.

2. Change the shape in any of the following ways:
  - To cycle through all the available shapes for the selected chord, press **Alt/Opt-Q**.
  - To open the **Choose Chord Diagram** dialog and see all the available shapes for the selected chord at once, press **Shift-Alt/Opt-Q**.
3. Optional: In the **Choose Chord Diagram** dialog, select the shape you want to use.

#### TIP

If the shape you require is not available, you can click **Edit**, which allows you to create a new shape.

4. Click **OK** to save your changes and close the dialog.
5. Optional: To apply the new shape to other instances of the same chord for instruments with compatible tunings, choose **Edit > Notations > Chord Symbols and Diagrams > Copy Shape to Matching Chord Symbols**. You can also choose this option from the context menu.

---

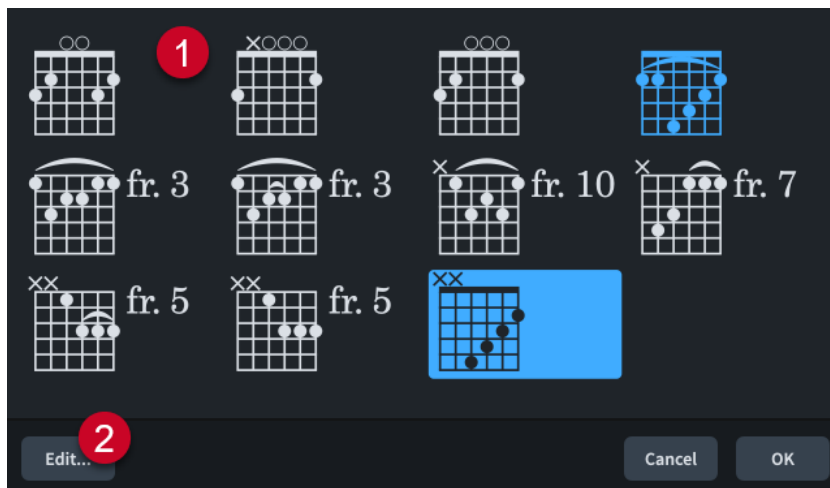
### RESULT

The shape shown for the selected chord diagram is changed. This also updates all other chord diagrams using the same fretted instrument tuning at the same rhythmic position.

## Choose Chord Diagram dialog

The **Choose Chord Diagram** dialog allows you to view all available chord diagram shapes for the selected chord and select the one you want to use.

- You can open the **Choose Chord Diagram** dialog in Write mode by selecting a chord diagram and pressing **Shift-Alt/Opt-Q**.



The **Choose Chord Diagram** dialog comprises the following:

**1 Available chord diagrams**

Displays all the valid chord diagram shapes for the selected chord and allows you to select a different shape to show at the selected rhythmic position. Shapes you have created yourself appear in a different color.

**2 Edit**

Opens the **Edit Chord Diagram** dialog, which allows you to edit the shape of chord diagrams, including changing the number of frets shown, stopped fret positions, and the starting fret number.

## Creating new chord diagram shapes

You can create new chord diagram shapes by editing an existing one; for example, if you want an alternative voicing for a chord or to show a barré. Your changes to existing chord diagram shapes are saved as a new shape, they do not overwrite the existing one.

### NOTE

In Dorico Elements, you cannot start new chord diagram shapes from scratch.

---

### PROCEDURE

1. In Write mode, select the chord diagram whose shape you want to edit.
  2. Press **Shift-Alt/Opt-Q** to open the **Choose Chord Diagram** dialog.
  3. Click **Edit** to open the **Edit Chord Diagram** dialog.
  4. Edit the shape and settings of the chord diagram as required.  
For example, you can change open strings to omitted strings, change the stopped fret position on strings to change the corresponding string pitch, or change the fingering of individual stopped fret positions.
  5. Optional: If you want the shape to be available for chords with different start fret positions, activate **Chord may be moved along the neck**.
  6. Click **Save**, then **Close**.
-

## RESULT

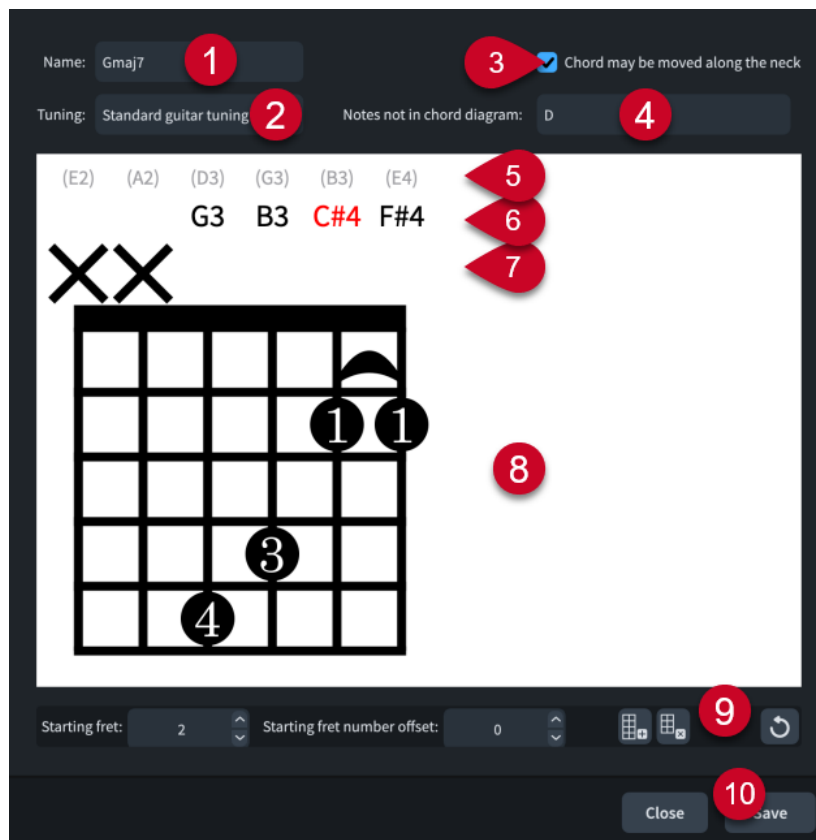
The new shape is saved and is used for the selected chord diagram. The new shape also becomes available for any other chord for which it is valid.

## Edit Chord Diagram dialog

The **Edit Chord Diagram** dialog allows you to edit the shape of individual chord diagrams, including changing the number of frets shown, stopped fret positions, and the starting fret number.

You can open the **Edit Chord Diagram** dialog in any of the following ways:

- In Write mode by opening the **Choose Chord Diagram** dialog, selecting the chord diagram whose shape you want to edit, and clicking **Edit**.
- In Engrave mode by double-clicking a chord diagram, or selecting it and pressing **Return**.



The **Edit Chord Diagram** dialog contains the following options and sections:

- 1 Name**  
Displays the name of the chord whose chord diagram you are editing in the dialog. You cannot change this name.
- 2 Tuning**  
Displays the fretted instrument and tuning for the current chord diagram.
- 3 Chord may be moved along the neck**  
Allows you to specify whether or not the shape of the chord diagram can be reused at other fret positions; for example, by playing open strings with a barré at higher fret positions.
- 4 Notes not in chord diagram**

Displays any pitches that are part of the chord but not currently included in the chord diagram.

#### 5 **Open string pitch**

Displays the open pitch of the corresponding string for reference.

#### 6 **Current string pitch**

Displays the current pitch of the corresponding string if it is open or stopped. If the pitch of a string is not part of the chord, the string pitch appears red.

#### 7 **String status**

Displays the current usage status of the corresponding string and allows you to switch the status of individual strings between open and omitted by clicking in this row.

- **O**: Open string
- **X**: Omitted string
- **No symbol**: Stopped string

#### 8 **Chord diagram shape editor**




Displays the current arrangement of stopped frets using dots and allows you to change the chord diagram shape. You can move stopped frets by clicking at the required positions. Each string can only have a single stopped fret position.

If two or more strings are stopped at the same fret, you can hide/show a barré by clicking any of the dots at that fret position.

You can change fingerings by double-clicking them and entering a new number, including **0** to show no fingering or **T** for thumb fingerings on the lowest string.

#### 9 **Action bar**

Contains options that allow you to edit and change the number of frets.

- **Starting fret**: Changes the fret number of the highest fret in the chord diagram.
- **Starting fret number offset**: Changes the offset of the starting fret number. For example, if you want the starting fret label to appear beside the second fret down the chord diagram in order to include a barré.
- **Add fret** : Adds a fret to the bottom of the chord diagram.
- **Remove fret** : Removes a fret from the bottom of the chord diagram.
- **Reset Chord Diagram** : Removes your changes to the chord diagram and resets it to its default shape.

#### 10 **Save**

Saves the chord diagram shape and updates the selected chord diagram in the music area. The shape also becomes available as an alternative shape for other compatible chords.

# Clefs

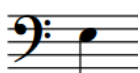
Clefs are the symbol at the start of every system that give the notes on the staff context; that is, the clef tells you which note of the scale applies to each line or space of the staff. To minimize the number of ledger lines required for notes, different clefs are typically used according to the register of instruments.

The common clefs are:

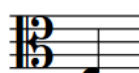
- Treble clef, or G clef, whose spiral shape centers around G, normally the G above middle C.
- The bass clef, or F clef, in which two dots are shown either side of the line corresponding to F, normally the F below middle C.
- The C clef, in which the center of the bracket to the right of the clef's thick vertical line is positioned on the line that corresponds to C, normally middle C. When positioned on the middle line of the staff, the C clef is known as the alto clef. When positioned on the second staff line from the top, the C clef is known as the tenor clef.



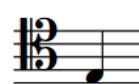
The E below middle C shown in a treble clef



The E below middle C shown in a bass clef



The E below middle C shown in a C (alto) clef



The E below middle C shown in a C (tenor) clef

In Dorico Elements, notes are automatically positioned on staves according to the prevailing clef.

Initial clefs at the start of flows and systems appear full size, while mid-system clef changes are automatically scaled down.



Many instruments in Dorico Elements have different types that show alternative clefs by default. You can select the appropriate instrument type from the instrument picker when adding or changing instruments.

## NOTE

- You can only select clefs that you have input. You cannot select initial clefs at the start of flows or clefs shown automatically at the start of each system.
- If you do not want to show any clef in any layout, you must input an invisible clef. You can also hide/show clefs according to the layout transposition and at the start of single-staff systems.
- If clef changes occur at the start of a new system or page, a cautionary clef is shown at the end of the previous system. In Dorico Elements, the clefs shown at the end of one system and at the start of the next system are the same item, not separate items. You cannot hide cautionary clefs.

RELATED LINKS

[Input methods for clefs and octave lines](#) on page 314

[Clefs with octave indicators](#) on page 820

[Instrument picker](#) on page 109

[Hiding/Showing clefs according to layout transpositions](#) on page 817

[Hiding/Showing clefs at the start of systems](#) on page 818

[Cautionary key signatures](#) on page 915

[Cautionary time signatures](#) on page 1252

## Showing clefs after grace notes

According to convention, clefs are positioned before grace notes so this is the default in Dorico Elements. However, in some circumstances you might want to position clefs between grace notes and normal notes.

---

PROCEDURE

1. Select the clefs you want to show after grace notes. You can do this in Write mode and Engrave mode.
2. Choose **Edit > Notations > Clef > After Grace Notes**. You can also choose this option from the context menu.

---

RESULT

The selected clefs are positioned between normal notes and grace notes.

NOTE

You can reset the position of clefs relative to grace notes by selecting the clefs whose position you want to reset and choosing **Edit > Notations > Clef > Reset Clef Position**. You can also choose this option from the context menu.

---

EXAMPLE



Treble clef before grace notes



Treble clef after grace notes to align with bass clef

---

## Hiding/Showing clefs according to layout transpositions

You can show individual clefs only in layouts that are either concert or transposed pitch. For example, due to their transpositions, some instruments require clef changes in concert pitch

scores to avoid excess ledger lines, but do not require those clef changes in their transposed pitch parts.


By default, all clefs appear in all layouts.

#### TIP

Many instruments in Dorico Elements show different clefs in full score/custom score and part layouts by default. You can select the appropriate instrument type from the instrument picker when adding or changing instruments.

---

#### PREREQUISITE

- The lower zone is shown.
  - **Properties**  is selected in the lower zone toolbar.
- 

#### PROCEDURE

1. Select the clefs or signposts of clefs you want to hide/show according to the layout transposition. You can do this in Write mode and Engrave mode.
  2. In the Properties panel, activate **Show for transposition** in the **Clefs** group.
  3. Choose one of the following options:
    - **Concert Pitch**
    - **Transposing Pitch**
- 

#### RESULT

The selected clefs only appear in layouts with the corresponding transposition. In layouts where clefs are hidden, they are indicated by signposts.

Hidden clefs have no effect on note and staff spacing.

#### RELATED LINKS

[Concert vs. transposed pitch](#) on page 170

[Making layouts transposing/concert pitch](#) on page 169

[Signposts](#) on page 426

[Input methods for clefs and octave lines](#) on page 314

[Instrument picker](#) on page 109

## Hiding/Showing clefs at the start of systems

By default, clefs are shown at the start of all systems. You can hide/show clefs at the start of single-staff systems from the second system onwards in each flow independently.

Hiding clefs on single-staff systems after the first system is a convention used in hand-copied lead sheets, usually in combination with hiding key signatures and showing systemic barlines.

---

#### PROCEDURE

1. Press **Ctrl/Cmd-Shift-N** to open **Notation Options**.
2. In the **Flows** list, select the flows in which you want to hide/show clefs after the first system.  
By default, only the current flow is selected when you open the dialog. You can select other flows by clicking **Select All** in the action bar, clicking and dragging across multiple flows, **Shift**-clicking adjacent flows, and **Ctrl/Cmd**-clicking individual flows.
3. In the category list, click **Clefs**.

4. Choose one of the following options for **Clefs at start of systems following first system**:
    - **Show clefs**
    - **Hide clefs**
  5. Click **Apply**, then **Close**.
- 

#### RESULT

Clefs are hidden or shown at the start of single-staff systems from the second system onwards in the selected flows.

#### NOTE

Clefs are always shown at the start of systems that contain more than one staff.

---

#### RELATED LINKS


[Hiding/Showing systemic barlines on single-staff systems](#) on page 738

[Hiding/Showing key signatures at the start of systems](#) on page 914

## Changing the octave of clefs

You can change the octave shift of individual clefs. For example, to accommodate different horn and bass clarinet transposition conventions. You can change the octaves of clefs in concert pitch and transposed pitch layouts independently.

#### PREREQUISITE

- The lower zone is shown.
  - **Properties**  is selected in the lower zone toolbar.
  - You have opened a layout with the required transposition in the music area. For example, if you want to change the octave of clefs in concert pitch, you have opened a concert pitch layout.
  - If you want to change the octave of initial clefs, you have input clefs at the start of each flow.
- 

#### PROCEDURE

1. Select the clefs whose octave you want to change. You can do this in Write mode and Engrave mode.
  2. In the Properties panel, activate **Octave shift** in the **Clefs** group.
  3. Change the value in the value field.
- 

#### RESULT

The octave of the selected clefs is changed in all layouts with the same transposition. For example, **1** shifts clefs up one octave, and **-1** shifts clefs down one octave.

The pitches of notes on the staves of the selected clefs are adjusted automatically. For example, if you shift a clef up one octave, notes after the clef appear an octave lower than they do without the octave shift.

#### TIP

You can specify octave shifts when inputting clefs using the clefs and octave lines popover.

---



RELATED LINKS

[Clefs and octave lines popover](#) on page 314

[Concert vs. transposed pitch](#) on page 170

[Respecting/Ignoring clef octave indicators](#) on page 820

## Clefs with octave indicators

Clefs with octave indicators indicate that notes are played in a different register to the one notated. An octave indicator above the clef indicates that notes are played higher than notated, while an octave indicator below the clef indicates that notes are played lower than notated.

Of these clefs, only the treble clef 8 below is still commonly used for tenor vocal parts.



Traditionally, clef octave indicators were used as a reminder of transposing instruments; however, in more recent music, some composers use clef octave indicators as an alternative to octave lines for extended passages. Therefore, Dorico Elements ignores clef octave indicators by default. However, transposing instruments are always transposed correctly automatically. For example, notes belonging to piccolo instruments are automatically notated an octave lower than their pitch in playback, regardless of whether they have a clef with an octave indicator. You can change whether Dorico Elements respects or ignores clef octave indicators in each flow independently.

RELATED LINKS

[Transposing instruments](#) on page 133

[Concert vs. transposed pitch](#) on page 170

[Octave lines](#) on page 822

[Respecting/Ignoring clef octave indicators](#) on page 820

[Changing the octave of clefs](#) on page 819

[Input methods for clefs and octave lines](#) on page 314

## Respecting/Ignoring clef octave indicators

Traditionally, clef octave indicators were used as a reminder of transposing instruments; however, in more recent music, some composers use clef octave indicators as an alternative to octave lines for extended passages. You can change whether Dorico Elements respects or ignores clef octave indicators in each flow independently.

---

PROCEDURE

1. Press **Ctrl/Cmd-Shift-N** to open **Notation Options**.
2. In the **Flows** list, select the flows in which you want to respect/ignore clef octave indicators. By default, only the current flow is selected when you open the dialog. You can select other flows by clicking **Select All** in the action bar, clicking and dragging across multiple flows, **Shift**-clicking adjacent flows, and **Ctrl/Cmd**-clicking individual flows.
3. In the category list, click **Clefs**.
4. Choose one of the following options for **Clefs with octave indicators**:
  - **Ignore octave indicator**
  - **Respect octave indicator**

5. Click **Apply**, then **Close**.

---

RESULT

The handling of clefs with octave indicators is changed in the selected flows. When clef octave indicators are respected, the pitches of notes on staves with clefs with octave indicators are adjusted automatically. For example, notes with treble G clefs, octave above, appear an octave lower than they do when clef octave indicators are ignored.

RELATED LINKS

[Transposing instruments](#) on page 133

[Changing the octave of clefs](#) on page 819

[Hiding/Showing clefs according to layout transpositions](#) on page 817

# Octave lines

Octave lines indicate where notes are played higher/lower than they appear in the score or part. They are dashed or dotted horizontal lines with an italic numeral at the start. The numeral indicates the number of pitches by which the phrase is changed, such as 8 for one octave and 15 for two octaves.

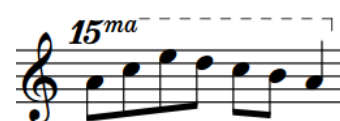
Octave lines that indicate notes are played higher than notated are placed above the staff, while octave lines that indicate notes are played lower than notated are placed below the staff.



A treble clef phrase notated at pitch



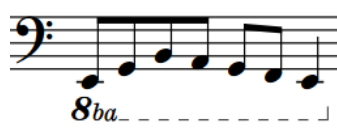
The treble clef phrase with an octave above line



The treble clef phrase with a two octaves above line



A bass clef phrase notated at pitch



The bass clef phrase with an octave below line



The bass clef phrase with a two octaves below line

In Dorico Elements, pitches are adjusted automatically when an octave line is present. You do not have to change the register of the notes within octave lines.

Octave lines should be horizontal, meaning they can take up significant vertical space, as octave lines are usually placed outside all other notations. However, they can be placed within slurs and tuplet brackets if the slur or tuplet bracket is longer than the octave line.

Octave lines can continue across system and page breaks. It is customary to show the numeral again at the start of each system as a reminder. Cautionary octave line numerals are usually parenthesized and the suffix is optional.

## RELATED LINKS

[Input methods for clefs and octave lines](#) on page 314

[Clefs with octave indicators](#) on page 820

[Lines](#) on page 1075

## Positions of octave lines

By default, octave lines that indicate notes are played higher than written are placed above the staff, while octave lines that indicate notes are played lower than written are placed below the staff.

You can move octave lines to new rhythmic positions in Write mode. They are automatically positioned to avoid collisions.

You can move octave lines graphically in Engrave mode, but this does not change the rhythmic positions to which they apply.

### RELATED LINKS

[Input methods for clefs and octave lines](#) on page 314

[Moving notes/items rhythmically](#) on page 437


[Moving items graphically](#) on page 481

[Tucking index properties](#) on page 825

## Changing the alignment of octave line numerals relative to notes

You can change whether the left edge, center, or right edge of individual octave line numerals is aligned with the first note to which each octave line applies. You can do this for the current layout and frame chain only, or for all layouts and frame chains.

### PREREQUISITE

- The lower zone is shown.
- **Properties**  is selected in the lower zone toolbar.
- You have chosen the appropriate property scope for local properties.

---

### PROCEDURE

1. Select the octave lines whose numeral alignment relative to notes you want to change. You can do this in Write mode and Engrave mode.
2. In the Properties panel, activate **L alignment** in the **Octave Lines** group.
3. Select one of the following options from the menu:
  - **Left**
  - **Center**
  - **Right**

---

### RESULT

The alignment of the numerals of the selected octave lines is changed. For example, if you select **Right**, the right edge of the selected octave line numerals is aligned with the first noteheads to which the octave lines apply. If the property scope was set to **Locally**, this change only takes effect in the current layout and frame chain.

### RELATED LINKS


[Changing the property scope](#) on page 617

[Copying property settings to other layouts/frame chains](#) on page 599

## Changing the position of octave line numerals relative to accidentals

You can change whether the numerals at the start of individual octave lines are positioned on noteheads or accidentals. You can do this for the current layout and frame chain only, or for all layouts and frame chains.

### PREREQUISITE

- The lower zone is shown.
- **Properties**  is selected in the lower zone toolbar.
- You have chosen the appropriate property scope for local properties.

---

### PROCEDURE

1. Select the octave lines whose numeral alignment relative to accidentals you want to change. You can do this in Write mode and Engrave mode.
2. In the Properties panel, activate **L position** in the **Octave Lines** group.
3. Choose one of the following options:
  - **Notehead**
  - **Accidental**

---

### RESULT

The alignment of the numerals of the selected octave lines is changed. For example, if you choose **Accidental**, the octave line numerals are aligned with the accidental on the first noteheads to which the octave lines apply. If the property scope was set to **Locally**, this change only takes effect in the current layout and frame chain.

## Octave lines in Engrave mode

In Engrave mode, each octave line has three square handles. You can use these handles to move the start/end of octave lines graphically, and to lengthen/shorten octave line hooks.



An octave line in Engrave mode

- The start handle moves the start of octave lines graphically. You can move this handle to the right/left. When using the keyboard, you can also move this handle upwards/downwards to move the whole octave line.
- The top end handle moves the end of octave lines graphically. You can move this handle to the right/left.
- The bottom end handle changes the length of the hook. You can move this handle upwards/downwards.

If octave lines cross system and frame breaks, you can move the line segments on each side of the break independently.

### RELATED LINKS

[Moving items graphically](#) on page 481

[Lengthening/Shortening items](#) on page 410

## Tucking index properties

The tucking index of notations determines their position relative to other notations in the vertical stacking order when multiple notations exist at the same rhythmic positions.

In most published music, the order in which items appear relative to each other is consistent. Dorico Elements uses established conventions to determine the position and placement of notations automatically. For example, where slurs and tuplet brackets exist at the same positions, Dorico Elements calculates their placement based on their relative lengths. If the slur is longer than the tuplet bracket, the slur is placed outside the tuplet bracket; if the tuplet bracket is longer than the slur, the slur is placed inside the tuplet bracket.

However, rules for the order and placement of articulations, slurs, tuplets, and octave lines frequently vary, based on their lengths and musical context. Therefore, you can override the automatic order and manually change the order in which they appear in specific contexts.

To allow you this flexibility, slurs, octave lines, and tuplets all have **Tucking index** properties in their respective Properties panel groups.

### NOTE

- Articulations are considered alongside these notations when calculating the stacking order, but do not have a tucking index property.
- Playing techniques have a separate tucking index that allows you to change the vertical order of playing techniques relative to each other.

---


A **Tucking index** value of **0** positions items closest to notes. The higher the number, the further away the item is positioned from notes in the stacking order.

## Changing the vertical stacking order of octave lines

You can change the placement of individual octave lines relative to other objects in the vertical stack by changing their tucking index value. You can do this for the current layout and frame chain only, or for all layouts and frame chains.

According to general convention, octave lines are placed outside all other objects, but there are some instances where they can go inside other objects; for example, inside a slur if that slur is longer than the octave line.

### PREREQUISITE

- The lower zone is shown.
- **Properties**  is selected in the lower zone toolbar.
- You have chosen the appropriate property scope for local properties.

### PROCEDURE

1. In Engrave mode, select the octave lines whose placement in the vertical stack you want to change.
  2. In the Properties panel, activate **Tucking index** in the **Octave Lines** group.
  3. Change the value in the value field.  
**0** positions items closest to notes. The higher the number, the further the item is positioned from notes in the stacking order.
-

#### RESULT

The placement of the selected octave lines in the vertical stacking order is changed. If the property scope was set to **Locally**, this change only takes effect in the current layout and frame chain.

#### RELATED LINKS

[Changing the property scope](#) on page 617

[Copying property settings to other layouts/frame chains](#) on page 599

[Changing the vertical order of playing techniques](#) on page 1067

# Cues

Cues are passages of music shown in instrumental parts that are played by a different player, usually to help orientate players before entries or solos following a significant passage of rests.

Cues can also be used to assist with co-ordination or tuning between players, or to indicate material that the player might be asked to double.



A cue in a timpani part showing music from the bassoons

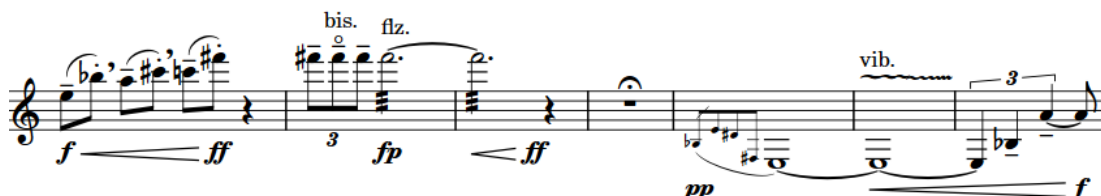
## NOTE

In Dorico Elements, you cannot input or edit cues. However, cues are shown if you import or open a project that contains them.



# Dynamics

Dynamics indicate the loudness of the music and can be combined with expressive text to give further clarification about how to perform the music. Dynamics can indicate an immediate change in volume or a gradual change over a specified duration.



A phrase with multiple different dynamics

You can add modifiers to dynamics that can give stylistic direction context alongside the volume level, such as *f* *espressivo*, which indicates that a passage is played loudly but also with expressive feeling.

While almost all expressive text is written in italics, dynamics such as *ff* and *pp* use a bold italic font.

## RELATED LINKS

[Input methods for dynamics](#) on page 296

[Positions of dynamics](#) on page 829

[Gradual dynamics](#) on page 842

[Messa di voce hairpins](#) on page 849

[Niente markings](#) on page 851

[Dynamic modifiers](#) on page 839

[Voice-specific dynamics](#) on page 838

[Groups of dynamics](#) on page 853

[Linked dynamics](#) on page 855

[Dynamics editor](#) on page 645

## Types of dynamics

Dorico Elements categorizes dynamics into different groups according to their function.

### Immediate dynamics

Immediate dynamics apply to the note to which they are attached until the next dynamic marking, and indicate an immediate change from any previous dynamic. Immediate dynamics include dynamic symbols, such as *pp* or *f*, and dynamic modifiers, such as *subito* or *molto*.

### Gradual dynamics and hairpins

Gradual dynamics indicate a change in volume that happens incrementally over the specified duration. They usually appear either as hairpins or as text instructions, such as *cresc.* or *dim.*.

Gradual dynamics can also have dynamic modifiers that qualify the change in volume, such as *poco*, *molto*, *poco a poco*, and *niente*.

In Dorico Elements, a hairpin can be shown as *messa di voce*, which shows a pair of hairpins. In some cases, this is easier than having separate lines for each half of the pair.

### Force/Intensity of attack

These dynamics, such as *fz* and *sffz*, indicate that a note has a stronger attack than is usually expected for the dynamic, similar to an accent articulation.

### Combined dynamics

Combined dynamics, such as *fp* or *p-mf*, specify a sudden change of dynamic.

You can create custom combined dynamics in Dorico Elements, and control the intensity of each dynamic in the pair, in the **Combined Dynamics** section of the Dynamics panel. For example, you can make dynamics such as *pppf*, *fff-mp*, and *fffpppp*.

#### NOTE

Combined dynamics must include one *f* level and one *p* level.

---

#### RELATED LINKS

[Gradual dynamics](#) on page 842

[Messa di voce hairpins](#) on page 849

[Niente markings](#) on page 851

[Dynamic modifiers](#) on page 839

[Hiding/Showing immediate dynamics](#) on page 836

[Changing the appearance/position of subito modifiers](#) on page 840

[Changing the appearance of sforzando/rinforzando dynamics](#) on page 837

[Hiding/Showing combined dynamic separators](#) on page 837

## Positions of dynamics

By default, dynamics are placed below instrumental staves, where they can be read alongside the notes, and above vocal staves. This way, they do not clash with lyrics placed below the staff, and are still close enough to the notes to be read simultaneously.

Immediate dynamics, such as *pp* or *f*, are centered on the notehead to which they apply. The beginnings of gradual dynamics are centered on the notehead from which they begin, or immediately after an immediate dynamic at the same position. The ends of gradual dynamics are centered on the notehead at which they end, or immediately before an immediate dynamic at the same position.

The staff-relative placement of dynamics varies, depending on their function and the type of player. For example, dynamics are placed below instrumental staves and above vocal staves by default. This ensures dynamics are kept as close to the staff as possible for legibility but are not placed between noteheads and lyrics on vocal staves. For grand staff instruments, such as piano or harp, dynamics are usually placed between the two staves, but can be placed both above and below when each staff requires separate dynamics.

In general, dynamics are not placed within the staff, as hairpins in particular become very hard to read. They are also not usually placed within tuplet brackets. Dynamics are placed outside of notations such as slurs, which must be kept close to noteheads, but inside pedal lines, which can be placed further from noteheads and still be clearly understood.

You can move dynamics to different rhythmic positions in Write mode. They are automatically positioned to avoid collisions.

#### NOTE

When using the mouse, you can only move and lengthen/shorten dynamics to noteheads. When using the keyboard, you can move and lengthen/shorten dynamics according to the current rhythmic grid resolution.

---

You can move dynamics graphically in Engrave mode; however, this does not change the rhythmic positions to which they are attached.

#### RELATED LINKS

[General placement conventions for hairpins relative to barlines](#) on page 832

[Changing the alignment of dynamics relative to noteheads](#) on page 831

[Moving the center of messa di voce hairpins](#) on page 849

[Changing the staff-relative placement of items](#) on page 414

[Moving notes/items rhythmically](#) on page 437

[Lengthening/Shortening items](#) on page 410

[Moving items graphically](#) on page 481

[Gradual dynamics in Engrave mode](#) on page 843

[Gradual dynamics](#) on page 842


[Messa di voce hairpins](#) on page 849

[Niente markings](#) on page 851

## Changing the horizontal beat-relative position of dynamics

You can position individual dynamics before or after the beat. You can do this for the current layout and frame chain only, or for all layouts and frame chains.

#### PREREQUISITE

- The lower zone is shown.
- **Properties**  is selected in the lower zone toolbar.
- You have chosen the appropriate property scope for local properties.

---

#### PROCEDURE

1. Select the dynamics whose position relative to the beat you want to change. You can do this in Write mode and Engrave mode.
2. In the Properties panel, activate **Beat-relative position** in the **Dynamics** group.
3. Choose one of the following options:
  - **Before**
  - **After**

---

#### RESULT

The beat-relative position of the selected dynamics is changed. If the property scope was set to **Locally**, this change only takes effect in the current layout and frame chain.

EXAMPLE



A dynamic positioned before the beat



A dynamic positioned after the beat

---

RELATED LINKS

[Erasing the background of dynamics](#) on page 834


[Changing the property scope](#) on page 617

[Copying property settings to other layouts/frame chains](#) on page 599




## Changing the alignment of dynamics relative to noteheads

Immediate dynamics, such as *ff* and *mp*, are usually horizontally aligned with the optical center of noteheads. However, you can change the horizontal alignment of immediate dynamics individually. You can do this for the current layout and frame chain only, or for all layouts and frame chains.

PREREQUISITE

- The lower zone is shown.
  - **Properties**  is selected in the lower zone toolbar.
  - You have chosen the appropriate property scope for local properties.
- 

PROCEDURE

1. Select the dynamics whose alignment relative to noteheads you want to change. You can do this in Write mode and Engrave mode.
  2. In the Properties panel, activate **Text alignment** in the **Dynamics** group.
  3. Choose one of the following options:
    - **Align optical center with notehead** 
    - **Left-align with notehead** 
    - **Align optical center with left of notehead** 
- 

RESULT

The alignment of the selected immediate dynamics is changed. If the property scope was set to **Locally**, this change only takes effect in the current layout and frame chain.

## Aligning dynamics

You can graphically align individually selected dynamics in a row without grouping/ungrouping them; for example, if system breaks in part layouts are different to the full score layout and so require parts of different groups of dynamics to be aligned. You can do this for the current layout and frame chain only, or for all layouts and frame chains.

PREREQUISITE

You have chosen the appropriate property scope for local properties.

---

#### PROCEDURE

1. In Engrave mode, select the dynamics you want to align.
  2. Choose **Edit > Notations > Dynamics > Align Dynamics**. You can also choose this option from the context menu.
- 

#### RESULT

The selected dynamics are aligned in a row with the dynamic within the selection that was furthest from the staff. If the property scope was set to **Locally**, this change only takes effect in the current layout and frame chain.

#### RELATED LINKS

[Groups of dynamics](#) on page 853

## General placement conventions for hairpins relative to barlines

In Dorico Elements, the ends of hairpins align with the left edge of the note to their right. This can include hairpins extending across barlines.

Hairpins that end on the first note of a bar extend across the preceding barline in the following cases:

- If there is no immediate dynamic on the first note in the next bar.
- If there is a time signature or key signature change at the barline that increases the gap between the end of the current bar and the first note in the new bar.

Dorico Elements avoids hairpins overlapping barlines by a small amount, as this is less visually clear. However, this means that the same dynamic phrase on different staves can appear differently if one of the staves does not have a barline join extending below it.

A musical score snippet consisting of three staves. The top staff is a grand staff (treble and bass clefs) with a key signature of three flats and a common time signature. It contains a whole note chord. The middle and bottom staves are bass clefs. The middle staff has a series of eighth notes, a triplet of eighth notes, and a fermata. The bottom staff has a series of eighth notes, a triplet of eighth notes, and a fermata. Hairpins are placed over the notes in the middle and bottom staves, extending across the barline. The dynamics 'ff' are placed at the end of the hairpins. The hairpin ends are not aligned because the barline does not extend beyond the bottom staff.

The hairpin ends are not aligned because the barline does not extend beyond the bottom staff


You can allow/disallow hairpins across barlines if the hairpin ends on the first note in the next bar. Disallowing hairpins across barlines ensures hairpins appear the same length on all staves.

## Allowing/Disallowing hairpins across barlines

You can allow/disallow hairpins across barlines when they end on the first note in the next bar; for example, so all hairpins appear the same length across multiple staves that do not all have

barline joins. You can do this for the current layout and frame chain only, or for all layouts and frame chains.

#### PREREQUISITE

- The lower zone is shown.
- **Properties**  is selected in the lower zone toolbar.
- You have chosen the appropriate property scope for local properties.

---

#### PROCEDURE

1. Select the hairpins you want to allow/disallow across barlines. You can do this in Write mode and Engrave mode.
2. In the Properties panel, activate **Barline interaction** in the **Dynamics** group.
3. Choose one of the following options:
  - **Stop before**
  - **Continue**

---

#### RESULT

The selected hairpins are allowed across barlines when you choose **Continue**, and disallowed when you choose **Stop before**. If the property scope was set to **Locally**, this change only takes effect in the current layout and frame chain.

#### RELATED LINKS


[Changing the property scope](#) on page 617

[Copying property settings to other layouts/frame chains](#) on page 599

## Parenthesizing dynamics

You can show individual dynamics in parentheses; for example, to indicate editorial dynamics that were not in the original manuscript. You can do this for the current layout and frame chain only, or for all layouts and frame chains.

#### PREREQUISITE

- The lower zone is shown.
- **Properties**  is selected in the lower zone toolbar.
- You have chosen the appropriate property scope for local properties.

---

#### PROCEDURE

1. Select the dynamics you want to parenthesize. You can do this in Write mode and Engrave mode.
2. In the Properties panel, activate **Parenthesized** in the **Dynamics** group.

---

#### RESULT


Parentheses are shown around each selected dynamic. If the property scope was set to **Locally**, this change only takes effect in the current layout and frame chain.

Deactivating **Parenthesized** removes parentheses from the selected dynamics.

## Erasing the background of dynamics

You can erase the background of individual dynamics; for example, to ensure dynamics remain legible when crossing barlines. You can do this for the current layout and frame chain only, or for all layouts and frame chains.

### PREREQUISITE

- The lower zone is shown.
- **Properties**  is selected in the lower zone toolbar.
- You have chosen the appropriate property scope for local properties.

---

### PROCEDURE

1. In Engrave mode, select the dynamics whose backgrounds you want to erase.
2. In the Properties panel, activate **Erase background** in the **Dynamics** group.

---

### RESULT

The backgrounds of the selected dynamics are erased. If the property scope was set to **Locally**, this change only takes effect in the current layout and frame chain.

Deactivating **Erase background** returns the selected dynamics to the default non-erased background.

### NOTE

This does not affect hairpins, including stems crossed by hairpins.

---

### EXAMPLE



Dynamic with non-erased background



Dynamic with erased background

---

### AFTER COMPLETING THIS TASK

You can change the padding between dynamics and each edge of their erased areas.

### RELATED LINKS

[Positions of dynamics](#) on page 829

[Changing the property scope](#) on page 617

[Copying property settings to other layouts/frame chains](#) on page 599


[Dynamic modifiers](#) on page 839

## Changing the erasure padding of dynamics

You can change the erasure padding of individual dynamics, including changing the padding between dynamics and each edge of their erased areas independently. You can do this for the current layout and frame chain only, or for all layouts and frame chains.

Erasure padding considers the prefix/suffix separately from immediate dynamics and also takes into account ascenders/descenders in the text. This can cause the erasure padding to appear larger below the dynamic than above, such as for “espressivo” due to the “p”. In such cases, you can change the padding on the affected edge to make the padding appear symmetrical.

### PREREQUISITE

- The lower zone is shown.
- **Properties**  is selected in the lower zone toolbar.
- You have chosen the appropriate property scope for local properties.

---

### PROCEDURE

1. In Engrave mode, select the dynamics whose erasure padding you want to change.
2. In the Properties panel, activate the **Erasure padding** properties, individually or together, in the **Dynamics** group.
  - **L** changes the padding between dynamics and their left edge.
  - **R** changes the padding between dynamics and their right edge.
  - **T** changes the padding between dynamics and their top edge.
  - **B** changes the padding between dynamics and their bottom edge.
3. Change the values in the value fields.

---

### RESULT

Increasing the values increases the padding, decreasing the values decreases the padding. This also affects the area considered for collision avoidance. If the property scope was set to **Locally**, this change only takes effect in the current layout and frame chain.

## Changing dynamic levels

You can change the levels of dynamics without reopening the dynamics popover and for multiple different dynamics simultaneously; for example, if you want to increase the dynamic level of all dynamics in a phrase.

---

### PROCEDURE

1. In Write mode, select the dynamics whose dynamic level you want to change.
2. Change the dynamic level in one of the following ways:
  - To increase the dynamic level, choose **Edit > Notations > Dynamics > Increase Dynamic Intensity**.
  - To decrease the dynamic level, choose **Edit > Notations > Dynamics > Decrease Dynamic Intensity**.

### TIP

You can also choose these options from the context menu.

---



#### RESULT

The dynamic level of the selected dynamics is increased/decreased. For example, increasing the dynamic level of a *mf* dynamic changes it to *f*.

#### TIP

You can assign key commands for these options on the **Key Commands** page in **Preferences**.

---

#### RELATED LINKS

[Input methods for dynamics](#) on page 296

[Dynamics editor](#) on page 645

[Changing existing items](#) on page 412


[Dynamic modifiers](#) on page 839

[Key Commands page in the Preferences dialog](#) on page 59

## Hiding/Showing immediate dynamics

You can hide/show individual immediate dynamics such as *f* and *pp*; for example, if you only want to show the dynamic modifier, such as “sim.”, without its accompanying immediate dynamic. You can do this for the current layout and frame chain only, or for all layouts and frame chains.

#### PREREQUISITE

- The lower zone is shown.
- **Properties**  is selected in the lower zone toolbar.
- You have chosen the appropriate property scope for local properties.

---

#### PROCEDURE

1. Select the immediate dynamics you want to hide, or the signposts of immediate dynamics you want to show. You can do this in Write mode and Engrave mode.
  2. In the Properties panel, activate/deactivate **Hide intensity marking** in the **Dynamics** group.
- 

#### RESULT

The selected immediate dynamics are hidden when **Hide intensity marking** is activated, and shown when it is deactivated. If the property scope was set to **Locally**, this change only takes effect in the current layout and frame chain.

If no other dynamic exists at their rhythmic position, they are indicated by signposts. However, signposts are not printed by default.

#### RELATED LINKS

[Dynamic modifiers](#) on page 839

[Changing the property scope](#) on page 617

[Copying property settings to other layouts/frame chains](#) on page 599

[Signposts](#) on page 426

[Annotations](#) on page 554


[Input methods for dynamics](#) on page 296

## Hiding/Showing combined dynamic separators

You can hide/show different separators in combined dynamics individually. For example, if you want to separate some *fp* dynamics with slashes. You can do this for the current layout and frame chain only, or for all layouts and frame chains.

By default, only combined dynamics with at least one *mezzo* dynamic in the pair, such as *mf-p*, show a separator.

### PREREQUISITE

- The lower zone is shown.
- **Properties**  is selected in the lower zone toolbar.
- You have chosen the appropriate property scope for local properties.

---

### PROCEDURE

1. Select the combined dynamics whose separator you want to hide/show. You can do this in Write mode and Engrave mode.
2. In the Properties panel, activate **Separator shown** in the **Dynamics** group.
3. Activate/Deactivate the corresponding checkbox.
4. Optional: If you showed separators, activate **Separator** and select one of the following options from the menu:
  - **Hyphen**
  - **Colon**
  - **Space**
  - **Slash**

---

### RESULT

Separators are shown when the **Separator shown** checkbox is activated, and hidden when it is deactivated. The separator shown follows your selection for **Separator**. If the property scope was set to **Locally**, this change only takes effect in the current layout and frame chain.

### RELATED LINKS

[Types of dynamics](#) on page 828

[Changing the appearance/position of subito modifiers](#) on page 840

## Changing the appearance of sforzando/rinforzando dynamics

You can change the appearance of individual *rfz* and *sfz* dynamics. For example, if you want some *sfz* dynamics to appear as *sf*. You can do this for the current layout and frame chain only, or for all layouts and frame chains.


### NOTE

These steps do not apply to force/intensity of attack dynamics with other intensities, such as *sffz*.

---

### PREREQUISITE

- The lower zone is shown.

- **Properties**  is selected in the lower zone toolbar.
- You have chosen the appropriate property scope for local properties.

---

PROCEDURE

1. Select the *rfz* and/or *sfz* dynamics whose appearance you want to change. You can do this in Write mode and Engrave mode.
2. In the Properties panel, activate **rfz/sfz style** in the **Dynamics** group.
3. Choose one of the following options:
  - *sf rf*
  - *sfzrfz*

---

RESULT

The appearance of the selected *rfz* and/or *sfz* dynamics is changed. If the property scope was set to **Locally**, this change only takes effect in the current layout and frame chain.

RELATED LINKS

[Types of dynamics](#) on page 828

[Changing the appearance/position of subito modifiers](#) on page 840

## Voice-specific dynamics

Voice-specific dynamics only apply to a single voice on a staff, which allows you to specify different dynamics for each voice in multiple-voice contexts or for the separate staves of grand staff instruments. By default, dynamics apply to all voices on all staves belonging to a single instrument, including grand staff instruments.

Inputting voice-specific dynamics allows you to show different dynamics for multiple voices on a staff, or to highlight an inner melody voice in a piano part. Voice-specific dynamics change the dynamics of each voice in playback independently.

NOTE

- You can only input voice-specific dynamics when the caret is active, such as during note input. Voice-specific dynamics apply to the voice indicated by the quarter note symbol beside the caret.
- Voice-specific dynamics only affect playback automatically for sounds that use velocity to control dynamics. When using playback devices that control dynamics in other ways, such as with CC, you must enable independent voice playback to hear different dynamics in different voices for the same instrument.

---

RELATED LINKS

[Input methods for dynamics](#) on page 296

[Caret](#) on page 205

[Enabling independent voice playback](#) on page 506

[Dynamics editor](#) on page 645

[Extra staves](#) on page 1193

## Dynamic modifiers

Modifiers add further detail to dynamics than simply their volume level, and can help guide how a player performs a note or phrase. Modifiers include *poco a poco*, *molto* and *subito*. They are also known as “expressive text”.



Modifiers accompanying immediate and gradual dynamics

In Dorico Elements, modifiers must accompany either a dynamic level, such as *p* or *f*, or a gradual dynamic.

You can input dynamic modifiers by entering them into the dynamics popover alongside an immediate dynamic or by clicking available options in the Dynamics panel. You can also add dynamic modifiers to existing dynamics.

You can add modifiers both before and after immediate dynamics. Modifiers can also appear either inside hairpins or above/below the start of hairpins.

### TIP

You can hide immediate dynamics if you only want to show the modifier.

---

### RELATED LINKS

[Input methods for dynamics](#) on page 296

[Hiding/Showing immediate dynamics](#) on page 836

[Adding poco a poco text to gradual dynamics](#) on page 847

[Changing the appearance/position of subito modifiers](#) on page 840

[Showing modifiers centered inside hairpins](#) on page 841


[Changing the appearance of sforzando/rinforzando dynamics](#) on page 837

[Showing consecutive hairpins as continuous](#) on page 845

## Adding modifiers to existing dynamics

You can add modifiers both before and after dynamics after they have been input; for example, if you want to add “sim.” instead of repeating dynamics across multiple phrases.

### PREREQUISITE

- The lower zone is shown.
- **Properties**  is selected in the lower zone toolbar.

### PROCEDURE

1. Select the dynamics to which you want to add modifiers. You can do this in Write mode and Engrave mode.
2. In the Properties panel, activate the following properties, individually or together, in the **Dynamics** group:
  - To add modifiers before dynamics, activate **Prefix**.
  - To add modifiers after dynamics, activate **Suffix**.
3. Enter the text you want to add into the corresponding value field.

4. Press **Return**.

---

RESULT

The text you entered is added to the selected dynamics as a modifier. Text entered into the **Prefix** field appears before immediate dynamics, while text entered into the **Suffix** field appears after immediate dynamics.

Modifiers appear below hairpins placed below the staff and above hairpins placed above the staff, and are aligned with the start of the hairpin.

Deactivating the properties removes the corresponding modifiers from the selected dynamics.

NOTE

Deactivating properties permanently deletes any custom text entered.

---

AFTER COMPLETING THIS TASK

If you added modifiers to hairpins, you can show them centered inside the hairpins.

RELATED LINKS

[Niente markings](#) on page 851

[Input methods for dynamics](#) on page 296


[Showing modifiers centered inside hairpins](#) on page 841

[Adding poco a poco text to gradual dynamics](#) on page 847

## Changing the appearance/position of subito modifiers

You can change the appearance and/or position of individual *subito* modifiers. For example, if you want to show *subito* modifiers as *sub.* on the left of dynamics, or *fp sub.* dynamics as *sfp*. You can do this for the current layout and frame chain only, or for all layouts and frame chains.

PREREQUISITE

- The lower zone is shown.
- **Properties**  is selected in the lower zone toolbar.
- You have chosen the appropriate property scope for local properties.

PROCEDURE

1. Select the dynamics whose *subito* modifier appearance and/or position you want to change. You can do this in Write mode and Engrave mode.
2. In the Properties panel, activate **Subito style** in the **Dynamics** group and choose one of the following options:
  - **subito**
  - **sub.**
3. Optional: If you selected dynamics that include at least one *f*, activate **Subito forte style** and choose one of the following options:
  - **sub.f**
  - **sf**
4. Activate **Subito position** and choose one of the following options:
  - **Left**

- **Right**

---

RESULT

The appearance and/or position of the selected *subito* modifiers is changed. If the property scope was set to **Locally**, this change only takes effect in the current layout and frame chain.

RELATED LINKS

[Changing the appearance of sforzando/rinforzando dynamics](#) on page 837


[Changing the property scope](#) on page 617

[Copying property settings to other layouts/frame chains](#) on page 599

## Showing modifiers centered inside hairpins

You can show modifiers you have added to hairpins, such as *poco a poco* or *molto*, centered both horizontally and vertically inside hairpins. You can do this for the current layout and frame chain only, or for all layouts and frame chains. By default, modifiers appear at the start of and either above or below hairpins.

PREREQUISITE

- The lower zone is shown.
- **Properties**  is selected in the lower zone toolbar.
- You have chosen the appropriate property scope for local properties.

PROCEDURE

1. Select the hairpins whose modifiers you want to show centered inside hairpins. You can do this in Write mode and Engrave mode.
2. In the Properties panel, activate **Modifier position** in the **Dynamics** group.
3. Choose one of the following options:
  - **Above or Below**
  - **Inside**

RESULT

Modifiers on the selected hairpins appear centered inside the hairpins. They automatically erase their background so the text does not collide with the hairpin lines. If the property scope was set to **Locally**, this change only takes effect in the current layout and frame chain.

EXAMPLE



Modifier (molto) below a hairpin



Modifier (molto) centered inside hairpin

RELATED LINKS

[Adding modifiers to existing dynamics](#) on page 839

[Changing the erasure padding of dynamics](#) on page 835

[Showing consecutive hairpins as continuous](#) on page 845

[Changing the property scope](#) on page 617

[Copying property settings to other layouts/frame chains](#) on page 599

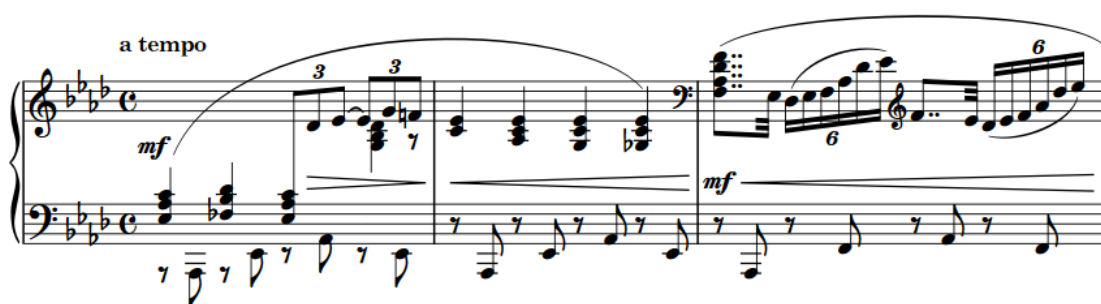
## Gradual dynamics

Gradual dynamics indicate a change in volume that happens incrementally over the specified duration. They usually appear either as hairpins or as text instructions, such as *cresc.* or *dim.*.

The change in volume indicated by individual hairpins is shown in the distance between the two diverging lines at their apertures.

Hairpins typically have a closed end and an open end. If the hairpin crosses a system or frame break, the closed end appears with a small gap so that the hairpin is not misread as two separate hairpins.

A pair of hairpins without an immediate dynamic in the middle is known as a *messa di voce*.



The image shows a musical score for piano in G major, 3/4 time, marked 'a tempo'. The score consists of two staves. The right hand (treble clef) features a melodic line with a *mf* dynamic marking, a triplet of eighth notes, and a sixteenth-note run. The left hand (bass clef) provides harmonic support with chords and a rhythmic pattern of eighth notes. A hairpin is placed over the melodic line, indicating a gradual dynamic change.


A phrase containing multiple gradual dynamics

In Dorico Elements, gradual dynamics appear as hairpins by default. You can change the appearance of individual gradual dynamics. For example, if you want to show a particularly long crescendo using *cresc.* text rather than a hairpin.

You can show gradual dynamic text in the following ways:

- *cresc.* or *dim.*: Abbreviated text with no continuation line
- *cresc...* or *dim...*: Abbreviated text with a dotted continuation line
- *cre-scen-do* or *di-mi-nuen-do*: The full word spread out across the duration of the gradual dynamic

In Write mode, ungrouped gradual dynamics each have start and end handles that show their duration.



The image shows a musical score for piano in G major, 3/4 time. The right hand (treble clef) features a melodic line with a sixteenth-note run. A hairpin is placed over the melodic line, indicating a gradual dynamic change. The hairpin has start and end handles shown as orange circles with lines, indicating its duration.

### NOTE

Pairs of separate hairpins are treated differently than *messa di voce* hairpins. For example, separate hairpins each have start and end handles in Write mode, whereas *messa di voce* hairpins share a single center handle.

#### RELATED LINKS

- [Input methods for dynamics](#) on page 296
- [Types of dynamics](#) on page 828
- [Messa di voce hairpins](#) on page 849
- [Niente markings](#) on page 851
- [Groups of dynamics](#) on page 853
- [Gradual dynamics in Engrave mode](#) on page 843
- [Changing the appearance of gradual dynamics](#) on page 844
- [Moving items graphically](#) on page 481
- [General placement conventions for hairpins relative to barlines](#) on page 832
- [Showing consecutive hairpins as continuous](#) on page 845
- [Moving the center of messa di voce hairpins](#) on page 849
- [Moving notes/items rhythmically](#) on page 437
- [Lengthening/Shortening items](#) on page 410

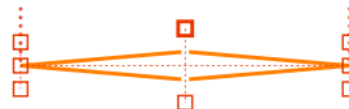
## Gradual dynamics in Engrave mode

In Engrave mode, each hairpin has multiple handles that you can move to adjust their graphical position, length, angle, and aperture.

- The middle handles at the start/end of hairpins change their start/end offset positions. Moving one middle handle changes the angle of the hairpin.
- The pair of outer handles at the start/end of hairpins, and in the center of *messa di voce* hairpins, adjusts the corresponding aperture. These handles are linked and mirror each other: moving one handle also moves the other handle by the same amount, but in the opposite direction. This ensures that hairpins remain symmetrical.



A hairpin with the start middle handle selected in Engrave mode



A *messa di voce* hairpin with a center aperture handle selected in Engrave mode

#### NOTE

- You can also change the aperture of individual hairpins by activating **Hairpin open aperture** and/or **Hairpin closed aperture** in the **Dynamics** group of the Properties panel.

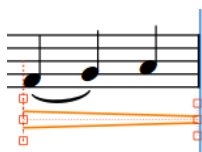
Increasing the value makes the corresponding aperture wider. Decreasing the value makes the corresponding aperture narrower.

- Pairs of separate hairpins are treated differently than *messa di voce* hairpins. For example, separate hairpins each have start and end handles in Write mode, whereas *messa di voce* hairpins share a single center handle.

You can move separate hairpins independently; for example, if you want to adjust the graphical peak of a pair of hairpins. You cannot move the graphical peak of *messa di voce* hairpins.



EXAMPLE



A diminuendo that goes across a system break: aperture at the start is open, aperture at the end is closed. It appears slightly open to indicate the diminuendo continues after the system break.



The diminuendo continues onto a new system: aperture at the start is open, aperture at the end is closed.

---

RELATED LINKS

[Input methods for dynamics](#) on page 296

[Groups of dynamics](#) on page 853

[Niente markings](#) on page 851

[Messa di voce hairpins](#) on page 849

[Moving items graphically](#) on page 481

[Moving notes/items rhythmically](#) on page 437


[Lengthening/Shortening items](#) on page 410

[Note spacing](#) on page 579

## Changing the appearance of gradual dynamics

You can change the appearance of individual gradual dynamics; for example, to show a particularly long crescendo using “cresc.” text rather than a hairpin. You can do this for the current layout and frame chain only, or for all layouts and frame chains.

PREREQUISITE

- The lower zone is shown.
- **Properties**  is selected in the lower zone toolbar.
- You have chosen the appropriate property scope for local properties.

PROCEDURE

1. Select the gradual dynamics whose appearance you want to change. You can do this in Write mode and Engrave mode.
2. In the Properties panel, activate **Gradual style** in the **Dynamics** group.
3. Select one of the following options from the menu:
  - **Hairpin**
  - **cresc./dim.**
  - **cresc...**
  - **cre - scen - do**
4. Optional: Customize the appearance of the selected gradual dynamics in one of the following ways, depending on their **Gradual style**:
  - If you selected **Hairpin**, activate **Hairpin line style** and choose one of the available options.
  - If you selected **cresc./dim.**, **cresc...**, or **cre - scen - do**, activate **Diminuendo style** and select one of the available options from the menu.

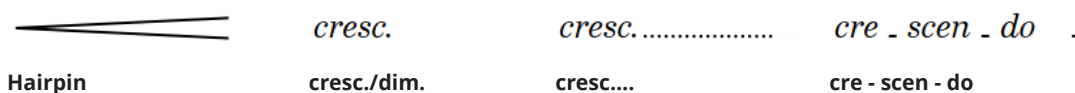
- If you selected **cresc...**, activate **Continuation line style** and choose one of the available options.
- 

#### RESULT

The appearance of the selected gradual dynamics is changed. If the property scope was set to **Locally**, this change only takes effect in the current layout and frame chain.

---

#### EXAMPLE



#### RELATED LINKS

[Showing modifiers centered inside hairpins](#) on page 841


[Turning existing gradual dynamics into messa di voce hairpins](#) on page 850

[Adding niente markings to existing gradual dynamics](#) on page 852

## Showing consecutive hairpins as continuous

You can show two or more consecutive hairpins of the same direction that are separated by immediate dynamics as a single hairpin that continues through any immediate dynamics; for example, to indicate that you want a single smooth change in dynamic rather than multiple separate ones. You can do this for the current layout and frame chain only, or for all layouts and frame chains.

#### PREREQUISITE

- The hairpins are grouped together.
  - The lower zone is shown.
  - **Properties**  is selected in the lower zone toolbar.
  - You have chosen the appropriate property scope for local properties.
- 

#### PROCEDURE

1. In Engrave mode, select at least one of the hairpins in each group that you want to show as continuous.
  2. In the Properties panel, activate **Hairpin shown as continuation** in the **Dynamics** group.
  3. Activate the corresponding checkbox.
- 

#### RESULT

Consecutive hairpins of the same direction in the selected groups appear as a single continuous hairpin. If the property scope was set to **Locally**, this change only takes effect in the current layout and frame chain.

EXAMPLE



Hairpin not shown as continuation



Hairpin shown as continuation

RELATED LINKS

[Grouping dynamics together](#) on page 854

[Changing the property scope](#) on page 617

[Copying property settings to other layouts/frame chains](#) on page 599


## Hiding/Showing flared ends on hairpins

Flared ends are usually shown at the end of crescendo hairpins and indicate a sudden burst in volume at the end of the crescendo. You can hide/show flared ends on any hairpin.

NOTE

You can only show flared ends on hairpins with solid lines.

PREREQUISITE

- The lower zone is shown.
- **Properties**  is selected in the lower zone toolbar.

PROCEDURE

1. Select the hairpins on which you want to hide/show flared ends. You can do this in Write mode and Engrave mode.
2. In the Properties panel, activate/deactivate **Flared end** in the **Dynamics** group.

RESULT

A flared end is shown on the selected dynamics when **Flared end** is activated, and hidden when it is deactivated.

EXAMPLE



Crescendo hairpin with flared end hidden




Crescendo hairpin with flared end shown

## Changing the size of flared ends on hairpins

You can change the height and width of flared ends on individual hairpins. You can do this for the current layout and frame chain only, or for all layouts and frame chains.

### PREREQUISITE

- The lower zone is shown.
- **Properties**  is selected in the lower zone toolbar.
- You have chosen the appropriate property scope for local properties.

---

### PROCEDURE

1. In Engrave mode, select the flared hairpins whose flare size you want to change.
2. In the Properties panel, activate **Flare size** in the **Dynamics** group.
3. Change the flare size of the selected hairpins in any of the following ways:
  - To change the width of the flared ends, change the value for **W**.
  - To change the height of the flared ends, change the value for **H**.

---

### RESULT

The size of the flared ends on the selected hairpins is changed. If the property scope was set to **Locally**, this change only takes effect in the current layout and frame chain.

- Increasing the **W** value makes the selected flared ends wider by starting their angle earlier in the hairpin, decreasing the value makes the selected flared ends narrower.
- Increasing the **H** value makes the selected flared ends taller, decreasing the value makes them shorter.
- Changing the values independently of each other changes the angle of the flared ends. For example, increasing the **W** value without changing the **H** value makes the angle shallower.

### RELATED LINKS

[Moving items graphically](#) on page 481


[Changing the property scope](#) on page 617

[Copying property settings to other layouts/frame chains](#) on page 599

## Adding poco a poco text to gradual dynamics

You can add *poco a poco* text to individual gradual dynamics after they have been input.

### PREREQUISITE

- The lower zone is shown.
- **Properties**  is selected in the lower zone toolbar.

---

### PROCEDURE

1. Select the gradual dynamics to which you want to add *poco a poco*. You can do this in Write mode and Engrave mode.
2. In the Properties panel, activate **Poco a poco (little by little)** in the **Dynamics** group.

---

### RESULT

*Poco a poco* is shown immediately after gradual dynamic text, below hairpins placed below the staff, and above hairpins placed above the staff.

Deactivating **Poco a poco (little by little)** removes *poco a poco* text from the selected gradual dynamics.

EXAMPLE



Text gradual dynamic with poco a poco



Hairpin gradual dynamic with poco a poco

AFTER COMPLETING THIS TASK

You can show *poco a poco* text centered inside hairpins.

RELATED LINKS

[Dynamic modifiers](#) on page 839

[Showing modifiers centered inside hairpins](#) on page 841

## Gradual dynamic spacing

Dorico Elements ensures that hairpins can always be clearly distinguished by giving hairpins a minimum default length. However, this can affect note spacing.

The default minimum hairpin length is three spaces. When hairpins are shorter than this, they can sometimes be confused with the accent articulation mark. Therefore, if you add a hairpin to a note which would make the hairpin less than three spaces long, the spacing of the note is changed to ensure the hairpin meets the minimum length.

RELATED LINKS

[Gradual dynamics in Engrave mode](#) on page 843

[Moving the center of messa di voce hairpins](#) on page 849

## Gradual dynamics truncated by immediate dynamics

A hairpin is automatically truncated if an immediate dynamic is positioned within its range, either before or after the hairpin is input.

The hairpin remains tied to its originally designated rhythmic positions, even if graphically it appears shorter. This means that if the immediate dynamic that truncated it is ever deleted, the hairpin extends up to its end or the next immediate dynamic within its range.

The examples demonstrate a crescendo hairpin that is truncated by two dynamics, but the hairpin extends to its total length as they are deleted. The dotted attachment line shows the link between the hairpin and the rhythmic position to which its end is attached.



A long hairpin truncated by a *p*



After deleting the *p*, the hairpin is now truncated by the *f*



Deleting both immediate dynamics allows the hairpin to extend to its full length

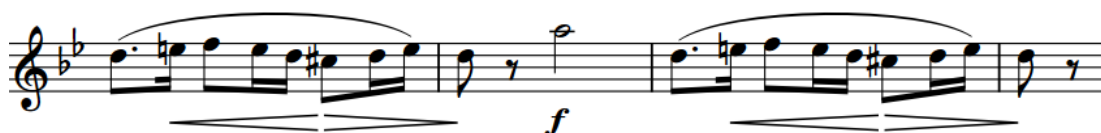
RELATED LINKS

[Showing consecutive hairpins as continuous](#) on page 845

[Lengthening/Shortening items](#) on page 410

## Messa di voce hairpins

*Messa di voce* hairpins are single gradual dynamic items that appear as a pair of hairpins without an immediate dynamic in the middle. They indicate that within their duration, the volume either increases then decreases, or decreases then increases.



A phrase containing two *messa di voce* hairpins

In Write mode, *messa di voce* hairpins have three handles: one at the start, one at the end, and one in the center. This is different to separate, ungrouped hairpins, which each have a handle at the start and end.



In Engrave mode, *messa di voce* hairpins have center handles that control their center aperture only. You cannot move the graphical peak of *messa di voce* hairpins.

RELATED LINKS

[Input methods for dynamics](#) on page 296

[Groups of dynamics](#) on page 853


[Gradual dynamics in Engrave mode](#) on page 843

[Note spacing](#) on page 579

## Moving the center of messa di voce hairpins

You can move the center of individual *messa di voce* hairpins rhythmically; for example, if you want them to peak on different notes.

PREREQUISITE

- The lower zone is shown.
- **Properties**  is selected in the lower zone toolbar.

---

PROCEDURE

1. Select the *messa di voce* hairpins whose center you want to move. You can do this in Write mode and Engrave mode.
2. In the Properties panel, activate **Messa di voce inflection** in the **Dynamics** group.
3. Move the center of the selected *messa di voce* hairpins in any of the following ways:
  - To move them to the right, increase the value in the left value field.
  - To move them to the left, decrease the value in the left value field.

- To move them to the left to grace notes at the rhythmic position set by the left value field, decrease the value in the right value field.

TIP

1 represents a quarter note.

---

RESULT

The centers of the selected *messa di voce* hairpins are moved rhythmically.

TIP

In Write mode, you can also click and drag *messa di voce* hairpin center handles to noteheads to the right/left.

---

EXAMPLE

For example, entering **1 1/2** into the left value field and **-1/2** into the right value field moves *messa di voce* hairpin centers a dotted quarter note to the right of their start position, and to the first of two sixteenth grace notes at that rhythmic position.



RELATED LINKS

[Hiding/Showing zones](#) on page 44

[Properties panel](#) on page 615

[Grace notes](#) on page 897

[Showing grace notes before/after barlines](#) on page 900

[Moving notes/items rhythmically](#) on page 437

[Lengthening/Shortening items](#) on page 410

## Turning existing gradual dynamics into messa di voce hairpins

You can turn existing gradual dynamics into *messa di voce* hairpins; for example, if you change your mind about the dynamic phrasing in some bars.

---

PROCEDURE

1. Select the gradual dynamics that you want to turn into *messa di voce* hairpins. You can do this in Write mode and Engrave mode.
  2. In the Properties panel, choose **Messa di voce** for **Type** in the **Dynamics** group.
- 

RESULT

The selected gradual dynamics are turned into *messa di voce* hairpins. The first direction follows the previous overall direction of the selected gradual dynamics.

TIP

You can also turn existing gradual dynamics into *messa di voce* hairpins by selecting them and clicking the corresponding buttons in the **Gradual Dynamics** section of the Dynamics panel.

You can also press **Shift-Alt/Opt-**, for a crescendo/diminuendo *messa di voce* hairpin, or **Shift-Alt/Opt-** for a diminuendo/crescendo *messa di voce* hairpin.

---

#### RELATED LINKS

[Hiding/Showing zones](#) on page 44

[Properties panel](#) on page 615

[Dynamics panel](#) on page 298

[Inputting dynamics with the popover](#) on page 299

[Inputting dynamics with the panel](#) on page 302

[Grace notes](#) on page 897

## Niente markings

*Niente* markings at the start/end of gradual dynamics indicate that the dynamic either increases from, or decreases to, silence.

This effect works very well on strings and singers with vowels, but it cannot always be played literally. For example, singers with words beginning with consonants cannot begin from silence, nor can reed and brass instruments, as they have to achieve a certain air pressure before a note sounds.



*Niente* markings can be shown in the following ways, depending on the gradual dynamic style:

- For hairpins, *niente* markings can be shown as either a circle, or the letter “n”.
- For text gradual dynamics, *niente* markings appear as “dal niente” for crescendos, and as “al niente” for diminuendos.

You can input gradual dynamics with *niente* markings in the same ways as inputting other dynamics. You can also add *niente* markings to existing gradual dynamics.

---

#### EXAMPLE



Circle *niente* marking



Letter *niente* marking

*dim. al niente* .....

*Niente* marking alongside a text gradual dynamic

---

#### RELATED LINKS

[Input methods for dynamics](#) on page 296

[Changing the appearance of niente hairpins](#) on page 852

[Gradual dynamics in Engrave mode](#) on page 843

[Lengthening/Shortening items](#) on page 410


[Showing consecutive hairpins as continuous](#) on page 845



## Adding niente markings to existing gradual dynamics

You can add *niente* markings to, and remove them from, existing gradual dynamics; for example, if you change your mind about which diminuendos should decrease to silence.

### PREREQUISITE

- The lower zone is shown.
- **Properties**  is selected in the lower zone toolbar.

---

### PROCEDURE

1. Select the gradual dynamics to which you want to add *niente* markings. You can do this in Write mode and Engrave mode.
2. In the Properties panel, activate **Niente** in the **Dynamics** group.

---

### RESULT

*Niente* markings are added to the selected gradual dynamics.

### TIP

- Deactivating the property removes *niente* markings from the selected gradual dynamics.
- You can also add *niente* markings to, and remove them from, existing gradual dynamics by selecting them and clicking **niente** in the **Gradual Dynamics** section of the Dynamics panel.

---

### AFTER COMPLETING THIS TASK

You can change the appearance of individual *niente* hairpins; for example, if you want to show some *niente* hairpins with a circle but others with text.


### RELATED LINKS

- [Hiding/Showing zones](#) on page 44
- [Properties panel](#) on page 615
- [Dynamics panel](#) on page 298

## Changing the appearance of niente hairpins


You can show *niente* hairpins in two ways in Dorico Elements, and you can change how they appear individually. You can do this for the current layout and frame chain only, or for all layouts and frame chains.

### PREREQUISITE

- The lower zone is shown.
- **Properties**  is selected in the lower zone toolbar.
- You have chosen the appropriate property scope for local properties.

---

### PROCEDURE

1. Select the hairpins whose *niente* style you want to change. You can do this in Write mode and Engrave mode.
2. In the Properties panel, activate **Niente style** in the **Dynamics** group.
3. Choose one of the following options:
  - **Circle on hairpin** 

- Text ***n***

---

RESULT

The *niente* style of the selected hairpins is changed. If the property scope was set to **Locally**, this change only takes effect in the current layout and frame chain.

---

EXAMPLE



A *niente* shown as **Circle on hairpin**



A *niente* shown as **Text**

---

RELATED LINKS

[Hiding/Showing zones](#) on page 44

[Properties panel](#) on page 615

[Changing the property scope](#) on page 617

[Copying property settings to other layouts/frame chains](#) on page 599

## Groups of dynamics

Groups of dynamics are automatically aligned in a row and can be moved and edited as a group. When you move immediate dynamics within a group, the length of the hairpins on either side automatically adjust to compensate.



A group of dynamics



The same group of dynamics adjusts to compensate when the middle dynamic moves rhythmically.

A single dynamic, either immediate or gradual, is considered a group on its own.

Two or more dynamics are automatically grouped together if they immediately follow each other horizontally on the staff, were input together or in sequence, and have gradual dynamics between the immediate dynamics.

All of the dynamics in a group are highlighted when any of the dynamics in the group are selected.



---

NOTE

- Groups of dynamics apply project-wide, meaning you cannot have dynamics grouped one way in some layouts but differently in other layouts. However, you can graphically align selected dynamics independently of their groups.

- As well as horizontal groups of dynamics, you can also link groups of dynamics vertically if you want the same dynamics to appear on multiple staves. This can be useful when multiple instruments play the same dynamics simultaneously and you want to make the same change in all staves; for example, moving the peak of a crescendo to a later beat, or changing a *f* to a *fff*.
- 

RELATED LINKS

[Linked dynamics](#) on page 855

[Aligning dynamics](#) on page 831

## Grouping dynamics together

You can manually group dynamics together that were not automatically grouped when they were input. Grouped dynamics are automatically aligned in a row and can be moved and edited as a group.

---

PROCEDURE

1. In Write mode, select the dynamics you want to group together.
  2. Choose **Edit > Notations > Dynamics > Group Dynamics**. You can also choose this option from the context menu.
- 

RESULT

The selected dynamics are grouped together. If the first dynamic in the group is linked to other staves, all dynamics in the group are added to those staves. This applies to all layouts in which the dynamics appear.

RELATED LINKS

[Linked dynamics](#) on page 855

## Ungrouping dynamics and removing dynamics from groups

You can ungroup dynamics so that all dynamics in the group become ungrouped. You can also remove only selected dynamics from groups while leaving other dynamics in the group.

This applies to all layouts in which the dynamics appear.

---

PROCEDURE

1. In Write mode, select the dynamics you want to ungroup or remove from groups.
2. Do one of the following:
  - To ungroup all dynamics in the selected groups, choose **Edit > Notations > Dynamics > Ungroup Dynamics**.
  - To remove only the selected dynamics from their groups, choose **Edit > Notations > Dynamics > Remove from Group**.

TIP

You can also choose these options from the context menu.

---

## Linked dynamics

Identical dynamics at the same rhythmic position on multiple staves can be linked together. This happens automatically when you copy and paste dynamics between staves.

If you select one dynamic in a linked group, all other dynamics in the linked group appear highlighted. If one linked dynamic is moved to a new rhythmic position, all linked dynamics move.



Two linked dynamics with only the top dynamic selected



Moving just the top dynamic of the linked group automatically moves the other to match its new position.

Similarly, if you change one linked dynamic, for example, from *p* to *mf*, all dynamics linked to the changed dynamic are also changed. If you group other dynamics to one of the linked dynamics, such as a hairpin, the hairpin is added at the same position in all linked staves.

If one staff has another immediate dynamic before the end of a hairpin, the hairpin is truncated automatically. If you delete such a dynamic, the hairpin extends automatically up to the next immediate dynamic or to its full length, whichever comes first.



Two staves with linked dynamics, but the lower staff has another immediate dynamic that truncates the hairpin.



Deleting the *mf* at the end of the first bar in the second staff causes the hairpin to extend to match the range of the top staff.

### NOTE

- If you delete only some dynamics from a group that is linked to other staves, those dynamics are also deleted from the linked staves. If you delete a whole dynamic group from one staff, this does not affect linked dynamics on other staves.
- As well as vertically linked dynamics, you can also group dynamics horizontally. This automatically aligns the dynamics in a row and allows them to be moved and edited as a group.
- Linking or unlinking dynamics applies project-wide, meaning you cannot have dynamics linked one way in some layouts but differently in other layouts.

RELATED LINKS

[Groups of dynamics](#) on page 853

[Linked slurs](#) on page 1169

[Disabling automatic linking of dynamics and slurs when pasting](#) on page 436

## Linking dynamics together

When you copy and paste identical dynamics to the same rhythmic position on other staves, those dynamics are linked together automatically. You can also manually link dynamics and groups of dynamics together that are not automatically linked to allow simultaneous editing.

NOTE

Groups of dynamics must be the same in order to link them together. For example, you can link two *p* dynamics together if neither is part of a group, but you cannot link them together if one is grouped with a hairpin.

---

PROCEDURE

1. In Write mode, select the dynamics you want to link together.
2. Choose **Edit > Notations > Dynamics > Link**. You can also choose this option from the context menu.

---

RESULT

The selected dynamics are linked together. If you later change one of the linked dynamics, all linked dynamics are changed to match. This applies to all layouts in which the dynamics appear.

RELATED LINKS

[Groups of dynamics](#) on page 853

[Copying and pasting notes/items](#) on page 433

## Unlinking dynamics

You can unlink dynamics, including dynamics that were linked automatically. For example, if you want to lengthen/shorten gradual dynamics independently of each other.

---

PROCEDURE

1. In Write mode, select a dynamic in each linked group that you want to unlink.
2. Choose **Edit > Notations > Dynamics > Unlink**. You can also choose this option from the context menu.

---

RESULT

All dynamics in the linked groups are unlinked. This applies to all layouts in which the dynamics appear.

RELATED LINKS

[Disabling automatic linking of dynamics and slurs when pasting](#) on page 436

## Dynamics in playback

The volume settings for sustaining instruments and non-sustaining instruments vary in terms of their control of gradual dynamics.

### Sustaining instruments

Sustaining instruments include string, wind, and brass instruments, because they can hold a note while being in control of its volume throughout.

Dorico Elements applies gradual dynamics to these instruments in playback.

### Non-sustaining instruments

Non-sustaining instruments, such as piano, harp, marimba, and most percussion instruments, have no further control of the dynamic of notes after they have been struck. For this reason, non-sustaining software instruments often use note velocity for dynamics, because this is set at the start of the note.

#### TIP

You can control settings for each software instrument in the **Expression Maps** dialog.

---

#### RELATED LINKS

[Expression Maps dialog](#) on page 683

[Dynamics editor](#) on page 645

[MIDI CC editor](#) on page 651

## VST Expression Maps for volume types

If you are using a third-party sound library, you may need to change or edit the expression map to make instruments respond to gradual dynamics. Otherwise, the sound library uses velocity by default.

The setup of the expression map for dynamics depends on how the instrument is configured. Consult the documentation for the sound library for further information.

Dorico Elements provides the following default expression maps:

- **CC11 Dynamics** for dynamics produced by changing MIDI channel expression
- **Modulation Wheel Dynamics** for dynamics produced by changing MIDI controller 1

#### TIP

You can edit expression maps in the **Expression Maps** dialog.

---

# Figured bass

Figured bass is a shorthand that uses figures to specify the harmony above the notated bass notes. It is particularly common in Baroque and early Classical music and in the parts of accompanying instruments, such as harpsichords and viols.

Figured bass informs performers about the intended harmony but allows room for interpretation, such as improvised arpeggiated phrases using notes from the chord.

Figures use a combination of Arabic numbers, accidentals, and horizontal hold lines to specify both the intervals above the bass note that make up the chord and its duration. For example, they show where suspensions resolve or when the bass note changes but the chord remains the same.

*Tasto solo* indications inform performers that sections should be played without harmony.



A basso continuo part with figured bass below the staff

In Dorico Elements, figured bass exists globally at the corresponding rhythmic positions by default because most music that includes figured bass is tonal, meaning players perform notes from the same chord. Therefore, you only have to input figures once, but they can appear above multiple or no staves as required and the figures automatically update according to the notes on each staff. However, in some circumstances it is necessary to specify different chords for different players at the same rhythmic position. In such cases, you can input local figured bass.

Dorico Elements calculates and saves the pitches implied by the figures you enter in relation to the lowest note at that rhythmic position. This semantic understanding of the harmony implied by figures allows Dorico Elements to update the displayed figures on different staves and if you transpose or change the pitch of notes.

When you transpose music that includes figured bass, Dorico Elements also transposes the figures accordingly.

Figured bass in Dorico Elements uses a bold roman font by default.

You can hide or show figured bass in each layout independently and only above the staves of specific players. You can also change whether figured bass appears above or below staves by default in each layout independently. Figures appear as signposts if Dorico Elements either does not normally show them, such as third intervals, or cannot identify the bass note for them, such as on a rest.

## NOTE

Figured bass does not yet include notations commonly used for harmonic analysis, such as Roman numerals. This is planned for future versions.

## RELATED LINKS

[Inputting figured bass](#) on page 377

[Figured bass hold lines](#) on page 861

- [Showing figured bass on rests](#) on page 860
- [Showing single brackets on figured bass](#) on page 861
- [Changing the staff-relative placement of figured bass](#) on page 866
- [Appearance of figured bass](#) on page 868

## Hiding/Showing figured bass in layouts

You can hide/show figured bass in each layout independently and only above the staves of specific players. For example, you can show figured bass in the full score and bass part layouts but hide figured bass in the other part layouts.

Any player on whose staff you input figured bass is automatically set to show figured bass in the current layout.

---

### PROCEDURE

1. Press **Ctrl/Cmd-Shift-L** to open **Layout Options**.
2. In the **Layouts** list, select the layouts in which you want to hide/show figured bass.  
By default, the layout currently open in the music area is selected when you open the dialog. You can select other layouts by using the selection options in the action bar, clicking and dragging across multiple layouts, **Shift**-clicking adjacent layouts, and **Ctrl/Cmd**-clicking individual layouts.
3. In the category list, click **Players**.
4. In the **Figured Bass** section, activate/deactivate each player above/below which you want to show figured bass.
5. Click **Apply**, then **Close**.

---

### RESULT

Figured bass is shown above/below all instruments belonging to the corresponding players in the selected layouts when their checkboxes are activated, and hidden when their checkboxes are deactivated. Figured bass is hidden completely when no checkboxes are activated.

### AFTER COMPLETING THIS TASK

- You can change the staff-relative placement of figured bass.
- You can hide figured bass figures individually in layouts where figured bass is shown.


### RELATED LINKS

- [Inputting figured bass](#) on page 377
- [Changing the staff-relative placement of figured bass](#) on page 866
- [Figured bass hold lines](#) on page 861

## Hiding/Showing figured bass figures individually

You can hide/show individual figured bass figures in layouts in which figured bass is shown. You can do this for the current layout and frame chain only, or for all layouts and frame chains. However, you cannot show individual figures in layouts where figured bass is hidden.

### PREREQUISITE

- The lower zone is shown.
- **Properties**  is selected in the lower zone toolbar.
- You have chosen the appropriate property scope for local properties.



---

#### PROCEDURE

1. Select the figured bass figures you want to hide, or the signposts of figures you want to show. You can do this in Write mode and Engrave mode.
  2. In the Properties panel, activate/deactivate **Hidden** in the **Figured Bass** group.
- 

#### RESULT

The selected figured bass figures are hidden when **Hidden** is activated, and shown when it is deactivated. If the property scope was set to **Locally**, this change only takes effect in the current layout and frame chain.

Signposts are shown at the position of each hidden figure. However, signposts are not printed by default.

#### TIP

- You can hide/show figured bass signposts by choosing **View > Signposts > Figured Bass**.
  - You can assign a key command for **Hide/Show Item** on the **Key Commands** page in **Preferences**, which applies to chord symbols, playing techniques, figured bass, text items, and time signatures.
- 

#### RELATED LINKS

[Signposts](#) on page 426

[Changing the property scope](#) on page 617

[Copying property settings to other layouts/frame chains](#) on page 599


[Key Commands page in the Preferences dialog](#) on page 59

[Annotations](#) on page 554

## Showing figured bass on rests

By default, figured bass is hidden on rests because figures typically indicate harmony in relation to a bass note. You can show figured bass on individual rests; for example, if the harmony changes while the bass is resting. You can do this for the current layout and frame chain only, or for all layouts and frame chains.

#### PREREQUISITE

- You have input figured bass at the positions of the rests.
  - The lower zone is shown.
  - **Properties**  is selected in the lower zone toolbar.
  - You have chosen the appropriate property scope for local properties.
- 

#### PROCEDURE

1. Select the rests on which you want to show figured bass. You can do this in Write mode and Engrave mode.
  2. In the Properties panel, activate **Show figured bass** in the **Notes and Rests** group.
- 

#### RESULT


Figured bass is shown on the selected rests. If the property scope was set to **Locally**, this change only takes effect in the current layout and frame chain.

Deactivating **Show figured bass** hides figured bass on selected rests again.

## Showing single brackets on figured bass

You can show only a single left or right bracket on individual bracketed figured bass figures. For example, if you want to indicate that all figures between two bracketed figures are optional. You can do this for the current layout and frame chain only, or for all layouts and frame chains.

### PREREQUISITE

- You have input figured bass figures with brackets.
- The lower zone is shown.
- **Properties**  is selected in the lower zone toolbar.
- You have chosen the appropriate property scope for local properties.

---

### PROCEDURE

1. Select the bracketed figures on which you want to show a single bracket. You can do this in Write mode and Engrave mode.
2. In the Properties panel, activate **Hide single bracket** in the **Figured Bass** group.
3. Choose one of the following options:
  - **Start**
  - **End**

---

### RESULT

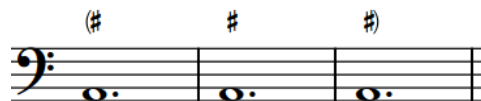
Brackets are hidden on the corresponding side of the selected figures, leaving a single bracket on the other side. If the property scope was set to **Locally**, this change only takes effect in the current layout and frame chain.

---

### EXAMPLE



Brackets shown on both sides of all figures



Brackets shown at the start of the first figure and the end of the last figure only

---

### RELATED LINKS

[Inputting figured bass](#) on page 377

[Showing brackets on figured bass hold lines](#) on page 864

[Bracketed noteheads](#) on page 953

## Figured bass hold lines

Figured bass hold lines indicate that chords remain the same over changing notes in the bass.

By default, Dorico Elements shows hold lines for figures that have duration, but hides lines between suspensions and resolutions or after resolutions. You can hide/show hold and suspension lines for individual suspension figures.



Figure (selected) with no duration



Figure (selected) with duration and hold line

#### TIP

You can move figures graphically in Engrave mode, including changing the graphical length of hold lines.

---

#### RELATED LINKS

[Figured bass in Engrave mode](#) on page 865


[Moving items graphically](#) on page 481

[Grace notes](#) on page 897

## Hiding/Showing figured bass hold/suspension lines

You can hide/show suspension lines between suspension and resolution figures and hold lines after resolution figures, independently of each other.

#### PREREQUISITE

- The lower zone is shown.
- **Properties**  is selected in the lower zone toolbar.

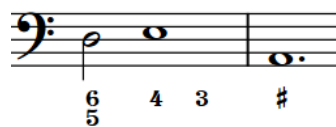
#### PROCEDURE

1. Select the figured bass suspensions whose hold/suspension lines you want to hide/show. You can do this in Write mode and Engrave mode.
2. In the Properties panel, activate the following properties, individually or together, in the **Figured Bass** group:
  - **Line between susp. and resolution**
  - **Continue line after resolution**
3. Activate/Deactivate the corresponding checkboxes.

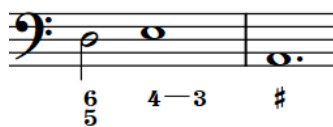
#### RESULT

Hold lines are shown between suspension and resolution figures and/or after resolutions in the selected figured bass suspensions when the corresponding checkboxes are activated, and hidden when the checkboxes are deactivated.

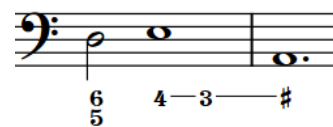
EXAMPLE



Suspension and hold lines both hidden



Suspension line between suspension and resolution shown



Suspension line between suspension and resolution and hold line after resolution both shown

---

RELATED LINKS

[Hiding/Showing zones](#) on page 44

[Properties panel](#) on page 615


[Showing figured bass on rests](#) on page 860

[Moving figured bass resolutions](#) on page 867

## Lengthening/Shortening figured bass hold lines

You can change the duration of figured bass figures after they have been input, which changes the length of their hold lines. Lengthening a figure that was input without duration gives it duration and shows a hold line. You can also change the end positions of figured bass hold lines relative to notes.

PREREQUISITE

- The lower zone is shown.
- **Properties**  is selected in the lower zone toolbar.

PROCEDURE

1. Select the figured bass figures you want to lengthen/shorten. You can do this in Write mode and Engrave mode.
2. In the Properties panel, activate **Duration** in the **Figured Bass** group.
3. Lengthen/Shorten the selected figured bass figures in any of the following ways:
  - To lengthen them, increase the value in the left value field.
  - To shorten them, decrease the value in the left value field.
  - To move their end to the left to a grace note at the rhythmic position set by the left value field, decrease the value in the right value field.

TIP

1 represents a quarter note.

---

4. Do one of the following:
    - To position the end of hold lines to the right of noteheads and across grace notes, activate **Draw line through figures at end**.
    - To position the ends of hold lines to the left of noteheads and before grace notes, deactivate **Draw line through figures at end**.
-

#### RESULT

The duration of the selected figured bass figures, and the length of their hold lines, is changed.

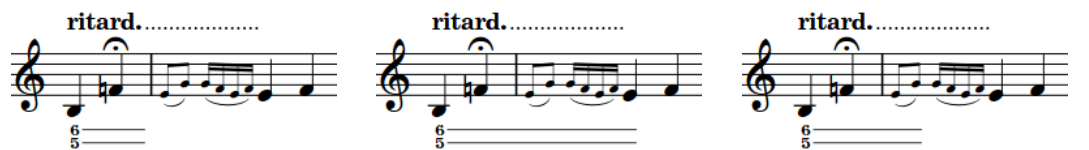
#### TIP

You can also lengthen/shorten figured bass figures in the same ways as for other items.

---

#### EXAMPLE

These examples all have an overall duration of a half note; that is, **2** entered into the left value field.



**Draw line through figures at end** deactivated    **Draw line through figures at end** activated    **-1 1/4** entered into the right value field and **Draw line through figures at end** activated

---

#### RELATED LINKS


[Figured bass in Engrave mode](#) on page 865

[Lengthening/Shortening items](#) on page 410

## Showing brackets on figured bass hold lines

You can show brackets on individual figured bass hold and suspension lines; for example, to indicate editorial hold lines.

#### PREREQUISITE

- The lower zone is shown.
  - **Properties**  is selected in the lower zone toolbar.
- 

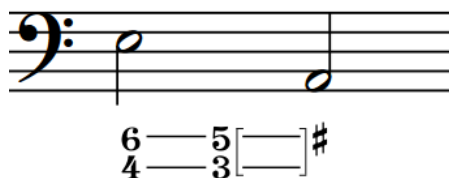
#### PROCEDURE

1. Select the figured bass hold/suspension lines on which you want to show brackets. You can do this in Write mode and Engrave mode.
  2. In the Properties panel, activate the following properties, individually or together as appropriate for your selection, in the **Figured Bass** group:
    - **Bracket sus. lines**
    - **Bracket hold lines**
  3. Select one of the following options from each menu:
    - **Both ends**
    - **Start**
    - **End**
- 

#### RESULT

Brackets are shown at the corresponding ends of the selected figured bass hold/suspension lines.

EXAMPLE



**Both ends** brackets on hold lines



**Start** bracket on suspension lines and **End** bracket on hold lines

---

RELATED LINKS

- [Hiding/Showing zones](#) on page 44
- [Properties panel](#) on page 615
- [Inputting figured bass](#) on page 377

## Positions of figured bass

Figured bass is automatically organized into rows according to the number of rows required in each system independently. By default, rows are aligned at the top when below the staff and at the bottom when above the staff to minimize the gap between figured bass and the staff.

The vertical position of figured bass is determined by the staves above which they are set to appear and your per-layout setting for their staff-relative placement.

You can move individual figured bass figures to different rhythmic positions in Write mode. They are automatically positioned to avoid collisions. This includes Dorico Elements's kerning, which applies across whole systems to ensure all figures and alterations are legible.

You can move figures and hold lines graphically in Engrave mode, but this does not change the rhythmic positions to which they apply.

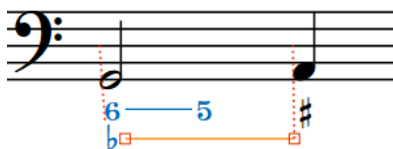
RELATED LINKS

- [Hiding/Showing figured bass in layouts](#) on page 859
- [Hiding/Showing figured bass hold/suspension lines](#) on page 862
- [Lengthening/Shortening figured bass hold lines](#) on page 863
- [Moving figured bass resolutions](#) on page 867
- [Moving notes/items rhythmically](#) on page 437
- [Moving items graphically](#) on page 481

## Figured bass in Engrave mode

In Engrave mode, each figured bass hold line has two square handles, one at the start and one at the end. You can move these handles to adjust the graphical position and length of figured bass hold lines.

You can also move whole figured bass hold lines graphically.



Handles on a hold line in Engrave mode

Moving figures with hold lines moves them both together. Moving hold lines or hold line handles moves the hold lines independently of the figure. Dorico Elements automatically lengthens hold lines between suspensions and resolutions when you move resolution figures.

#### NOTE

- A single figure includes all numbers at that position. For example, you cannot select and move the **6** in a **6,4** figure independently of the **4**.
- If you want to move handles at the start/end of figured bass hold lines because you want to change their length, we recommend that you lengthen/shorten them rhythmically first before refining their graphical length.
- Multiple different properties in the **Figured Bass** group of the Properties panel are activated automatically when you move the corresponding figure, hold line, or hold line handle.
  - **Main figure offset** moves figures. **X** moves them horizontally, **Y** moves them vertically.
  - **Resolution offset** moves the resolution figure in suspensions. **X** moves them horizontally, **Y** moves them vertically.
  - **Line [n] offset** moves the start and end handles of hold lines in the corresponding figured bass row horizontally. **L** moves start (left) handles, **R** moves end (right) handles.
  - **Line [n] Y offset** moves whole hold lines in the corresponding figured bass row vertically.

---

## Changing the staff-relative placement of figured bass

You can change the default staff-relative placement of all figured bass figures in each layout independently.

---

#### PROCEDURE

1. Press **Ctrl/Cmd-Shift-L** to open **Layout Options**.
2. In the **Layouts** list, select the layouts in which you want to change the staff-relative placement of figured bass.

By default, the layout currently open in the music area is selected when you open the dialog. You can select other layouts by using the selection options in the action bar, clicking and dragging across multiple layouts, **Shift**-clicking adjacent layouts, and **Ctrl/Cmd**-clicking individual layouts.
3. In the category list, click **Players**.
4. In the **Figured Bass** section, choose one of the following options for **Default placement**:
  - **Above staff**
  - **Below staff**
5. Click **Apply**, then **Close**.

---

#### RESULT

The default staff-relative placement of all figured bass figures in the selected layouts is changed.

TIP

You can also change the staff-relative placement of individual figured bass figures by selecting them and pressing **F**. If the property scope was set to **Locally**, this change only takes effect in the current layout and frame chain.

---

EXAMPLE



Figured bass below the staff



Figured bass above the staff

---

RELATED LINKS


[Changing the property scope](#) on page 617

[Copying property settings to other layouts/frame chains](#) on page 599

## Moving figured bass resolutions

You can move resolution figures rhythmically, without affecting the position of the suspension figure or the overall duration of the figured bass suspension; for example, if you want a suspension to resolve on a different note.

PREREQUISITE

- The lower zone is shown.
  - **Properties**  is selected in the lower zone toolbar.
- 

PROCEDURE

1. Select the resolution figures you want to move. You can do this in Write mode and Engrave mode.
2. In the Properties panel, activate **Resolution pos.** in the **Figured Bass** group.
3. Move the selected resolution figures in any of the following ways:
  - To move them to the right, increase the value in the left value field.
  - To move them to the left, decrease the value in the left value field.
  - To move them to the left to grace notes at the rhythmic position set by the left value field, decrease the value in the right value field.

TIP

1 represents a quarter note.

---

RESULT

The selected resolution figures are moved rhythmically.



TIP

In Write mode, you can also click and drag resolution figure handles to the right/left according to the current rhythmic grid resolution.

---

EXAMPLE

For example, entering **1** into the left value field and **-1/2** into the right value field moves resolution figures a quarter note to the right of suspension figures, and to the first of two sixteenth grace notes at that rhythmic position.



RELATED LINKS

- [Figured bass hold lines](#) on page 861
- [Figured bass in Engrave mode](#) on page 865
- [Moving notes/items rhythmically](#) on page 437
- [Changing the rhythmic grid resolution](#) on page 204
- [Inputting figured bass](#) on page 377

## Appearance of figured bass

The appearance of individual figures is determined either by the default settings in Dorico Elements or your popover entry, depending on whether you instructed Dorico Elements to follow your entry literally when you input each figure.

When inputting figured bass, by default Dorico Elements interprets your entries and applies its default settings for the appearance of figured bass to them. You can specify that you want Dorico Elements to follow your entries exactly for individual figures; for example, if you are reproducing a piece of music and know in advance exactly how you want figures to appear.

You can reset individual figures that you input with the figured bass input setting **Follow input literally** so they follow the default settings, and you can fix the current appearance of individual figures.

Figured bass in Dorico Elements uses a bold roman font by default.

Figures appear as signposts if Dorico Elements either does not normally show them, such as third intervals, or cannot identify the bass note for them, such as on a rest.


RELATED LINKS

- [Inputting figured bass](#) on page 377
- [Figured bass hold lines](#) on page 861
- [Showing figured bass on rests](#) on page 860
- [Showing single brackets on figured bass](#) on page 861

## Simplifying figured bass compound intervals

You can simplify compound intervals in individual figured bass figures; that is, figures 9 and above. Some editions prefer to simplify compound intervals so figures reflect the first octave and appear out of order in the stack.

### PREREQUISITE

- The lower zone is shown.
- **Properties**  is selected in the lower zone toolbar.

---

### PROCEDURE

1. Select the compound figured bass figures you want to simplify. You can do this in Write mode and Engrave mode.
2. In the Properties panel, activate **Show compound intervals as simple** in the **Figured Bass** group.

---

### RESULT

The selected compound figures are simplified. Deactivating the property returns the selected figures to their default octave.

---

### EXAMPLE

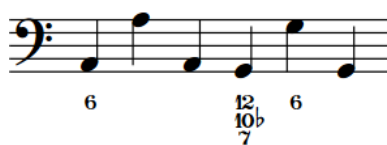


Figure with compound intervals



Figure with simplified compound intervals

---

### RELATED LINKS

[Properties panel](#) on page 615

## Fixing the current appearance of figured bass

You can fix the current appearance of individual figured bass figures; for example, if you input them with the input setting **Follow Engraving Options** but want to keep their current appearance, regardless of future changes you make to figured bass engraving options.

---

### PROCEDURE

1. Select the figured bass figures whose current appearance you want to fix. You can do this in Write mode and Engrave mode.
2. Choose **Edit > Notations > Figured Bass > Force Current Appearance**.

---

### RESULT

The current appearance of the selected figures is fixed, meaning they are not affected by any future changes to figured bass engraving options.

#### NOTE

- You cannot access the **Engraving Options** dialog in Dorico Elements, as it is only available in Dorico Pro. However, fixing figures maintains their appearance if you share the project with other users who later change figured bass engraving options.
  - You can assign a key command for **Force Current Appearance** on the **Key Commands** page in **Preferences**.
- 

## Resetting figured bass

You can reset individual figured bass figures; for example, if they were input with the figured bass input setting **Follow input literally**. Reset figures follow the default settings in Dorico Elements.

---

#### PROCEDURE

1. Select the figured bass figures you want to reset. You can do this in Write mode and Engrave mode.
  2. Choose **Edit > Notations > Figured Bass > Reset Figured Bass**.
- 

#### RESULT

The selected figured bass figures are reset to follow the default settings. This can affect their appearance and suspension duration.

#### TIP

You can assign a key command for **Reset Figured Bass** on the **Key Commands** page in **Preferences**.

---

#### RELATED LINKS

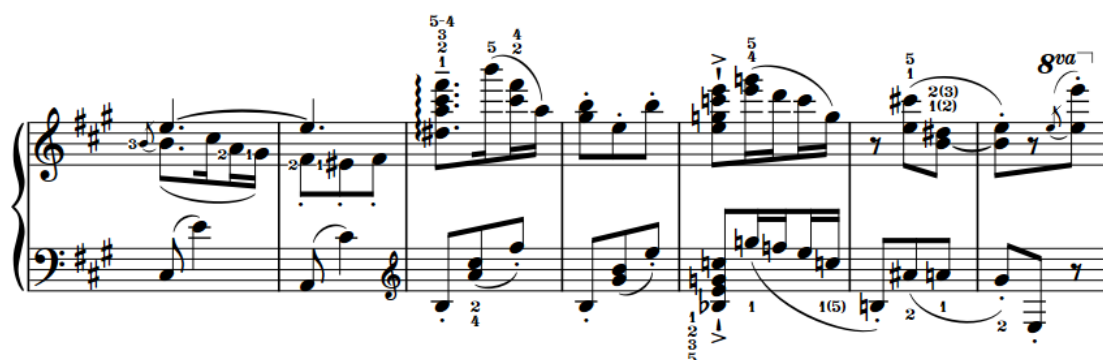
[Inputting figured bass](#) on page 377

[Key Commands page in the Preferences dialog](#) on page 59

# Fingering

Fingerings use numbers and letters to recommend which fingers players should use for notes. This can be useful for music aimed at players learning the instrument and for difficult musical passages where certain fingering patterns make the notes much easier to play.

Fingerings are often used in keyboard music, as players can use all ten fingers to play notes, and in guitar music, where fingerings are often used alongside fret positions. However, fingerings can also be useful for other instruments; for example, to indicate that string players should change the finger used to stop the string while holding the note, or to instruct wind players to use uncommon fingerings for particular notes in order to create a special sonic effect.



Piano music containing multiple fingerings, including a substitution fingering and alternative fingerings

Dorico Elements also provides fingerings for brass and fretted instruments. For example, you can specify which valves players should depress for instruments such as trumpet and horn, and you can specify the horn branch you want players to use for double horns. For fretted instruments, you can input fingerings for both hands.

Fingerings in Dorico Elements use a bold roman font by default, following accepted conventions for the appearance of fingerings.

## RELATED LINKS

[Inputting fingerings](#) on page 262

[Fingerings popover](#) on page 263

[Fingerings for fretted instruments](#) on page 880

[Fingerings for valved brass instruments](#) on page 887

[Fingering slides](#) on page 885

[Hiding/Showing fingering](#) on page 878

[String indicators](#) on page 891

[Hiding/Showing fingerings in chord diagrams](#) on page 810

## General placement conventions for fingering

Fingerings are placed as close as possible to the notes to which they apply, so the performer can read them easily and clearly.

In music for grand staff instruments, such as the piano and harp, it is accepted to place fingerings for the right hand above the top staff, and fingerings for the left hand below the

bottom staff. However, in dense contrapuntal music for these instruments, fingerings can be placed between the staves to follow the direction of the voices to which they apply.

Different conventions apply to fingerings for fretted instruments, as they require fingerings for both the right and left hands.

### Right-hand fingering placement

By default, all right-hand fingerings are placed outside the staff and on the notehead side of notes, which can be above or below the staff depending on the stem direction. When shown beside notes inside the staff, Dorico Elements automatically joins adjacent notes with the same right-hand fingering with a bracket.

### Left-hand fingering placement

Left-hand fingerings are usually positioned inside the staff and to the left of the notes to which they apply. However, they also must not collide with other items, such as accidentals and rhythm dots. Dorico Elements automatically calculates the most appropriate positions for left-hand fingerings and erases their backgrounds by default, which improves their readability when placed on staff lines.


#### RELATED LINKS

[Fingerings for fretted instruments](#) on page 880

## Changing fingerings to substitution fingerings

Substitution fingerings indicate where players should change the finger used for the note. You can change existing fingerings to substitution fingerings.

#### PREREQUISITE

- The lower zone is shown.
- **Properties**  is selected in the lower zone toolbar.

---

#### PROCEDURE

1. Select the fingerings you want to change to substitution fingerings. You can do this in Write mode and Engrave mode.
2. In the Properties panel, activate **Substitution** in the **Fingering and Positions** group.
3. Enter the fingering you want for the substitution into the value field.
4. Press **Return**.

---

#### RESULT

The selected fingerings are now shown as substitution fingerings. The deferred position of the substitution is the same as the original fingering by default, but you can change the rhythmic position of substitution fingerings.

#### RELATED LINKS

[Inputting fingerings](#) on page 262

[Fingerings popover](#) on page 263

## Changing the rhythmic position of substitution fingerings

Substitution fingerings are shown as immediate by default, meaning that the substitution takes place on the same note, but you can change the rhythmic position at which individual substitutions take place.

---

### PROCEDURE

1. Select the substitution fingering whose deferred rhythmic position you want to change. You can do this in Write mode and Engrave mode.
2. Change the rhythmic position of the substitution fingering in any of the following ways:
  - In Write mode, click and drag the circular handle to the right/left.
  - In Write mode and Engrave mode, activate **Substitution offset** in the **Fingering and Positions** group of the Properties panel.

Change the rhythmic position of substitutions as fractions of a quarter note (crotchet) by entering a value into the left value field, or by clicking the arrows beside the value field. Increasing the value moves substitutions to later positions, decreasing the value moves them to earlier positions.

### NOTE

The right value field is for the grace note position at which substitutions occur, if applicable.

---

### RESULT

The rhythmic position of the substitution fingering is changed.

Dorico Elements automatically arranges deferred substitutions so they are ordered appropriately alongside any fingerings that coincide with the substitution.

### NOTE

You can only change the position of single substitution fingerings when dragging their handles with the mouse. However, you can change the positions of multiple substitution fingerings with **Substitution offset** in the **Fingering and Positions** group of the Properties panel.


Deferred substitutions are always shown with horizontal lines.

---

## Changing existing fingerings

You can change fingerings after you have input them; for example, if you decide a different fingering would be better.

### PREREQUISITE

- The lower zone is shown.
- **Properties**  is selected in the lower zone toolbar.

---

### PROCEDURE

1. Select the fingerings you want to change. You can do this in Write mode and Engrave mode.
2. In the Properties panel, enter the new fingering you want into the **Finger or position** value field in the **Fingering and Positions** group.

3. Press **Return**.

---

#### RESULT

The selected fingerings are changed.

#### TIP

You can also change existing fingerings in Write mode by opening the fingerings popover. Any existing fingerings on the selected note are shown in the popover.

---

#### RELATED LINKS

[Inputting fingerings](#) on page 262

[Fingerings popover](#) on page 263

## Changing the staff-relative placement of fingerings

Dorico Elements automatically follows conventions for fingering placement, but you can show individual fingerings belonging to non-fretted instruments either above or below the staff. You can do this for the current layout and frame chain only, or for all layouts and frame chains.


According to convention, keyboard instrument fingering is positioned above the right-hand staff, and below the left-hand staff. String and brass instrument fingering is always positioned above the staff.

#### NOTE

These steps only apply to non-fretted instruments.

---

#### PREREQUISITE

- The lower zone is shown.
  - **Properties**  is selected in the lower zone toolbar.
  - You have chosen the appropriate property scope for local properties.
- 

#### PROCEDURE

1. Select the fingerings whose staff-relative placement you want to change. You can do this in Write mode and Engrave mode.
  2. In the Properties panel, activate **Staff-relative position** in the **Fingering and Positions** group.
  3. Choose one of the following options:
    - **Above**
    - **Below**
- 

#### RESULT

The selected fingerings appear above/below the staff. If the property scope was set to **Locally**, this change only takes effect in the current layout and frame chain.

#### TIP

You can also change the staff-relative placement of fingerings by selecting them in Engrave mode and pressing **F**.

---

RELATED LINKS

[Fingerings for fretted instruments](#) on page 880

[Changing the property scope](#) on page 617

[Copying property settings to other layouts/frame chains](#) on page 599


## Showing fingerings inside the staff

You can show individual fingerings belonging to non-fretted instruments beside noteheads inside the staff.

### NOTE

- These steps only apply to non-fretted instruments. Left-hand fingerings for fretted instruments are shown inside the staff by default.
- These steps do not apply to substitution fingerings.

### PREREQUISITE

- The lower zone is shown.
- **Properties**  is selected in the lower zone toolbar.

### PROCEDURE

1. Do one of the following:
  - In Write mode, select the notes whose fingerings you want to show inside the staff.
  - In Engrave mode, select the fingerings you want to show inside the staff.
2. In the Properties panel, activate **Position left of notehead** in the **Fingering and Positions** group.

### RESULT

Fingerings belonging to the selected notes are shown inside the staff, directly beside the noteheads. By default, if they belong to a note on a staff line, they erase part of the staff line to ensure legibility.


### EXAMPLE



## Changing the position of individual fingerings relative to slurs, octave lines, and triplet brackets

By default, fingerings are positioned inside the arcs of slurs, but outside the start/end of slurs. You can change the position of individual fingerings relative to slurs. You can do this for the current layout and frame chain only, or for all layouts and frame chains.

### PREREQUISITE

- The lower zone is shown.
- **Properties**  is selected in the lower zone toolbar.
- You have chosen the appropriate property scope for local properties.



---

#### PROCEDURE

1. In Engrave mode, select the fingerings whose position relative to slurs you want to change.
  2. In the Properties panel, activate **Slur-relative position** in the **Fingering and Positions** group.
  3. Choose one of the following options:
    - **Inside**
    - **Outside**
- 

#### RESULT

The position of the selected fingerings relative to slurs, octave lines, and tuplet brackets is changed. If the property scope was set to **Locally**, this change only takes effect in the current layout and frame chain.

#### NOTE

If fingerings also coincide with the first note or last note of slurs, fingerings are positioned outside all of these notations.

---

#### RELATED LINKS


[Changing the property scope](#) on page 617

[Copying property settings to other layouts/frame chains](#) on page 599

## Changing the size of fingerings

You can change the size of fingerings individually without changing the size of the noteheads to which they apply. You can do this for the current layout and frame chain only, or for all layouts and frame chains.

#### PREREQUISITE

- The lower zone is shown.
  - **Properties**  is selected in the lower zone toolbar.
  - You have chosen the appropriate property scope for local properties.
- 

#### PROCEDURE

1. In Engrave mode, select the fingerings whose size you want to change.
  2. In the Properties panel, activate **Scale** in the **Fingering and Positions** group.
  3. Change the value in the value field.
  4. Press **Return**.
- 

#### RESULT

The scale size of the selected fingerings is changed. For example, changing the value to **50** scales the selected fingerings to half their normal size. If the property scope was set to **Locally**, this change only takes effect in the current layout and frame chain.

## Showing enclosures/underlines on fingerings


You can show individual fingerings belonging to non-fretted instruments with either a circle enclosure or an underline.

### NOTE

These steps only apply to non-fretted instruments. For fretted instruments, you can instead show string indicators inside the staff, which are shown in a circle enclosure.

---

### PREREQUISITE

- The lower zone is shown.
  - **Properties**  is selected in the lower zone toolbar.
- 

### PROCEDURE

1. In Engrave mode, select the fingerings on which you want to show an enclosure/underline.
  2. In the Properties panel, activate **Decoration** in the **Fingering and Positions** group.
  3. Choose one of the following options:
    - **Circle**
    - **Underline**
- 

### RESULT

The selected fingerings are shown with the chosen decoration.

---

### EXAMPLE



Fingering with circle



Fingering with underline

---


### RELATED LINKS

[String indicators](#) on page 891

## Showing individual fingerings in italics

Fingerings are normally shown in a bold, non-italic font, but you can show individual fingerings in italics.

### PREREQUISITE

- The lower zone is shown.
  - **Properties**  is selected in the lower zone toolbar.
- 

### PROCEDURE

1. In Engrave mode, select the fingerings you want to show in italics.

2. In the Properties panel, activate **Italic** in the **Fingering and Positions** group.
- 

#### RESULT

The selected fingerings are shown in a bold italic font if your project-wide setting for fingerings is a bold font, and in a plain italic font if your project-wide setting for fingerings is a plain font.

#### NOTE

Bold italic fingerings look very similar to tuplet numbers, which can be confusing.

---

## Hiding/Showing fingering

You can hide/show fingering in each layout independently. For example, you can show fingering in part layouts but hide fingering in full score layouts as conductors rarely require fingering information.

#### PROCEDURE

1. Press **Ctrl/Cmd-Shift-L** to open **Layout Options**.
  2. In the **Layouts** list, select the layouts in which you want to hide/show fingering.  
By default, the layout currently open in the music area is selected when you open the dialog. You can select other layouts by using the selection options in the action bar, clicking and dragging across multiple layouts, **Shift**-clicking adjacent layouts, and **Ctrl/Cmd**-clicking individual layouts.
  3. In the category list, click **Players**.
  4. In the **Fingering** section, activate/deactivate **Show fingering**.
  5. Click **Apply**, then **Close**.
- 

#### RESULT

All fingerings are shown in the selected layouts when the checkbox is activated, and hidden when the checkbox is deactivated.

#### RELATED LINKS

[Changing the appearance of cautionary fingerings](#) on page 879

[Hiding/Showing fingerings in chord diagrams](#) on page 810

## Deleting fingerings

You can remove fingerings from notes after you have input them. However, because fingerings are properties of notes rather than separate items in Dorico Elements, you cannot select and delete them as you would for other items.

#### PROCEDURE

1. Select the notes from which you want to remove fingerings. You can do this in Write mode and Engrave mode.
  2. Choose **Edit > Notations > Fingering > Reset Fingering**.
- 

#### RESULT

All fingerings are removed from the selected notes.

TIP

You can assign a key command for **Reset Fingering** on the **Key Commands** page in **Preferences**.

---

RELATED LINKS

[Large selections](#) on page 403

[Assigning key commands](#) on page 63

## Cautionary fingerings

Cautionary fingerings remind players that fingerings specified at previous rhythmic positions continue to apply to notes that are still sounding. Dorico Elements automatically shows cautionary fingerings when you add other fingerings at rhythmic positions where notes with existing fingerings are still sounding.

By default, cautionary fingerings are shown enclosed in parentheses. You can change the appearance of cautionary fingerings individually; for example, if you want to show cautionary fingerings manually on tied notes that cross system or frame breaks.



Cautionary fingering shown in parentheses (default)

RELATED LINKS

[Inputting fingerings](#) on page 262

[Fingerings popover](#) on page 263

## Changing the appearance of cautionary fingerings


You can change the appearance of cautionary fingerings individually; for example, if you want particular fingerings to appear without parentheses or to hide specific cautionary fingerings. You can do this for the current layout and frame chain only, or for all layouts and frame chains.

NOTE

These steps only apply to cautionary fingerings.

---

PREREQUISITE

- The lower zone is shown.
  - **Properties**  is selected in the lower zone toolbar.
  - You have chosen the appropriate property scope for local properties.
- 

PROCEDURE

1. In Engrave mode, select the noteheads whose cautionary fingering appearance you want to change.

#### NOTE

You must select the specific noteheads to which the cautionary fingerings apply, not the fingerings themselves.

2. In the Properties panel, activate **Cautionary** in the **Fingering and Positions** group.
3. Select one of the following options from the menu:
  - **Default**
  - **With parentheses**
  - **Without parentheses**
  - **Suppress**

#### RESULT

The appearance of cautionary fingerings on the selected notes is changed. If the property scope was set to **Locally**, this change only takes effect in the current layout and frame chain.

#### RELATED LINKS

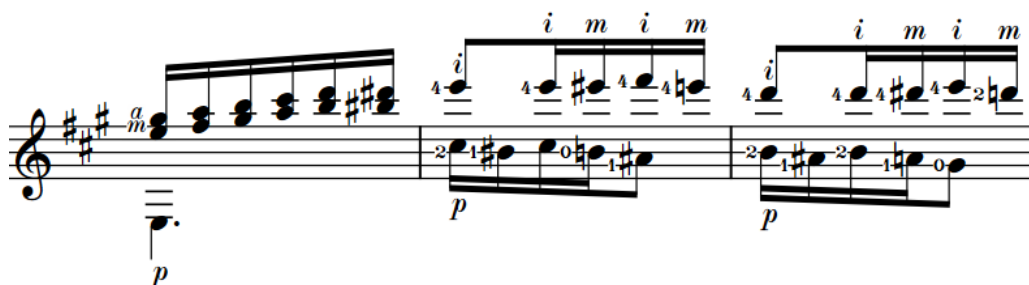
[Changing the property scope](#) on page 617

[Copying property settings to other layouts/frame chains](#) on page 599

## Fingerings for fretted instruments

Fretted instruments, such as the classical guitar, require additional fingering instructions for both hands due to the complex nature of the music.

Fingerings for fretted instruments use the same fonts as normal fingerings.

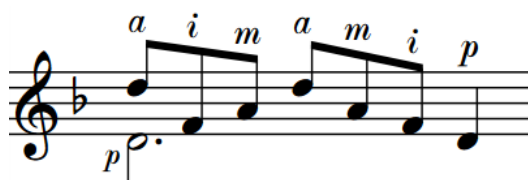


The image shows a musical score for guitar. It consists of two staves: a treble clef staff for the right hand and a bass clef staff for the left hand. The key signature has two sharps (F# and C#). The right-hand staff starts with a whole note chord marked with 'a' and 'm' above it, and a dynamic marking 'p' below it. The left-hand staff has two measures of eighth-note chords. The first measure has a dynamic marking 'p' and fingerings 'i m i m' above the notes. The second measure also has a dynamic marking 'p' and fingerings 'i m i m' above the notes.

A passage for guitar with right-hand and left-hand fingerings

### Right-hand fingering

Right-hand fingerings tell the performer which finger to use to pluck the string, which is usually the right hand. By default, all right-hand fingerings are placed outside the staff, on the notehead side of notes, and follow the stem directions of voices in multiple-voice contexts. When the same finger plays multiple notes in a chord, you can show a single fingering with a bracket for the notes plucked by that finger.



The image shows a musical score for the right hand. It consists of a single treble clef staff. The key signature has one flat (Bb). The staff contains two measures of eighth-note chords. The first measure has fingerings 'a i m' above the notes. The second measure has fingerings 'a m i' above the notes. A dynamic marking 'p' is placed below the first note of the first measure.

Dorico Elements shows "p" for right-hand thumb fingerings and "e" for right-hand fingerings for the pinky finger.

#### NOTE

In Dorico Elements, we use “pinky” to refer to the smallest finger, but it can also be called “little” or “fifth digit”.

---

#### Left-hand fingering

Left-hand fingerings tell the performer which finger to use to stop the string, which is usually the left hand. In Dorico Elements, left-hand fingerings are placed inside the staff and to the left of the notes to which they apply.



When shown inside the staff next to notes, left-hand fingering appears smaller than fingering shown outside the staff.

#### RELATED LINKS

- [Inputting fingerings](#) on page 262
- [Fingerings popover](#) on page 263
- [Adding fingerings to arpeggio signs](#) on page 884
- [Fingering slides](#) on page 885
- [String indicators](#) on page 891
- [Tapping](#) on page 1022
- [Hammer-ons and pull-offs](#) on page 1023

## Hiding/Showing brackets for right-hand fingerings


When multiple notes in the same chord are plucked by the same right-hand finger, you can show the same fingering multiple times, once for each note, or show a single fingering for all notes with a bracket spanning the notes plucked by that finger. When showing a separate fingering for each note, you can also choose to place each fingering either above or below the staff. You can do this for the current layout and frame chain only, or for all layouts and frame chains.

#### NOTE

These steps only apply to right-hand fingerings belonging to fretted instruments.

---

#### PREREQUISITE

- The lower zone is shown.
  - Properties**  is selected in the lower zone toolbar.
  - You have chosen the appropriate property scope for local properties.
- 

#### PROCEDURE

- Select all the notes for which you want to hide/show brackets for right-hand fingerings. You can do this in Write mode and Engrave mode.
- In the Properties panel, activate **Vertical position** in the **Plucked Fingering** group.
- Select one of the following options from the menu:
  - To hide brackets and show a separate fingering for each selected note, select **Above staff** or **Below staff**.

- To show brackets and a single fingering for all notes in each bracket, select **Next to note**.

---

#### RESULT

Brackets on the selected right-hand fingerings are hidden/shown. If you selected **Above staff** or **Below staff**, their staff-relative placement is changed accordingly. If the property scope was set to **Locally**, this change only takes effect in the current layout and frame chain.

---

#### EXAMPLE



Right-hand fingerings shown next to notes with a bracket

Right-hand fingerings shown above the staff

Right-hand fingerings shown below the staff

---

#### RELATED LINKS

[Changing the property scope](#) on page 617

[Copying property settings to other layouts/frame chains](#) on page 599

## Changing the position of left-hand fingerings


You can change the position of individual left-hand fingerings. You can do this for the current layout and frame chain only, or for all layouts and frame chains. By default, they are positioned inside the staff and to the left of the notes to which they apply.

#### NOTE

These steps only apply to left-hand fingerings belonging to fretted instruments.

---

#### PREREQUISITE

- The lower zone is shown.
- **Properties**  is selected in the lower zone toolbar.
- You have chosen the appropriate property scope for local properties.

---

#### PROCEDURE

1. Select the left-hand fingerings whose position you want to change. You can do this in Write mode and Engrave mode.
2. In the Properties panel, activate **Stopping finger position** in the **Fingering and Positions** group.
3. Select one of the following options from the menu:
  - **Outside staff**
  - **Left of note**

- **Right of note**

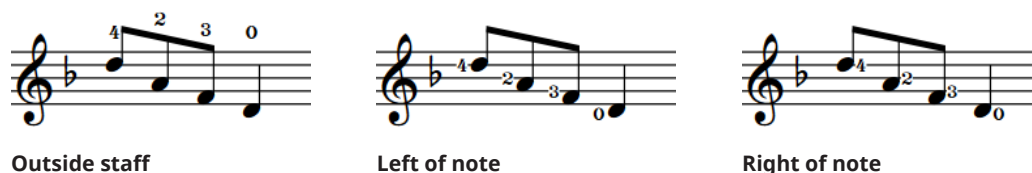
---

RESULT

The position of the selected left-hand fingerings is changed. When shown outside the staff, they are placed above the staff by default. If the property scope was set to **Locally**, this change only takes effect in the current layout and frame chain.

---

EXAMPLE



RELATED LINKS

[General placement conventions for fingering](#) on page 871

[Inputting fingerings](#) on page 262

## Erasing the background of left-hand fingerings inside the staff


By default in Dorico Elements, left-hand fingerings have erased backgrounds because they are often placed in the staff on staff lines. You can change whether individual left-hand fingerings have erased backgrounds or not. You can do this for the current layout and frame chain only, or for all layouts and frame chains.

NOTE

These steps only apply to left-hand fingerings belonging to fretted instruments positioned inside the staff.

---

PREREQUISITE

- The lower zone is shown.
  - **Properties**  is selected in the lower zone toolbar.
  - You have chosen the appropriate property scope for local properties.
- 

PROCEDURE

1. In Engrave mode, select the left-hand fingerings whose background erasure you want to change.
  2. In the Properties panel, activate **Erase background** in the **Fingering and Positions** group.
  3. Activate/Deactivate the corresponding checkbox.
- 

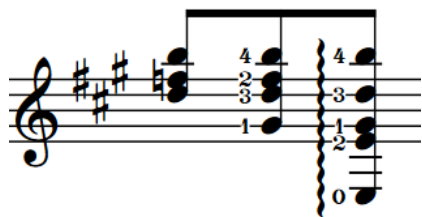
RESULT

The backgrounds of the selected left-hand fingerings are erased when the checkbox is activated, and not erased when the checkbox is deactivated. If the property scope was set to **Locally**, this change only takes effect in the current layout and frame chain.

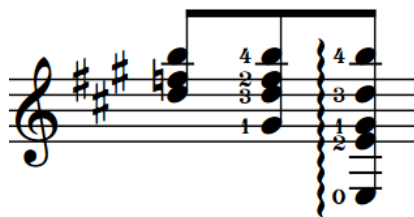
When the property is deactivated, left-hand fingerings have erased backgrounds by default.



EXAMPLE



Left-hand fingerings with erased backgrounds



Left-hand fingerings without erased backgrounds

---

## Adding fingerings to arpeggio signs


You can add fingerings to arpeggio signs to indicate which right-hand finger should be used to strum a chord. By default, fingerings are placed at the bottom of arpeggio signs.

NOTE

These steps only apply to arpeggio signs belonging to fretted instruments.

---

PREREQUISITE

- You have input the arpeggio signs to which you want to add fingerings.
  - The lower zone is shown.
  - **Properties**  is selected in the lower zone toolbar.
- 

PROCEDURE

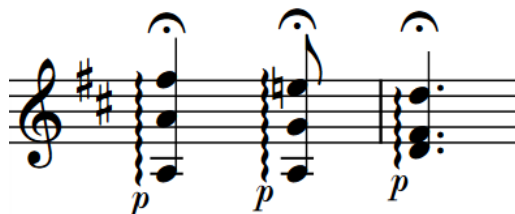
1. Select the arpeggio signs belonging to fretted instruments to which you to add fingerings. You can do this in Write mode and Engrave mode.
  2. In the Properties panel, activate **Finger** in the **Plucked Fingering** group.
  3. Enter the fingering you want into the value field.  
For example, for the thumb, enter **p**.
- 

RESULT

The specified fingering is added to the selected arpeggio signs. It is positioned at the bottom of the arpeggio signs by default.

---

EXAMPLE



Arpeggio signs played with the thumb

---

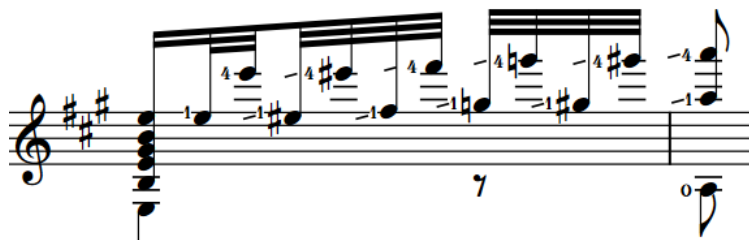
RELATED LINKS

[Input methods for ornaments, arpeggio signs, glissando lines, and jazz articulations](#) on page 325

## Fingering slides

Fingering slides indicate that the performer should slide their finger up/down the neck of the instrument. They are notated as an angled line between fingerings.

The note at the start of a fingering slide is known as a source note. The note at the end of a fingering slide is known as the destination note.



A passage with fingering slides

When the source and destination notes are sufficiently close horizontally, fingering slides are shown between the fingerings, joining them directly in their existing positions without moving them. When the source and destination notes are far apart horizontally, fingering slides appear with a fixed length to the left of the destination note. You can change the length of individual fingering slides.

Fingering slides automatically avoid obstructions, such as noteheads, accidentals, and other fingerings.

### NOTE

- Dorico Elements automatically adjusts the length/angle of fingering slides when you move the fingerings at the start/end.
- In Dorico Elements, you can only show fingering slides on staves belonging to fretted instruments. You can show string fingering shift indicators on staves belonging to other string instruments.

### RELATED LINKS

[Hiding/Showing string fingering shift indicators](#) on page 888

[Glissando lines](#) on page 1000

[Jazz articulations](#) on page 1028

## Fingering slides in Engrave mode

In Engrave mode, each join fingering slide has two square handles, one at the start and one at the end. You can move these handles to adjust the graphical position, length, and angle of join fingering slides.



Handles on a slide joining two notes in Engrave mode

#### NOTE

- If you want to change the length of fingering slides, we recommend that you do so by first changing their **Slide type** property or by moving the fingerings. Dorico Elements automatically adjusts the length/angle of fingering slides when you move the fingerings at the start/end.
  - You cannot move fingering slides rhythmically. If you want to change the notes to which fingering slides apply, you must hide them between their original notes and show new fingering slides between the new notes.
  - Fingering slides shown only before the destination note have a fixed length, and so do not have handles at the start/end.
  - You cannot move whole fingering slides that join notes. You can only move their handles.
- 

## Hiding/Showing fingering slides


You can hide/show slides between notes played by the same left-hand finger on the same string on fretted instruments.

#### NOTE

These steps only apply to fingerings belonging to fretted instruments.

---

#### PREREQUISITE

- You have input the same left-hand fingering for the notes at the start and end of the slides.
  - You have specified the same string for the notes at the start and end of the slides.
  - The lower zone is shown.
  - **Properties**  is selected in the lower zone toolbar.
- 

#### PROCEDURE

1. Select the destination notes before which you want to hide/show fingering slides. You can do this in Write mode and Engrave mode.
  2. In the Properties panel, activate/deactivate **Slide in** in the **Fingering and Positions** group.
- 

#### RESULT

Fingering slides are shown before the selected notes when **Slide in** is activated, and hidden when it is deactivated. If the gap between the source and destination notes is small enough, fingering slides appear as an angled line joining the fingerings. If the gap is large, fingering slides appear as a fixed length angled line to the left of the destination notes.

#### RELATED LINKS

- [Inputting fingerings](#) on page 262
- [Changing existing fingerings](#) on page 873
- [Assigning notes to strings](#) on page 947
- [Moving items graphically](#) on page 481

## Changing the length of fingering slides


You can change the length of individual fingering slides and show them either joining the source and destination fingerings or with a fixed length before the destination note. You can do this for the current layout and frame chain only, or for all layouts and frame chains.

#### NOTE

These steps only apply to fingerings belonging to fretted instruments.

---

#### PREREQUISITE

- The lower zone is shown.
  - **Properties**  is selected in the lower zone toolbar.
  - You have chosen the appropriate property scope for local properties.
- 

#### PROCEDURE

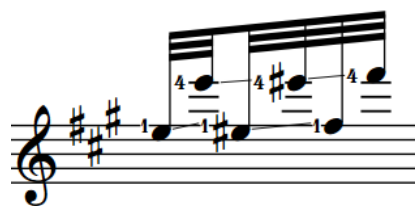
1. In Engrave mode, select the fingering slides whose length you want to change.
  2. In the Properties panel, activate **Slide type** in the **Fingering and Positions** group.
  3. Choose one of the following options:
    - To show fingering slides between the fingerings at the start/end, choose **Join**.
    - To show fixed length fingering slides before the destination fingerings, choose **Destination only**.
- 

#### RESULT

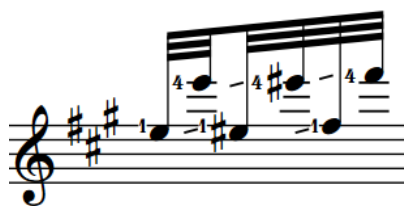
The length of the selected fingering slides is changed. If the property scope was set to **Locally**, this change only takes effect in the current layout and frame chain.

---

#### EXAMPLE



Join



Destination only

---

#### RELATED LINKS

[Fingerings for fretted instruments](#) on page 880

[Changing the property scope](#) on page 617

[Copying property settings to other layouts/frame chains](#) on page 599

## Fingerings for valved brass instruments

For instruments like trumpet and horn, fingering is used to show which valves must be depressed to produce a specific note.

You can enter fingerings for valved brass instruments into the fingerings popover as numbers without any separation. For example, enter **12** for a C# on a trumpet to indicate that the first two valves must be depressed.

By default, Dorico Elements automatically stacks fingerings added to notes on brass instrument staves vertically. They are shown with no separator by default.

#### RELATED LINKS

[Inputting fingerings](#) on page 262

[Fingerings popover](#) on page 263

## Showing horn branch indicators


You can indicate the branch on which notes are played for double horns and triple horns by adding branch indicators as prefixes to horn fingerings. Some publications simply indicate “T” for thumb, while others more explicitly indicate which branch is to be used by specifying its pitch.

#### NOTE

You can only add branch indicators to notes belonging to horns in F.

---

#### PREREQUISITE

- The lower zone is shown.
  - **Properties**  is selected in the lower zone toolbar.
- 

#### PROCEDURE

1. Select the horn fingerings to which you want to add branch indicators. You can do this in Write mode and Engrave mode.
  2. In the Properties panel, activate **Horn branch** in the **Fingering and Positions** group.
  3. Select one of the following horn branches from the menu:
    - **F**
    - **B flat**
    - **F alto**
    - **E flat alto**
    - **Thumb trigger**
- 

#### RESULT

Branch indicators are added to the selected fingerings.

## Hiding/Showing string fingering shift indicators

You can hide/show shift indicators after individual fingerings belonging to string instruments. You can do this for the current layout and frame chain only, or for all layouts and frame chains.


Shift indicators are angled lines that indicate the direction of movement when string players must shift their finger position on the fingerboard to play a higher/lower note with the same finger as the previous note.

#### NOTE

These steps do not apply to fingerings belonging to fretted instruments, which can show fingering slides instead.

---

#### PREREQUISITE

- The lower zone is shown.
- **Properties**  is selected in the lower zone toolbar.

- You have chosen the appropriate property scope for local properties.

---

PROCEDURE

1. Select the notes or fingerings on string instrument staves from which you want to indicate a fingering shift. You can do this in Write mode and Engrave mode.
2. In the Properties panel, activate/deactivate **Indicate shift to next note** in the **Fingering and Positions** group.

---

RESULT

Shift indicators are shown when the property is activated, even if neither of the notes at each end have explicit fingerings, and hidden when the property is deactivated. They are positioned between the selected notes and the notes that immediately follow them. If the property scope was set to **Locally**, this change only takes effect in the current layout and frame chain.

TIP

You can specify that fingerings should show shift indicators when inputting fingerings for string instruments.

---

EXAMPLE



---


RELATED LINKS

- [Inputting fingerings](#) on page 262
- [Fingering slides](#) on page 885
- [Assigning notes to strings](#) on page 947
- [Changing the property scope](#) on page 617

## Changing the direction of string fingering shift indicators

You can change the direction of individual string fingering shift indicators if they do not point in the direction required.

PREREQUISITE

- The lower zone is shown.
- **Properties**  is selected in the lower zone toolbar.

---

PROCEDURE

1. Select the shift indicators whose direction you want to change. You can do this in Write mode and Engrave mode.
  2. In the Properties panel, activate **Shift direction** in the **Fingering and Positions** group.
  3. Choose one of the following options:
    - **Up**
    - **Down**
-

RESULT

The selected shift indicators are angled up/down.

NOTE

You can also affect the direction of string shift indicators by specifying the strings on which notes are played.

---

## Fingerings imported from MusicXML files

Dorico Elements imports fingerings that are specified using the fingering element in MusicXML files.

MusicXML files exported from Finale typically represent fingerings in the correct way. However, because Sibelius does not use the fingering element, Dorico Elements cannot import fingerings from MusicXML files exported by Sibelius.

# String indicators

String indicators are commonly used in guitar music to tell performers the string on which they should play a note, particularly for pitches that are possible on multiple strings.

String indicators show the string number inside a circle enclosure, optionally with a dashed line to indicate they apply to a range of notes. Open pitches commonly appear as a zero without an enclosure.

In Dorico Elements, string indicators for stopped pitches appear in a plain font while string indicators for open strings use the fingering font.



A phrase with string indicators and left-hand fingerings

There are two types of string indicators in Dorico Elements, which you input in different ways.

## String indicators outside the staff

String indicators outside the staff always appear inside circle enclosures. They automatically show dashed duration lines when they have duration to indicate that multiple notes are played on that string.

In Dorico Elements, string indicators outside the staff are considered playing techniques. You can select and delete them independently of the notes to which they apply. You can also change the duration line style of string indicators outside the staff in the same ways as for playing technique continuation lines.



String indicator outside the staff with duration line

## String indicators inside the staff

String indicators inside the staff appear inside circle enclosures, except when they show open strings, which appear as a bold number zero without an enclosure. They automatically erase their backgrounds so they do not collide with staff lines. They appear to the left of noteheads by default but automatically appear to the right if left-hand fingerings are present.

The string number shown in string indicators inside the staff is calculated automatically, but you can also specify the string manually.

String indicators inside the staff for stopped pitches are scaled-down versions of string indicators outside the staff.

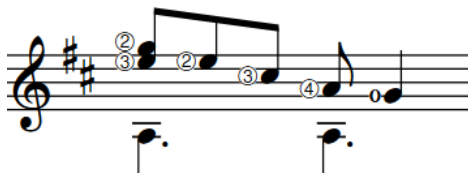


In Dorico Elements, string indicators inside the staff are considered properties of the corresponding notes. You can only select them independently of their corresponding notes in Engrave mode.

#### NOTE

You can only show string indicators inside the staff on notes belonging to fretted instruments.

---



String indicators inside the staff, with the last one for an open string

#### RELATED LINKS

[Fingerings for fretted instruments](#) on page 880

[Input methods for playing techniques, pedal lines, string indicators, and harp pedal diagrams](#) on page 351

[Playing techniques](#) on page 1062

[Playing technique duration](#) on page 1068

[Playing technique continuation lines](#) on page 1067

[Lengthening/Shortening items](#) on page 410

[Assigning notes to strings](#) on page 947

## Deleting string indicators


You can remove string indicators inside the staff from notes after you have input them. You can do this for the current layout and frame chain only, or for all layouts and frame chains. However, because string indicators inside the staff are properties of notes rather than separate items, you cannot select and delete them as you would for other items.

#### NOTE

These steps only apply to string indicators inside the staff. You can delete string indicators outside the staff in the same ways as for other items.

---

#### PREREQUISITE

- The lower zone is shown.
  - **Properties**  is selected in the lower zone toolbar.
  - You have chosen the appropriate property scope for local properties.
- 

#### PROCEDURE

1. Select the notes from which you want to remove string indicators inside the staff. You can do this in Write mode and Engrave mode.
  2. In the Properties panel, deactivate **Show** in the **String Indicators** group.
- 

#### RESULT

String indicators inside the staff are removed from the selected notes. If the property scope was set to **Locally**, this change only takes effect in the current layout and frame chain.

RELATED LINKS

[Deleting notes/items](#) on page 431

[Inputting string indicators inside the staff](#) on page 366

[Changing the property scope](#) on page 617

[Copying property settings to other layouts/frame chains](#) on page 599

## Positions of string indicators

String indicators outside the staff are placed above it by default. In multiple-voice contexts, string indicators for the up-stem voices are placed above the staff and string indicators for the down-stem voices are placed below the staff.

String indicators inside the staff automatically erase their backgrounds so they do not collide with staff lines. They appear to the left of noteheads by default but automatically appear to the right if left-hand fingerings are present. You can change the notehead-relative position of string indicators individually.

You can move string indicators outside the staff to different rhythmic positions in Write mode. They are automatically positioned to avoid collisions. You can also change the staff-relative placement of string indicators outside the staff individually, in the same ways as for playing techniques.

You can move string indicators graphically in Engrave mode, but this does not change the rhythmic positions to which they are attached.

RELATED LINKS

[Playing technique continuation lines](#) on page 1067

[Lengthening/Shortening items](#) on page 410

[Moving notes/items rhythmically](#) on page 437


[Moving items graphically](#) on page 481

[Changing the staff-relative placement of items](#) on page 414

## Changing the notehead-relative position of string indicators

By default, string indicators inside the staff appear to the left of noteheads when there are no left-hand fingerings and to the right of noteheads when there are left-hand fingerings. You can change the side of noteheads on which string indicators inside the staff appear individually. You can do this for the current layout and frame chain only, or for all layouts and frame chains.

PREREQUISITE

- The lower zone is shown.
- **Properties**  is selected in the lower zone toolbar.
- You have chosen the appropriate property scope for local properties.

---

PROCEDURE

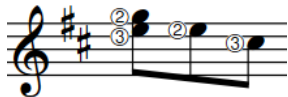
1. Select the string indicators inside the staff whose notehead-relative position you want to change. You can do this in Write mode and Engrave mode.
  2. In the Properties panel, activate **Notehead-relative pos.** in the **String Indicators** group.
  3. Choose one of the following options:
    - **Left**
    - **Right**
-

RESULT

The notehead-relative position of the selected string indicators is changed. If the property scope was set to **Locally**, this change only takes effect in the current layout and frame chain.

---

EXAMPLE



String indicators to the left of noteheads



String indicators to the right of noteheads

---

# Front matter

Front matter in Dorico Elements is a broad term that covers all information included before the first bar of music in scores.

Front matter includes musical information often added on pages before the first pages of scores, such as a title page, instrumentation list, program note, and performance instructions.

Front matter also includes information above the music on the first page of scores and parts, such as the dedication, title, subtitle, composer, and lyricist.

## TIP

An efficient way of keeping information consistent across all layouts is to use tokens that refer to fields in the **Project Info** dialog. The default page templates in Dorico Elements contain tokens for the project title, lyricist, and composer on the first pages in layouts, and the flow title (score layouts) or layout name (part layouts) at the top of subsequent pages. Part layouts also automatically show the layout name in the top left of the first page.

## RELATED LINKS

[Project Info dialog](#) on page 75

[Flow names and flow titles](#) on page 178

[Tokens](#) on page 607

[Page templates](#) on page 599

[Frames](#) on page 605

[Page formatting](#) on page 555

[Hiding/Showing flow headings](#) on page 567

## Editing layout transposition text

You can override layout transposition token text in each layout independently; for example, if you want some layouts to display “Concert Pitch” but others to display “Full Score in C”.

## PROCEDURE

1. Press **Ctrl/Cmd-Shift-L** to open **Layout Options**.
2. In the **Layouts** list, select the layouts whose layout transposition text you want to edit.  
By default, the layout currently open in the music area is selected when you open the dialog. You can select other layouts by using the selection options in the action bar, clicking and dragging across multiple layouts, **Shift**-clicking adjacent layouts, and **Ctrl/Cmd**-clicking individual layouts.
3. In the category list, click **Page Setup**.
4. In the **Text Tokens** section, activate the following options, individually or together:
  - **Custom text for concert layout**
  - **Custom text for transposed layout**
5. Enter the text you want into the corresponding value fields.
6. Click **Apply**, then **Close**.

RELATED LINKS

[Tokens](#) on page 607

[Layouts](#) on page 165

[Concert vs. transposed pitch](#) on page 170

[Making layouts transposing/concert pitch](#) on page 169

# Grace notes

Grace notes are notes without a fixed duration, which are intended to be played quickly. They are scaled-down versions of normal notes, and are commonly shown with a slash through their stem.

Grace notes with slashed stems are known as “acciaccaturas” and are often played very fast. Grace notes without slashed stems are known as “appoggiaturas” and are often played slower than acciaccaturas. In Baroque music, appoggiaturas are often understood to last for a specific duration, based on the prevailing meter and the rhythmic value of the notehead to which they are attached. Therefore in Dorico Elements, slashed and unslashed grace notes are handled differently in playback.

Grace notes do not take up space rhythmically, as they are intended to be fitted into the space before the note to which they are attached, which is the note immediately to their right.

There can be multiple grace notes before a notehead. If there are two or more grace notes attached to the same notehead, and they have a rhythmic value that shows a flag on the stem, such as eighth notes (quavers) and 16th notes (semiquavers), they are automatically beamed together.



Multiple grace notes before notes

In Dorico Elements, grace notes are scaled to 3/5 the size of a normal notehead by default and are affected by your note spacing settings. There is a separate option specifically for grace note spacing.

You can add notations, such as slurs and articulations, to grace notes in the same ways as to normal notes, and you can transpose grace notes after they have been input.

## RELATED LINKS

[Inputting grace notes](#) on page 239

[Turning existing notes into grace notes](#) on page 899

[Grace note slashes](#) on page 901

[Grace notes in playback](#) on page 904

[Slur placement relative to grace notes](#) on page 1157

[Changing the pitch of individual notes](#) on page 444

[Inputting articulations](#) on page 259

[Inputting slurs](#) on page 260

[Note spacing](#) on page 579

## General placement conventions for grace notes

Grace notes function like normal notes in many ways, but there are some specific conventions about their stem direction, position relative to noteheads, and the placement of stem slashes.

Grace notes are always positioned before a notehead, even if they are intended to be played on the beat rather than before the beat. They are normally placed after a barline, so they can be positioned directly before the notehead to which they are attached. You can show grace notes before barlines instead; for example, if you have a group of three or more grace notes and want to reduce the gap between the barline and the first beat in the bar.

Grace note stem slashes appear at the beginning of grace note beams. If there is a single grace note, the slash appears across its stem and flag, if applicable, and extends either side of the stem.



Adding accidentals causes their spacing to readjust so that the accidentals are clearly legible, similar to normal notes.

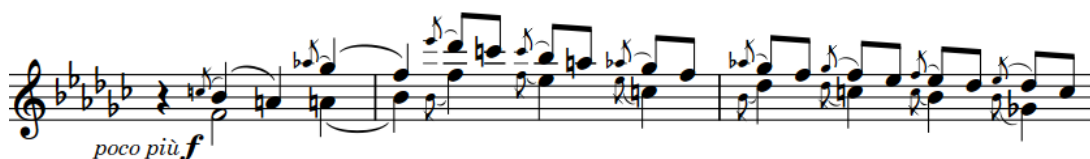
Articulations can be added to grace notes wherever they are most clearly legible, which is most likely outside the staff. Dorico Elements automatically places articulations on the stem-side of grace notes, and outside the staff if the stem or beam is within the staff.

### Grace notes in multiple-voice contexts

According to accepted notation convention, grace notes appear stem up by default when there is only one voice on a staff, even if the notehead to which they are attached is stem down.

However, when there are multiple voices on the staff, all notes in the upper voices appear stem up and all notes in the lower voices appear stem down, including grace notes. This also affects the curvature direction of slurs.

This adjustment happens automatically in Dorico Elements, but you can also change the stem direction of grace notes manually.



### Slurs relative to grace notes

By default, slurs starting on grace notes and ending on tie chains end on the first note of the tie chain. You can change the position of individual slurs relative to tie chains, including those starting from grace notes.

#### TIP

You can change the note spacing scale factor for grace notes in each layout independently on the **Note Spacing** page in **Layout Options**.

---

RELATED LINKS

[Showing grace notes before/after barlines](#) on page 900

[Slur placement relative to grace notes](#) on page 1157

[Slur position relative to tie chains](#) on page 1156

[Changing the stem direction of notes](#) on page 963





[Layout Options dialog](#) on page 677

## Turning existing notes into grace notes

You can turn any existing notes into grace notes; for example, if you want to edit music you input using MIDI recording.

---

PROCEDURE

1. In Write mode, select the notes that you want to turn into grace notes.
2. Optional: Change the grace note type to slashed/unslashed in any of the following ways:
  - Press **Alt/Opt-/**.
  - In the Notes toolbox, click and hold **Grace Notes** , then click **Unslashed Grace Notes**  or **Slashed Grace Notes** .
3. Do one of the following:
  - Press **/**.
  - In the Notes toolbox, click **Grace Notes** .

---

RESULT

The selected notes are turned into grace notes with the same notated duration. However, any rhythm dots are removed.

By default, slashed grace notes attach to the rhythmic position following the last selected note in each range, while unslashed grace notes attach to the rhythmic position of the first selected note in each range.

**TIP**

You can change the default direction when turning existing notes into grace notes in **Preferences > Note Input and Editing > Editing**.

---

AFTER COMPLETING THIS TASK

You can change the duration of grace notes.

RELATED LINKS

[Notes toolbox](#) on page 187

[Inputting grace notes](#) on page 239

[Changing the duration of notes](#) on page 248

[Changing the type of grace notes](#) on page 901

[Turning existing notes into tuplets](#) on page 1273

[Preferences dialog](#) on page 58




## Turning grace notes into normal notes

You can turn any existing grace notes into normal notes starting from their original rhythmic position; for example, if you want to turn a run of grace notes at the start of a flow into standard notes in a pick-up bar.

---

### PROCEDURE

1. In Write mode, select the grace notes you want to turn into normal notes.
2. Optional: If you want the selected grace notes to push subsequent notes to later rhythmic positions if required, press **I** to activate Insert mode.
3. Optional: If you activated Insert mode, choose the appropriate Insert mode scope.
4. Do one of the following:
  - Press **/**.
  - In the Notes toolbox, click **Grace Notes** .

---

### RESULT

The selected grace notes are turned into normal notes with the same notated duration. For example, an eighth grace note becomes a standard eighth note.

If Insert mode was activated, subsequent existing notes are pushed to later rhythmic positions to accommodate the extra rhythmic durations if required. If Insert mode was deactivated, the grace notes expand and overwrite subsequent notes.

### RELATED LINKS

[Turning tuplets into normal notes](#) on page 1273

[Pick-up bars](#) on page 1253


[Insert mode](#) on page 427

[Insert mode scopes](#) on page 428

## Showing grace notes before/after barlines

By default, grace notes are positioned after barlines and directly before the notehead to which they apply, including for the first note in a bar. You can position individual grace notes before barlines; for example, so the first normal note in the bar is not pushed too far from the barline, or to indicate that grace notes are played before the beat.

### PREREQUISITE

- The lower zone is shown.
- **Properties**  is selected in the lower zone toolbar.

---

### PROCEDURE

1. Select the grace notes whose position relative to barlines you want to change. You can do this in Write mode and Engrave mode.
2. In the Properties panel, activate/deactivate **Grace note before barline** in the **Grace Notes** group.

---

### RESULT

Grace notes at the selected rhythmic positions are positioned before barlines when the property is activated, and after barlines when the property is deactivated.

#### NOTE

This affects all grace notes at the selected rhythmic positions.

---

#### RELATED LINKS

[Barlines](#) on page 734

[Inputting grace notes](#) on page 239

## Grace note size

Grace notes are smaller versions of normal notes, and are scaled down by a ratio that is set by default to 3/5 of a normal note.

You can change the size of grace notes individually in the same way as for normal notes.

#### RELATED LINKS

[Changing the size of notes/items](#) on page 413

## Grace note slashes


Slashes shown diagonally across grace note stems are often used to distinguish different types of grace notes. Grace notes with slashed stems are known as acciaccaturas and are often played very fast. Grace notes without slashed stems are known as appoggiaturas and are often played slower than acciaccaturas.

In Dorico Elements, grace notes appear with slashed stems by default. You can change whether grace notes are slashed or unslashed during note input as well as by changing the type of existing grace notes.

## Changing the type of grace notes



You can change the type of individual grace notes after they have been input. Grace notes have slashed stems by default, but you can change them to have unslashed stems.

#### PREREQUISITE

- The lower zone is shown.
- **Properties**  is selected in the lower zone toolbar.

---

#### PROCEDURE




1. Select the grace notes whose type you want to change. You can do this in Write mode and Engrave mode.
2. In the Properties panel, choose one of the following options for **Grace note type** in the **Grace Notes** group:
  - **Slashed stem** 
  - **Unslashed stem** 

---

#### RESULT

The selected grace notes are shown with slashed/unslashed stems.

TIP


You can also change the type of selected grace notes by pressing **Alt/Opt-/** or clicking and holding **Grace Notes**  in the Notes toolbox, then clicking **Unslashed Grace Notes**  or **Slashed Grace Notes** .

---

## Moving slashes on grace note stems

You can change the vertical position of individual grace note slashes. You can do this for the current layout and frame chain only, or for all layouts and frame chains.

PREREQUISITE

- The lower zone is shown.
  - **Properties**  is selected in the lower zone toolbar.
  - You have chosen the appropriate property scope for local properties.
- 

PROCEDURE

1. In Engrave mode, select the grace notes whose slash positions you want to change.
  2. In the Properties panel, activate the following properties, individually or together, in the **Grace Notes** group:
    - **Slash inset from stem tip**
    - **Slash offset to right**
  3. Change the values in the value fields.
- 

RESULT

Increasing **Slash inset from stem tip** moves grace note slashes further from the tips of stems and closer to the noteheads. Decreasing the value moves them closer to the tips of stems and further from the noteheads.

Increasing **Slash offset to right** moves grace note slashes to the right, decreasing the value moves them to the left.

If the property scope was set to **Locally**, this change only takes effect in the current layout and frame chain.

RELATED LINKS

[Inputting grace notes](#) on page 239


[Changing the property scope](#) on page 617

[Copying property settings to other layouts/frame chains](#) on page 599

## Changing the length of grace note slashes

You can change the length of slashes on grace note stems individually. You can do this for the current layout and frame chain only, or for all layouts and frame chains.

PREREQUISITE

- The lower zone is shown.
- **Properties**  is selected in the lower zone toolbar.
- You have chosen the appropriate property scope for local properties.

---

#### PROCEDURE

1. In Engrave mode, select the grace notes whose slash length you want to change.
2. In the Properties panel, activate the following properties, individually or together, in the **Grace Notes** group:
  - **Slash length**
  - **Slash protrusion from beam** (beamed grace notes only)

#### NOTE

Grace note slashes seem to disappear when you activate **Slash length** because activating the property resets the value to **0**.

3. Change the length and/or protrusion of the selected slashes by changing the values in the corresponding value fields.

---

#### RESULT

Increasing **Slash length** lengthens grace note slashes on both single grace notes and grace note beams, decreasing the value shortens grace note slashes.

Increasing **Slash protrusion from beam** increases how far slashes extend beyond grace note beams, decreasing the value decreases how far slashes extend beyond grace note beams.

If the property scope was set to **Locally**, this change only takes effect in the current layout and frame chain.

## Grace note stems

Grace notes are scaled-down notes, so the length of grace note stems is determined by the default settings for the stem length of all notes.

Following accepted conventions, grace notes in Dorico Elements are stem up by default in any clef, regardless of the stem direction of the note to which they apply. The stem directions of grace notes are changed automatically when there are multiple voices on a staff, but you can change the stem direction of individual grace notes manually. You can also lengthen/shorten grace note stems in the same ways as for normal stems.

#### RELATED LINKS

[Stems](#) on page 961

[Changing the stem direction of notes](#) on page 963

[Lengthening/Shortening stems](#) on page 965

[Hiding/Showing stems](#) on page 966

## Grace note beams

Dorico Elements automatically beams multiple adjacent grace notes together if they are an eighth note (quaver) or shorter in duration.

Like all beams, grace note beams ideally follow the accepted standards for beam placement relative to staff lines, in order to avoid wedges. However, because grace notes are smaller than normal notes, this can lead to extreme slants in grace note beams.

You can adjust the slants of individual grace note beams in the same ways as for normal beams.

RELATED LINKS

[Beaming](#) on page 754

## Grace notes in playback

Slashed and unslashed grace notes are handled differently in playback.

Slashed grace notes of any note duration, and unslashed grace notes a 16th note or shorter, play back before the beat with a single default sounding duration.

Unslashed grace notes an eighth note or longer play back on the beat. Their sounding duration is half the note duration of the note to which they are attached. For example, if an unslashed eighth note grace note is attached to a quarter note, both notes play back as if they were eighth notes.

RELATED LINKS

[Inputting grace notes](#) on page 239

[Grace note slashes](#) on page 901

# Holds and pauses

Different notations are used to show where the established rhythmic flow of the music is interrupted, either with a moment of repose or a short silence, before continuing. The most subtle effect is produced by a tenuto mark, with more significant effects denoted with holds and pauses.

The duration of the break in the music intended by the hold or pause does not need to be specified. This leaves significant room for interpretation, even though the different styles of holds and pauses normally indicate larger or smaller breaks.

In Dorico Elements, there are the following types of holds and pauses:

## Fermatas

Fermatas indicate that a note is held for longer than its notated length, which applies to the whole ensemble. In Dorico Elements, fermatas exist globally at the corresponding rhythmic positions, meaning they are automatically shown on all staves and voices.

They are also known as “pauses” and informally sometimes called “birds’ eyes”.



## Breath marks

Breath marks show suitable places for players to breathe, or suggest how the music is phrased to create a similar effect.



## Caesuras

Caesuras indicate that a note is sustained for its full value and is followed by a break in sound before continuing. In Dorico Elements, caesuras exist globally at the corresponding rhythmic positions, meaning they are automatically shown on all staves.



#### NOTE

Holds and pauses do not currently have an effect in playback, but this is planned for future versions.

---

#### RELATED LINKS

[Input methods for holds and pauses](#) on page 320









[Types of fermatas](#) on page 906

[Types of breath marks](#) on page 907

[Types of caesuras](#) on page 907

## Types of fermatas

There are different types of fermatas available in Dorico Elements. Each fermata indicates a suggested pause duration whilst leaving room for interpretation.

Fermata	Description
Very short fermata 	Indicates that a note is held only a fraction longer than the rhythm indicates.
Short fermata 	Indicates that a note is held a little bit longer than the rhythm indicates.
Short fermata (Henze) 	Indicates that a note is held a little bit longer than the rhythm indicates, as used by Hans Werner Henze.
Fermata 	Indicates that a note is held for longer than the rhythm indicates.
Long fermata 	Indicates that a note is held quite a lot longer than the rhythm indicates.
Long fermata (Henze) 	Indicates that a note is held quite a lot longer than the rhythm indicates, as used by Hans Werner Henze.
Very long fermata 	Indicates that a note is held for much longer than the rhythm indicates.
Curlew (Britten) 	Indicates that a note or rest is held until the next synchronization point in asynchronous music, as used by Benjamin Britten.

Fermatas can be divided into two styles. Because their meanings overlap, it can be confusing for players if both styles are used in a single project.

Style	Very short fermata	Short fermata	Fermata	Long fermata	Very long fermata
Standard					
Henze	N/A				N/A

RELATED LINKS

[Input methods for holds and pauses](#) on page 320

[Changing existing items](#) on page 412

## Types of breath marks

There are different types of breath marks available in Dorico Elements. Breath marks indicate a suitable place for a player to take a breath, or create a musical effect like a breath.

Comma-like	Tick-like	Upbow-like	Salzedo

## Types of caesuras

There are different types of caesuras available in Dorico Elements. All caesuras indicate a break in sound, but different types are often needed for different styles of musical scores.

Caesura	Thick caesura	Short caesura	Curved caesura	Single-stroke caesura
Two diagonal slashes	Two thick diagonal slashes	Two straight, vertical slashes	Two curved diagonal slashes	One straight, vertical slash

If you intend to communicate a specific length of hold or gap with each type of caesura, we recommend that you consider adding a legend, as different players may interpret these symbols differently.

RELATED LINKS

[Input methods for holds and pauses](#) on page 320

[Changing existing items](#) on page 412

## Positions of holds and pauses

Holds and pauses are placed above the staff by default in single-voice contexts, and are shown on all staves at the closest rhythmic position available; for example, if a single staff has a fermata on the last beat in the bar, it is shown above the bar rests on the other empty staves. For staves with multiple voices, fermatas are also shown inverted below the staff.

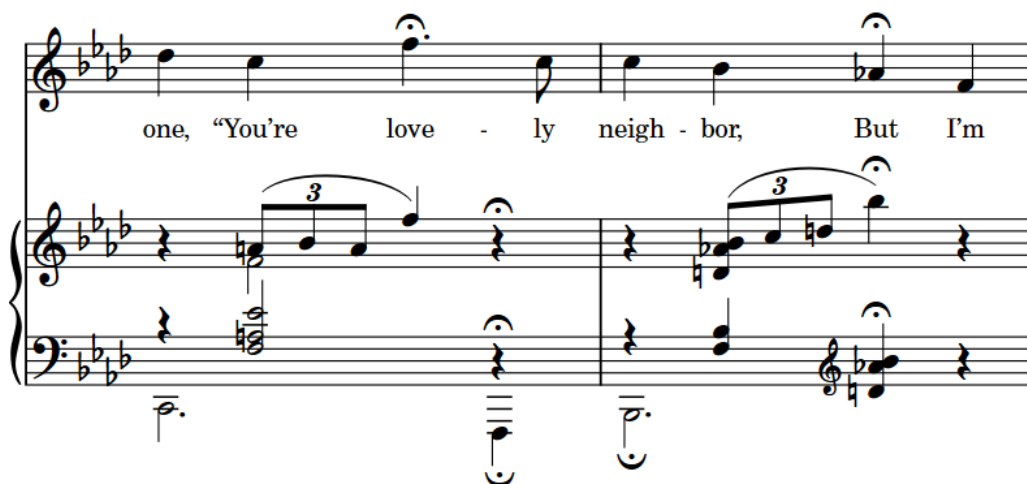


You can move holds and pauses to different rhythmic positions in Write mode. They are automatically positioned to avoid collisions.

You can move holds and pauses graphically in Engrave mode; however, this does not change the rhythmic positions to which they are attached.

## Fermatas

Fermatas are positioned horizontally so that they are centered on front noteheads in the first voice column, regardless of the stem direction of notes.



The image shows a musical score with a vocal line and piano accompaniment. The vocal line is in the treble clef with a key signature of three flats (B-flat, E-flat, A-flat) and a 4/4 time signature. The lyrics are: "one, 'You're love - ly neigh - bor, But I'm". There are fermatas (curved lines with a dot) placed above the notes for "love", "ly", "neigh", and "bor". The piano accompaniment consists of two staves: a right-hand treble staff and a left-hand bass staff. The right-hand staff has a 3/8 time signature and contains a triplet of eighth notes in the first measure of the second system, followed by a fermata. The left-hand staff has a 3/8 time signature and contains a fermata in the first measure of the second system. The fermatas on the piano accompaniment are positioned to align with the fermatas on the vocal line.

Fermatas affect the overall tempo of the piece, so all players must be able to see where they occur. Therefore, fermatas are shown on all staves at the same rhythmic position, or the rhythmic position of the note, chord, or rest that corresponds with the end of the fermata, including over a bar rest if a staff has no notes in that bar.

## Breath marks

Breath marks are placed above the top line of the staff by default, at the end of the note to which they apply; that is, they appear just before the following note.

Breath marks apply only to the staff to which they were added, as they do not affect the overall tempo, but instead only indicate to a single player or group of players a suitable place to break their line in order to breathe.

## Caesuras

Caesuras are positioned at the top of the staff, with the top staff line passing through the middle of the caesura and the bottom of the caesura resting on the second staff line. They are commonly placed at the end of a bar, before the barline.

Caesuras are automatically added to all staves at the same rhythmic position, immediately to the left of the notehead or barline to which they were input. They are not linked to noteheads, and adjust note spacing to create a clear gap.

### RELATED LINKS

[Input methods for holds and pauses](#) on page 320

[Moving notes/items rhythmically](#) on page 437

[Moving items graphically](#) on page 481

## Multiple holds and pauses at the same rhythmic position

Because fermatas apply to all staves, only one type of fermata can exist at the same rhythmic position. For example, you cannot have a short fermata on one staff and a long fermata at the same rhythmic position on another staff.

A Britten curllew can be used at the same rhythmic position as another kind of fermata, but it cannot exist simultaneously with any breath mark. This is the only exception in Dorico Elements.

Caesuras can co-exist with any type of breath mark, but you cannot have a caesura and a fermata at the same rhythmic position.

### RELATED LINKS

[Input methods for holds and pauses](#) on page 320

[Moving notes/items rhythmically](#) on page 437

[Rhythmic position](#) on page 26

## Changes to fermatas on single staves

Changing the type of fermata or caesura on one staff automatically changes the type on all staves at that rhythmic position, as a pause at one particular rhythmic position can only be of one duration.

However, if you override a particular fermata on one staff, for example, by changing it to a Britten curllew or a breath mark, changing the existing fermata on another staff does not change the marking on the overridden staff. Deleting the marking on the overridden staff reverts that marking to match the fermata on the other staves.

For example, changing a fermata to a breath mark changes the marking for only that staff. That note is not affected when the type of fermata on the other staves at that rhythmic position is changed.



The bottom staff is overridden to show a breath mark instead of a fermata.



The fermata is changed to a very short fermata, but the bottom staff is exempt as it was overridden to show a breath mark.




Deleting the breath mark from the bottom staff returns it to showing the fermata currently chosen for that rhythmic position.

## Changing the number of fermatas per staff

You can change the maximum number of fermatas that appear on each staff at individual positions when there are multiple voices on a staff.

### PREREQUISITE

- The lower zone is shown.
- **Properties**  is selected in the lower zone toolbar.

---

#### PROCEDURE

1. Select the fermatas whose maximum number per staff you want to change. You can do this in Write mode and Engrave mode.
  2. In the Properties panel, activate **Max. fermatas per staff** in the **Holds and Pauses** group.
  3. Select one of the following options from the menu:
    - **One per voice**
    - **One per each side of staff**
    - **One per staff**
- 

#### RESULT

The number of fermatas shown at the selected positions is changed.

## Positioning fermatas on barlines


You can position individual fermatas over a barline instead of over a note to indicate a gap before the start of the following bar.

#### NOTE

Fermatas cannot be positioned on barlines if **Max. fermatas per staff** is also activated.

---

#### PREREQUISITE

- The lower zone is shown.
  - **Properties**  is selected in the lower zone toolbar.
- 

#### PROCEDURE

1. Select the fermatas you want to position over barlines. You can do this in Write mode and Engrave mode.
  2. In the Properties panel, activate **Attach to barline** in the **Holds and Pauses** group.
- 

#### RESULT

The selected fermatas are positioned above the barline at the end of the bars they were in originally, appearing only above staves that are not joined by the barline. Depending on the instrumentation, this may mean they only appear at the top of the system.

Deactivating **Attach to barline** returns the selected fermatas to their default positions.

---

#### EXAMPLE



Fermata input on last quarter note in the bar



Fermata positioned on barline

---

# Key signatures

Key signatures are the markings that show the current key of music by indicating which notes in the scale for that key are sharpened or flattened. They are shown at the start of each system on every applicable staff.

Traditionally, accidentals are organized following the pattern of the circle of fifths, which is different for sharp keys and flat keys.

Using key signatures saves space, as by indicating which notes are generally going to be sharp or flat in the music in one group at the start of each system, these notes do not need an accidental beside them every time they occur.



Once you have input a key signature, all notes you subsequently input follow the key signature; for example, if you input an **F** after inputting a G major key signature, an F# is input automatically.

Key signatures that do not show accidentals, such as A minor or open key signatures, are indicated by signposts.

Instruments that do not usually have key signatures, such as timpani or horn, have a **No key sig** version in Dorico Elements which never show key signatures. You can select the appropriate instrument type from the instrument picker when adding or changing instruments.

Flows without any key signatures are treated as if there were an open/atonal key signature rather than A minor or C major.

By default, key signatures apply to all staves. However, there are certain situations, such as in polytonal music, where some parts require their own key signature, independently of the rest of the ensemble. You can input key signatures that apply to all staves or only apply to single staves in Dorico Elements.

In Dorico Elements, key signatures exist within the overarching tonality system for your project. The only tonality system that comes as standard in Dorico Elements is 12-EDO.

## NOTE

- You cannot hide key signatures as they provide crucial information about the pitch of notes. If you do not want to see a key signature, you can input an open key signature or delete all key signatures from the flow or project.
- You do not have to input multiple simultaneous key signatures if you have transposing instruments in your score. Dorico Elements handles instrument transpositions automatically.

## RELATED LINKS

[Input methods for key signatures](#) on page 265

- [Types of key signatures](#) on page 913
- [Tonality systems](#) on page 918
- [Instrument picker](#) on page 109
- [Note input](#) on page 210
- [Deleting notes/items](#) on page 431
- [Transposing instruments](#) on page 133
- [Concert vs. transposed pitch](#) on page 170
- [MIDI Import Options dialog](#) on page 86

## Key signature arrangements

Dorico Elements automatically follows conventions for the placement and appearance of key signatures, such as showing accidentals in the accepted circle of fifths order and positioning key signatures between clefs and time signatures.

The order in which accidentals are shown in key signatures is different for sharp keys and flat keys.

- For sharps: F#, C#, G#, D#, A#, E#, B#
- For flats: Bb, Eb, Ab, Db, Gb, Cb, Fb

Accidentals are arranged automatically in these orders in Dorico Elements for all standard Western key signatures. There is an accepted pattern for the placement of accidentals in a key signature, so that they fit inside the staff according to the current clef. The pattern of accidentals is the same in all clefs, apart from the tenor clef, which requires sharp key signatures to follow a different, ascending pattern to ensure the accidentals fit on the staff.

---

Clef	Arrangement of sharps	Arrangement of flats
Treble		
Bass		
Alto		
Tenor		

---

### RELATED LINKS

- [Positions of key signatures](#) on page 914

## Types of key signatures

There are multiple types of key signatures in Dorico Elements, which can all be input, moved, and deleted in the same ways.

### Major and minor key signatures

The key signature for a major key appears the same as the key signature for its relative minor, and vice versa. For example, B $\flat$  major has two flats in its key signature. This is the same number of flats as for G minor, which is the relative minor key to B $\flat$  major. The difference is that music in G minor usually has sharpened Fs, as the seventh degree of the scale is raised in minor keys. Therefore, if you input an F $\sharp$ /G $\flat$  after a G minor key signature, Dorico Elements prefers to spell it as F $\sharp$  in most cases, in order to follow the convention of harmonic minor keys.



A B flat major scale following a B flat major key signature



A G minor scale following a G minor key signature

### Open key signature

Although open, or atonal, key signatures appear the same as C major or A minor key signatures because none shows any accidentals, open key signatures behave differently.

In an open key signature, the spelling of accidentals is based on the current direction of the music. If the music is rising, sharps are preferred, whereas if the music is falling, flats are preferred. There is no hierarchy of pitches in an open key signature, so the same pitch might be spelled differently each time it appears depending on its context, even within a few bars.

In a C major or A minor key signature, accidentals are spelled based on the context of the major or minor tonality implied. For example, in C major, sharps in general are preferred, whether the music is going up or going down. Similarly, in A minor, G $\sharp$  in particular is preferred, whether the music is going up or going down, as G $\sharp$  is the leading note in A minor.

### No key signature

Some instruments are accustomed to seeing no key signatures in their parts, no matter the overall key of the piece. These instruments include timpani, percussion, horn, trumpet, and sometimes the harp. If you have added the **No key sig** version of these instruments, then no key signature is shown in their parts, even if they are a transposing instrument, such as horn or trumpet.

Any pitch can be input into these instruments, and they show accidentals if needed.

#### RELATED LINKS

[Input methods for key signatures](#) on page 265

[Instrument picker](#) on page 109

[Adding instruments to players](#) on page 133

## Hiding/Showing key signatures at the start of systems

By default, key signatures are shown at the start of all systems. You can hide/show key signatures at the start of single-staff systems from the second system onwards in each flow independently.

Hiding key signatures on single-staff systems after the first system is a convention used in hand-copied lead sheets, usually in combination with hiding clefs and showing systemic barlines.

---

### PROCEDURE

1. Press **Ctrl/Cmd-Shift-N** to open **Notation Options**.
2. In the **Flows** list, select the flows in which you want to hide/show key signatures after the first system.  
By default, only the current flow is selected when you open the dialog. You can select other flows by clicking **Select All** in the action bar, clicking and dragging across multiple flows, **Shift**-clicking adjacent flows, and **Ctrl/Cmd**-clicking individual flows.
3. In the category list, click **Key Signatures**.
4. Choose one of the following options for **Key signatures at start of systems following first system**:
  - **Show key signatures**
  - **Hide key signatures**
5. Click **Apply**, then **Close**.

---

### RESULT

Key signatures are hidden or shown at the start of single-staff systems from the second system onwards in the selected flows.

### NOTE

- Key signature changes that occur at system breaks after the first system are always shown.
- Key signatures are always shown at the start of systems that contain more than one staff.

---

### RELATED LINKS

[Hiding/Showing systemic barlines on single-staff systems](#) on page 738

[Hiding/Showing clefs at the start of systems](#) on page 818

## Positions of key signatures

Key signatures are positioned between clefs and time signatures by default, and are shown on every staff that requires a key signature. They are not shown on staves for unpitched instruments.

Key signatures are shown at the start of a piece and at the start of subsequent movements, even if the music carries straight on and in the same key. Unlike time signatures, key signatures appear at the start of every system, even if the key signature has not changed. They apply until the end of the flow or until the next key signature change, whichever comes first.



The correct position for key signatures is between clefs and time signatures.

If a key signature change occurs during a piece or movement, it should be placed immediately after a barline. It is customary to have a double barline where a key signature change takes place, which is the default setting in Dorico Elements.



Examples of key signatures positioned after double barlines

You can move key signatures to new rhythmic positions in Write mode. They are automatically positioned correctly.

#### RELATED LINKS

- [Cautionary key signatures](#) on page 915
- [Key signature arrangements](#) on page 912
- [Moving notes/items rhythmically](#) on page 437

## Cautionary key signatures

When a key signature change occurs at a system break, either in the score or in a part, the new key signature is shown at the end of the first system as well as at the start of the new system.

This is sometimes considered a “cautionary key signature”, as players become used to seeing the key signature at the start of the system and therefore may miss a change of key signature if it is not conspicuously shown at the end of systems.

In Dorico Elements, the key signatures shown at the end of one system and at the start of the next system are the same item, not separate items. You cannot hide cautionary key signatures.

If the music is separate enough that you do not want to see a key signature at the end of a system and you cannot change where the system break occurs, you can separate the music by creating a new flow at the point of the system break.

#### RELATED LINKS

- [Flows](#) on page 162
- [Splitting flows](#) on page 470
- [Hiding/Showing key signatures at the start of systems](#) on page 914
- [System breaks](#) on page 586
- [Cautionary time signatures](#) on page 1252
- [Clefs](#) on page 816

## Enharmonic equivalent key signatures

Enharmonic equivalent key signatures are keys with different names that include the same pitches, such as C# major and D $\flat$  major. Dorico Elements follows the convention for transposing



to keys with the same type of accidental as the previous key, except where the enharmonic equivalent key signature has fewer accidentals.

When transposing selections of notes, Dorico Elements prefers keys with the same type of accidental as the previous key signature. When choosing key signatures for transposing instruments, Dorico Elements prefers key signatures with the same type of accidental as the current concert pitch key.

However, there are some instances where you might prefer to transpose to a key with a different type of accidental as it has fewer accidentals than the enharmonic equivalent key. For example, C# major has seven sharps, whereas the enharmonic equivalent key of D $\flat$  major only has five flats. This means the player has to remember the accidentals for fewer notes.

Transposing to an enharmonic equivalent key with fewer accidentals can have the added benefit of improving readability by avoiding double sharps or double flats. For example, transposing music from F# to G# requires the leading note to be spelled as an F $\sharp\sharp$ , but transposing to A $\flat$  instead means the leading note is G $\flat$ .



G# major requires a double sharp leading note



A# major, the enharmonic equivalent to G#, does not require a double sharp leading note

By default, Dorico Elements selects an enharmonic equivalent key signature if it has fewer accidentals. You can change this setting in each flow independently.

## How key signatures affect transposing instruments

If there is a key signature in the full score, it is transposed for a transposing instrument by the same degree as the transposing interval for the instrument. For example, in a project in E major, a B $\flat$  clarinet part has a key of F# major, as a B $\flat$  clarinet sounds a whole step (tone) below its notated pitch.

## Instruments that do not show a key signature

Some instruments are accustomed to seeing no key signatures in their parts, no matter the overall key of the piece. These instruments include timpani, percussion, horn, trumpet, and sometimes the harp. If you have input the **No key sig** version of these instruments, then no key signature is shown in their parts, even if they are a transposing instrument, such as horn or trumpet.

You can still transpose music in the staves of these instruments, but they show accidentals as necessary, instead of showing a key signature.

### RELATED LINKS

[Notation Options dialog](#) on page 679

[Transpose dialog](#) on page 446

[Transposing selections](#) on page 445

[Respelling notes](#) on page 449

[Adding instruments to players](#) on page 133

[Concert vs. transposed pitch](#) on page 170

[Transposing instruments](#) on page 133

## Allowing/Disallowing enharmonic equivalent key signatures

By default, Dorico Elements selects enharmonic equivalent key signatures if they have fewer accidentals when transposing selections that include a key signature and in transposing layouts. You can change this setting in each flow independently; for example, if you want all layouts to have flats in their key signatures, regardless of the number of accidentals.

---

### PROCEDURE

1. Press **Ctrl/Cmd-Shift-N** to open **Notation Options**.
2. In the **Flows** list, select the flows in which you want to allow/disallow enharmonic equivalent key signatures.  
By default, only the current flow is selected when you open the dialog. You can select other flows by clicking **Select All** in the action bar, clicking and dragging across multiple flows, **Shift**-clicking adjacent flows, and **Ctrl/Cmd**-clicking individual flows.
3. In the category list, click **Accidentals**.
4. In the **Transposition** section, activate/deactivate **Prefer enharmonic equivalent key signatures with fewer accidentals**.
5. Click **Apply**, then **Close**.

---

### RESULT

Enharmonic equivalent key signatures with fewer accidentals are allowed when the option is activated, and disallowed when the option is deactivated. This affects resulting key signatures when transposing selections that include a key signature and in transposing layouts.

# Tonality systems

The term “tonality system” is used in Dorico Elements to encompass three crucial elements that together make up the concept of tonality.

The three elements that make up tonality systems are:

- A number of equal divisions of the octave, or EDO. For example, standard Western scales with half-step (semitone) steps have 12-EDO.
- A set of accidentals. This allows you to notate how much a note is raised or lowered.
- A key signature. In Dorico Elements, you can use any traditional Western key signature.

Dorico Elements provides the following tonality systems in each project by default:

- **Equal temperament (12-EDO):** Contains twelve half-step (semitone) steps
- **Equal temperament (24-EDO, Gould arrows):** Contains 24 quarter tone steps and uses Gould arrow quarter tone accidentals
- **Equal temperament (24-EDO, Stein-Zimmermann):** Contains 24 quarter tone steps and uses Stein-Zimmermann quarter tone accidentals

You can find existing tonality systems in your project in the **Tonality System** section of the Key Signatures, Tonality Systems, and Accidentals panel.

## RELATED LINKS

[Key Signatures, Tonality Systems, and Accidentals panel](#) on page 267

## Equal Division of the Octave (EDO)

EDO stands for Equal Division of the Octave: the number of equal pieces, or intervals, into which an octave is divided.

Traditional Western harmony is based on equal temperament, another method used to describe tonality systems, or 12-EDO, as the traditional scale from C-C is made up of twelve steps spread across the seven notes in the scale.

For example, between the notes A and B there are two steps, but between B and C there is one step. This is because in 12-EDO, each step represents a half-step (semitone), and there are two half-steps between A and B according to standard equal temperament, but only one half-step between B and C.

Other tonality systems can have different equal divisions of the octave; for example, in 24-EDO each octave division is a quarter tone. However, the only tonality system in Dorico Elements is 12-EDO.

# Lyrics

In Dorico Elements, the term “lyrics” is used for all text that is sung by singers.



Lyrics for a soprano duet with basso continuo accompaniment

Lyrics are organized into lyric lines to ensure consistent horizontal alignment and to make showing verse numbers simple and accurate. There are different types of lyric lines for lyrics with different purposes, and the appearance of lyrics changes depending on their line type. For example, lyrics in chorus and translation lines are shown in an italic font by default.

In Dorico Elements, lyrics were designed so that it is simple to make changes to existing lyrics without having to re-input new lyrics each time. For example, you can change the syllable type of lyrics so that they are either followed or not followed by a hyphen.

When inputting lyrics, you can use key commands to switch between lyric lines, to change on which side of the staff lyrics are input, and to switch the lyric style between normal lyrics, chorus lyrics, and translation lyrics. You can also change the type of lyrics after they have been input.

You can input multiple lines of lyrics, chorus lyrics, and translations, both above or below staves. You can filter existing lyrics according to their type and lyric line.

## RELATED LINKS

[Inputting lyrics](#) on page 374

[Positions of lyrics](#) on page 925

[Lyric line numbers](#) on page 935

[Filters for lyrics](#) on page 924

[Lyric hyphens and lyric extender lines](#) on page 934

[Exporting lyrics](#) on page 924

## Types of lyrics

Lyrics are divided into different lyric types in Dorico Elements.

### Lyric lines

Lyric lines contain normal lyrics and can be shown with verse numbers. They can be both below and above the staff.

### Chorus lines

Chorus lines contain lyrics in an italic font and are placed between lyric lines. For example, if there are two lyric lines, the chorus line appears between Line 1 and Line 2. Chorus lines do not have verse numbers.

### Lyric line translations

Lyric line translations show the text in lyric lines or chorus lines in different languages. They are placed directly below the lyric line or chorus line of which they are a translation. They are shown in an italic font.

Each lyric line can have its own lyric line translation, including chorus lines.

Lyric line translations do not have verse numbers, as they are part of the line of which they are a translation.

You can input all types of lyrics using the lyrics popover. The icon shown on the left-hand side of the popover indicates the type of lyric currently being input.

#### RELATED LINKS

[Lyric line numbers](#) on page 935


[Inputting lyrics](#) on page 374

[Lyrics popover](#) on page 375

## Changing the type of individual lyrics

You can change the type of individual lyrics after they have been input. For example, you can change lyrics into chorus lyrics or translation lyrics.

#### PREREQUISITE

- The lower zone is shown.
- **Properties**  is selected in the lower zone toolbar.

---

#### PROCEDURE

1. Select the individual lyrics whose type you want to change. You can do this in Write mode and Engrave mode.
2. In the Properties panel, activate/deactivate the following properties, individually or together, in the **Lyrics** group:
  - **Chorus**
  - **Is translation**

---

#### RESULT

- Activating **Chorus** changes the selected individual lyrics to chorus lyrics.
- Activating **Is translation** changes the selected lyrics to translation lyrics of the same lyric line number. For example, selecting lyrics in Line 2 and activating **Is translation** turns them into translation lyrics for Line 2.
- Activating both properties changes the selected lyrics to translation lyrics of the chorus.
- Deactivating both properties changes the selected lyrics to normal lyrics. Their line number is indicated by the number in **Line number** in the **Lyrics** group of the Properties panel.

#### NOTE

If other chorus lines exist at the same position on the side of the staff where you want to change your current selection to chorus lines, the two lines collide. To avoid this, change the type of the whole lyric line, which automatically avoids collisions.

---

#### RELATED LINKS

[Showing lyrics in italics](#) on page 933

## Types of syllables in lyrics

There are different types of syllables in lyrics, depending on their position in words. The key you press to advance the popover indicates the syllable type for each lyric.

Dorico Elements defines lyrics as different syllables depending on how you advance the popover when inputting lyrics.

### Whole word

Lyrics are considered a whole word if the lyric comes after a gap and is followed by a gap or a period.

No hyphens are shown either side of whole word lyrics. Extender lines can be shown after lyrics.

### Start

Lyrics are considered the start syllable in a multi-syllabic word if the lyric comes after a gap, but is followed by a hyphen.

Hyphens are shown after start lyrics, which can be continuation hyphens depending on the distance before the next lyric in the same lyric line.

### Middle

Lyrics are considered the middle syllable in a multi-syllabic word if the lyric comes after a hyphen, and is followed by a hyphen.

Hyphens are shown after middle lyrics, which can be continuation hyphens depending on the distance before the next lyric in the same lyric line.

### End

Lyrics are considered the end syllable in a multi-syllabic word if the lyric comes after a hyphen but is followed by a gap or a period.

Extender lines can be shown after end lyrics.

#### RELATED LINKS

[Inputting lyrics](#) on page 374

[Lyric hyphens and lyric extender lines](#) on page 934

[Positions of lyrics](#) on page 925

[Changing the alignment of lyrics relative to notes](#) on page 927

## Changing the syllable type of existing lyrics

You can change the syllable type of lyrics after they have been input.


For example, if you advanced the lyrics popover to the next note by pressing **Space** but you later want it to be followed by a hyphen, you can change its syllable type.

#### NOTE

Changing the syllable type changes whether a hyphen is shown after the selected lyrics, not before them. Therefore, if you want to show a hyphen before lyrics, you must change the syllable type of the lyrics immediately preceding them.

---

#### PREREQUISITE

- The lower zone is shown.
  - **Properties**  is selected in the lower zone toolbar.
- 

#### PROCEDURE

1. Select the lyrics whose syllable type you want to change. You can do this in Write mode and Engrave mode.
  2. In the Properties panel, select one of the following options from the **Syllable type** menu in the **Lyrics** group:
    - **Whole word**
    - **Start**
    - **Middle**
    - **End**
- 

#### RESULT

Lyrics with a syllable type of **Whole word** or **End** are followed by a space.

Lyrics with a syllable type of **Start** or **Middle** are followed by a hyphen.

## Copying and pasting lyrics

You can copy and paste lyrics from both existing lyric lines in Dorico Elements and from external text editors; for example, if you want to copy a lyric line to a player who has different rhythms to the source but uses the same lyrics.

When copying text from outside Dorico Elements, you must format the text so it is suitably separated into syllables; for example, by adding hyphens in multi-syllabic words. This ensures Dorico Elements can correctly identify the characters required for each word/syllable and therefore format the resulting lyrics appropriately. There are automatic hyphenation tools that you can use, but results from these are not always reliable. Dorico Elements checks text you have copied to your clipboard to make sure it contains only single spaces and single hyphens for correct syllable input.

#### NOTE

You cannot currently copy and paste lyrics containing Chinese, Japanese, or Korean characters. This is planned for future versions.



---

#### PROCEDURE

1. Select the lyrics/text you want to copy. You can do this within Dorico Elements or externally.

#### NOTE

- If you are copying existing lyrics/text in Dorico Elements, you must be in Write mode.

- If you want to select many existing lyrics in Dorico Elements, you can use filters for lyric lines or you can select a single lyric and press **Ctrl/Cmd-Shift-A** multiple times to select the rest of the lyrics in the lyric line.
- 
2. Press **Ctrl/Cmd-C** to copy the selected lyrics/text.
  3. In Write mode, select the first note in the voice to which you want to copy lyrics.
  4. Open the lyrics popover in any of the following ways:
    - Press **Shift-L**.
    - In the Notations toolbox, click **Popovers** , then **Lyrics** .
  5. Optional: Change the lyric type into which you will paste lyrics in one of the following ways:
    - To change the lyric line number, press **Down Arrow**.
    - To change to a lyric line above the staff, press **Shift - Up Arrow**.
    - To change to a chorus line, press **Up Arrow**.
    - To change to a translation lyric line, press **Alt/Opt - Down Arrow**.
  6. Press **Ctrl/Cmd-V** to paste the first word/syllable of the copied lyrics/text.  
The lyrics popover automatically advances to the next note in the selected voice according to the source text. For example, for syllables followed by hyphens in the source, the popover advances as if you had pressed **-** (hyphen), which automatically shows hyphens after those syllables.
  7. Optional: For words/syllables that you want to apply to two or more notes, you must advance the popover manually in one of the following ways:
    - After complete words or the final syllable in multi-syllabic words, press **Space**.
    - After syllables that are not the final syllable in multi-syllabic words, press **-** (hyphen).
    - After syllables that you do not want to be followed by an extension line or hyphen, press **Right Arrow**.
  8. Continue pressing **Ctrl/Cmd-V** for each word/syllable you want to paste.
- 

#### RESULT

The selected lyrics/text is pasted into the selected lyric line belonging to the voice in which you selected a note.

#### NOTE

Words/syllables are removed from your clipboard as you paste them. If you want to paste the same lyrics/text into another lyric line or staff, you must copy the source again.

---

#### RELATED LINKS

- [Edit Lyrics dialog](#) on page 931
- [Lyric line numbers](#) on page 935
- [Large selections](#) on page 403
- [Inputting lyrics](#) on page 374
- [Lyrics popover](#) on page 375
- [Copying and pasting notes/items](#) on page 433



## Exporting lyrics

You can export all lyrics from all flows in the project to a plain text file; for example, if you want to create a libretto of all the text sung in a project.

---

### PROCEDURE

1. Choose **File > Export > Lyrics** to open the File Explorer/macOS Finder.
2. Specify a name and location for the text file.
3. Click **Save**.

---

### RESULT

All lyrics from all flows in the project are exported to a plain text file, which opens automatically in your default text editor.

Dorico Elements automatically removes hyphens between syllables, and adds contextual information for lyrics, such as their line number and the instrument to which they belong.

### RELATED LINKS

- [File import and export](#) on page 78
- [Lyric hyphens and lyric extender lines](#) on page 934
- [Types of lyrics](#) on page 919
- [Positions of lyrics](#) on page 925
- [Exporting comments](#) on page 476

## Filters for lyrics

In Dorico Elements, lyrics filters allow you to select all lyrics of a specified type across your project or across a specific selection.

The following lyrics filters are available:

### All Lyrics

Selects all types of lyrics in the current selection, with any lyric line number and placement above/below the staff.

### Line 1

Selects only Line 1 lyrics and translation lyrics for Line 1 in the current selection, including Line 1 below the staff and Line 1 above the staff.

### Line 2

Selects only Line 2 lyrics and translation lyrics for Line 2 in the current selection, including Line 2 below the staff and Line 2 above the staff.

### Line 3

Selects only Line 3 lyrics and translation lyrics for Line 3 in the current selection, including Line 3 below the staff and Line 3 above the staff.

### Line 4

Selects only Line 4 lyrics and translation lyrics for Line 4 in the current selection, including Line 4 below the staff and Line 4 above the staff.

### Line 5

Selects only Line 5 lyrics and translation lyrics for Line 5 in the current selection, including Line 5 below the staff and Line 5 above the staff.

### **Above Staff**

Selects all lyrics above the staff in the current selection. You can use this filter in addition to the other filters. For example, you can filter first by line number, and then filter again by staff-relative placement.

### **Below Staff**

Selects all lyrics below the staff in the current selection. You can use this filter in addition to the other filters. For example, you can filter first by line number, and then filter again by staff-relative placement.

### **Chorus**

Selects all chorus lyrics in the current selection.

### **Translations**

Selects all translation lyrics in the current selection.

#### RELATED LINKS

[Filters](#) on page 407

[Changing filters to select/deselect](#) on page 408

[Large selections](#) on page 403

## Selecting lyrics using filters

You can use lyric filters to select all lyrics of a specified type across your project or across a specific selection.

#### PREREQUISITE

Your filter setting is set to **Select Only**.

---

#### PROCEDURE

1. In the music area, make a selection that includes all the lyrics you want to select.  
For example, press **Ctrl/Cmd-A** to select the whole flow.
2. Choose **Edit > Filter > Lyrics > [Lyrics type]**.

---

#### RESULT

All lyrics of the selected type in your selection are selected. For example, if you choose **Edit > Filter > Lyrics > Chorus**, all chorus lyrics in your selection are selected.

## Positions of lyrics

Dorico Elements automatically positions lyrics and makes adjustments to accommodate variations in the length of lyrics, including adjusting the horizontal alignment of lyrics in melismatic music. However, you can also move lyrics manually.

You can move lyrics to different rhythmic positions in Write mode.

You can move individual lyrics graphically in Engrave mode, but this does not change the rhythmic positions to which they are attached.

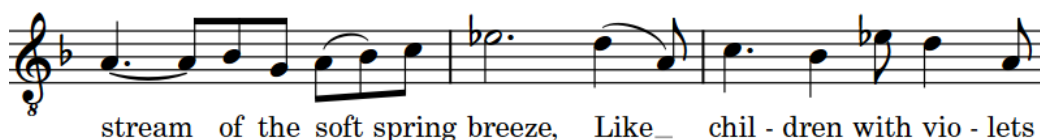
### **Positions of syllables**

Lyrics typically coincide with notes. The number of notes sung on syllables or words determines the alignment of lyrics relative to notes:

- Single syllables, which are whole words or parts of longer words that are sung on only one note, are centered on their corresponding note.
- Melismata, which are syllables or words that are sung on more than one note, are left-aligned with the left side of the first note to which they apply.

The horizontal spacing of lyrics must be wide enough so that words or syllables do not overlap with the words or syllables on either side. For this reason, note spacing must sometimes be adjusted to accommodate lyrics.

To reduce how severely the note spacing is changed to accommodate lyrics, which can distort the appearance of rhythms, Dorico Elements allows the alignment of some lyrics to be adjusted relative to their corresponding notes. For example, if a long, single-syllable word on a long note follows another long, single-syllable word on a short note, the second word is moved a little to the right to give both words enough space.



In this musical phrase, the lyric "breeze" has been moved to the right to accommodate the lyric "spring" on the previous note.

#### NOTE

Moving lyrics graphically in Engrave mode overrides the automatic spacing for the selected lyrics. If you move a lyric whose position was automatically readjusted, the note spacing at that rhythmic position might change.

You can prevent Dorico Elements from considering lyrics in note spacing calculations using the **Make space for lyrics** option on the **Note Spacing** page in **Layout Options**; however, we recommend using this option with caution.

---

## Placement of lyric lines

Lyrics are generally placed below the staff to which they apply and relative to other lyric lines according to their line number. For example, lyrics in Line 1 are placed at the top, including when there are multiple lyric lines above the staff.

If a line of lyrics is missing across the width of a whole system, no additional gap is left between the remaining lines of lyrics.

You can also move individual lyric lines vertically. In Engrave mode, when you select any lyric in a lyric line, a square handle appears on the bottom left of the first lyric in the line on that system. This allows you to adjust the vertical position of lyric lines independently of other lyric lines.



Square handle selected at the start of a lyric line in Engrave mode

---

#### EXAMPLE

You have three lines of lyrics, but one system does not have a second line of lyrics. On this system, the third line of lyrics is moved upwards, closer to the first line of lyrics.

If a subsequent system does not have a first line, but does have the second and third lines, then the second and third lines of lyrics are moved upwards. The second line of lyrics takes the place of the first line.

---

#### RELATED LINKS

[Moving notes/items rhythmically](#) on page 437

[Moving items graphically](#) on page 481

[Moving lyric lines vertically](#) on page 929

[Changing the line number and type of lyric lines](#) on page 936

[Changing the staff-relative placement of lyric lines](#) on page 928

[Layout Options dialog](#) on page 677

[Per-layout note spacing options](#) on page 580

## Changing the alignment of lyrics relative to notes

You can change the horizontal alignment of individual lyrics relative to notes; for example, if you want to force lyrics at the same position on multiple staves with different default alignments to have the same alignment. You can do this for the current layout and frame chain only, or for all layouts and frame chains.


There is no default setting for the alignment of lyrics relative to notes, as Dorico Elements automatically adjusts the horizontal position of lyrics to minimize note spacing changes. By default, lyrics on single noteheads are center-aligned, and lyrics spanning multiple noteheads are left-aligned.

#### NOTE

Changing the alignment of lyrics manually overrides Dorico Elements's automatic spacing for the selected lyrics, meaning that note spacing at the affected rhythmic positions might change.

---

#### PREREQUISITE

- The lower zone is shown.
- **Properties**  is selected in the lower zone toolbar.
- You have chosen the appropriate property scope for local properties.

---

#### PROCEDURE

1. Select the lyrics whose alignment you want to change. You can do this in Write mode and Engrave mode.
  2. In the Properties panel, activate **Lyric text alignment** in the **Lyrics** group.
  3. Select one of the following alignment options from the menu:
    - **Left**
    - **Center**
    - **Right**
- 

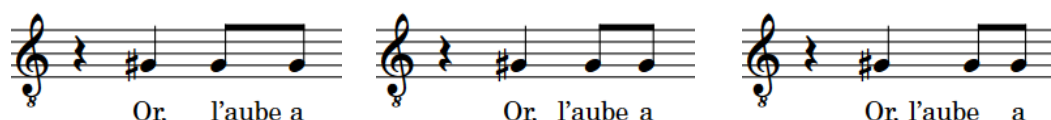
#### RESULT

The alignment of the selected lyrics is changed. Note spacing is automatically adjusted to avoid collisions with adjacent lyrics.

If the property scope was set to **Locally**, this change only takes effect in the current layout and frame chain.

---

EXAMPLE



Left-aligned lyric "l'aube"      Center-aligned lyric "l'aube"      Right-aligned lyric "l'aube"

---

RELATED LINKS

[Types of syllables in lyrics](#) on page 921

[Hiding/Showing zones](#) on page 44

[Changing the property scope](#) on page 617

[Copying property settings to other layouts/frame chains](#) on page 599

## Changing the staff-relative placement of lyric lines

You can show whole lyric lines either above or below the staff after they have been input.

---

PROCEDURE

1. In Write mode, select a lyric in each line whose staff-relative placement you want to change.

**TIP**

You can also make a selection and use the lyric filters to select different lyric lines according to their line numbers and staff-relative placement.

2. Choose one of the following staff-relative placements:
  - Choose **Edit > Notations > Lyrics > Placement > Above**.
  - Choose **Edit > Notations > Lyrics > Placement > Below**.

**TIP**

You can also choose these options from the context menu.

---

RESULT

The staff-relative placement of the whole lyric lines in which you selected lyrics is changed.

**NOTE**

If other lyric lines with the same lyric line number exist at the same position on the side of the staff to which you want to change your current selection, the two lines switch sides. For example, if there is already a Line 2 above the staff at the position where you want to change the placement of Line 2 below the staff, then the existing Line 2 above the staff is placed below the staff to accommodate your most recent preference.

---

RELATED LINKS


[Lyric line numbers](#) on page 935

[Filters for lyrics](#) on page 924

## Changing the staff-relative placement of individual lyrics

You can show individual lyrics either above or below the staff, independently of the staff-relative placement of their lyric line. For example, to clarify the lyrics for each part when two voices on the same staff have different rhythms.

### PREREQUISITE

- The lower zone is shown.
- **Properties**  is selected in the lower zone toolbar.

---

### PROCEDURE

1. Select the lyrics whose staff-relative placement you want to change. You can do this in Write mode and Engrave mode.
2. In the Properties panel, choose one of the following options for **Line placement** in the **Lyrics** group:
  - **Above**
  - **Below**

---

### RESULT

The staff-relative placement of the selected lyrics is changed.

### NOTE

If other lyric lines with the same lyric line number already exist at the same position on the same side of the staff, the two lines collide. To avoid this, you can change the lyric line number of one of the lyric lines, for example.

---

## Moving lyric lines vertically

You can move lyric lines graphically upwards/downwards on a per-system basis, independently of other layouts and your project-wide settings. For example, if the shapes of phrases on certain systems make lyric lines appear unevenly centered between staves.

### NOTE

- You cannot move individual lyrics upwards/downwards; instead, you can change their lyric line number or staff-relative placement.
- We recommend that you add extra pages and finish laying out your pages before moving individual lyric lines vertically, as lyric line offsets are automatically deleted if the frame in which they occur changes. For example, if you move lyric lines individually and then add a blank page at the start of the layout, all of the individual lyric line offsets in the layout are deleted.

---

### PROCEDURE

1. In Engrave mode, select any of the following in each system where you want to move lyric lines vertically:
  - Any lyric in each lyric line you want to move vertically.
  - The handles on the bottom left of the first lyric on each lyric line you want to move vertically.

NOTE

When using the mouse, you must only select handles at the start of each lyric line.

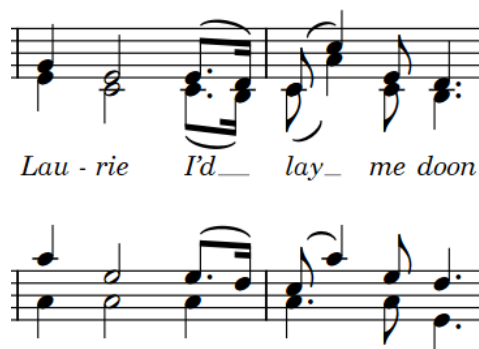
2. Move the selected lyric lines upwards/downwards in any of the following ways:
  - To move them a standard amount, press **Alt/Opt-Up Arrow / Alt/Opt-Down Arrow**. This moves lyric lines by 1/4 space per press.
  - To move them a large amount, press **Ctrl/Cmd-Alt/Opt-Up Arrow / Ctrl/Cmd-Alt/Opt-Down Arrow**. This moves lyric lines by 1 space per press.
  - To move them a moderate amount, press **Shift-Alt/Opt-Up Arrow / Shift-Alt/Opt-Down Arrow**. This moves lyric lines by 1/2 space per press.
  - To move them a small amount, press **Ctrl/Cmd-Shift-Alt/Opt-Up Arrow / Ctrl/Cmd-Shift-Alt/Opt-Down Arrow**. This moves lyric lines by 1/32 space per press.
  - Click and drag the handles upwards/downwards.

RESULT

The selected lyric lines are moved upwards/downwards on the selected systems. This does not affect the vertical offset of any other lyric lines on those systems or the same lyric lines in other layouts.

EXAMPLE

Because of the shape of the music in this example, the default vertical alignment of the chorus in the middle of the three lyric lines for the verses in the previous bar causes the chorus to appear much closer to notes on the top staff than the bottom staff. Moving the chorus line downwards makes it appear more evenly distributed between the staves.



Default chorus placement



Chorus line moved downwards

RELATED LINKS

[Changing the line number of individual lyrics](#) on page 937

[Changing the type of individual lyrics](#) on page 920

## Lyric text editing

Proofreading lyrics can be challenging, because lyrics are spaced more widely than regular text and individual words are often split up over large horizontal distances. In Dorico Elements, you

can change the text and formatting of individual lyrics, including viewing entire lyric lines in a single dialog.

## Changing the text of existing lyrics

You can change the text of lyrics after they have been input; for example, to correct misspellings.

### NOTE

- You can only change one lyric at a time when following these steps. To edit multiple lyrics at once, you can use the **Edit Lyrics** dialog.
- If you want to edit the formatting of individual lyrics, you can use the **Edit Lyric** dialog. However, any edits you have made to the formatting of individual lyrics are removed when you change their text using the popover.

---

### PROCEDURE

1. In Write mode, select the lyric whose text you want to change.
2. Press **Return** or **Shift-L** to open the lyrics popover.
3. Change the existing text in the lyrics popover.
4. Optional: If you want to change other existing lyrics, advance the popover in one of the following ways:
  - To advance the popover to the next note if you entered a complete word, or the final syllable in a multi-syllabic word, press **Space**.  
Existing lyrics are automatically selected in the popover when you press **Space**.
  - To advance the popover to the next note if you entered one syllable of a multi-syllabic word, press **-**.
  - To move the cursor one character to the right, press **Right Arrow**.
  - To move the cursor one character to the left, press **Left Arrow**.  
The cursor automatically moves to the next/previous lyric/note if you keep pressing the arrow keys.
5. Press **Return** or **Esc** to close the popover when you have finished changing lyrics.  
The popover closes automatically when you reach the last note on the staff.

---

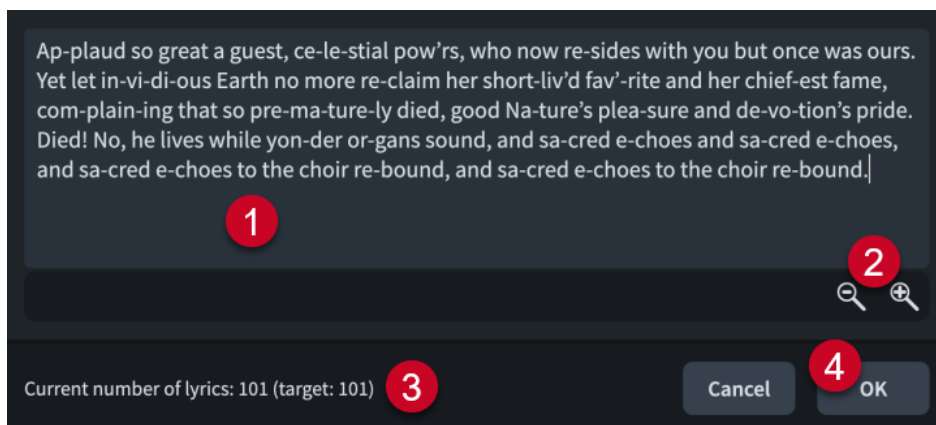
## Edit Lyrics dialog

The **Edit Lyrics** dialog allows you to view and edit entire lyric lines in one place and with the text displayed with consistent spacing. This is more convenient than changing each word/syllable individually alongside the music, where lyrics can be split up over large horizontal distances.

- You can open the **Edit Lyrics** dialog by selecting at least one lyric and choosing **Edit > Notations > Lyrics > Edit Line of Lyrics**. You can also choose this option from the context menu.

The dialog shows all lyrics in the same lyric line as the selected lyric and allows you to edit the lyrics, such as fixing misspellings, adding commas, or changing where in a word the hyphen is placed. If you selected multiple lyrics to open the dialog, Dorico Elements populates the dialog with the lyric line of the earliest lyric on the highest staff you selected.





The **Edit Lyrics** dialog comprises the following:

**1 Text editor**

Allows you to edit all the lyrics in the selected lyric line in the current flow, with hyphens and spaces as appropriate. For example, you can add a comma after the final syllable in a line for a poem setting or replace a hyphen with a space.

**NOTE**

You cannot add, delete, or change the duration/rhythmic position of lyrics, such as the number of notes to which each lyric applies.

**2 Zoom controls**

Allow you to increase/decrease the size of text in the dialog.

**3 Current number of lyrics**

Displays the number of lyrics currently shown in the text editor and the target number of lyrics in the lyric line. The target number is the number of lyrics that already exists in the selected lyric line in the flow.

The current number of lyrics updates automatically as you work in the dialog. Dorico Elements requires the current number and target number of lyrics to match before you can confirm the dialog.

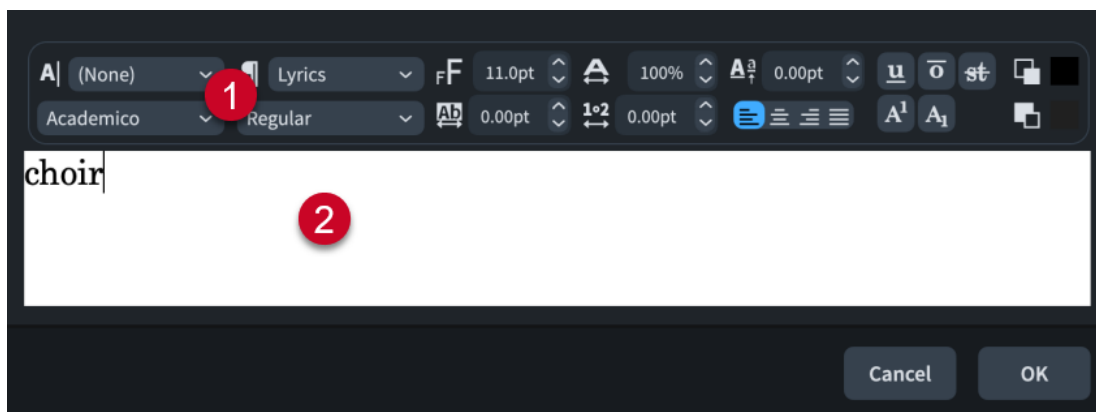
**4 OK button**

Allows you to confirm your changes and close the dialog. You can only confirm the dialog when the current number and target number of lyrics match.

## Edit Lyric dialog

The **Edit Lyric** dialog allows you to edit the formatting of individual lyrics, such as making single characters underlined.

- You can open the **Edit Lyric** dialog by selecting a lyric and choosing **Edit > Notations > Lyrics > Edit Single Lyric**. You can also choose this option from the context menu.



The **Edit Lyric** dialog comprises the following:

**1 Text editor options**

Allows you to customize the font, size, and formatting of the selected part of the lyric.

**2 Text editing area**

Shows the current text for the lyric. You can select any part of the lyric and edit it independently of other parts; for example, if you want some characters to appear underlined.

RELATED LINKS

[Text editor options in Write mode](#) on page 371

[Changing the paragraph style used for lyrics](#) on page 934

[Resetting the appearance of items](#) on page 415


## Showing lyrics in italics

You can show individual lyrics in an italic font without changing their paragraph style, lyric type, or staff-relative placement. You can do this for the current layout and frame chain only, or for all layouts and frame chains.

TIP

- If you want to show lyrics in an italic font because they are intended to be either chorus lyrics or translation lyrics, you can change their lyric type instead.
- You can use the **Edit Lyric** dialog to show individual characters in lyrics in italics.
- 

PREREQUISITE

- The lower zone is shown.
- **Properties**  is selected in the lower zone toolbar.
- You have chosen the appropriate property scope for local properties.

PROCEDURE

1. Select the lyrics you want to show in an italic font. You can do this in Write mode and Engrave mode.
2. In the Properties panel, activate **Italic** in the **Lyrics** group.

#### RESULT

The selected lyrics are shown in an italic font. If the property scope was set to **Locally**, this change only takes effect in the current layout and frame chain.

#### RELATED LINKS

[Types of lyrics](#) on page 919

[Lyric line numbers](#) on page 935

[Lyric hyphens and lyric extender lines](#) on page 934

[Edit Lyric dialog](#) on page 932


[Changing the property scope](#) on page 617

[Copying property settings to other layouts/frame chains](#) on page 599

## Changing the paragraph style used for lyrics

You can change the paragraph style used for individual lyrics; for example, if you want to use narrower paragraph styles for lyrics on tightly spaced systems. You can do this for the current layout and frame chain only, or for all layouts and frame chains.

#### PREREQUISITE

- The lower zone is shown.
- **Properties**  is selected in the lower zone toolbar.
- You have chosen the appropriate property scope for local properties.

---

#### PROCEDURE

1. Select the lyrics whose paragraph style you want to change. You can do this in Write mode and Engrave mode.
2. In the Properties panel, activate **Paragraph style** in the **Lyrics** group.
3. Select a paragraph style from the menu.

---

#### RESULT

The paragraph style used for the selected lyrics is changed. If the property scope was set to **Locally**, this change only takes effect in the current layout and frame chain.

#### RELATED LINKS

[Types of lyrics](#) on page 919

[Lyric line numbers](#) on page 935

[Lyric hyphens and lyric extender lines](#) on page 934

## Lyric hyphens and lyric extender lines

Lyric hyphens indicate that individual lyrics are syllables within multi-syllabic words; for example, “Hal-le-lu-jah”. Lyric extender lines indicate that individual lyrics, either whole words or the last syllables in multi-syllabic words, extend across multiple notes.



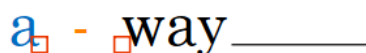
A phrase containing hyphens and an extender line

Dorico Elements automatically shows lyric hyphens when you advance the lyrics popover by pressing **-** between syllables, and lyric extender lines when you advance the lyrics popover by pressing **Space** multiple times after an entry, provided there is sufficient horizontal space between the end of the lyric and the end position of the extender line. Lyric extender lines end at the right edge of the last notehead to which they apply.

In Engrave mode, lyric hyphens and lyric extender lines have two square handles, one at the start and one at the end. You can move whole lyric hyphens and lyric extenders lines, and you can also move their handles independently of each other. This allows you to lengthen/shorten lyric hyphens and extender lines. For lyric hyphens, this increases/decreases the space in which lyric hyphens are shown and can result in more/fewer hyphens appearing.



Lyric extender line with handles shown



Lyric hyphen with handles shown

The start handles of lyric extender lines are attached to the lyrics from which they extend, and the start handles and end handles of lyric hyphens are attached to the lyrics on each side. If you move either of those lyrics, the corresponding lyric extender line or hyphen handles also move.

#### NOTE

You cannot move lyric extender lines or hyphens upwards/downwards, as their vertical position is determined by their lyric line number and the vertical position of their lyric line.

---

#### RELATED LINKS

[Inputting lyrics](#) on page 374

[Navigation during lyric input](#) on page 376

[Moving items graphically](#) on page 481

## Lyric line numbers

Lyric line numbers are used to organize lyrics when a single musical passage can have different lyrics sung to it, such as music that contains multiple verses. In Dorico Elements, you can specify the line number of lyrics as you input them and by changing the line number of existing lyrics.

For example, if you input lyrics in Line 3 but later want to change those lyrics to Line 4 because you want to input different lyrics as Line 3, you can change your current Line 3 into Line 4, and then input a new line of lyrics as Line 3. The spacing is automatically adjusted to show lyric lines in the correct order.

**Andante**

S.  
A.

1. Max - well - ton's braes are bon - nie,  
2. Her brow is like the snow - drift,  
3. Like dew on the gow - an ly - ing,

T.  
B.

The start of a choral piece with three lyric lines for its three verses

In Dorico Elements, you can have multiple lines of lyrics both above and below the same staff. Turning lyric lines into chorus lyric lines or lyric line translations changes both their placement and appearance as chorus lyrics generally use an italic font.

#### RELATED LINKS

[Verse numbers](#) on page 938

[Filters for lyrics](#) on page 924

[Positions of lyrics](#) on page 925

[Showing lyrics in italics](#) on page 933

## Changing the line number and type of lyric lines

You can change the lyric line number of whole lyric lines after they have been input. You can also change whole lyric lines to chorus lines and lyric line translations.

For example, you can change the existing Line 1 into a lyric translation of Line 4, or change Line 2 into a chorus line.

#### TIP

To identify which line you are working on, select a syllable in the line of lyrics and check the number in the **Line number** value field in the **Lyrics** group of the Properties panel.

#### PROCEDURE

1. In Write mode, select a lyric in the line whose lyric line type you want to change. The lyric line can be above or below the staff.

#### TIP

You can also make a selection and use the lyric filters to select different lyric lines according to their line numbers.

2. Change the line number and/or type of the selected lyric line in one of the following ways:
  - Choose **Edit > Notations > Lyrics > Line > [Line number]**.
  - Choose **Edit > Notations > Lyrics > Line > Chorus**.
  - Choose **Edit > Notations > Lyrics > Translations > [Line number Translation]**.
  - Choose **Edit > Notations > Lyrics > Translations > Chorus Translation**.

**TIP**

You can also choose these options from the context menu.

---

**RESULT**

The line number or type of the whole lyric line of the selected lyric is changed.

**NOTE**

The position of the selected lyric line relative to other lyric lines at the same position might be changed. For example, if there were two lyric lines and you changed Line 1 to Line 3, it now appears below Line 2.

If a lyric line with the same number already exists at the same position on the same side of the staff, the two lines switch. For example, if there is already a Line 1 at the rhythmic position where you want to change Line 2 to Line 1, then the existing Line 1 becomes Line 2 to accommodate your most recent preference. The same applies to chorus lines and lyric line translations.

---

**RELATED LINKS**


[Types of lyrics](#) on page 919

[Filters for lyrics](#) on page 924

## Changing the line number of individual lyrics

You can change the lyric line number of individually selected lyrics after they have been input.

**PREREQUISITE**

- The lower zone is shown.
  - **Properties**  is selected in the lower zone toolbar.
- 

**PROCEDURE**

1. Select the individual lyrics whose line number you want to change. You can do this in Write mode and Engrave mode.
  2. In the Properties panel, change the value for **Lyric number** in the **Lyrics** group.
- 

**RESULT**

The line number of the selected lyrics is changed to match the value in the value field.

**NOTE**

The position of the selected lyrics relative to other lyric lines might be changed. For example, if there were two lyric lines and you changed lyrics in Line 1 to Line 3, they now appear below Line 2.

---

## Verse numbers

Verse numbers indicate the order in which lyrics are sung when multiple lines of lyrics share the same musical passage. They are commonly used in hymns and song sheets.

Depending on the type of music you are writing, verse numbers might not be appropriate. Therefore, hiding/showing verse numbers in Dorico Elements is optional. By default, verse numbers are not shown. You can hide/show verse numbers on individually selected lyrics.

### NOTE


Lyric line translations are part of the lyric line of which they are a translation so do not have their own verse number.

---

## Hiding/Showing verse numbers

You can hide/show verse numbers on individual lyrics; for example, if you want to show the verse number at the start of every system.

### PREREQUISITE

- The lower zone is shown.
- **Properties**  is selected in the lower zone toolbar.

### PROCEDURE

1. Select the lyrics before which you want to hide/show verse numbers. You can do this in Write mode and Engrave mode.
2. In the Properties panel, activate/deactivate **Show verse number** in the **Lyrics** group.
3. Activate/Deactivate the corresponding checkbox.

### RESULT

Verse numbers are shown before the selected lyrics when the checkbox is activated, and hidden when the checkbox is deactivated.

### RELATED LINKS

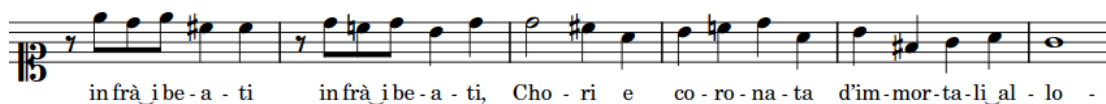
[Hiding/Showing zones](#) on page 44

[Changing the property scope](#) on page 617

[Copying property settings to other layouts/frame chains](#) on page 599

## Elision slurs

Elision slurs are used to show that two or more syllables or characters are part of the same lyric. Elision slurs are also sometimes used to tell singers not to breathe between the joined lyrics.



A soprano part containing multiple elision slurs

Dorico Elements automatically shows elision slurs in lyrics that contain the underscore character.

RELATED LINKS

[Inputting lyrics](#) on page 374


[Navigation during lyric input](#) on page 376

[Slurs](#) on page 1155

## Hiding/Showing East Asian elision slurs

You can hide/show East Asian elision slurs for individual lyrics. You can do this for the current layout and frame chain only, or for all layouts and frame chains.

PREREQUISITE

- The lower zone is shown.
- **Properties**  is selected in the lower zone toolbar.
- You have chosen the appropriate property scope for local properties.

---

PROCEDURE

1. Select the lyrics on which you want to show East Asian elision slurs. You can do this in Write mode and Engrave mode.
2. In the Properties panel, activate/deactivate **Show East Asian elision slur** in the **Lyrics** group.
3. Activate/Deactivate the corresponding checkbox.

---

RESULT

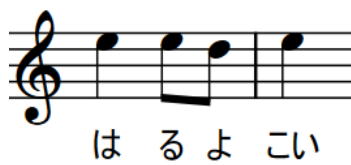
East Asian elision slurs are shown on the selected lyrics when the checkbox is activated, and hidden when the checkbox is deactivated. If the property scope was set to **Locally**, this change only takes effect in the current layout and frame chain.

---

EXAMPLE



East Asian elision slur shown



East Asian elision slur hidden



# Notes

Notes are shapes that are positioned on staves to indicate musical pitches. Notes are most commonly shown with oval-shaped, round noteheads that are either filled or void depending on their duration, but there are many different designs of noteheads that you can use.

Depending on their duration, notes can have stems that help indicate their duration.

In Dorico Elements, a sequence of adjacent notes joined with ties is considered a single note of the total duration of the tie chain, rather than separate notes. Note grouping is automatically adjusted according to the prevailing beat grouping, which is normally set by the time signature.

## RELATED LINKS

[Inputting notes](#) on page 211

[Note spacing](#) on page 579

[Stems](#) on page 961

[Notehead sets](#) on page 940

[Changing the notehead design of individual noteheads](#) on page 946

[Note tools popover](#) on page 462

[Adding notes above/below existing notes](#) on page 247

[Bracketed noteheads](#) on page 953

[Ties](#) on page 1232

[Note and rest grouping](#) on page 774

[Beam grouping according to meters](#) on page 755

## Notehead sets

A notehead set is a collection of related noteheads that together allow you to represent all the different noteheads required for the different durations used in music notation.

A typical notehead set contains at least four noteheads:

- A black notehead for quarter notes (crotchets) and shorter
- A white notehead for half notes (minims)
- A wider white notehead for whole notes (semibreves)
- A wider white notehead with one or two vertical strokes on either side, or a square white notehead, for double whole notes (breves)

Pitch-dependent notehead sets contain noteheads that vary according to the pitch of notes rather than their duration.

- In *pitched* notehead sets, there are different noteheads for different pitches.  
For example, the Pitch Names notehead set shows the letter name and any applicable accidental of each note within its notehead.
- In *scale degree* notehead sets, there is a different notehead for each scale degree, relative to the current key signature.  
For example, the Aikin 7-shape notehead set uses a different notehead shape for each pitch.

#### NOTE

- A single notehead can appear in multiple notehead sets. If you edit a notehead within one notehead set, your changes affect the appearance of that notehead in all notehead sets that contain it.
  - Notehead sets can only contain noteheads of the same type. For example, you cannot use a normal notehead in a pitched notehead set.
  - You cannot change the type of an existing notehead set or an existing notehead.
- 

#### RELATED LINKS

[Pitch-dependent notehead set designs](#) on page 945

## Notehead set designs

There are a number of different notehead set designs that you can use for individual noteheads in Dorico Elements.

- You can find the available notehead designs by selecting at least one note and choosing **Edit > Notations > Notehead > [Notehead type or design] > [Notehead design]**. You can also choose these options from the context menu.

#### NOTE

Dorico Elements does not offer stemless noteheads. Instead, you can hide the stems of notes with any notehead design.

---

## General noteheads

---

### Notehead set design



### Notehead set name

Larger Noteheads



Default Noteheads



Large Circled Noteheads



Circled Noteheads



Slashed Noteheads (Bottom Left to Top Right)

**Notehead set design**



**Notehead set name**

Slashed Noteheads (Top Left to Bottom Right)

---

**Cross noteheads**

---

**Notehead set design**



**Notehead set name**

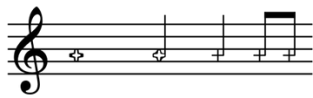
Circle X Noteheads



Large X and Diamond Noteheads



Ornate X Noteheads



Plus Noteheads



With X Noteheads



X Noteheads



X and Circle X Noteheads



X and Diamond Noteheads

---

## Triangular noteheads

---

### Notehead set design



### Notehead set name

Large Arrow Down Noteheads



Large Arrow Up Noteheads



Triangle Down Noteheads



Triangle Left Noteheads



Triangle Right Noteheads



Triangle Up Noteheads

---

## Diamond noteheads

---

### Notehead set design



### Notehead set name

Diamond Noteheads



Old-Style Diamond Noteheads



White Diamond Noteheads

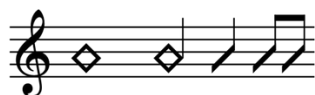


Wide Diamond Noteheads

## Slash noteheads

---

### Notehead set design



### Notehead set name

Muted Slash Noteheads

Oversized Slash Noteheads

Slash Noteheads

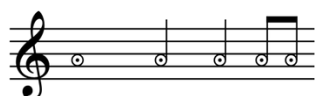
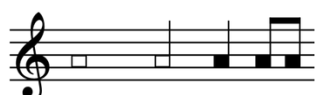
Small Slash Noteheads

---

## Round and square noteheads

---

### Notehead set design



### Notehead set name

Moon Noteheads

Rectangular Noteheads

Round White with Dot Noteheads

---

### RELATED LINKS

[Changing the notehead design of individual noteheads](#) on page 946

[Hiding/Showing stems](#) on page 966

[Hiding/Showing noteheads](#) on page 949

## Pitch-dependent notehead set designs

Pitch-dependent notehead sets use different notehead designs or different notehead colors depending on the pitch of notes. There are a number of different pitch-dependent notehead sets available in Dorico Elements.

- You can find the available notehead designs by selecting at least one note and choosing **Edit > Notations > Notehead > [Notehead type or design] > [Notehead design]**. You can also choose these options from the context menu.

### Scale degree noteheads

---

#### Notehead set design



#### Notehead set name

Aikin 7-shape Noteheads



Funk 7-shape Noteheads



Walker 4-shape Noteheads



Walker 7-shape Noteheads

---

### Pitched noteheads

---

#### Notehead set design



#### Notehead set name

Figurenotes© Noteheads



Pitch Name Noteheads

---

#### RELATED LINKS

[Notehead sets](#) on page 940

[Changing the notehead design of individual noteheads](#) on page 946

[Hiding/Showing stems](#) on page 966

[Hiding/Showing noteheads](#) on page 949

## Changing the notehead design of individual noteheads

You can change the notehead design of individual noteheads, including trill auxiliary notes. For example, cross noteheads might be used to indicate where players should produce pitchless sounds, such as air sounds on wind instruments.

### NOTE

- These steps do not apply to notes in slash voices.
- If you want to change the notehead design to represent different playing techniques for notes belonging to unpitched percussion instruments, you can instead change their playing technique.
- If you want to change the notehead design to represent harmonics or rhythm slashes, you can instead turn notes into harmonics or change them to a slash voice. You can also input slash regions.

---

### PROCEDURE

1. Select the noteheads whose design you want to change. You can do this in Write mode and Engrave mode.
2. Choose **Edit > Notations > Notehead > [Notehead type] > [Notehead design]**.  
For example, to change the notehead design of the selected notes to X noteheads, choose **Edit > Notations > Notehead > Crosses > X Noteheads**.

### TIP

You can also choose these options from the context menu.

---

### RESULT

The notehead design of the selected notes is changed.

### TIP

You can assign a key command for each factory default notehead design on the **Key Commands** page in **Preferences**.

---

### RELATED LINKS

- [Rhythm slashes](#) on page 1132
- [Slash voices](#) on page 1141
- [Slash regions](#) on page 1132
- [Changing the voice of existing notes](#) on page 442
- [Harmonics](#) on page 968
- [Turning notes into harmonics](#) on page 969
- [Playing technique-specific noteheads](#) on page 1283
- [Changing playing technique-specific noteheads](#) on page 1286
- [Hiding/Showing stems](#) on page 966
- [Hiding/Showing noteheads](#) on page 949
- [Key Commands page in the Preferences dialog](#) on page 59
- [Changing the size of accidentals](#) on page 714

## Assigning notes to strings

You can change the string on which individual notes belonging to string instruments are played; for example, to allow you to specify the correct harmonic. Many notes can be played on multiple strings, depending on where along its length the string is stopped.


Assigning notes to strings can be useful for glissando lines or fingering shifts, as the string and finger position required to play the note affects the direction of these changes. However, the string number is not shown in the music. You can instead input string indicators and/or fingerings, which can help string players understand the string on which they should play.

### NOTE

You can only change the assigned string of notes belonging to string instruments, such as violin, cello, or guitar.

---

### PREREQUISITE

- The lower zone is shown.
  - **Properties**  is selected in the lower zone toolbar.
- 

### PROCEDURE

1. Select the notes whose assigned string you want to change. You can do this in Write mode and Engrave mode.

### NOTE

If selecting multiple notes at once, select notes only in staves of the same instrument type. For example, select multiple Cs in Violin 1 and Violin 2 staves.

---

2. In the Properties panel, activate **String** in the **Notes and Rests** group.
3. Select the string you want from the menu.

The string number for the instrument is shown, followed by the fundamental pitch and the octave number of that string in parentheses. For example, the lowest cello string is expressed as **4 (C2)**.

### NOTE

The options available in the menu depend on the selected pitches and the instrument type.

---

### RESULT

The string to which the selected notes are assigned is changed.

### NOTE

If you subsequently change the pitches of notes, **String** is automatically deactivated for all notes that can no longer be played on their assigned string.

---

### RELATED LINKS

[Glissando lines](#) on page 1000

[Changing the direction of string fingering shift indicators](#) on page 889

[Fingerings for fretted instruments](#) on page 880

[String indicators](#) on page 891

[Inputting string indicators inside the staff](#) on page 366




[Turning notes into harmonics](#) on page 969  
[Changing the harmonic partial](#) on page 970

## Changing the width of ledger lines

You can change the width of ledger lines on individual notes; for example, to allow notes with short durations to be spaced more tightly and still be legible. You can do this for the current layout and frame chain only, or for all layouts and frame chains.

### PREREQUISITE

- The lower zone is shown.
- **Properties**  is selected in the lower zone toolbar.
- You have chosen the appropriate property scope for local properties.

---

### PROCEDURE

1. In Engrave mode, select the noteheads whose ledger line width you want to change.
2. In the Properties panel, activate **Ledger line** in the **Notes and Rests** group.
3. Change the values for **L** and **R**.

---

### RESULT

Increasing **Ledger line L** makes the left side of ledger lines longer, decreasing the value makes the left side of ledger lines shorter.

Increasing **Ledger line R** makes the right side of ledger lines longer, decreasing the value makes the right side of ledger lines shorter.

If the property scope was set to **Locally**, this change only takes effect in the current layout and frame chain.


### RELATED LINKS

[Changing the property scope](#) on page 617  
[Copying property settings to other layouts/frame chains](#) on page 599

## Hiding/Showing ledger lines

You can hide/show ledger lines on individual notes; for example, if you want to indicate approximate pitches using the relative vertical positions of notes. You can do this for the current layout and frame chain only, or for all layouts and frame chains.

### PREREQUISITE

- The lower zone is shown.
- **Properties**  is selected in the lower zone toolbar.
- You have chosen the appropriate property scope for local properties.

---

### PROCEDURE

1. In Engrave mode, select the noteheads whose ledger lines you want to hide/show.

#### NOTE

If you want to hide ledger lines, you must also select all other noteheads in the same voice and voice column index.

---

2. In the Properties panel, activate/deactivate **Hide ledger lines** in the **Notes and Rests** group of the Properties panel.
- 

#### RESULT

Ledger lines are hidden/shown for the selected notes. If the property scope was set to **Locally**, this change only takes effect in the current layout and frame chain.

If you deactivated **Hide ledger lines** for only some notes in a chord, ledger lines are also shown on all notes between the selected notes and the staff in the same voice and voice column index.


#### RELATED LINKS

[Voice column index](#) on page 1307

## Hiding/Showing noteheads

You can hide/show the noteheads of individual notes with any notehead design; for example, if you want to indicate the exact durations of glissando lines using stems without noteheads.

#### PREREQUISITE

- The lower zone is shown.
  - **Properties**  is selected in the lower zone toolbar.
- 

#### PROCEDURE

1. In Engrave mode, select the notes whose noteheads you want to hide.
  2. In the Properties panel, activate/deactivate **Hide notehead** in the **Notes and Rests** group.
- 

#### RESULT

The selected noteheads are hidden when **Hide notehead** is activated, and shown when it is deactivated.

This also hides rhythm dots, provided all noteheads represented by consolidated rhythm dots are hidden, but does not affect the visibility of accidentals or ledger lines.

Hidden noteheads are included in note spacing calculations as if they were shown.

---

#### EXAMPLE



Noteheads shown



Middle noteheads hidden

---

#### RELATED LINKS

[Properties panel](#) on page 615

[Hiding/Showing zones](#) on page 44

[Hiding/Showing hidden noteheads](#) on page 952

[Hiding/Showing ledger lines](#) on page 948

[Hiding/Showing stems](#) on page 966


[Hiding/Showing or parenthesizing accidentals](#) on page 713

[Changing the consolidation of rhythm dots](#) on page 950  
[Note spacing](#) on page 579

## Changing the consolidation of rhythm dots

You can change how rhythm dots in multiple voices are consolidated at individual rhythmic positions. For example, if you want to show fewer rhythm dots for a very dense chord. You can do this for the current layout and frame chain only, or for all layouts and frame chains.

### PREREQUISITE

- The lower zone is shown.
- **Properties**  is selected in the lower zone toolbar.
- You have chosen the appropriate property scope for local properties.

---

### PROCEDURE

1. In Engrave mode, select the notes whose rhythm dot consolidation you want to change.
2. In the Properties panel, activate **Rhythm dot consolidation** in the **Notes and Rests** group.
3. Activate/Deactivate the corresponding checkbox.

---

### RESULT

Rhythm dots for notes of any duration are consolidated when the checkbox is activated, and no rhythm dots are consolidated when the checkbox is deactivated. If the property scope was set to **Locally**, this change only takes effect in the current layout and frame chain.

---

### EXAMPLE



Notes of any duration have rhythm dots consolidated



No rhythm dot consolidation

---

### RELATED LINKS


[Changing the property scope](#) on page 617  
[Copying property settings to other layouts/frame chains](#) on page 599  
[Note positions in multiple-voice contexts](#) on page 1306  
[Voice column index](#) on page 1307  
[Allowing/Disallowing noteheads in opposing voices to overlap](#) on page 1305

## Moving rhythm dots

You can move rhythm dots horizontally. You can do this for the current layout and frame chain only, or for all layouts and frame chains. However, you cannot move an individual rhythm dot independently of other rhythm dots at the same rhythmic position.

### PREREQUISITE

- The lower zone is shown.

- **Properties**  is selected in the lower zone toolbar.
- You have chosen the appropriate property scope for local properties.

---

#### PROCEDURE

1. In Engrave mode, select a notehead at each rhythmic position where you want to move rhythm dots.
2. In the Properties panel, activate **Rhythm dot X** in the **Notes and Rests** group.
3. Change the value in the value field.

---

#### RESULT

Increasing the **Rhythm dot X** value moves all rhythm dots at the selected rhythmic positions to the right, decreasing the value moves them to the left. If the property scope was set to **Locally**, this change only takes effect in the current layout and frame chain.

## Viewing options for notes and rests

You can show notes and rests in different colors in various contexts, which can help you identify them more easily as you are working. For example, showing voice colors makes notes and rests appear in different colors according to their voice.

#### RELATED LINKS

[Color setup](#) on page 52

[Hiding/Showing rest colors](#) on page 1148

[Hiding/Showing voice colors](#) on page 1304

[Hiding/Showing colors for muted notes/items](#) on page 509

## Hiding/Showing colors for notes out of range

You can show colors for notes that are considered out of range, such as notes too high/low for the instrument to play or the voice type to sing, or pitches that do not fit with the current harp pedal settings. When colors for notes out of range are hidden, all notes appear black by default.

Colors for notes out of range are considered annotations and are not printed by default.

#### NOTE

You cannot show colors for voices and notes out of range simultaneously.

---

#### PROCEDURE

- Do one of the following:
  - To show colors for notes out of range, choose **View > Note And Rest Colors > Notes Out Of Range**.
  - To hide colors for notes out of range, choose **View > Note And Rest Colors > None**.

---

#### RESULT

Colors for notes out of range are hidden/shown.

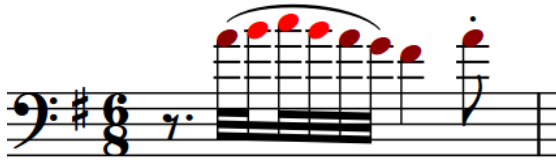
Notes that are considered challenging are shown in a darker red, while notes that are impossible or virtually impossible are shown in a bright red.

## NOTE

Notes out of the fret range of the corresponding string on tablature are always shown as question marks, even if you do not show colors for notes out of range.

---

## EXAMPLE



Colors for notes out of range shown. Three notes in the middle of the phrase are bright red, while the rest are the darker red.

---

## AFTER COMPLETING THIS TASK

If showing colors for notes out of range reveals some notes do not fit with the current harp pedal settings, you can input a new pedal diagram for that passage or calculate a suitable harp pedal diagram.

## RELATED LINKS

- [Changing music area colors](#) on page 54
- [Inputting harp pedal diagrams](#) on page 362
- [Calculating harp pedal diagrams based on existing music](#) on page 363
- [Hiding/Showing voice colors](#) on page 1304
- [Annotations](#) on page 554

## Hiding/Showing hidden noteheads

You can show hidden noteheads in translucent gray, so you can identify and select them more easily.

---

## PROCEDURE

- Choose **View > Note And Rest Colors > Hidden Noteheads**.
- 

## RESULT

Hidden noteheads are hidden/shown.

---

## EXAMPLE



Hidden noteheads shown



Hidden noteheads hidden

---

## RELATED LINKS

- [Hiding/Showing noteheads](#) on page 949

# Bracketed noteheads

Bracketed noteheads are often used to indicate that notes are optional, editorial, not played in all playthroughs in music with repeats, or pressed down but not fully struck on the piano. In Dorico Elements, you can show brackets on any notehead.

Notehead brackets extend slightly above and below noteheads so it is clear which notes are included in each bracket.



A phrase containing round and square notehead brackets

You can also show brackets on noteheads on notation staves and tablature independently of each other.

By default, bracketed notes have reduced velocity, causing them to sound quieter in playback than normal notes.

The following types of notehead brackets are available in Dorico Elements:

## Round notehead brackets

Round notehead brackets have a similar appearance to slurs, but vertical.

By default, round brackets on single noteheads use the font glyph on notation staves and the drawn curve on tablature. In Engrave mode, round notehead brackets that use the drawn curve have handles that allow you to change their shape. Round notehead brackets that use the font glyph do not have handles in Engrave mode.

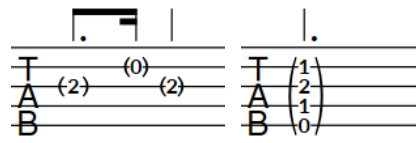
### NOTE

On tablature, round brackets are automatically shown around the second note/chord and all subsequent notes/chords in tie chains. If you show brackets around all noteheads in tie chains on tablature, these automatic notehead brackets are included.



Round brackets on single noteheads on a notation staff

Round bracket on a chord on a notation staff

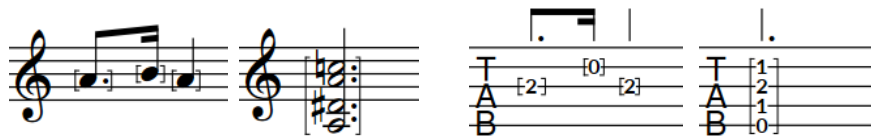


Round brackets on single noteheads on tablature

Round bracket on a chord on tablature

### Square notehead brackets

Square notehead brackets comprise a straight vertical line with horizontal hooks at the top and bottom. Dorico Elements automatically adjusts the length of square brackets to ensure they do not end on staff lines and their hooks remain visible.



Square brackets on single noteheads on a notation staff

Square bracket on a chord on a notation staff

Square brackets on single noteheads on tablature

Square bracket on a chord on tablature

#### RELATED LINKS

[Showing brackets around one/all noteheads in tie chains](#) on page 956

[Notehead brackets in Engrave mode](#) on page 958

[Showing notes as dead notes](#) on page 1025

[Inputting notes](#) on page 211

[Ties](#) on page 1232

[Guitar bends](#) on page 1006

[Guitar pre-bends and pre-dives](#) on page 1008

[Vibrato bar dives and returns](#) on page 1011

[Parenthesized chord symbols](#) on page 799


## Showing brackets on noteheads

You can show round or square brackets on individual noteheads, on single notes within chords, and on whole chords. For example, if you want to indicate that specific notes are optional or an editorial change, or to show notes belonging to unpitched percussion instruments as ghost notes.

#### NOTE

If you want to show brackets on noteheads to represent dead notes, you can instead show notes belonging to fretted instruments as dead notes.

#### PREREQUISITE

- The lower zone is shown.
- **Properties**  is selected in the lower zone toolbar.

#### PROCEDURE

1. Select the noteheads on which you want to show brackets. You can do this in Write mode and Engrave mode.

#### NOTE

- If you want to show brackets on individual noteheads in tie chains that are not the first notehead, you must select them in Engrave mode.
- If you want to show brackets on whole chords, you must select all notes in those chords.

- If you want to show brackets on both notation staves and tablature, you must select notes on both.

2. In the Properties panel, activate **Bracket style** in the **Bracketed Noteheads** group.

3. Choose one of the following options:

- **Round**
- **Square**

---

#### RESULT

The corresponding type of notehead brackets is shown on the selected notes. If you only selected notes on tablature, brackets are not shown on the corresponding notes on the notation staff, and vice versa.

In Write mode, only the first noteheads in tie chains are bracketed. In Engrave mode, only the selected noteheads are bracketed, including in tie chains.

If you selected all notes in chords, Dorico Elements shows a single bracket for each chord unless they contain very large gaps, in which case Dorico Elements automatically splits brackets. If you selected individual notes within chords, they are each shown with separate brackets.

By default, bracketed notes have reduced velocity, causing them to sound quieter in playback than normal notes.

#### TIP

- Deactivating **Bracket style** hides brackets on the selected notes.
- You can also hide/show brackets on noteheads by choosing **Edit > Notations > Notehead > Toggle Round Brackets** or **Edit > Notations > Notehead > Toggle Square Brackets**. You can also choose these options from the context menu.

You can assign key commands for these options on the **Key Commands** page in **Preferences**.

---

#### EXAMPLE



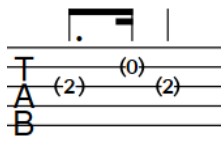
Round brackets on single noteheads on a notation staff



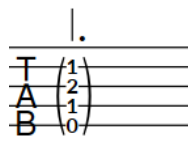
Round bracket on a chord on a notation staff



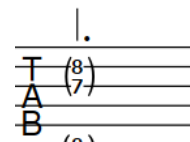
Split round bracket on a chord on a notation staff



Round brackets on single noteheads on tablature



Round bracket on a chord on tablature



Split round bracket on a chord on tablature

---

#### RELATED LINKS

[Showing notes as dead notes](#) on page 1025

[Notehead brackets in Engrave mode](#) on page 958




[Inputting notes](#) on page 211

[Velocity editor](#) on page 642

## Showing brackets around one/all noteheads in tie chains

You can change whether brackets appear only on the first notehead in tie chains or span the entire duration of the tie chain; that is, with the left bracket on the first notehead and the right bracket on the last notehead in the tie chain. By default, brackets appear only on the first notehead in tie chains.

### PREREQUISITE

- You have shown brackets on the required notes.
- The lower zone is shown.
- **Properties**  is selected in the lower zone toolbar.

### PROCEDURE

1. Select the notes whose notehead bracket positions relative to tie chains you want to change. You can do this in Write mode and Engrave mode.
2. In the Properties panel, activate/deactivate **Bracket until end of tie chain** in the **Bracketed Noteheads** group.

### RESULT

Brackets appear at the start and end of the selected tie chains when **Bracket until end of tie chain** is activated, and only around the first note/chord when it is deactivated.

If you activated **Bracket until end of tie chain** for a single note in a bracketed chord, the bracket on the first chord is not split but an additional bracket appears at the end of the tie chain for the selected note only. If you deactivated **Bracket until end of tie chain** for a single note in a bracketed chord whose other notes are bracketed to the end of the tie chain, the bracket at the end of the tie chain is split.

If you selected notes on tablature, the automatic brackets shown around the second note/chord and all subsequent notes/chords in tie chains are updated to follow your property setting.

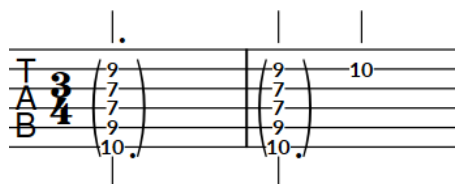
### EXAMPLE



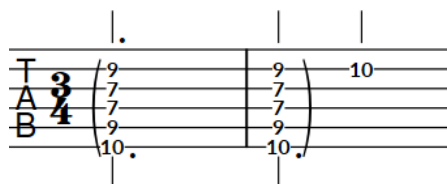
Brackets around only the first chords in tie chains on a notation staff



Brackets at the start and end of whole tie chains on a notation staff



Brackets around only the first chord in a tie chain, with automatic brackets shown on the second chord on tablature



Brackets around the start and end of the whole tie chain on tablature

---

#### RELATED LINKS


[Ties](#) on page 1232

[Showing single brackets on figured bass](#) on page 861

## Splitting brackets on chords

You can split brackets on any notehead within a chord. By default, Dorico Elements automatically shows a single bracket for all notes in a chord unless it contains very large gaps, in which case Dorico Elements automatically splits brackets.

#### PREREQUISITE

- The lower zone is shown.
- **Properties**  is selected in the lower zone toolbar.

#### PROCEDURE

1. Select the individual notes in chords immediately above where you want to split brackets. You can do this in Write mode and Engrave mode.
2. In the Properties panel, activate **Break bracket** in the **Bracketed Noteheads** group.

#### RESULT

Brackets are split immediately below the selected notes.

---

#### EXAMPLE



Chord with single round bracket



Chord with split round bracket

---

#### RELATED LINKS

[Inputting chords](#) on page 240

[Parenthesized chord symbols](#) on page 799

## Notehead brackets in Engrave mode

In Engrave mode, each round notehead bracket has multiple handles that you can move independently to adjust their graphical position, length, and shape.

Round notehead brackets that use the drawn curve have three square handles that you can move independently. When you move either of the top/bottom handles, the middle handle also moves to retain its position relative to the start/end handles.

### NOTE

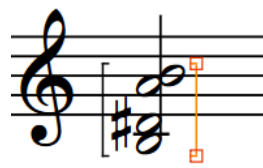
Round brackets on single noteheads that use the font glyph do not show handles in Engrave mode, meaning you cannot lengthen/shorten them or change their shape/width.

---

Square notehead brackets have two handles, one at the top and one at the bottom.



Round notehead bracket handles in Engrave mode



Square notehead bracket handles in Engrave mode

- Top and bottom handles move the corresponding end of the notehead bracket, controlling its graphical length.
- Middle handles control the shape of round notehead brackets. Moving them vertically adjusts their curve by changing the angle at which notehead bracket endpoints approach noteheads, while moving them horizontally changes the width of round notehead brackets.

You can move these handles to change the graphical length of notehead brackets and the shape of round notehead brackets. If necessary, other nearby items, such as ties and slurs, automatically move to avoid collisions.

### TIP

The following properties in the **Bracketed Noteheads** group of the Properties panel are activated automatically when you move the corresponding notehead bracket or handle:

- **L bracket body** moves left notehead brackets. **X** moves them horizontally, **Y** moves them vertically.
  - **R bracket body** moves right notehead brackets. **X** moves them horizontally, **Y** moves them vertically.
  - **L bracket extents** controls the height of left notehead brackets. **T** moves their top handles, **B** moves their bottom handles.
  - **R bracket extents** controls the height of right notehead brackets. **T** moves their top handles, **B** moves their bottom handles.
- 

### RELATED LINKS

[Showing brackets on noteheads](#) on page 954

[Moving items graphically](#) on page 481

## Changing the shape of round notehead brackets

You can change the shape of individual round notehead brackets; for example, if you want some notehead brackets to appear wider or to change their curvature, so that their endpoints approach noteheads at a sharper angle. You can do this for the current layout and frame chain only, or for all layouts and frame chains.

### NOTE

You can only change the shape of round notehead brackets on single noteheads if they use the drawn curve, rather than the font glyph.

---

### PREREQUISITE

You have chosen the appropriate property scope for local properties.

---

### PROCEDURE

1. In Engrave mode, select the middle handles of each round notehead bracket whose shape you want to change.
2. Change the shape of the selected round notehead brackets in any of the following ways:
  - To widen right notehead brackets or narrow left notehead brackets, press **Alt/Opt-Right Arrow**.
  - To narrow right notehead brackets or widen left notehead brackets, press **Alt/Opt-Left Arrow**.
  - To increase the angle of notehead bracket endpoints, press **Alt/Opt-Up Arrow**.
  - To decrease the angle of notehead bracket endpoints, press **Alt/Opt-Down Arrow**.

### TIP

- To move handles by large increments, press **Ctrl/Cmd** plus the standard key command; for example, **Ctrl/Cmd-Alt/Opt-Left Arrow**.
  - To move handles by moderate increments, press **Shift** plus the standard key command; for example, **Shift-Alt/Opt-Left Arrow**.
  - To move handles by small increments, press **Ctrl/Cmd - Shift** plus the standard key command; for example, **Ctrl/Cmd-Shift-Alt/Opt-Left Arrow**.
  - You can also click and drag middle handles in the corresponding directions.
- 

### RESULT

The shape of the selected notehead brackets is changed. If the property scope was set to **Locally**, this change only takes effect in the current layout and frame chain.

If necessary, other nearby items, such as ties and slurs, automatically move to avoid collisions. This might affect note spacing and casting off.

### TIP

The following properties in the **Bracketed Noteheads** group of the Properties panel are activated automatically when you move the middle handle of notehead brackets.

- **L round br. middle** moves left notehead bracket middle handles. **X** moves them horizontally, changing the width of notehead brackets, and **Y** moves them vertically, changing the curvature of notehead brackets.

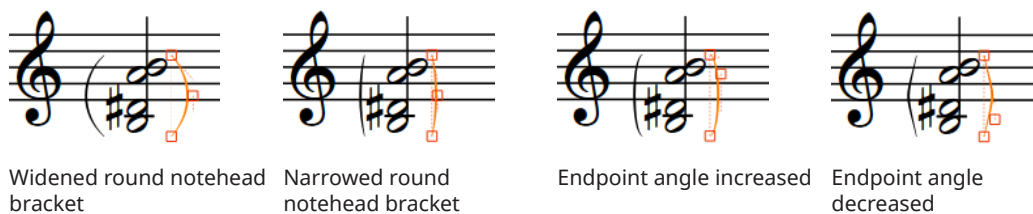
- **R round br. middle** moves right notehead bracket middle handles. **X** moves them horizontally, changing the width of notehead brackets, and **Y** moves them vertically, changing the curvature of notehead brackets.

You can also use these properties to change the width and shape of round notehead brackets by changing the values in the value fields.

Deactivating the properties resets the selected notehead brackets to their default shape.

---

#### EXAMPLE



#### RELATED LINKS

[Slur shoulder offset](#) on page 1177

[Moving items graphically](#) on page 481

[Changing the property scope](#) on page 617

[Copying property settings to other layouts/frame chains](#) on page 599

# Stems

Stems are vertical lines that extend from noteheads that are a half note or shorter in duration. In combination with notehead design, they allow the duration of each note to be clearly identified.

For example, quarter notes (crotchets) and eighth notes (quavers) both have solid black noteheads and stems, but eighth notes also have flags on their stems. 16th notes have two flags, 32nd notes have three flags, and so on. The length of stems is determined by default in Dorico Elements, so stems automatically adjust their length to accommodate more/fewer flags.



The stems of notes and chords can point upwards/downwards, depending on the conventions of music engraving and the context of the music. For example, in choral music on two staves, stems in the soprano and tenor lines point up, and stems in the alto and bass lines point down.

## RELATED LINKS

[Note and rest grouping](#) on page 774

[Altered unisons](#) on page 717

[Voices](#) on page 1303

[Inputting notes](#) on page 211

## Stem direction

In Dorico Elements, the stem direction of notes and chords follows rules that are based on the conventions of music engraving.

Stem direction is determined automatically, but you can manually change the stem direction of individual notes, chords, or of an entire voice. The rules that are applied depend on the following:

- How many voices are active on the staff.
- Whether notes, chords, or beamed groups of notes are affected.
- Whether notes in the same chord or notes in the same beamed group are split between staves.

### Single notes in single voices

On a five-line staff with only a single voice active, the default stem direction of a single note is determined by its staff position.

- If the note is above the middle line, its stem points downwards.
- If the note is below the middle line, its stem points upwards.
- If the note is on the middle line of the staff, its stem direction is determined by the stem directions of any adjacent notes, beam groups, or chords. If they both have the same stem direction, the note matches them. If the adjacent notes, beam groups, or chords have different stem directions, or if there are no adjacent notes, beam groups, or chords, the note follows the default stem direction.

The default stem direction depends on the instrument type. By default, the stems of notes on the middle lines of staves point downwards on instrumental staves and upwards on vocal staves, to avoid lyrics.



Notes on the middle line are stem up because the fourth note is stem up



Notes on the middle line are stem down because the fourth note is stem down

By default, notes are first input into an up-stem voice, and Dorico Elements treats notes as the only voice on the staff until you input more voices.

### Single notes in multiple voices

When there are multiple voices on a staff and all voices contain notes, the stem direction of notes is determined by the stem direction of their voice. Notes in up-stem voices have up stems, and notes in down-stem voices have down stems. This applies even when the stems of notes would normally point in the other direction, based on their position on the staff.

#### NOTE

The order in which notes appear between different up-stem voices and different down-stem voices depends on their pitch and your settings on the **Voices** page in **Notation Options**. You can also change the voice column index of notes individually.

When there are only notes in one voice for at least a whole bar, Dorico Elements automatically changes the directions of stems so they point in the default direction for their pitch. For example, if a staff contains a single up-stem voice and a single down-stem voice but only the down-stem voice contains notes or rests, then the stems of notes in the down-stem voice may point upwards, depending on the position of the notes on the staff. However, showing rests or implicit rests in empty voices forces the stem direction of notes to follow the stem direction of their voice.



Notes in an up-stem voice shown in blue.



Notes in a down-stem voice shown in orange.



When notes in up-stem and down-stem voices are in the same bar, the stem direction is automatically changed.

### Chords in single voices

The stem direction for a chord in a single voice is determined by the balance of notes above/below the middle line of the staff.

- If the note furthest from the middle line is above the middle line, the stem of the chord points downwards.
- If the note furthest from the middle line is below the middle line, the stem of the chord points upwards.
- If the chord is equally balanced on either side of the middle line of the staff, the stem direction is determined by the stem directions of any adjacent notes, beam groups, or

chords. If they both have the same stem direction, the chord matches them. If the adjacent notes, beam groups, or chords have different stem directions, equally balanced chords follow the default stem direction.

The default stem direction depends on the instrument type. By default, the stems of notes on the middle lines of staves point downwards on instrumental staves and upwards on vocal staves, to avoid lyrics.

## Beam groups in single voices

The stem direction within beam groups is determined by the balance of notes within the beam group that are above/below the middle line of the staff.

- If the majority of notes in the beam group are above the middle line, stems in the beam group point downwards.
- If the majority of notes in the beam group are below the middle line, stems in the beam group point upwards.
- If the beam group contains an equal number of notes either side of the middle line of the staff, the stem direction is determined by the stem directions of any adjacent notes, beam groups, or chords. If they both have the same stem direction, the beam group matches them. If the adjacent notes, beam groups, or chords have different stem directions, equally balanced beam groups follow the default stem direction.

The default stem direction depends on the instrument type. By default, the stems of notes on the middle lines of staves point downwards on instrumental staves and upwards on vocal staves, to avoid lyrics.

### RELATED LINKS

[Per-flow notation options for voices](#) on page 1304

[Notation Options dialog](#) on page 679

[Voice column index](#) on page 1307

[Implicit rests in multiple-voice contexts](#) on page 1146

[Hiding/Showing voice colors](#) on page 1304

[Altered unisons](#) on page 717

## Changing the stem direction of notes

You can manually change the stem direction of any note. You can do this for the current layout and frame chain only, or for all layouts and frame chains.

### PREREQUISITE

You have chosen the appropriate property scope for local properties.

---

### PROCEDURE

1. Select the notes whose stem direction you want to change. You can do this in Write mode and Engrave mode.

#### NOTE

- In Write mode, you can only select whole tie chains. In Engrave mode, you can select individual notes within tie chains.
- Changing the stem direction in Write mode only affects the first note in the tie chain.

2. Change the stem direction in one of the following ways:
  - Choose **Edit > Notations > Stem > Force Stem Up**.



- Choose **Edit > Notations > Stem > Force Stem Down.**

TIP

You can also choose these options from the context menu.

---

RESULT

The stem direction of the selected notes is changed. The selected notes follow this stem direction, even if you later change their pitch to one that usually requires a different stem direction. If the property scope was set to **Locally**, this change only takes effect in the current layout and frame chain.

NOTE

- This does not change the voice to which notes belong.
  - You can also change the stem direction of notes by selecting them and pressing **F**.
- 

EXAMPLE



Stems pointing in the same direction but in different voices



Stems in the same direction and in the same voice

---

RELATED LINKS

[Changing the voice of existing notes](#) on page 442

[Changing the staff-relative placement of items](#) on page 414

[Changing the property scope](#) on page 617

[Copying property settings to other layouts/frame chains](#) on page 599

## Changing the default stem direction of voices

You can change the default stem direction of voices after they have been input, including slash voices.

NOTE

This changes the implicit stem direction of the voice, but may not change the stem direction of all notes in single-voice contexts. Stem directions are automatically changed in Dorico Elements when only one voice contains notes.

---

PROCEDURE

1. Select a note or chord in the voice whose stem direction you want to change. You can do this in Write mode and Engrave mode.
2. Change the default stem direction of the selected voice in one of the following ways:
  - Choose **Edit > Notations > Voices > Default Stems Up.**

- Choose **Edit > Notations > Voices > Default Stems Down**.

TIP

You can also choose these options from the context menu.

---

## Removing stem direction changes

You can remove changes to the directions of stems and revert stems to their default directions.

PROCEDURE

1. Select the notes whose stem direction changes you want to remove. You can do this in Write mode and Engrave mode.
2. Choose **Edit > Notations > Stem > Remove Forced Stem**. You can also choose this option from the context menu.

RESULT

All stem direction changes are removed from the selected notes. The stems of the selected notes revert to their default directions.

NOTE

Alternatively, you can change the stem direction to the opposite direction. However, notes with forced stems do not change automatically if, for example, you later change their pitch.

---

## Stem length

The length of stems is determined by default in Dorico Elements, according to accepted standards for the appearance of stems of notes at different positions on staves.

You can lengthen/shorten individual stems in Engrave mode.

## Lengthening/Shortening stems

You can lengthen/shorten the stems of individual notes. You can do this for the current layout and frame chain only, or for all layouts and frame chains.

PREREQUISITE

You have chosen the appropriate property scope for local properties.

---

PROCEDURE

1. In Engrave mode, select the stems you want to lengthen/shorten.
2. Lengthen/Shorten the stems by moving the selected stem handles in any of the following ways:
  - To move them upwards/downwards a standard amount, press **Alt/Opt** plus the corresponding arrow key. For example, press **Alt/Opt-Up Arrow** to move handles upwards. This moves handles by 1/8 space per press.
  - To move them upwards/downwards a large amount, press **Ctrl/Cmd** plus the standard key command; for example, **Ctrl/Cmd-Alt/Opt-Up Arrow**. This moves handles by 1 space per press.

- To move them upwards/downwards a moderate amount, press **Shift** plus the standard key command; for example, **Shift-Alt/Opt-Up Arrow**. This moves handles by 1/2 space per press.
  - To move them upwards/downwards a small amount, press **Ctrl/Cmd - Shift** plus the standard key command; for example, **Ctrl/Cmd-Shift-Alt/Opt-Up Arrow**. This moves handles by 1/32 space per press.
  - Click and drag them upwards/downwards.
- 

#### RESULT

The selected stems are lengthened/shortened. For example, moving the end of downwards-pointing stem upwards shortens the stem. If the property scope was set to **Locally**, this change only takes effect in the current layout and frame chain.

#### TIP

**Stem adj.** in the **Notes and Rests** group of the Properties panel is activated when you lengthen/shorten stems.

You can also use this property to lengthen/shorten stems by changing the value in the value field. However, the **Notes and Rests** group is only available when the notehead is selected rather than the stem.

Deactivating the property resets the selected stems to their default length.

---

#### RELATED LINKS

[Changing the property scope](#) on page 617


[Copying property settings to other layouts/frame chains](#) on page 599

## Hiding/Showing stems

You can hide/show the stems on notes with any notehead design. For example, you might hide stems if you do not want to show exact rhythms in an unmeasured passage.

Dorico Elements allows you to hide stems rather than using a stemless notehead design as this allows you to hide the stem of any notehead design.

#### PREREQUISITE

- The lower zone is shown.
  - **Properties**  is selected in the lower zone toolbar.
- 

#### PROCEDURE

1. In Engrave mode, select the notes whose stems you want to hide.
  2. In the Properties panel, activate/deactivate **Hide stem** in the **Notes and Rests** group.
- 

#### RESULT

The stems and any applicable flags of the selected notes are hidden when **Hide stem** is activated, and shown when it is deactivated.

#### NOTE

- Beams are only hidden when you hide the stems of all notes in beamed groups.

- You can assign a key command for **Toggle Hide Stem** on the **Key Commands** page in **Preferences**.
- 

EXAMPLE



Stems shown



Stems hidden

---

RELATED LINKS

[Notehead set designs](#) on page 941

[Inputting notes](#) on page 211

[Hiding/Showing noteheads](#) on page 949

[Preferences dialog](#) on page 58

# Harmonics

Harmonics are pitches produced by touching resonating strings at specific positions along their length, allowing the corresponding harmonic partial to sound. Harmonics often have a high pitch with a glassy, purer sound than stopped pitches. There are two different types of harmonics: natural and artificial.

Harmonic partials are numbered according to their order in the harmonic series, which also correlates to the node on the string which produces them. For example, the second partial in the harmonic series is produced by the node halfway along a string; that is, the node that divides the string into two equal parts. The third partial is produced by the node that divides the string into thirds, and so on.

## Natural harmonics

Natural harmonics are produced by touching an open string at one of its nodes and then bowing or plucking the string. The sounding pitch of the resulting harmonic varies according to the node and its corresponding partial in the harmonic series. For example, touching the node halfway along a string produces the second partial, which sounds an octave above the open string pitch.

## Artificial harmonics

Artificial harmonics are produced by stopping a string fully (as if playing a normal note) and then touching the string at one of the nodes of its stopped length. The sounding pitch of the resulting harmonic varies according to the node and its corresponding partial in the harmonic series. For example, touching the node that is the equivalent of a fourth higher than the stopped pitch produces the fourth partial, which sounds two octaves above the stopped pitch.

To produce artificial harmonics, players must both fully stop the string and touch the string at the correct node. This can be more difficult to produce than natural harmonics.



A passage for violin alternating between artificial and natural harmonics on the A string


The sounding pitches of the same passage

Dorico Elements supports multiple conventions for the notation of harmonics on stringed and fretted instruments, including for both natural and artificial harmonics. For artificial harmonics shown using two noteheads, one normal and one diamond, Dorico Elements automatically calculates the correct pitch for the touched pitch diamond notehead for the second to sixth harmonic partials. These pitches are reflected in playback, using dedicated sounds for harmonics if the corresponding playback device includes them.

## Turning notes into harmonics

You can turn existing notes into artificial and natural harmonics. Harmonics can represent the sounding, touched, or stopped pitch.

### PREREQUISITE

- You have input the notes you want to turn into harmonics. However, the pitch you should input depends on the harmonic type you want to use.
  - For natural harmonics, we recommend that you input the desired sounding pitch.
  - For artificial harmonics, we recommend that you input the stopped pitch.
- The lower zone is shown.
- **Properties**  is selected in the lower zone toolbar.

---

### PROCEDURE

1. Select the notes you want to turn into harmonics. You can do this in Write mode and Engrave mode.
2. In the Properties panel, activate **Type** in the **Harmonics** group.
3. Choose one of the following options:
  - **Artificial**
  - **Natural**

---

### RESULT

The selected notes are turned into harmonics of the corresponding type. If the corresponding playback device has dedicated sounds for harmonics, the selected notes automatically use those sounds. The sounding pitch of artificial harmonics in playback is also changed accordingly.

- Artificial harmonics represent the second partial by default. They are shown with a diamond notehead indicating the touched pitch an octave above the selected notes. On tablature, the stopped fret is shown on the left and the touched fret is shown on the right in parentheses.
- Natural harmonics represent the sounding pitch by default. They are shown with a circle symbol above the selected notes. On fretted instrument notation staves, natural harmonics appear as black diamond noteheads. On tablature, the fret of the touched pitch is shown, if it can be calculated; if it cannot be calculated, a pink question mark is shown.

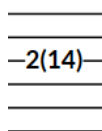
---

### EXAMPLE

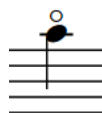
The following examples show the default appearances of natural and artificial harmonics on different staves.



Artificial harmonic on notation staff (any instrument)



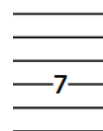
Artificial harmonic on tablature



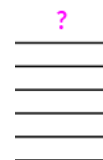
Natural harmonic on non-fretted instrument staff



Natural harmonic on fretted instrument notation staff



Natural harmonic on tablature



Natural harmonic on tablature that cannot be calculated

#### AFTER COMPLETING THIS TASK

You can change the partial for harmonics. You can also change the appearance of natural harmonics and the style of artificial harmonics.

If you want to turn harmonics back into normal notes, deactivate **Type** in the **Harmonics** group.

#### RELATED LINKS

[Inputting notes](#) on page 211

[Appearances/Styles of harmonics](#) on page 972

[Changing music area colors](#) on page 54

[Assigning notes to strings](#) on page 947

[Tablature](#) on page 1200

## Changing the harmonic partial


By default, harmonics indicate the second partial in the harmonic series, which is an octave above the fundamental. You can change the partial for individual harmonics; for example, if you want a higher partial instead.

#### NOTE

Dorico Elements can only correctly calculate artificial harmonic partials for nodes two to six.

---

#### PREREQUISITE

- The lower zone is shown.
  - **Properties**  is selected in the lower zone toolbar.
- 

#### PROCEDURE

1. Select the harmonics whose partial you want to change. You can do this in Write mode and Engrave mode.
  2. In the Properties panel, activate **Partial** in the **Harmonics** group.
  3. Change the value in the value field to the node at which the string should be touched to produce the partial you want.
- 

#### RESULT

The partial of the selected harmonics is changed. For artificial harmonics using the **Normal** type, the pitch of the white diamond notehead/parenthesized fret number is updated automatically. The sounding pitch of artificial harmonics in playback is also changed accordingly.

---

#### EXAMPLE

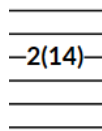
**Artificial harmonic with default partial  
(notation and tablature)**



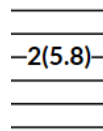
**Partial changed to the fifth  
(notation and tablature)**



**Artificial harmonic with default partial  
(notation and tablature)**



**Partial changed to the fifth  
(notation and tablature)**




---

## Hiding/Showing or parenthesizing harmonic accidentals

You can hide/show individual harmonic accidentals, or show them in round or square brackets, independently of hiding/showing or parenthesizing accidentals of stopped pitch notes. For example, you can show cautionary accidentals on subsequent notes in tie chains that cross system/frame breaks by showing accidentals in round brackets. You can do this for the current layout and frame chain only, or for all layouts and frame chains.

### PREREQUISITE

- The lower zone is shown.
- **Properties**  is selected in the lower zone toolbar.
- You have chosen the appropriate property scope for local properties.

---

### PROCEDURE

1. Select the harmonics whose accidentals you want to hide/show or parenthesize. You can do this in Write mode and Engrave mode.

#### NOTE

You can only select individual noteheads within tie chains in Engrave mode.

2. In the Properties panel, activate **Accidental** in the **Harmonics** group.
3. Select one of the following options from the menu:
  - **Hide**
  - **Show**
  - **Round brackets**
  - **Square brackets**

---

### RESULT

Accidentals on the selected harmonics are hidden, shown, or shown in round or square brackets. If the property scope was set to **Locally**, this change only takes effect in the current layout and frame chain.

#### NOTE

- Hiding accidentals does not affect the pitch of notes in playback.
  - You can assign key commands for **Hide Accidental**, **Show Accidental**, **Show Accidental in Round Brackets**, and **Show Accidental in Square Brackets** on the **Key Commands** page in **Preferences**.
-



#### AFTER COMPLETING THIS TASK

You can also hide/show or parenthesize accidentals on the normal noteheads that indicate the stopped pitch for artificial harmonics shown using diamond noteheads.

#### RELATED LINKS

[Hiding/Showing or parenthesizing accidentals](#) on page 713

[Changing the property scope](#) on page 617

[Copying property settings to other layouts/frame chains](#) on page 599

## Appearances/Styles of harmonics

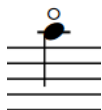
Both artificial and natural harmonics can be notated in different ways. In Dorico Elements, it is possible to indicate the desired sounding pitch, either the stopped or touched pitch, or both stopped and touched pitches for individual harmonics.

In this documentation we refer to “styles” of artificial harmonics, because one artificial harmonic style indicates the use of a different performance technique, and “appearances” of natural harmonics, as their different appearances do not indicate different performance techniques.

### Natural harmonics

#### Circle above

Shows a harmonic circle symbol on the notehead side of notes. Usually indicates the desired sounding pitch of the harmonic. Used for natural harmonics on staves that do not belong to fretted instruments by default, such as violin.



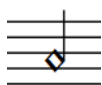
#### Diamond notehead

Changes the notehead of notes to a diamond notehead. The diamond notehead appears black/filled when the note is a quarter note or shorter, and white/unfilled when the note is a half note or longer. Usually indicates the touched pitch required. Used for natural harmonics on fretted instrument notation staves by default.

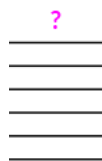


#### White diamond notehead

Changes the notehead of notes to a diamond notehead that is always unfilled, regardless of the duration of notes. Usually indicates the touched pitch required.



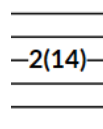
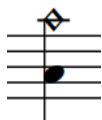
On tablature, the touched fret is always shown for natural harmonics, regardless of the selected appearance. If the touched fret cannot be calculated, a pink question mark is shown.



## Artificial harmonics

### Normal

Shows two noteheads: one indicating the stopped pitch, the other the touched pitch. The touched pitch is automatically calculated based on the partial; the default partial is the second partial. On tablature, the stopped fret is shown on the left and the touched fret is shown on the right in parentheses. This is the default appearance of artificial harmonics on all staves.



**Normal** artificial harmonic on notation staff    **Normal** artificial harmonic on tablature

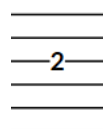
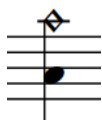
### Pinch

Shows two noteheads: one indicating the stopped pitch, the other the sounding pitch. The sounding pitch is automatically calculated based on the partial; the default partial is the second partial. On tablature, only the stopped fret is shown.

#### NOTE

Intended for fretted instruments only. A pinch is produced by the performer catching a resonating string at a node near the pick-ups, producing a high-pitched squeal. Also known as a "false harmonic" or "squeal".

---



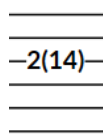
**Pinch** harmonic on notation staff    **Pinch** harmonic on tablature

### Single notehead (sounding)

Shows a single notehead indicating the sounding pitch. On tablature, the stopped fret is shown on the left and the sounding pitch is shown on the right in parentheses.



**Single notehead (sounding)** artificial harmonic on notation staff



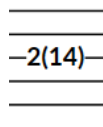
**Single notehead (sounding)** artificial harmonic on tablature

### Single notehead (stopped)

Shows a single notehead indicating the stopped pitch. On tablature, the stopped fret is shown on the left and the touched fret is shown on the right in parentheses.



**Single notehead (stopped)** artificial harmonic on notation staff



**Single notehead (stopped)** artificial harmonic on tablature

#### RELATED LINKS

[Changing music area colors](#) on page 54

## Changing the appearance of natural harmonics


By default, natural harmonics appear as normal noteheads with a circle shown above, which indicates the desired sounding pitch. You can change the appearance of natural harmonics individually; for example, to show them as a white diamond notehead to indicate the touched pitch.

#### NOTE

These steps only apply to harmonics with the **Natural** type.

---

#### PREREQUISITE

- The lower zone is shown.
  - **Properties**  is selected in the lower zone toolbar.
- 

#### PROCEDURE

1. Select the natural harmonics whose appearance you want to change. You can do this in Write mode and Engrave mode.
  2. In the Properties panel, activate **Style** in the **Harmonics** group.
  3. Select one of the following options from the menu:
    - **Circle above**
    - **Diamond notehead**
    - **White diamond notehead**
-

#### RESULT

The appearance of the selected natural harmonics is changed, including on fretted instrument notation staves. The touched pitch shown on tablature is not changed automatically.

#### NOTE

- Changing the appearance of natural harmonics does not automatically change their notated pitch. For example, if you want to change a sounding pitch **Circle above** harmonic to a touched pitch **White diamond notehead** harmonic, you must also change the pitch of the note.
  - Dorico Elements automatically assigns natural harmonics with the **White diamond notehead** style to the lowest possible string for that harmonic. You can specify different strings if necessary.
  - You can change the staff-relative placement of harmonic circle symbols by activating **Placement** in the **Harmonics** group of the Properties panel and choosing the option you want.
- 

#### RELATED LINKS

- [Turning notes into harmonics](#) on page 969
- [Changing the pitch of individual notes](#) on page 444
- [Assigning notes to strings](#) on page 947
- [Tablature](#) on page 1200

## Changing the style of artificial harmonics


By default, artificial harmonics appear as two noteheads: one normal, which indicates the stopped pitch, and one diamond, which indicates the touched pitch. You can change the style of artificial harmonics individually; for example, to indicate pinch harmonics.

#### NOTE

These steps only apply to harmonics with the **Artificial** type.

---

#### PREREQUISITE

- The lower zone is shown.
  - **Properties**  is selected in the lower zone toolbar.
- 

#### PROCEDURE

1. Select the artificial harmonics whose style you want to change. You can do this in Write mode and Engrave mode.
  2. In the Properties panel, activate **Style** in the **Harmonics** group.
  3. Select one of the following options from the menu:
    - **Normal**
    - **Pinch**
    - **Single notehead (sounding)**
    - **Single notehead (stopped)**
- 

#### RESULT

The style of the selected artificial harmonics is changed.

NOTE

**Pinch** indicates the use of a different technique to produce the harmonic.

---

# Ornaments

Ornaments are markings that indicate multiple notes are played in addition to the notated pitch. They are used to decorate music, such as in Baroque music, which is highly decorated with trills and other ornaments.

Over time, specific ways of notating how performers should play notes have developed and different ornament symbols indicate different patterns of decorative notes. Nonetheless, ornaments give some freedom to performers to embellish music in their own way.

In Dorico Elements, the term “ornaments” refers to ornament symbols, including mordents and turns, and trill marks.



A phrase containing a turn, short trills, and a trill with extension line

## NOTE

Only trills are currently reflected in playback. Playback of other ornaments is planned for future versions.

## RELATED LINKS

[Input methods for ornaments, arpeggio signs, glissando lines, and jazz articulations](#) on page 325

[Grace notes](#) on page 897

[Positions of ornaments](#) on page 978

[Trills](#) on page 981

[Trills in playback](#) on page 991

## Changing ornament intervals


You can change the intervals of ornaments, both above and below the notated pitch, to indicate which pitches are played in the ornament. The intervals of ornaments are indicated by accidentals.

For some ornaments, you can only change the interval in one direction. For example, you can only change the interval above short trills and below mordents.

## NOTE

These steps do not apply to trills.

## PREREQUISITE

- The lower zone is shown.
- **Properties**  is selected in the lower zone toolbar.

---

#### PROCEDURE

1. Select the ornaments whose interval you want to change. You can do this in Write mode and Engrave mode.
2. In the Properties panel, activate the following properties, individually or together, in the **Ornaments** group, as appropriate for the selected ornaments:
  - **Interval above**
  - **Interval below**
3. Change the values in the value fields to the intervals you want.
  - **0** or **4** and above shows no accidental.
  - **1** shows a flat.
  - **2** shows a natural.
  - **3** shows a sharp.

---

#### RESULT

The intervals of the selected ornaments are changed.

#### NOTE

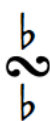
Some ornaments do not show accidentals either above or below, depending on their type.

---

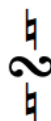
#### EXAMPLE



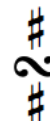
No accidentals



Flats above and below



Naturals above and below



Sharps above and below

---

#### RELATED LINKS

[Trill intervals](#) on page 984

[Changing vibrato bar dip intervals](#) on page 1026

## Positions of ornaments

Ornaments, including trills, are placed above the notes to which they apply. They are only placed below the staff for down-stem voices in multiple-voice contexts.

Ornaments and trills are positioned outside of slurs by default. Similarly, they are positioned further from noteheads than articulations.

The center of ornaments aligns with the center of the notehead to which they apply. Trills are aligned differently, as the left side of trill marks aligns with the left edge of the notehead to which the trill applies.

Dorico Elements automatically positions ornaments correctly according to their type, and attaches them to their notehead.

You can move ornaments to different rhythmic positions in Write mode. They are automatically positioned to avoid collisions.

You can move ornaments graphically in Engrave mode, but this does not change the rhythmic positions to which they are attached.

#### RELATED LINKS

[Trills](#) on page 981

[Hiding/Showing trill marks](#) on page 981


[Moving notes/items rhythmically](#) on page 437

[Moving items graphically](#) on page 481

## Changing the position of ornaments relative to slurs

Ornaments are positioned outside of slurs by default. You can change the position of ornaments relative to slurs individually. You can do this for the current layout and frame chain only, or for all layouts and frame chains.

#### PREREQUISITE

- The lower zone is shown.
- **Properties**  is selected in the lower zone toolbar.
- You have chosen the appropriate property scope for local properties.

---

#### PROCEDURE

1. In Engrave mode, select the ornaments whose slur-relative position you want to change.
2. In the Properties panel, activate **Slur-relative position** in the corresponding group for the selected ornaments:
  - **Ornaments**
  - **Trills**
3. Choose one of the following options:
  - **Inside**
  - **Outside**

---


#### RESULT

The selected ornaments are positioned either inside or outside of slurs. If the property scope was set to **Locally**, this change only takes effect in the current layout and frame chain.

## Changing the start position of trills

You can change whether the start position of individual trills is aligned with the notehead or with its accidental. You can do this for the current layout and frame chain only, or for all layouts and frame chains.

#### PREREQUISITE

- The lower zone is shown.
- **Properties**  is selected in the lower zone toolbar.
- You have chosen the appropriate property scope for local properties.



---

#### PROCEDURE

1. Select the trills whose start position you want to change. You can do this in Write mode and Engrave mode.
  2. In the Properties panel, activate **Start position** in the **Trills** group.
  3. Choose one of the following options:
    - **Notehead**
    - **Accidental**
- 

#### RESULT

The start position of the selected trills is changed. If the property scope was set to **Locally**, this change only takes effect in the current layout and frame chain.

#### RELATED LINKS

[Changing the property scope](#) on page 617

[Copying property settings to other layouts/frame chains](#) on page 599

[Hiding/Showing trill extension lines](#) on page 983

# Trills

Trills are fast alternations between two notes, similar to a tremolo, that were a common decoration in Baroque, Classical, and Romantic music. Trill marks are usually added to a single note, to indicate the performed notes are the notated pitch and the note either a half-step or whole step above, and can have extension lines to show the duration of the trill.



A phrase containing multiple trills with extension lines

Because of their legacy as an ornament, many performers interpret trills differently to tremolos: some players add more emphasis to the notated pitch in a trill and less on the trilled-to note but play both notes equally in tremolos.

The most common trills are to notes a major or minor second above, but it is also possible to specify other trill intervals.

In Dorico Elements, you can specify any trill interval, change their appearance on notation staves, and hear them in playback.

On tablature, the trilled-to pitch always appears as a parenthesized fret number.



Trills on a notation staff and tablature

## RELATED LINKS

[Input methods for ornaments, arpeggio signs, glissando lines, and jazz articulations](#) on page 325

[Trill intervals](#) on page 984

[Changing the start position of trills](#) on page 979

[Trills in playback](#) on page 991

[Tablature](#) on page 1200

[MIDI Import Options dialog](#) on page 86

## Hiding/Showing trill marks

You can hide/show trill marks at the start of individual trills. This also hides/shows trill marks on all systems on which the trills extend.

### PREREQUISITE

- The lower zone is shown.

- **Properties**  is selected in the lower zone toolbar.

---

#### PROCEDURE

1. Select the trills whose trill marks you want to hide/show. You can do this in Write mode and Engrave mode.
2. In the Properties panel, activate **Show trill mark** in the **Trills** group.
3. Activate/Deactivate the corresponding checkbox.

---

#### RESULT

Trill marks are shown when the checkbox is activated, and hidden when the checkbox is deactivated.

When the property is deactivated, trill marks are shown by default.

#### RELATED LINKS

[Trill interval appearance](#) on page 989

[Hiding/Showing trill interval accidentals](#) on page 985


[Hiding/Showing speed changes in trill extension lines](#) on page 983

[Hiding/Showing trill extension lines](#) on page 983

## Changing the speed of trills

You can indicate different speeds for trills, including indicating a change of speed within a single trill, by changing the height and frequency of wiggles in their extension lines.

#### PREREQUISITE

- The lower zone is shown.
- **Properties**  is selected in the lower zone toolbar.

---

#### PROCEDURE

1. Select the trills whose speed you want to change. You can do this in Write mode and Engrave mode.
2. In the Properties panel, activate the following properties, individually or together, in the **Trills** group:
  - **Start speed**
  - **End speed**
3. Select one of the following options from each property menu:
  - **Slow**
  - **Normal**
  - **Fast**

---

#### RESULT

The speed of the selected trills is changed. This affects both the frequency of wiggles in their extension lines and their playback speed.

If only **Start speed** is activated, the speed of the whole trill extension line is changed. If only **End speed** is activated, the speed of the end half of the trill extension line is changed.

EXAMPLE



A trill extension line starting slow and ending fast



Trill with normal speed throughout

---

AFTER COMPLETING THIS TASK

You can customize the playback speed of trills individually.


RELATED LINKS

[Changing the playback speeds of trills](#) on page 992

## Hiding/Showing speed changes in trill extension lines

You can hide/show speed changes in the extension lines for individual trills; for example, if you want to hear different speeds in playback but show extension lines with consistent wiggles.

PREREQUISITE

- The lower zone is shown.
- **Properties**  is selected in the lower zone toolbar.

PROCEDURE

1. Select the trills whose speed changes you want to hide/show. You can do this in Write mode and Engrave mode.
2. In the Properties panel, activate/deactivate **Suppress drawing speed changes** in the **Trills** group.


RESULT

Speed changes are hidden when the property is activated, and shown when it is deactivated.

## Hiding/Showing trill extension lines

You can hide/show the extension lines of individual trills. You can do this for the current layout and frame chain only, or for all layouts and frame chains.

PREREQUISITE

- The lower zone is shown.
- **Properties**  is selected in the lower zone toolbar.
- You have chosen the appropriate property scope for local properties.

PROCEDURE

1. Select the trills whose extension lines you want to hide/show. You can do this in Write mode and Engrave mode.
  2. In the Properties panel, activate/deactivate **Has trill line** in the **Trills** group.
  3. Activate/Deactivate the corresponding checkbox.
-

## RESULT

Trill extension lines are shown when the checkbox is activated, and hidden when the checkbox is deactivated. If the property scope was set to **Locally**, this change only takes effect in the current layout and frame chain.

When the property is deactivated, trill extension lines are only shown on tied notes by default.

## RELATED LINKS

[Changing the start position of trills](#) on page 979

[Changing the speed of trills](#) on page 982

[Changing the playback speeds of trills](#) on page 992

[Changing the property scope](#) on page 617

[Copying property settings to other layouts/frame chains](#) on page 599

# Trill intervals

Trill intervals tell performers which notes to play and also affect the pitches used in playback in Dorico Elements. For example, a trill with a sharp accidental on an E indicates that the performer trills between E and F $\sharp$ , rather than between E and F.



The different accidentals on these trills indicate changes in the trilled-to note.

If you do not specify an interval when inputting a trill, Dorico Elements calculates an appropriate interval based on the top note in the voice to which the trill belongs, the current key signature, and any accidentals earlier in the bar. For example, inputting a trill on an E $\sharp$  in C major produces a half-step/minor second trill interval to F $\sharp$ . If there were a sharp accidental on the F earlier in the bar, the trill interval produced is a whole step/major second between the E $\sharp$  and F $\sharp$ .

In open/atonal key signatures, Dorico Elements produces whole step/major second trill intervals by default.

You can specify trill intervals when inputting them with the popover, including at different noteheads in the same trill, and you can change individual trill intervals after they have been input. In 12-EDO, you can describe trill intervals based on their quality, such as major or minor.

When trill intervals do not require a trill interval indicator, they are indicated by signposts. However, trill interval signposts are hidden by default.

## Trills and accidentals

If required, Dorico Elements shows accidentals to clarify trill intervals. Dorico Elements also automatically shows accidentals on other notes in the bar if they have different accidentals to any upper notes of trills.

By default, trill marks themselves show intervals, unless the upper note is modified by an accidental in the key signature. If the upper note has been modified by an accidental earlier in the bar, trills always show the interval. If trills modify pitches modified by an accidental in the key signature, any subsequent notes of that pitch show the appropriate accidental automatically. Any cautionary accidentals required in the current and following bars are also shown automatically.

## Microtonal trill intervals

When using other tonality systems than 12-EDO, such as 24-EDO, you must specify trill intervals as an interval degree, expressed as the number of staff position steps, and total number of octave divisions from the notated pitch. This is because specifying only the interval quality is insufficient in such cases.

### RELATED LINKS

[Input methods for ornaments, arpeggio signs, glissando lines, and jazz articulations](#) on page 325

[Trill interval appearance](#) on page 989

[Inputting ornaments/trills with the popover](#) on page 331

[Ornaments popover](#) on page 326

[Signposts](#) on page 426

[Changing ornament intervals](#) on page 977

[Changing vibrato bar dip intervals](#) on page 1026


## Hiding/Showing trill interval accidentals

You can hide/show accidentals for individual trill intervals; for example, if you want to show the accidental for the first note of a trill but hide the accidentals for subsequent notes. You can do this for the current layout and frame chain only, or for all layouts and frame chains.

### NOTE

- In order to show trill interval accidentals, trills must have intervals that require accidentals.
- These steps only hide the accidentals shown in trill intervals, they do not hide auxiliary notes or Hollywood-style markings.

### PREREQUISITE

- The lower zone is shown.
- **Properties**  is selected in the lower zone toolbar.
- You have chosen the appropriate property scope for local properties.

### PROCEDURE

1. Select the trill intervals, or trill interval signposts whose accidentals you want to hide/show. You can do this in Write mode and Engrave mode.

### NOTE

For trills that span multiple notes and have multiple trill interval accidentals, you must select each accidental or signpost individually. If you select the whole trill, only the first trill interval accidental is changed.

2. In the Properties panel, activate **Accidental** in the **Trills** group.
3. Choose one of the following options:
  - **Hide**
  - **Show**

### RESULT

Accidentals in the selected trill intervals are hidden when you choose **Hide**, and shown when you choose **Show**. If the property scope was set to **Locally**, this change only takes effect in the current layout and frame chain.

Signposts are shown at the position of each hidden trill interval accidental. However, trill interval signposts are hidden by default.

#### RELATED LINKS

[Changing the appearance of trill intervals](#) on page 990

[Changing the property scope](#) on page 617

[Copying property settings to other layouts/frame chains](#) on page 599


[Annotations](#) on page 554

[Hiding/Showing signposts](#) on page 427

## Changing trill intervals

The default trill interval is a second, either major or minor depending on the context. In addition to specifying the interval when inputting trills with the ornaments popover, you can change the intervals of trills and existing trill intervals within their duration individually after they have been input.

#### PREREQUISITE

- The lower zone is shown.
- **Properties**  is selected in the lower zone toolbar.

---

#### PROCEDURE

1. Select the trills, trill intervals, or trill interval signposts whose interval you want to change. You can do this in Write mode and Engrave mode, but in Engrave mode you must select the trill intervals/trill interval signposts.

#### NOTE

For trills that span multiple notes and have multiple interval changes, you must select each trill interval you want to change individually. If you select the trill mark/extension line, only the first trill interval is changed.

2. In the Properties panel, activate **Interval** in the **Trills** group.
3. Change the interval degree, expressed as the number of staff position steps, by changing the value in the value field.
4. Change the interval quality or total number of octave divisions from the trilled note in one of the following ways:
  - For trills in 12-EDO, select an interval quality from the menu.
  - For trills in other tonality systems, select a total number of octave divisions from the menu.

Together, the interval degree and either interval quality or total number of octave divisions specify the desired note name and accidental for the trilled-to note.

---

#### RESULT

The interval of the selected trill intervals is changed. This applies from the selected trill intervals until the next interval change in the trill or the end of the trill, whichever comes first. For example, if you selected a trill with no interval changes within its duration, the interval is changed for the whole trill.

By default, trill intervals appear as accidentals when the interval is a second and as auxiliary notes for all other intervals. Signposts are shown at the position of each trill interval that does not require an accidental or auxiliary note. However, trill interval signposts are hidden by default.

RELATED LINKS

[Resetting trill intervals](#) on page 988


[Ornaments popover](#) on page 326

## Changing trill intervals partway through trills

You can change the intervals of existing trills at any notehead within their duration; for example, if you want a trill to change seamlessly from a minor second in one bar to a major second in the next.

---




### PROCEDURE

1. In Write mode, select one of the following:
  - The note whose trill interval you want to change.
  - An item or rest on the staff where you want to specify trill intervals.
2. Start note input in any of the following ways:
  - Press **Shift-N**.
  - In the Notes toolbox, click **Start Note Input** .
  - Double-click the staff.
3. Press **Right Arrow** / **Left Arrow** to move the caret according to the current rhythmic grid resolution to the notehead where you want to change the trill interval.

### NOTE

You can only change trill intervals at noteheads.

---

4. Open the ornaments popover in any of the following ways:
  - Press **Shift-O**.
  - In the Notations toolbox, click **Popovers** , then **Ornaments** .
5. Enter the trill interval you want into the popover. For example, enter **m3** for a minor third.
6. Press **Return** to close the popover.
7. Optional: Repeat steps 3 to 6 to change the trill interval at other noteheads in the trill.
8. Stop note input in any of the following ways:
  - Press **Esc** or **Return**.
  - In the Notes toolbox, click **Start Note Input** .

---

### RESULT

The trill interval is changed at the corresponding noteheads. By default, all trill intervals in the trill appear as accidentals when the intervals are all seconds and as auxiliary notes when the trill contains at least one trill interval with a different interval.

Signposts are shown at the position of each trill interval that does not require an accidental or auxiliary note. However, trill interval signposts are hidden by default.



EXAMPLE



Trill with interval changes shown as accidentals



Trill with interval changes shown as auxiliary notes

---

RELATED LINKS

[Changing the appearance of trill intervals](#) on page 990

[Ornaments popover](#) on page 326

[Signposts](#) on page 426

[Hiding/Showing signposts](#) on page 427


[Notes toolbox](#) on page 187

[Rhythmic grid](#) on page 204

## Resetting trill intervals

You can reset trill intervals to the default trill interval of a second, either major or minor depending on the context, including resetting individual trill intervals within a single trill independently.

PREREQUISITE

- The lower zone is shown.
- **Properties**  is selected in the lower zone toolbar.

PROCEDURE

1. Select the trills, trill intervals, or trill interval signposts whose interval you want to reset. You can do this in Write mode and Engrave mode, but in Engrave mode you must select the trill intervals/trill interval signposts.

NOTE

For trills that span multiple notes and have multiple interval changes, you must select each trill interval you want to reset individually. If you select the trill mark/extension line, only the first trill interval change is reset.

2. In the Properties panel, deactivate **Interval** in the **Trills** group.
- 

RESULT

The interval of the selected trill intervals is reset. This applies from the selected trill intervals until the next interval change in the trill or the end of the trill, whichever comes first. For example, if you selected a trill with no interval changes within its duration, the interval is reset for the whole trill.

By default, trill intervals appear as accidentals when the interval is a second and as auxiliary notes for all other intervals. Signposts are shown at the position of each trill interval that does not require an accidental or auxiliary note. However, trill interval signposts are hidden by default.

RELATED LINKS

[Properties panel](#) on page 615

[Signposts](#) on page 426

[Hiding/Showing signposts](#) on page 427

## Trill interval appearance

There are different accepted ways to present trill intervals on notation staves, including accidental symbols and the Hollywood convention of showing “H.T.” for a half-step (semitone) and “W.T.” for a whole step (tone).

In Dorico Elements, trill intervals can appear in the following ways on notation staves:

### Accidental

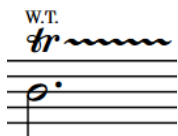
Indicates the trill interval using accidentals positioned above, below, or beside the **tr** mark. This is the default trill interval appearance in Dorico Elements for major or minor second trills.



### Hollywood-style

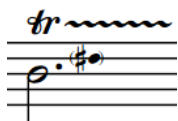
Indicates the trill interval using text.

- **H.T.** for half-step/minor second trills
- **W.T.** for whole step/major second trills



### Auxiliary note

Indicates the trill interval using a small, parenthesized, stemless notehead shown in the staff immediately to the right of the first note to which the trill applies, and at the correct staff position for the trilled-to pitch. Auxiliary notes are used for all trill intervals that are not a major or minor second, but are automatically hidden for unison trills if the notehead design of the auxiliary note has not been overridden.



### NOTE

On tablature, the trilled-to pitch always appears as a parenthesized fret number.

---

### RELATED LINKS

[Input methods for ornaments, arpeggio signs, glissando lines, and jazz articulations](#) on page 325

## Changing the appearance of trill intervals


You can change the appearance of trills with a second interval on notation staves individually; for example, if you want to show auxiliary notes on some trills to clarify a change in the trilled-to pitch.

### NOTE

You can only change the trill interval appearance of trills with a major/minor second interval.

---

### PREREQUISITE

- The lower zone is shown.
  - **Properties**  is selected in the lower zone toolbar.
- 

### PROCEDURE

1. Select the trills whose trill interval appearance you want to change. You can do this in Write mode and Engrave mode.
  2. In the Properties panel, activate **Appearance** in the **Trills** group.
  3. Select one of the following options from the menu:
    - **Accidental**
    - **Hollywood style**
    - **Auxiliary note**
- 

### RESULT

The appearance of the selected trill intervals on notation staves is changed. This does not affect their appearance on tablature.

### AFTER COMPLETING THIS TASK

You can change the notehead design of individual auxiliary notes; for example, to show that the trilled-to note is a harmonic.

### RELATED LINKS

[Changing the notehead design of individual noteheads](#) on page 946

## Changing the position of trill interval indicators


You can change where trill interval indicators, such as an accidental or W.T. marking, are positioned relative to individual trill marks. You can do this for the current layout and frame chain only, or for all layouts and frame chains.

### NOTE

This does not affect the position of trill interval accidentals on subsequent notes over which trills extend.

---

### PREREQUISITE

- The lower zone is shown.
- **Properties**  is selected in the lower zone toolbar.
- You have chosen the appropriate property scope for local properties.

#### PROCEDURE

1. Select the trills whose interval indicator position you want to change. You can do this in Write mode and Engrave mode.
  2. In the Properties panel, activate **Interval position** in the **Trills** group.
  3. Select one of the following options from the menu:
    - **Above**
    - **Below**
    - **On the right**
    - **Superscript**
- 

#### RESULT

The position of interval indicators relative to the selected trill marks is changed. If the property scope was set to **Locally**, this change only takes effect in the current layout and frame chain.

---

#### EXAMPLE



## Trills in playback

Dorico Elements plays back trills by using a combination of sampled trills, when available, and triggering multiple notes.

Dorico Elements can play back sampled half-step (semitone) and whole step (tone) trills automatically if these playing techniques are defined in the VST expression map, which is the case for a number of instruments in HALion Symphonic Orchestra. For sound libraries that do not provide sampled trills, or for intervals beyond a whole step, Dorico Elements generates trills.

When playing generated trills, Dorico Elements incorporates grace notes immediately before and after trills. A single unslashed grace note on the initial trill note produces an appoggiatura, while multiple grace notes on the initial trill note are included in the trill pattern. Grace notes on the note immediately following a trill are also included in the trill pattern.



A trill with grace notes at both the start and end

Variable speeds within trills are included in playback, and you can change the playback speed of individual trills. Additionally, you can hide trill speed changes in trill extension lines whilst retaining the speed changes in playback.

In contemporary performance practice, trills are usually performed starting on the written note, while in the historical performance practice of the Baroque and Classical eras, trills are usually performed starting on the upper (trilled-to) note. You can change the default starting pitch for trills individually.

#### RELATED LINKS

[Changing the speed of trills](#) on page 982

[Hiding/Showing speed changes in trill extension lines](#) on page 983

[Changing the starting pitch of trills](#) on page 993

[Playback techniques](#) on page 706

[Input methods for ornaments, arpeggio signs, glissando lines, and jazz articulations](#) on page 325

## Sampled vs. generated trills


Sampled trills are recorded, looped samples, whereas generated trills are produced by manually triggering separate notes.

Because they use fixed sounds, sampled trills typically offer no parameters that allow any kind of variation in the trill interpretation, such as different trill speeds or incorporating grace notes and termination notes into the pattern of trilled notes. By contrast, generated trills can provide greater flexibility but produce a less natural and realistic sound.

## Changing the playback speeds of trills

In addition to changing the speed of trills, which changes both the frequency of wiggles in their extension lines and their playback speed, you can also change the playback speed of each speed variant in individual trills; for example, if you want to make the fastest part of an individual trill faster than your default setting.

#### PREREQUISITE

- The lower zone is shown.
- **Properties**  is selected in the lower zone toolbar.

---

#### PROCEDURE

1. Select the trills whose playback speeds you want to change. You can do this in Write mode and Engrave mode.
2. In the Properties panel, activate any of the following properties, as appropriate for your selected trills:
  - **Slow trill speed**
  - **Normal trill speed**
  - **Fast trill speed**
3. Change the values in the value fields.

---

#### RESULT

The playback speed of the selected trills is changed. The values in the value fields correspond to the number of notes sounding per second.

#### RELATED LINKS


[Changing the speed of trills](#) on page 982

[Hiding/Showing speed changes in trill extension lines](#) on page 983

## Changing the starting pitch of trills

By default in Dorico Elements, trills start on the lower note, which is usually the written note. However, the accepted practice in Baroque and Classical music is to start trills on the upper note. You can change the starting pitch of trills individually.

### PREREQUISITE

- The lower zone is shown.
- **Properties**  is selected in the lower zone toolbar.

---

### PROCEDURE

1. Select the trills whose starting note you want to change. You can do this in Write mode and Engrave mode.
2. In the Properties panel, activate **Start on upper note** in the **Trills** group.
3. Activate/Deactivate the corresponding checkbox.

---

### RESULT

The selected trills start on the upper note when the checkbox is activated, and on the lower note when the checkbox is deactivated.

# Arpeggio signs

Arpeggio signs are vertical lines that indicate chords are to be played arpeggiated, or “spread”, so that the notes in the chord are played very quickly one after another. Arpeggio signs are normally shown as vertical wavy lines.



Arpeggiated chords can be played in two directions:

- Upwards, starting from the bottom note in the chord.
- Downwards, starting from the top note in the chord.

It is most common for up arpeggio signs to have nothing at the top end, because chords are usually arpeggiated upwards, and for down arpeggio signs to have an arrow at the bottom, so these are the defaults in Dorico Elements. However, it is also accepted practice to show up arpeggio signs with an arrow at the top if down arpeggio signs are also used in the same piece of music.

Arpeggio signs in Dorico Elements automatically span the range of all notes in the voices/staves to which they apply.

## RELATED LINKS

[Input methods for ornaments, arpeggio signs, glissando lines, and jazz articulations](#) on page 325

[Glissando lines](#) on page 1000

[Jazz articulations](#) on page 1028

[Lines](#) on page 1075

## Types of arpeggio signs

There are different types of arpeggio signs to convey the different arpeggiation directions and techniques.

### Up arpeggio



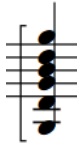
A vertical wavy line that indicates chords are to be arpeggiated from the bottom note upwards.

### Down arpeggio



A vertical wavy line that indicates chords are to be arpeggiated from the top note downwards.

### Non arpeggio



A bracket with straight lines that indicates all notes in the chord are to be played together, not arpeggiated.

### Curved arpeggio



A curved line, similar to a slur but vertical, that some composers use to indicate gentle or partial arpeggiation.

You can show both up and down arpeggio signs with one of the following ends in Dorico Elements:

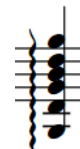
- Nothing
- Arrow
- Swash



Up arpeggio sign with nothing at the end



Up arpeggio sign with an arrow at the end




Up arpeggio sign with a swash at the end

## Changing the type of arpeggio signs

You can change the type of arpeggio signs after they have been input.

### PREREQUISITE

- The lower zone is shown.
- **Properties**  is selected in the lower zone toolbar.

---

### PROCEDURE

1. Select the arpeggio signs whose type you want to change. You can do this in Write mode and Engrave mode.



2. In the Properties panel, select one of the following options from the **Arpeggio type** menu in the **Arpeggios** group:
    - **Non arpeggio**
    - **Up arpeggio**
    - **Down arpeggio**
    - **Up arpeggio (curve)**
- 

#### RESULT

The type of the selected arpeggio signs is changed.

#### TIP

You can also change the arpeggio type by opening the ornaments popover and changing the entry.

---

## Changing the end appearance of arpeggio signs


Down arpeggio signs have an arrowhead at the bottom of the line by default, but up arpeggio signs have no arrowhead by default. You can change the appearance of the ends of arpeggio signs individually.

#### NOTE

These steps only apply to up and down arpeggio signs. They do not apply to curved or non arpeggio signs.

---

#### PREREQUISITE

- The lower zone is shown.
  - **Properties**  is selected in the lower zone toolbar.
- 

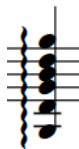
#### PROCEDURE

1. Select the arpeggio signs of any direction whose ends you want to change. You can do this in Write mode and Engrave mode.
  2. In the Properties panel, activate **Sign end** in the **Arpeggios** group.
  3. Select the end you want from the menu:
    - **Nothing**
    - **Arrow**
    - **Swash**
- 

#### RESULT

The appearance of the ends of the selected arpeggio signs is changed.

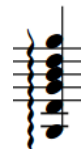
EXAMPLE



Up arpeggio sign with nothing at the end



Up arpeggio sign with an arrow at the end



Up arpeggio sign with a swash at the end

---

## Length of arpeggio signs

The length of arpeggio signs is determined by the pitch range of notes in the voices/staves to which the arpeggio sign applies. Dorico Elements automatically adjusts the length of arpeggio signs if pitches change or you add notes to, or delete notes from, chords.

In Engrave mode, each arpeggio sign has two square handles, one at the top and one at the bottom. You can move these handles to adjust the graphical position and length of arpeggio signs. For example, you might lengthen an arpeggio sign on a chord with a small pitch range so the arpeggio sign is more clearly visible.

### RELATED LINKS

[Moving items graphically](#) on page 481

[Moving notes/items rhythmically](#) on page 437

## General placement conventions for arpeggio signs

Arpeggio signs are positioned to the left of the notes, including any applicable accidentals, to which they apply, but are positioned between grace notes and normal notes. They should appear within the same bar as the notes to which they apply, and not on the other side of the barline.

Dorico Elements makes automatic adjustments to note spacing and staff spacing to accommodate arpeggio signs and ensure they are positioned correctly.

Arpeggio signs should cover the whole vertical range of all notes in the chord to which they apply, and protrude slightly at each end. However, they do not need to cover the stems of notes. Dorico Elements automatically creates the lengths of arpeggio signs to cover the notes in chords, and adjusts their lengths if the notes in chords change or are deleted.

If an arpeggiated chord spans two staves, such as in a piano part, its arpeggio sign can extend across both staves.

You can move arpeggio signs to different rhythmic positions in Write mode.


You can move arpeggio signs graphically in Engrave mode; however, this does not change the rhythmic positions to which they are attached.

## Showing arpeggio signs before/after grace notes

You can show arpeggio signs before/after grace notes individually. You can do this for the current layout and frame chain only, or for all layouts and frame chains. By default, arpeggio

signs are positioned immediately to the left of the notes to which they apply, and so are positioned between normal notes and grace notes.

#### PREREQUISITE

- The lower zone is shown.
- **Properties**  is selected in the lower zone toolbar.
- You have chosen the appropriate property scope for local properties.

---

#### PROCEDURE

1. Select the arpeggio signs you want to show before grace notes. You can do this in Write mode and Engrave mode.
2. In the Properties panel, activate/deactivate **Arpeggio before grace notes** in the **Arpeggios** group.

---

#### RESULT

The selected arpeggio signs are shown before grace notes when the property is activated, and after grace notes when the property is deactivated. If the property scope was set to **Locally**, this change only takes effect in the current layout and frame chain.


#### RELATED LINKS

[Changing the property scope](#) on page 617

## Changing arpeggio playback relative to the beat

You can change whether individual arpeggios are played before their notated position or after their notated position.

#### PREREQUISITE

- The lower zone is shown.
- **Properties**  is selected in the lower zone toolbar.

---

#### PROCEDURE

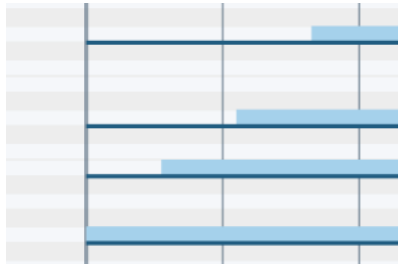
1. Select the arpeggio signs whose playback relative to the beat you want to change. You can do this in Write mode and Engrave mode.
2. In the Properties panel, activate **Playback position** in the **Arpeggios Playback** group.
3. Choose one of the following options:
  - **Start on beat**
  - **End on beat**

---

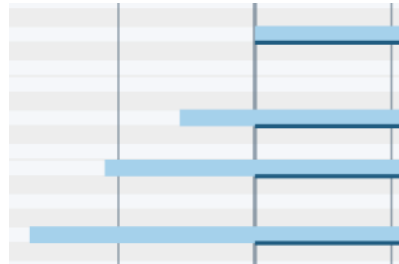
#### RESULT

The beat-relative position of the selected arpeggios in playback is changed.

EXAMPLE



Arpeggio starting on the beat



Arpeggio ending on the beat


---

## Changing the playback duration of arpeggios

You can change the duration of individual arpeggios in playback.

The duration of arpeggios is expressed as a fraction of the notated rhythm of chords. For example, an arpeggio on a quarter note (crotchet) chord with a note offset value of  $\frac{1}{2}$  lasts an eighth note (quaver), whereas with a note offset value of  $\frac{1}{8}$  it lasts a 32nd note.

PREREQUISITE

- The lower zone is shown.
- **Properties**  is selected in the lower zone toolbar.

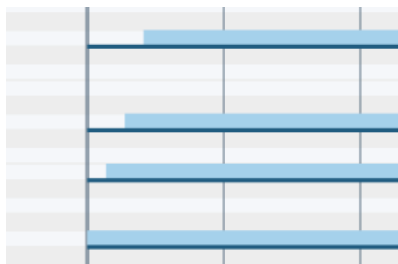
PROCEDURE

1. Select the arpeggio signs whose playback duration you want to change. You can do this in Write mode and Engrave mode.
2. In the Properties panel, activate **Note offset** in the **Arpeggios Playback** group.
3. Change the playback duration of the selected arpeggio signs by changing the value in the value field.
4. Press **Return**.

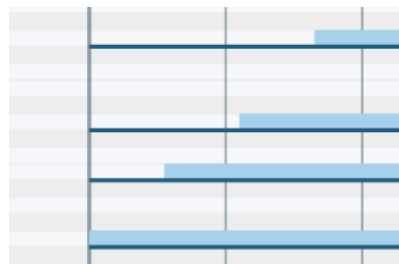
RESULT

The playback duration of the selected arpeggios is changed.

EXAMPLE



Arpeggiated chord with a note offset value of  $\frac{1}{8}$



Arpeggiated chord with a note offset value of  $\frac{1}{2}$

# Glissando lines

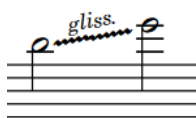
Glissando lines indicate a continuous transition between two notes, which can be smooth or in chromatic steps. They can have straight lines or wiggly lines, and can be shown with a text indication or as a line without text.

Because glissando lines are positioned between noteheads, the steepness of their angle reflects the interval between the notes: the steeper the angle, the greater the interval.

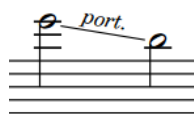
There are different conventions regarding the playing techniques for glissando and portamento. Some people understand glissando lines to indicate a chromatic scale between the two notes, either rising or falling in a series of half-steps (semitones), and portamento lines to indicate a smooth, continuous glide between the two notes. However, the terms glissando and portamento can be used interchangeably in other cases.

You can input both glissando lines and portamento lines in Dorico Elements, and you can easily change their style after they have been input.

Glissando lines in Dorico Elements automatically follow the notes at each end, meaning if you change the pitch of either note, the glissando line end positions move accordingly. Dorico Elements automatically positions glissando lines so they do not collide with accidentals.



An example glissando line with text shown and a wiggly line



An example portamento line with text shown and a straight line

Glissando lines can cross system breaks and page breaks. If text is shown for glissando lines that span system or page breaks, then that text is shown on every glissando line segment. By default, the start and end positions of each segment match the original start and end points of the whole glissando line.

## RELATED LINKS

[Input methods for ornaments, arpeggio signs, glissando lines, and jazz articulations](#) on page 325

[Changing the style of glissando lines](#) on page 1001

[Glissando lines in Engrave mode](#) on page 1003

[Arpeggio signs](#) on page 994

[Jazz articulations](#) on page 1028

[Fingering slides](#) on page 885

[Playing technique continuation lines](#) on page 1067

[Lines](#) on page 1075

[Changing the pitch of individual notes](#) on page 444

## Glissando lines across empty bars

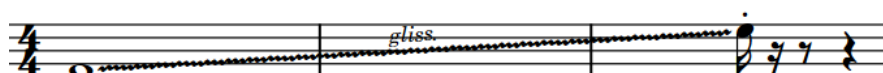
In Dorico Elements, you can input glissando lines between any two notes, even if there are rests or other notes between them, and including between notes in different voices and notes on different staves.

For very long glissando lines that extend across multiple bars, you might not want to show pitches at the start of each bar; for example, to indicate that performers do not emphasize pitches during the course of the glissando, or that performers can play the glissando at their own speed. By default, Dorico Elements shows notes or rests in every bar.

Once you have input a glissando line between the selected notes, you can delete any rests between them.

---

### EXAMPLE



A glissando line across multiple bars with no rests shown between the two notes

---

### RELATED LINKS

[Input methods for ornaments, arpeggio signs, glissando lines, and jazz articulations](#) on page 325

[Hiding/Showing bar rests in empty bars](#) on page 1150


[Deleting rests](#) on page 1149

[Turning explicit rests into implicit rests](#) on page 1147

## Changing the style of glissando lines



Glissando lines can be shown as straight lines or wiggly lines. You can change the glissando line style of glissando lines individually.

### PREREQUISITE

- The lower zone is shown.
- **Properties**  is selected in the lower zone toolbar.

---

### PROCEDURE

1. Select the glissando lines whose style you want to change. You can do this in Write mode and Engrave mode.
2. In the Properties panel, activate **Glissando style** in the **Glissando Lines** group.
3. Choose one of the following options:
  - **Straight line** 
  - **Wiggly line** 

---

### RESULT

The glissando line style is changed for the selected glissando lines.

### TIP

- Deactivating **Glissando style** returns the selected glissando lines to the default style.

- You can also change the glissando style by opening the ornaments popover and changing the entry.
- 

#### RELATED LINKS


[Ornaments popover](#) on page 326

[Changing existing items](#) on page 412

## Changing glissando line text

You can show individual glissando lines with “gliss.” text, “port.” text, or without text. You can do this for the current layout and frame chain only, or for all layouts and frame chains.

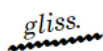
#### PREREQUISITE

- The lower zone is shown.
  - **Properties**  is selected in the lower zone toolbar.
  - You have chosen the appropriate property scope for local properties.
- 

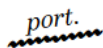
#### PROCEDURE

1. Select the glissando lines whose text you want to change. You can do this in Write mode and Engrave mode.
2. In the Properties panel, activate **Glissando text** in the **Glissando Lines** group.
3. Select one of the following options from the menu:

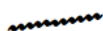
- **Gliss.**



- **Port.**



- **No text**



#### RESULT

The text shown on the selected glissando lines is changed. If the property scope was set to **Locally**, this change only takes effect in the current layout and frame chain.

#### RELATED LINKS

[Changing the property scope](#) on page 617

[Copying property settings to other layouts/frame chains](#) on page 599


[Input methods for ornaments, arpeggio signs, glissando lines, and jazz articulations](#) on page 325

## Changing when glissando line text is shown

By default, glissando text is not shown when glissando lines are too short to accommodate the text. You can choose to show text on individual glissando lines always, or only if there is sufficient

space. You can do this for the current layout and frame chain only, or for all layouts and frame chains.

#### PREREQUISITE

- The lower zone is shown.
- **Properties**  is selected in the lower zone toolbar.
- You have chosen the appropriate property scope for local properties.

---

#### PROCEDURE

1. Select the glissando lines whose setting for when text is shown you want to change. You can do this in Write mode and Engrave mode.
2. In the Properties panel, activate **Glissando text shown** in the **Glissando Lines** group.
3. Choose one of the following options:
  - **Show if sufficient space**
  - **Always show**

---

#### RESULT

When **Show if sufficient space** is chosen, glissando line text is not shown if the glissando line is too short.

When **Always show** is chosen, glissando line text is always shown, even if the glissando line is short. However, this can cause the glissando line text to collide with other items, such as noteheads and stems.

If the property scope was set to **Locally**, this change only takes effect in the current layout and frame chain.

#### TIP

You can increase the default gaps between noteheads by changing the default note spacing.

---

#### RELATED LINKS

[Note spacing](#) on page 579

[Changing the default note spacing](#) on page 580

## Glissando lines in Engrave mode

In Engrave mode, each glissando line has two square handles, one at the start and one at the end. You can move these handles to adjust the graphical position, length, and angle of glissando lines.

You can also move whole individual glissando lines graphically. If glissando lines cross system and frame breaks, you can move the glissando line segments on each side of the break independently.



Handles on a glissando line in Engrave mode



#### NOTE

You cannot move glissando lines rhythmically. If you want to change the rhythmic positions of glissando lines, you must delete them from their original positions and input new glissando lines at the new positions.

---

#### RELATED LINKS

[Moving items graphically](#) on page 481

## Glissando lines in playback

Glissando lines are reflected in playback using a sequence of notes, all a small interval apart, between the start and end notes for each glissando.

Glissandos belonging to harps consider the current harp pedaling when determining the pitches to use in playback. Glissandos for all other instruments use the 12-EDO chromatic scale, regardless of the current tonality system.

When glissando lines start or end on tie chains, their playback starts on the last note in tie chains and ends on the first note in tie chains.

By default in playback, glissandos sound across their full duration, but you can delay the start of glissandos in playback individually.

#### NOTE

Playing back glissando lines as a continuous, smooth slide is not yet supported. This is planned for future versions.

---


#### RELATED LINKS

[Harp pedaling](#) on page 1036

## Delaying the start of glissandos in playback

You can delay the start of glissandos in playback so that they start partway through their duration. By default, glissandos sound for their full duration in playback.

#### PREREQUISITE

- The lower zone is shown.
  - **Properties**  is selected in the lower zone toolbar.
- 

#### PROCEDURE

1. Select the glissando lines whose playback start you want to delay. You can do this in Write mode and Engrave mode.
2. In the Properties panel, activate **Delayed start** in the **Glissando Lines** group.
3. Optional: If you want to specify exactly how far through the glissando lines playback starts, activate **Delay** and change the value in the value field.

The value represents fractions of a quarter note. For example, **1/2** delays the start of glissandos by an eighth note.

---

RESULT

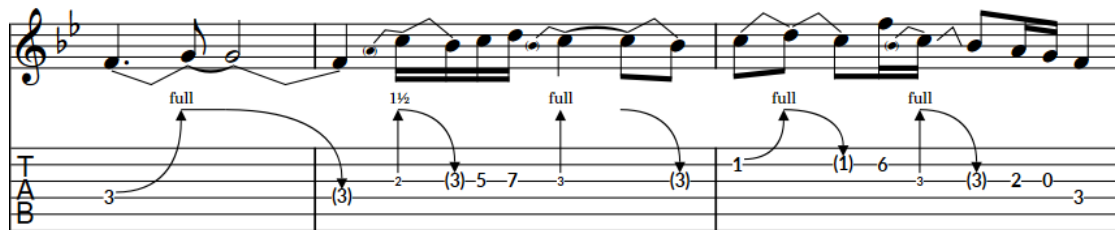
If you activated **Delayed start** only, playback of the selected glissando lines starts halfway through their duration.

If you also activated **Delay**, playback of the selected glissando lines follows your set value.

# Guitar bends

The guitar bend is a technique commonly performed on electric guitars, where the performer pushes strings out of their normal alignment after notes start to sound. Bending strings tightens them, which produces the characteristic pitch fluctuation.

Performing a guitar bend often also involves sustaining the bent pitch before allowing the string to return to its natural position and un-bent pitch. In Dorico Elements, these actions are called a “guitar bend hold” and “release” respectively.



The image shows a musical staff in G minor (one flat) with a treble clef. The melody consists of several notes, some of which are bent. The bends are indicated by angled lines between noteheads. The tablature below the staff shows the fret numbers for each note: 3, (3), 2, (3), 5, 7, 3, (3), 1, (1), 6, 3, (3), 2, 0, 3. Arrows labeled 'full' point to the bends on notes 3, 3, 3, 1, and 3. An arrow labeled '1½' points to the bend on note 2.

A phrase containing guitar bends, a guitar bend hold, guitar pre-bends, and releases, shown on both a notation staff and tablature

Guitar bends and releases with bend intervals of up to a whole step (tone) are reflected in playback.

## Guitar bends

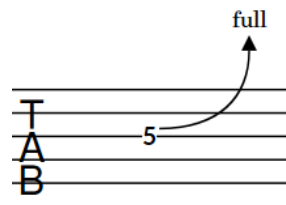
Guitar bends indicate that the performer should bend the string after playing a note, so that the pitch increases while the note sounds. In Dorico Elements, each guitar bend joins two notes: the start pitch and the pitch at the peak of the bend.

On notation staves, guitar bends are notated using an angled line between the noteheads at the start and end. On tablature, guitar bends are notated using an upwards-pointing curved line with an arrowhead at the top and a bend interval above the arrowhead. The fret number of the end note is hidden automatically.



A musical staff in G minor showing a single note with a bend. The bend is indicated by an angled line between the notehead and the next notehead.

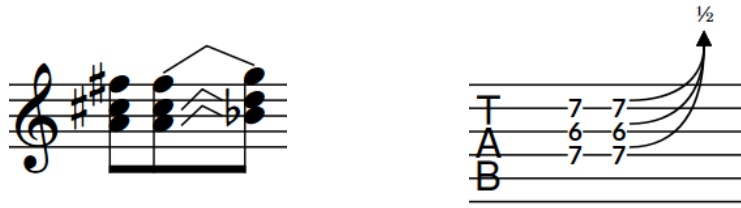
Guitar bend on notation staff



Tablature showing a single note on the 5th fret with a bend. The bend is indicated by an upwards-pointing curved line with an arrowhead at the top and the word 'full' above it.

Guitar bend on tablature

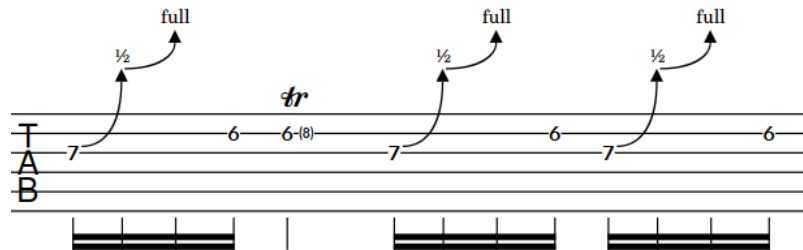
If you input guitar bends on multiple notes in chords, their arrowheads are automatically aligned on tablature.



Guitar bends on chord on notation staff

Guitar bends on chord on tablature

Sequences of consecutive guitar bends are notated as bend runs on tablature. In Engrave mode, guitar bend runs function as a group.

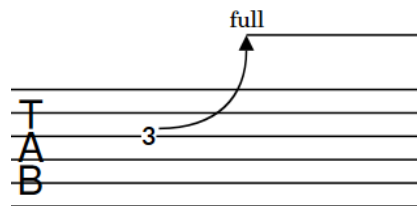


Guitar bend runs on tablature

### Guitar bend holds

Guitar bend holds indicate that the performer should maintain the pitch at the peak of a guitar bend. They are usually shown on tied notes.

On tablature, guitar bend holds are notated using a horizontal line. They are not notated on notation staves.



Guitar bend hold on tablature

### Releases

Releases indicate that the performer should allow a bent string to return to its natural position, which decreases the pitch. In Dorico Elements, each release joins two notes: the pitch at the peak of the bend and the end pitch.

On notation staves, releases are notated using an angled line between the noteheads at the start and end. On tablature, releases are notated using a downwards-pointing curved line with an arrowhead at the bottom and parenthesized fret numbers below the arrowhead to indicate the end pitches. The fret number of the start note is hidden automatically.



Release on notation staff

Release on tablature



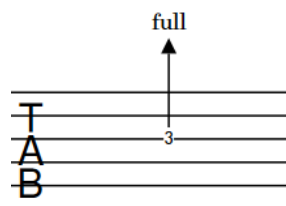
### Guitar pre-bends

Guitar pre-bends indicate that the performer should bend the string before playing the note to raise the pitch; for example, to repeat a note that was at the end of a previous guitar bend. The pitch can then be lowered after starting to sound.

On notation staves, guitar pre-bends are notated using an angled line between the noteheads at the start and end. However, unlike guitar bends, the parenthesized auxiliary notehead at the start is shown automatically as part of the pre-bend. On tablature, guitar pre-bends are notated using a solid vertical line with an arrowhead at the top, a bend interval above the arrowhead, and a small fret number below the line to indicate the start pitch.



Guitar pre-bend on notation staff



Guitar pre-bend on tablature

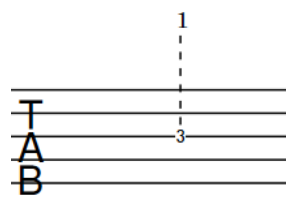
### Guitar pre-dives

Guitar pre-dives indicate that the performer should use the vibrato bar to lower the pitch before playing the note. The pitch can then be raised after starting to sound.

On notation staves, guitar pre-dives appear the same as guitar pre-bends. On tablature, guitar pre-dives are notated using a dashed vertical line with an arrowhead at the top, a bend interval above the arrowhead, and a small fret number below the line to indicate the start pitch.



Guitar pre-dive on notation staff



Guitar pre-dive on tablature

#### NOTE

Stems, stem flags, and beaming always appear stem-up on tablature in single-voice contexts, which means they can collide with guitar bends.

---

#### RELATED LINKS

[Guitar pre-bends/pre-dives in Engrave mode](#) on page 1017

[Inputting guitar pre-bends/pre-dives](#) on page 340

[Tablature](#) on page 1200

## Guitar post-bends

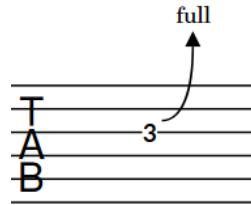
The guitar post-bend is a technique commonly performed on electric guitars, where the performer pushes strings out of their normal alignment after notes start to sound. Bending

strings tightens them, which produces the characteristic pitch fluctuation. Microtonal post-bends are particularly idiomatic in Blues music.

In Dorico Elements, guitar post-bends are properties of notes belonging to fretted instruments, meaning they only apply to single notes. They are notated the same on notation staves and tablature, using an upwards-pointing curved line with an arrowhead at the top and a bend interval above the arrowhead.



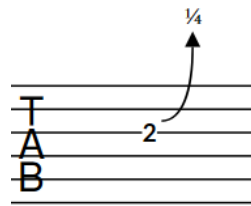
Guitar post-bend on notation staff



Guitar post-bend on tablature

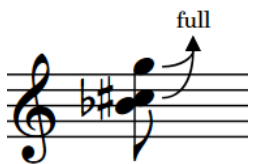


Microtonal post-bend on notation staff

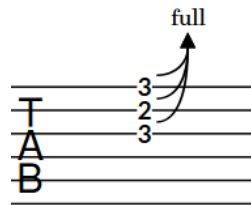


Microtonal post-bend on tablature

If you input guitar post-bends on multiple notes in chords, their arrowheads are automatically aligned. On notation staves, the appropriate number of curved lines is shown according to the staff positions of notes in chords.



Guitar post-bends on chord on notation staff



Guitar post-bends on chord on tablature

#### NOTE

Guitar post-bends are not currently reflected in playback. This is planned for future versions.

---

#### RELATED LINKS

[Guitar post-bends in Engrave mode](#) on page 1018

[Inputting guitar post-bends](#) on page 341

## Vibrato bar dives and returns

The vibrato bar dive and return is a technique performed on electric guitars with a vibrato bar, where the performer uses the vibrato bar to loosen then tighten strings after notes start to sound. This produces the characteristic downwards-then-upwards pitch fluctuation.

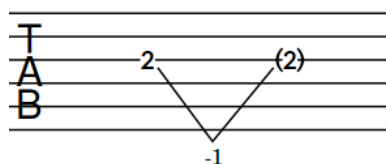
In Dorico Elements, each vibrato bar dive and return comprises two vibrato bar bend items, where the first vibrato bar bend ends on the same note that the second vibrato bar bend starts on. Vibrato bar bends each join two notes.

Vibrato bar dives and returns with bend intervals of up to a whole step (tone) are reflected in playback.

On notation staves, vibrato bar dives and returns are notated using an angled line between the noteheads at the start and end, meaning they appear the same as guitar bends. On tablature, vibrato bar dives and returns are notated using two straight lines that form a V and a bend interval shown at the point. The fret number of the middle note is hidden and the fret number of the end note is parenthesized automatically.



Vibrato bar dive and return on notation staff

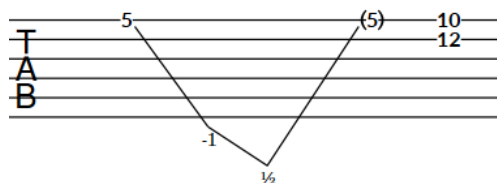


Vibrato bar dive and return on tablature

Sequences of consecutive vibrato bar bends on notes with the same pitch direction, such as E-D-C, are notated on tablature with an additional line protrusion beyond the staff and bend interval for each vibrato bar bend.



Consecutive vibrato bar bends on notation staff

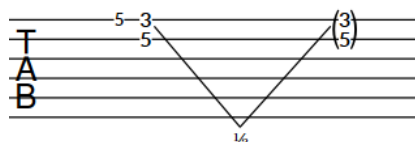


Consecutive vibrato bar bends on tablature

If you input vibrato bar dives and returns on multiple notes in chords, a single V appears on tablature as long as the bend intervals are the same for all notes.



Vibrato bar dive and return on chords on notation staff



Vibrato bar dive and return on chords on tablature



RELATED LINKS

[Inputting vibrato bar dives and returns with the popover](#) on page 343

[Inputting vibrato bar dives and returns with the panel](#) on page 344

[Vibrato bar dives and returns in Engrave mode](#) on page 1019

[Vibrato bar techniques](#) on page 1021

[Bracketed noteheads](#) on page 953

[Tablature](#) on page 1200

## Bend intervals

Bend intervals indicate the amount guitar bends, pre-bends, pre-dives, post-dives, and dives and returns change the pitch, expressed in relation to whole steps using text or numbers/fractions. Bend intervals appear only on tablature for most types of bends, except for guitar post-bends, whose bend intervals also appear on notation staves.

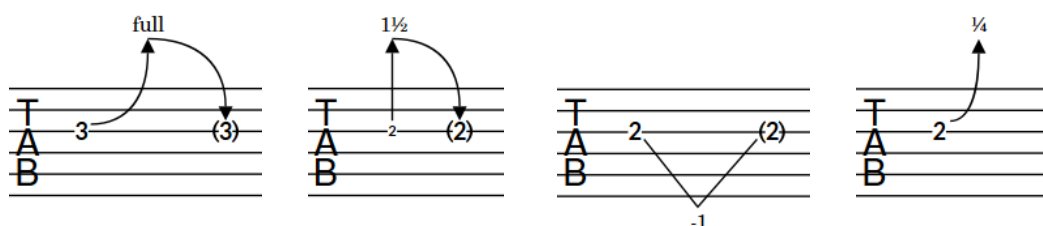
For example, **full** indicates a whole step guitar bend, pre-bend, or post-bend, **1/2** a half-step, and **1 1/2** a minor third.

Bend intervals for guitar pre-dives and vibrato bar dives and returns always appear as numbers/fractions, such as **1** for a whole step vibrato bar dive and return.

Microtonal bend intervals appear as fractions according to the prevailing tonality system, such as **3/4**. Bend intervals for microtonal post-bends appear as **1/4**.

---

EXAMPLE



Guitar bend with whole step interval, displayed as **full**

Guitar pre-bend with minor third interval, displayed as **1 1/2**

Vibrato bar dive and return with whole step interval, displayed as **-1**

Guitar post-bend with microtonal interval, displayed as **1/4**

---

Bend intervals for guitar bends, pre-bends, pre-dives, and post-dives are positioned above the arrowhead/line for the corresponding notation. For dives and returns, bend intervals appear at the point of the V, either above or below the staff according to the pitch direction of notes in the dive and return.

Bend intervals appear only on tablature for guitar bends, pre-bends, pre-dives, and dives and returns. They appear on both notation staves and tablature for guitar post-bends.

RELATED LINKS

[Tablature](#) on page 1200

[Changing vibrato bar dip intervals](#) on page 1026

[Input methods for guitar bends and guitar techniques](#) on page 338

## Hiding/Showing guitar bend hold lines


Guitar bend hold lines indicate that the bend should be held for the duration of the note, which is usually a tied note. You can hide/show hold lines on guitar bends on tablature.

### NOTE

These steps only apply to guitar bends. You cannot show hold lines on pre-bends or releases.

---

### PREREQUISITE

- The lower zone is shown.
  - **Properties**  is selected in the lower zone toolbar.
- 

### PROCEDURE

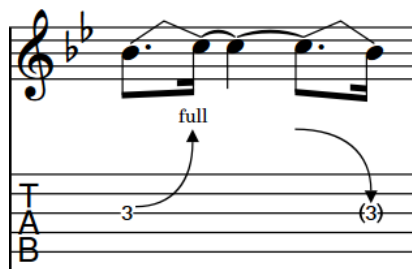
1. Select the guitar bends on which you want to hide/show hold lines. You can do this on notation staves and tablature in Write mode and Engrave mode.
  2. In the Properties panel, activate/deactivate **Show hold** in the **Guitar Bends** group.
- 

### RESULT

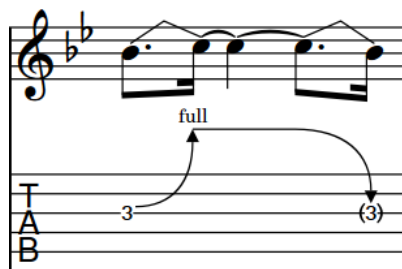
Hold lines are shown on the selected bends on tablature when **Show hold** is activated, and hidden when it is deactivated.

---

### EXAMPLE



Hold line hidden




Hold line shown

---

## Changing the direction of guitar pre-bends/pre-dives

You can change the direction of guitar pre-bends/pre-dives individually. You can do this for the current layout and frame chain only, or for all layouts and frame chains. By default, guitar pre-bends/pre-dives are positioned on the notehead-side of notes in single-voice contexts. In multiple-voice contexts, they are positioned on the stem-side of notes.

### PREREQUISITE

- The lower zone is shown.
- **Properties**  is selected in the lower zone toolbar.
- You have chosen the appropriate property scope for local properties.

---

#### PROCEDURE

1. Select the guitar pre-bends/pre-dives whose direction you want to change. You can do this in Write mode and Engrave mode.
  2. In the Properties panel, activate **Pre-bend direction** in the **Guitar Pre-bends** group.
  3. Choose one of the following options:
    - **Up**
    - **Down**
- 

#### RESULT

The direction of the selected guitar pre-bends/pre-dives is changed. If the property scope was set to **Locally**, this change only takes effect in the current layout and frame chain.

#### TIP

You can change the direction of guitar bends on notation staves by selecting them and pressing **F**. However, you cannot use this key command for guitar pre-bends/pre-dives.

---


#### RELATED LINKS

- [Changing the staff-relative placement of items](#) on page 414
- [Changing vibrato bar dip intervals](#) on page 1026
- [Changing the staff-relative placement of guitar techniques](#) on page 1026
- [Changing the property scope](#) on page 617
- [Copying property settings to other layouts/frame chains](#) on page 599

## Hiding/Showing accidentals on guitar pre-bends/pre-dives

You can hide/show accidentals on guitar pre-bends/pre-dives individually; for example, to save horizontal space in a layout that also shows the interval clearly on tablature. You can do this for the current layout and frame chain only, or for all layouts and frame chains.

#### PREREQUISITE

- The lower zone is shown.
  - **Properties**  is selected in the lower zone toolbar.
  - You have chosen the appropriate property scope for local properties.
- 

#### PROCEDURE

1. Select the guitar pre-bends/pre-dives whose accidentals you want to hide/show. You can do this in Write mode and Engrave mode.
  2. In the Properties panel, activate **Pre-bend accidental** in the **Guitar Pre-bends** group.
  3. Choose one of the following options:
    - **Hide**
    - **Show**
- 

#### RESULT

Accidentals on the selected guitar pre-bends are hidden when you choose **Hide**, and shown when you choose **Show**. This does not affect the interval shown for the selected guitar pre-bends

on tablature. If the property scope was set to **Locally**, this change only takes effect in the current layout and frame chain.

## Deleting guitar pre-bends, pre-dives, and post-bends

You can remove guitar pre-bends, pre-dives, and post-bends from notes after you have input them. However, because guitar pre-bends, pre-dives, and post-bends are properties of notes rather than separate items in Dorico Elements, you must select and delete them differently from other items.

---

### PROCEDURE

1. In Write mode, select the notes from which you want to remove guitar pre-bends, pre-dives, and/or post-bends.
2. Do one of the following:
  - To remove guitar pre-bends/pre-dives, deactivate **Pre-bend interval** in the **Guitar Pre-bends** group of the Properties panel.
  - To remove guitar post-bends, deactivate **Post-bend interval** in the **Guitar Post-bends** group of the Properties panel.

---

### RESULT

Guitar pre-bends, pre-dives, and/or post-bends are removed from the selected notes.

### RELATED LINKS

[Inputting guitar pre-bends/pre-dives](#) on page 340

[Inputting guitar post-bends](#) on page 341

## Guitar bends in Engrave mode

In Engrave mode, each guitar bend, release, and hold has multiple handles that you can move independently to adjust their graphical position and shape on notation staves and tablature independently.

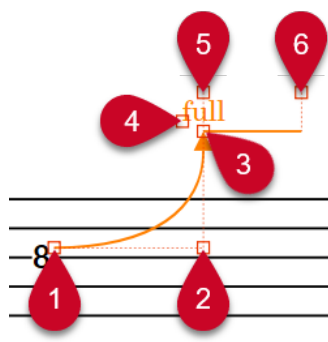
On notation staves, guitar bends and releases have three square handles. When you move either of the start/end handles, the middle handle also moves to retain its position relative to the start/end handles.



Guitar bend handles on notation staff in Engrave mode

### Guitar bends and holds

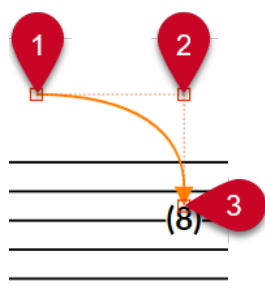
On tablature, guitar bends and holds have the following handles:



- 1 Guitar bend start handle
- 2 Guitar bend middle handle
- 3 Guitar bend end handle
- 4 Bend interval handle
- 5 Hold start handle
- 6 Hold end handle

## Releases

On tablature, releases have the following handles:



- 1 Release start handle
- 2 Release middle handle
- 3 Release end handle

You can move these handles to change the shape of guitar bends and releases, change the graphical length and angle of guitar bend holds, and move bend intervals. When you move guitar bend end handles, the bend interval also moves to retain its position relative to the end handle.

If guitar bends cross system and frame breaks, you can move the guitar bend segment on each side of the break independently.

### NOTE

- Adjoining guitar bends, such as guitar bend runs or a guitar bend that ends on the same note that a return starts on, function as a group. When using the mouse, moving any guitar bend in the group upwards/downwards moves all the others. When you move individual handles within the group using the mouse, adjacent guitar bends automatically adjust to compensate.

When you move individual guitar bends in a group or individual handles using the keyboard, this does not affect adjacent guitar bends.

- You cannot move whole holds, you must move their handles.
  - The following properties in the **Guitar Bends** group of the Properties panel are activated automatically when you move the corresponding guitar bend handle:
    - **Start offset** moves start guitar bend and release handles. **X** moves them horizontally, **Y** moves them vertically.
    - **Mid offset** moves middle guitar bend and release handles. **X** moves them horizontally, **Y** moves them vertically.
    - **End offset** moves end guitar bend and release handles. **X** moves them horizontally, **Y** moves them vertically.
    - **Interval offset** moves guitar bend interval handles. **X** moves them horizontally, **Y** moves them vertically.
    - **Hold start offset** moves start guitar bend hold handles. **X** moves them horizontally, **Y** moves them vertically.
    - **Hold end offset** moves end guitar bend hold handles. **X** moves them horizontally, **Y** moves them vertically.
- 

#### RELATED LINKS

[Moving items graphically](#) on page 481

[Bend intervals](#) on page 1012

[System breaks](#) on page 586

[Frame breaks](#) on page 589

[Input methods for guitar bends and guitar techniques](#) on page 338

## Guitar pre-bends/pre-dives in Engrave mode

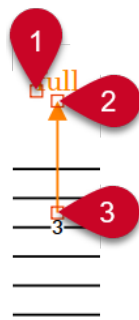
In Engrave mode, each guitar pre-bend/pre-dive has multiple handles that you can move independently to adjust their graphical position and shape on notation staves and tablature independently.

On notation staves, guitar pre-bends/pre-dives have three square handles. When you move either of the start/end handles, the middle handle also moves to retain its position relative to the start/end handles.

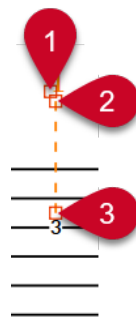


Guitar pre-bend/pre-dive handles on notation staff in Engrave mode

On tablature, guitar pre-bends/pre-dives have the following handles:



Guitar pre-bend handles



Guitar pre-dive handles

- 1 Bend interval handle
- 2 Guitar pre-bend/pre-dive end handle
- 3 Guitar pre-bend/pre-dive start handle

You can move these handles to change the shape of guitar pre-bends/pre-dives on notation staves, change the graphical length and angle of guitar pre-bends/pre-dives on tablature, and move bend intervals. When you move guitar pre-bend/pre-dive end handles, the bend interval also moves to retain its position relative to the end handle.

#### NOTE

- You cannot move whole guitar pre-bends/pre-dives, you must move their handles.
- The following properties in the **Guitar Pre-bends** group of the Properties panel are activated automatically when you move the corresponding guitar pre-bend/pre-dive handle:
  - **Start offset** moves guitar pre-bend/pre-dive start handles. **X** moves them horizontally, **Y** moves them vertically.
  - **Mid offset** moves guitar pre-bend/pre-dive middle handles. **X** moves them horizontally, **Y** moves them vertically.
  - **End offset** moves guitar pre-bend/pre-dive end handles. **X** moves them horizontally, **Y** moves them vertically.
  - **Interval offset** moves guitar pre-bend/pre-dive interval handles. **X** moves them horizontally, **Y** moves them vertically.

---

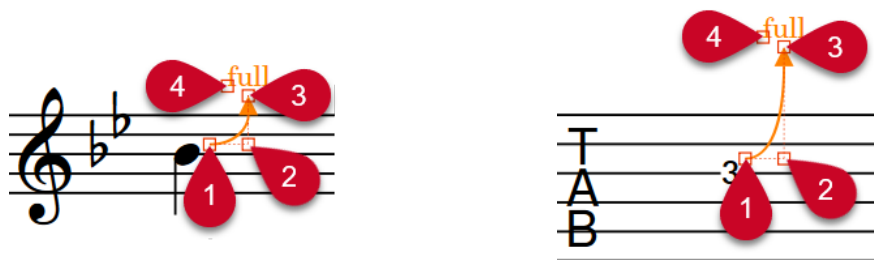
#### RELATED LINKS

[Inputting guitar pre-bends/pre-dives](#) on page 340

## Guitar post-bends in Engrave mode

In Engrave mode, each guitar post-bend has multiple handles that you can move independently to adjust their graphical position and shape on notation staves and tablature independently.

On both notation staves and tablature, guitar post-bends have the following handles:



- 1 Guitar post-bend start handle
- 2 Guitar post-bend middle handle
- 3 Guitar post-bend end handle
- 4 Bend interval handle

You can move these handles to change the shape of guitar post-bends and move bend intervals. When you move guitar post-bend end handles, the bend interval also moves to retain its position relative to the end handle.

#### NOTE

The following properties in the **Guitar Post-bends** group of the Properties panel are activated automatically when you move the corresponding guitar post-bend handle:

- **Start offset** moves guitar post-bend start handles. **X** moves them horizontally, **Y** moves them vertically.
- **Mid offset** moves guitar post-bend middle handles. **X** moves them horizontally, **Y** moves them vertically.
- **End offset** moves guitar post-bend end handles. **X** moves them horizontally, **Y** moves them vertically.
- **Interval offset** moves guitar post-bend interval handles. **X** moves them horizontally, **Y** moves them vertically.

#### RELATED LINKS

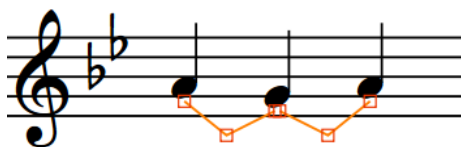
[Moving items graphically](#) on page 481

[Inputting guitar post-bends](#) on page 341

## Vibrato bar dives and returns in Engrave mode

In Engrave mode, each vibrato bar dive and return has multiple handles that you can move independently to adjust their graphical position and shape.

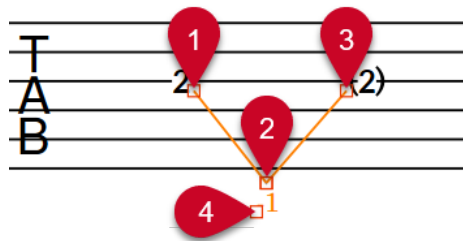
On notation staves, each vibrato bar dive and vibrato bar return has three square handles that you can move independently. When you move either of the start/end handles, the middle handle also moves to retain its position relative to the start/end handles.



Vibrato bar dive and return handles on notation staff in Engrave mode

On tablature, vibrato bar dives and returns have the following handles:





- 1 Vibrato bar dive start handle
- 2 Vibrato bar dive end handle/Vibrato bar return start handle
- 3 Vibrato bar return end handle
- 4 Bend interval handle

You can move these handles to change the shape or angle of vibrato bar dives and returns and move bend intervals. When you move the vibrato bar dive end handle/vibrato bar return start handle with the mouse, both handles move together. When you move the handle using the keyboard, by default only the vibrato bar dive end handle moves. The same is true for consecutive vibrato bar bends with the same pitch direction.

When you move the vibrato bar dive end handle, the bend interval also moves to retain its position relative to the end handle.

If vibrato bar dives and returns cross system and frame breaks, you can move the vibrato bar dive and return segment on each side of the break independently.

#### NOTE

The following properties in the **Guitar Bends** group of the Properties panel are activated automatically when you move the corresponding vibrato bar dive/return handle:

- **Start offset** moves vibrato bar dive/return start handles. **X** moves them horizontally, **Y** moves them vertically.
- **Mid offset** moves vibrato bar dive/return middle handles. **X** moves them horizontally, **Y** moves them vertically.
- **End offset** moves vibrato bar dive/return end handles. **X** moves them horizontally, **Y** moves them vertically.
- **Interval offset** moves vibrato bar dive/return interval handles. **X** moves them horizontally, **Y** moves them vertically.

---

#### RELATED LINKS

[Vibrato bar techniques](#) on page 1021

[Input methods for guitar bends and guitar techniques](#) on page 338

[System breaks](#) on page 586

[Frame breaks](#) on page 589

# Guitar techniques

The term “guitar techniques” covers a range of techniques typically associated with guitar music, such as hammer-ons, pull-offs, and pitch alterations that use the vibrato bar on electric guitars.

## RELATED LINKS

[Input methods for guitar bends and guitar techniques](#) on page 338

[Guitar bends](#) on page 1006

[Guitar pre-bends and pre-dives](#) on page 1008

[Guitar post-bends](#) on page 1009

[Vibrato bar dives and returns](#) on page 1011

[Bend intervals](#) on page 1012

## Vibrato bar techniques

There are a number of different techniques that can be performed using the vibrato bar on electric fretted instruments, typically guitars. In Dorico Elements, the available vibrato bar techniques are categorized differently.

### Vibrato bar dives

Vibrato bar dives indicate that the performer should use the vibrato bar to lower the pitch after playing the note, so that the pitch falls after starting to sound. This technique is also known as a “dive bomb”.

In Dorico Elements, you can notate vibrato bar dives using jazz articulations to show falling lines to the right of noteheads in combination with a vibrato bar indication.



### Vibrato bar scoops

Vibrato bar scoops indicate that the performer should depress the vibrato bar just before playing the note and then release the vibrato bar quickly, so that the pitch rises after starting to sound.

In Dorico Elements, vibrato bar scoops are properties of notes, meaning they only apply to single notes. By default, vibrato bar scoops only appear on notation staves and are placed to the left of noteheads on the staff.



### Vibrato bar dips

Vibrato bar dips indicate that the performer should use the vibrato bar to lower and then raise the pitch by the specified interval after playing the note.

In Dorico Elements, vibrato bar dips are considered ornaments. You can select and delete them independently of the notes to which they apply. Vibrato bar dips appear

on both notation staves and tablature and are placed above the staff. You can change the staff-relative placement of individual vibrato bar dips.



### Vibrato bar indications/lines

Vibrato bar indications are text instructions that indicate that the performer should use the vibrato bar. When they apply to a range of notes, they typically show dashed lines.

In Dorico Elements, vibrato bar indications/lines are considered playing techniques. They show lines when they have duration. You can select and delete them independently of the notes to which they apply. You can also change the duration line style of vibrato bar lines in the same ways as for playing technique continuation lines.



### NOTE

Vibrato bar techniques are not currently reflected in playback. This is planned for future versions.

---

### RELATED LINKS

- [Input methods for guitar bends and guitar techniques](#) on page 338
- [Inputting guitar pre-bends/pre-dives](#) on page 340
- [Guitar pre-bends and pre-dives](#) on page 1008
- [Vibrato bar dives and returns](#) on page 1011
- [Jazz articulations](#) on page 1028
- [Ornaments](#) on page 977
- [Playing techniques](#) on page 1062
- [Playing technique continuation lines](#) on page 1067
- [Playing technique duration](#) on page 1068
- [Lengthening/Shortening items](#) on page 410
- [Changing the style of playing technique continuation lines](#) on page 1071
- [Changing the staff-relative placement of items](#) on page 414
- [Changing the staff-relative placement of guitar techniques](#) on page 1026

## Tapping

Tapping involves performers pressing the strings of fretted instruments strongly enough that the corresponding pitch sounds without additional striking. Tapping indications can specify whether the performer should use their right or left hand for individual notes. They typically appear as the letter T, a plus sign, or a dot.

According to convention, tapping indications for the same hand and for consecutive notes on the same string with different pitches are notated alongside slurs that span the tapped phrase. This is similar to hammer-ons and pull-offs, except tapping indications appear on every note whereas hammer-on and pull-off indications typically appear centered on slurs.



A phrase containing right-hand and left-hand tapping

By default, tapping indications only appear on notation staves and are placed above the staff. You can change the staff-relative placement of individual tapping indications.

In Dorico Elements, tapping indications are considered properties of notes. There are the following types of tapping indications:

#### Right-hand tapping

Right-hand tapping indications specify that the performer should tap the string at the specified pitch with their right hand. In Dorico Elements, right-hand tapping indications appear as the letter T.



Right-hand tapping on notation staff

#### Left-hand tapping

Left-hand tapping indications specify that the performer should tap the string at the specified pitch with their left hand. In Dorico Elements, left-hand tapping indications appear as a dot.



Left-hand tapping on notation staff

#### RELATED LINKS

[Inputting tapping](#) on page 350

[Changing the staff-relative placement of guitar techniques](#) on page 1026

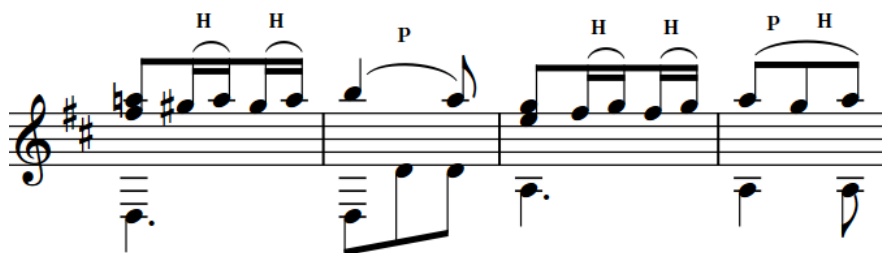
[Moving items graphically](#) on page 481

[Fingerings for fretted instruments](#) on page 880

## Hammer-ons and pull-offs

Hammer-ons and pull-offs involve performers tapping or plucking the strings of fretted instruments with their left hand strongly enough that the corresponding pitch sounds without additional striking, producing a legato effect. Ligados are a combination of at least one hammer-on and one pull-off in a single phrase.

Hammer-ons and pull-offs are notated as the letters H or P, respectively, combined with a slur spanning the corresponding notes. Dorico Elements automatically centers hammer-on/pull-off indications on slurs. For ligados, each hammer-on/pull-off indication is centered over the range of notes in the corresponding direction.



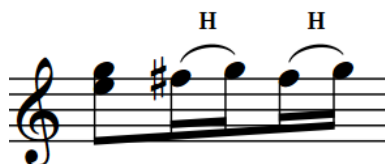
A phrase containing hammer-ons, a pull-off, and a ligado

By default, hammer-ons/pull-offs appear on both notation staves and tablature and are placed above the staff. You can change the staff-relative placement of individual hammer-on/pull-off indications.

In Dorico Elements, hammer-on/pull-off indications are considered properties of notes.

### Hammer-ons

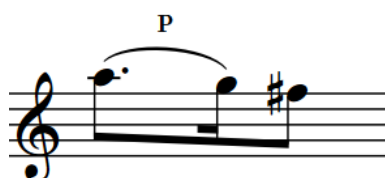
Hammer-ons specify that the performer should tap the string at the specified pitch with their left hand without restriking the string. Hammer-ons require at least two notes on the same string with an ascending pitch direction, such as C-D. In Dorico Elements, hammer-ons appear as a letter H.



Hammer-ons on notation staff

### Pull-offs

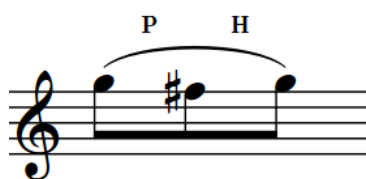
Pull-offs specify that the performer should pluck the string at the specified pitch with their left hand without restriking the string. Pull-offs require at least two notes on the same string with a descending pitch direction, such as D-C. In Dorico Elements, pull-offs appear as a letter P.



Pull-off on notation staff

### Ligados

Ligados specify that the performer should both hammer on and pull off notes within a single phrase. Ligados require at least three notes on the same string with alternating pitch directions, such as C-D-C. In Dorico Elements, ligados comprise at least one hammer-on and pull-off.



Ligado on notation staff

RELATED LINKS

[Inputting hammer-ons/pull-offs](#) on page 349

[Changing the staff-relative placement of guitar techniques](#) on page 1026


[Moving items graphically](#) on page 481

[Fingerings for fretted instruments](#) on page 880

## Showing notes as dead notes

You can show individual notes belonging to fretted instruments as dead notes. Dead notes are notated with cross noteheads on notation staves and with an X on tablature.

PREREQUISITE

- The lower zone is shown.
- **Properties**  is selected in the lower zone toolbar.

PROCEDURE

1. Select the notes belonging to fretted instruments that you want to show as dead notes. You can do this in Write mode and Engrave mode.
2. In the Properties panel, activate **Dead note** in the **Notes and Rests** group.

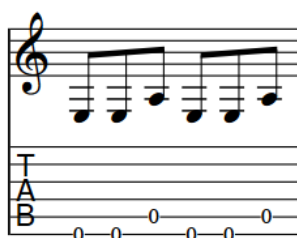
RESULT

The selected notes are shown as dead notes.

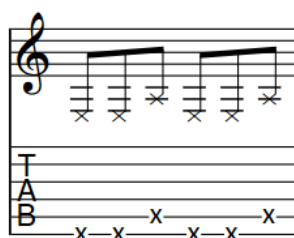
NOTE

This does not currently affect their sound in playback; this is planned for future versions.

EXAMPLE



Normal notes



Dead notes

RELATED LINKS

[Inputting notes on tablature](#) on page 232


[Bracketed noteheads](#) on page 953

[Tablature](#) on page 1200

## Changing vibrato bar dip intervals

You can change the intervals of individual vibrato bar dips. By default, vibrato bar dips have half step intervals.

### PREREQUISITE

- The lower zone is shown.
- **Properties**  is selected in the lower zone toolbar.

---

### PROCEDURE

1. Select the vibrato bar dips whose interval you want to change. You can do this in Write mode and Engrave mode.
2. In the Properties panel, change the value for **Interval above** in the **Ornaments** group.  
For example, enter **1** for a half step interval, **2** for a whole step interval, or **3** for a minor third interval.

---

### RESULT

The interval of the selected vibrato bar dips is changed.

---

### EXAMPLE



Vibrato bar dip with half step interval



Vibrato bar dip with whole step interval



Vibrato bar dip with minor third interval

---

### RELATED LINKS

[Inputting vibrato bar dips with the popover](#) on page 346

[Inputting vibrato bar dips with the panel](#) on page 347


[Changing ornament intervals](#) on page 977

[Trill intervals](#) on page 984

## Changing the staff-relative placement of guitar techniques

You can show individual tapping, hammer-on, and pull-off indications either above or below the staff. You can do this for the current layout and frame chain only, or for all layouts and frame chains.

### PREREQUISITE

- The lower zone is shown.
- **Properties**  is selected in the lower zone toolbar.
- You have chosen the appropriate property scope for local properties.

---

#### PROCEDURE

1. Select the notes whose guitar technique staff-relative placement you want to change. You can do this in Write mode and Engrave mode.
  2. In the Properties panel, activate **Technique placement** in the **Guitar Techniques** group.
  3. Choose one of the following options:
    - **Above**
    - **Below**
- 

#### RESULT

The staff-relative placement of tapping, hammer-on, and pull-off indications on the selected notes is changed. If the property scope was set to **Locally**, this change only takes effect in the current layout and frame chain.

#### TIP

You can change the staff-relative placement of vibrato bar dips and lines by selecting them and pressing **F**.

---

#### RELATED LINKS

[Changing the direction of guitar pre-bends/pre-dives](#) on page 1013

[Moving items graphically](#) on page 481

[Changing the staff-relative placement of items](#) on page 414

[Changing the property scope](#) on page 617

[Copying property settings to other layouts/frame chains](#) on page 599

## Deleting guitar techniques

You can remove vibrato bar scoops and tapping, hammer-on, and pull-off indications from notes after you have input them. However, because these guitar techniques are properties of notes rather than separate items in Dorico Elements, you must select and delete them differently from other items.

---

#### PROCEDURE

1. In Write mode, select the notes from which you want to remove guitar techniques.
  2. Remove guitar techniques in any of the following ways:
    - To remove tapping, hammer-on, and pull-off indications, deactivate **Technique** in the **Guitar Techniques** group of the Properties panel.
    - To remove guitar vibrato bar scoops, deactivate **Vibrato bar scoop** in the **Guitar Techniques** group of the Properties panel.
- 

#### RESULT

Tapping, hammer-on, and pull-off indications and/or vibrato bar scoops are removed from the selected notes.



# Jazz articulations

Jazz articulations in Dorico Elements cover a range of note ornamentations that are idiomatic to jazz music, and brass instruments in particular.

Although they are often known as jazz “articulations”, these techniques function more like ornaments than articulations because they change the pitch rather than the duration or attack of notes. For this reason, they are considered ornaments in Dorico Elements. They are found in the Ornaments panel, and you can also input them using the ornaments popover.

Jazz articulations can be shown as a curved line similar to a slur, which is called a “bend” in Dorico Elements, and as a straight line, which can be solid, dashed, or wiggly, which is called “smooth” in Dorico Elements.

Each note can have a single jazz articulation on each side of it, one before the note and one after. Jazz articulations after notes can have different lengths.

The following jazz articulations can be shown before notes:

## Plop

An approach into the note from above.



Plop (bend)



Plop (smooth)

## Scoop/Lift

An approach into the note from below. A bend approach is a scoop, a smooth approach is a lift.



Scoop



Lift (straight)

The following jazz articulations can be shown after notes:

## Doit

A rise in pitch after the note.



Doit (bend)



Doit (smooth)

## Fall

A lowering of pitch after the note.



Fall (bend)



Fall (smooth)

Additionally, there are other jazz ornaments commonly used by brass instruments that you can add to notes in the same ways as inputting jazz articulations.

If your sound library includes samples for jazz articulations, Dorico Elements loads the required samples using playback techniques.

#### RELATED LINKS

[Input methods for ornaments, arpeggio signs, glissando lines, and jazz articulations](#) on page 325

[Playback techniques](#) on page 706

[Glissando lines](#) on page 1000

[Arpeggio signs](#) on page 994

[Fingering slides](#) on page 885

[Lines](#) on page 1075

## Jazz ornaments

Jazz ornaments are notations that are commonly used in jazz music and by brass instruments, such as flips and smears, that are positioned outside of the staff rather than beside noteheads like jazz articulations.

Jazz ornaments behave more like other ornaments than jazz articulations, in that they are items separate from notes, and so can be selected independently of notes in Write mode and added to notes in addition to jazz articulations. Because they are so commonly used alongside jazz articulations, in Dorico Elements they are also included in the **Jazz** section of the Ornaments panel.

You can input jazz ornaments in the same ways as inputting other ornaments rather than jazz articulations.

The following ornaments are considered jazz ornaments in Dorico Elements:

#### Flip



#### Smear



#### Jazz turn/Shake



#### Bend



#### NOTE

Jazz articulations are not currently reflected in playback.

---

#### RELATED LINKS

[Ornaments](#) on page 977

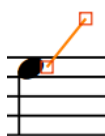
[Input methods for ornaments, arpeggio signs, glissando lines, and jazz articulations](#) on page 325

## Positions of jazz articulations

In Dorico Elements, jazz articulations are automatically positioned relative to the noteheads to which they apply, with any other notations on those notes, such as rhythm dots, accidentals, and back notes, automatically considered.

When multiple notes in a chord have a jazz articulation, Dorico Elements considers the best way to align them based on how close to the noteheads they can be positioned and how many jazz articulations to show in total. Dorico Elements allows a maximum of one jazz articulation per space, meaning fewer jazz articulations than noteheads are sometimes shown on cluster chords.

In Engrave mode, each smooth jazz articulation has two square handles, one at the start and one at the end. You can move these handles to adjust the graphical position, length, and angle of jazz articulations. You can also move whole individual jazz articulations graphically.



Handles on a smooth do it in Engrave mode

### NOTE

- You cannot move jazz articulations rhythmically. If you want to change the notes to which jazz articulations apply, you must delete them from their original notes and input new jazz articulations on the new notes.
- The following properties in the **Jazz Articulations** group of the Properties panel are activated automatically when you move the corresponding smooth jazz articulation handle:
  - **In far offset** moves the start handle of jazz articulations shown before notes; that is, the handle further from the note. **X** moves them horizontally, **Y** moves them vertically.
  - **In offset** moves the end handle of jazz articulations shown before notes; that is, the handle closer to the note. **X** moves them horizontally, **Y** moves them vertically.
  - **Out offset** moves the start handle of jazz articulations shown after notes; that is, the handle closer to the note. **X** moves them horizontally, **Y** moves them vertically.
  - **Out far offset** moves the end handle of jazz articulations shown after notes; that is, the handle further from the note. **X** moves them horizontally, **Y** moves them vertically.

---

### RELATED LINKS

[Input methods for ornaments, arpeggio signs, glissando lines, and jazz articulations](#) on page 325

[Moving items graphically](#) on page 481

[Deleting jazz articulations](#) on page 1032

## Changing the type/length of existing jazz articulations

You can change the type and length of jazz articulations after you have input them; for example, if you want to change a smooth do it to a long bend do it. You can specify the type/length of jazz articulations when using the Ornaments panel but not when using the ornaments popover.

---

### PROCEDURE

1. In Write mode, select the notes whose jazz articulation you want to change.

2. In the Ornaments panel, click the jazz articulation you want in the **Jazz** section.
- 

#### RESULT

The jazz articulation shown on the selected notes is changed.

#### TIP

You can also change the type/duration of jazz articulations using the **In** and **Out** properties in the **Jazz Articulations** group of the Properties panel.

---

#### EXAMPLE



Short bend doit



Medium bend doit




Long bend doit

---

## Changing the line style of smooth jazz articulations

You can change the line style of smooth jazz articulations individually. For example, if you want selected smooth falls to have straight lines instead of wavy lines.

#### PREREQUISITE

- The lower zone is shown.
  - **Properties**  is selected in the lower zone toolbar.
- 

#### PROCEDURE

1. Select the notes with smooth jazz articulations whose line style you want to change. You can do this in Write mode and Engrave mode.

#### NOTE

You must select notes with smooth jazz articulations on the same side; for example, only select notes with smooth jazz articulations before them.

---

2. In the Properties panel, select one of the following line styles from the **In line style** menu and/or **Out line style** menu in the **Jazz Articulations** group:
  - **Straight**
  - **Wavy**
  - **Dashed**

#### NOTE

**In line style** is available when you select notes with smooth jazz articulations before them, and **Out line style** is available when you select notes with smooth jazz articulations after them. Both are available when you select notes with smooth jazz articulations on both sides.

---

#### RESULT

The line style of the selected smooth jazz articulations is changed.

#### TIP

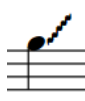
You can reset jazz articulations back to their default line style by selecting them and choosing **Edit > Reset Appearance**.

---

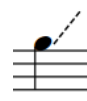
#### EXAMPLE



Doit smooth with straight line



Doit smooth with wavy line



Doit smooth with dashed line

---

## Deleting jazz articulations

You can remove jazz articulations from notes after you have input them. However, because jazz articulations are properties of notes rather than separate items in Dorico Elements, you must select and delete them differently from other items.

---

#### PROCEDURE

1. In Write mode, select the notes from which you want to remove jazz articulations.
  2. In the Ornaments panel, click **Remove** in the **Jazz** section.
- 

#### RESULT

All jazz articulations are removed from the selected notes.

# Page numbers

Page numbers are used to give each page a unique number, and indicate its position relative to other pages. Just as in newspapers and books, musical scores and parts use page numbers to make sure the music stays in the correct order.

Because you can have multiple flows in a single project in Dorico Elements, you do not need to change page numbers manually in most cases. However, if you have separate files that together make up a single piece, page number changes are necessary to make sure the page numbers continue seamlessly from movement to movement.

In such cases, you can change the default page numbers. For example, if you want to have four pages of front matter before the first page of music in the score, but you want the first page of music in the score to be shown as page 1, you can insert a page number change on the first page of music.

Page numbers are layout-specific in Dorico Elements, meaning you can change the page numbers in each layout independently. For example, you can change the page numbers in the score but show the default page numbers in the parts.

Page numbers in Dorico Elements use a token to ensure the number is correct.

## NOTE

You must have a text frame containing the page number token on every page on which you want page numbers to be shown.

**Default** page templates contain text frames with page number tokens. You can change the position of page number text frames in the page template editor, which changes the position of page numbers on all pages that use that page template. You can also move page number text frames on individual pages.

You can also change the type of number used to show page numbers in each layout. For example, if you want the front matter to use Roman numerals but the music pages to use Arabic numerals, you can change the type of number together with the page number.

## RELATED LINKS

[Page templates](#) on page 599

[Types of page templates](#) on page 601

[Tokens](#) on page 607

## Changing the page number numeral style

Page numbers can appear as Arabic or Roman numerals. You can change the numeral style of page numbers in each layout independently.

## PROCEDURE

1. Press **Ctrl/Cmd-Shift-L** to open **Layout Options**.
2. In the **Layouts** list, select the layouts whose page number numeral style you want to change. By default, the layout currently open in the music area is selected when you open the dialog. You can select other layouts by using the selection options in the action bar, clicking

and dragging across multiple layouts, **Shift**-clicking adjacent layouts, and **Ctrl/Cmd**-clicking individual layouts.

3. In the category list, click **Page Setup**.
  4. In the **Page Numbers** section, select one of the following options from the **Use** menu:
    - **Number**
    - **Roman numeral**
  5. Click **Apply**, then **Close**.
- 

#### RESULT

The page number numeral style is changed in the selected layouts.

## Hiding/Showing page numbers

You can hide/show page numbers in each layout independently, including specifying whether to hide/show a page number on the first page. For example, you can show page numbers on every page in the score but hide page numbers on the first page in the parts.

#### NOTE

To show page numbers, there must be a text frame containing the page number token on the page. The **First** page templates in the default page template sets do not contain text frames containing page number tokens, so you must add these if you want to show page numbers on pages that use these page templates.

---

#### PROCEDURE

1. Press **Ctrl/Cmd-Shift-L** to open **Layout Options**.
  2. In the **Layouts** list, select the layouts in which you want to hide/show page numbers.  
By default, the layout currently open in the music area is selected when you open the dialog. You can select other layouts by using the selection options in the action bar, clicking and dragging across multiple layouts, **Shift**-clicking adjacent layouts, and **Ctrl/Cmd**-clicking individual layouts.
  3. In the category list, click **Page Setup**.
  4. In the **Page Numbers** section, select one of the following options from the **Visibility** menu:
    - **Always shown**
    - **Always hidden**
    - **Not on first page**
  5. Click **Apply**, then **Close**.
- 

#### RESULT

- If you select **Always shown**, page numbers are shown on all pages that have a text frame containing the page number token in the selected layouts.
- If you select **Always hidden**, page numbers are hidden on all pages in the selected layouts, including on pages that have a text frame containing the page number token.
- If you select **Not on first page**, page numbers are hidden on the first page in the selected layouts, but shown on all other pages that have a text frame containing the page number token.

NOTE

Your per-layout setting for whether page numbers are hidden/shown above flow headings affects whether page numbers are shown on pages where they are higher on the page than flow headings.

---

RELATED LINKS

[Tokens](#) on page 607

[Flow headings](#) on page 603

[Hiding/Showing information in running headers above flow headings](#) on page 568



# Harp pedaling

Harp pedaling is a broad term that covers the specific requirements for notating music for harps. This primarily involves harp pedal diagrams, which are often necessary due to the way in which modern concert harps change their tuning.



A passage with a full harp pedal diagram at the start and two subsequent partial pedal changes

Harps have seven strings in each octave, one for each diatonic pitch C-B, unlike pianos, which have twelve keys in each octave, one for each half-step (semitone) degree between C-B. Therefore, harps have a mechanical action to change their tuning that includes seven pedals, with each pedal controlling the pitch of the corresponding note in all octaves. These pedals are organized into two groups, one for each foot: three pedals for the left foot and four pedals for the right foot.

Each harp pedal has three possible positions:

1. Flat or highest position: lowers the pitch of the corresponding note by a half-step
2. Natural or middle position
3. Sharp or lowest position: raises the pitch of the corresponding note by a half-step

## NOTE

The lowest two harp strings, C and D, are not affected by the C and D pedal positions.

There are different ways to notate the pedal settings required for a piece of music or a passage within a piece. In Dorico Elements, you can show harp pedaling in the following ways:

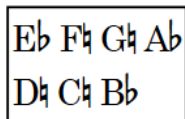
### Diagram



Indicates the physical positions of the seven pedals. The vertical line represents the split between left-foot and right-foot pedals and the horizontal line represents the natural position.

- Pedals below the horizontal line indicate sharpened notes.
- Pedals above the horizontal line indicate flattened notes.

### Note Names



Indicates the required accidentals for the seven diatonic pitches, arranged in two lines. Right-foot pedals are shown on top and left-foot pedals are shown below.

Any pitches that you input that do not fit with the current harp pedal diagram are considered out of range, and appear red when colors are shown for notes that are out of range. If you do not input any harp pedaling, Dorico Elements assumes all harp pedals are in their natural setting, as they would be for C major.

In Dorico Elements, you can input harp pedal diagrams using the playing techniques popover and you can automatically generate accurate harp pedal diagrams based on an entire flow or a specific passage of music. However, you can only input and show harp pedal diagrams on staves belonging to harp instruments; if you copy material from harp staves to other instruments, harp pedaling is automatically removed.

By default, harp pedaling is hidden in full score/custom score layouts and shown in part layouts. In layouts where harp pedaling is hidden, harp pedal diagrams are indicated by signposts. You can hide/show harp pedaling in each layout independently and hide individual harp pedal diagrams in layouts where harp pedaling is shown. You can also determine when to show partial harp pedaling, such as when only a single pedal must be changed at one time.

Harp pedal diagrams in Dorico Elements affect the pitches played back in glissando lines.

#### RELATED LINKS

[Partial harp pedaling](#) on page 1042

[Inputting harp pedal diagrams](#) on page 362

[Hiding/Showing harp pedaling in layouts](#) on page 1038

[Calculating harp pedal diagrams based on existing music](#) on page 363


[Hiding/Showing colors for notes out of range](#) on page 951

[Glissando lines in playback](#) on page 1004

## Changing the appearance of harp pedal diagrams

Harp pedaling can be shown as a diagram or using note names. You can change the appearance of harp pedal diagrams individually. You can do this for the current layout and frame chain only, or for all layouts and frame chains.

#### PREREQUISITE

- Harp pedaling is shown in the current layout.
- The lower zone is shown.
- **Properties**  is selected in the lower zone toolbar.
- You have chosen the appropriate property scope for local properties.

---

#### PROCEDURE

1. Select the harp pedal diagrams whose appearance you want to change. You can do this in Write mode and Engrave mode.
2. In the Properties panel, activate **Appearance** in the **Harp Pedals** group.
3. Choose one of the following options:

- **Diagram**
  - **Note Names**
- 

#### RESULT

The appearance of the selected harp pedal diagrams is changed in the current layout. If the property scope was set to **Locally**, this change only takes effect in the current layout and frame chain.

#### TIP

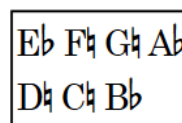
You can change the default appearance of harp pedaling in each layout independently in the **Harp Pedaling** section of the **Players** page in **Layout Options**.

---

#### EXAMPLE



Harp pedaling shown as a diagram



Harp pedaling shown using note names

---

#### RELATED LINKS

[Layout Options dialog](#) on page 677

[Partial harp pedaling](#) on page 1042

[Inputting harp pedal diagrams](#) on page 362

[Changing the property scope](#) on page 617

[Copying property settings to other layouts/frame chains](#) on page 599

## Hiding/Showing harp pedaling in layouts

You can input and calculate harp pedaling in any layout, but by default harp pedaling is not shown in full score layouts, as they are usually only useful for the performer. You can hide/show harp pedaling in each layout independently.

---

#### PROCEDURE

1. Press **Ctrl/Cmd-Shift-L** to open **Layout Options**.
  2. In the **Layouts** list, select the layouts in which you want to hide/show harp pedaling.  
By default, the layout currently open in the music area is selected when you open the dialog. You can select other layouts by using the selection options in the action bar, clicking and dragging across multiple layouts, **Shift**-clicking adjacent layouts, and **Ctrl/Cmd**-clicking individual layouts.
  3. In the category list, click **Players**.
  4. In the **Harp Pedaling** section, activate/deactivate **Show harp pedaling**.
  5. Click **Apply**, then **Close**.
-

#### RESULT

Harp pedaling is shown in the selected layouts when the checkbox is activated, and hidden when the checkbox is deactivated.

In layouts where harp pedaling is hidden, harp pedal diagrams are indicated by signposts.


#### NOTE

- You can hide individual harp pedal diagrams in layouts where harp pedaling is shown, but you cannot show individual harp pedal diagrams in layouts where harp pedaling is hidden.
  - You can hide/show harp pedaling signposts by choosing **View > Signposts > Harp Pedals**.
- 

## Hiding/Showing harp pedal diagrams individually

You can hide/show individual harp pedal diagrams in layouts in which harp pedaling is shown. You can do this for the current layout and frame chain only, or for all layouts and frame chains.

#### PREREQUISITE

- Harp pedaling is shown in the current layout.
  - The lower zone is shown.
  - **Properties**  is selected in the lower zone toolbar.
  - You have chosen the appropriate property scope for local properties.
- 

#### PROCEDURE

1. In the music area, open the layout in which you want to hide/show individual harp pedal diagrams. You can do this in Write mode and Engrave mode.
  2. Select the harp pedal diagrams you want to hide, or the signposts of harp pedal diagrams you want to show.
  3. In the Properties panel, activate/deactivate **Hide** in the **Harp Pedals** group.
- 

#### RESULT

The selected harp pedal diagrams are hidden when **Hide** is activated, and shown when it is deactivated. If the property scope was set to **Locally**, this change only takes effect in the current layout and frame chain.

Signposts are shown at the position of each hidden harp pedal diagram. However, signposts are not printed by default.

#### RELATED LINKS

[Changing the property scope](#) on page 617

[Copying property settings to other layouts/frame chains](#) on page 599

[Signposts](#) on page 426

[Annotations](#) on page 554

## Hiding/Showing borders on harp pedal diagrams


You can hide/show borders on individual note name harp pedal diagrams. For example, on systems with very tight vertical spacing, hiding borders on harp pedal diagrams can give you a little extra space.

### NOTE

These steps only apply to harp pedal diagrams using note names.

---

### PREREQUISITE

- Harp pedaling is shown in the current layout.
  - The lower zone is shown.
  - **Properties**  is selected in the lower zone toolbar.
- 

### PROCEDURE

1. Select the note name harp pedal diagrams on which you want to hide/show borders. You can do this in Write mode and Engrave mode.
  2. In the Properties panel, activate **Border** in the **Harp Pedals** group.
  3. Activate/Deactivate the corresponding checkbox.
- 

### RESULT

Borders are shown on the selected note name harp pedal diagrams when the checkbox is activated, and hidden when the checkbox is deactivated.

---

### EXAMPLE



Note name harp pedal diagram with border hidden      Note name harp pedal diagram with border shown

---

## Changing the thickness of harp pedal diagram borders

You can change the thickness of borders on individual note name harp pedal diagrams.

### NOTE

These steps only apply to harp pedal diagrams using note names.

---

### PREREQUISITE

- Harp pedaling is shown in the current layout.
- The lower zone is shown.

- **Properties**  is selected in the lower zone toolbar.

---

PROCEDURE

1. In Engrave mode, select the note name harp pedal diagrams whose border thickness you want to change.
2. In the Properties panel, activate **Border thickness** in the **Harp Pedals** group.
3. Change the value in the value field.

---


RESULT

The thickness of borders on the selected harp pedal diagrams is changed.

## Changing the padding around harp pedal diagrams

You can change the padding around harp pedal diagrams individually, and for each edge independently. This affects the distance between harp pedal diagrams and erased backgrounds and borders. You can do this for the current layout and frame chain only, or for all layouts and frame chains.

PREREQUISITE

- Harp pedaling is shown in the current layout.
- The lower zone is shown.
- **Properties**  is selected in the lower zone toolbar.
- You have chosen the appropriate property scope for local properties.

---

PROCEDURE

1. In Engrave mode, select the harp pedal diagrams whose padding you want to change.
2. In the Properties panel, activate the following properties, individually or together, in the **Harp Pedals** group:
  - **Left padding**
  - **Right padding**
  - **Top padding**
  - **Bottom padding**
3. Change the values in the value fields.

---

RESULT

The padding around the selected harp pedal diagrams is changed. Increasing the values increases the padding, decreasing the values decreases the padding. If the property scope was set to **Locally**, this change only takes effect in the current layout and frame chain.

RELATED LINKS

[Changing the property scope](#) on page 617

[Copying property settings to other layouts/frame chains](#) on page 599

## Positions of harp pedal diagrams

By default, harp pedal diagrams are centered vertically between the two staves usually shown for harps.

You can move harp pedal diagrams to different rhythmic positions in Write mode. They are automatically positioned to avoid collisions.

You can move harp pedal diagrams graphically in Engrave mode, but this does not change the rhythmic positions to which they are attached.

### RELATED LINKS

[Moving notes/items rhythmically](#) on page 437

[Moving items graphically](#) on page 481

## Partial harp pedaling

Partial harp pedal diagrams only show the notes whose pedal setting must change at that position, rather than showing the required settings for all pedals. This can make those changes immediately clear to the performer, as they have fewer pedals to read.



Partial pedal diagrams for a sequence containing several quick pedal changes

You can allow partial harp pedaling for individual harp pedal diagrams and you can set a maximum threshold of pedal changes at a single position, above which all harp pedal diagrams must show all pedals. This is because performers are used to the pattern of note names in complete harp pedal diagrams, and if there are many changes in a partial harp pedal diagram, this can be harder to read than a complete one.

By default, Dorico Elements shows notes in partial harp pedal diagrams on two lines with right-foot pedals on top and left-foot pedals below.

### NOTE

Only harp pedal diagrams using note names can be shown as partial.

---

## Allowing/Disallowing partial harp pedaling


You can allow/disallow partial harp pedaling for individual note name harp pedal diagrams. The default setting in Dorico Elements is to allow partial harp pedaling for up to three pedal changes. You can do this for the current layout and frame chain only, or for all layouts and frame chains.

### NOTE

- These steps only apply to harp pedal diagrams using note names.

- Harp pedal diagrams positioned at the very beginning of a flow can only appear as full harp pedal diagrams.
- 

#### PREREQUISITE

- Harp pedaling is shown in the current layout.
  - The lower zone is shown.
  - **Properties**  is selected in the lower zone toolbar.
  - You have chosen the appropriate property scope for local properties.
- 

#### PROCEDURE

1. Select the note name harp pedal diagrams for which you want to allow/disallow partial harp pedaling. You can do this in Write mode and Engrave mode.
  2. In the Properties panel, activate **Partial pedaling** in the **Harp Pedals** group.
  3. Activate/Deactivate the corresponding checkbox.
- 

#### RESULT

Partial harp pedaling is allowed for the selected note name harp pedal diagrams when the checkbox is activated, and disallowed when the checkbox is deactivated. If the property scope was set to **Locally**, this change only takes effect in the current layout and frame chain.

---

#### EXAMPLE



Harp pedal diagram showing all pedals



Partial harp pedal diagram

---

#### RELATED LINKS

[Hiding/Showing harp pedaling in layouts](#) on page 1038

[Inputting harp pedal diagrams](#) on page 362

[Changing the property scope](#) on page 617

[Copying property settings to other layouts/frame chains](#) on page 599



# Pedal lines

Pedal lines indicate to performers which piano pedals to use, and can also give performance instructions, such as how far down to depress the pedals and when to lift the pedal to clear the resonance.



Most pianos have either two or three pedals. These pedals are:

## Sustain pedal

The sustain pedal controls the dampers on the piano strings, which is why it is also known as the “damper pedal”. It is also the most commonly used pedal. Depressing the sustain pedal removes the dampers, allowing the strings to resonate longer. Sustain pedals are usually on the right.



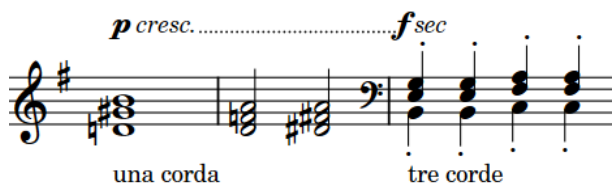
## Sostenuto pedal

The *sostenuto* pedal only allows the strings of the notes currently depressed on the keyboard to resonate. It is also known as the “middle pedal” as it is usually in the middle of the other pedals.



## Una corda pedal

The *una corda* pedal shifts the action inside the piano so that the hammers hit fewer strings than normal. Historically, this caused hammers only to hit one string, not the usual three, which is where the name comes from. Because this reduces the volume and impact of the sound, it is also known as the “soft pedal”.



Dorico Elements offers comprehensive notational and playback support for piano pedal lines. You can create pedaling for the sustain, *sostenuto*, and *una corda* pedals, with support for modern sustain pedaling techniques, including changing the pedal level over the course of a single pedal instruction.

You can change the appearance of pedal lines, including changing their start sign and continuation type. For example, if you want to show some pedal lines with a continuation line and some only with a sign at the end.

In Dorico Elements, pedal lines are considered playing techniques because they alter the sound produced by the instrument. Therefore, pedal lines are included in the Playing Techniques panel in Write mode and you can input them using the playing techniques popover. However, pedal lines have additional, unique requirements that do not apply to other playing techniques, such as retakes, pedal level changes, start signs, end signs, and continuation lines.

#### RELATED LINKS

[Input methods for playing techniques, pedal lines, string indicators, and harp pedal diagrams](#) on page 351

[Pedal line start signs, hooks, and continuation lines](#) on page 1053

[Text pedal line signs](#) on page 1058

[Pedal lines in playback](#) on page 1061

[Playing technique continuation lines](#) on page 1067

[Lines](#) on page 1075

[MIDI Import Options dialog](#) on page 86

## Sustain pedal retakes and pedal level changes

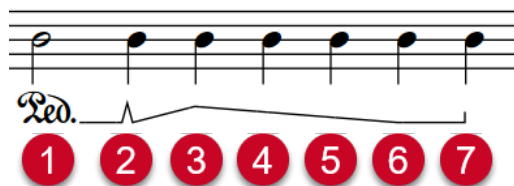
Pedal retakes indicate where a player should lift the sustain pedal, which dampens the piano's strings and clears the resonance, before depressing the pedal again. Pedal level changes indicate a change to how far the pedal is depressed.

Dorico Elements provides clear representations of pedal retakes and level changes for pedal lines with the line continuation type.

#### NOTE

- In Dorico Elements, you cannot input pedal level changes. However, pedal level changes are shown if you import or open a project that contains them, and you can remove them in the same way as removing retakes.
- You can only add pedal retakes to sustain pedal lines.

#### EXAMPLE



- 1 Ped. glyph
- 2 Retake
- 3 One quarter depressed
- 4 Half depressed
- 5 Three quarters depressed

- 6 Fully depressed
  - 7 Line end hook
- 

#### RELATED LINKS

[Changing the pedal line continuation type](#) on page 1056

[Positions of pedal lines](#) on page 1050

[Removing retakes and pedal level changes](#) on page 1050

[Input methods for playing techniques, pedal lines, string indicators, and harp pedal diagrams](#) on page 351

## Sustain pedal lines in Engrave mode

When you select sustain pedal lines in Engrave mode, handles appear at the start/end of each pedal line, and on any retakes or pedal level changes on the line. These handles allow you to move each part of the pedal line independently, and to change the pedal levels at the start, end, and at each retake or pedal level change.



A sustain pedal with a retake in Engrave mode

There are two handles for the start of the pedal line, three for retakes and pedal level changes, and three for the end of the pedal line.

#### NOTE

- Pedal levels cannot be lower than **0** or higher than **1**, as shown in properties in either the **Pedal Lines** group or the **Pedal Line Retakes** group of the Properties panel.
  - **1** is fully depressed.
  - **0** is not depressed.
- *Sostenuto* and *una corda* pedal lines only have a single handle at their start/end, which allows you to move their start/end positions graphically, but only horizontally.

### Start of sustain pedal lines

There are two handles at the start of pedal lines.



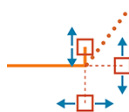
- The left handle moves the start point of the pedal line. You can move this handle to the right/left.
- The right handle changes the start pedal level of the pedal line. You can move this handle upwards/downwards. This changes the angle of the pedal continuation line in relation to the next retake or pedal level change, or the end of the pedal line.

## Pedal level changes and retakes



- The left handle changes the pedal level before the retake or pedal level change. You can move this handle upwards/downwards.
- The right handle changes the pedal level after the retake or pedal level change. You can move this handle upwards/downwards.
- The bottom handle corresponds to the position of the retake or pedal level change. You can move this handle to the right/left.

## End of sustain pedal lines



- The top handle changes the hook length. You can move this handle upwards/downwards.
- The right handle changes the pedal level at the end of the pedal line. You can move this handle upwards/downwards.
- The bottom handle moves the end point of the pedal line. You can move this handle to the right/left.

### RELATED LINKS

[Pedal line start signs, hooks, and continuation lines](#) on page 1053


[Moving items graphically](#) on page 481

## Changing the type of pedal line retakes

You can change existing retakes on sustain pedal lines to pedal level changes and vice versa.

For example, if you do not want the pedal to be released completely between the old and new levels, change the type to **Change Level** instead of **Retake**.

### PREREQUISITE

- The lower zone is shown.
- **Properties**  is selected in the lower zone toolbar.

---

### PROCEDURE

1. In Engrave mode, select the retake or pedal level change whose type you want to change.
2. In the Properties panel, activate **Retake type** in the **Pedal Line Retakes** group.
3. Choose the type you want from the following options:
  - **Retake**
  - **Change Level**

---

### RESULT

The type of pedal line retake is changed.

#### NOTE

The appearance of the new type of pedal line retake depends on the pedal levels already set on each side. For example, a retake notch is only shown on one side of the retake if the pedal level on the other side is set to **0**.


---

## Changing the global level for pedal lines

You can change the global level for individual sustain pedal lines and show the level as a prefix before the pedal line start sign, such as “1/2 Ped.”. For example, to indicate a pianist should only half depress the sustain pedal throughout a piece.

By default, the global level of sustain pedal lines is fully depressed.

#### PREREQUISITE

- The lower zone is shown.
  - **Properties**  is selected in the lower zone toolbar.
- 

#### PROCEDURE

1. In Engrave mode, select the pedal lines whose global level you want to change.
  2. In the Properties panel, activate **Global level** in the **Pedal Lines** group.
  3. Select one of the following options from the menu:
    - **1/8**
    - **1/4**
    - **1/2**
    - **3/4**
- 

#### RESULT

The global level for the selected pedal lines is changed and the selected level appears as a prefix before their start signs.

#### NOTE

Level prefixes do not appear for pedal lines with hook start signs.

---

#### EXAMPLE



Pedal line with default fully depressed pedal level



Pedal line with half depressed pedal level

---

#### RELATED LINKS

[Pedal line start signs, hooks, and continuation lines](#) on page 1053

[Changing the start sign appearance of pedal lines](#) on page 1054

## Changing pedal line levels

You can change the level at the start and end of individual sustain pedal lines, and at each retake or pedal level change. For example, if you want to specify how far to depress the pedal at specific rhythmic positions.

### NOTE

You can only change the level of pedal lines with the line continuation type.

---

### PROCEDURE

1. In Engrave mode, select any of the following handles on each pedal line whose pedal line levels you want to change:
    - To change the start pedal level, select the right handles on start signs.
    - To change the pedal level immediately before retakes/level changes, select the left handle of retakes/level changes.
    - To change the pedal level immediately after retakes/level changes, select the right handle of retakes/level changes.
    - To change the end pedal level, select the right handles on end hooks.
  2. Move the handles in any of the following ways:
    - To move them upwards, press **Alt/Opt-Up Arrow**.
    - To move them downwards, press **Alt/Opt-Down Arrow**.
    - To snap the level to 0 (not depressed), press **Ctrl/Cmd-Alt/Opt-Up Arrow**.
    - To snap the level to 1 (fully depressed), press **Ctrl/Cmd-Alt/Opt-Down Arrow**.
    - Click and drag the handles upwards/downwards to the level you want.
- 

### RESULT

The pedal levels at the selected positions on the corresponding pedal lines are changed.

### TIP

The following properties in the **Pedal Lines** group of the Properties panel are activated when you change the corresponding pedal line level:

- **Start level**
- **Start level at retake**
- **End level at retake**
- **End level**

You can also use these properties to change the pedal line level at the corresponding positions by changing the values in the value fields. For example, **1** is fully depressed and **0** is not depressed.

Deactivating the properties resets the selected pedal lines to their default pedal line levels.

---

### RELATED LINKS

[Changing the pedal line continuation type](#) on page 1056

## Removing retakes and pedal level changes

You can remove pedal retakes and level changes without deleting the sustain pedal line or changing its rhythmic position.

---

### PROCEDURE

1. In Write mode, select an item on each staff and at each rhythmic position where you want to remove retakes or pedal level changes.
2. Remove the retakes or pedal level changes in any of the following ways:

- Open the playing techniques popover, enter **nonotch** into the popover, then press **Return**.

---

#### NOTE

**nonotch** must be spelled as one word, without a space.

- Choose **Edit > Notations > Pedal Lines > Remove Retake**. You can also choose this option from the context menu.

---

### RESULT

The retakes or pedal level changes at each selected rhythmic position on each selected staff are removed. The corresponding sustain pedal lines return to their previous levels as set by either the start of the pedal line, or the retake or pedal level change immediately preceding the ones you removed.

### RELATED LINKS

[Playing techniques popover](#) on page 352

[Adding retakes with the popover](#) on page 360

[Adding retakes with the panel](#) on page 362

## Positions of pedal lines

The default placement of pedal lines is below the bottom staff, even if there are only notes in the upper staff for the right hand. They are placed outside all other notations, including octave lines, slurs, and articulations.

If one pedal is used, it is placed as close to the bottom of the staff as possible, while remaining outside of all other notations.

If multiple pedals are used simultaneously, they are organized below the bottom of the staff as follows:

1. Sustain pedal: closest to the staff
2. *Sostenuto* pedal: below the sustain pedal line
3. *Una corda* pedal: furthest from the staff

The beginning of the glyph/text that indicates the start position of pedal lines aligns with the note to which it applies. If you are using a line end hook to indicate the end of pedal lines, the hook aligns with the note or rhythmic position to which it applies.

You can move pedal lines to different rhythmic positions in Write mode. They are automatically positioned to avoid collisions.

#### NOTE

You cannot move retakes rhythmically. You must remove them and input a new retake at the position you want.

---

You can move pedal lines graphically in Engrave mode. However, this does not change the rhythmic positions to which they are attached. You can move multiple pedal lines together, but only upwards/downwards. Similarly, you can move handles on multiple pedal lines together, but only to the right/left.

#### RELATED LINKS

[Text pedal line signs](#) on page 1058

[Pedal line start signs, hooks, and continuation lines](#) on page 1053

[Sustain pedal retakes and pedal level changes](#) on page 1045

[Moving items graphically](#) on page 481

[Moving notes/items rhythmically](#) on page 437


[Lengthening/Shortening items](#) on page 410

[Input methods for playing techniques, pedal lines, string indicators, and harp pedal diagrams](#) on page 351

## Changing the position of pedal lines relative to grace notes

You can change the start/end positions of individual pedal lines relative to grace notes.

#### PREREQUISITE

- The lower zone is shown.
- **Properties**  is selected in the lower zone toolbar.

---

#### PROCEDURE

1. Select the pedal lines whose position relative to grace notes you want to change. You can do this in Write mode and Engrave mode.
2. In the Properties panel, activate any of the following properties in the **Pedal Lines** group:
  - **Starts before grace notes**
  - **Ends before grace notes**
3. Activate/Deactivate the corresponding checkboxes.

---

#### RESULT

When the checkboxes are activated, the corresponding parts of the selected pedal lines are positioned before grace notes.

When the checkboxes are deactivated, the corresponding parts of the selected pedal lines are positioned after grace notes.

#### TIP

You can adjust the precise position of pedal lines in further detail in Engrave mode.

---



EXAMPLE



Pedal line starting/ending before grace notes



Pedal line starting/ending after grace notes

---

## Splitting pedal lines

You can split sustain pedal lines at any rhythmic position with an existing item along their length into two separate pedal lines.

NOTE

These steps only apply to sustain pedal lines.

---

PROCEDURE

1. Select an item on the staff and at the rhythmic position where you want to split the sustain pedal line. You can do this in Write mode and Engrave mode.

NOTE

You can only split one pedal line at a time.

---

2. Choose **Edit > Notations > Pedal Lines > Split Pedal Line**. You can also choose this option from the context menu.
- 

RESULT

The pedal line on the selected staff is split at the selected rhythmic position.

---

EXAMPLE



A single pedal line



The pedal line after being split into two

---

AFTER COMPLETING THIS TASK

You can move, lengthen/shorten, and edit both pedal lines independently.

## RELATED LINKS

[Moving notes/items rhythmically](#) on page 437[Selecting/Deselecting notes and items individually](#) on page 401[Pedal line start signs, hooks, and continuation lines](#) on page 1053[Changing the pedal line continuation type](#) on page 1056[Text pedal line signs](#) on page 1058[Input methods for playing techniques, pedal lines, string indicators, and harp pedal diagrams](#) on page 351

## Merging pedal lines

You can merge existing sustain pedal lines together; for example, if you want to fill in a gap between two sustain pedal lines.

**NOTE**

These steps only apply to sustain pedal lines.

---

## PROCEDURE

1. Select the sustain pedal lines on the same staff that you want to merge together. You can do this in Write mode and Engrave mode.

**NOTE**

You can only merge pedal lines on one staff at a time.

---

2. Choose **Edit > Notations > Pedal Lines > Merge Pedal Lines**. You can also choose this option from the context menu.
- 

## RESULT

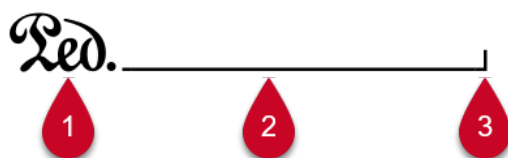
The selected pedal lines are merged together into a single pedal line. If there were gaps between them, a continuation line is automatically shown across them.

## AFTER COMPLETING THIS TASK

You can input retakes and pedal level changes; for example, if you want to show a retake at the position where previously one of the pedal lines started.

## Pedal line start signs, hooks, and continuation lines

Pedal lines normally comprise a start sign, a continuation line, and an end hook. This indicates clearly to performers where to depress each type of pedal, how long to keep it depressed, and where to lift it.



- 1 Start sign
- 2 Continuation line
- 3 End hook

In Dorico Elements, you can change the appearance of each part of pedal lines individually; for example, if you want the start sign of an individual pedal line to show text instead of a glyph.

You can select whole pedal lines in Write mode and change most aspects of their appearance according to the type of pedal line, such as their continuation line or start sign.

For sustain pedals only, you can select each segment of a sustain pedal independently in Engrave mode, and set different properties for each segment. Sustain pedal lines have independent segments on each separate system on which they appear.

#### RELATED LINKS


[Sustain pedal lines in Engrave mode](#) on page 1046

[Input methods for playing techniques, pedal lines, string indicators, and harp pedal diagrams](#) on page 351

## Changing the start sign appearance of pedal lines

You can change the appearance of the start of pedal lines individually. Pedal line start signs can be shown as variations of the traditional pedal line glyph, other symbols, or text.

#### PREREQUISITE

- The lower zone is shown.
- **Properties**  is selected in the lower zone toolbar.

#### PROCEDURE

1. Select the pedal lines whose start sign appearance you want to change. You can do this in Write mode and Engrave mode.

#### NOTE

The pedal lines you select must be the same type; for example, only sustain pedal lines.

2. In the Properties panel, activate **Sign appearance** in the **Pedal Lines** group.
3. Select one of the options from the menu.  
The options are different according to the type of pedal line selected.

#### RESULT





The start sign appearance of the selected pedal lines is changed.

#### TIP

- The end signs of una corda pedal lines automatically match their start signs.
- Deactivating **Sign appearance** returns the selected pedal lines to your default setting for start sign appearance.

#### EXAMPLE



<b>Sostenuto pedal lines</b>				<b>Sost.</b>	<b>Sostenuto</b>
	Sost. Glyph	S Glyph	Symbol	Sost. text	Sostenuto text
<b>Una corda pedal lines</b>		<b>u.c.</b>	<b>una corda</b>		
	Symbol	u. c.	una corda		

## AFTER COMPLETING THIS TASK

If you selected a text sign appearance, you can edit the text shown.

## RELATED LINKS

[Editing pedal line start text](#) on page 1059


## Changing the type of hook at the start/end of pedal lines

You can change the type of hook shown at the start/end of pedal lines individually.

## NOTE

You can only change the start hook type of pedal lines that have a hook as their start sign, and you can only change the end hook type of pedal lines that have a continuation line.

## PREREQUISITE

- The lower zone is shown.
- **Properties**  is selected in the lower zone toolbar.

## PROCEDURE

1. Select the pedal lines whose hook type you want to change. You can do this in Write mode and Engrave mode.
2. In the Properties panel, activate the following properties, individually or together, in the **Pedal Lines** group:
  - **Line start hook**
  - **Line end hook**
3. Select one of the following options from each menu:
  - **No Hook**
  - **Vertical Hook**
  - **Slant Hook**
  - **Inverse Hook**

## RESULT

The hook type at the start/end of the selected pedal lines is changed.

EXAMPLE



No Hook line end



Vertical Hook line end



Slant Hook line end




Inverse Hook line end

---

## Changing the pedal line continuation type

You can change the continuation type used for individual pedal lines. For example, if you want some pedal lines to show a dashed line and a sign at the end, but others to show a line and end hook.

PREREQUISITE

- The lower zone is shown.
- **Properties**  is selected in the lower zone toolbar.

---

PROCEDURE

1. Select the pedal lines whose continuation type you want to change. You can do this in Write mode and Engrave mode.
2. In the Properties panel, activate **Continuation type** in the **Pedal Lines** group.
3. Select one of the following continuation types from the menu:
  - **Line**
  - **Sign at End**
  - **Sign at End and Dashed Line**
  - **None**

---

RESULT

The continuation type of the selected pedal lines is changed.

---

EXAMPLE



Line



Sign at End



Sign at End and Dashed Line



None

---

RELATED LINKS

- [Properties panel](#) on page 615
- [Sustain pedal retakes and pedal level changes](#) on page 1045
- [Inputting pedal lines with the popover](#) on page 359
- [Editing una corda pedal line restorative text](#) on page 1060

## Lengthening/Shortening gaps and dashes in pedal continuation lines


You can change the length of dashes and the gaps between dashes in individual dashed pedal continuation lines. You can do this for the current layout and frame chain only, or for all layouts and frame chains.

### NOTE

These steps only apply to pedal lines with dashed continuation lines.

---

### PREREQUISITE

- The lower zone is shown.
  - **Properties**  is selected in the lower zone toolbar.
  - You have chosen the appropriate property scope for local properties.
- 

### PROCEDURE

1. In Engrave mode, select the pedal lines whose dashes you want to change.
  2. In the Properties panel, activate the following properties, individually or together, in the **Pedal Lines** group:
    - **Dash length**
    - **Dash gap length**
  3. Change the values in the value fields.
- 

### RESULT

Increasing **Dash length** makes dashes in pedal continuation lines longer, decreasing the value makes dashes shorter.

Increasing **Dash gap length** makes gaps between dashes in pedal continuation lines longer, decreasing the value makes gaps shorter.

If the property scope was set to **Locally**, this change only takes effect in the current layout and frame chain.

### RELATED LINKS


[Changing the property scope](#) on page 617

[Copying property settings to other layouts/frame chains](#) on page 599

## Changing the line width of pedal lines

You can change the thickness of continuation lines individually. You can do this for the current layout and frame chain only, or for all layouts and frame chains.

### PREREQUISITE

- The lower zone is shown.
  - **Properties**  is selected in the lower zone toolbar.
  - You have chosen the appropriate property scope for local properties.
- 

### PROCEDURE

1. In Engrave mode, select the pedal lines whose continuation line thickness you want to change.

2. In the Properties panel, activate **Line width** in the **Pedal Lines** group.  
The value resets to **0** automatically when you first activate the property.
  3. Change the value in the value field.
- 

#### RESULT


Increasing **Line width** makes pedal continuation lines thicker, decreasing the value makes pedal continuation lines thinner. If the property scope was set to **Locally**, this change only takes effect in the current layout and frame chain.

## Parenthesizing pedal line continuation signs

You can show individual pedal line continuation signs with/without parentheses. You can do this for the current layout and frame chain only, or for all layouts and frame chains.

Pedal line continuation signs are shown by default at the start of new systems when pedal lines continue across system/frame breaks.

#### PREREQUISITE

- The lower zone is shown.
  - **Properties**  is selected in the lower zone toolbar.
  - You have chosen the appropriate property scope for local properties.
- 

#### PROCEDURE

1. Select the pedal lines whose continuation sign appearance you want to change. You can do this in Write mode and Engrave mode.
  2. In the Properties panel, activate **Show continuation sign in parentheses** in the **Pedal Lines** group.
  3. Activate/Deactivate the corresponding checkbox.
- 

#### RESULT

Continuation signs are shown with parentheses when the checkbox is activated, and without parentheses when the checkbox is deactivated. If the property scope was set to **Locally**, this change only takes effect in the current layout and frame chain.

## Text pedal line signs

All types of pedal lines can have text as their start signs, instead of glyphs or hooks. You can override the text shown at the start of pedal lines that have text start signs, you can change the continuation text shown at the start of new systems, and you can override the restorative text shown at the end of *una corda* pedal lines.

### Pedal lines that use a text indication rather than a symbol

For pedal lines such as *una corda* or sustain that have text for their start sign, such as **Ped. Text**, rather than the more ornate symbol, you can override the text shown at the start of the pedal line and replace it with your preferred performance direction.

### Continuation sign/text

When pedal lines continue onto subsequent systems, a continuation sign/text is shown in parentheses by default. If the pedal line is using text for their start sign, such as **Ped. Text**,

rather than a symbol, you can change the text shown at the start of a new system and replace it with your preferred performance direction.

### Una corda pedal lines

The equivalent to the final pedal lift for the *una corda* pedal marking is the indication to return to *tre corde*. You can override the *tre corde* text shown at the end of the pedal line and replace it with your preferred performance direction.

#### RELATED LINKS


[Changing the start sign appearance of pedal lines](#) on page 1054

[Input methods for playing techniques, pedal lines, string indicators, and harp pedal diagrams](#) on page 351

## Editing pedal line start text

You can change the text shown at the start of individual pedal lines that use text as their start sign.

#### PREREQUISITE

- The lower zone is shown.
- **Properties**  is selected in the lower zone toolbar.

---

#### PROCEDURE

1. Select the pedal lines whose start text you want to edit. You can do this in Write mode and Engrave mode.
2. In the Properties panel, activate **Text** in the **Pedal Lines** group.
3. Enter the text you want into the value field.
4. Press **Return**.

---

#### RESULT

The text shown at the start of the selected pedal lines is changed.

Deactivating **Text** restores the default start text for the selected pedal lines.

#### NOTE

Deactivating properties permanently deletes any custom text entered.

---

## Editing pedal line continuation text

You can change the text shown at the start of subsequent systems when pedal lines continue across system/frame breaks.

#### NOTE

These steps only apply to pedal lines that use text as their start sign.

---

#### PREREQUISITE

- The lower zone is shown.



- **Properties**  is selected in the lower zone toolbar.

---

PROCEDURE

1. Select the pedal lines whose continuation text you want to edit. You can do this in Write mode and Engrave mode.
2. In the Properties panel, activate **Continuation text** in the **Pedal Lines** group.
3. Enter the text you want into the value field.
4. Press **Return**.

---

RESULT

The continuation text shown at the start of subsequent systems for the selected pedal lines is changed.

Deactivating **Continuation text** restores the default continuation text for the selected pedal lines.

NOTE

Deactivating properties permanently deletes any custom text entered.

---

## Editing una corda pedal line restorative text


The equivalent to the final pedal lift for *una corda* pedal lines is the indication to return to *tre corde*. You can change the *tre corde* text shown at the end of individual *una corda* pedal lines.

NOTE

These steps only apply to *una corda* pedal lines that use text as their start sign.

---

PREREQUISITE

- The lower zone is shown.
- **Properties**  is selected in the lower zone toolbar.

---

PROCEDURE

1. Select the *una corda* pedal lines whose restorative text you want to edit. You can do this in Write mode and Engrave mode.
2. In the Properties panel, activate **Restorative text** in the **Pedal Lines** group.
3. Enter the text you want into the value field.
4. Press **Return**.

---

RESULT

The restorative text shown at the ends of the selected *una corda* pedal lines is changed.

Deactivating **Restorative text** restores the default restorative text for the selected pedal lines.

NOTE

Deactivating properties permanently deletes any custom text entered.

---

## Pedal lines in playback

Pedal lines are automatically played back in Dorico Elements.

The three piano pedals send MIDI controllers as follows:

- Sustain pedal lines send MIDI controller 64 (Sustain).
- *Sostenuto* pedal lines send MIDI controller 66 (Sostenuto).
- *Una corda* pedal lines send MIDI controller 67 (Soft Pedal).

Some piano VST instruments, such as Pianoteq and Garritan CFX Concert Grand, support partial depression of the sustain pedal. Consult the manufacturer's documentation for more information.

### RELATED LINKS

[MIDI CC editor](#) on page 651

## Pedal lines imported from MusicXML files

Sustain pedal lines can be imported from MusicXML files. MusicXML can only describe the sustain pedal, and it cannot describe changes in pedal depression level.

# Playing techniques

The term “playing techniques” covers a wide range of instructions intended to tell performers to modify the sound of the notes they are playing; for example, by changing their embouchure or changing the position of their bow, or by modifying their instrument, such as adding a mute or depressing a pedal.

In Dorico Elements, there are the following types of playing techniques:

## Glyph playing techniques

Playing techniques that display symbols, such as up bow  $\nabla$  or down bow  $\square$  markings.

## Text playing techniques

Playing techniques that display text, such as *pizz.* or *con sordino*.

You can find all available playing techniques in the Playing Techniques panel in Write mode, organized by instrument family. For example, you can find pedal lines in the **Keyboard** section of the Playing Techniques panel.

### NOTE

Because pedal lines have additional, unique requirements that do not apply to other playing techniques, such as retakes, start signs, and continuation lines, they are documented separately. Pedal lines also have their own group of the Properties panel that is separate from the **Playing Techniques** group.



Musical phrase with glyph and text playing techniques, including grouped text playing techniques with a continuation line

Playing techniques can change how instruments play back. For example, inputting a *pizz.* playing technique on a violin staff activates a key switch that changes the sound produced by the VST instrument. Dorico Elements uses playback techniques to produce the required sounds in playback for the playing techniques you input, provided your sound library includes the corresponding samples.

Many playing techniques that only appear once in the music nonetheless imply that the playing technique continues. For example, *pizzicato* usually appears once but applies until the next playing technique, such as *arco*. In Dorico Elements, you can show continuation lines after and between playing techniques to convey clearly to performers the notes to which you want them to apply. You can also group multiple playing techniques together.

Playing technique texts use a plain font, neither bold nor italic, so they are not confused with dynamics and expressive text.

### NOTE

Pedal lines use a separate font style to other playing techniques.

#### RELATED LINKS

[Input methods for playing techniques, pedal lines, string indicators, and harp pedal diagrams](#) on page 351

[Playback techniques](#) on page 706

[Pedal lines](#) on page 1044

[String indicators](#) on page 891

[Playing technique continuation lines](#) on page 1067

[Groups of playing techniques](#) on page 1072

[Positions of playing techniques](#) on page 1066

[MIDI Import Options dialog](#) on page 86

## Adding text to playing techniques


You can add text to playing techniques after they have been input; for example, to clarify the intention of the playing technique. You can do this for the current layout and frame chain only, or for all layouts and frame chains.

#### NOTE

These steps do not apply to pedal lines.

---

#### PREREQUISITE

- The lower zone is shown.
  - **Properties**  is selected in the lower zone toolbar.
  - You have chosen the appropriate property scope for local properties.
- 

#### PROCEDURE

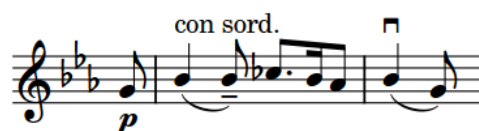
1. Select the playing techniques to which you want to add text. You can do this in Write mode and Engrave mode.
  2. In the Properties panel, activate **Suffix** in the **Playing Techniques** group.
  3. Enter the text you want into the value field.
  4. Press **Return**.
- 

#### RESULT

The text you entered is added to the selected playing techniques and appears after them. If the property scope was set to **Locally**, this change only takes effect in the current layout and frame chain.

---

#### EXAMPLE



Playing techniques without suffixes



Suffixes added to playing techniques

---

#### RELATED LINKS

[Text pedal line signs](#) on page 1058

[Changing the property scope](#) on page 617


[Copying property settings to other layouts/frame chains](#) on page 599

[Input methods for playing techniques, pedal lines, string indicators, and harp pedal diagrams](#) on page 351

## Erasing the background of text playing techniques

You can erase the background of individual text playing techniques; for example, to ensure they remain legible when crossing barlines. You can do this for the current layout and frame chain only, or for all layouts and frame chains.

### PREREQUISITE

- The lower zone is shown.
- **Properties**  is selected in the lower zone toolbar.
- You have chosen the appropriate property scope for local properties.

---

### PROCEDURE

1. In Engrave mode, select the playing techniques whose backgrounds you want to erase.
2. In the Properties panel, activate **Erase background** in the **Playing Techniques** group.

---

### RESULT

The backgrounds of the selected playing techniques are erased. If the property scope was set to **Locally**, this change only takes effect in the current layout and frame chain.

Deactivating **Erase background** returns the selected playing techniques to the default non-erased background.

---

### EXAMPLE



Text playing technique with non-erased background



Text playing technique with erased background

---


### AFTER COMPLETING THIS TASK

You can change the padding between playing techniques and each edge of their erased areas.

## Changing the erasure padding of text playing techniques

You can change the erasure padding of individual playing techniques, including changing the padding between playing techniques and each edge of their erased areas independently. You can do this for the current layout and frame chain only, or for all layouts and frame chains.

### PREREQUISITE

- The lower zone is shown.
- **Properties**  is selected in the lower zone toolbar.
- You have chosen the appropriate property scope for local properties.

---

#### PROCEDURE

1. In Engrave mode, select the text playing techniques whose erasure padding you want to change.
  2. In the Properties panel, activate the **Erasure padding** properties, individually or together, in the **Playing Techniques** group.
    - **L** changes the padding between playing techniques and their left edge.
    - **R** changes the padding between playing techniques and their right edge.
    - **T** changes the padding between playing techniques and their top edge.
    - **B** changes the padding between playing techniques and their bottom edge.
  3. Change the values in the value fields.
- 


#### RESULT

Increasing the values increases the padding, decreasing the values decreases the padding. If the property scope was set to **Locally**, this change only takes effect in the current layout and frame chain.

## Hiding/Showing playing techniques

You can hide/show playing techniques individually; for example, if your expression map requires you to input a playing technique to trigger the correct playback but you do not want that technique to appear in the music. You can do this for the current layout and frame chain only, or for all layouts and frame chains.

#### PREREQUISITE

- The lower zone is shown.
  - **Properties**  is selected in the lower zone toolbar.
  - You have chosen the appropriate property scope for local properties.
- 

#### PROCEDURE

1. Select the playing techniques you want to hide, or the signposts of playing techniques you want to show. You can do this in Write mode and Engrave mode.
  2. In the Properties panel, activate/deactivate **Hidden** in the **Playing Techniques** group.
- 

#### RESULT

The selected playing techniques are hidden when **Hidden** is activated, and shown when it is deactivated. If the property scope was set to **Locally**, this change only takes effect in the current layout and frame chain.

Signposts are shown at the position of each hidden playing technique. However, signposts are not printed by default.

#### TIP

- You can hide/show playing technique signposts by choosing **View > Signposts > Playing Techniques**.
  - You can assign a key command for **Hide/Show Item** on the **Key Commands** page in **Preferences**, which applies to chord symbols, playing techniques, figured bass, text items, and time signatures.
-

RELATED LINKS

[Expression maps](#) on page 682

[Signposts](#) on page 426

[Hiding/Showing zones](#) on page 44

[Changing the property scope](#) on page 617

[Copying property settings to other layouts/frame chains](#) on page 599

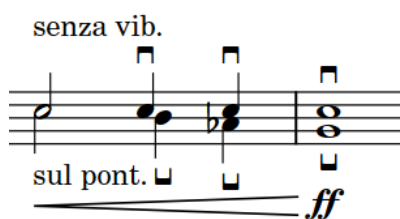
[Key Commands page in the Preferences dialog](#) on page 59

[Annotations](#) on page 554

## Positions of playing techniques

Playing techniques, both as text and symbols, are placed above the staff by default. On vocal staves, they are placed above the staff and below dynamics. In multiple-voice contexts, playing techniques for the up-stem voices are placed above the staff and playing techniques for the down-stem voices are automatically placed below the staff.

Glyph playing techniques are center-aligned on noteheads. Text playing techniques are left-aligned with noteheads.



Placement of playing techniques with two voices on the same staff

You can move playing techniques to different rhythmic positions in Write mode. They are automatically positioned to avoid collisions.

You can move playing techniques graphically in Engrave mode, but this does not change the rhythmic positions to which they are attached.

In Engrave mode, each playing technique continuation line has two square handles, one at the start and one at the end. You can move these handles to adjust the graphical position, length, and angle of playing technique continuation lines.

If playing technique continuation lines cross system and frame breaks, you can move the line segments on each side of the break independently.



Moving playing techniques with continuation lines moves them both together, including any adjacent playing techniques and continuation lines in the same group. Moving continuation lines or continuation line handles moves the continuation lines independently of the playing technique.

RELATED LINKS

[Playing techniques](#) on page 1062

[Input methods for playing techniques, pedal lines, string indicators, and harp pedal diagrams](#) on page 351

[Text pedal line signs](#) on page 1058

[Playing technique continuation lines](#) on page 1067


[Playing technique continuation line components](#) on page 1069

[Groups of playing techniques](#) on page 1072  
[Moving notes/items rhythmically](#) on page 437  
[Moving items graphically](#) on page 481  
[Changing the staff-relative placement of items](#) on page 414

## Changing the vertical order of playing techniques

You can change the vertical order of playing techniques when multiple playing techniques exist at the same rhythmic position. You can do this for the current layout and frame chain only, or for all layouts and frame chains. By default, glyph playing techniques are placed closer to the staff than text playing techniques, and playing techniques without lines are placed closer to the staff than playing techniques with lines.

### PREREQUISITE

- The lower zone is shown.
- **Properties**  is selected in the lower zone toolbar.
- You have chosen the appropriate property scope for local properties.

---

### PROCEDURE

1. In Engrave mode, select the playing techniques whose vertical order you want to change.
2. In the Properties panel, activate **Tucking index** in the **Playing Techniques** group.
3. Change the value in the value field.

---

### RESULT

The order of the selected playing techniques relative to any other playing techniques at the same rhythmic position, or along their duration, is changed. This also affects other playing techniques in the same groups. Playing techniques with higher **Tucking index** values are placed further from the staff, while playing techniques with lower values are placed closer.

If the property scope was set to **Locally**, this change only takes effect in the current layout and frame chain.

### RELATED LINKS

[Tucking index properties](#) on page 825

## Playing technique continuation lines

Playing technique continuation lines convey exactly the notes to which playing techniques apply, and can also indicate a gradual transition between playing techniques.

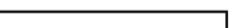


A phrase with multiple playing technique continuation lines

In Dorico Elements, there are the following types of playing technique continuation lines:



### Duration line

sul **tasto** 

Indicates a specific duration to which the playing technique applies. The duration line for most playing techniques is a solid line with a hook cap at the end.

Playing techniques show duration lines when the following conditions are met:

- The playing technique has duration.
- The continuation type for the playing technique is set to show lines.
- The playing technique is ungrouped or is the final playing technique in a group.

### Transition line

sul **tasto** 

Indicates that the playing technique at the start must gradually turn into the playing technique at the end over the duration specified by the line. The transition line for most playing techniques is a solid line with an arrow cap at the end.

Transition lines are automatically shown between playing techniques in groups.

#### NOTE

Playing technique continuation lines do not affect playback. The sounds produced in playback rely on the playback technique associated with the playing technique, the expression map settings, and the sound libraries loaded in the project.

---

#### RELATED LINKS

[Input methods for playing techniques, pedal lines, string indicators, and harp pedal diagrams](#) on page 351

[Positions of playing techniques](#) on page 1066

[Groups of playing techniques](#) on page 1072

[Playing technique continuation line components](#) on page 1069

[Lengthening/Shortening items](#) on page 410

[Moving items graphically](#) on page 481

[Lines](#) on page 1075

[Line components](#) on page 1077

## Playing technique duration

In Dorico Elements, playing techniques have an explicit duration when they apply to a specific range, rather than from a single rhythmic position onwards. Playing techniques with duration only affect playback within their duration and can show continuation lines.

In Write mode, playing techniques with duration have start and end handles that show their duration.



Start and end handles on a playing technique with duration

You can give duration to any playing technique in any of the following ways:

- Group playing techniques together
- Input playing techniques with an open end during note input and extend them
- Add playing techniques to a range of notes
- Lengthen playing techniques



String indicator (selected) with no duration



String indicator (selected) with duration and duration line

#### RELATED LINKS

[Input methods for playing techniques, pedal lines, string indicators, and harp pedal diagrams](#) on page 351

[Lengthening/Shortening items](#) on page 410

[Hiding/Showing playing technique duration lines](#) on page 1070

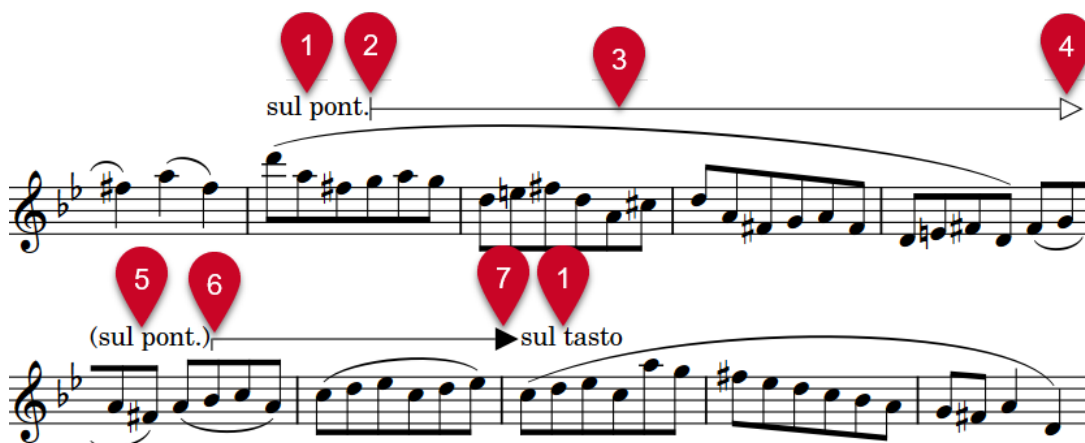
[Grouping playing techniques together](#) on page 1073

[Vibrato bar techniques](#) on page 1021

[String indicators](#) on page 891

## Playing technique continuation line components

In Dorico Elements, playing technique continuation lines consist of multiple components that together function as a single item. The duration line and transition line for the same playing technique can have different default components.



### 1 Playing technique

Controls the default appearance of the following line.

### 2 Start cap

Symbol shown at the start of playing technique continuation lines.

### 3 Line body

Horizontal line, pattern, or wedge that makes up the main part of a playing technique continuation line and extends across its entire length.

### 4 Continuation end cap

Symbol shown at the end of segments of playing technique continuation lines that continue across multiple systems.

#### 5 **Playing technique continuation sign**

Parenthesized reminder of the current playing technique shown at the start of subsequent segments of playing technique continuation lines that continue across multiple systems. You cannot hide playing technique continuation signs independently of the playing technique.

#### 6 **Continuation cap**

Symbol shown at the start of subsequent segments of playing technique continuation lines that continue across multiple systems.

#### 7 **End cap**

Symbol shown at the end of playing technique continuation lines.

#### RELATED LINKS

[Changing the style of playing technique continuation lines](#) on page 1071

[Changing the caps of playing technique continuation lines](#) on page 1072

[Lines](#) on page 1075

## Hiding/Showing playing technique duration lines


You can hide/show duration lines for individual playing techniques. When hiding duration lines, you can show nothing or *sim.* When showing duration lines, you can show a line or repeat the signs of glyph playing techniques. You can do this for the current layout and frame chain only, or for all layouts and frame chains.

#### NOTE

These steps only apply to playing technique duration lines. They do not apply to playing technique transition lines.

---

#### PREREQUISITE

- The playing techniques whose duration lines you want to hide/show have duration.
  - The lower zone is shown.
  - **Properties**  is selected in the lower zone toolbar.
  - You have chosen the appropriate property scope for local properties.
- 

#### PROCEDURE

1. In Write mode, select the playing techniques whose duration lines you want to hide/show.
  2. In the Properties panel, activate **Continuation type** in the **Playing Techniques** group.
  3. Select one of the following options from the menu:
    - **None**
    - **sim.**
    - **Line**
    - **Repeat the signs** (glyph playing techniques only)
- 

#### RESULT

Duration lines are hidden after the selected playing techniques when you select **None**. When you select **sim.**, duration lines are hidden and *sim.* is shown once after each selected playing technique.


Duration lines are shown after the selected playing techniques when you select **Line**.

For glyph playing techniques, the playing technique is repeated for each note within the duration automatically when you select **Repeat the signs**.

If the property scope was set to **Locally**, this change only takes effect in the current layout and frame chain.

---

#### EXAMPLE



Duration line shown      Duration line hidden      Duration line hidden but sim. shown      Signs repeated on each note

---

#### RELATED LINKS


[Changing the property scope](#) on page 617

[Copying property settings to other layouts/frame chains](#) on page 599

## Changing the style of playing technique continuation lines

You can change the style of individual playing technique duration lines and transition lines; for example, if you want to show a single duration line as a wiggly line. You can change the whole line style, including the caps, or only the body style, which does not affect the caps.

#### PREREQUISITE

- The lower zone is shown.
  - **Properties**  is selected in the lower zone toolbar.
- 

#### PROCEDURE

1. In Engrave mode, select the playing technique continuation lines whose style you want to change.
  2. In the Properties panel, activate one of the following properties in the **Playing Techniques** group:
    - To change the whole line style, including caps, activate **Line style**.
    - To change only the body style, excluding caps, activate **Line body style**.
  3. Select the style you want from the menu.
- 

#### RESULT

The corresponding style of the selected playing technique continuation lines is changed.

#### AFTER COMPLETING THIS TASK

You can change the caps of individual playing technique continuation lines.

#### RELATED LINKS


[Playing technique continuation line components](#) on page 1069

[Changing the body style of lines](#) on page 1085

## Changing the caps of playing technique continuation lines

You can change the caps of individual playing technique continuation lines independently of their line body styles. You can also change the caps of individual segments of playing technique continuation lines that continue across multiple systems.

### PREREQUISITE

- The lower zone is shown.
- **Properties**  is selected in the lower zone toolbar.

---

### PROCEDURE

1. In Engrave mode, select the playing technique continuation lines whose caps you want to change.
2. In the Properties panel, activate the following properties, individually or together, in the **Playing Techniques** group:
  - To change the cap at the start of the selected lines, activate **Start cap**.
  - To change the cap at the end of the selected lines, activate **End cap**.
  - To change the cap at the start of segments of the selected lines on subsequent systems, activate **Continuation cap**.
  - To change the cap at the end of segments of the selected lines on subsequent systems, activate **Continuation end cap**.
3. Select the style you want from each menu.

---

### RESULT

The corresponding caps of the selected playing technique continuation lines are changed.

### AFTER COMPLETING THIS TASK

You can change the style of individual playing technique continuation lines.

### RELATED LINKS

[Changing the caps of lines](#) on page 1086

## Groups of playing techniques

Groups of playing techniques are automatically aligned in a row and can be moved and edited as a group. When you move individual playing techniques within a group, the lengths of any continuation lines on either side automatically adjust to compensate.



A group of playing techniques



The same group of playing techniques with adjusted transition lines after the middle playing technique moved rhythmically

Two or more playing techniques are automatically grouped together if they are adjoining with duration between them and were added to existing music together or input in sequence during note input.

Transition lines are automatically shown between playing techniques in groups. The final playing technique in playing technique groups can show a duration line if it has duration.

All of the playing techniques in a group are highlighted when any of the playing techniques in the group are selected.



In Engrave mode, you can move each playing technique and continuation line within a group individually. Playing techniques in groups are attached to continuation lines, meaning that if you move a playing technique, any adjacent continuation lines automatically move with it. Groups of playing techniques have a handle at the start of the group, which controls the vertical position of the whole group.



#### NOTE

- You cannot group a playing technique group to another playing technique group, you can only group single playing techniques together or single playing techniques to an existing group.
- Groups of playing techniques apply project-wide, meaning you cannot have playing techniques grouped one way in some layouts but differently in other layouts. However, you can move playing techniques graphically in each layout independently and independently of their groups.

#### RELATED LINKS

[Input methods for playing techniques, pedal lines, string indicators, and harp pedal diagrams](#) on page 351

[Playing technique continuation lines](#) on page 1067

[Playing technique duration](#) on page 1068

[Lengthening/Shortening items](#) on page 410

[Moving notes/items rhythmically](#) on page 437

[Moving items graphically](#) on page 481

## Grouping playing techniques together

You can manually group playing techniques together that were not automatically grouped when they were input. Grouped playing techniques are automatically aligned in a row, show transition lines between them, and can be moved and edited as a group.

#### NOTE

You cannot group a playing technique group to another playing technique group, you can only group single playing techniques together or single playing techniques to an existing group.

If you want to group a playing technique group to another playing technique group, you must first ungroup them.

---

#### PROCEDURE

1. In Write mode, select the playing techniques you want to group together.
  2. Choose **Edit > Notations > Playing Techniques > Group Playing Techniques**. You can also choose this option from the context menu.
- 

#### RESULT

The selected playing techniques are grouped together. Their durations are extended to reach the next playing technique in the group, and transition lines are shown between playing techniques in the group.

#### RELATED LINKS

[Playing technique continuation lines](#) on page 1067

## Ungrouping playing techniques and removing playing techniques from groups

You can ungroup playing techniques so that all playing techniques in the group become ungrouped. You can also remove only selected playing techniques from groups while leaving other playing techniques in the group.

This applies to all layouts in which the playing techniques appear.

---

#### PROCEDURE

1. In Write mode, select the playing techniques you want to ungroup or remove from groups.
2. Do one of the following:
  - To ungroup all playing techniques in the selected groups, choose **Edit > Notations > Playing Techniques > Ungroup Playing Techniques**.
  - To remove only the selected playing techniques from their groups, choose **Edit > Notations > Playing Techniques > Remove Playing Technique from Group**.

#### TIP

You can also choose these options from the context menu.

---

#### RESULT

The selected playing techniques or all playing techniques are removed from the selected groups. Playing techniques that previously had transition lines now appear with duration lines.

# Lines

Lines can convey a variety of meanings in music, such as indicating which hand to use in piano music or a gradual change in bow pressure. In Dorico Elements, lines can be vertical, horizontal, or angled between notes and have different styles and appearances.



A phrase containing horizontal and vertical lines that convey a range of meanings

## NOTE

Due to their generic designs, such as a dashed line with arrow end cap, lines in Dorico Elements have no definitive musical meaning and function primarily graphically, meaning they do not affect playback. Dorico Elements includes dedicated features for specific notations that affect playback if applicable, such as dynamics, arpeggios, glissandi, and trills.

The following types of lines are available in Dorico Elements:

### Horizontal lines

Horizontal lines span a specified duration; that is, they start at one rhythmic position and end at a later rhythmic position. They might indicate a change over time, such as a wedge that represents bow pressure, or suggest a link between notes, such as a bracket spanning the theme in a fugue or a straight line between notes showing where a melody moves to a different staff.

By default, horizontal lines only apply to single staves. However, there are certain situations where you require a horizontal line to appear in all part layouts but only at system object positions in the full score layout. You can input horizontal lines that apply to all staves or only apply to single staves in Dorico Elements.

Attachment types control the positions of horizontal lines and certain aspects of their functionality. Horizontal lines can have different attachment types at their start and end.

## NOTE

You cannot change the attachment type of horizontal lines after they have been input.

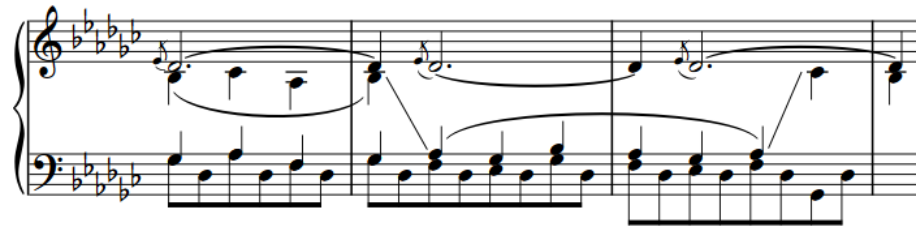
In Dorico Elements, each end of horizontal lines can have the following attachment types:

- **Notehead-attached**

Attached to an individual note independently of its rhythmic position, meaning that the ends of notehead-attached lines move with notes if you change their pitch or move them rhythmically. Notehead-attached lines can be both angled



or horizontal, as their end positions and resulting angles are determined by the interval between the start and end notes.



A phrase containing two notehead-attached lines, showing where the melody moves between piano staves

- **Barline-attached**

Attached to a rhythmic position and aligned with barlines, if their rhythmic positions coincide with barline positions. Barline-attached lines are always horizontal.



A barline-attached line spanning two full bars

- **Rhythmic position-attached**

Attached to a rhythmic position and positioned relative to notes, chords, or rests at those rhythmic positions.

Rhythmic position-attached lines are horizontal and placed above the staff by default. Their endpoints start to the left and end to the right of notes, chords, or rests at the corresponding rhythmic positions.



A rhythmic position-attached line spanning two full bars

### Vertical lines

Vertical lines exist at a single rhythmic position and are positioned relative to notes or chords at that position. They might convey details about a specific moment, such as indicating which hand to use for specific notes in piano music.



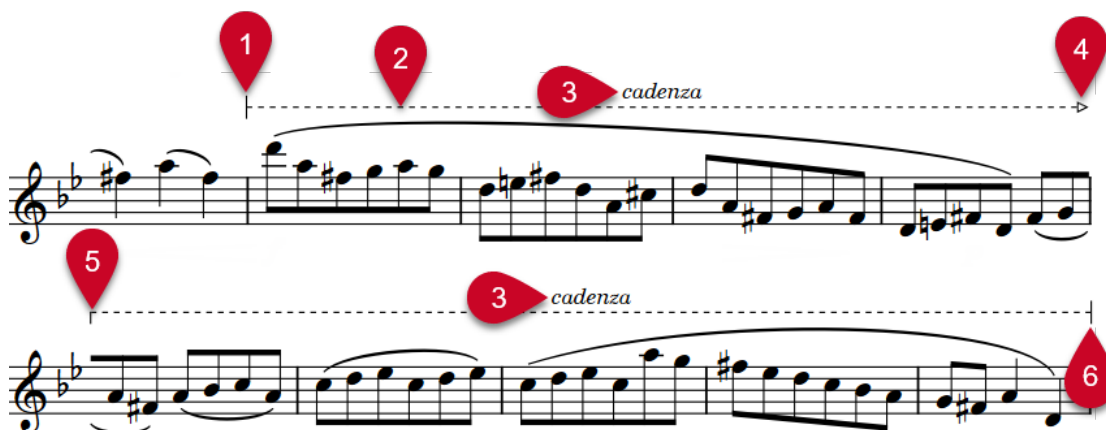
Vertical lines indicating which notes to play with the right hand

#### RELATED LINKS

- [Input methods for lines](#) on page 367
- [Lines panel](#) on page 367
- [Adding text to lines](#) on page 1088
- [Changing the placement of horizontal lines](#) on page 1081
- [Arpeggio signs](#) on page 994
- [Glissando lines](#) on page 1000
- [Jazz articulations](#) on page 1028
- [Octave lines](#) on page 822
- [Trills](#) on page 981
- [Playing technique continuation lines](#) on page 1067
- [Pedal lines](#) on page 1044
- [Repeat endings](#) on page 1107
- [Guitar bends](#) on page 1006
- [Triplet brackets](#) on page 1276

## Line components

In Dorico Elements, lines consist of multiple components that together function as a single item.



### 1 Start cap

Symbol shown at the start of lines. Caps can be arrowheads, hooks, or terminal lines.

### 2 Line body

Horizontal or vertical line, repeating symbols, dash/dot pattern, or wedge that makes up the main part of a line and extends across its entire length or height.

### 3 Text

Text shown in addition to caps, either centered in the middle of each line segment or only at the start or end of lines. On vertical lines, text reads upwards by default.

### 4 Continuation end cap

Symbol shown at the end of segments of lines that continue across multiple systems. Caps can be arrowheads, hooks, or terminal lines.

### 5 Continuation cap

Symbol shown at the start of subsequent segments of lines that continue across multiple systems. Caps can be arrowheads, hooks, or terminal lines.

### 6 End cap

Symbol shown at the end of lines. Caps can be arrowheads, hooks, or terminal lines.

#### NOTE

Dorico Pro provides further options for customizing lines and line components, such as using text for caps and music symbols for annotations in the center of lines. You might encounter lines with different components than are available in Dorico Elements if you import or open a project that contains them.

---

#### RELATED LINKS

[Input methods for lines](#) on page 367

[Changing the body style of lines](#) on page 1085

[Changing the caps of lines](#) on page 1086

[Adding text to lines](#) on page 1088

[Changing the position of text relative to horizontal lines](#) on page 1089

[Changing the position of text relative to vertical lines](#) on page 1089

[Playing technique continuation lines](#) on page 1067

## Positions of lines

The position of lines relative to notes and staves depends on the line type and, for horizontal lines, their attachment type.

### Notehead-attached horizontal lines

Notehead-attached lines are positioned in relation to the corresponding noteheads; that is, starting to the right of the start note and ending to the left of the end note. They automatically follow the notes at each end, meaning if you change the pitch of either note or move them rhythmically, the line end positions move accordingly. Because their positions depend on the pitches of notes, they can appear both inside and outside the staff. If they are only attached to noteheads at one end, they remain horizontal but follow the staff position of the note to which they are attached.

### Barline-attached horizontal lines

Barline-attached horizontal lines are placed above the staff by default. Their endpoints align with barlines if their duration coincides with barline positions. If their endpoints do not coincide with barlines, they are positioned like rhythmic position-attached lines.

### Rhythmic position-attached horizontal lines

Rhythmic position-attached lines are placed above the staff by default. Their endpoints start to the left and end to the right of notes, chords, or rests at the corresponding rhythmic positions.

### Vertical lines

Vertical lines are positioned to the left of the notes to which they apply, including any applicable accidentals, but are positioned between grace notes and normal notes. If multiple vertical lines exist at the same rhythmic position, the most recent line is positioned furthest to the right; that is, directly to the left of notes or chords.

You can change the position/placement of lines in a variety of ways, such as showing vertical lines on the right of notes or changing the placement of horizontal lines to show them inside the staff.

#### RELATED LINKS

[Changing the horizontal order of vertical lines](#) on page 1079

[Showing vertical lines before grace notes](#) on page 1080

[Changing the placement of horizontal lines](#) on page 1081


[Moving items graphically](#) on page 481

[Input methods for lines](#) on page 367

## Showing vertical lines on the right/left of notes

You can change the side of notes on which vertical lines appear; for example, to show selected vertical lines on the right side of notes.

### PREREQUISITE

- The lower zone is shown.
- **Properties**  is selected in the lower zone toolbar.

---

### PROCEDURE

1. Select the vertical lines whose horizontal position you want to change. You can do this in Write mode and Engrave mode.
2. In the Properties panel, activate **Side** in the **Vertical Lines** group.
3. Choose one of the following options:
  - **Left**
  - **Right**

---

### RESULT

The selected lines appear on the corresponding side of notes.

---

### EXAMPLE



Vertical line on the left of notes



Vertical line on the right of notes

---


### AFTER COMPLETING THIS TASK

You can change the order of vertical lines when multiple vertical lines exist at the same rhythmic position and on the same side of notes.

## Changing the horizontal order of vertical lines

You can change the horizontal order of vertical lines when multiple vertical lines exist at the same rhythmic position and on the same side of notes.

### PREREQUISITE

- The lower zone is shown.
- **Properties**  is selected in the lower zone toolbar.

---

PROCEDURE

1. Select the vertical lines whose order you want to change. You can do this in Write mode and Engrave mode.
  2. In the Properties panel, activate **Column** in the **Vertical Lines** group.
  3. Change the value in the value field.
- 


RESULT

The order of the selected vertical lines relative to any other vertical lines at the same rhythmic positions is changed. Lines with higher **Column** values are placed further to the left, while lines with lower values are placed further to the right.

## Showing vertical lines before grace notes

You can position individual vertical lines so they appear to the left of grace notes. By default, vertical lines are positioned after grace notes; that is, between grace notes and normal notes.

PREREQUISITE

- The lower zone is shown.
  - **Properties**  is selected in the lower zone toolbar.
- 

PROCEDURE

1. Select the vertical lines you want to show before grace notes. You can do this in Write mode and Engrave mode.
  2. In the Properties panel, activate **Line before grace notes** in the **Vertical Lines** group.
- 

RESULT

The selected vertical lines are positioned before grace notes.

Deactivating **Line before grace notes** shows the selected vertical lines after grace notes again.

---

EXAMPLE



Vertical line after grace notes



Vertical line before grace notes

---

## Changing the placement of horizontal lines


You can show individual horizontal lines above, below, or inside the staff. By default, horizontal lines are placed above the staff.

### NOTE

These steps only apply to barline-/rhythmic position-attached horizontal lines.

---

### PREREQUISITE

- The lower zone is shown.
  - **Properties**  is selected in the lower zone toolbar.
- 

### PROCEDURE

1. Select the horizontal lines whose placement you want to change. You can do this in Write mode and Engrave mode.
  2. In the Properties panel, activate **Placement** in the **Horizontal Lines** group.
  3. Select one of the following options from the menu:
    - **Above**
    - **Below**
    - **Inside staff**
- 

### RESULT

The placement of the selected horizontal lines is changed. Horizontal lines inside the staff are centered on the middle staff line by default.

### TIP

You can also cycle through the different placement options for selected horizontal lines by pressing **F**.

---

### AFTER COMPLETING THIS TASK

- You can change the staff position of lines shown inside the staff.
- You can erase the background of text on lines shown inside the staff.

### RELATED LINKS


[Moving items graphically](#) on page 481

[Changing the staff-relative placement of items](#) on page 414

## Changing the staff position of horizontal lines inside the staff

You can change the staff position of horizontal lines shown inside the staff, including changing the staff position of the start/end of lines independently of each other; for example, if you want lines to appear angled.

### PREREQUISITE

- The horizontal lines whose staff position you want to change are placed inside the staff and have at least one barline-/rhythmic position-attached end.
- The lower zone is shown.
- **Properties**  is selected in the lower zone toolbar.

#### PROCEDURE

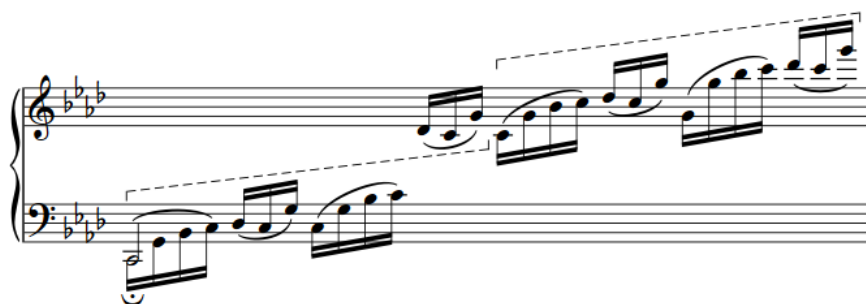
1. Select the horizontal lines placed inside the staff whose staff position you want to change. You can do this in Write mode and Engrave mode.
  2. In the Properties panel, activate the following properties, individually or together, in the **Horizontal Lines** group:
    - **Start position**
    - **End position**
  3. Change the values in the value fields.
- 

#### RESULT

The staff positions of the corresponding ends of the selected lines are changed according to the new values. For example, **0** is the middle line of the staff, **4** is the top line of the staff, and **-4** is the bottom line of the staff.

---

#### EXAMPLE



Horizontal lines inside the staff with different staff positions at their start/end

---

## Length of lines

Dorico Elements automatically calculates the appropriate length for both horizontal and vertical lines.

- The length of horizontal lines is determined by the rhythmic duration of the line. Horizontal lines with different attachment types are positioned differently, which can affect their graphical length. For example, barline-attached lines can appear longer than rhythmic position-attached lines with the same duration.
- The length of vertical lines is determined by the pitch range of notes in the voices/staves to which the line applies. Dorico Elements automatically adjusts the length of vertical lines if pitches change or you add notes to, or delete notes from, chords.

You can lengthen/shorten both horizontal and vertical lines; for example, if you want an individual vertical line to extend above the top note in a chord.

## Lengthening/Shortening horizontal lines

You can lengthen/shorten horizontal lines rhythmically after they have been input.

### NOTE

These steps only apply to barline-/rhythmic position-attached horizontal lines. You cannot lengthen/shorten notehead-attached horizontal lines, except by lengthening/shortening the notes to which they are attached.

---

### PROCEDURE

1. In Write mode, select the horizontal lines you want to lengthen/shorten.

### NOTE

When using the mouse, you can only lengthen/shorten one line at a time.

---

2. Lengthen/Shorten the lines in any of the following ways:
  - To lengthen them by the current rhythmic grid resolution, press **Shift-Alt/Opt-Right Arrow**.
  - To shorten them by the current rhythmic grid resolution, press **Shift-Alt/Opt-Left Arrow**.
  - To snap the end of a single line to the next notehead, press **Ctrl/Cmd-Shift-Alt/Opt-Right Arrow**.
  - To snap the end of a single line to the previous notehead, press **Ctrl/Cmd-Shift-Alt/Opt-Left Arrow**.

### NOTE

- When multiple lines are selected, you can only lengthen/shorten them according to the current rhythmic grid resolution.
  - When using the keyboard, lengthening/shortening lines only moves their end. You can move the start of lines by moving lines rhythmically, or by clicking and dragging the start handle of a single line.
- 
- Click and drag the circular handle at the start/end to the right/left.
- 

### RESULT

Single lines are lengthened/shortened according to the current rhythmic grid resolution or to the next/previous notehead, whichever is closer.

Multiple lines are lengthened/shortened according to the current rhythmic grid resolution.

### TIP

You can move lines graphically in Engrave mode, including changing their graphical length.

---

### RELATED LINKS


- [Inputting horizontal lines](#) on page 368
- [Moving notes/items rhythmically](#) on page 437
- [Moving items graphically](#) on page 481
- [Rhythmic grid](#) on page 204



## Lengthening/Shortening vertical lines

You can lengthen/shorten individual vertical lines to different staff positions. You can do this for the current layout and frame chain only, or for all layouts and frame chains. By default, vertical lines automatically span the pitch range of notes in the voices to which they apply.

### PREREQUISITE

- The lower zone is shown.
- **Properties**  is selected in the lower zone toolbar.
- You have chosen the appropriate property scope for local properties.

---

### PROCEDURE

1. Select the vertical lines you want to lengthen/shorten. You can do this in Write mode and Engrave mode.
2. In the Properties panel, activate the following properties, individually or together, in the **Vertical Lines** group:
  - **Top position**
  - **Bottom position**
3. Change the values in the value fields.

---

### RESULT

The vertical length of the selected lines is changed. Increasing the values moves the corresponding end up by staff positions, decreasing the values moves the corresponding end down by staff positions. If the property scope was set to **Locally**, this change only takes effect in the current layout and frame chain.

### TIP

You can move lines graphically in Engrave mode, including changing their graphical length.

---

### RELATED LINKS

[Moving items graphically](#) on page 481

[Inputting vertical lines](#) on page 369

[Changing the property scope](#) on page 617

[Copying property settings to other layouts/frame chains](#) on page 599

## Changing the start/end positions of horizontal lines

By default, rhythmic position-attached horizontal lines start before notes/accidentals and end immediately after the last note, chord, or rest at their end rhythmic position. You can change the start and end positions of individual rhythmic position-attached horizontal lines independently; for example, if you want them to start before noteheads rather than accidentals and end immediately before the following note, chord, or rest.

### NOTE

These steps only apply to rhythmic position-attached horizontal lines.

---

### PREREQUISITE

- The lower zone is shown.

- **Properties**  is selected in the lower zone toolbar.

---

PROCEDURE

1. Select the rhythmic position-attached horizontal lines whose start and/or end position you want to change. You can do this in Write mode and Engrave mode.
2. In the Properties panel, activate **Horizontal start position** in the **Horizontal Lines** group.
3. Select one of the following options from the menu:
  - **Notehead**
  - **Notehead center**
  - **Accidental**
4. Activate **Horizontal end position** in the **Horizontal Lines** group.
5. Select one of the following options from the menu:
  - **End at right-hand side of final note**
  - **End on center of final note**
  - **End immediately before following note**

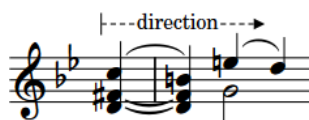
---

RESULT

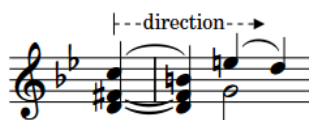
The start and/or end position of the selected rhythmic position-attached horizontal lines is changed.

---

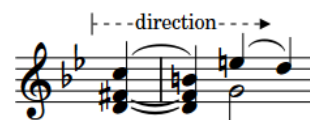
EXAMPLE



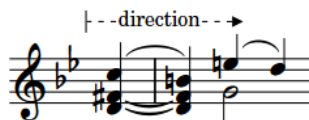
Horizontal line starting before the notehead



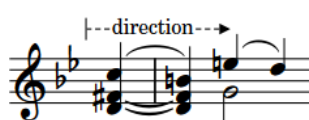
Horizontal line starting centered on the notehead



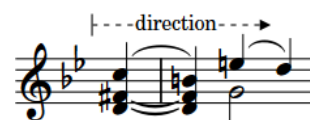
Horizontal line starting before the accidental



Horizontal line ending after final note



Horizontal line ending centered on the final notehead




Horizontal line ending before following note

---

## Changing the body style of lines

You can change the body style of individual lines without changing their caps.

PREREQUISITE

- The lower zone is shown.
- **Properties**  is selected in the lower zone toolbar.

---

PROCEDURE

1. Select the lines whose body style you want to change. You can do this in Write mode and Engrave mode.

NOTE

You must select either only horizontal lines or only vertical lines.

---

2. In the Properties panel, activate **Line body style** in either the **Horizontal Lines** or **Vertical Lines** group.
  3. Select the style you want from the menu.
- 

RESULT

The body style of the selected lines is changed.

NOTE

This does not affect the caps of the selected lines.

---


RELATED LINKS

- [Line components](#) on page 1077
- [Lines panel](#) on page 367
- [Input methods for lines](#) on page 367

## Changing the caps of lines

You can change the caps of individual lines without changing their body style.

PREREQUISITE

- The lower zone is shown.
  - **Properties**  is selected in the lower zone toolbar.
- 

PROCEDURE

1. Select the lines whose caps you want to change. You can do this in Write mode and Engrave mode.

NOTE

You must select either only horizontal lines or only vertical lines.

---

2. In the Properties panel, activate the following properties, individually or together, in either the **Horizontal Lines** or **Vertical Lines** group:
    - To change the cap at the start/bottom of the selected lines, activate **Start cap**.
    - To change the cap at the end/top of the selected lines, activate **End cap**.
    - To change the segment start cap of the selected horizontal lines on subsequent systems, activate **Continuation cap**.
    - To change the segment end cap of the selected horizontal lines on previous systems to where the lines end, activate **Continuation end cap**.
  3. Select the style you want from each menu.
-

RESULT

The corresponding caps of the selected lines are changed.

NOTE


This does not affect the body style of the selected lines.

---

## Changing the direction of lines

You can change the direction of both horizontal and vertical lines; for example, to make a horizontal line with an arrow end cap point to the left, or to make a vertical line with text appear upside-down with its text reading downwards.

PREREQUISITE

- The lower zone is shown.
  - **Properties**  is selected in the lower zone toolbar.
- 

PROCEDURE

1. Select the lines whose direction you want to change. You can do this in Write mode and Engrave mode.

NOTE

You must select either only horizontal lines or only vertical lines.

---

2. In the Properties panel, activate **Reverse** in either the **Horizontal Lines** or **Vertical Lines** group.
- 

RESULT

The direction of the selected lines is change. Text on vertical lines now reads downwards. Deactivating **Reverse** returns the selected lines to their default direction.

---

EXAMPLE



Horizontal and vertical lines with default directions


Reversed horizontal and vertical lines

---

## Adding text to lines

You can add text to both horizontal and vertical lines; for example, to clarify the intention of the line.

### PREREQUISITE

- The lower zone is shown.
- **Properties**  is selected in the lower zone toolbar.

---

### PROCEDURE

1. Select the lines to which you want to add text. You can do this in Write mode and Engrave mode.

#### NOTE

You must select either only horizontal lines or only vertical lines.

2. In the Properties panel, activate **Text** in either the **Horizontal Lines** or **Vertical Lines** group.
3. Enter the text you want into the value field.
4. Press **Return**.

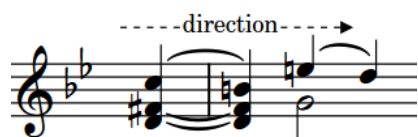
---

### RESULT

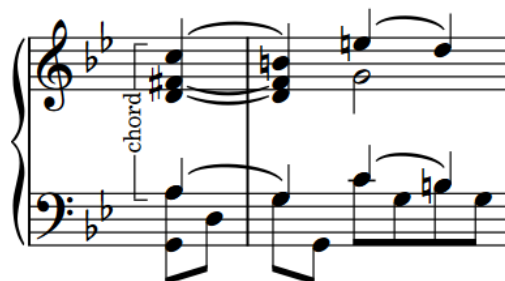
The text you entered into the value field is shown centered in the middle of the selected lines. On vertical lines, it reads upwards.

---

### EXAMPLE



Text on a horizontal line



Text on a vertical line

---

### AFTER COMPLETING THIS TASK

- If you want text on vertical lines to read downwards, you can reverse the lines.
- You can erase the backgrounds of text on lines.

### RELATED LINKS


[Line components](#) on page 1077

[Input methods for lines](#) on page 367

## Changing the position of text relative to horizontal lines

You can change the position of text relative to horizontal lines individually; for example, to show text above horizontal lines. By default, text is centered on horizontal lines.

### PREREQUISITE

- The lower zone is shown.
- **Properties**  is selected in the lower zone toolbar.

---

### PROCEDURE

1. Select the horizontal lines whose text position you want to change. You can do this in Write mode and Engrave mode.
2. In the Properties panel, activate **Text position** in the **Horizontal Lines** group.
3. Select one of the following options from the menu:
  - **Above**
  - **Centered**
  - **Below**
  - **Inside**
  - **Outside**

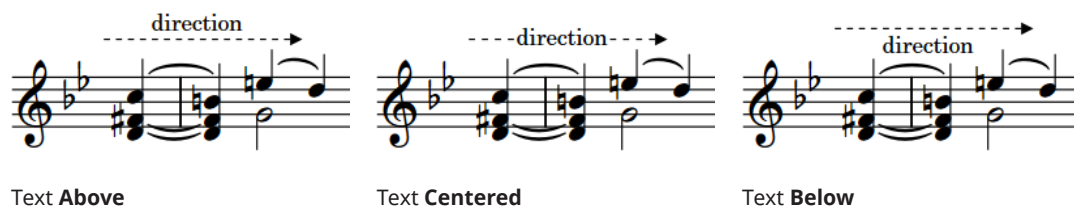
---

### RESULT

The position of text relative to the selected horizontal lines is changed. When annotations are positioned **Inside** or **Outside**, their position relative to the line changes according to the staff-relative placement of the line.

---

### EXAMPLE



---


### RELATED LINKS

[Changing the placement of text relative to lines](#) on page 1090

## Changing the position of text relative to vertical lines

You can change the position of text relative to vertical lines individually; for example, to show text on the left of vertical lines. By default, text is centered on vertical lines.

### PREREQUISITE

- The lower zone is shown.
- **Properties**  is selected in the lower zone toolbar.

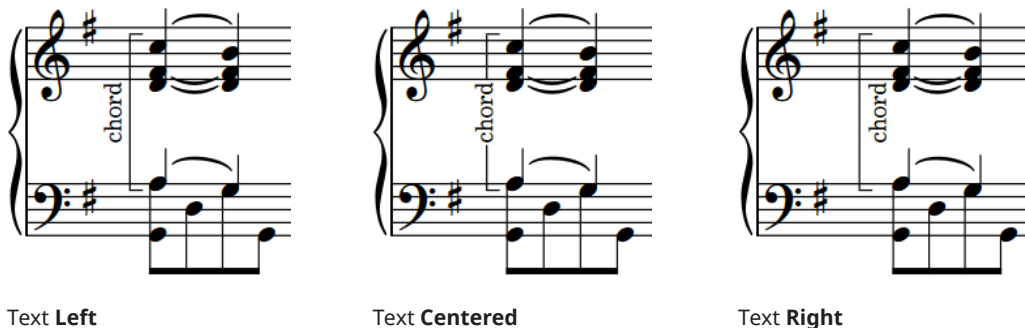
PROCEDURE

1. Select the vertical lines whose text position you want to change. You can do this in Write mode and Engrave mode.
2. In the Properties panel, activate **Text position** in the **Vertical Lines** group.
3. Select one of the following options from the menu:
  - **Left**
  - **Centered**
  - **Right**

RESULT

The position of text relative to the selected vertical lines is changed.


EXAMPLE



## Changing the placement of text relative to lines

You can change the placement of text relative to lines individually; for example, to show text at the start of horizontal lines or the top of vertical lines. By default, text appears in the center of lines.

PREREQUISITE

- The lower zone is shown.
- **Properties**  is selected in the lower zone toolbar.

PROCEDURE

1. Select the lines whose text placement you want to change. You can do this in Write mode and Engrave mode.

NOTE

You must select either only horizontal lines or only vertical lines.

2. In the Properties panel, activate **Text placement** in either the **Horizontal Lines** or **Vertical Lines** group.
3. Select one of the following options from the menu:
  - **Start**
  - **Center**

- **End**

4. Optional: If you chose **Start** or **End** and want to change the offset from the corresponding end of the line, activate **Start/end gap** in either the **Horizontal Lines** or **Vertical Lines** group and change the value in the value field.

---

RESULT

The placement of text relative to the selected lines is changed. For vertical lines, **Start** places text at the bottom of the line, **End** places text at the top.

If you also activated **Start/end gap**, the gap between text on the selected lines and the corresponding end is changed.


RELATED LINKS

[Changing the direction of lines](#) on page 1087

## Forcing line text to be horizontal

You can force the text of individual lines always to appear horizontal; for example, to make text on vertical lines easier to read.

PREREQUISITE

- The lower zone is shown.
- **Properties**  is selected in the lower zone toolbar.

---

PROCEDURE

1. Select the lines whose text you want to keep horizontal. You can do this in Write mode and Engrave mode.

NOTE

You must select either only horizontal lines or only vertical lines.

2. In the Properties panel, activate **Keep text horizontal** in either the **Horizontal Lines** or **Vertical Lines** group.

---


RESULT

Text on the selected lines always appears horizontal, even if the line is angled or vertical.

## Adding borders to line text

You can add borders to text shown on individual lines and change the border thickness; for example, if you want to make the boundary of the text relative to the line clear. You can do this for the current layout and frame chain only, or for all layouts and frame chains.

PREREQUISITE

- The lower zone is shown.
- **Properties**  is selected in the lower zone toolbar.
- You have chosen the appropriate property scope for local properties.

---

PROCEDURE

1. In Engrave mode, select the lines whose text you want to add borders to.



**NOTE**

You must select either only horizontal lines or only vertical lines.

---

2. In the Properties panel, activate **Border thickness** in either the **Horizontal Lines** or **Vertical Lines** group.
  3. Change the value in the value field.
- 

**RESULT**

Borders with the corresponding thickness are added to text on the selected lines. If the property scope was set to **Locally**, this change only takes effect in the current layout and frame chain.

**RELATED LINKS**

[Changing the placement of text relative to lines](#) on page 1090

[Adding borders to text items](#) on page 1227


[Changing the property scope](#) on page 617

[Copying property settings to other layouts/frame chains](#) on page 599

## Erasing the background of line text

You can erase the background of text shown on individual lines; for example, to ensure they remain legible if they appear inside the staff. You can do this for the current layout and frame chain only, or for all layouts and frame chains.

**PREREQUISITE**

- The lower zone is shown.
  - **Properties**  is selected in the lower zone toolbar.
  - You have chosen the appropriate property scope for local properties.
- 

**PROCEDURE**

1. In Engrave mode, select the lines whose text backgrounds you want to erase.

**NOTE**

You must select either only horizontal lines or only vertical lines.

---

2. In the Properties panel, activate **Erase background** in either the **Horizontal Lines** or **Vertical Lines** group.
- 

**RESULT**

The backgrounds of text on the selected lines are erased. If the property scope was set to **Locally**, this change only takes effect in the current layout and frame chain.

Deactivating **Erase background** returns text on the selected lines to the default non-erased background.

EXAMPLE



Line text with non-erased background




Line text with erased background

---

## Changing the erasure padding of line text

You can change the erasure padding of text on individual lines, including changing the padding between line text and each edge of their erased areas independently. You can do this for the current layout and frame chain only, or for all layouts and frame chains.

### PREREQUISITE

- The lower zone is shown.
- **Properties**  is selected in the lower zone toolbar.
- You have chosen the appropriate property scope for local properties.

### PROCEDURE

1. In Engrave mode, select the lines whose text erasure padding you want to change.

#### NOTE

You must select either only horizontal lines or only vertical lines.

2. In the Properties panel, activate the **Erasure padding** properties, individually or together, in either the **Horizontal Lines** or **Vertical Lines** group.
  - **L** changes the padding between line text and their left edge.
  - **R** changes the padding between line text and their right edge.
  - **T** changes the padding between line text and their top edge.
  - **B** changes the padding between line text and their bottom edge.
3. Change the values in the value fields.

### RESULT

Increasing the values increases the padding, decreasing the values decreases the padding. If the property scope was set to **Locally**, this change only takes effect in the current layout and frame chain.

### RELATED LINKS

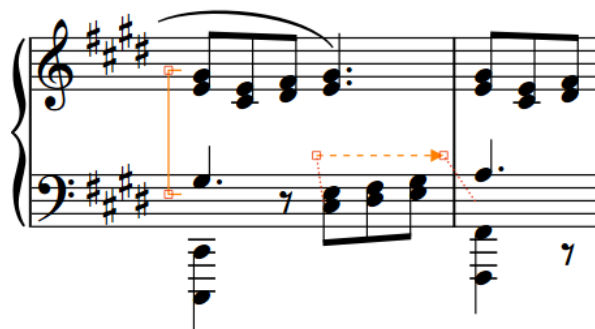
[Changing the property scope](#) on page 617

[Copying property settings to other layouts/frame chains](#) on page 599

## Lines in Engrave mode

In Engrave mode, each line has two square handles, one at the start and one at the end of horizontal lines, and one at the top and one at the bottom of vertical lines. You can move these handles to adjust the graphical position, length, and angle of lines.

You can also move whole individual lines graphically. If horizontal lines cross system and frame breaks, you can move the line segments on each side of the break independently.



Handles on a vertical line and horizontal line in Engrave mode

### RELATED LINKS

[Line components](#) on page 1077

[Positions of lines](#) on page 1078

[Lengthening/Shortening horizontal lines](#) on page 1083

[Lengthening/Shortening vertical lines](#) on page 1084

[Showing vertical lines on the right/left of notes](#) on page 1079

[Changing the horizontal order of vertical lines](#) on page 1079

[Changing the placement of horizontal lines](#) on page 1081

[Changing the staff position of horizontal lines inside the staff](#) on page 1081

[Moving items graphically](#) on page 481

# Rehearsal marks

Rehearsal marks are ordered sequences of letters or numbers that provide useful reference points, such as indicating significant changes in the music. They allow performers to co-ordinate easily in rehearsals and make the chronological sequence of the music clear.

In Dorico Elements, rehearsal marks follow an automatic sequence where each rehearsal mark has a unique index, ensuring there are never duplicate rehearsal marks.



A rehearsal mark, showing the letter G

By default, rehearsal marks in Dorico Elements appear as letters, but you can change the sequence type to show letters, numbers, or bar numbers. You can use all three available rehearsal mark sequences simultaneously.

In order to ensure they are easily noticeable, and cannot be confused with bar numbers when using numbers for rehearsal marks, rehearsal marks are shown in a rectangular enclosure.

In Dorico Elements, rehearsal marks are categorized as system objects. Therefore, rehearsal marks follow your per-layout settings for the visibility and positioning of system objects.

## RELATED LINKS

- [Inputting rehearsal marks](#) on page 382
- [Changing the index of rehearsal marks](#) on page 1096
- [Changing the rehearsal mark sequence type](#) on page 1097
- [Going to rehearsal marks](#) on page 419
- [Layout Options dialog](#) on page 677
- [System objects](#) on page 1196
- [Changing the positions of system objects](#) on page 1197
- [Tempo marks](#) on page 1204
- [Bar numbers](#) on page 742

## Positions of rehearsal marks

Rehearsal marks are placed outside the music, above the staff, and at the same positions as other system objects so they can be seen easily.

By default, rehearsal marks are positioned above barlines and to the right of clefs or key signatures at the start of systems. Although you can input rehearsal marks at rhythmic positions within a bar in Dorico Elements, this is not common practice.

When rehearsal marks coincide with tempo changes, Dorico Elements automatically positions tempo marks to the right of rehearsal marks. Dorico Elements automatically adjusts staff spacing to ensure rehearsal marks are correctly positioned.

You can move rehearsal marks to different rhythmic positions in Write mode. They are automatically positioned to avoid collisions.



The vertical spacing between the top two staves is increased to allow room for the rehearsal mark and the tempo marks.

You can move rehearsal marks graphically in Engrave mode, but this does not change the rhythmic positions to which they are attached.

Rehearsal marks are categorized as system objects in Dorico Elements, which you can show above the first bracket of selected instrument families. You can change the instrument families above which system objects appear in each layout independently; for example, if you want rehearsal marks to appear at multiple vertical positions in each system in the full score only.

#### RELATED LINKS

- [Inputting rehearsal marks](#) on page 382
- [Input methods for bars, beats, and barlines](#) on page 287
- [Moving items graphically](#) on page 481
- [Changing the positions of system objects](#) on page 1197

## Changing the index of rehearsal marks

By default, the rehearsal mark sequence resets at the start of each flow. If you want the rehearsal mark sequence to continue across flows, for example, to avoid having multiple rehearsal marks with the same letter in the same project, you can change the index position of individual rehearsal marks.

Changing the index position changes the shown number or letter. For example, index position 1 appears as rehearsal mark A or 1, position 2 appears as B or 2, and so on.


You can also change the index position of a rehearsal mark to avoid showing a letter that could easily be confused with another letter or another number, such as I or O.

#### NOTE

These steps do not apply to rehearsal marks using the bar number sequence type.

---

#### PREREQUISITE

- The lower zone is shown.
  - Properties**  is selected in the lower zone toolbar.
- 

#### PROCEDURE

1. Select the rehearsal mark whose index position you want to change. You can do this in Write mode and Engrave mode.

2. In the Properties panel, activate **Index** in the **Rehearsal Marks** group.
  3. Change the value in the value field.
- 

#### RESULT

The selected rehearsal mark changes according to the **Index** value and its sequence type. Any subsequent rehearsal marks without index changes in the same sequence follow the new index automatically. For example, if you changed a rehearsal mark from A to P, the next rehearsal mark changes from B to Q.

#### TIP

You can also change the sequence type of rehearsal marks; for example, if you want rehearsal mark C to appear as rehearsal mark 3.


---

## Changing the rehearsal mark sequence type

Rehearsal marks can be letters, numbers, or bar numbers. You can change the sequence type of individual rehearsal marks, and create secondary rehearsal mark sequences.

In Dorico Elements, you can use all three available rehearsal mark sequences simultaneously. For example, you can have the main sequence of rehearsal marks showing letters, but also have a secondary sequence of numbers to mark different moments, perhaps entry points for a solo line, and also highlight prominent bar numbers within those sections.

#### PREREQUISITE

- The lower zone is shown.
  - **Properties**  is selected in the lower zone toolbar.
- 

#### PROCEDURE

1. Select the rehearsal mark whose sequence type you want to change. You can do this in Write mode and Engrave mode.
  2. In the Properties panel, activate **Sequence type** in the **Rehearsal Marks** group.
  3. Select one of the following options from the menu:
    - **Letters**
    - **Numbers**
    - **Bar numbers**
- 

#### RESULT

The selected rehearsal mark now displays a letter, a number, or the current bar number. If it is the first rehearsal mark in either the letters sequence or the numbers sequence in the flow, it shows either A or 1. If there are already rehearsal marks in either the letters sequence or the numbers sequence in the flow, it shows the next letter or number according to the index.

#### NOTE

You can change the index of a rehearsal mark sequence independently of other rehearsal mark sequences. However, you cannot change the index of rehearsal marks using the bar number sequence type.

---

RELATED LINKS


[Inputting rehearsal marks](#) on page 382

[Adding bar number changes](#) on page 750

## Adding prefixes/suffixes to rehearsal marks

You can add both prefixes and suffixes to individual rehearsal marks.

PREREQUISITE

- The lower zone is shown.
- **Properties**  is selected in the lower zone toolbar.

---

PROCEDURE

1. Select the rehearsal marks to which you want to add a prefix or suffix. You can do this in Write mode and Engrave mode.
2. In the Properties panel, activate the following properties, individually or together, in the **Rehearsal Marks** group:
  - **Prefix**
  - **Suffix**
3. Enter the text you want into the value field.
4. Press **Return**.

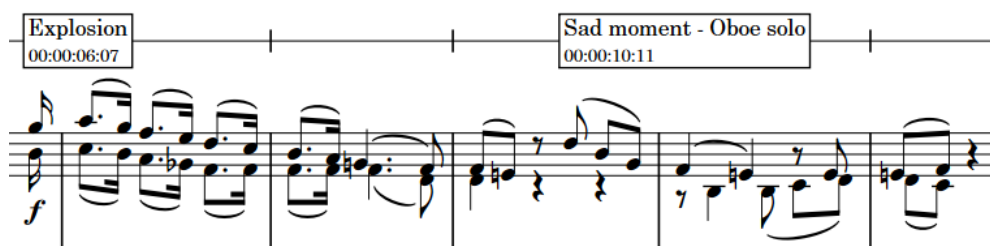
---

RESULT

The text you entered into the value field is added to the selected rehearsal marks as a prefix or a suffix.

# Markers

Markers are labels locked to a particular position in time, most commonly in relation to a video. They typically indicate an important moment that requires musical prominence, and composers often use them to help shape the writing process.



Markers on a timecode staff showing custom text and timecodes

By default, markers in Dorico Elements show the default text “Marker” and also include the timecode of their fixed position in time.

In Dorico Elements, you can use markers in any project. However, because they are most commonly used in conjunction with video, markers are included in the Video panel in Write mode. There is also a Markers track in Play mode that displays markers, and allows you to input new ones.

You can use markers to help find suitable tempos for your project, as Dorico Elements can calculate possible tempos between important markers so that the markers occur on strong beats in the time signature.

You can show markers above/below the start of each system or below the timecode staff, if there is one, in each layout independently.

Any markers you input are automatically included when you export MIDI.

## RELATED LINKS

[Inputting markers/timecodes](#) on page 383

[Editing marker text](#) on page 1101

[Video panel](#) on page 384

[Changing the timecodes of markers](#) on page 1102

[Defining markers as important](#) on page 1102

[Timecodes](#) on page 1103

[Markers track](#) on page 497

## Hiding/Showing markers

By default, markers are shown in full score layouts and hidden in part layouts. You can hide and show markers in each layout independently; for example, if markers are helpful for the conductor to see but not for the players.

---

### PROCEDURE

1. Press **Ctrl/Cmd-Shift-L** to open **Layout Options**.
2. In the **Layouts** list, select the layouts in which you want to hide/show markers.



By default, the layout currently open in the music area is selected when you open the dialog. You can select other layouts by using the selection options in the action bar, clicking and dragging across multiple layouts, **Shift**-clicking adjacent layouts, and **Ctrl/Cmd**-clicking individual layouts.

3. In the category list, click **Markers and Timecode**.
  4. Activate/Deactivate **Show markers**.
  5. Click **Apply**, then **Close**.
- 

**RESULT**

Markers are hidden/shown in the selected layouts.

## Changing the vertical position of markers

You can show markers above the system, below the system, or on a separate single-line timecode staff above a selected bracketed instrument family group, which can make them clearer in the score. When markers are shown on a timecode staff, timecodes are also automatically shown below the timecode staff.

**NOTE**

You cannot show multiple timecode staves in a system.

---

**PROCEDURE**

1. Press **Ctrl/Cmd-Shift-L** to open **Layout Options**.
  2. In the **LAYOUTS** list, select the layouts in which you want to change the vertical position of markers.

By default, the layout currently open in the music area is selected when you open the dialog. You can select other layouts by using the selection options in the action bar, clicking and dragging across multiple layouts, **Shift**-clicking adjacent layouts, and **Ctrl/Cmd**-clicking individual layouts.
  3. In the category list, click **Markers and Timecode**.
  4. In the **Markers** subsection, choose one of the following options for **Vertical position**:
    - **Above system**
    - **Below system**
    - **Timecode staff**
  5. Optional: If you chose **Timecode staff**, select the bracketed instrument family above which you want to show the timecode staff from the **Position timecode staff above bracket** menu.
  6. Click **Apply**, then **Close**.
- 

**RESULT**

The vertical position of markers is changed in the selected layouts.

**NOTE**

- If you show markers on a timecode staff, timecodes are also shown on the staff by default. If you only want to show markers on a separate staff and exclude timecodes, you must then change **Timecode frequency on timecode staff** to **Never**.

You can also change the vertical position of timecodes so they appear above/below the start of systems rather than on the timecode staff.

- You can change the default distance between the timecode staff and other staves on the **Vertical Spacing** page in **Layout Options**.
- 

#### AFTER COMPLETING THIS TASK

You can change the frequency of timecodes on the timecode staff.

#### RELATED LINKS

[Inputting markers/timecodes](#) on page 383

[Changing the vertical position of timecodes](#) on page 1104


[Changing the timecode frequency](#) on page 1105

[Layout Options dialog](#) on page 677

## Editing marker text

The default text shown in new markers is “Marker”. You can change the text shown in each marker individually.

#### PREREQUISITE

- The lower zone is shown.
  - **Properties**  is selected in the lower zone toolbar.
- 

#### PROCEDURE

1. Select the markers whose text you want to change. You can do this in Write mode and Engrave mode.
  2. In the Properties panel, activate **Marker text** in the **Markers** group.
  3. Enter the text you want into the value field.
  4. Press **Return**.
- 

#### RESULT

The text shown in the selected markers is changed. It uses the **Marker Text Font** font style.

#### TIP

You can also enter custom text for markers when inputting them using the **Add Marker** dialog, and change marker text in the **Markers** section of the Video panel in Write mode.

---

#### RELATED LINKS

[Add Marker dialog](#) on page 383

## Changing the timecodes of markers



You can change the timecodes of individual markers after they have been input; for example, if the video has been edited and the marker now occurs ten seconds later.

### NOTE

Because this changes where markers occur in the project, this also moves markers relative to the notated music.

---

### PROCEDURE

1. In Write mode, select an item in the flow containing the markers whose timecodes you want to change.
  2. In the Notations toolbox, click **Panels** , then **Video**  to show the Video panel.
  3. In the **Markers** section, double-click the timecode you want to change.
  4. Enter the new timecode you want into the value field.
  5. Press **Return**.
- 

### RESULT

The timecode of the marker is changed. The marker automatically moves relative to the music to reflect its new time position.

### RELATED LINKS

[Video panel](#) on page 384

[Changing the initial timecode value](#) on page 1104

## Defining markers as important

You can define individual markers as important, which allows them to be considered when finding suitable tempos in the **Find Tempo** dialog.

---

### PROCEDURE

1. In Write mode, click **Video** in the Notations toolbox to show the Video panel.
  2. In the **Markers** section, activate the checkbox in the **Imp.** column for each marker you want to define as important.
- 

### RESULT

Markers with activated checkboxes are defined as important. The **Find Tempo** button at the bottom of the **Markers** section becomes available.

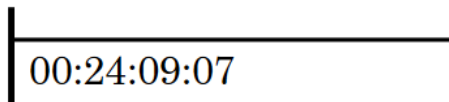
### RELATED LINKS

[Find Tempo dialog](#) on page 385

# Timecodes

Timecodes indicate an exact position in time, usually in the context of a video. They allow precise synchronization between multiple elements, such as music and moving images, and can be used as a reference tool.

Timecodes are displayed in the format hh:mm:ss:ff, which is two-digit hours, minutes, seconds, and frames.



A timecode on a timecode staff

In Dorico Elements, you can specify the type of timecode from the following types:

## Non-drop frame timecodes

Each frame is numbered sequentially from the preceding one without skipping any frame numbers.

Non-drop frame timecodes are shown with the suffix **fps** and use a colon separator between seconds and frames; for example, 00:00:01:05.

## Drop frame timecodes

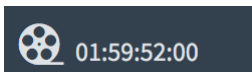
Some frame numbers are skipped in order to accommodate the difference in frame rate between 29.97 fps and 30 fps. In every minute except every tenth minute, two timecode numbers are dropped from the frame count.

Drop frame timecodes are shown with the suffix **dfps** and use a semicolon separator between the seconds and frames; for example, 00:00:01;05.

Timecodes in Dorico Elements are flow-specific, meaning you can set timecodes for each flow that are completely independent of the timecodes for other flows. You can set timecodes in the **Video Properties** dialog, including for flows without a video.

### NOTE

The timecodes shown in flow cards in the **Flows** panel in Setup mode reflect the timecode at the start of the flow, which can be different to the timecode you set in the **Video Properties** dialog. For example, if you set the **Timecode start** to **02:00:00:00** but also set the **Flow attachment position** to **8** quarter note beats, and the tempo is 60 bpm, the timecode shown in the flow card is 01:59:52:00.



By default, timecodes appear in markers. You can show markers above/below the start of each system or below the timecode staff, if there is one, in each layout independently.

Additionally, you can change the time displayed in the **Transport** window to be the timecode rather than elapsed time, which is shown by default.

RELATED LINKS



- [Inputting markers/timecodes](#) on page 383
- [Frame rates](#) on page 185
- [Video Properties dialog](#) on page 181
- [Changing the timecode frequency](#) on page 1105
- [Changing the content shown in the transport display](#) on page 517
- [Markers](#) on page 1099
- [Hiding/Showing markers](#) on page 1099
- [Changing the vertical position of markers](#) on page 1100
- [Changing the vertical position of timecodes](#) on page 1104

## Changing the initial timecode value

You can change the timecode at which each flow in your project starts; for example, if you are using a separate project for the second reel of a film. You can also change the initial timecode in projects without videos.

---

PROCEDURE

1. In Write mode, select an item in the flow whose initial timecode value you want to change.
2. In the Notations toolbox, click **Panels** , then **Video**  to show the Video panel.
3. In the Video panel, click **Properties** to open the **Video Properties** dialog.
4. Change the value for **Timecode start**.
5. Click **OK** to save your changes and close the dialog.

---

RESULT

The initial timecode for the flow in which you selected an item is changed.

RELATED LINKS

- [Video panel](#) on page 384
- [Changing the start position of videos](#) on page 183
- [Changing the timecodes of markers](#) on page 1102

## Changing the vertical position of timecodes

You can show timecodes either above/below the start of systems or on a separate single-line staff in each layout independently. For example, you can show timecodes and markers on a separate timecode staff in full score layouts but show only timecodes above the start of systems in part layouts.

NOTE

You cannot show timecodes on multiple staves in a system.

---

PREREQUISITE

If you want to show timecodes on a separate staff, you have changed the vertical position of markers so they appear on a separate staff.

---

PROCEDURE

1. Press **Ctrl/Cmd-Shift-L** to open **Layout Options**.

2. In the **Layouts** list, select the layouts in which you want to change the vertical position of timecodes.  
By default, the layout currently open in the music area is selected when you open the dialog. You can select other layouts by using the selection options in the action bar, clicking and dragging across multiple layouts, **Shift**-clicking adjacent layouts, and **Ctrl/Cmd**-clicking individual layouts.
  3. In the category list, click **Markers and Timecode**.
  4. In the **Timecode** subsection, choose one of the following options for **Show timecode**:
    - **Above or below start of system**
    - **Below timecode staff**
  5. Optional: If you chose **Above or below start of system**, choose one of the following options for **Timecode position relative to system**:
    - **Above system**
    - **Below system**
  6. Optional: If you chose **Above or below start of system** and want to change the gap between timecodes and the staff, change the values in the **Offset at start of system** value fields.
  7. Click **Apply**, then **Close**.
- 

**RESULT**

The vertical position of timecodes is changed in the selected layouts.

**NOTE**

Your setting for **Timecode frequency on timecode staff** also applies when timecodes are shown above/below the start of systems.

---

**RELATED LINKS**

[Changing the vertical position of markers](#) on page 1100

[Changing the timecode frequency](#) on page 1105

## Changing the timecode frequency

You can show timecodes at different intervals in layouts in which timecodes are shown on a separate staff. For example, you can show timecodes every bar in full score layouts but only at the start of each system in part layouts.

**NOTE**

We do not recommend that you show timecodes every bar in layouts with multi-bar rests, as the result is illegible overlapping timecodes. If you want to show timecodes in part layouts with multi-bar rests, we recommend either showing timecodes only at the start of each system or not showing multi-bar rests in the layout.

---

**PREREQUISITE**

Markers are shown in the selected layouts.

---

**PROCEDURE**

1. Press **Ctrl/Cmd-Shift-L** to open **Layout Options**.

2. In the **Layouts** list, select the layouts in which you want to change the timecode frequency. By default, the layout currently open in the music area is selected when you open the dialog. You can select other layouts by using the selection options in the action bar, clicking and dragging across multiple layouts, **Shift**-clicking adjacent layouts, and **Ctrl/Cmd**-clicking individual layouts.
  3. In the category list, click **Markers and Timecode**.
  4. Optional: If the selected layouts do not show timecodes on a separate staff, choose **Timecode staff** for **Vertical position**.
  5. Choose one of the following options for **Timecode frequency on timecode staff**:
    - **Start of system**
    - **Every bar**
    - **Never**
  6. Click **Apply**, then **Close**.
- 

## RELATED LINKS

[Hiding/Showing markers](#) on page 1099[Hiding/Showing multi-bar rests](#) on page 1152

# Repeat endings

For music with repeated passages, repeat endings show which bars are played at the end of each repetition, with different endings each time if required. They are also known as “volta lines”, or as “first and second endings”, but in this documentation, we refer to them as “repeat endings”.

Repeat endings comprise two or more segments, where each segment contains a different possible ending. When you input repeat endings, Dorico Elements automatically inputs an end repeat barline at the end of the first segment. Segments in repeat endings are clearly marked with solid lines above and numbers that indicate the playthroughs in which the segment is used.



A repeat ending with three playthroughs divided across two endings

Dorico Elements allows you to create repeat endings containing any number of segments, and allows you to control which segments are used for each playthrough. For example, you might want a repeat ending with two segments but four total playthroughs, where the first two playthroughs use the first repeat ending segment and the final two playthroughs use the second repeat ending segment.

In Dorico Elements, repeat endings are categorized as system objects. Therefore, repeat endings follow your per-layout settings for the visibility and positioning of system objects.

## RELATED LINKS

[Input methods for repeats and tremolos](#) on page 386

[Layout Options dialog](#) on page 677

[System objects](#) on page 1196

[Repeats in playback](#) on page 509

[Changing the number of playthroughs at repeat barlines](#) on page 510


[Types of barlines](#) on page 735

[Lines](#) on page 1075

## Changing the total number of playthroughs in repeat endings

By default, each segment in repeat endings is played once, so each segment shows a single digit that indicates the playthrough for which it is used. You can increase the total number of playthroughs for repeat endings individually so that segments are played more than once.

### PREREQUISITE

- The lower zone is shown.
- **Properties**  is selected in the lower zone toolbar.



---

#### PROCEDURE

1. Select the repeat endings whose total number of playthroughs you want to change. You can do this in Write mode and Engrave mode.
2. In the Properties panel, activate **No. times played** in the **Repeat Endings** group.
3. Change the value in the value field.

#### NOTE

You cannot have fewer playthroughs than the number of segments.

---

#### RESULT

The total number of playthroughs in the selected repeat endings is changed. Dorico Elements adds additional playthroughs to the last closed segment in the repeat ending.

#### AFTER COMPLETING THIS TASK

Once you have set the total number of playthroughs, you can then change which segment is used for each playthrough.

#### RELATED LINKS

[Repeats in playback](#) on page 509


[Changing the number of playthroughs at repeat barlines](#) on page 510

[Input methods for repeats and tremolos](#) on page 386

## Dividing playthroughs across repeat ending segments

You can control how the total number of playthroughs is divided across the different segments in individual repeat endings. For example, if in a repeat ending with six playthroughs, you want to include playthroughs 1 to 3 in the first ending and playthroughs 4 to 6 in the second ending.

#### PREREQUISITE

- The lower zone is shown.
- **Properties**  is selected in the lower zone toolbar.

---

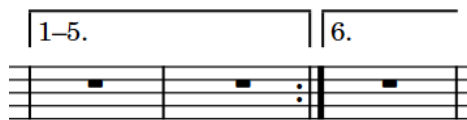
#### PROCEDURE

1. In Engrave mode, select an individual segment in the repeat ending structure whose included playthroughs you want to change.
  2. In the Properties panel, activate **Times played for segment** in the **Repeat Endings** group.
  3. Enter the number of each playthrough that you want to include in the selected segment, with each playthrough separated by a comma.  
For example, for a repeat ending with six playthroughs, enter **4,5,6** to include the 4th, 5th, and 6th playthroughs in the second segment.
- 

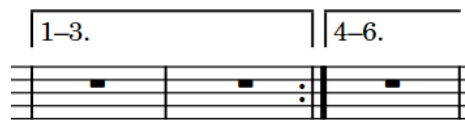
#### RESULT

The playthroughs included in the selected segment are changed.

EXAMPLE



Default distribution of playthroughs



Customized distribution of playthroughs

---

## Lengthening/Shortening segments in repeat endings

You can increase/decrease the number of bars included in each segment of repeat endings by lengthening/shortening each segment independently.

PROCEDURE

1. In Write mode, select the repeat ending you want to lengthen/shorten.

NOTE

You can only lengthen/shorten one repeat ending segment at a time.

2. Select the circular handle at the end of the segment you want to lengthen/shorten.



The selected handle in the middle has a thicker line.

3. Click and drag the handle to the right/left to snap it to the next/previous barline.

NOTE

Segments must contain at least one bar.

4. Optional: Repeat steps 1 to 3 for each segment in the repeat ending.

RESULT

The selected segment is lengthened/shortened.

NOTE

- This does not automatically input or move repeat barlines. You must input and delete repeat barlines as appropriate manually.
- You can also lengthen/shorten the final segment in a single repeat ending by selecting the repeat ending and using the following key commands:
  - To lengthen the final segment, press **Shift-Alt/Opt-Right Arrow**.
  - To shorten the final segment, press **Shift-Alt/Opt-Left Arrow**.

RELATED LINKS

[Input methods for bars, beats, and barlines](#) on page 287

[Deleting notes/items](#) on page 431

[Moving items graphically](#) on page 481

## Positions of repeat endings

Repeat endings are placed above the staff at the same positions as other system objects, and their hooks align with barlines. They are commonly positioned outside of other notations, but some long items, such as gradual tempo changes, can be placed above repeat endings.

You can move repeat endings to different rhythmic positions in Write mode.

You can move each repeat ending segment graphically in Engrave mode and independently of other segments in the repeat ending; however, this does not change the rhythmic positions to which they are attached.

In Engrave mode, each repeat ending segment has two square handles, one at the start and one at the end.

If repeat ending segments cross system and frame breaks, you can move the segments on each side of the break independently.



Repeat endings are categorized as system objects in Dorico Elements, which you can show above the first bracket of selected instrument families. You can change the instrument families above which system objects appear in each layout independently; for example, if you want repeat endings to appear at multiple vertical positions in each system in the full score only.

### RELATED LINKS

[Moving notes/items rhythmically](#) on page 437

[Moving items graphically](#) on page 481


[System objects](#) on page 1196

[Input methods for repeats and tremolos](#) on page 386

## Editing repeat ending text

You can replace the text shown in individual segments in repeat endings with custom text. By default, it shows the playthrough numbers for the segment.

### PREREQUISITE

- The lower zone is shown.
- **Properties**  is selected in the lower zone toolbar.

---

### PROCEDURE

1. In Engrave mode, select the repeat ending segments whose text you want to change.
2. In the Properties panel, activate **Custom text** in the **Repeat Endings** group.
3. Enter the text you want into the value field.
4. Press **Return**.

---

### RESULT

The text shown in the selected segments is changed.

Deactivating **Custom text** restores the default text for the selected repeat ending segments.

#### NOTE

Deactivating properties permanently deletes any custom text entered.

---

#### RELATED LINKS


[Changing the total number of playthroughs in repeat endings](#) on page 1107

[Dividing playthroughs across repeat ending segments](#) on page 1108

## Changing the appearance of individual final repeat ending segments

You can change the appearance of the line ends in the final segments of individual repeat endings.

#### PREREQUISITE

- The lower zone is shown.
- **Properties**  is selected in the lower zone toolbar.

#### PROCEDURE

1. Select the repeat endings whose final segment appearance you want to change. You can do this in Write mode and Engrave mode.

#### NOTE

In Engrave mode, you can select any segment in the repeat ending.

---

2. In the Properties panel, activate **End of line** in the **Repeat Endings** group.
3. Select one of the following options from the menu:
  - **Open, short**
  - **Open, full length**
  - **Closed**

#### RESULT

The end of the line of the final segment in the selected repeat endings is changed.

## Lengthening/Shortening repeat ending hooks


You can lengthen/shorten the hooks in repeat endings individually. You can do this for the current layout and frame chain only, or for all layouts and frame chains.

#### NOTE

You cannot change the hook length of an individual segment in a repeat ending. Changing the hook length affects the whole repeat ending.

---

#### PREREQUISITE

- The lower zone is shown.
- **Properties**  is selected in the lower zone toolbar.
- You have chosen the appropriate property scope for local properties.

---

#### PROCEDURE

1. In Engrave mode, select the repeat endings whose hooks you want to lengthen/shorten.
  2. In the Properties panel, activate **Hook length** in the **Repeat Endings** group.
  3. Change the value in the value field.
- 

#### RESULT

Increasing the value makes repeat ending hooks longer. Decreasing the value makes repeat ending hooks shorter. If the property scope was set to **Locally**, this change only takes effect in the current layout and frame chain.

#### RELATED LINKS

[Changing the property scope](#) on page 617

[Copying property settings to other layouts/frame chains](#) on page 599

## Repeat endings in MusicXML files

All aspects of repeat endings can be imported from and exported in MusicXML files.

However, while MusicXML can represent this, segments in the middle of sets of endings cannot have an open right-hand end in Dorico Elements.

# Repeat markers

Repeat markers show that musical material is to be repeated, but unlike repeat endings, repeat markers often involve jumping to different positions and sections in the music instead of moving through the music consecutively.

The image displays two systems of musical notation. The first system shows a vocal line with three endings: 'sah.', 'sah.', and '3. Es quoll und'. The piano accompaniment features a repeating eighth-note pattern. The second system shows a vocal line with the lyrics 'nun wußt' ich wohl wie mir ge - schah' and a piano accompaniment with a similar repeating pattern. Both systems include a 'Coda' symbol (a circle with a cross) above the vocal line, indicating a jump to a different section of the music.

A mid-system coda section

In Dorico Elements, repeat markers are divided into the following types:

## Repeat jumps

Specify the position from which players or playback must jump, such as *D.C. al Coda* or *D.S. al Fine*.

Repeat jumps are right-aligned with their rhythmic position, meaning their text or symbol ends at that rhythmic position and extends to the left.

## D.C. al Coda

## D.S. al Fine

## Repeat sections

Specify the destinations for jumps, such as *segno* or *coda*, or where the music should end, such as *Fine*. In Dorico Elements, coda sections that start mid-system are automatically separated from the preceding music with a gap. Coda sections at the start of systems are indented by the same amount.

Repeat markers are left-aligned with their rhythmic position, meaning their text or symbol starts at that rhythmic position and extends to the right.



Fine

By default, repeat markers are shown on a single line, but you can show them on two lines individually to reduce their horizontal length if necessary.

## RELATED LINKS

- [Input methods for repeats and tremolos](#) on page 386
- [Showing repeat markers on one/two lines](#) on page 1115
- [Hiding/Showing repeat markers](#) on page 1116
- [Changing the index for repeat markers](#) on page 1114
- [Repeats in playback](#) on page 509

[Repeat counts](#) on page 1118  
[Types of barlines](#) on page 735

## Changing the index for repeat markers

You can change the index of individual repeat markers; for example, if a flow requires two different codas with different symbols so players can tell them apart.


By default, all repeat markers of the same type have the same appearance, even when there are multiple repeat markers in the flow.

### NOTE

You cannot change the index of *Fine* or *D.C.* repeat markers.

---

### PREREQUISITE

- The lower zone is shown.
  - **Properties**  is selected in the lower zone toolbar.
- 

### PROCEDURE

1. Select the repeat marker whose index you want to change. You can do this in Write mode and Engrave mode.
2. In the Properties panel, activate the following properties, individually or together as appropriate for your selection, in the **Repeat Markers** group:
  - **Marker index**
  - **'Jump to' index**
3. Change the values in the value fields.

### NOTE

You can only enter values between 1 and 3.

---

### RESULT

**Marker index** changes the order of the selected repeat marker relative to other repeat markers of the same type.

**'Jump to' index** changes the destination of the selected repeat marker.

---

### EXAMPLE

If you have two codas in a flow with two different D.S. al Coda markers, you might set **Marker index** to **1** for the first coda and **2** for the second, then set **'Jump to' index** to **1** for the first D.S. al Coda marker and **2** for the second.

**D.S. % al  $\oplus$**

D.S. al Coda marker with default indexes

**D.S. %% al  $\oplus$  2**

D.S. al Coda marker with both indexes set to 2

---


### RELATED LINKS

[Repeats in playback](#) on page 509  
[Input methods for repeats and tremolos](#) on page 386

## Editing repeat marker text

You can change the text shown in individual repeat markers; for example, if you are typesetting a score with an unusual repeat marker instruction.

### PREREQUISITE

- The lower zone is shown.
- **Properties**  is selected in the lower zone toolbar.

---

### PROCEDURE

1. Select the repeat markers whose text you want to change. You can do this in Write mode and Engrave mode.
2. In the Properties panel, activate **Custom text** in the **Repeat Markers** group.
3. Enter the text you want into the value field.
4. Press **Return**.

---

### RESULT

The text shown in the selected repeat markers is changed. Segno symbols and coda symbols in *D.C./D.S.* repeat jumps are removed and replaced with your custom text.

## Showing repeat markers on one/two lines


You can show individual repeat markers either on a single line or spread across two lines, independently of your per-layout settings; for example, if a single long repeat marker extends beyond the page margins in one part layout. You can do this for the current layout and frame chain only, or for all layouts and frame chains.

### NOTE

You can only change the word wrapping of repeat jumps, such as *D.C. al Fine* and *D.S. al Coda*, that do not have custom text.

---

### PREREQUISITE

- The lower zone is shown.
- **Properties**  is selected in the lower zone toolbar.
- You have chosen the appropriate property scope for local properties.

---

### PROCEDURE

1. In Engrave mode, select the repeat markers whose word wrapping you want to change.
2. In the Properties panel, activate **Word wrap** in the **Repeat Markers** group.
3. Activate/Deactivate the corresponding checkbox.

---

### RESULT

The selected repeat markers are shown on two lines when the checkbox is activated, and on one line when the checkbox is deactivated. If the property scope was set to **Locally**, this change only takes effect in the current layout and frame chain.



When the property is deactivated, repeat markers follow your per-layout setting for word wrapping.

**TIP**

You can show all repeat markers on two lines in each layout independently in **Layout Options > Staves and Systems > Repeat Markers**. For example, you can show them on one line in the full score but on two lines in part layouts.

---

EXAMPLE



Repeat marker without word wrapping

Repeat marker with word wrapping

---

RELATED LINKS

[Layout Options dialog](#) on page 677


[Changing the property scope](#) on page 617

[Copying property settings to other layouts/frame chains](#) on page 599

## Hiding/Showing repeat markers

You can hide/show repeat markers individually; for example, if you want a separated coda section without showing the coda symbol and text.

PREREQUISITE

- The lower zone is shown.
  - **Properties**  is selected in the lower zone toolbar.
- 

PROCEDURE

1. Select the repeat markers you want to hide, or the signposts of repeat markers you want to show. You can do this in Write mode and Engrave mode.
  2. In the Properties panel, activate/deactivate **Hide** in the **Repeat Markers** group.
- 

RESULT

The selected repeat markers are hidden when **Hide** is activated, and shown when it is deactivated.

Signposts are shown at the position of each hidden repeat marker. However, signposts are not printed by default.

**TIP**

You can hide/show repeat marker signposts by choosing **View > Signposts > Repeat Markers**.

---

RELATED LINKS

[Signposts](#) on page 426

[Hiding/Showing zones](#) on page 44

[Annotations](#) on page 554

[Input methods for repeats and tremolos](#) on page 386

## Positions of repeat markers

Repeat markers are placed above the staff by default, and at the same positions as other system objects. Coda sections are separated from the preceding music by a gap in the system.

You can move repeat markers to different rhythmic positions in Write mode.

You can move repeat markers graphically in Engrave mode, but this does not change the rhythmic positions to which they are attached.

You can change the default staff-relative placement of repeat markers in each layout independently in the **Repeat Markers** section of the **Staves and Systems** page in **Layout Options**.

Repeat markers are categorized as system objects in Dorico Elements, which you can show above the first bracket of selected instrument families. You can change the instrument families above which system objects appear in each layout independently; for example, if you want repeat markers to appear at multiple vertical positions in each system in the full score only.

### RELATED LINKS

[Input methods for repeats and tremolos](#) on page 386

[Layout Options dialog](#) on page 677

[Changing the positions of system objects](#) on page 1197

[Changing the staff-relative placement of repeat markers](#) on page 1117

[Moving notes/items rhythmically](#) on page 437

[Moving items graphically](#) on page 481

[Repeats in playback](#) on page 509

## Changing the staff-relative placement of repeat markers

You can show repeat markers either above, below, or both above and below the staff in each layout independently.

---

### PROCEDURE

1. Press **Ctrl/Cmd-Shift-L** to open **Layout Options**.
2. In the **Layouts** list, select the layouts in which you want to change the staff-placement of repeat markers.  
By default, the layout currently open in the music area is selected when you open the dialog. You can select other layouts by using the selection options in the action bar, clicking and dragging across multiple layouts, **Shift**-clicking adjacent layouts, and **Ctrl/Cmd**-clicking individual layouts.
3. In the category list, click **Staves and Systems**.
4. In the **Repeat Markers** section, choose one of the following options for **Default placement for repeat jumps and 'Fine'**:
  - **Above staff**
  - **Below staff**
  - **Above and below bottom staff**

5. Click **Apply**, then **Close**.

---

RESULT

The staff-relative placement of all repeat markers is changed in the selected layouts.

## Repeat counts

Repeat counts at end repeat barlines tell performers how many times to play through sections of music. This is particularly helpful for sections played through three or more times, as end repeat barlines typically indicate that the preceding music is played through twice.

By default, Dorico Elements shows repeat counts at system object positions for end repeat barlines set to have three or more playthroughs, when repeats are included in playback.

The image shows a musical score for 'Ter-ry Mc-Leare.' in G major (one sharp). The score consists of a vocal line and a piano accompaniment. The vocal line starts with a treble clef and a key signature of one sharp. The piano accompaniment starts with a grand staff (treble and bass clefs) and the same key signature. The music is in 4/4 time. The vocal line has a repeat sign at the end of the first measure, followed by three measures of rests, and then a final measure with a repeat sign and a 'Play 4 times' count. The piano accompaniment also has a repeat sign at the end of the first measure, followed by three measures of rests, and then a final measure with a repeat sign and a 'Play 4 times' count.

Repeat count at the end of a section, indicating it should be played four times

Repeat counts are right-aligned with their end repeat barline by default. You can change the location of repeat counts; for example, if you want to show repeat counts at both the start and end of repeated sections, or hide repeat counts entirely. Repeat counts shown at the start of repeated sections are left-aligned with start repeat barlines.

RELATED LINKS

[Changing the number of playthroughs at repeat barlines](#) on page 510

[Repeats in playback](#) on page 509

[Input methods for bars, beats, and barlines](#) on page 287

[System objects](#) on page 1196

[Changing the application language](#) on page 56

[Bar repeat counts](#) on page 1122


[Slash region counts](#) on page 1138

[Numbered bar region counts](#) on page 1128

## Changing the location of repeat counts

You can change the location of individual repeat counts relative to the repeated section. For example, if you want to show some repeat counts at the start of repeated sections or hide some repeat counts entirely. You can do this for the current layout and frame chain only, or for all layouts and frame chains.

PREREQUISITE

- Repeats are included in playback.
- The lower zone is shown.
- **Properties**  is selected in the lower zone toolbar.
- You have chosen the appropriate property scope for local properties.

#### PROCEDURE

1. Select the end repeat barlines or repeat counts whose count location you want to change. You can do this in Write mode and Engrave mode.
  2. In the Properties panel, activate **Count location** in the **Time Signatures** group.
  3. Select one of the following options from the menu:
    - **Start**
    - **End**
    - **Neither**
    - **Both**
- 

#### RESULT

The location of the selected repeat counts is changed. Repeat counts shown at the start of repeated sections are left-aligned with the start repeat barlines that correspond to the selected end repeat barlines.

If the property scope was set to **Locally**, this change only takes effect in the current layout and frame chain.

---

#### EXAMPLE



**Both** **Neither**

---

#### RELATED LINKS

[Repeats in playback](#) on page 509

[Hiding/Showing zones](#) on page 44

[Changing the property scope](#) on page 617

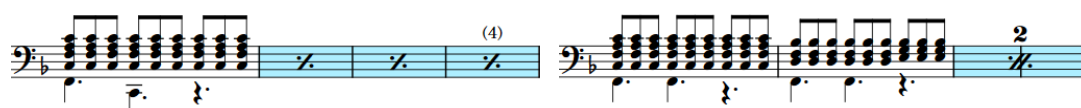
[Copying property settings to other layouts/frame chains](#) on page 599

[Moving items graphically](#) on page 481

# Bar repeats

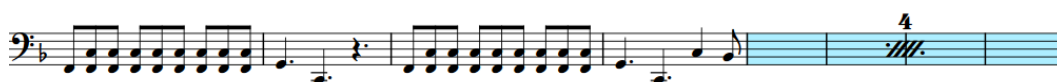
Bar repeats indicate that the musical material in preceding bars must be repeated exactly, but without notating that material again. Bar repeats can comprise groups of one, two, or four bars.

For example, a one-bar repeat indicates that the material in one bar is repeated, meaning every bar in the region repeats the same material. A four-bar repeat indicates that the material in the previous four bars is repeated.



One-bar repeat region

Two-bar repeat region

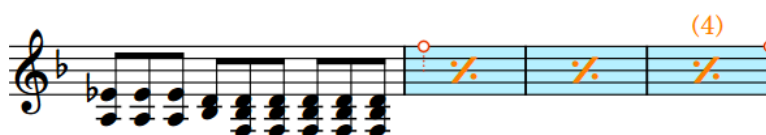


Four-bar repeat region

This notation short-hand can make repetitive music easier to read, as performers must only read the repeated phrase once and then simply count how many times they repeat it. Bar repeats can also save horizontal space, as bar repeat symbols are usually narrower than the equivalent fully written-out bars.

In Dorico Elements, bar repeat regions are used to display bar repeats, meaning as many bar repeat symbols as necessary to fill the region are shown automatically.

In Write mode, each region has a handle at the start and end, which you can use to move and lengthen/shorten regions.



By default, bar repeat regions are highlighted with a colored background. As you zoom out, the highlights become more opaque, which is especially useful when viewing full score layouts in galley view. These highlights are considered annotations, are not printed by default, and you can hide/show them.

You can also show adjacent bar repeat regions; for example, if you want to use a two-bar repeat in the first iteration of a phrase, and then a four-bar repeat to indicate the whole phrase is repeated. When two different bar repeat regions are adjacent, they alternate highlight colors to ensure the separate regions are always identifiable.



Phrase containing two adjacent bar repeat regions

#### RELATED LINKS

- [Inputting bar repeats](#) on page 399
- [Repeats popover](#) on page 387
- [Bar repeat counts](#) on page 1122
- [Bar repeat grouping](#) on page 1125
- [Numbered bar regions](#) on page 1127
- [Slash regions](#) on page 1132
- [Repeat counts](#) on page 1118
- [Moving notes/items rhythmically](#) on page 437
- [Lengthening/Shortening items](#) on page 410
- [Hiding/Showing multi-bar rests](#) on page 1152
- [Types of barlines](#) on page 735
- [Changing the number of playthroughs at repeat barlines](#) on page 510
- [Annotations](#) on page 554

## Changing the length of the repeated phrase in bar repeat regions


You can change the number of bars that make up the repeated phrase in individual bar repeats after you have input them; for example, if you want the region to repeat the previous two bars rather than the previous four bars.

#### NOTE

You cannot repeat more bars than exist before the bar repeat region. For example, if a bar repeat region follows the first notated bar in a flow, you cannot increase the number of bars in the repeated phrase.

---

#### PREREQUISITE

- The lower zone is shown.
- Properties**  is selected in the lower zone toolbar.

---

#### PROCEDURE

- Select the bar repeat regions whose phrase length you want to change. You can do this in Write mode and Engrave mode.
- In the Properties panel, select one of the following options from the **No. bars** menu in the **Bar Repeat Regions** group:
  - One bar**
  - Two bars**
  - Four bars**

---

#### RESULT

The number of bars that make up the repeated phrase in the selected bar repeat regions is changed. This is also reflected in playback.

#### TIP

- Any dynamics you add within bar repeat regions affect the playback of the repeated music.
  - You can also change the length of the repeated phrase by opening the repeats popover and changing the entry.
-

RELATED LINKS

- [Bar repeat grouping](#) on page 1125
- [Inputting bar repeats](#) on page 399
- [Repeats popover](#) on page 387
- [Changing existing items](#) on page 412

## Hiding/Showing region highlights

You can hide/show colored highlights for bar repeat and numbered bar regions at any time; for example, if you want to show the highlights when inputting music but hide them when engraving.

---

PROCEDURE

- Choose **View > Highlight Bar Repeat Regions**.
- 

RELATED LINKS

- [Numbered bar regions](#) on page 1127

## Bar repeat counts

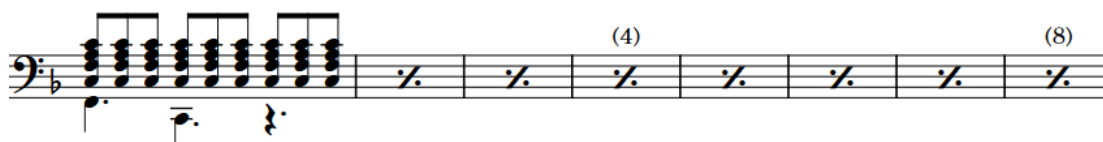
Bar repeat counts are numbers shown at regular intervals either above or below bar repeats, to help performers keep track of how many bars have passed. The intervals are usually based on typical musical phrases, such as every four or eight bars.

NOTE

Bar repeat counts are only shown on one-bar repeat regions.

---

Because bar repeats must start with a fully notated phrase of at least one bar, the bar repeat count starts from the notated bar rather than the first bar in the bar repeat region. For example, the third bar in a bar repeat region shows the count number 4, as that bar is the fourth time the original notated bar is played. Each bar repeat region has its own separate count.



Bar repeat region with counts shown every four bars

In Dorico Elements, you can change the start count of each bar repeat region, how frequently counts are shown, and whether counts are shown with parentheses, without parentheses, or hidden.

RELATED LINKS

- [Repeats popover](#) on page 387
- [Inputting bar repeats](#) on page 399
- [Bar repeat grouping](#) on page 1125
- [Hiding/Showing bar number ranges on multi-bar rests](#) on page 744
- [Hiding/Showing multi-bar rests](#) on page 1152
- [Repeat counts](#) on page 1118
- [Slash region counts](#) on page 1138
- [Numbered bar region counts](#) on page 1128


## Changing the start count of bar repeats

You can change the number from which individual bar repeats start; for example, if you want to notate the first bar in a repeated phrase at the start of each system, but show a continuous count across multiple bar repeats.

### NOTE

- The start count applies to the first bar in the bar repeat, which is the notated bar. For example, changing the start count of a one-bar repeat region lasting three bars to **5**, with bar repeat counts shown every four bars, causes the count at the end of the bar repeat region to show the number 8.
- Bar repeat counts are only shown on one-bar repeat regions.

### PREREQUISITE

- The lower zone is shown.
- **Properties**  is selected in the lower zone toolbar.

### PROCEDURE

1. Select the one-bar repeat regions whose start count you want to change. You can do this in Write mode and Engrave mode.
2. In the Properties panel, activate **Count from** in the **Bar Repeat Regions** group.
3. Change the value in the value field.

### RESULT

The start count of the selected bar repeat regions is changed. If the count frequency is every two bars or more, counts appear on different bars. For example, changing the start count from 1 to 2, with counts shown every four bars, causes the count to appear on the second bar in the bar repeat region instead of the third.

### EXAMPLE



The image shows three systems of musical notation in bass clef, 4/4 time. Each system contains a one-bar repeat region. The first bar of each system is a quarter note G, followed by a quarter rest, a quarter note B, and a quarter note D. The remaining three bars of each system are marked with repeat symbols. A count of (4) is shown at the end of each system.

Separate bar repeats on multiple systems in the same part layout with the default count



The image shows three systems of musical notation in bass clef, 4/4 time. Each system contains a one-bar repeat region. The first bar of each system is a quarter note G, followed by a quarter rest, a quarter note B, and a quarter note D. The remaining three bars of each system are marked with repeat symbols. A count of (12) is shown at the end of the third system.

Separate bar repeats on multiple systems in the same part layout with their counts changed to imply a continuous region

---

## Changing the bar repeat count frequency

You can change how often counts are shown on individual one-bar repeat regions; for example, if you want to show the count after eight bars on a single bar repeat region.




#### NOTE

Bar repeat counts are only shown on one-bar repeat regions.

---

#### PREREQUISITE

- The lower zone is shown.
  - **Properties**  is selected in the lower zone toolbar.
- 

#### PROCEDURE

1. Select the one-bar repeats whose count frequency you want to change. You can do this in Write mode and Engrave mode.
  2. In the Properties panel, activate **Count frequency** in the **Bar Repeat Regions** group.
  3. Change the value in the value field.
- 

#### RESULT

The count frequency is changed for the selected bar repeat regions.

#### RELATED LINKS

[Bar repeat counts](#) on page 1122

[Hiding/Showing bar number ranges on multi-bar rests](#) on page 744

## Hiding/Showing or parenthesizing bar repeat counts


You can hide counts or show counts with or without parentheses for individual bar repeat regions. You can do this for the current layout and frame chain only, or for all layouts and frame chains.

#### NOTE

Bar repeat counts are only shown on one-bar repeat regions.

---

#### PREREQUISITE

- The lower zone is shown.
  - **Properties**  is selected in the lower zone toolbar.
  - You have chosen the appropriate property scope for local properties.
- 

#### PROCEDURE

1. Select the one-bar repeats whose counts you want to hide/show or parenthesize. You can do this in Write mode and Engrave mode.
  2. In the Properties panel, activate **Count appearance** in the **Bar Repeat Regions** group.
  3. Select one of the following options from the menu:
    - **With parentheses**
    - **Without parentheses**
    - **Do not show**
-

#### RESULT

Counts in the selected bar repeat regions are shown with parentheses, without parentheses, or hidden. If the property scope was set to **Locally**, this change only takes effect in the current layout and frame chain.

#### RELATED LINKS

[Changing the property scope](#) on page 617

[Copying property settings to other layouts/frame chains](#) on page 599

## Bar repeat grouping

Bar repeat grouping allows you to consolidate longer bar repeat regions, which can be helpful in very regular music as it can simplify the overall phrasing.

The symbols shown on the staff are different for the different groupings, and two-bar and four-bar repeats also show a number to indicate how many bars are included in the group.



One-bar repeat symbol

Two-bar repeat symbol

Three-bar repeat symbol

Four-bar repeat symbol

You can specify the grouping when inputting bar repeats, and you can change the grouping of bar repeats after they have been input. Depending on where the bar repeat region starts and ends relative to the written material, Dorico Elements automatically adjusts the displayed symbols to achieve an accurate result. For example, an eight-bar phrase containing a single notated bar followed by seven one-bar repeats grouped every four bars is automatically shown with a one-bar repeat, two-bar repeat, then four-bar repeat to fill the seven bars.



Eight-bar phrase with seven one-bar repeats grouped every four bars

#### TIP

When showing multi-bar rests, you can also choose to consolidate one-bar repeat regions.

---

#### RELATED LINKS

[Repeats popover](#) on page 387

[Inputting bar repeats](#) on page 399

[Hiding/Showing multi-bar rests](#) on page 1152

## Changing bar repeat grouping

You can change how bar repeats are grouped after they have been input; for example, if you want to group a region of one-bar repeats every two bars.

#### PREREQUISITE

- The lower zone is shown.

- **Properties**  is selected in the lower zone toolbar.

---

#### PROCEDURE

1. Select the bar repeat regions whose grouping you want to change. You can do this in Write mode and Engrave mode.
2. In the Properties panel, select one of the following options from the **Group every** menu in the **Bar Repeat Regions** group:
  - **One bar**
  - **Two bars**
  - **Four bars**

#### NOTE

The options available depend on the minimum length of the selected bar repeat regions. For example, if you select bar repeat regions that last three bars, only **One bar** and **Two bars** are available in the menu.

---

#### RESULT

The grouping in the selected bar repeat regions is changed. Dorico Elements automatically calculates the clearest way to group the region. For example, an eight-bar phrase containing a single notated bar followed by seven one-bar repeats grouped every four bars is automatically shown with a one-bar repeat, two-bar repeat, then four-bar repeat to fill the seven bars.

# Numbered bar regions

Numbered bar regions allow you to show bar counts in specific regions without additional notations. This can help performers keep track of how many bars have passed when playing repetitive music.



Numbered bar region spanning six bars

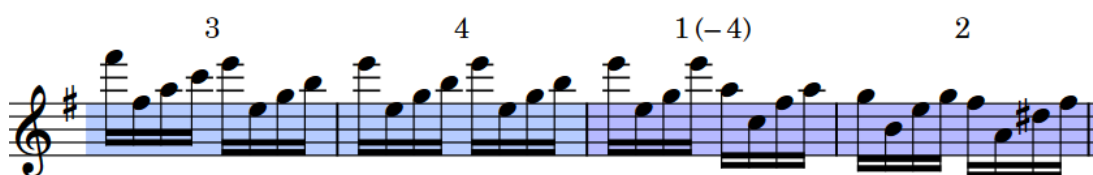
By default, numbered bar regions are hidden in full score/custom score layouts and shown in part layouts. You can hide/show numbered bar regions in each layout independently.

In Write mode, each region has a handle at the start and end, which you can use to move and lengthen/shorten regions.



By default, numbered bar regions are highlighted with a colored background. As you zoom out, the highlights become more opaque, which is especially useful when viewing full score layouts in galley view. These highlights are considered annotations, are not printed by default, and you can hide/show them.

When two different numbered bar regions are adjacent, they alternate highlight colors to ensure the separate regions are always identifiable.



Phrase containing two adjacent numbered bar regions

## RELATED LINKS

- [Inputting numbered bar regions](#) on page 400
- [Hiding/Showing region highlights](#) on page 1122
- [Lengthening/Shortening items](#) on page 410
- [Bar repeats](#) on page 1120
- [Slash regions](#) on page 1132
- [Repeat counts](#) on page 1118
- [Bar numbers](#) on page 742

## Hiding/Showing numbered bar regions

You can input numbered bar regions in any layout, but by default they do not appear in full score layouts, as they are normally most useful in part layouts. You can hide/show numbered bar regions in each layout independently.

---

### PROCEDURE

1. Press **Ctrl/Cmd-Shift-L** to open **Layout Options**.
  2. In the **Layouts** list, select the layouts in which you want to hide/show numbered bar regions. By default, the layout currently open in the music area is selected when you open the dialog. You can select other layouts by using the selection options in the action bar, clicking and dragging across multiple layouts, **Shift**-clicking adjacent layouts, and **Ctrl/Cmd**-clicking individual layouts.
  3. In the category list, click **Players**.
  4. In the **Numbered Bar Regions** section, activate/deactivate **Show bar count in numbered bar regions**.
  5. Click **Apply**, then **Close**.
- 

### RESULT

Numbered bar regions are shown in the selected layouts when the checkbox is activated, and hidden when the checkbox is deactivated.

## Numbered bar region counts

Numbered bar region counts are numbers shown at regular intervals either above or below the staff, to help performers keep track of how many bars have passed.

By default, bar counts are shown on every bar in numbered bar regions. They are also shown on the last bar in each system and on the first and last bars in each region, regardless of the count frequency.

When numbered bar regions last four or more bars, Dorico Elements adds the total range in parentheses to the count on the first bar, such as showing "1 (-8)" on the first bar in a numbered bar region lasting eight bars.



Numbered bar region with counts shown every three bars, count and range shown at the start, and parenthesized count shown at the end of the system

In Dorico Elements, you can change the start count of each numbered bar region, how frequently counts are shown, their staff-relative placement, and whether counts and ranges are shown with parentheses, without parentheses, or hidden.

### RELATED LINKS

[Inputting numbered bar regions](#) on page 400

[Repeat counts](#) on page 1118


[Bar repeat counts](#) on page 1122

[Slash region counts](#) on page 1138

## Changing the start count of numbered bar regions

You can change the number from which individual numbered bar regions start; for example, if you want to show a continuous count across multiple numbered bar regions.

### PREREQUISITE

- The lower zone is shown.
- **Properties**  is selected in the lower zone toolbar.

---

### PROCEDURE

1. Select the numbered bar regions whose start count you want to change. You can do this in Write mode and Engrave mode.
2. In the Properties panel, activate **Count from** in the **Bar Repeat Regions** group.
3. Change the value in the value field.

---


### RESULT

The start count of the selected numbered bar regions is changed. If the count frequency is every two bars or more, counts appear on different bars. For example, changing the start count from 1 to 2, with counts shown every four bars, causes the count to appear on the third bar in the region instead of the fourth.

## Changing the numbered bar region count frequency

You can change how frequently counts are shown in individual numbered bar regions; for example, if you want to show the count after eight bars in a single numbered bar region.

### PREREQUISITE

- The lower zone is shown.
- **Properties**  is selected in the lower zone toolbar.

---

### PROCEDURE

1. Select the numbered bar regions whose count frequency you want to change. You can do this in Write mode and Engrave mode.
2. In the Properties panel, activate **Count frequency** in the **Bar Repeat Regions** group.
3. Change the value in the value field.

---

### RESULT

The count frequency is changed for the selected numbered bar regions.


### RELATED LINKS

[Hiding/Showing bar number ranges on multi-bar rests](#) on page 744

## Hiding/Showing or parenthesizing numbered bar region counts

You can show counts with or without parentheses for individual numbered bar regions. You can also hide/show or parenthesize counts at the ends of systems and on the first and last bars in each region independently of each other. You can do this for the current layout and frame chain only, or for all layouts and frame chains.

#### PREREQUISITE

- The lower zone is shown.
- **Properties**  is selected in the lower zone toolbar.
- You have chosen the appropriate property scope for local properties.

---

#### PROCEDURE

1. Select the numbered bar regions whose counts you want to hide/show or parenthesize. You can do this in Write mode and Engrave mode.
2. In the Properties panel, activate **Count appearance** in the **Bar Repeat Regions** group.
3. Select one of the following options from the menu:
  - **Without parentheses**
  - **With parentheses**
4. Activate **Range appearance** and select one of the following options from the menu:
  - **With parentheses**
  - **Without parentheses**
  - **No range**
5. Activate the following properties, individually or together, to change the appearance of the corresponding count:
  - **Show in first bar**
  - **Show in final bar**
  - **Show at ends of systems**
6. Select one of the following options from each menu:
  - **With parentheses**
  - **Without parentheses**
  - **Do not show**

---

#### RESULT

The corresponding counts and ranges in the selected numbered bar regions are shown with parentheses, without parentheses, or hidden. If the property scope was set to **Locally**, this change only takes effect in the current layout and frame chain.

---

#### EXAMPLE



The example shows two musical staves. The left staff has three measures with notes and stems. Above the first measure is '1-4', above the second is '2', and above the third is '3'. The right staff has three measures with notes and stems. Above the first measure is '(1)', above the second is '(2)', and above the third is '(3)'. Below the staves are two captions: 'Counts and range shown without parentheses' under the left staff and 'Range hidden and counts shown with parentheses' under the right staff.

---

#### RELATED LINKS

- [Numbered bar region counts](#) on page 1128
- [Inputting numbered bar regions](#) on page 400
- [Changing the property scope](#) on page 617
- [Copying property settings to other layouts/frame chains](#) on page 599

## Changing the staff-relative placement of numbered bar region counts


You can show the counts in individual numbered bar regions either above or below the staff. You can do this for the current layout and frame chain only, or for all layouts and frame chains.

### NOTE

Changing the staff-relative placement of counts affects all counts in the region. You cannot change the placement of a single count independently of other counts in the region.

---

### PREREQUISITE

- The lower zone is shown.
  - **Properties**  is selected in the lower zone toolbar.
  - You have chosen the appropriate property scope for local properties.
- 

### PROCEDURE

1. Select the numbered bar regions whose count staff-relative placement you want to change. You can do this in Write mode and Engrave mode.
  2. In the Properties panel, activate **Staff-relative position** in the **Bar Repeat Regions** group.
  3. Choose one of the following options:
    - **Above**
    - **Below**
- 

### RESULT

The staff-relative placement of all counts in the selected numbered bar regions is changed. If the property scope was set to **Locally**, this change only takes effect in the current layout and frame chain.

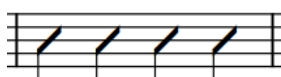


# Rhythm slashes

Rhythm slashes are diagonal lines positioned on staves that are used to indicate that performers should play something, but without specifying the exact rhythms and pitches. They are often accompanied by chord symbols to indicate the set of notes the performer should use.

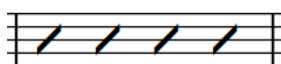
There are two different types of rhythm slashes:

## Slashes with stems



Slashes with stems usually indicate the rhythm to be played, but not the pitches. Also known as “rhythmic notation”.

## Slashes without stems



Slashes without stems do not usually indicate either rhythms or pitches. Also known as “slash notation”

In Dorico Elements, you can present both types of rhythm slashes simultaneously by using a combination of slash regions and slash voices.

## RELATED LINKS

[Slash voices](#) on page 1141

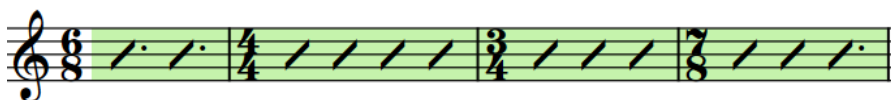
[Inputting notes into slash voices](#) on page 223

[Chord symbols](#) on page 782

[Hiding/Showing chord symbols](#) on page 789

## Slash regions

Slash regions automatically display rhythm slashes as appropriate for the meter throughout their duration; for example, they show four slashes per bar in 4/4 and two slashes per bar in 6/8 by default. A single slash region can extend across multiple different meters.



A single slash region covering multiple different meters

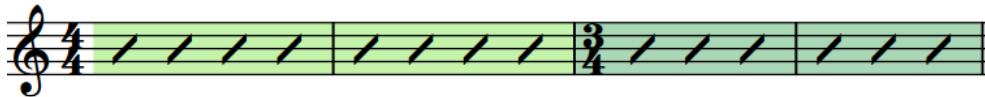
Multiple slash regions can exist at the same rhythmic position. When slash regions overlap, Dorico Elements treats this as a multiple-voice context and changes the staff position of slashes automatically.

In Write mode, each region has a handle at the start and end, which you can use to move and lengthen/shorten regions.



By default, slash regions are highlighted with a colored background. As you zoom out, the highlights become more opaque, which is especially useful when viewing full score layouts in galley view. These highlights are considered annotations, are not printed by default, and you can hide/show them.

When two different slash regions are adjacent, they alternate highlight colors to ensure the separate regions are always identifiable.



Two adjacent slash regions with different highlight colors

You can use slash regions and slash voices in the same project and at the same rhythmic positions; for example, you can input a slash region where you do not want to be specific about the rhythm, then input notes in a slash voice for a single bar where you want to specify an exact rhythm.

#### TIP

Because rhythm slashes are often accompanied by chord symbols to indicate the set of notes the performer should use, you can hide/show chord symbols in slash/chord symbol regions on instrument staves where chord symbols are hidden.

#### RELATED LINKS

[Inputting slash regions](#) on page 398

[Slash voices](#) on page 1141

[Slash region counts](#) on page 1138

[Slashes in multiple-voice contexts](#) on page 1134

[Moving notes/items rhythmically](#) on page 437

[Lengthening/Shortening items](#) on page 410

[Hiding/Showing notes alongside slash regions](#) on page 1136

[Hiding/Showing chord symbols](#) on page 789

[Chord symbol regions](#) on page 793

[Numbered bar regions](#) on page 1127

[Bar repeats](#) on page 1120

[Repeat counts](#) on page 1118

[Annotations](#) on page 554

## Note grouping in slash regions

You can find options to control the grouping and duration of rhythm slashes in slash regions in each flow independently in **Notation Options > Note Grouping > Rhythmic Slashes**.

The available options include changing whether rhythm slashes follow the beat grouping or the time signature denominator, and set the duration for rhythm slashes in open meter. For example, you can show six slashes in 6/8 instead of two dotted slashes.


Musical examples demonstrate how each option affects the appearance of your music.



## Changing the voice direction of slash regions

You can change the voice direction of slash regions individually. When multiple slash regions overlap, this affects their stem directions.

### PREREQUISITE

- The lower zone is shown.
- **Properties**  is selected in the lower zone toolbar.

---

### PROCEDURE

1. Select any part of each slash region whose voice direction you want to change. You can do this in Write mode and Engrave mode.
2. In the Properties panel, activate **Voice direction** in the **Slash Regions** group.
3. Choose one of the following options:
  - **Up**
  - **Down**

---

### RESULT

The voice direction, and therefore stem direction, of the selected slash regions is changed.

### NOTE

This only affects the direction of stems in slash regions on the middle line of the staff and when multiple slash regions exist at the same rhythmic position. For example, if you change the voice direction of a slash region on the bottom line of the staff to **Down**, its stem direction does not change if it does not overlap with another slash region.

---


### RELATED LINKS

[Stem direction](#) on page 961

## Changing the staff position of rhythm slashes

You can change the staff position of rhythm slashes in both slash voices and slash regions; for example, to accommodate other notes at the same rhythmic positions better. By default, rhythm slashes are positioned on the middle line of the staff.

### PREREQUISITE

- The lower zone is shown.
- **Properties**  is selected in the lower zone toolbar.

---

### PROCEDURE

1. Select the rhythm slashes whose staff position you want to change. You can do this in Write mode and Engrave mode.
  - For notes in slash voices, you must select every note whose staff position you want to change.
  - For slash regions, you can select any part of each region whose staff position you want to change.
2. In the Properties panel, activate **Slash pos.** in the corresponding group for the type of rhythm slash whose staff position you want to change:

- **Notes and Rests** for notes in slash voices
  - **Slash Regions** for slash regions
3. Change the value in the value field.
- 

#### RESULT


The staff position of the selected rhythm slashes is changed. For example, changing the **Slash pos.** value to **4** positions rhythm slashes on the top line of a five-line staff, while **-4** positions them on the bottom line.

If any of the rhythm slashes have stems, their stem direction is adjusted automatically.

## Hiding/Showing notes alongside slash regions

You can hide/show notes at the same rhythmic positions as slash regions; for example, if you want to input notes to hear in playback but only want to show the slash region, or if you want to notate suggested notes in addition to the slash region.

#### PREREQUISITE

- The lower zone is shown.
  - **Properties**  is selected in the lower zone toolbar.
- 

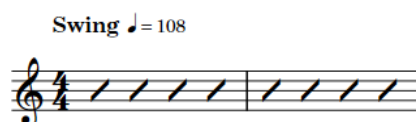
#### PROCEDURE

1. Select any part of each slash region alongside which you want to hide/show other notes. You can do this in Write mode and Engrave mode.
  2. In the Properties panel, activate/deactivate **Show other voices** in the **Slash Regions** group.
- 

#### RESULT

All notes in other voices present alongside the selected slash regions are shown when **Show other voices** is activated, and hidden when it is deactivated.

#### EXAMPLE



Notes hidden alongside a slash region



Notes shown alongside a slash region

#### RELATED LINKS

[Slash regions](#) on page 1132

[Slash voices](#) on page 1141

[Hiding/Showing slash region highlights](#) on page 1134

[Inputting slash regions](#) on page 398


## Hiding/Showing padding rests before/after slash regions

You can hide/show padding rests before/after slash regions that start partway through bars individually; for example, if you have other notes at those positions and the rests would be

misleading. You can do this for the current layout and frame chain only, or for all layouts and frame chains.

By default, Dorico Elements automatically shows implicit padding rests around slash regions that start/end partway through bars, so that the full duration of each bar is clear.

#### PREREQUISITE

- The lower zone is shown.
- **Properties**  is selected in the lower zone toolbar.
- You have chosen the appropriate property scope for local properties.

---

#### PROCEDURE

1. Select any part of each slash region whose padding rests you want to hide/show. You can do this in Write mode and Engrave mode.
2. In the Properties panel, activate the following properties, individually or together, in the **Slash Regions** group:
  - **Hide rests before start**
  - **Hide rests after end**

---

#### RESULT

Padding rests are hidden on the corresponding side of the selected slash regions. For example, activating both properties hides padding rests both before and after the selected slash regions. If the property scope was set to **Locally**, this change only takes effect in the current layout and frame chain.

#### RELATED LINKS

[Implicit vs. explicit rests](#) on page 1145

[Changing the property scope](#) on page 617


[Copying property settings to other layouts/frame chains](#) on page 599

## Splitting slash regions

You can split slash regions after they have been input; for example, if you later want to input more precise notation in the middle of an existing slash region.

---

#### PROCEDURE

1. In Write mode, select a slash in each slash region you want to split, immediately to the right of where you want to split them.
2. Split the slash regions in any of the following ways:
  - Press **U**.
  - In the Notes toolbox, click **Scissors** .

---

#### RESULT

The slash regions are split immediately to the left of the selected slashes. Each part now has its own start/end handles, which you can use to lengthen/shorten each part independently.

#### RELATED LINKS

[Notes toolbox](#) on page 187

[Slash regions](#) on page 1132

[Changing the slash region count frequency](#) on page 1139


[Lengthening/Shortening items](#) on page 410

[Moving notes/items rhythmically](#) on page 437

## Hiding/Showing stems in slash regions

You can hide/show stems and beams, where applicable, on slashes in individual slash regions. By default, slashes in slash regions are shown without stems.

### PREREQUISITE

- The lower zone is shown.
- **Properties**  is selected in the lower zone toolbar.

---

### PROCEDURE

1. Select any part of each slash region in which you want to hide/show stems. You can do this in Write mode and Engrave mode.
2. In the Properties panel, activate **Slash type** in the **Slash Regions** group.
3. Choose one of the following options:
  - **With stems**
  - **Without stems**

---

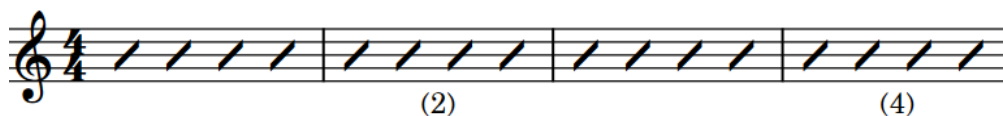
### RESULT

Stems are hidden in the selected slash regions when you choose **Without stems**, and shown when you choose **With stems**. If appropriate for the prevailing meter, such as 3/8, beams are shown in addition to stems.

## Slash region counts

Slash region counts are numbers shown at regular intervals, either above or below slash regions, to help performers keep track of how many bars have passed. The intervals are usually based on typical musical phrases, such as every four or eight bars.

By default, slash region counts are shown in parentheses every four bars and are placed below the staff. Each slash region has its own separate count.



Slash region with counts shown every two bars

In Dorico Elements, you can change the start count of each slash region, how frequently counts are shown, their staff-relative placement, and whether counts are shown with parentheses, without parentheses, or hidden.

### RELATED LINKS

[Slash regions](#) on page 1132

[Repeat counts](#) on page 1118


[Bar repeat counts](#) on page 1122

[Numbered bar region counts](#) on page 1128

## Changing the start count of slash regions

You can change the number from which individual slash region counts start; for example, if you want to input more precise notation between two slash regions but want the count to appear to continue across the regions.

### PREREQUISITE

- The lower zone is shown.
- **Properties**  is selected in the lower zone toolbar.

---

### PROCEDURE

1. Select any part of each slash region whose start count you want to change. You can do this in Write mode and Engrave mode.
2. In the Properties panel, activate **Count from** in the **Slash Regions** group.
3. Change the value in the value field.

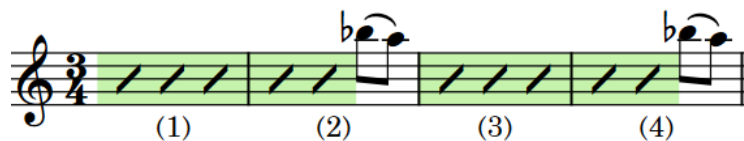
---

### RESULT

The start count of the selected slash regions is changed. If the count frequency is every two bars or more, counts appear on different bars. For example, changing the start count from 1 to 2, with counts shown every four bars, causes the count to appear on the third bar in the region instead of the fourth.

---

### EXAMPLE




Two separate slash regions, where the start count in the second region has been changed so it appears to continue on from the first region.

---

## Changing the slash region count frequency

You can change how frequently counts are shown on individual slash regions; for example, if you want to show the count after eight bars on a single slash region. By default, slash region counts are shown every four bars.

### PREREQUISITE

- The lower zone is shown.
- **Properties**  is selected in the lower zone toolbar.

---

### PROCEDURE

1. Select any part of each slash region whose count frequency you want to change. You can do this in Write mode and Engrave mode.
2. In the Properties panel, activate **Count frequency** in the **Slash Regions** group.
3. Change the value in the value field.

---

### RESULT

The count frequency is changed for the selected slash regions.



RELATED LINKS


[Splitting slash regions](#) on page 1137

[Hiding/Showing bar number ranges on multi-bar rests](#) on page 744

## Hiding/Showing or parenthesizing slash region counts

You can hide counts or show counts with or without parentheses for individual slash regions. You can do this for the current layout and frame chain only, or for all layouts and frame chains.

PREREQUISITE

- The lower zone is shown.
- **Properties**  is selected in the lower zone toolbar.
- You have chosen the appropriate property scope for local properties.

---

PROCEDURE

1. Select any part of each slash region whose counts you want to hide/show or parenthesize. You can do this in Write mode and Engrave mode.
2. In the Properties panel, activate **Count appearance** in the **Slash Regions** group.
3. Select one of the following options from the menu:
  - **With parentheses**
  - **Without parentheses**
  - **Do not show**

---

RESULT

Counts in the selected slash regions are shown with parentheses, without parentheses, or hidden. If the property scope was set to **Locally**, this change only takes effect in the current layout and frame chain.

RELATED LINKS

[Changing the property scope](#) on page 617

[Copying property settings to other layouts/frame chains](#) on page 599

## Changing the staff-relative placement of slash region counts


You can show the counts in individual slash regions either above or below the staff. You can do this for the current layout and frame chain only, or for all layouts and frame chains.

NOTE

Changing the staff-relative placement of counts affects all counts in the region. You cannot change the placement of a single count independently of other counts in the region.

---

PREREQUISITE

- The lower zone is shown.
- **Properties**  is selected in the lower zone toolbar.
- You have chosen the appropriate property scope for local properties.

---

#### PROCEDURE

1. Select any part of each slash region whose count staff-relative placement you want to change. You can do this in Write mode and Engrave mode.
  2. In the Properties panel, activate **Count position** in the **Slash Regions** group.
  3. Choose one of the following options:
    - **Above**
    - **Below**
- 

#### RESULT

The staff-relative placement of all counts in the selected slash regions is changed. If the property scope was set to **Locally**, this change only takes effect in the current layout and frame chain.

#### RELATED LINKS

[Moving items graphically](#) on page 481

## Slash voices

Slash voices allow you to notate specific rhythms for rhythm slashes. They behave similarly to normal voices as you must input notes and rhythms manually, but all notes in slash voices are positioned by default on the middle line of the staff, regardless of the pitches you input.

If you later change the time signature, such as from 3/4 to 6/8, Dorico Elements only changes the note grouping to fit the meter just like for other notes; it does not change the presentation of rhythm in slash voices like it does for slash regions.

#### NOTE

- Because you can change notes in slash voices to normal voices and vice versa, the pitches you input are retained.
  - Notes in slash voices are not played back.
- 

You can have multiple slash voices active at the same time. To accommodate all slash voices in multiple-voice contexts, Dorico Elements changes their staff position automatically. However, you can also change the staff position of rhythm slashes manually.

You can use slash regions and slash voices in the same project and at the same rhythmic positions; for example, you can input a slash region where you do not want to be specific about the rhythm, then input notes in a slash voice for a single bar where you want to specify an exact rhythm.

#### RELATED LINKS

[Rhythm slashes](#) on page 1132

[Slash regions](#) on page 1132

[Slashes in multiple-voice contexts](#) on page 1134

[Implicit rests in multiple-voice contexts](#) on page 1146

[Inputting notes into slash voices](#) on page 223

[Changing the voice of existing notes](#) on page 442

## Changing the slash voice type

You can change the voice type of slash voices; for example, if you want to change a slash voice from having stems to being stemless. You can also change the type to normal notes, which restores the original pitches you input, and change normal notes to rhythm slashes.

### NOTE

This affects all notes in the same voice. If you only want to change the slash voice type of some notes, you must change the voice of those notes instead.

---

### PROCEDURE

1. Select a note in the voice whose slash type you want to change. You can do this in Write mode and Engrave mode.
2. Choose **Edit > Notations > Voices > Rhythmic Slashes > [Voice type]**.  
For example, to change a whole normal voice to a stemless slash voice, choose **Edit > Notations > Voices > Rhythmic Slashes > Slashes without Stems**.

### TIP

You can also choose these options from the context menu.

---

### RESULT

The slash voice type of all notes in the same voice and flow as the selected note is changed.

If you change normal notes to a slash voice, they are all automatically positioned on a single staff line. By default in single-voice contexts, this is the middle line of the staff.

If you change rhythm slashes to normal notes, their original pitches are restored, meaning their staff positions reflect their pitches.

### RELATED LINKS

[Inputting notes into slash voices](#) on page 223

[Changing the voice of existing notes](#) on page 442

## Adding slash voices to percussion kits


You can add slash voices to percussion kits; for example, to show the desired rhythm for a passage without specifying the instruments to be played. You can add multiple slash voices to the same kit, including slash voices with and without stems.



### NOTE

Rhythm slashes in percussion kits only appear when the five-line staff presentation is used. They do not appear in grid or single-line instrument presentations.

---

### PROCEDURE

1. In Setup mode, in the **Players** panel, expand the card of the player holding the percussion kit to which you want to add slash voices.
2. In the kit instrument label, click the instrument menu  and choose **Edit Percussion Kit** to open the **Edit Percussion Kit** dialog.
3. In the action bar below the five-line staff editor, click the button that corresponds to the type of slash voice you want to add.

- Slashes with stems 
  - Slashes without stems 
- 

#### RESULT

The corresponding type of slash voice is added to the kit. It is positioned on the middle line of the staff by default.

During note input, you can move the caret to slash voices just like moving it to other instruments in the kit, and input notes into slash voices just like inputting notes in percussion kit instruments.

#### AFTER COMPLETING THIS TASK

You can change the staff position of slash voices in the kit.

#### RELATED LINKS

[Percussion kit presentation types](#) on page 1293

[Voices in percussion kits](#) on page 1300

[Players panel](#) on page 107

[Edit Percussion Kit dialog](#) on page 150

[Inputting notes for unpitched percussion](#) on page 227









[Changing the positions of instruments within percussion kits](#) on page 156

# Rests

Rests are markings with a rhythmic value that indicate no note is played for that duration. Each note duration has an equivalent rest; for example, a quarter note rest is different to a sixteenth note rest.

All notes and rests within a bar must add up to the duration of the bar, according to the prevailing time signature. Dorico Elements automatically fills the gaps between notes with implicit rests of the appropriate duration. Therefore, it is usually not necessary to input rests in Dorico Elements.

The table shows some examples of notes and the rests with the equivalent rhythmic value.

Duration	Note	Rest
Half		
Quarter		
Eighth		
Sixteenth		

## RELATED LINKS

[Inputting rests](#) on page 235

[Deleting rests](#) on page 1149

[Inputting notes](#) on page 211

[Rests within beams](#) on page 771

[Note and rest grouping](#) on page 774

[Implicit rests in multiple-voice contexts](#) on page 1146

[Showing figured bass on rests](#) on page 860

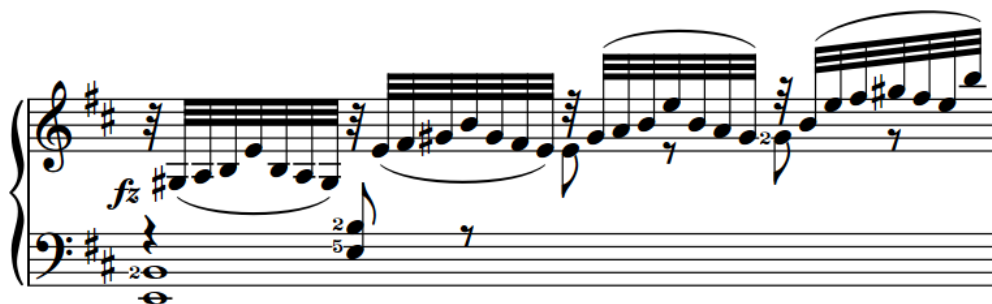
## General placement conventions for rests

Rests are positioned at the rhythmic position at the start of their duration, and not in the middle of beats as this can cause confusion over when the rest begins and ends. Rests are aligned with other items at the same rhythmic position.

The only exception is whole bar rests, which are positioned at the visual center of bars. This way, they are clearly distinguishable from half note and whole note rests that are followed by notes in the same bar.

Rests stay within the staff wherever possible. They do not move above or below the staff when the notes around them are very high or very low.

However, on staves with multiple voices, rests are placed higher on the staff, or above the staff, for up-stem voices and lower on the staff, or below the staff, for down-stem voices.



Example rest positions in a multiple-voice context

Rests in multiple voices must not overlap. You can consolidate rests so that only one is shown when multiple voices have a rest of the same duration at the same rhythmic position.

The precise vertical positioning of rests is limited, as their detailed shapes require specific positions relative to staff lines and staff spaces.

#### RELATED LINKS

[Voices](#) on page 1303

[Inputting notes into multiple voices](#) on page 221

[Creating cross-staff beams/tremolos](#) on page 764

## Implicit vs. explicit rests

Implicit rests are automatically shown between the notes you input, and their duration automatically follows the time signature and their position in the bar. Explicit rests are rests that are explicitly entered during note input by forcing their duration, or rests that were imported from a MusicXML file.

Dorico Elements notates implicit rests according to the prevailing time signature; for example, different implicit rests are shown in 6/8 compared to 4/4. This also applies if you later change the time signature for existing notes and rests.

Therefore, it is not necessary to input rests in Dorico Elements, as implicit rests are automatically shown around the notes that you input. You can turn implicit rests into explicit rests by forcing their duration to be fixed.



A quarter note input at the fourth eighth note of the bar in a 6/8 time signature has a dotted quarter implicit rest at the start of the bar.



A quarter note input at the fourth eighth note of the bar in a 4/4 time signature has two implicit rests, a quarter and an eighth, at the start of the bar.

Explicit rests cannot be suppressed when using the **Starts voice** and **Ends voice** properties to hide rests before the first note in voices and after the last note in voices.

You can show rest colors to see which rests are implicit and which are explicit in your project.

RELATED LINKS

[Inputting rests](#) on page 235

[Inputting notes](#) on page 211

[Deleting rests](#) on page 1149

[Forcing the duration of notes/rests](#) on page 250

[Turning explicit rests into implicit rests](#) on page 1147

[Hiding/Showing rest colors](#) on page 1148

## Implicit rests in multiple-voice contexts

In Dorico Elements, implicit rests are shown automatically to fill in rhythmic positions around notes, including when there are multiple voices on the staff. However, in these contexts you might want more control over when and where rests are shown.

Usually, rests or notes are shown for whole bars when voices contain at least one note in the bar. This helps make the rhythmic position of every note in all voices in the bar immediately clear.

When there are multiple voices on a staff, implicit rests are shown in every bar in which there are notes of any duration in more than one voice. Bar rests are always shown for the first voice on a staff, including in bars that only contain notes in a slash voice.

However, there might be circumstances in which you do not want to show rests either before the first note in a voice or after the last note in a voice when there are multiple voices on the staff. For example, it can be useful to hide rests when a voice is being used to show passing notes within a bar that otherwise contains a single melodic line.



A second voice used to notate passing notes

You can choose when rests are shown in a number of different multiple-voice contexts in each flow independently on the **Rests** page in **Notation Options**.

You can also delete rests from selected passages.

### TIP

By default, Dorico Elements consolidates rests when multiple voices have rests of the same duration at the same rhythmic position.

You can show multiple rests at individual rhythmic positions by changing the vertical position of rests. You can also change your per-flow settings for the consolidation of rests in multiple-voice contexts on the **Rests** page in **Notation Options**.

---



A phrase with multiple voices showing implicit rests. The same phrase without implicit rests.

#### RELATED LINKS

- [Notation Options dialog](#) on page 679
- [Per-flow notation options for rests](#) on page 1147
- [Moving rests vertically](#) on page 1148
- [Deleting rests](#) on page 1149
- [Slash voices](#) on page 1141

## Turning explicit rests into implicit rests

Implicit rests and explicit rests behave differently. For example, you can hide implicit rests using the Properties panel, but you cannot hide explicit rests or rests with forced durations.

#### NOTE

You can only hide implicit rests using **Starts voice** and **Ends voice** in the **Notes and Rests** group of the Properties panel.

---

#### PROCEDURE

1. In Write mode, select the explicit rests you want to turn into implicit rests.
  2. Press **Backspace or Delete**.
- 

#### RESULT

The selected explicit rests are now implicit rests. You can check this by showing rest colors.

#### RELATED LINKS

- [Hiding/Showing rest colors](#) on page 1148
- [Deleting rests](#) on page 1149

## Per-flow notation options for rests

You can find per-flow options controlling how rests are positioned and notated, and when rests are shown, on the **Rests** page in **Notation Options**.

For example, you can change whether bar rests are shown in additional voices, when dotted rests are permitted, and the default positions of rests in different contexts. You can also change whether rests of the same duration and at the same rhythmic position in different voices are consolidated into a single rest.

Musical examples demonstrate how each option affects the appearance of your music.



RELATED LINKS

[Notation Options dialog](#) on page 679

[Voices](#) on page 1303

[Per-flow notation options for voices](#) on page 1304

[Stem direction](#) on page 961

## Hiding/Showing rest colors

You can hide/show rest colors, which causes implicit rests and explicit rests to appear with different colors.

When rest colors are shown, implicit rests appear gray and explicit rests appear black. For example, this can help diagnose why rests do not disappear when you activate **Starts voice** and **Ends voice**, as these properties only hide implicit rests.

---

PROCEDURE

- Choose **View > Note And Rest Colors > Implicit Rests**.

---

RESULT

Rest colors are hidden/shown.

---

EXAMPLE



Rest colors hidden



Rest colors shown

---

AFTER COMPLETING THIS TASK


You can delete rests that you have identified as explicit rests. The implicit rests that replace them now respect the **Starts voice** and **Ends voice** properties.

## Moving rests vertically

You can change the vertical position of rests individually; for example, if you want to change the staff line from which a whole bar rest hangs, or you want to show rests for all voices at a particular rhythmic position. You can do this for the current layout and frame chain only, or for all layouts and frame chains.

Moving rests vertically shows multiple rests at that rhythmic position if more than one voice on the staff has a rest of the same duration. By default, Dorico Elements consolidates coincident rests of the same duration in multiple-voice contexts and automatically positions rests in multiple-voice contexts to avoid collisions.

PREREQUISITE

- The lower zone is shown.
- **Properties**  is selected in the lower zone toolbar.
- You have chosen the appropriate property scope for local properties.

---

#### PROCEDURE

1. Select the rests whose vertical positions you want to change, or rests at the rhythmic positions where you want to see rests for every voice. You can do this in Write mode and Engrave mode.
  2. In the Properties panel, activate **Rest pos.** in the **Notes and Rests** group.
  3. Change the value in the value field.
- 

#### RESULT

Increasing the value moves rests upwards, decreasing the value moves rests downwards. Position 0 is the middle line of the staff. If there are multiple voices on the staff with rests of the same duration at the same rhythmic position, multiple rests are now shown.

If the property scope was set to **Locally**, this change only takes effect in the current layout and frame chain.

---

#### TIP

- Deactivating **Rest pos.** returns the selected rests to their default positions.
  - You can choose to show coincident rests of the same duration in every voice or only show one rest for all voices in the **Rest positioning** section of the **Rests** page in **Notation Options**.
- 

#### RELATED LINKS

[Notation Options dialog](#) on page 679

[Note spacing](#) on page 579

[Changing the property scope](#) on page 617

[Copying property settings to other layouts/frame chains](#) on page 599

## Deleting rests

You can delete both implicit rests and explicit rests; for example, if you want to hide rests before/after notes in another voice used to show passing notes.

---

#### TIP

- If you want to delete rests because you want to remove the corresponding duration from the flow, you can instead delete bars/beats.
  - If you want to delete rests because you do not want to show bar rests in empty bars, you can instead hide bar rests.
  - If you want to delete rests because multiple rests of the same duration appear at the same position in multiple-voice contexts, you can choose to consolidate these rests in **Notation Options > Rests > Rest Positioning**.
- 

#### PROCEDURE

1. In Write mode, select the rests you want to delete.

---

#### TIP

You can select rests individually, or make a larger selection that contains the rests you want to delete.

---

## 2. Choose **Edit > Remove Rests**.

---

### RESULT

All rests in the selection are deleted. This is done by automatically activating **Starts voice** and **Ends voice** in the **Notes and Rests** group of the Properties panel on the notes or rests immediately to the right/left of deleted rests, so that no rests are shown in the selected regions.

### NOTE

- You can show rests again later by selecting the notes or rests immediately to the right/left of deleted rests, then deactivating the corresponding **Starts voice** or **Ends voice** properties in the **Notes and Rests** group of the Properties panel.
  - You can assign a key command for **Remove Rests** on the **Key Commands** page in **Preferences**.
  - In layouts where no other notes, rests, or items with duration exist at rhythmic positions where you have deleted rests, Dorico Elements has nothing to use to calculate horizontal spacing. Therefore, such empty bars/beats can appear narrower.
- 

### EXAMPLE



A phrase with multiple voices showing implicit rests. The same phrase after deleting the rests.

---

### RELATED LINKS

[Notation Options dialog](#) on page 679

[Implicit vs. explicit rests](#) on page 1145

[Large selections](#) on page 403

[Deleting bars/beats](#) on page 729

[Note spacing](#) on page 579

[Changing the horizontal justification of final systems](#) on page 569

## Hiding/Showing bar rests in empty bars

You can hide/show bar rests in empty bars in each layout independently. For example, you can hide bar rests in full score layouts but show bar rests in part layouts.

Bar rests are usually shown in empty bars in music to indicate to performers that they have nothing to play. However, there are contexts in which it is preferable to hide bar rests in empty bars, and instead leave the bar completely empty.

For example, hiding bar rests in empty bars is sometimes the preferred visual aesthetic in large scores, so that it is quicker to identify bars containing music. You can also hide bar rests in layouts where you want to include other instructions, such as verbal indications for performers to do something other than play notated pitches.

---

#### PROCEDURE

1. Press **Ctrl/Cmd-Shift-L** to open **Layout Options**.
  2. In the **Layouts** list, select the layouts in which you want to hide/show bar rests in empty bars.  
By default, the layout currently open in the music area is selected when you open the dialog. You can select other layouts by using the selection options in the action bar, clicking and dragging across multiple layouts, **Shift**-clicking adjacent layouts, and **Ctrl/Cmd**-clicking individual layouts.
  3. In the category list, click **Players**.
  4. In the **Bar Rests and Multi-bar Rests** section, activate/deactivate **Show bar rests in empty bars**.
  5. Click **Apply**, then **Close**.
- 

#### RESULT

All bar rests in empty bars in the selected layouts are shown when the checkbox is activated, and hidden when the checkbox is deactivated.

#### RELATED LINKS

[Hiding/Showing multi-bar rests](#) on page 1152

## Hiding/Showing bar rests in additional voices

You can hide/show bar rests between notes or explicit rests in additional voices on a per-flow basis; for example, you might show bar rests in contrapuntal music to ensure each voice can be easily followed.

---

#### PROCEDURE

1. Press **Ctrl/Cmd-Shift-N** to open **Notation Options**.
  2. In the **Flows** list, select the flows in which you want to hide/show bar rests in additional voices.  
By default, only the current flow is selected when you open the dialog. You can select other flows by clicking **Select All** in the action bar, clicking and dragging across multiple flows, **Shift**-clicking adjacent flows, and **Ctrl/Cmd**-clicking individual flows.
  3. In the category list, click **Rests**.
  4. In the **Rests in Additional Voices** section, choose one of the following options for **Bar rests in additional voices**:
    - **Show bar rests**
    - **Omit bar rests**
  5. Optional: To show bar rests for each voice in empty bars, in the **Rest Positioning** section, choose **Show every rest in each voice** for **Coincident rests of the same duration in opposing voices**.
  6. Click **Apply**, then **Close**.
- 

#### RESULT

Bar rests are shown between notes and explicit rests in all voices in the selected flows when you choose **Show bar rests**, and hidden when you choose **Omit bar rests**.

#### NOTE

**Show bar rests** does not automatically show bar rests in empty bars before the first note or explicit rest in additional voices. For additional voices that do not start in the first bar, you must input a bar rest in the first bar manually.

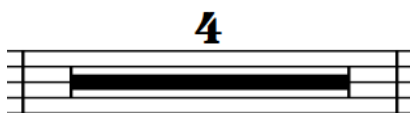
---

#### RELATED LINKS

[Per-flow notation options for rests](#) on page 1147  
[Implicit vs. explicit rests](#) on page 1145  
[Inputting notes into multiple voices](#) on page 221  
[Inputting bar rests into specific voices](#) on page 236

## Multi-bar rests

Multi-bar rests group two or more consecutive empty bars together into a single unit, commonly shown with a thick horizontal line positioned on the middle staff line, known as an “H-bar”. They can reduce the horizontal space required by multiple empty bars and make it easier for players to find their place in the music.



A multi-bar rest representing four empty bars

#### NOTE

Multi-bar rests are automatically split by items positioned within their range, such as system-attached text, rehearsal marks, and holds and pauses. However, if items are positioned at the start of the first bar in a multi-bar rest, that bar remains part of the subsequent multi-bar rest.

---

You can hide/show multi-bar rests in each layout independently in Dorico Elements, and you can hide/show bar number ranges below them.

By default, the multi-bar rest bar counts only appear once between the staves of grand staff instruments.

#### RELATED LINKS

[Hiding/Showing bar number ranges on multi-bar rests](#) on page 744  
[Splitting multi-bar rests](#) on page 1154

## Hiding/Showing multi-bar rests

You can hide/show multi-bar rests in each layout independently, and choose whether or not to consolidate one-bar repeats. For example, you can hide multi-bar rests in full score layouts but show multi-bar rests in part layouts.

---

#### PROCEDURE

1. Press **Ctrl/Cmd-Shift-L** to open **Layout Options**.
2. In the **Layouts** list, select the layouts in which you want to hide/show multi-bar rests.  
By default, the layout currently open in the music area is selected when you open the dialog. You can select other layouts by using the selection options in the action bar, clicking

and dragging across multiple layouts, **Shift**-clicking adjacent layouts, and **Ctrl/Cmd**-clicking individual layouts.

3. In the category list, click **Players**.
  4. In the **Bar Rests and Multi-bar rests** section, choose one of the following options for **Consolidate**:
    - **None**
    - **Multi-bar Rests**
    - **Multi-bar Rests and Bar Repeats**
  5. Click **Apply**, then **Close**.
- 

#### RESULT

- When you choose **None**, no multi-bar rests are shown in the selected layouts. Each empty bar is shown separately.
- When you choose **Multi-bar Rests**, any adjacent empty bars are consolidated into multi-bar rests in the selected layouts. However, bar repeats prevent the consolidation of multi-bar rests, even if there are no other notes in those bars.
- When you choose **Multi-bar Rests and Bar Repeats**, any adjacent empty bars or bars that only contain one-bar repeats are consolidated into multi-bar rests in the selected layouts. Multi-bar rest counts are also shown above consolidated one-bar repeats.

#### RELATED LINKS


[Bar repeats](#) on page 1120

[Hiding/Showing bar number ranges on multi-bar rests](#) on page 744

## Changing the width of multi-bar rest H-bars

You can change the width of individual multi-bar rest H-bars. This allows you to control the exact positions of multi-bar rests; for example, when there are clef changes at the end of multi-bar rests.

#### PREREQUISITE

- The lower zone is shown.
  - **Properties**  is selected in the lower zone toolbar.
- 

#### PROCEDURE

1. In Engrave mode, select the multi-bar rests whose width you want to change.
  2. In the Properties panel, activate **H-bar width delta** in the **Multi-bar Rests** group.
  3. Change the value in the value field.
- 

#### RESULT

The width of the selected H-bars is changed. Increasing the value increases their width, decreasing the value decreases their width.

#### RELATED LINKS


[Properties panel](#) on page 615

[Casting off](#) on page 581

## Moving multi-bar rest H-bars

You can move individual multi-bar rest H-bars horizontally. This allows you to control the exact positions of multi-bar rests; for example, when there are clef changes at the end of multi-bar rests.

### PREREQUISITE

- The lower zone is shown.
- **Properties**  is selected in the lower zone toolbar.

---

### PROCEDURE

1. In Engrave mode, select the multi-bar rests you want to move.
2. In the Properties panel, activate **H-bar X offset** in the **Multi-bar Rests** group.
3. Change the value in the value field.

---

### RESULT

The selected H-bars are moved horizontally. Increasing the value moves H-bars to the right, decreasing the value moves H-bars to the left.

## Splitting multi-bar rests

You can manually split multi-bar rests without showing any extra notation in the music. Splitting multi-bar rests affects all layouts in the project, including full scores and parts.

### NOTE

Multi-bar rests are automatically split by items positioned within their range, such as system-attached text, rehearsal marks, and holds and pauses.

---

### PREREQUISITE

You have opened a layout in the music area that either has items in the bars where you want to split multi-bar rests or in which multi-bar rests are hidden. You cannot select rhythmic positions within multi-bar rests.

---

### PROCEDURE

1. In Engrave mode, select an item at the rhythmic position where you want to split multi-bar rests.
2. Choose **Engrave > Split Multi-bar Rest**.

---

### RESULT

All multi-bar rests in all layouts are split at the selected position. A signpost is shown at the position of the multi-bar rest split.

### RELATED LINKS

- [Hiding/Showing signposts](#) on page 427
- [Hiding/Showing multi-bar rests](#) on page 1152
- [Switching between layouts](#) on page 43

# Slurs

Slurs are tapered, curved lines that join notes to indicate legato articulation and phrasing.

Depending on the context and the instrument to which they apply, slurs can have additional meanings to simply marking phrases. For example, for wind players, a slur indicates that all the notes in the phrase are played in the same breath and without re-tonguing or re-articulating any notes. For string players, a slur indicates that all the notes in the phrase are played legato and under one bow. For singers, slurs indicate that more than one note is sung to the same syllable.



Slurs both above and below the staff, including a cross-staff slur

Dorico Elements automatically determines the appropriate endpoint position and curvature direction for slurs based on the notes within their ranges, but you can change this manually.

You can input any number of nested slurs.

## NOTE

Slurs must not be confused with ties, which look superficially similar, but instead join notes of the same pitch to indicate that they are played as a single note. In that sense, ties are part of rhythmic notation, while slurs are considered articulation.

## RELATED LINKS

- [Inputting slurs](#) on page 260
- [Inputting nested slurs](#) on page 1167
- [Ties vs. slurs](#) on page 1233
- [Cross-staff and cross-voice slurs](#) on page 1166
- [Elision slurs](#) on page 938
- [Slurs in playback](#) on page 1178
- [Slur endpoint positions](#) on page 1158
- [Slur curvature direction](#) on page 1164
- [Changing the position of slurs relative to tie chains](#) on page 1156
- [MIDI Import Options dialog](#) on page 86

## General placement conventions for slurs

There are different conventions for the placement, endpoint position, shape, and curvature direction of slurs in various contexts.

## RELATED LINKS

- [Slur endpoint positions](#) on page 1158



[Short slurs that cover large pitch ranges](#) on page 1160

[Slurs over system and frame breaks](#) on page 1159

[Slur curvature direction](#) on page 1164

## Slur position relative to tie chains

There are different conventions for the position of slurs relative to tie chains in music for modern use and historical editions.

Modern practice is for slurs to start on the first note in tie chains, and end on the last note in tie chains. This makes the full length of the phrase visually clear to the performer, which helps their performance, and is the default in Dorico Elements.

However, in historical editions, slurs might end on the first note in a tie chain, and start on the last note in a tie chain. Both of these changes save vertical space, as shorter slurs do not extend as far above or below a staff.



Slur starting on the first note and ending on the last note in tie chains




Slur starting on the last note and ending on the first note in tie chains

## Changing the position of slurs relative to tie chains

You can change the position of individual slurs relative to tie chains, including slurs starting on grace notes. For example, slurs that start on the last note in tie chains and end on the first note in tie chains are shorter and require less vertical space.

### PREREQUISITE

- The lower zone is shown.
- **Properties**  is selected in the lower zone toolbar.

---

### PROCEDURE

1. Select the slurs whose position relative to tie chains you want to change. You can do this in Write mode and Engrave mode.
2. In the Properties panel, activate the following properties, individually or together, in the **Slurs** group:
  - **Start pos. in tie chain**
  - **End pos. in tie chain**
3. Choose one of the following options for each property:
  - **First note**
  - **Last note**

---

### RESULT

The position of the selected slurs relative to tie chains is changed.

## Slur placement relative to grace notes

There are specific placement rules that affect slurs when they start from a grace note and end on a normal note immediately following the grace note.

These rules are:

- Slurs connect noteheads rather than stems.
- Slurs are scaled to match the proportions of grace notes.
- Slurs must not obscure ledger lines.
- Slurs are placed above notes if they would collide with the accidental of a standard note when placed below the notes.

Due to the general placement conventions of grace notes, slurs in Dorico Elements appear below grace notes and curve downwards by default. Slurs starting from grace notes only appear above notes and curve upwards in up-stem voices in multiple-voice contexts.



Slur curvature direction on grace notes in a single-voice context



Slur curvature direction on grace notes in a multiple-voice context

You can change the automatic placement of grace note slurs by changing the stem direction of a grace note, changing the direction of a slur, and using the slur handles in Engrave mode to adjust the position of a slur in finer detail.

### RELATED LINKS

[Changing the curvature direction of slurs](#) on page 1165

[Changing the stem direction of notes](#) on page 963

[General placement conventions for grace notes](#) on page 898

[Slurs in Engrave mode](#) on page 1171

[Changing the shape/angle of slurs](#) on page 1173

## Slur position relative to staff lines

Slur endpoints must not touch staff lines, and the high point of the arcs of slurs should not stop on staff lines.

This is the convention because a slur whose arc peaks on a staff line can create the appearance of a triangular wedge between the staff line and the curve of the slur. If a slur peaks on a staff line, you can adjust its height so that it peaks either above/below the staff.

### NOTE

Although Dorico Elements automatically ensures slur endpoints do not touch staff lines, manual adjustments might be necessary to position the arcs of slurs correctly.

---

### RELATED LINKS

[Changing the height of slurs](#) on page 1176

## Slur endpoint positions

In order to avoid collisions, the default positions of slur endpoints vary depending on whether slurs are placed on the notehead side or stem side of notes, their position relative to staff lines, and whether articulations, ties, and other slurs exist at the same rhythmic position.

### Slur endpoints relative to noteheads and stems

The default position of slur endpoints relative to noteheads is 1/2 space above a notehead in a space on the staff, and 1/4 space above a notehead on a line on the staff.

Slurs appear between the stems of unbeamed notes when placed on their stem side, and the default setting is for their endpoints to attach a short distance from the end of the stem.



Slurs between the stems of unbeamed notes

### Slur endpoints relative to notes with different stem directions

For slurs between notes with different stem directions, Dorico Elements positions their endpoints close to the notehead by default so that the shape and curvature direction of slurs reflects the rising or descending pitch contour of phrases, including when they span multiple staves.



Slur endpoints near noteheads



Slur endpoints near stem ends

### Slur endpoints relative to articulations

By default, articulations of force and stress are placed outside slur endpoints, and articulations of duration are placed inside slur endpoints, which automatically raises the endpoints. For example, accents and stress marks are placed outside the ends of slurs but staccato and tenuto marks are placed inside the ends of slurs.

Slurs are placed outside articulations on notes in the middle of slurs.

### Slur endpoints relative to ties and other slurs

The default position of slur endpoints is 1/4 space above an existing slur that starts/ends on the same note.

#### RELATED LINKS

[Slurs in Engrave mode](#) on page 1171

[Changing the shape/angle of slurs](#) on page 1173

[Cross-staff and cross-voice slurs](#) on page 1166

[Nested slurs](#) on page 1167

[Stem direction](#) on page 961

[Articulations](#) on page 723

[Changing the placement of articulations relative to slurs](#) on page 727

## Slurs over system and frame breaks

Slurs automatically cross system breaks and frame breaks, appearing in two parts on either side of the break.

By default, the endpoints of slurs that cross system/frame breaks are positioned at least 1/2 space outside the outer staff line and at a suitable position based on the pitch contour of the phrase before/after the break; that is, indicating whether the phrase rises or falls after the break.

If multiple slurs cross the same system break or frame break, such as if a phrase split by a break contains nested slurs, the ends of the slurs are stacked automatically and spaced a minimum of 1/2 space apart vertically.



The end of a system showing the first slur part; the end on the right indicates a continuation to the next system.



The start of the next system showing the second slur part; the end on the left indicates a continuation from the previous system.

In Engrave mode, you can move and edit each slur part separately. This allows you to adjust the start/end height of each slur part independently on each system.

## Slur collision avoidance

By default, Dorico Elements automatically adjusts the shape and position of slurs to avoid collisions with items under their arc.

This means that if a notehead under a slur is either higher than the others under a slur curving upwards, or lower than the others under a slur curving downwards, the curvature of the slur is adjusted to avoid the collision and keep the notehead under the slur. You can manually disable collision avoidance for individual slurs.



Slur with collision avoidance activated (default)



Slur with collision avoidance deactivated

### RELATED LINKS


[Cross-staff and cross-voice slurs](#) on page 1166

[Accidentals](#) on page 712

## Enabling/Disabling slur collision avoidance

You can allow or prevent individual slurs from automatically adjusting to avoid collisions. You can do this for the current layout and frame chain only, or for all layouts and frame chains.

### PREREQUISITE

- The lower zone is shown.
- **Properties**  is selected in the lower zone toolbar.

- You have chosen the appropriate property scope for local properties.

---

PROCEDURE

1. In Engrave mode, select the slurs whose collision avoidance you want to enable/disable.
2. In the Properties panel, activate/deactivate **Avoid collisions** in the **Slurs** group.
3. Activate/Deactivate the corresponding checkbox.

---

RESULT

The selected slurs avoid collisions when the checkbox is activated, and do not avoid collisions when the checkbox is deactivated. If the property scope was set to **Locally**, this change only takes effect in the current layout and frame chain.

RELATED LINKS

[Changing the property scope](#) on page 617

[Copying property settings to other layouts/frame chains](#) on page 599

## Short slurs that cover large pitch ranges

When short slurs span large pitch ranges, they are significantly rotated to compensate. This can make the ends of short slurs appear too angular.

You can move the control point handles of slurs to improve their curves.

Of the three examples, the middle slur has the smoothest curve. The handles on the slur on the right have been moved poorly, making the curve far too angular.

In the bottom row, the positions of the handles are shown to indicate how each curve above was created.



Short slur spanning a large pitch range, without adjustment



The same slur with some shape adjustment, making the curve smoother



The same slur again with poor adjustment, making the curve too angular



Default slur handle placement



Slur handle placement to create the corresponding slur



Slur handle placement to create the corresponding slur

---

TIP

When adjusting slur ends, you can achieve the best results using the following guidelines:

- The control point at the lower end of the slur does not extend outside the width of the slur, as marked by its neighboring endpoint.
  - The control point at the higher end of the slur does not form an angle greater than 90 degrees relative to the endpoints. You can use the dashed lines to help you judge this.
-

You can adjust the shape of short slur ends in different ways:

- Individually, by activating **Start handle offset** and **End handle offset** in the Properties panel in Engrave mode, and changing their **X** values.
- Individually, by moving the handles of slurs in Engrave mode.

#### RELATED LINKS

[Slurs in Engrave mode](#) on page 1171

[Slur shoulder offset](#) on page 1177

[Changing the shape/angle of slurs](#) on page 1173

## Slur styles

There are different styles of slurs available in Dorico Elements, which indicate different meanings and have different use cases.

The following options for slur style are available when you activate **Style** in the **Slurs** group of the Properties panel:

### Solid

This is the default style for slurs. Slurs appear as tapered solid lines: thinner at the ends and thicker in the middle.



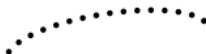
### Dashed

Slurs appear as tapered dashed lines. Can be used to indicate an optional slur; for example, to recommend breathing/bowing patterns.



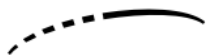
### Dotted

Slurs appear as dotted lines. The dots are the same size and the same distance apart over the whole length of the slur.



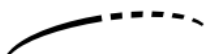
### Half-dashed start

The first halves of slurs appear as dashed lines, the second halves as solid lines. Used to denote that a slur was written incompletely in the source in critical editions.



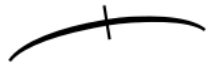
### Half-dashed end

The first halves of slurs appear as solid lines, the second halves as dashed lines. Used to denote that a slur was written incompletely in the source in critical editions.



### Editorial


Slurs appear as solid black lines, but with a smaller vertical line intersecting them exactly halfway along their length, perpendicular to the curve of the slur. Used to show that a slur was added by the editor and was not present in the original source.



## Changing the style of slurs

You can change the style of individual slurs after they have been input. You can do this for the current layout and frame chain only, or for all layouts and frame chains.

### PREREQUISITE

- The lower zone is shown.
- **Properties**  is selected in the lower zone toolbar.
- You have chosen the appropriate property scope for local properties.

---

### PROCEDURE

1. Select the slurs whose style you want to change. You can do this in Write mode and Engrave mode.
2. In the Properties panel, activate **Style** in the **Slurs** group.
3. Select one of the following options from the menu:
  - **Solid**
  - **Dashed**
  - **Dotted**
  - **Half-dashed start**
  - **Half-dashed end**
  - **Editorial**

---

### RESULT

The style of the selected slurs is changed. If the property scope was set to **Locally**, this change only takes effect in the current layout and frame chain.

### RELATED LINKS

[Changing the property scope](#) on page 617

[Copying property settings to other layouts/frame chains](#) on page 599

## Changing the size of dashes/dots in slurs


You can change the length of dashes and the size of dots in dashed/dotted slurs individually. You can do this for the current layout and frame chain only, or for all layouts and frame chains.

### NOTE

These steps only apply to dashed/dotted slurs.

---

### PREREQUISITE

- The lower zone is shown.
- **Properties**  is selected in the lower zone toolbar.
- You have chosen the appropriate property scope for local properties.

---

#### PROCEDURE

1. In Engrave mode, select the dashed/dotted slurs whose dash length/dot size you want to change.
  2. In the Properties panel, activate one of the following properties in the **Slurs** group:
    - For dashed slurs, activate **Dash length**.
    - For dotted slurs, activate **Dot size**.
  3. Change the value in the value field.
- 


#### RESULT

Increasing the value makes dashes longer and dots bigger, decreasing the value makes dashes shorter and dots smaller. If the property scope was set to **Locally**, this change only takes effect in the current layout and frame chain.

## Changing the size of gaps in dashed/dotted slurs

You can change the length of gaps in dashed/dotted slurs individually. You can do this for the current layout and frame chain only, or for all layouts and frame chains.

#### PREREQUISITE

- The lower zone is shown.
  - **Properties**  is selected in the lower zone toolbar.
  - You have chosen the appropriate property scope for local properties.
- 

#### PROCEDURE

1. In Engrave mode, select the dashed/dotted slurs whose gap length you want to change.
  2. In the Properties panel, activate one of the following properties in the **Slurs** group:
    - For dashed slurs, activate **Dash gap length**.
    - For dotted slurs, activate **Dot gap length**.
  3. Change the values in the value fields.
- 

#### RESULT

Increasing the values makes the gaps between dashes/dots larger. Decreasing the values makes the gaps between dashes/dots smaller. If the property scope was set to **Locally**, this change only takes effect in the current layout and frame chain.

## Changing individual slurs to flat slurs

Although they are not often used as standard, some publishers use flat slurs in order to reduce the vertical space occupied by slurs. You can change individual slurs to flat slurs. You can do this for the current layout and frame chain only, or for all layouts and frame chains.

#### NOTE


Short slurs, that is, slurs between only a few notes, can look odd as flat slurs, so it may not be appropriate to select the flat curvature style project-wide. However, it would also be unusual only to use flat slurs once or twice in a project. Therefore, we recommend that you avoid changing the curvature style for only one or two slurs in a project.



It can be more effective to modify them rather than changing their curvature style; for example, by making an individual slur thicker/thinner, adjusting the shoulder offset of slurs, or adjusting their height using their slur height handles in Engrave mode.

---

#### PREREQUISITE

- The lower zone is shown.
  - **Properties**  is selected in the lower zone toolbar.
  - You have chosen the appropriate property scope for local properties.
- 

#### PROCEDURE

1. Select the slurs whose curvature style you want to change. You can do this in Write mode and Engrave mode.
  2. In the Properties panel, activate **Curvature type** in the **Slurs** group.
  3. Choose one of the following options:
    - **Normal (curved)**
    - **Flat**
- 

#### RESULT

The curvature style of the selected slurs is changed. If the property scope was set to **Locally**, this change only takes effect in the current layout and frame chain.

#### RELATED LINKS

[Changing the thickness of slurs](#) on page 1175

[Changing the height of slurs](#) on page 1176

[Changing the shoulder offset of slurs](#) on page 1177

[Changing the property scope](#) on page 617

[Copying property settings to other layouts/frame chains](#) on page 599

## Slur curvature direction

Slurs can curve upwards, downwards, or have a multi-segment S-shape. Dorico Elements automatically determines the appropriate curvature direction for slurs based on the notes within their ranges, but you can change the curvature direction of slurs manually.

A slur on a single staff always curves upwards and is placed above the notes, unless all of the notes under the slur are up-stem, in which case it curves downwards and is placed below the notes. If a slur applies to a mixture of up-stem and down-stem notes, it is placed above the staff and curves upwards.



Examples of the slur direction changing according to the stem direction

The following options for slur curvature direction are available when you activate **Direction** in the **Slurs** group of the Properties panel:

Up



Forces slurs to curve upwards, and appear above notes.

**Down**



Forces slurs to curve downwards, and appear below notes.

**Up/Down**



Forces slurs to comprise two segments: the first curves upwards, the second curves downwards to create a mirrored S-shape. It is typically used when phrases start in the lower staff and end in the upper staff; for example, in piano parts.

**Down/Up**



Forces slurs to comprise two segments: the first curves downwards, the second curves upwards to create an S-shape. It is typically used when phrases start in the upper staff and end in the lower staff; for example, in piano parts.

**TIP**

- You can adjust the precise shapes of individual slurs, and each slur segment, in Engrave mode using the square handles on each slur.
- In jazz scores, slurs are sometimes treated as an articulation, so positioning all slurs above the staff is preferred.

---

RELATED LINKS

[Slurs over system and frame breaks](#) on page 1159


[Cross-staff and cross-voice slurs](#) on page 1166

[Slurs in Engrave mode](#) on page 1171

## Changing the curvature direction of slurs




You can change the curvature direction of individual slurs so that they curve upwards, downwards, or have a multi-segment S-shape. You can do this for the current layout and frame chain only, or for all layouts and frame chains.

PREREQUISITE

- The lower zone is shown.
- **Properties**  is selected in the lower zone toolbar.
- You have chosen the appropriate property scope for local properties.

---

PROCEDURE

1. Select the slurs whose curvature direction you want to change. You can do this in Write mode and Engrave mode.
2. In the Properties panel, activate **Direction** in the **Slurs** group.
3. Choose one of the following options:
  - **Up** 
  - **Down** 
  - **Up/Down**  (mirrored S-shape)

- **Down/Up**  (S-shape)

#### RESULT

The curvature direction of the selected slurs is changed. If the property scope was set to **Locally**, this change only takes effect in the current layout and frame chain.

#### TIP

You can adjust the precise shapes of slurs, and each slur segment, in Engrave mode using the handles on each slur.

#### RELATED LINKS

[Slurs in Engrave mode](#) on page 1171

[Changing the shape/angle of slurs](#) on page 1173

[Changing the property scope](#) on page 617

[Copying property settings to other layouts/frame chains](#) on page 599

## Cross-staff and cross-voice slurs

Cross-staff slurs start on one staff and end on another staff, and cross-voice slurs start in one voice and end in another voice.



Cross-staff slurs between two piano staves

Dorico Elements positions cross-staff and cross-voice slurs in the same way as it positions standard slurs. You can move and lengthen/shorten cross-staff and cross-voice slurs in the same ways as standard slurs; however, they do not behave in the same way. For example, you cannot move cross-voice slurs to notes on the same staff in other voices, and you cannot lengthen cross-voice slurs to notes on the same staff in other voices. You also cannot lengthen/shorten cross-voice slurs to notes in different voices to those in which the slur started/ended.

You can only move and lengthen/shorten cross-staff slurs to notes on the same staff as the corresponding endpoint. For example, if a cross-staff slur covers a phrase that starts on the bottom staff and ends on the upper staff, you can only shorten the cross-staff slur to the first note on the upper staff, you cannot shorten it to any notes on the bottom staff.

The different voices can be on the same staff, or on different staves.

#### RELATED LINKS

[Inputting slurs](#) on page 260

[Lengthening/Shortening items](#) on page 410

[Slur collision avoidance](#) on page 1159

[Slur endpoint positions](#) on page 1158

[Moving notes/items rhythmically](#) on page 437

## Nested slurs

Nested slurs are two or more slurs used simultaneously, where the overarching slur shows the structure of the phrase and the inner slurs show the articulation within the phrase. They are also known as “slurs within slurs”.

Depending on the stem directions within the overarching outer slur, inner slurs may appear on the opposite side of the staff to the outer slur.



A phrase with nested slurs

You can input nested slurs in the same ways as inputting standard slurs. By default, Dorico Elements makes automatic adjustments to their positioning to avoid collisions.

### RELATED LINKS

[Slur collision avoidance](#) on page 1159

## Inputting nested slurs

You can input nested slurs, both during note input and by adding them to existing notes. You can also add nested slurs to existing notes on multiple staves at the same time and to notes in different voices or on different staves belonging to the same instrument; for example, when phrases span both staves of grand staff instruments.

---

### PROCEDURE

1. In Write mode, do one of the following:






- Start note input.
- Select the notes you want to include in the outer slur.

#### TIP

- If you only select a single note, the slur connects that note to the next note in the same voice on the staff. To input slurs between notes in different voices, you must select both notes; for example, by selecting the first note then **Ctrl/Cmd**-clicking the second note.
- For instruments with multiple staves, such as piano and harp, you can select existing notes on multiple staves to create cross-staff slurs. However, you cannot create cross-staff slurs between different instruments.
- You can select notes on multiple staves to input slurs on those staves simultaneously.

2. Optional: If you want to input slurs onto multiple staves at once, extend the caret to those staves.



3. Input or start the outer slur in any of the following ways:

- Press **S**.
  - In the Notes panel, click **Slur** .
  - In the Keyboard panel toolbar, click **Slur** .
4. Input the inner slur in one of the following ways:
- When adding nested slurs to existing notes: Select the notes within the outer slur that you want to place under an inner slur and press **S** or click **Slur**  in the Notes panel.
  - To start the inner slur on the same note as the outer slur during note input, press **S** or click **Slur**  in the Notes panel.
  - To start the inner slur on a later note during note input, input notes or advance the caret manually to where you want the inner slur to start, then press **S** or click **Slur**  in the Notes panel.

#### NOTE

If you added nested slurs to existing notes, stop here.

---

5. During note input, input the notes you want to include in the inner slur.  
The slurs extend automatically as you continue inputting notes, even if there are rests between the notes you input.
6. End the inner slur on the currently selected note in any of the following ways:
- Press **Shift-S**.
  - In the Keyboard panel toolbar, click **Slur** .
7. Continue inputting notes.
8. Optional: Start/End other inner slurs.
9. End the outer slur on the currently selected note in any of the following ways:
- Press **Shift-S**.
  - In the Keyboard panel toolbar, click **Slur** .

---

#### RESULT

During note input, slurs begin from the currently selected note on all staves across which the caret extends, not from the caret position. Slurs extend automatically as you input notes, and end on the currently selected note.

When adding slurs to existing notes, the selected notes are connected by slurs. For example, if you select two notes belonging to one instrument and two notes belonging to another, two slurs are input connecting the notes on each selected staff. If you selected notes on different staves belonging to the same instrument, a cross-staff slur is input.

Slurs are placed either above or below the notes, depending on the stem direction of the notes within the selection. Inner slurs can have different curvature directions to outer slurs. By default, Dorico Elements makes automatic adjustments to their positioning to avoid collisions.

#### TIP

You can input the outer slur and inner slurs in any order as Dorico Elements automatically adjusts slurs so that shorter slurs are positioned within longer slurs, and ensures they do not collide.

---

#### RELATED LINKS

[Inputting slurs](#) on page 260

## Linked slurs

Slurs of the same duration at the same rhythmic position on multiple staves can be linked together. This happens automatically when you copy and paste slurs or material including slurs between staves, or enter them simultaneously.

If slurs are linked, moving one slur in the linked group moves any slurs linked to it in the same way. Similarly, lengthening or shortening a slur in a linked group lengthens or shortens any slurs linked to it in the same way. However, deleting one slur in a linked group only deletes the slur selected, not the whole group.

Linked slurs appear highlighted when any slur in the linked group is selected.



'Cause 'twas my la - dy's birth - day, There - fore we kept ho - li - day, And

'Cause 'twas my la - dy's birth - day, There - fore we kept ho - li - day, And

'Cause 'twas my la - dy's birth - day, There - fore we kept ho - li - day, And

Linked slurs with the top slurs selected

You can also manually link and unlink slurs.

### RELATED LINKS

[Inputting slurs on page 260](#)

[Linked dynamics on page 855](#)

[Disabling automatic linking of dynamics and slurs when pasting on page 436](#)

## Linking slurs together

Dorico Elements automatically links slurs of the same duration at the same rhythmic positions together when you copy and paste slurs or material including slurs between staves, or enter them simultaneously. However, you can also link slurs together manually.

### PROCEDURE

1. In Write mode, select the slurs you want to link together.

#### NOTE

Only slurs that have the same duration and start at the same position can be linked together.

2. Choose **Edit > Notations > Slurs > Link**. You can also choose this option from the context menu.

### RESULT

The selected slurs are linked together.

## Unlinking slurs

You can unlink slurs, including slurs that were linked automatically. For example, if you want to lengthen/shorten slurs independently of each other.

---

### PROCEDURE

1. In Write mode, select a slur in each linked group that you want to unlink.
2. Choose **Edit > Notations > Slurs > Unlink**. You can also choose this option from the context menu.

---

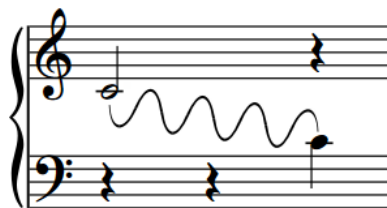
### RESULT

All slurs in the linked groups are unlinked. This applies to all layouts in which the slurs appear.

## Slur segments

A standard slur consists of one segment. You can make more elaborate shapes with slurs with multiple segments; for example, to allow you to create more complex slur shapes than are possible with a single curved segment.

Adding more segments to a slur by default creates evenly spaced waves within its length. Therefore, having more segments makes each wave shorter.



Slur with eight segments

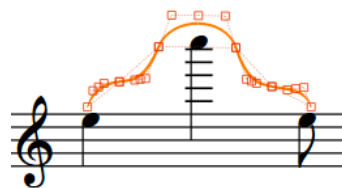
In Engrave mode, you can move each segment graphically as each segment has its own set of five square handles. These allow you to form slurs into unusual and complicated shapes.

### NOTE

- You may find that you need more segments than there are curves in your planned shape, as in many cases you need a segment for each significant change of angle. In Dorico Elements, you can increase/decrease the number of segments in existing slurs.
- Handles on multi-segment slurs are connected between adjacent segments. Moving a connected control point causes the control point at the start/end of the next/previous segment to move the same amount in the opposite direction.



An unusual slur shape created using five segments.




The same slur, showing the positions of the handles of all five segments.

## Changing the number of segments in individual slurs

You can change the number of segments in individual slurs; for example, to allow you to create slurs with unusual shapes. You can do this for the current layout and frame chain only, or for all layouts and frame chains.

### PREREQUISITE

- The lower zone is shown.
- **Properties**  is selected in the lower zone toolbar.
- You have chosen the appropriate property scope for local properties.

---

### PROCEDURE

1. In Engrave mode, select the slurs whose number of segments you want to change.
2. In the Properties panel, activate **Number of segments** in the **Slurs** group.
3. Change the value in the value field.

---

### RESULT

Increasing the value increases the number of slur segments. Decreasing the value decreases the number of slur segments. If the property scope was set to **Locally**, this change only takes effect in the current layout and frame chain.

### AFTER COMPLETING THIS TASK

You can adjust the shape of slur segments in more detail using their handles.

### NOTE

Handles on multi-segment slurs are connected to the corresponding type of handle on adjacent segments. Moving handles causes any connected handles to move the same amount in the opposite direction.

---

### RELATED LINKS

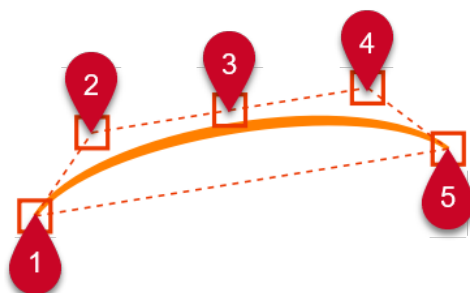
[Changing the shape/angle of slurs](#) on page 1173

[Changing the property scope](#) on page 617

[Copying property settings to other layouts/frame chains](#) on page 599

## Slurs in Engrave mode

In Engrave mode, each slur has five square handles that you can move independently. Some handles are connected to others, meaning moving one can affect the position of neighboring handles.



Slurs have the following handles in Engrave mode:



- 1 Left endpoint
- 2 Left control point
- 3 Slur height
- 4 Right control point
- 5 Right endpoint

For example, moving the left endpoint moves both the start of a slur and the other handles apart from the right endpoint. However, moving the right control point only causes the slur height handle to move as well. This gives you fine control over the shape of slurs, while ensuring the end result remains curved and smooth.

#### NOTE

Multi-segment slurs have additional links between control point handles that affect how they move in relation to other handles moving.

You can move these handles to change the shape of slurs with the keyboard, with the mouse, and by using properties in the **Slurs** group of the Properties panel. You can also change the angle of slurs without changing their overall shape.

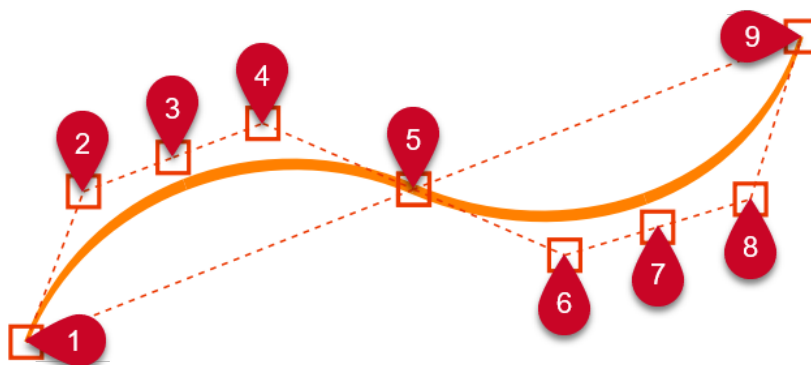
#### RELATED LINKS

[Slur height](#) on page 1176

[Slur shoulder offset](#) on page 1177

## Multi-segment slurs in Engrave mode

In Engrave mode, each segment in multi-segment slurs, such as S-shaped slurs, has handles just like standard slurs. This allows you to edit each segment of multi-segment slurs independently as if they were separate slurs, but in order to maintain a consistent shape, moving certain handles causes other handles to move simultaneously.



Multi-segment slurs have the following handles in Engrave mode:

- 1 Left endpoint
- 2 Left control point
- 3 Slur height
- 4 Right control point
- 5 Center control point
- 6 Left control point
- 7 Slur height

8 Right control point

9 Right endpoint

You can select and move each handle in the same ways as for standard slurs; however, handles on multi-segment slurs are connected between adjacent segments. Moving a connected control point causes the control point at the start/end of the next/previous segment to move the same amount in the opposite direction. This avoids tight corners, ensuring that multi-segment slurs are always as smoothly and symmetrically curved as possible.

In multi-segment slurs, right control points are connected to the left control point in the adjacent segment. If there is no adjacent segment, the right/left control points next to the right/left endpoints can be moved independently. For example, in the labeled diagram, control point 4 is connected to control point 6, but control points 2 and 8 are not connected to another control point.

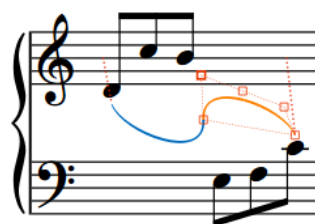
Similarly, moving the slur height handle causes the slur height handle on any adjacent segments to move the same amount in the opposite direction. For example, if you move the slur height handle on the middle segment of a slur with three segments, all three slur height handles are moved.

---

EXAMPLE



The left control point is selected.



Moving the selected left control point upwards and to the left causes the right control point on the adjacent segment to move downwards and to the right.

---

## Changing the shape/angle of slurs

You can move slurs and slur handles graphically, allowing you to change the shape and/or angle of individual slurs; for example, to adjust an endpoint relative to an individual notehead. You can do this for the current layout and frame chain only, or for all layouts and frame chains.

Changing the angle of slurs is useful, for example, if you want one end of a slur to start higher after a system break than its default position, as you can change the rotation of the slur while keeping all slur handles on the slur in the same positions relative to each other.

PREREQUISITE

You have chosen the appropriate property scope for local properties.

---

PROCEDURE

1. In Engrave mode, select the whole slurs or individual slur handles you want to move in any of the following ways:
  - **Ctrl/Cmd**-click multiple slurs.
  - **Ctrl/Cmd**-click individual handles on multiple slurs.

- Select a whole slur and press **Tab** to cycle through the handles until the one you want to move is selected.
- Click the handle you want to move.

NOTE

- To change the angle of slurs, select slur endpoints only.
- You cannot move whole slurs to the right/left, you can only move them upwards/downwards.

---

2. Move the slurs or handles in any of the following ways:

- To move them a standard amount to the right, left, up, or down, press **Alt/Opt** plus the corresponding arrow key. For example, press **Alt/Opt-Left Arrow** to move slurs/handles to the left. This moves slurs/handles by 1/8 space per press.
- To move them a large amount, press **Ctrl/Cmd** plus the standard key command; for example, **Ctrl/Cmd-Alt/Opt-Left Arrow**. This moves slurs/handles by 1 space per press.
- To move them a moderate amount, press **Shift** plus the standard key command; for example, **Shift-Alt/Opt-Left Arrow**. This moves slurs/handles by 1/2 space per press.
- To move them a small amount, press **Ctrl/Cmd - Shift** plus the standard key command; for example, **Ctrl/Cmd-Shift-Alt/Opt-Left Arrow**. This moves slurs/handles by 1/32 space per press.
- Click and drag whole slurs upwards/downwards.
- Click and drag handles in any direction.

---

RESULT

The selected slurs or slur handles are moved. Depending on the handles you selected and the directions in which you moved them, this can change the shape, angle, and/or proportional size of the corresponding slurs. If the property scope was set to **Locally**, this change only takes effect in the current layout and frame chain.

TIP

The following properties in the **Slurs** group of the Properties panel are activated automatically when you move the corresponding slur handles:

- **Start offset** moves the left endpoints of slurs. **X** moves them horizontally, **Y** moves them vertically.
- **End offset** moves the right endpoints of slurs. **X** moves them horizontally, **Y** moves them vertically.
- **Start handle offset** moves the left control points of slurs. **X** moves them horizontally, **Y** moves them vertically.
- **End handle offset** moves the right control points of slurs. **X** moves them horizontally, **Y** moves them vertically.

For example, if you move a whole slur upwards and to the right, all of its handles are moved so all properties are activated. You can also use these properties to change the shape of individual slurs by changing the values in the value fields.

Deactivating the properties resets the corresponding handles on the selected slurs to their default positions.

---

EXAMPLE



Slur with default angle and right endpoint selected



Slur with changed angle after moving the right endpoint downwards

---

RELATED LINKS

[Inputting slurs](#) on page 260

[Slur shoulder offset](#) on page 1177

[Slurs over system and frame breaks](#) on page 1159

[Lengthening/Shortening items](#) on page 410


[Changing the property scope](#) on page 617

[Copying property settings to other layouts/frame chains](#) on page 599

## Changing the thickness of slurs

You can change the thickness of individual slurs, including changing the thickness of the middle of slurs independently of the ends of slurs. You can do this for the current layout and frame chain only, or for all layouts and frame chains.

PREREQUISITE

- The lower zone is shown.
- **Properties**  is selected in the lower zone toolbar.
- You have chosen the appropriate property scope for local properties.

PROCEDURE

1. In Engrave mode, select the slurs whose thickness you want to change.
2. In the Properties panel, activate the following properties, individually or together, in the **Slurs** group:
  - **End thickness**
  - **Middle thickness**
3. Change the values in the value fields.

RESULT

Increasing the values makes the corresponding part of the selected slurs thicker, decreasing the values makes the corresponding part of the selected slurs thinner. If the property scope was set to **Locally**, this change only takes effect in the current layout and frame chain.

Deactivating the properties returns the corresponding part of the selected slurs to their default thickness.

RELATED LINKS

[Changing the property scope](#) on page 617

[Copying property settings to other layouts/frame chains](#) on page 599

## Slur height

The height of slurs determines how far above/below notes slurs extend vertically.

Increasing the height of slurs makes them extend further from the staff. This gives them a rounder shape, which takes up more vertical space. Where vertical space is limited, there should be a balance between how curved slurs are, which can help readability for players, and ensuring staves do not overlap.



A long slur with default height



A long slur with increased height



A long flat slur with default height



A long flat slur with increased height

### TIP

You can change the height of individual slurs in Engrave mode.

---

### RELATED LINKS

[Slurs over system and frame breaks](#) on page 1159

## Changing the height of slurs

You can change the height of individual slurs; for example, to reduce the height of a particularly long slur. You can do this for the current layout and frame chain only, or for all layouts and frame chains.

### PREREQUISITE

You have chosen the appropriate property scope for local properties.

---

### PROCEDURE

1. In Engrave mode, select the slur height (middle) handle of the slurs whose height you want to change.
2. Move the handles in any of the following ways:
  - To move them upwards/downwards a standard amount, press **Alt/Opt** plus the corresponding arrow key. For example, press **Alt/Opt-Up Arrow** to move handles upwards. This moves handles by 1/8 space per press.
  - To move them upwards/downwards a large amount, press **Ctrl/Cmd** plus the standard key command; for example, **Ctrl/Cmd-Alt/Opt-Up Arrow**. This moves handles by 1 space per press.
  - To move them upwards/downwards a moderate amount, press **Shift** plus the standard key command; for example, **Shift-Alt/Opt-Up Arrow**. This moves handles by 1/2 space per press.

- To move them upwards/downwards a small amount, press **Ctrl/Cmd - Shift** plus the standard key command; for example, **Ctrl/Cmd-Shift-Alt/Opt-Up Arrow**. This moves handles by 1/32 space per press.
  - Click and drag them upwards/downwards.
- 

#### RESULT

The height of the selected slurs is changed. If the property scope was set to **Locally**, this change only takes effect in the current layout and frame chain.

#### NOTE

- To maintain a visually pleasing and symmetrical curve when changing the height of slurs manually, you may need to move slur height handles to the right/left by a small amount, as well as upwards/downwards.
  - Moving slur height handles to the right/left affects the shape of the whole slur.
- 

#### RELATED LINKS

[Changing the shape/angle of slurs](#) on page 1173

[Changing the property scope](#) on page 617

[Copying property settings to other layouts/frame chains](#) on page 599

## Slur shoulder offset

Slur shoulders affect the angles of the curves of slurs as they taper towards an endpoint, because the tapered ends often approach noteheads at a steeper angle than that of a slur's arch.

Increasing the shoulder offset makes the onset of the curve shallower, whereas decreasing the shoulder offset makes the onset steeper. The shoulder offset must therefore be balanced with the height of the slur in order to achieve the ideal curved shape.



A long slur with default shoulder offset of 1/3



A long slur with increased shoulder offset of 1.5



A long slur with decreased shoulder offset of -1/2

You can adjust the shoulders of individual slurs in Engrave mode.

## Changing the shoulder offset of slurs

You can adjust the shoulders of individual slurs by moving their control point handles. You can move each control point independently. You can do this for the current layout and frame chain only, or for all layouts and frame chains.

#### PREREQUISITE

You have chosen the appropriate property scope for local properties.

---

#### PROCEDURE

1. In Engrave mode, select one of the control point handles on each of the slurs whose shoulders you want to adjust in any of the following ways:

- Select a whole slur and press **Tab** to cycle through the handles until the one you want to move is selected.
  - Click the handle you want to move.
  - **Ctrl/Cmd**-click individual handles on multiple slurs.
2. Move the handles in any of the following ways:
- To move them a standard amount to the right, left, up, or down, press **Alt/Opt** plus the corresponding arrow key. For example, press **Alt/Opt-Left Arrow** to move handles to the left. This moves handles by 1/8 space per press.
  - To move them a large amount, press **Ctrl/Cmd** plus the standard key command; for example, **Ctrl/Cmd-Alt/Opt-Left Arrow**. This moves handles by 1 space per press.
  - To move them a moderate amount, press **Shift** plus the standard key command; for example, **Shift-Alt/Opt-Left Arrow**. This moves handles by 1/2 space per press.
  - To move them a small amount, press **Ctrl/Cmd - Shift** plus the standard key command; for example, **Ctrl/Cmd-Shift-Alt/Opt-Left Arrow**. This moves handles by 1/32 space per press.
  - Click and drag them in any direction.
3. Optional: Repeat steps 1 and 2 for the other control point handle on the slurs whose shoulders you want to adjust.
- 

#### RESULT

The shoulder offset of the selected slurs is changed. If the property scope was set to **Locally**, this change only takes effect in the current layout and frame chain.

#### TIP

The following properties in the **Slurs** group of the Properties panel are activated automatically when you move the corresponding slur handles:

- **Start handle offset** moves the left control points of slurs. **X** moves them horizontally, **Y** moves them vertically.
- **End handle offset** moves the right control points of slurs. **X** moves them horizontally, **Y** moves them vertically.

You can also use these properties to change the shoulder offset of individual slurs by changing the values in the value fields.

Deactivating the properties resets the corresponding handles on the selected slurs to their default positions.

---

#### RELATED LINKS

[Slurs in Engrave mode](#) on page 1171

## Slurs in playback

Slurs trigger the legato playing technique in playback. By default, this increases the length of the MIDI notes without affecting the notation of the music.

Slurred notes sound for 105% of the length indicated by their notated rhythm, as opposed to non-slurred notes which sound for 95% of their notated rhythm.

The final note of a slur sounds for 95% of its notated rhythm, as there is no slur after it and the legato technique is no longer required.

TIP

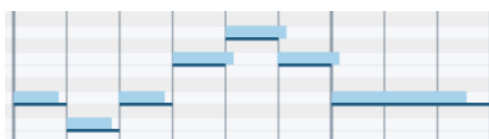
You can enable independent voice playback for individual instruments to hear different sounds in different voices simultaneously; for example, if you have slurs in one voice and staccatos in another voice.

---

The example shows how MIDI note length, indicated by the filled, light-colored rectangles, is increased when slurs are used. The thin, darker rod shows the notated duration of each note. The first three notes are non-slurred, so the MIDI length rectangle is shorter than the line of the notated rhythm. The last four notes are slurred together, so the MIDI length is longer than the notated length in order to create the legato, slurred sound. However, the last note of the slurred group is not longer, as the last note of a slurred phrase is treated like a normal, non-slurred note.



A phrase in an instrument staff



The same phrase in the piano roll editor

RELATED LINKS

[Played vs. notated note durations](#) on page 639

[Piano roll editor](#) on page 630

[Enabling independent voice playback](#) on page 506



# Staff labels

Staff labels are used to identify the instruments playing the music on the corresponding staves, and are positioned to the left of systems, before the initial barline of each system. Staff labels are typically used in music containing multiple players.

It is usual to show instrument names in full in the staff labels for the first systems in each flow, and abbreviated instrument names in the staff labels of subsequent systems. Using abbreviated instrument names saves horizontal space, allowing you to include more music in each system.



Examples of staff labels on the first system in a flow

By default in Dorico Elements, staff labels show the instrument names set for each instrument. You can show player names in staff labels instead for each player in each layout independently; for example, for percussionists who play multiple instruments.

For players holding multiple instruments and showing instrument names in staff labels, the staff label shows the instrument they are currently playing. If the player changes instrument partway through a system, the name of the new instrument is shown above the staff at its first note and the staff label is updated at the start of the next system.

Dorico Elements includes the instrument transposition, or instrument pitch, in staff labels for transposing instruments by default. Transposing instruments are instruments whose sounding pitch is different to the notated pitch.

Part layouts by default do not show staff labels, as most parts only contain a single staff whose identity is clear from the context and the layout name. The layout name is shown at the top left of the first page in part layouts by default.

You can change when instrument transpositions, or instrument pitches, are shown in staff labels. You can also change whether the instrument transposition is shown before or after the instrument name in staff labels.

## NOTE

- You do not need to number instruments in staff labels manually, as Dorico Elements automatically numbers instruments when there are multiple players of the same type holding instruments with identical names.
- Layout names are different to the instrument names used for staff labels.

- Staff labels do not show all instruments held by players; for example, in the staff label for the first system. You should include a comprehensive instrumentation list that shows any doubling at the front of your score.
- 

### Staff labels imported from MusicXML files

When exporting MusicXML files from Cubase and importing them into Dorico Elements, you can improve the accuracy of the automatic instrument selection by changing the instrument names in the Cubase **Score Editor** to the same English instrument names that Dorico Elements uses before exporting the file.

#### RELATED LINKS

[Player, layout, and instrument names](#) on page 172

[Transposing instruments](#) on page 133

[Instrument numbering](#) on page 129

[Changing instrument names](#) on page 175

[Renaming players](#) on page 173

## Hiding/Showing staff labels

You can show full or abbreviated instrument names in staff labels, or hide all staff labels entirely, in each layout independently. The first system in each flow and all subsequent systems can have different staff label lengths.

By default, full staff labels are shown on the first system of each flow and abbreviated staff labels are shown on subsequent systems in full score layouts. In part layouts, staff labels are not shown on any systems.

---

#### PROCEDURE

1. Press **Ctrl/Cmd-Shift-L** to open **Layout Options**.
  2. In the **Layouts** list, select the layouts in which you want to hide/show staff labels.  
By default, the layout currently open in the music area is selected when you open the dialog. You can select other layouts by using the selection options in the action bar, clicking and dragging across multiple layouts, **Shift**-clicking adjacent layouts, and **Ctrl/Cmd**-clicking individual layouts.
  3. In the category list, click **Staves and Systems**.
  4. In the **Staff Labels** section, choose one of the following options for **Staff labels on first system**:
    - **Full**
    - **Abbreviated**
    - **None**
  5. Choose one of the following options for **Staff labels on subsequent systems**:
    - **Full**
    - **Abbreviated**
    - **None**
  6. Click **Apply**, then **Close**.
-

#### RESULT

Staff labels are hidden/shown on the corresponding staves in the selected layouts.

- **None** hides staff labels.
- **Full** and **Abbreviated** show staff labels using the corresponding instrument name length.

#### TIP

These settings apply to each flow in the layout, not the project as a whole. If, for example, you want to show full staff labels on the first system in the first flow in your project, but want to show abbreviated staff labels on the first systems of all subsequent flows, we recommend choosing the setting appropriate for the most flows in the layout, then changing the length of staff labels at other positions as required.

---

#### AFTER COMPLETING THIS TASK

- You can change the full and short names for each instrument.
- You can change whether staff labels show instrument or player names for each player in each layout independently.

#### RELATED LINKS

- [Staff label contents](#) on page 1184
- [Changing instrument names](#) on page 175
- [Player, layout, and instrument names](#) on page 172
- [Staff labels on condensed staves](#) on page 1190
- [Staff labels for percussion kits](#) on page 1189

## Changing the minimum indent for systems with staff labels

You can change the minimum indent for all systems that show staff labels to optimize horizontal space in each layout independently.

---

#### PROCEDURE

1. Press **Ctrl/Cmd-Shift-L** to open **Layout Options**.
  2. In the **Layouts** list, select the layouts whose minimum indent for systems with staff labels you want to change.  
By default, the layout currently open in the music area is selected when you open the dialog. You can select other layouts by using the selection options in the action bar, clicking and dragging across multiple layouts, **Shift**-clicking adjacent layouts, and **Ctrl/Cmd**-clicking individual layouts.
  3. In the category list, click **Staves and Systems**.
  4. In the **Staff Labels** section, change the value for **Minimum indent for systems with staff labels**.
  5. Click **Apply**, then **Close**.
- 

#### RESULT

The minimum indent on all systems that show staff labels is changed in the selected layouts.


#### RELATED LINKS

- [Changing the first system indent](#) on page 1198

## Hiding/Showing staff labels at system/frame breaks

You can change whether staff labels at individual system/frame breaks show full, abbreviated, or no instrument names, independently of your per-layout settings. For example, if you want full staff labels at the start of the first flow but abbreviated staff labels at the start of subsequent flows, or if you want to show staff labels in choral music only on systems that contain more complicated parts, solo lines, or divisi lines.

### PREREQUISITE

- You have inserted system/frame breaks at the positions from which you want to change the length of instrument names in staff labels.
- Signposts are shown for system/frame breaks.
- The lower zone is shown.
- **Properties**  is selected in the lower zone toolbar.

---

### PROCEDURE

1. In Engrave mode, select the system/frame break signposts at the positions where you want to hide/show staff labels.
2. In the Properties panel, activate **Staff labels** in the **Format** group.
3. Select one of the following options from the menu:
  - **Full**
  - **Abbreviated**
  - **None**

---

### RESULT

Staff labels are hidden/shown on the corresponding systems to the selected system/frame breaks. Horizontal spacing is automatically adjusted so the system fills the width of the music frame.

- **None** hides staff labels.
- **Full** and **Abbreviated** show staff labels using the corresponding instrument name length.

Deactivating the property returns any selected system break signposts to your per-layout settings.


---

### EXAMPLE



The image shows a musical score for Violin I and Violin II. A system break is indicated by a purple box labeled 'SYSTEM BREAK' above the staff. The staff labels 'Violin I' and 'Violin II' are shown in full length at the beginning of the system.

Full staff labels shown



The image shows the same musical score for Violin I and Violin II. A system break is indicated by a purple box labeled 'SYSTEM BREAK' above the staff. The staff labels are hidden at the beginning of the system.

No staff labels shown

---

### RELATED LINKS

[Inserting system breaks](#) on page 586

[Inserting frame breaks](#) on page 590

[Hiding/Showing system break signposts](#) on page 588

[Hiding/Showing frame break signposts](#) on page 592

## Staff label contents

Staff labels can show the instrument names set for each instrument or the player name of the corresponding player. Staff labels can show full or short names.

Instrument numbers are automatically shown in both full and abbreviated staff labels that use instrument names.

- **Full** staff labels use full instrument/player names.
- **Abbreviated** staff labels use short instrument/player names.
- **None** shows no staff labels.

### NOTE

- You can change the full and short names for each instrument and player.
  - Renaming instruments and players does not change the name shown at the top of each part layout if you have already renamed the layout. You can rename layouts separately.
- 

### RELATED LINKS

[Player, layout, and instrument names](#) on page 172

[Instrument numbering](#) on page 129

[Changing instrument names](#) on page 175

[Renaming players](#) on page 173

[Renaming layouts](#) on page 174

[Instrument changes](#) on page 130

[Layout Options dialog](#) on page 677

## Showing instrument/player names in staff labels

You can change whether staff labels show instrument or player names for each player in each layout independently. For example, you can show the player names for percussionists in full score layouts and instrument names in percussion part layouts.

### PROCEDURE

1. Press **Ctrl/Cmd-Shift-L** to open **Layout Options**.
  2. In the **Layouts** list, select the layouts in which you want to change the contents of staff labels.  
By default, the layout currently open in the music area is selected when you open the dialog. You can select other layouts by using the selection options in the action bar, clicking and dragging across multiple layouts, **Shift**-clicking adjacent layouts, and **Ctrl/Cmd**-clicking individual layouts.
  3. In the category list, click **Staves and Systems**.
  4. In the **Staff Labels** section, in the **Show player name instead of instrument names** list, activate the checkbox for each player whose player name you want to show in staff labels.
  5. Click **Apply**, then **Close**.
- 

### RESULT

Player names are shown for players when their checkbox is activated. Instrument names are shown for players when their checkbox is deactivated.

Full and short player names are used according to your staff label settings.

AFTER COMPLETING THIS TASK

You can change the full and short names for each instrument and player.

RELATED LINKS

[Percussion kit presentation types](#) on page 1293

[Renaming groups in grid presentation percussion kits](#) on page 155

## Instrument transpositions in staff labels

Instrument transpositions indicate the interval between the note an instrument plays and the sounding note produced. Transposing instruments, such as Horn in F and Clarinet in B $\flat$ , are commonly shown with their transposition, also known as their “instrument pitch”, as part of their instrument name or layout name.

Depending on the options set for **Show transposition** in the **Edit Instrument Names** dialog for each transposing instrument, they might show transpositions in staff labels even if you have hidden transpositions in staff labels in their layout.

Dorico Elements sets common transposing instruments, such as Clarinet in B $\flat$  and Trumpet in B $\flat$ , to follow your per-layout settings for hiding/showing instrument transpositions in staff labels.

To reduce the risk of confusion, uncommon transposing instruments, such as Clarinet in A or Trumpet in E, are set to show their transposition in staff labels always, even if you have hidden instrument transpositions in the layout.

RELATED LINKS

[Transposing instruments](#) on page 133

[Player, layout, and instrument names](#) on page 172

[Changing instrument names](#) on page 175

[Changing the language for instrument names](#) on page 57

[Hiding/Showing staff labels](#) on page 1181

## Hiding/Showing instrument transpositions in staff labels

You can hide/show instrument transpositions in staff labels in each layout independently. For example, you can hide instrument transpositions in staff labels in full score layouts but show them in part layouts.

---

PROCEDURE

1. Press **Ctrl/Cmd-Shift-L** to open **Layout Options**.
2. In the **Layouts** list, select the layouts in which you want to hide/show instrument transpositions in staff labels.  
By default, the layout currently open in the music area is selected when you open the dialog. You can select other layouts by using the selection options in the action bar, clicking and dragging across multiple layouts, **Shift**-clicking adjacent layouts, and **Ctrl/Cmd**-clicking individual layouts.
3. In the category list, click **Staves and Systems**.
4. In the **Staff Labels** section, activate/deactivate the following options for **Instrument pitch or transposition**:
  - **Show in full staff labels**

- **Show in abbreviated staff labels**

5. Click **Apply**, then **Close**.

---

#### RESULT

Instrument transpositions are shown in staff labels of the corresponding length in the selected layouts when the corresponding checkbox is activated, and hidden when the corresponding checkbox is deactivated.

#### NOTE

Depending on the options set for **Show transposition** in the **Edit Instrument Names** dialog for each transposing instrument, they might show transpositions in staff labels even if you have hidden transpositions in staff labels in their layout.

---

## Changing the appearance/position of instrument transpositions in staff labels

You can change the appearance and position of instrument transpositions in staff labels in each layout independently. For example, if you want to show instrument transpositions on a separate line in part layouts, but on the same line and parenthesized in full score layouts.

---

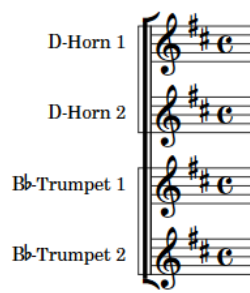
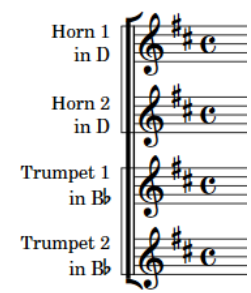
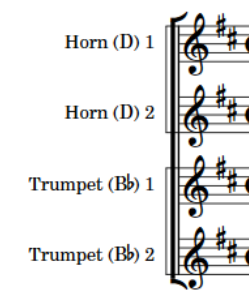
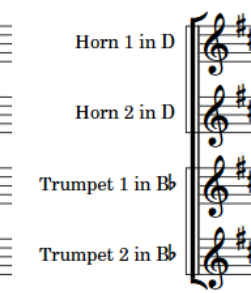
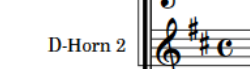
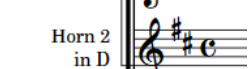
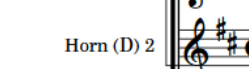
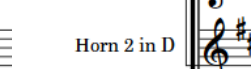
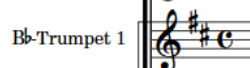
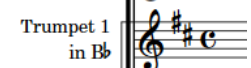
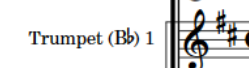
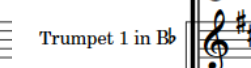
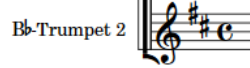
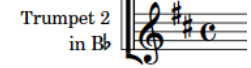
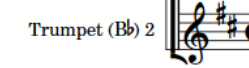
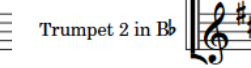
#### PROCEDURE

1. Press **Ctrl/Cmd-Shift-L** to open **Layout Options**.
  2. In the **Layouts** list, select the layouts whose instrument transposition appearance/position you want to change.  
By default, the layout currently open in the music area is selected when you open the dialog. You can select other layouts by using the selection options in the action bar, clicking and dragging across multiple layouts, **Shift**-clicking adjacent layouts, and **Ctrl/Cmd**-clicking individual layouts.
  3. In the category list, click **Staves and Systems**.
  4. In the **Staff Labels** section, choose one of the following options for **Position of instrument pitch in full staff labels**:
    - **Start**
    - **End**
  5. Optional: If you chose **Start**, enter the characters you want to appear as separators into the **Separator between instrument pitch at start and name** field.
  6. Optional: If you chose **End**, activate/deactivate the following options:
    - **Show on separate line**
    - **Show in parentheses**
    - **Show instrument number before transposition**
  7. Click **Apply**, then **Close**.
- 

#### RESULT

The appearance and position of instrument transpositions in staff labels is changed in the selected layouts.

EXAMPLE

Instrument transposition shown at start, with hyphen separator      Instrument transposition shown at end, on separate line      Instrument transposition shown at end, in parentheses      Instrument transposition shown at end, after instrument number

---

RELATED LINKS

[Changing the language for instrument names](#) on page 57

[Instrument numbering](#) on page 129

## Hiding/Showing instrument change labels at the start of flows

You can hide/show instrument change labels at the start of each flow in each layout independently. These labels can be useful for players holding multiple instruments as a way of clarifying the instrument required in their part layouts, which do not normally show staff labels.

PROCEDURE

1. Press **Ctrl/Cmd-Shift-L** to open **Layout Options**.
  2. In the **Layouts** list, select the layouts in which you want to hide/show instrument change labels at the start of flows.  
By default, the layout currently open in the music area is selected when you open the dialog. You can select other layouts by using the selection options in the action bar, clicking and dragging across multiple layouts, **Shift**-clicking adjacent layouts, and **Ctrl/Cmd**-clicking individual layouts.
  3. In the category list, click **Players**.
  4. In the **Instrument Changes** section, activate/deactivate **Show instrument change label at start of flow**.
  5. Click **Apply**, then **Close**.
- 

RESULT

Instrument change labels are shown in the first bar of each flow in the selected layouts when **Show instrument change label at start of flow** is activated, and hidden when it is deactivated.

RELATED LINKS

[Instrument changes](#) on page 130



## Player group labels

Player group labels show the names of player groups as vertical text on vertical brackets to the left of staff labels. They allow you to identify groups of staves and are typically used in large-scale works, such as for orchestra and double choir.

A musical score for three groups: Woodwinds, Brass, and Choir. Each group is represented by a vertical bracket on the left side of the score. The Woodwinds section includes flutes, oboes, clarinets, and bassoons. The Brass section includes trumpets, trombones, and tubas. The Choir section includes vocal parts. The score is in 3/4 time and features a tempo marking of 'Un peu animé' with a metronome marking of 80. The score is divided into two systems, each with a 'Rit.' (Ritardando) marking. The first system shows the beginning of the piece, and the second system shows a change in tempo and dynamics.

Player group labels to the left of staff labels, showing sections in an orchestra

Player group labels show full player group names by default. Short player group names are used when the full player group name is longer than the bracket.

You can show player group labels in each layout independently.

### RELATED LINKS

- [Player groups](#) on page 158
- [Renaming player groups](#) on page 160
- [Brackets and braces](#) on page 776

## Hiding/Showing player group labels

You can hide/show player group labels in each layout independently. For example, if you want to show player group labels for choirs in the full score layout but hide them in the vocal score layout.

### PROCEDURE

1. Press **Ctrl/Cmd-Shift-L** to open **Layout Options**.
2. In the **Layouts** list, select the layouts in which you want to hide/show player group labels.  
By default, the layout currently open in the music area is selected when you open the dialog. You can select other layouts by using the selection options in the action bar, clicking and dragging across multiple layouts, **Shift**-clicking adjacent layouts, and **Ctrl/Cmd**-clicking individual layouts.
3. In the category list, click **Staves and Systems**.

4. In the **Staff Labels** section, activate/deactivate **Show player group names**.
  5. Click **Apply**, then **Close**.
- 

#### RESULT

Player group labels are shown in the selected layouts when **Show player group names** is activated, and hidden when it is deactivated.

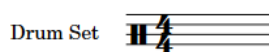
## Staff labels for percussion kits

The staff labels shown for percussion kit staves depend on their percussion kit presentation type.

The following staff labels are shown for the corresponding percussion kit presentation type:

### 5-line staff

Single instrument name using the instrument name of the percussion kit.

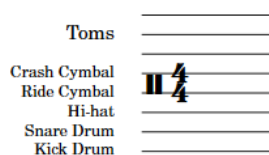


### Grid

Multiple instrument names: one for each kit instrument, positioned at the staff position of the corresponding instrument.

Group names are centered between instruments in each group.

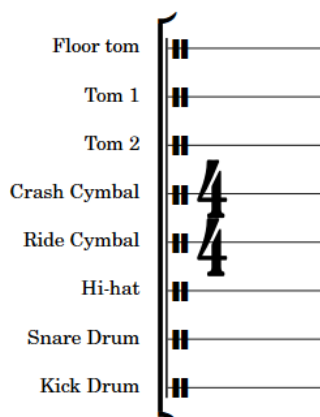
Staff labels for individual instruments in grids use a smaller font and a different paragraph style than used for standard instrument staff labels. Groups in grids use the standard staff label paragraph style.



### Single-line instruments

Multiple instrument names: one for each kit instrument, positioned beside the corresponding single-line staff.

Staff labels for single-line instruments use the same font and paragraph style as used for standard instrument staff labels.



You can change the player names, layout names, and instrument names of percussion kits in the same ways as for other players and instruments. However, to change the staff labels for percussion kits, you must change kit instrument names in different ways for percussion kits, depending on your percussion kit presentation type:

- 5-line staff: Open the **Edit Instrument Names** dialog from the **Players** panel in Setup mode, or use the **Name** field in the **Edit Percussion Kit** dialog, to change the name of the kit.
- Grid/Single-line instruments: Open the **Edit Instrument Names** dialog from inside the **Edit Percussion Kit** dialog in Setup mode to change the names of individual instruments.

The same instrument name fields and options are available for kit instruments as for standard pitched instruments.

#### RELATED LINKS

[Edit Instrument Names dialog](#) on page 176

[Player, layout, and instrument names](#) on page 172

[Renaming groups in grid presentation percussion kits](#) on page 155

[Creating groups of instruments within grid presentation percussion kits](#) on page 154

[Edit Percussion Kit dialog](#) on page 150

[Unpitched percussion](#) on page 1282

[Percussion kit presentation types](#) on page 1293

## Staff labels on condensed staves

Staff labels on condensed staves must reflect all the players included on the staff. Dorico Elements automatically consolidates identical instrument names in staff labels on condensed staves but always shows all the required player numbers.

On condensed staves containing different types of instruments or instruments with different names, all required instrument names are shown.

The image displays a musical score for a brass section, illustrating how staff labels are handled on condensed staves. The score is organized into five systems, each with two staves. The instruments and their player numbers are as follows:

- System 1:** Horn in F (players 1 and 2), Horn in F (players 3 and 4), Trumpet in C (players 1 and 2), Trombone (players 1 and 2), and Bass Trombone/Tuba.
- System 2:** Horn in F (players 1 and 2), Horn in F (players 3 and 4), Trumpet in C (players 1 and 2), Trombone (players 1 and 2), and Bass Trombone/Tuba.
- System 3:** Horn in F (players 1 and 2), Horn in F (players 3 and 4), Trumpet in C (players 1 and 2), Trombone (players 1 and 2), and Bass Trombone/Tuba.
- System 4:** Horn in F (players 1 and 2), Horn in F (players 3 and 4), Trumpet in C (players 1 and 2), Trombone (players 1 and 2), and Bass Trombone/Tuba.
- System 5:** Horn in F (players 1 and 2), Horn in F (players 3 and 4), Trumpet in C (players 1 and 2), Trombone (players 1 and 2), and Bass Trombone/Tuba.

Staff labels are placed to the left of each staff, indicating the instrument and the specific player numbers. The score includes musical notation such as notes, rests, and dynamic markings like *fp* (fortissimo piano) and *a2* (second octave).

#### Staff labels on condensed brass staves

Because condensing can change frequently, staff labels on condensed staves can vary from one system to another. The staff labels for condensed divisi staves reflect the divisions at the start of the system and show instrument names.

Dorico Elements also shows player labels above/below condensed staves to identify the players to which notes on condensed staves belong, as condensing can change within a single system. For condensed divisi staves, Dorico Elements shows the player labels "div.", with any required qualifications, and your set unison indication where each division starts and ends respectively.

RELATED LINKS

[Hiding/Showing staff labels](#) on page 1181

[Condensing](#) on page 595

[Player, layout, and instrument names](#) on page 172

# Staves

A staff is a line or group of lines on which musical notes are notated to indicate the pitch and rhythm of music. Pitched instruments use the traditional five-line staff and unpitched instruments often use a single-line staff.

Notes are positioned on the lines and in the spaces on five-line staves, and can also use ledger lines above/below the staff to represent pitches that cannot fit on the staff.



A phrase on a five-line staff



The same phrase on a single-line staff

The pitch and register of notes on five-line staves are determined by clefs, which can also be combined with octave lines to indicate what pitches performers play.

On five-line staves for unpitched percussion instruments, the different staff positions correspond to different percussion instruments.



Because it is often necessary to have different staff sizes in different layouts depending on their type, such as having smaller staves in full score layouts than in part layouts, in Dorico Elements you can change various aspects of staves in **Layout Options**.

## RELATED LINKS

[Page formatting](#) on page 555

[Layout Options dialog](#) on page 677

[Clefs](#) on page 816

[Octave lines](#) on page 822

[Percussion kit presentation types](#) on page 1293

[Hiding/Showing empty staves](#) on page 562

[Hiding/Showing blank staves after final flows](#) on page 564

[Adding players](#) on page 121

[Adding instruments to players](#) on page 133

[Condensing](#) on page 595

[Divisi](#) on page 1199

[System dividers](#) on page 1194

[System objects](#) on page 1196

[System indents](#) on page 1198

## Per-layout options for staves

You can change settings that affect the staves in each layout independently.

You can change the size of staves in each layout in the **Space Size** section of the **Page Setup** page in **Layout Options**.

You can change other aspects of staves on the **Staves and Systems** page in **Layout Options**. For example, you can change which staff labels are shown on systems, indent the first system of each flow, and fix the number of bars included in each system. You can also select above which staves system objects appear, according to their instrument families.

### NOTE

- If the size of system object font styles is set to **Staff-relative**, the staff size of the top staff in each instrument family group affects the size of system objects if they are shown above that bracketed group. Font styles that are set to **Absolute** are unaffected by staff size.
- System objects are only shown above bracketed groups in your project. If you have no brackets, system objects only appear at the top of systems.

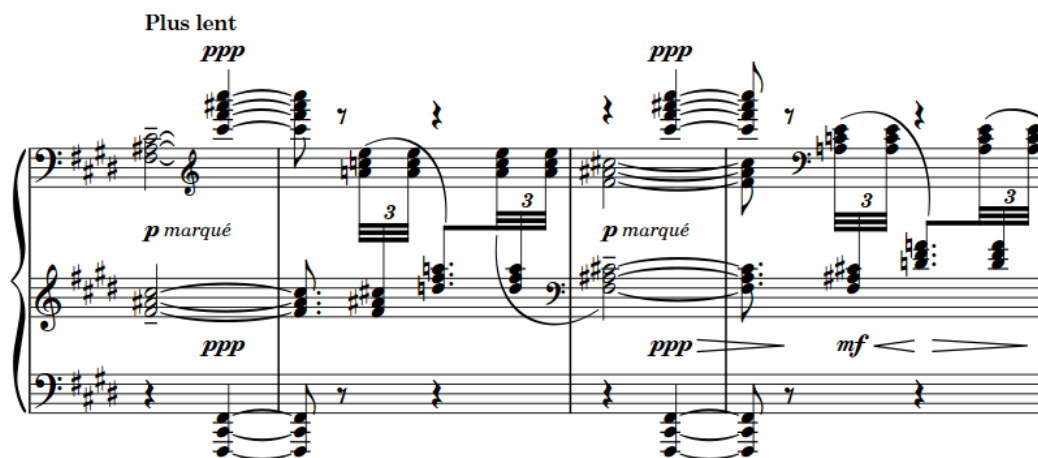
### RELATED LINKS

- [Page formatting](#) on page 555
- [Layout Options dialog](#) on page 677
- [Staff size](#) on page 573
- [System objects](#) on page 1196
- [Hiding/Showing empty staves](#) on page 562
- [Hiding/Showing system dividers](#) on page 1195
- [Brackets and braces](#) on page 776

## Extra staves

It is sometimes necessary to add extra staves to instruments; for example, to make complex contrapuntal music easier to read because it is spread out across more staves than usual for that instrument.

In Dorico Elements, you cannot add extra staves. However, extra staves are shown if you import or open a project that contains them.



The image shows a musical score extract for Debussy's piano prelude "Feuilles mortes". It features three staves. The top staff is in bass clef and contains a melodic line with a tempo marking "Plus lent" and a dynamic marking "ppp". The middle staff is in treble clef and contains a melodic line with a dynamic marking "p marqué". The bottom staff is in bass clef and contains a bass line with a dynamic marking "ppp" and a crescendo leading to "mf". The score includes various musical notations such as triplets, slurs, and dynamic markings.

An extract of Debussy's piano prelude "Feuilles mortes" with three staves

RELATED LINKS

- [Ossia staves](#) on page 1194
- [Divisi](#) on page 1199
- [Voice-specific dynamics](#) on page 838
- [Hiding/Showing empty staves](#) on page 562
- [Signposts](#) on page 426

## Ossia staves

Ossia staves are smaller staves shown above/below the main staff of an instrument. They are used to show alternative phrases that can be played instead of the original phrase, such as suggestions for ornaments, alternative notations from other sources, or an easier version.

In Dorico Elements, you cannot add ossia staves. However, ossia staves are shown if you import or open a project that contains them.

The image shows a musical score for piano. The main staff is in treble clef, 3/8 time, with a key signature of one sharp (F#). It contains a melodic line starting with a piano (*p*) dynamic. Below the main staff, there is an ossia staff in bass clef, also in 3/8 time and one sharp. This ossia staff provides an easier alternative to the main staff's melody, featuring a lower range and simpler intervals. The ossia staff is labeled "Piu facile" and includes a fermata and a 7-measure rest. The main staff also includes a fermata and a 7-measure rest. The ossia staff is connected to the main staff by a brace on the left and a line on the right. The ossia staff is also labeled "Ped." and includes fingerings (1, 2, 1, 2, 1, 2, 1).

An ossia staff below the left-hand piano staff shows an easier alternative

RELATED LINKS

- [Extra staves](#) on page 1193

## System dividers

System dividers are used to clarify the separation of different systems when they appear on the same page. They are usually shown as two thick, parallel angled lines positioned to the left of initial barlines.

In Dorico Elements, the outer edges of system dividers are aligned with the corresponding edges of music frames.



A system divider between two systems in a string quartet score

You can show system dividers in different circumstances and change their appearance in each layout independently.

## Hiding/Showing system dividers

You can change the circumstances in which system dividers are shown, including specifying the minimum number of players required to show them, in each layout independently. For example, if you only want to show system dividers between systems that contain different numbers of staves.

---

### PROCEDURE

1. Press **Ctrl/Cmd-Shift-L** to open **Layout Options**.
2. In the **Layouts** list, select the layouts in which you want to hide/show system dividers.  
By default, the layout currently open in the music area is selected when you open the dialog. You can select other layouts by using the selection options in the action bar, clicking and dragging across multiple layouts, **Shift**-clicking adjacent layouts, and **Ctrl/Cmd**-clicking individual layouts.
3. In the category list, click **Staves and Systems**.
4. In the **System Dividers** section, activate/deactivate **Show system dividers**.
5. If you activated **Show system dividers**, choose one of the following options:
  - To show system dividers only between systems containing more than a set number of staves, choose **When min. staves exceeded**.
  - To show system dividers between all systems in flows that contain more than a set number of players, choose **When min. players exceeded**.
  - To show system dividers only between systems containing different numbers of staves, **When number of staves differs**.
6. Optional: Do one of the following:
  - If you chose **When min. staves exceeded**, change the value for **Minimum number of staves in system**.
  - If you chose **When min. players exceeded**, change the value for **Minimum number of players**.
7. Click **Apply**, then **Close**.

---

### RESULT

- If you deactivated **Show system dividers**, system dividers are hidden in the selected layouts.
- If you activated **Show system dividers**, system dividers are shown in the corresponding circumstances in the selected layouts.



RELATED LINKS

[Hiding/Showing empty staves](#) on page 562

## Changing the length of system dividers

You can change the length of system dividers in each layout independently; for example, if you want to show longer system dividers in layouts that show full staff labels.

---

PROCEDURE

1. Press **Ctrl/Cmd-Shift-L** to open **Layout Options**.
  2. In the **Layouts** list, select the layouts in which you want to show system dividers.  
By default, the layout currently open in the music area is selected when you open the dialog. You can select other layouts by using the selection options in the action bar, clicking and dragging across multiple layouts, **Shift**-clicking adjacent layouts, and **Ctrl/Cmd**-clicking individual layouts.
  3. In the category list, click **Staves and Systems**.
  4. In the **System Dividers** section, choose one of the following options for **Appearance**:
    - **Default**
    - **Long**
    - **Extra long**
  5. Click **Apply**, then **Close**.
- 

## System objects

System objects are items that apply to all staves in the system and appear in all layouts, but are not necessary to show on every staff in full score layouts. For example, tempo marks and rehearsal marks are important for all players to see in their parts, but would cause an orchestral full score to appear very cluttered if they were shown on every staff.

In Dorico Elements, the following items are considered system objects:

- Rehearsal marks
- Repeat endings
- Repeat markers
- System-attached text
- Tempo marks
- Time signatures shown above the staff
- Horizontal lines that apply to all staves

System objects automatically appear at least once in all layouts. You can show system objects at multiple positions in each system by showing them above multiple instrument families. For example, you might show them above the woodwind, brass, percussion, and string families. In an orchestral full score, this would ensure system objects are spread out evenly across the page, meaning no staff is very far from these important markings. You can also show rehearsal marks and repeat endings additionally below the bottom staff.

NOTE

- System objects are only shown above instrument families that are bracketed or braced together. You can change bracket grouping in each layout independently.

- If the size of system object font styles is set to **Staff-relative**, the staff size of the top staff in each instrument family group affects the size of system objects if they are shown above that bracketed group. Font styles that are set to **Absolute** are unaffected by staff size.
- 

#### RELATED LINKS

[Changing bracket grouping according to ensemble type](#) on page 777

[Brackets and braces](#) on page 776

[Rehearsal marks](#) on page 1095

[Tempo marks](#) on page 1204

[Repeat endings](#) on page 1107

[Large time signatures](#) on page 1254

[Inputting text items](#) on page 370

## Changing the positions of system objects

You can show system objects above different instrument families in each layout independently. Multiple items are categorized as system objects, including system-attached text, rehearsal marks, tempo marks, repeat markers, and repeat endings.

---

#### PROCEDURE

1. Press **Ctrl/Cmd-Shift-L** to open **Layout Options**.
  2. In the **Layouts** list, select the layouts in which you want to change the instrument families above which system objects appear.  
By default, the layout currently open in the music area is selected when you open the dialog. You can select other layouts by using the selection options in the action bar, clicking and dragging across multiple layouts, **Shift**-clicking adjacent layouts, and **Ctrl/Cmd**-clicking individual layouts.
  3. In the category list, click **Staves and Systems**.
  4. In the **System Objects** section, activate the checkboxes for the instrument families above which you want system objects to appear.
  5. Activate/Deactivate the following options for **Also show below bottom staff**:
    - **Repeat endings**
    - **Rehearsal marks**
  6. Click **Apply**, then **Close**.
- 

#### RESULT

System objects appear above the top staff in each bracketed group you select, provided a bracketed group for that instrument family is included in the selected layouts. If you activated options for **Also show below bottom staff**, the corresponding notations additionally appear below the bottom staff.

#### NOTE

System objects are only shown above instrument families that are bracketed or braced together. You can change bracket grouping in each layout independently.

---

#### RELATED LINKS

[System objects](#) on page 1196

## System indents

System indents control the distance between the left page margin and the start of systems of music. According to tradition, the first system in part layouts is indented, but in modern use this is not always necessary.

According to convention, coda sections at the start of new systems are also indented. Dorico Elements uses the same gap size before the start of codas whether they occur partway through systems or at the start of a new system.



A violin part with the first system indented

In Dorico Elements, system indents automatically adjust to accommodate staff labels. For example, if a system contains a staff label that is significantly longer than the minimum system indent, Dorico Elements increases the indent on that system to ensure the staff label remains legible and is not cut off on the left edge or collides with the music.

You can change both the minimum indent on systems with staff labels and the first system indent in each layout independently. You can also adjust the system indent at both the start and end of individual systems, independently of your per-layout settings.

### RELATED LINKS

[Changing the minimum indent for systems with staff labels](#) on page 1182

[Hiding/Showing staff labels](#) on page 1181

[Changing the horizontal justification of final systems](#) on page 569

## Changing the first system indent

By default in Dorico Elements, the first system of each flow is indented in part layouts. You can change the indent for the first system of all flows in each layout independently.

### PROCEDURE

1. Press **Ctrl/Cmd-Shift-L** to open **Layout Options**.
2. In the **Layouts** list, select the layouts whose first system indent you want to change.  
By default, the layout currently open in the music area is selected when you open the dialog. You can select other layouts by using the selection options in the action bar, clicking and dragging across multiple layouts, **Shift**-clicking adjacent layouts, and **Ctrl/Cmd**-clicking individual layouts.
3. In the category list, click **Staves and Systems**.
4. In the **Staff Labels** section, change the value for **Indent first system of flow by**.
5. Click **Apply**, then **Close**.

### RESULT

The indent of the first system of all flows is changed in the selected layouts.

# Divisi

Divisi is when players split, or “divide”, in order to play multiple lines of music, commonly for a limited passage, before returning to play together, or “tutti”. Divisi passages can be notated with all lines on a single staff or across multiple staves.

Divisi is a technique most commonly used in orchestral string writing, as the string section typically contains a large number of players compared to the number of staves. For example, large orchestras commonly have twelve first violins all playing the same part most of the time. Dividing those players into multiple parts allows composers to write more complex contrapuntal music.

An example divisi change in a Violin I part, splitting it into two sections and a solo line

If the division is relatively simple, it is possible to write all parts on the same staff and label the section, with an indication of how many players are required for each line if necessary. If the parts have different rhythms at times, you can input them into separate voices on the same staff.

However, when a section is divided into multiple parts that are too different to be clearly written on a single staff, it is necessary to divide them onto multiple staves. In Dorico Pro, divisi changes allow you not only to divide sections into any number of parts with any number of staves, but also to include solo lines and group staves as required.

In Dorico Elements, you cannot input divisi changes. However, divisi changes are shown if you import or open a project that contains them.

## RELATED LINKS

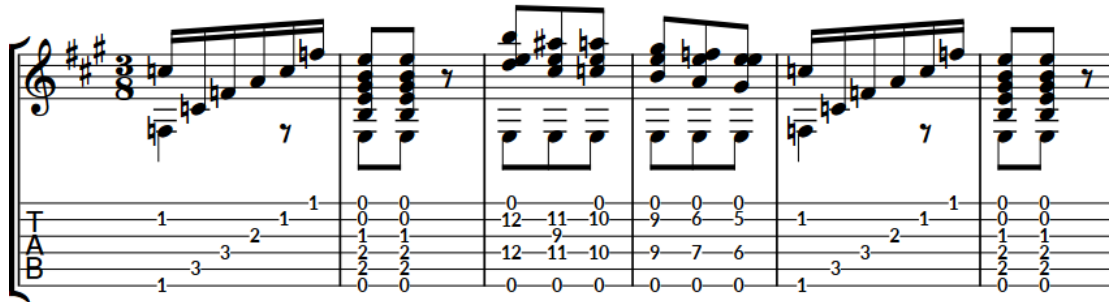
[Extra staves](#) on page 1193

[Inputting notes into multiple voices](#) on page 221

[Condensing](#) on page 595

# Tablature

Tablature is an alternative notation to the five-line staff, and is used for fretted instruments. On tablature, pitches are indicated by fret numbers positioned on lines, each of which represents a string on the instrument. As tablature is commonly used for guitars, it usually shows six lines.

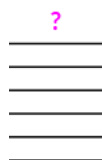


An extract of guitar music shown on both a notation staff and tablature

In Dorico Elements, you can show music for fretted instruments, such as the guitar or bass, on a regular notation staff and tablature together or only show one or the other. Notes and notations are linked between both presentations, meaning any changes you make to one, including inputting notes, automatically update the other.

On tablature, ties are automatically notated as round brackets around the second note/chord and all subsequent notes/chords in tie chains.

Any notes beyond the range of the instrument or impossible to calculate, such as below the nut on the lowest string or a natural harmonic without a suitable node, are shown on tablature as pink question marks. If two notes are allocated to the same string at the same rhythmic position, both notes appear beside each other and are colored green.



Note on tablature that cannot be calculated

The appropriate tablature is automatically shown for instruments according to their strings and tuning settings. There are default tunings stored for each instrument type in Dorico Elements, which you can customize in the **Edit Strings and Tuning** dialog.

## RELATED LINKS

[Hiding/Showing notation staves and tablature](#) on page 1201

[Fretted instrument tuning](#) on page 138

[Edit Strings and Tuning dialog](#) on page 138

[Inputting notes on tablature](#) on page 232

[Changing music area colors](#) on page 54

[Harmonics](#) on page 968

[Guitar bends](#) on page 1006

[Guitar techniques](#) on page 1021

[Ties](#) on page 1232

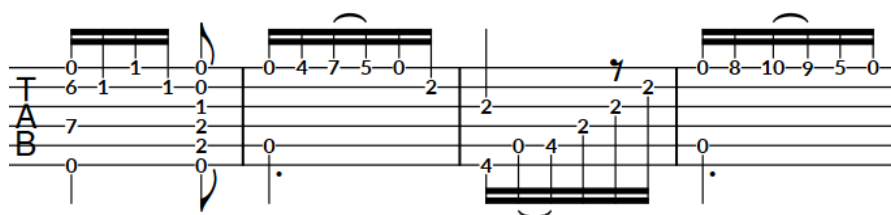
[Trills on page 981](#)

## Rhythms on tablature

When notation staves and tablature are both shown, it is customary only to notate rhythms on the notation staff. However, when only tablature is shown, it is necessary to show rhythms on tablature.

The following items are shown to indicate rhythms on tablature:

- Time signatures
- Stems, stem flags, and beaming
- Rhythm dots



Rhythms shown on tablature

### NOTE

Stems, stem flags, and beaming always appear stem-up on tablature in single-voice contexts, which means they can collide with guitar bends.

---

### RELATED LINKS

[Inputting notes on tablature on page 232](#)

## Hiding/Showing notation staves and tablature

You can show notation staves only, tablature only, or both in each layout independently and for each player holding at least one fretted instrument independently. For example, you can show only notation staves in the full score layout, but the notation staff and tablature in a guitar part layout.

When tablature is shown, it can appear with or without rhythms.

---

### PROCEDURE

1. Press **Ctrl/Cmd-Shift-L** to open **Layout Options**.
2. In the **Layouts** list, select the layouts in which you want to hide/show tablature.  
By default, the layout currently open in the music area is selected when you open the dialog. You can select other layouts by using the selection options in the action bar, clicking and dragging across multiple layouts, **Shift**-clicking adjacent layouts, and **Ctrl/Cmd**-clicking individual layouts.
3. In the category list, click **Players**.
4. In the **Fretted Instruments** section, choose one of the following options for each player holding at least one fretted instrument in your project:
  - To show only notation staves and hide tablature, choose **Notation only**.
  - To show both notation staves and tablature, choose **Notation and tablature**.

- To show only tablature and hide notation staves, choose **Tablature only**.
5. Optional: If you chose **Notation and tablature** or **Tablature only**, activate/deactivate **Show rhythms in tablature**.
  6. Click **Apply**, then **Close**.
- 

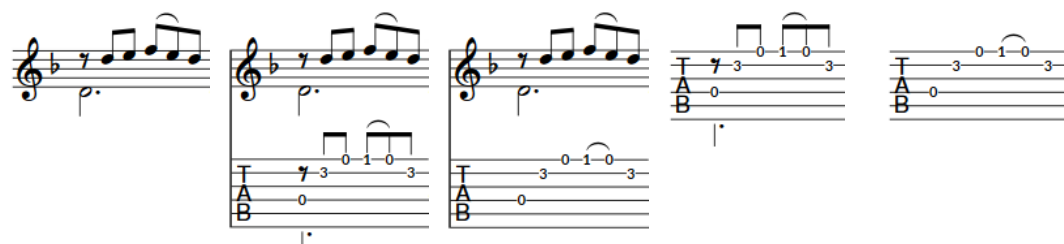
#### RESULT

Notation staves and tablature are hidden/shown for the corresponding players in the selected layouts.

If tablature is shown, it appears with rhythms when **Show rhythms in tablature** is activated, and without rhythms when it is deactivated.

---

#### EXAMPLE



**Notation only**      **Notation and tablature with rhythms**      **Notation and tablature without rhythms**      **Tablature only with rhythms**      **Tablature only without rhythms**

---

#### RELATED LINKS

- [Players](#) on page 120
- [Fretted instrument tuning](#) on page 138
- [Inputting notes on tablature](#) on page 232
- [Guitar bends](#) on page 1006
- [Guitar techniques](#) on page 1021
- [Hiding/Showing empty staves](#) on page 562
- [Changing instruments](#) on page 136

## Changing the allocated string for notes on tablature


You can change the string to which individual notes are allocated on tablature manually; for example, if you input the notes on the notation staff and want to change their default string allocation.

#### NOTE

You cannot allocate notes to a string on which they are impossible, such as if the note is lower than the open pitch of the string.

---

#### PREREQUISITE

- The lower zone is shown.
- **Properties**  is selected in the lower zone toolbar.

#### PROCEDURE

1. On tablature, select the fret numbers of notes whose allocated string you want to change. You can do this in Write mode and Engrave mode.

#### NOTE

You must select fret numbers on tablature, you cannot select the notes on notation staves.

---

2. Change their allocated string in any of the following ways:
    - To move them up a string, press **N**.
    - To move them down a string, press **M**.
    - In the Properties panel, select a string from the **String** menu in the **Notes and Rests** group.
- 

#### RESULT

The string to which the selected notes are allocated is changed. Using the key commands changes the string of the selected notes proportionally, whereas selecting a string from the **String** menu allocates all selected notes to the selected string.

#### NOTE

- If they are now allocated to the same string as another note at that rhythmic position, both notes appear beside each other and are colored green.
  - Deactivating the property resets the selected notes to their default string.
- 

#### EXAMPLE

The image shows a musical staff with a treble clef and a key signature of two sharps (F# and C#). The notation includes a series of notes on a single string, with fret numbers 3, 15, 4, 16, and 517 indicated below the staff. The notes are colored green, indicating they are allocated to the same string.

Notes allocated to the same string

The image shows the same musical staff as the previous example, but with the notes now allocated to different strings. The fret numbers are 15, 16, 17, 12, 13, and 14, indicating that the notes are now on different strings to reduce the distance between frets.

After changing the strings for some notes to reduce the distance between frets

---

#### RELATED LINKS

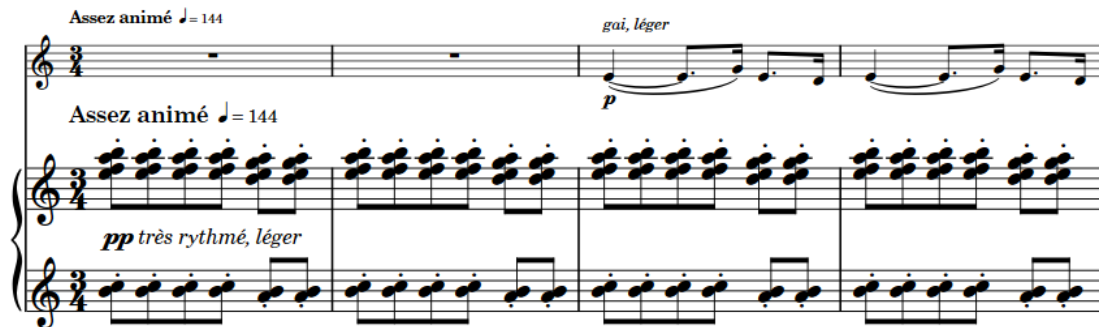
[Inputting notes on tablature](#) on page 232



# Tempo marks

Tempo marks indicate how fast music is played, often with a combination of text instructions and metronome marks. They are also known as “tempo changes”, “tempo indications”, and “tempo markings”.

A tempo mark can show text instructions, a metronome mark, or a combination of the two.



The image shows a musical score snippet in 3/4 time. The top staff (treble clef) contains a melodic line with notes and rests. Above the first measure, the tempo mark "Assez animé ♩ = 144" is written. Above the second measure, the text "gai, léger" is written, and below it, the dynamic marking "p" is present. The bottom two staves (piano part) show a rhythmic accompaniment with chords and eighth notes. Above the first measure of the piano part, the tempo mark "Assez animé ♩ = 144" is written, and below it, the dynamic marking "pp très rythmé, léger" is present.

Tempo mark containing text instruction in French and metronome mark

Text instructions are traditionally expressed in Italian, such as *largo* or *allegretto*, but other languages, such as English, French, and German, have become widely accepted. The text instruction can express simply how fast the music is played, but can also suggest its character. For example, *grave* means slow but also solemn and sad, and *vivo* means fast but also lively and sprightly.

Metronome marks show the speed of the music, indicated in beats per minute, or “bpm”. Metronome marks can show a fixed bpm or indicate a range of possible or acceptable values.

Gradual tempo changes indicate a change in tempo over a defined period of time. They can appear differently; for example, with/without a continuation line or with the text split into syllables and spread across their duration.

Tempo marks use a bold font with a large point size, so they are clearly noticeable on the page. They do not usually use an italic font.

In Dorico Elements, tempo marks are categorized as system objects. Therefore, tempo marks follow your per-layout settings for the visibility and positioning of system objects.

By default, the tempo marks you input set the tempo for playback and MIDI recording, but you can change the tempo mode if, for example, you want to use a single fixed tempo when recording MIDI. Gradual tempo changes also affect the playback tempo, and you can change the final tempo at the end of gradual tempo changes; for example, if you want to reach a specific bpm at the end. If you do not input any tempo marks into your project, the default playback tempo is 120 bpm.

## RELATED LINKS

[Metronome marks](#) on page 1211

[Gradual tempo changes](#) on page 1215

[Tempo mark components](#) on page 1206

[Tempo track](#) on page 496

[Tempo editor](#) on page 656

[Input methods for tempo marks](#) on page 280

[Positions of tempo marks](#) on page 1208  
[System objects](#) on page 1196  
[Changing the positions of system objects](#) on page 1197  
[Changing the tempo mode](#) on page 504  
[Layout Options dialog](#) on page 677

## Types of tempo marks

Dorico Elements groups tempo marks into different types according to their function and effect on the music.

In Dorico Elements, there are the following types of tempo marks:

### Absolute Tempo Change

Indicates a defined change in tempo, and is often shown with a metronome mark. For example, “Adagio  $\text{♩}=76$ ”.

### Gradual Tempo Change

Indicates a change in tempo over a defined period of time, such as *rallentando* (slowing down) or *accelerando* (speeding up).

### Relative Tempo Change

Indicates a change in tempo that is relative to the previous tempo, such as *mosso* (movement).

Relative tempo changes often include modifiers that qualify the change, such as *poco meno mosso* (a little less movement), and are not defined by a metronome mark. You can, however, set a relative metronome mark change as a percentage of the previous metronome mark that updates automatically if the previous metronome mark changes.

### Reset Tempo

Returns the tempo to the previous tempo, such as *A tempo*, or a previously defined tempo, such as *Tempo primo* (return to the first tempo of the piece).

### Tempo Equation

Indicates a change in the beat unit on which metronome marks are based. For example, if the time signature changes from 3/4 to 6/8, a tempo equation of  $\text{♩}=\text{♩}$  indicates the same metronome mark value that applied to the quarter note beat unit in 3/4 now applies to the dotted quarter note beat unit in 6/8.

#### RELATED LINKS

[Metronome marks](#) on page 1211  
[Gradual tempo changes](#) on page 1215  
[Tempo equations](#) on page 1218  
[Input methods for tempo marks](#) on page 280  
[Tempo panel](#) on page 283  
[Tempo popover](#) on page 280  
[Changing the relative tempo mark value](#) on page 1213

## Tempo mark components

Tempo mark components include text, metronome marks, parentheses, and approximate indications. Tempo marks can include different components in different combinations, depending on your preference or the requirements for different projects.

You can activate properties that correspond to the different components in the **Tempo** group of the Properties panel. You can activate one or more of the following tempo mark properties in any combination for individual absolute tempo changes:

### Text shown

Shows tempo text when activated, and no tempo text when deactivated.

### Metronome mark shown

Shows metronome marks when activated, and no metronome marks when deactivated.

### Parenthesized

Shows metronome marks in parentheses when activated, and without parentheses when deactivated. This also applies to approximate metronome marks.

### Is approximate

Shows metronome marks as approximate when activated, and absolute when deactivated.

### Approximate appearance

Allows you to choose how approximate metronome marks appear; for example, **c.** or **circa**.

#### NOTE

This property applies specifically to approximate tempo marks, and is only available when **Is approximate** is activated.

---

### Show equals sign

An equals sign is shown when the property and its corresponding checkbox are both activated. No equals sign is shown when the checkbox is deactivated.

#### NOTE

This property applies specifically to approximate tempo marks, and is only available when **Is approximate** is activated.

---

## Components for gradual tempo changes

The following components only apply to gradual tempo changes, such as *rallentando*:

### Poco a poco

*Poco a poco* text is shown immediately after gradual tempo change text when the checkbox beside the property is activated.

#### RELATED LINKS

[Changing the order of metronome marks](#) on page 1214

[Changing tempo text](#) on page 1209

[Hiding/Showing tempo marks](#) on page 1211


[Tempo track](#) on page 496

[Tempo editor](#) on page 656

## Changing the type and appearance of absolute tempo changes

You can change which components are included in individual absolute tempo changes, and how they appear. For example, if you want to show only parenthesized metronome marks in some tempo marks and only text in other tempo marks.

### PREREQUISITE

- The lower zone is shown.
- **Properties**  is selected in the lower zone toolbar.

---

### PROCEDURE

1. Select the absolute tempo marks whose components you want to change. You can do this in Write mode and Engrave mode.
2. In the Properties panel, activate any of the following properties in the **Tempo** group:
  - **Text shown**
  - **Metronome mark shown**
  - **Parenthesized**
  - **Is approximate**
  - **Approximate appearance** (only available when **Is approximate** is activated)
  - **Show equals sign** (only available when **Is approximate** is activated)

---

### RESULT

The selected tempo marks are changed to include the corresponding components.  
When all properties are deactivated, tempo marks are hidden and indicated by signposts.

### RELATED LINKS

[Hiding/Showing zones](#) on page 44

[Tempo mark components](#) on page 1206

[Signposts](#) on page 426

## Adding poco a poco text to gradual tempo changes


You can add *poco a poco* text immediately after individual gradual tempo changes.

### NOTE

You can also enter **poco a poco** directly into the tempo popover. However, this means the entry is treated as a tempo mark rather than a gradual tempo change, which changes the properties you can use on it.

---

### PREREQUISITE

- The lower zone is shown.
- **Properties**  is selected in the lower zone toolbar.

---

### PROCEDURE

1. Select the gradual tempo changes to which you want to add *poco a poco* text. You can do this in Write mode and Engrave mode.
  2. In the Properties panel, activate **Poco a poco** in the **Tempo** group.
-

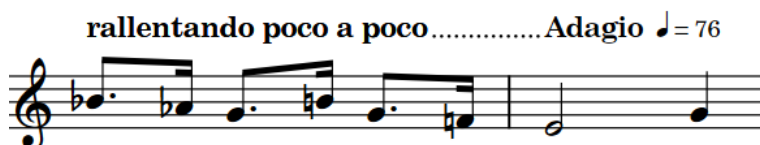
#### RESULT

*Poco a poco* text is shown immediately after the text in the selected gradual tempo changes.

Deactivating **Poco a poco (little by little)** removes *poco a poco* text from the selected gradual tempo changes.

---

#### EXAMPLE



*Rallentando* with *poco a poco* text

---

## Positions of tempo marks

Tempo marks are placed above the staff and at the same positions as other system objects, because they usually apply to all staves. They are placed above notations such as slurs, ties, and octave lines, and are often aligned with rehearsal marks to ensure clear readability.

By default in Dorico Elements, tempo marks align with either a time signature or the notehead/rest at the rhythmic position to which they apply. For example, if there is a notehead with an accidental at the rhythmic position of a tempo mark, it is convention to align the tempo mark with the accidental.

If a repeat mark occurs mid-system and is not treated as a barline, tempo marks are aligned with the repeat mark.

When a tempo mark includes both text and a metronome mark, the text appears first, followed by the metronome mark.

You can move tempo marks to different rhythmic positions in Write mode. They are automatically positioned to avoid collisions.

You can move tempo marks graphically in Engrave mode, but this does not change the rhythmic positions to which they are attached.

In Engrave mode, each gradual tempo change has two square handles, one at the start and one at the end. You can move these handles to adjust the graphical position and length of gradual tempo changes. You cannot change the angle of gradual tempo changes.

If gradual tempo changes cross system and frame breaks, you can move the line segments on each side of the break independently.

Tempo marks are categorized as system objects in Dorico Elements, which you can show above the first bracket of selected instrument families. You can change the instrument families above which system objects appear in each layout independently; for example, if you want tempo marks to appear at multiple vertical positions in each system in the full score only.

#### RELATED LINKS

[Input methods for tempo marks](#) on page 280

[Changing the order of metronome marks](#) on page 1214

[System objects](#) on page 1196

[Changing the positions of system objects](#) on page 1197

[Moving notes/items rhythmically](#) on page 437

[Moving items graphically](#) on page 481

## Changing the end position of gradual tempo changes relative to barlines


You can change how the ends of individual gradual tempo change continuations are positioned relative to barlines. You can do this for the current layout and frame chain only, or for all layouts and frame chains.

### NOTE

This does not affect the appearance of gradual tempo changes with the text-only style.

---

### PREREQUISITE

- The lower zone is shown.
  - **Properties**  is selected in the lower zone toolbar.
  - You have chosen the appropriate property scope for local properties.
- 

### PROCEDURE

1. In Engrave mode, select the gradual tempo changes whose end position relative to barlines you want to change.
  2. In the Properties panel, activate **Barline interaction** in the **Tempo** group.
  3. Choose one of the following options:
    - **Stop before**
    - **Continue**
- 

### RESULT

The end position of the selected gradual tempo changes is changed. If the property scope was set to **Locally**, this change only takes effect in the current layout and frame chain.

### RELATED LINKS

[Changing the style of gradual tempo changes](#) on page 1216

[Changing the property scope](#) on page 617


[Copying property settings to other layouts/frame chains](#) on page 599

---

## Changing tempo text

You can change the text of existing tempo marks individually. For example, if you want to add “*al fine*” to a *ritardando* at the end of a flow.

### PREREQUISITE

- The lower zone is shown.
  - **Properties**  is selected in the lower zone toolbar.
- 

### PROCEDURE

1. Select the tempo marks whose tempo text you want to change. You can do this in Write mode and Engrave mode.
2. In the Properties panel, enter the tempo text you want into the **Text** field in the **Tempo** group.

3. Press **Return**.
- 

#### RESULT

The tempo text for the selected tempo marks is changed.

#### TIP

You can also change the tempo text by opening the tempo popover and changing the entry.

---


#### RELATED LINKS

- [Properties panel](#) on page 615
- [Input methods for tempo marks](#) on page 280
- [Tempo popover](#) on page 280
- [Changing existing items](#) on page 412
- [Tempo mark components](#) on page 1206
- [Changing the order of metronome marks](#) on page 1214

## Showing abbreviated tempo text

You can show individual tempo marks with custom abbreviated text in some layouts; for example, if a long tempo mark extends beyond the page boundary in some part layouts but the abbreviated version fits within the boundary.

#### PREREQUISITE

- The lower zone is shown.
  - **Properties**  is selected in the lower zone toolbar.
  - You have chosen the appropriate property scope for local properties.
- 

#### PROCEDURE

1. In the music area, open the layout in which you want to show abbreviated tempo text. You can do this in Write mode and Engrave mode.
  2. Select the tempo marks you want to show with abbreviated text.
  3. In the Properties panel, activate **Abbreviation** in the **Tempo** group.
  4. Enter the text you want into the value field.
  5. Activate **Abbreviate** in the **Tempo** group.
  6. Activate the corresponding checkbox.
- 

#### RESULT

The selected tempo marks appear with abbreviated text when **Abbreviation** is activated and **Abbreviate** is deactivated, or when **Abbreviation** and both **Abbreviate** and its corresponding checkbox are all activated. This allows you to switch between showing abbreviated/full text in different layouts without deleting your abbreviated text from the **Abbreviation** value field.


#### RELATED LINKS

- [Changing the property scope](#) on page 617
- [Copying property settings to other layouts/frame chains](#) on page 599

## Hiding/Showing tempo marks

You can hide/show the different components in individual tempo marks without changing the speed of playback. This affects their appearance in all layouts.

### PREREQUISITE

- The lower zone is shown.
- **Properties**  is selected in the lower zone toolbar.

---

### PROCEDURE

1. Select the tempo marks you want to hide, or the signposts of tempo marks you want to show. You can do this in Write mode and Engrave mode.
2. In the Properties panel, activate/deactivate the following properties in the **Tempo** group:
  - **Text shown**
  - **Metronome mark shown**

---

### RESULT

When at least one of the properties is activated, the selected tempo marks are shown. They display components according to the properties that are activated.

When neither property is activated, the selected tempo marks are hidden. Signposts are shown at the position of each hidden tempo mark as they still affect the speed of playback.

### RELATED LINKS

[Changing the type and appearance of absolute tempo changes](#) on page 1207


[Signposts](#) on page 426

[Changing the tempo mode](#) on page 504

[Muting notes/items individually](#) on page 509

## Metronome marks

Tempo marks often include a metronome mark value. Metronome marks show the speed of the music, indicated in beats per minute, or "bpm". For example, a bpm of 60 means one beat per second. The more beats per minute, the faster the music.

 = 176–184

A metronome mark shown as a range

Metronome marks can be precise, such as  $\text{♩} = 176$ , or can indicate an acceptable range, such as  $\text{♩} = 152-176$ . They can also be shown in parentheses, which is useful if the metronome mark is intended as a guide rather than a fixed value.

By default, metronome marks appear as integers and do not show decimal places. If you input a metronome mark with a decimal place, it is rounded to the nearest integer. Metronome marks that you input in the Tempo editor appear as signposts by default.

The beat unit used in metronome marks commonly relates to the meter; for example, the metronome mark beat unit is often a quarter note in 4/4 but a dotted quarter note in 6/8.



In Dorico Elements, metronome marks can appear as an individual value or as a range. Depending on the type and appearance of metronome marks, the bpm value can indicate a fixed tempo or an approximate tempo.

#### RELATED LINKS

[Input methods for tempo marks](#) on page 280

[Changing the order of metronome marks](#) on page 1214

[Changing the type and appearance of absolute tempo changes](#) on page 1207

[Tempo mark components](#) on page 1206

[Tempo equations](#) on page 1218

[Tempo track](#) on page 496

[Tempo editor](#) on page 656

## Changing the metronome mark value


You can change the metronome mark value of individual absolute tempo marks after they have been input, including changing the beat unit.

#### NOTE

These steps do not apply to gradual tempo changes or reset/relative tempo marks.

---

#### PREREQUISITE

- The lower zone is shown.
  - **Properties**  is selected in the lower zone toolbar.
- 

#### PROCEDURE

1. Select the absolute tempo marks whose metronome mark values you want to change. You can do this in Write mode and Engrave mode.
  2. In the Properties panel, change the value for **Tempo (bpm)** in the **Tempo** group.
  3. Press **Return**.
  4. Choose the appropriate note duration and rhythm dot, if applicable, for **Beat unit**.
- 

#### RESULT

The metronome mark value and beat unit is changed for the selected absolute tempo marks. This affects the tempo of playback, even if no metronome mark component is shown for those tempo marks.

#### NOTE

- By default, any decimals you enter are hidden and the displayed metronome mark value appears as the nearest integer. However, metronome marks always reflect their exact values in playback.
  - You can also change the metronome mark value by opening the tempo popover and changing the entry.
- 

#### RELATED LINKS

[Tempo popover](#) on page 280

[Changing existing items](#) on page 412

[Hiding/Showing zones](#) on page 44

[Properties panel](#) on page 615

## Showing the metronome mark value as a range


You can show the metronome mark value of individual absolute tempo marks as a range. For example, you can use this to indicate that any speed within the given range is musically appropriate for the piece.

### NOTE

These steps do not apply to gradual tempo changes or reset/relative tempo marks.

---

### PREREQUISITE

- The lower zone is shown.
  - **Properties**  is selected in the lower zone toolbar.
- 

### PROCEDURE

1. Select the absolute tempo marks whose metronome mark values you want to show as a range. You can do this in Write mode and Engrave mode.
  2. In the Properties panel, activate **Tempo range (bpm)** in the **Tempo** group.
  3. Change the value in the value field.
- 

### RESULT

The tempo range, expressed as beats per minute, is changed for the selected tempo marks. By default, metronome mark ranges use a dash separator.

### NOTE


Depending on the values set for each property, both **Tempo (bpm)** and **Tempo range (bpm)** can be the minimum/maximum tempo in the range, as Dorico Elements automatically arranges metronome mark ranges with the lower value first. However, the metronome mark used for playback is always **Tempo (bpm)**, regardless of whether that is the higher/lower value in the range.

---

## Changing the relative tempo mark value

You can change the tempo of individual relative tempo marks, expressed as a percentage of the previous tempo mark.

### PREREQUISITE

- The lower zone is shown.
  - **Properties**  is selected in the lower zone toolbar.
- 

### PROCEDURE

1. Select the relative tempo marks whose value you want to change. You can do this in Write mode and Engrave mode.
  2. In the Properties panel, change the value for **Relative %** in the **Tempo** group.
  3. Press **Return**.
-

#### RESULT

The tempo at the relative tempo mark is changed. For example, if the previous tempo was 100 bpm, and you change a relative tempo mark to 90, the new tempo is 90% of 100 bpm, which is 90 bpm.

#### RELATED LINKS


[Hiding/Showing zones](#) on page 44

[Properties panel](#) on page 615

## Changing the final tempo at the end of gradual tempo changes

You can change how significantly gradual tempo changes affect the tempo in playback, expressed as a percentage of the tempo at the start of the gradual tempo change.

#### PREREQUISITE

- The lower zone is shown.
- **Properties**  is selected in the lower zone toolbar.

---

#### PROCEDURE

1. Select the gradual tempo changes whose final tempo you want to change. You can do this in Write mode and Engrave mode.
2. In the Properties panel, change the value for **Final tempo %** in the **Tempo** group.
3. Press **Return**.

---

#### RESULT


The final tempo at the end of the selected gradual tempo changes is changed.

For example, if you change the value to 20 on a gradual tempo change that started at 100 bpm, the final tempo is 20% of 100 bpm, which is 20 bpm. If you change the value to 120 on a gradual tempo change that started at 100 bpm, the final tempo is 120% of 100 bpm, which is 120 bpm.

## Changing the order of metronome marks

You can change the order of metronome marks relative to tempo text for individual tempo marks. For example, if you want to show metronome marks before tempo text in some tempo marks but after tempo text in others.

#### PREREQUISITE

- The lower zone is shown.
- **Properties**  is selected in the lower zone toolbar.

---

#### PROCEDURE

1. Select the tempo marks whose metronome mark order you want to change. You can do this in Write mode and Engrave mode.
  2. In the Properties panel, activate **Metronome mark order** in the **Tempo** group.
  3. Choose one of the following options:
    - **Before**
    - **After**
-

#### RESULT

The order of metronome marks relative to tempo text in the selected tempo marks is changed.

---

#### EXAMPLE



Metronome mark before tempo text



Metronome mark after tempo text

---

#### RELATED LINKS

- [Hiding/Showing zones](#) on page 44
- [Properties panel](#) on page 615
- [Types of tempo marks](#) on page 1205
- [Metronome marks](#) on page 1211
- [Tempo mark components](#) on page 1206
- [Positions of tempo marks](#) on page 1208
- [Hiding/Showing tempo marks](#) on page 1211

## Gradual tempo changes

Gradual tempo changes indicate a change in tempo over a defined period of time, such as *rallentando*, which indicates slowing down, and *accelerando*, which indicates speeding up.



*Rallentando* with dashed line

Gradual tempo changes are considered a type of tempo mark in Dorico Elements, meaning you can input them in the same ways as for tempo marks.

Because gradual tempo changes have a different metronome mark value at the start/end, you can change the final tempo at the end of individual gradual tempo changes.

In Dorico Elements, you can show gradual tempo changes with different styles, such as with a continuation line or with syllables spread across their duration. You can also show gradual tempo changes with different line styles, such as dotted or dashed.

#### NOTE

You cannot change the angle of gradual tempo changes.

---


#### RELATED LINKS

- [Input methods for tempo marks](#) on page 280
- [Lengthening/Shortening items](#) on page 410
- [Changing the line style of gradual tempo changes](#) on page 1216
- [Changing the final tempo at the end of gradual tempo changes](#) on page 1214

## Changing the style of gradual tempo changes

You can change the style of individual gradual tempo changes. Gradual tempo changes can appear as text only with no continuation line, text with a continuation line, or with the word spread across their duration.

### PREREQUISITE

- The lower zone is shown.
- **Properties**  is selected in the lower zone toolbar.

---

### PROCEDURE

1. Select the gradual tempo changes whose style you want to change. You can do this in Write mode and Engrave mode.
2. In the Properties panel, activate **Gradual style** in the **Tempo** group.
3. Select one of the following options from the menu:
  - **rit.**
  - **rit...**
  - **rit-e-nu-to**

---

### RESULT

The style of the selected gradual tempo changes is changed.

### NOTE

Only gradual tempo changes with valid full text appear separated into syllables; for example, *ritenuto* or *accelerando*. Gradual tempo changes automatically have valid full text when you input them using the panel or select a suggested entry from the menu when using the popover. You can also change the text of existing gradual tempo changes, including adding hyphens manually to control how they are separated into syllables.

---

### EXAMPLE

**rallentando**

**rit.:** Text only

**rallentando**.....

**rit...:** Text with a continuation line

**ral . len . tan . do .**

**rit-e-nu-to:** Syllables in the text spread across the duration of the gradual tempo change

---

### RELATED LINKS

[Changing tempo text](#) on page 1209

## Changing the line style of gradual tempo changes


You can change the line style of individual gradual tempo changes whose style includes a continuation line.

### NOTE

This does not affect the appearance of gradual tempo changes with the text-only style.

---

#### PREREQUISITE

- The lower zone is shown.
- **Properties**  is selected in the lower zone toolbar.

---

#### PROCEDURE

1. Select the gradual tempo changes whose line style you want to change. You can do this in Write mode and Engrave mode.
2. In the Properties panel, activate **Line style** in the **Tempo** group.
3. Select one of the following options from the menu:
  - **Solid**
  - **Dotted**
  - **Dashed**

---

#### RESULT

The line style of the selected gradual tempo changes is changed.

## Lengthening/Shortening gaps and dashes in gradual tempo changes


You can change the length of dashes and the gaps between dashes in individual gradual tempo changes. You can do this for the current layout and frame chain only, or for all layouts and frame chains.

#### NOTE

These steps only apply to gradual tempo changes with dashed lines.

---

#### PREREQUISITE

- The lower zone is shown.
- **Properties**  is selected in the lower zone toolbar.
- You have chosen the appropriate property scope for local properties.

---

#### PROCEDURE

1. In Engrave mode, select the gradual tempo changes with dashed lines whose dash length you want to change.
2. In the Properties panel, activate the following properties, individually or together, in the **Tempo** group:
  - **Line dash length**
  - **Line dash gap**
3. Change the values in the value fields.

---

#### RESULT

Increasing **Line dash length** makes dashes in gradual tempo changes longer, decreasing the value makes dashes shorter.

Increasing **Line dash gap** makes gaps between dashes in gradual tempo change lines longer, decreasing the value makes gaps shorter.

If the property scope was set to **Locally**, this change only takes effect in the current layout and frame chain.

RELATED LINKS

[Changing the property scope](#) on page 617

[Copying property settings to other layouts/frame chains](#) on page 599

## Changing the line thickness of gradual tempo changes


You can change the thickness of dashed and solid lines in individual gradual tempo changes. You can do this for the current layout and frame chain only, or for all layouts and frame chains.

NOTE

These steps only apply to gradual tempo changes with dashed and solid lines.

---

PREREQUISITE

- The lower zone is shown.
  - **Properties**  is selected in the lower zone toolbar.
  - You have chosen the appropriate property scope for local properties.
- 

PROCEDURE

1. In Engrave mode, select the gradual tempo changes whose thickness you want to change.
  2. In the Properties panel, activate **Line thickness** in the **Tempo** group.
  3. Change the value in the value field.
- 

RESULT

Increasing the value makes dashed and solid lines thicker, decreasing the value makes dashed and solid lines thinner. If the property scope was set to **Locally**, this change only takes effect in the current layout and frame chain.

RELATED LINKS

[Changing the line style of gradual tempo changes](#) on page 1216

[Changing the property scope](#) on page 617

## Tempo equations

Tempo equations indicate a change in the beat unit on which metronome marks are based. They are often used to maintain a consistent pulse across multiple different meters.

For example, if the time signature changes from 6/8 to 3/4, a tempo equation of  $\text{♩} = \text{♩}$  indicates the same metronome mark value that applied to the dotted quarter note beat unit in 6/8 now applies to the quarter note beat unit in 3/4.



Tempo equations are considered a type of tempo mark in Dorico Elements, meaning you can input them in the same ways as for tempo marks.

**NOTE**

Tempo equations do not yet include tuplet durations. This is planned for future versions.

---

RELATED LINKS

[Input methods for tempo marks](#) on page 280



# Text items

Text items exist at rhythmic positions within flows and allow you to display generic text in the music.

You can customize the formatting of text in text items using the available text editor options, such as by applying different paragraph styles to each line of text and different character styles to each character.



The image shows a musical score snippet in 2/4 time. The piano staff has a dynamic marking of *mf*. Below the staff, there are several text items: *cloche\**, *Red.*, *\* Red.*, *\* Red.*, *\* Red.*, and *Red.*. A note below the staff reads: *\* Il faut bien fair ressortir la cloche dans tout le morceau.*

A text item below a piano staff

In Dorico Elements, there are the following types of text items:

## Staff-attached text

Text items that apply to individual staves and only appear on those staves.

## System-attached text

Text items that apply to all staves and appear in all applicable layouts. In Dorico Elements, system-attached text is categorized as a system object. Therefore, system-attached text follows your per-layout settings for the visibility and positioning of system objects.

### NOTE

- You can only use tokens in text frames. You cannot use tokens in text items. Full text frame functionality is only available in Dorico Pro.
- There are dedicated features for other types of text that often appear in musical scores, such as tempo marks and dynamics.

### RELATED LINKS

[Tokens on page 607](#)

[Inputting text items on page 370](#)

[Text editor options in Write mode on page 371](#)

[Adding borders to text items on page 1227](#)

[Hiding/Showing text items on page 1230](#)

[Aligning text items with the start of systems on page 1225](#)

[System objects on page 1196](#)

[Changing the positions of system objects on page 1197](#)

## Types of text

Generic text in Dorico Elements can exist as text items, either staff-attached or system-attached, or in text frames, which are fixed to the page rather than the music. There are dedicated features for other types of text that often appear in musical scores, such as tempo marks and dynamics.

In Dorico Elements, there are the following types of text:

### Text items

Text items exist at rhythmic positions within flows. They can display any text you enter, apart from tokens. You can customize the formatting of text in text items using the available text editor options, such as by applying different paragraph styles to each line of text and different character styles to each character.

Text items can apply either to individual staves, which is known as “staff-attached text”, or to all staves, which is known as “system-attached text”.

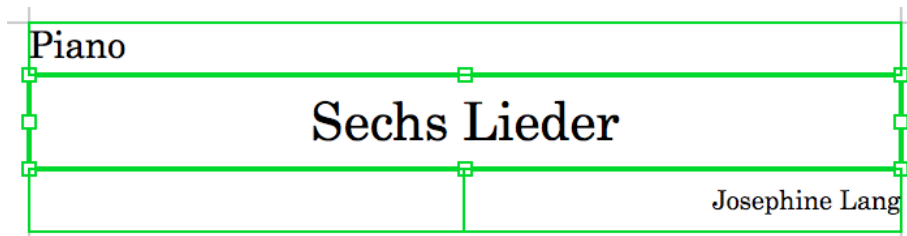


A musical score snippet for piano in 2/4 time. The score consists of two staves: a treble clef staff and a bass clef staff. The music includes chords, eighth notes, and triplets. Text items are placed below the bass staff: "mf" (dynamic), "cloche\*" (text), and several "Led." (text) items with asterisks. A footnote below the score reads: "\* Il faut bien faire ressortir la cloche dans tout le morceau."

A text item below a piano staff

### Text in text frames

Text frames exist on pages independently of rhythmic positions within flows. They can display any text you enter, including tokens. You can customize the formatting of text in text frames using the available text editor options, such as by applying different paragraph styles to each line of text and different character styles to each character.



A diagram showing text frames on a piano part layout. The frames are outlined in green. The top frame contains the word "Piano". The middle frame contains the title "Sechs Lieder". The bottom frame contains the name "Josephine Lang".

Text frames on the first page in a piano part layout, with the project title frame selected

#### NOTE

The project title, page numbers, and running headers that are automatically shown in layouts exist in text frames. Their contents and formatting come from page templates, which you cannot edit or create in Dorico Elements. Editing text frames in layouts is considered a page template override. Pages with page template overrides are not automatically deleted, even if they are empty because the layout became shorter.

If you want to change the information shown at the tops of pages, we recommend that you do so in the **Project Info** dialog to avoid page template overrides. The big title at the top of the first page is the project title. The running header on subsequent pages uses the flow title for the top flow on that page in scores, and the layout name in parts.

### Tempo marks

Tempo marks indicate how fast music is played, often with a combination of text instructions and metronome marks.

For example, *Allegro*, *Larghetto*, *ritardando*, and *accelerando* are all tempo marks.

A musical score in 3/4 time. The top staff is a vocal line with the tempo instruction "Assez animé ♩ = 144" and the text "gai, léger" above it. The bottom two staves are a piano accompaniment with the tempo instruction "Assez animé ♩ = 144" and the text "pp très rythmé, léger" above it. The piano part features a rhythmic pattern of eighth notes.

Tempo mark containing text instruction in French and metronome mark

### Rehearsal marks

Rehearsal marks are ordered sequences of letters or numbers that provide useful reference points. They are often shown in a rectangular enclosure.

A musical score in 3/4 time. A rehearsal mark "G" is enclosed in a box at the beginning of the phrase. The tempo instruction is "Poco meno mosso (♩ = c. 100)". The score includes various rhythmic figures, including a 7-measure rest, a 5-measure rest, a 3-measure rest, and a 6-measure rest. The dynamic marking "mp" is present.

A rehearsal mark, showing the letter G

### Playing techniques

The term "playing techniques" covers a wide range of instructions intended to tell performers to modify the sound of the notes they are playing; for example, by changing their embouchure or changing the position of their bow, or by modifying their instrument, such as adding a mute or depressing a pedal.

For example, *pizzicato*, *flutter-tongue*, *con sordino*, and "snares on" are all playing techniques.

A musical score in 2/4 time. The score includes several playing techniques: "pizz. con sord." (pizzicato with sordino), "arco" (arco), "détaché sul tasto" (detached on the strings), and "sul pont." (sul ponticello).

### Dynamics

Dynamics indicate the loudness of the music and can be combined with expressive text to give further clarification about how to perform the music. Dynamics can indicate an immediate change in volume or a gradual change over a specified duration.

For example, *pp*, *f*, and "crescendo" are all dynamics.

A musical score in 2/4 time. The score includes several dynamic markings: *f*, *ff*, *fp*, *ff*, *pp*, and *f*. It also includes expressive markings: "bis. flz." (bis. flautando), "vib." (vibrato), and a triplet of eighth notes.

A phrase with multiple different dynamics

### Lyrics

In Dorico Elements, the term “lyrics” is used for all text that is sung by singers. Lyrics are organized into lyric lines, with different types of lyric lines available for lyrics with different purposes. For example, lyrics in a chorus line are shown in an italic font by default.

Lyrics for a soprano duet with basso continuo accompaniment

### Fingering

Fingerings use numbers and letters to recommend which fingers players should use for notes.

Piano music containing multiple fingerings, including a substitution fingering and alternative fingerings

### Figured bass

Figured bass is a shorthand that uses figures to specify the harmony above the notated bass notes. Figures use a combination of Arabic numbers, accidentals, and horizontal hold lines to specify both the intervals above the bass note that make up the chord and its duration.

A basso continuo part with figured bass below the staff

### Chord symbols

Chord symbols describe the vertical harmony of the music at a specific moment. They are frequently used in jazz and pop music, where players often improvise around chord progressions.

For example, “Gm7”, “Dsus4”, and “C6/9” are all chord symbols.

A musical score in 4/4 time, featuring a Clarinet melody and a Piano accompaniment. The Clarinet staff has a treble clef and a key signature of one flat. The Piano staff has a grand staff (treble and bass clefs) and the same key signature. Above the Clarinet staff, chord symbols are written above slashes: C7, G7/D, C7, F, G#dim7 Gm7, F, C7, F, C7. Above the Piano staff, the same chord symbols are written above slashes: C7, G7/D, C7, F, G#dim7 Gm7, F, C7, F, C7. The Clarinet melody consists of eighth and sixteenth notes, with some triplets. The Piano accompaniment consists of chords and moving lines in both hands.

Chord symbols shown above slashes on the Clarinet and Piano staves to help the players improvise around the notated Cornet melody.

### Repeat markers

Repeat markers show that musical material is to be repeated. They often involve jumping to different positions and sections in the music instead of moving through the music consecutively.

For example, *D.C. al Coda*, *D.S.*, and *Fine* are all repeat markers.

A musical score in 4/4 time with lyrics. The first system shows a vocal line with lyrics: "sah. sah." and "2. Und im - mer 3. Es quoll und". The second system shows a vocal line with lyrics: "nun wußt' ich wohl wie mir ge - schah". Both systems have piano accompaniment. The first system ends with a repeat sign. The second system starts with a Coda symbol (⊕ Coda) and ends with a repeat sign.

A mid-system coda section

### Comments

Comments are notes or instructions added at precise positions in a project without affecting the music. They are considered annotations in Dorico Elements, meaning they are not printed by default.

A musical score in 4/4 time with dynamics and comments. The score features a piano accompaniment with dynamics *f* and *fz*. There are several comments (U1, U2) placed above and below the notes. The score includes a repeat sign and a first ending bracket (8<sup>1</sup>). The piano part has a complex rhythmic pattern with many sixteenth notes.

A passage with comments and replies

### RELATED LINKS

- [Tokens](#) on page 607
- [Editing text in text items](#) on page 373
- [Text editor options in Write mode](#) on page 371
- [Hiding/Showing text items](#) on page 1230
- [Text items](#) on page 1220
- [Flow headings](#) on page 603

[Page numbers](#) on page 1033  
[Tacets](#) on page 592  
[Tempo marks](#) on page 1204  
[Rehearsal marks](#) on page 1095  
[Playing techniques](#) on page 1062  
[Dynamics](#) on page 828  
[Lyrics](#) on page 919  
[Fingering](#) on page 871  
[Figured bass](#) on page 858  
[Chord symbols](#) on page 782  
[Repeat markers](#) on page 1113  
[Comments](#) on page 470

## Changing the paragraph style of text

You can change the paragraph style that is applied to individual text items; for example, if you want to use different paragraph styles according to the information included in different text items.

---

### PROCEDURE

1. In Write mode, double-click the text item whose paragraph style you want to change to open the text editor.
2. Select a paragraph style from the paragraph style menu in the text editor.
3. Press **Esc** or **Ctrl/Cmd - Return** to close the text editor.

---

### RESULT

The paragraph style of the selected text item is changed. The formatting of the selected text item now follows the paragraph style, such as its font size, font style, or horizontal alignment.


### RELATED LINKS

[Removing page template overrides](#) on page 602

## Aligning text items with the start of systems

You can align individual text items whose rhythmic position is at the start of systems with the systemic barline rather than the first note/rest, independently of the system alignment setting for their paragraph style. You can do this for the current layout and frame chain only, or for all layouts and frame chains.

### PREREQUISITE

- The lower zone is shown.
- **Properties**  is selected in the lower zone toolbar.
- You have chosen the appropriate property scope for local properties.

---

### PROCEDURE

1. Select the text items you want to align with the start of systems. You can do this in Write mode and Engrave mode.
  2. In the Properties panel, activate **Align with system start** in the **Text** group.
  3. Activate/Deactivate the corresponding checkbox.
-

#### RESULT


The selected text items are aligned with the start of systems when the checkbox is activated, and aligned with the first note/rest in systems when the checkbox is deactivated. If the property scope was set to **Locally**, this change only takes effect in the current layout and frame chain.

When the property is deactivated, text items follow the system alignment setting of their paragraph style.

---

#### EXAMPLE

**E $\flat$  minor (harmonic)**

A musical score for Eb minor (harmonic) in 2/4 time. The score consists of two staves: a treble staff and a bass staff. The text "Eb minor (harmonic)" is positioned above the treble staff. The text "Text aligned with the first note in the system" is positioned below the bass staff. The first note of the system is a quarter note G in the bass staff.

Text aligned with the first note in the system

**E $\flat$  minor (harmonic)**

A musical score for Eb minor (harmonic) in 2/4 time. The score consists of two staves: a treble staff and a bass staff. The text "Eb minor (harmonic)" is positioned above the treble staff. The text "Text aligned with the start of the system" is positioned below the bass staff. The first note of the system is a quarter note G in the bass staff.

Text aligned with the start of the system

---

#### RELATED LINKS

[Inputting text items](#) on page 370

[Moving items graphically](#) on page 481

[Hiding/Showing zones](#) on page 44

[Properties panel](#) on page 615

[Changing the property scope](#) on page 617

[Copying property settings to other layouts/frame chains](#) on page 599

## Enabling/Disabling text collision avoidance

You can change whether individual text items automatically move to avoid collisions. You can do this for the current layout and frame chain only, or for all layouts and frame chains.


Text items with collision avoidance disabled do not contribute to automatic staff spacing calculations.

#### NOTE

These steps do not apply to text in text frames.

---

#### PREREQUISITE

- The lower zone is shown.
  - **Properties**  is selected in the lower zone toolbar.
  - You have chosen the appropriate property scope for local properties.
- 

#### PROCEDURE

1. In Engrave mode, select the text items whose collision avoidance you want to enable/disable.
  2. In the Properties panel, activate **Avoid collisions** in the **Text** group.
  3. Activate/Deactivate the corresponding checkbox.
-


#### RESULT

The selected text items avoid collisions when the checkbox is activated, and do not avoid collisions when the checkbox is deactivated. If the property scope was set to **Locally**, this change only takes effect in the current layout and frame chain.

## Adding borders to text items

You can add borders to individual text items; for example, if you want to make the boundaries of text items clear.

#### PREREQUISITE

- The lower zone is shown.
- **Properties**  is selected in the lower zone toolbar.

---

#### PROCEDURE

1. Select the text items to which you want to add borders. You can do this in Write mode and Engrave mode.
2. In the Properties panel, activate **Border** in the **Text** group.

---

#### RESULT

Borders are added to the selected text items.

Deactivating **Border** removes borders from the selected text items.

---

#### EXAMPLE

Text

Text with no border



Text with border shown

---

#### RELATED LINKS

[Hiding/Showing zones](#) on page 44


[Properties panel](#) on page 615

[Erasing the background of text items](#) on page 1229

## Changing the style of text item borders

You can change the style of borders shown on individual text items; for example, if you want to show rectangle borders on some text items but capsule borders on others. You can do this for the current layout and frame chain only, or for all layouts and frame chains.

#### PREREQUISITE

- The lower zone is shown.
- **Properties**  is selected in the lower zone toolbar.
- You have chosen the appropriate property scope for local properties.



---

PROCEDURE

1. Select the text items whose border style you want to change. You can do this in Write mode and Engrave mode.
  2. In the Properties panel, activate **Border style** in the **Text** group.
  3. Select one of the following options from the menu:
    - **Rectangle**
    - **Rounded rectangle**
    - **Capsule**
    - **Angled ends rectangle**
- 

RESULT

The border style of the selected text items is changed. If the property scope was set to **Locally**, this change only takes effect in the current layout and frame chain.

---

EXAMPLE



Rectangle



Rounded rectangle



Capsule



Angled ends rectangle

---

RELATED LINKS

[Hiding/Showing zones](#) on page 44

[Properties panel](#) on page 615

[Changing the property scope](#) on page 617


[Copying property settings to other layouts/frame chains](#) on page 599

[Changing the padding around text items](#) on page 1229

## Changing the thickness of text item borders

You can change the thickness of borders around individual text items.

PREREQUISITE

- The lower zone is shown.
  - **Properties**  is selected in the lower zone toolbar.
- 

PROCEDURE

1. In Engrave mode, select the text items whose border thickness you want to change.
  2. In the Properties panel, activate **Border thickness** in the **Text** group.
  3. Change the value in the value field.
- 

RESULT


The thickness of borders around the selected text items is changed.

---

## Changing the padding around text items

You can change the padding around text items individually, and for each edge independently. This affects the distance between text and erased backgrounds and borders. You can do this for the current layout and frame chain only, or for all layouts and frame chains.

### PREREQUISITE

- The lower zone is shown.
- **Properties**  is selected in the lower zone toolbar.
- You have chosen the appropriate property scope for local properties.

---

### PROCEDURE

1. In Engrave mode, select the text items whose padding you want to change.
2. In the Properties panel, activate the **Erasure padding** properties, individually or together, in the **Text** group.
  - **L** changes the padding between text items and their left edge.
  - **R** changes the padding between text items and their right edge.
  - **T** changes the padding between text items and their top edge.
  - **B** changes the padding between text items and their bottom edge.
3. Change the values in the value fields for the edges whose padding you want to change.

---

### RESULT

The padding around the selected text items is changed. Increasing the values increases the padding, decreasing the values decreases the padding. If the property scope was set to **Locally**, this change only takes effect in the current layout and frame chain.

### RELATED LINKS


[Changing the property scope](#) on page 617

[Copying property settings to other layouts/frame chains](#) on page 599

## Erasing the background of text items

You can erase the background of individual text items; for example, to ensure the text remains legible when crossing barlines. You can do this for the current layout and frame chain only, or for all layouts and frame chains.

### PREREQUISITE

- The lower zone is shown.
- **Properties**  is selected in the lower zone toolbar.
- You have chosen the appropriate property scope for local properties.

---

### PROCEDURE

1. In Engrave mode, select the text items whose backgrounds you want to erase.
2. In the Properties panel, activate **Erase background** in the **Text** group.

---

### RESULT

The backgrounds of the selected text items are erased. If the property scope was set to **Locally**, this change only takes effect in the current layout and frame chain.

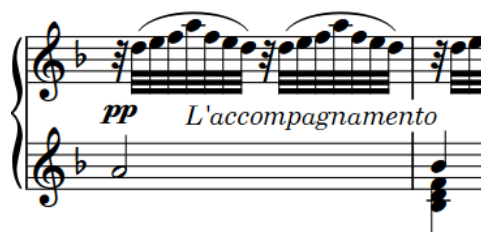
TIP

- You can show borders on text items in addition to erasing their backgrounds.
  - Deactivating **Erase background** returns the selected text items to the default non-erased background.
- 

EXAMPLE



Text with non-erased background



Text with erased background

---

AFTER COMPLETING THIS TASK

You can change the padding between text items and each edge of their erased areas.


RELATED LINKS

[Adding borders to text items](#) on page 1227

## Hiding/Showing text items

You can hide/show individual text items. You can do this for the current layout and frame chain only, or for all layouts and frame chains. For example, you can show specific text items in part layouts but hide them in full score layouts.

PREREQUISITE

- The lower zone is shown.
  - **Properties**  is selected in the lower zone toolbar.
  - You have chosen the appropriate property scope for local properties.
- 

PROCEDURE

1. Select the text items you want to hide, or the signposts of text items you want to show. You can do this in Write mode and Engrave mode.
  2. In the Properties panel, activate/deactivate **Hide** in the **Text** group.
- 

RESULT

The text items are hidden when **Hide** is activated, and shown when it is deactivated. If the property scope was set to **Locally**, this change only takes effect in the current layout and frame chain.

Signposts are shown at the position of each hidden text item. However, signposts are not printed by default.

TIP

- You can hide/show text signposts by choosing **View > Signposts > Text**.

- You can assign a key command for **Hide/Show Item** on the **Key Commands** page in **Preferences**, which applies to chord symbols, playing techniques, figured bass, text items, and time signatures.
- 

RELATED LINKS

[Signposts](#) on page 426

[Hiding/Showing zones](#) on page 44

[Changing the property scope](#) on page 617

[Copying property settings to other layouts/frame chains](#) on page 599

[Key Commands page in the Preferences dialog](#) on page 59

[Annotations](#) on page 554

# Ties

A tie is a curved line that joins two notes of the same pitch. When notes are longer than the maximum duration of a bar in the prevailing time signature, they automatically appear in Dorico Elements as tie chains; that is, a sequence of adjacent notes joined with ties.

Each sequence of ties, whether they join two notes or ten notes together, represents a single note with the duration of all the tied notes combined. A performer plays the notes as one note, without re-striking, re-blowing, or re-bowing the note at any point within the rhythmic duration of the tie chain.



A tie chain across several bars on the bottom piano staff

On tablature, ties are automatically notated as round brackets around notes/chords in subsequent bars. When tablature is shown with rhythms, ties within the same bar are indicated with stems rather than bracketed noteheads.



A phrase on tablature with some ties within bars and a chord tied across two bars      The same phrase on a notation staff

In Dorico Elements, most ties are created automatically. Rhythms are notated according to the prevailing beat grouping, which is normally set by the time signature. Therefore, notes that cannot be notated using a single duration are automatically drawn as tie chains. For example, if you input a dotted whole note at the start of a bar in a 4/4 time signature, it is automatically notated as a whole note tied to a half note in the next bar. If the time signature changes, tie chains are automatically adjusted to remain correct in the new meter.

Dorico Elements automatically determines the appropriate endpoint position and curvature direction for ties to avoid collisions, according to the context.

## NOTE

- Slurs must not be confused with ties, which look superficially similar, but instead join notes of the same pitch to indicate that they are played as a single note. In that sense, ties are part of rhythmic notation, while slurs are considered articulation.
- In Write mode, you can only select whole tie chains because Dorico Elements considers each tie chain to be a single note. Any edits you make to tie chains in Write mode affect all notes in them, such as changing the pitch, but only affect the first tie in the chain, such as changing the tie style to dashed. However, you can still input notations, such as dynamics,

in the middle of tie chains by activating the caret and moving it to the required rhythmic position within the tie chain.

In Engrave mode, you can select individual notes and ties within tie chains and edit them independently.

- When you tie existing notes together, they might be consolidated into fewer or more notes within a tie chain, depending on the musical context, the time signature, and the position of the start of the note in the bar.
  - Articulations can only appear once on each tie chain, either at the start or the end, depending on the type of articulation. For example, staccato marks appear at the end whereas accents appear at the start. You can change the positions of articulations relative to individual tie chains.
- 

#### RELATED LINKS

[Note and rest grouping](#) on page 774

[Beam grouping according to meters](#) on page 755

[Inputting notes](#) on page 211

[Forcing the duration of notes/rests](#) on page 250

[Inputting ties](#) on page 237

[Splitting tie chains](#) on page 1241

[Tie curvature direction](#) on page 1237

[Time signatures](#) on page 1249

[Notes](#) on page 940

[Bracketed noteheads](#) on page 953

[Positions of articulations](#) on page 724

[Changing the positions of articulations on tie chains](#) on page 726

[Hiding/Showing or parenthesizing accidentals](#) on page 713

[Tablature](#) on page 1200

[Caret](#) on page 205

[Input methods for dynamics](#) on page 296

[Numbered bar regions](#) on page 1127

## Ties vs. slurs

Ties and slurs look superficially similar but differ in meaning.

Ties indicate that a note should not be re-struck. They are used to join notes of the same pitch together. For example, ties can be used to extend notes across multiple bars. Although multiple notes can be included in a single tie chain, each tie in the chain only joins one notehead to the next notehead on the staff.

Articulations on tied notes only affect the attack at the start of the tie chain and the release at the end of the tie chain.



Two long notes tied together



Two phrases with slurs

Slurs indicate articulation, such as bowing or breathing, and normally group notes of different pitches together. Slurs can join two noteheads together with any number of pitches in between. They often indicate the shaping of phrases.

Slurs can also be used in conjunction with articulation. Unlike ties, articulation within slurs can affect the sound throughout the phrase. For example, staccato articulations on repeated notes of the same pitch within a slur indicate that notes should be played on a stringed instrument using the same bow direction, but stopping the bow between each note.

#### RELATED LINKS

[Slurs](#) on page 1155

[Inputting ties](#) on page 237

[Inputting slurs](#) on page 260

## Tie styles

There are different styles of ties available in Dorico Elements, which you can use to indicate different meanings.

### Solid

This is the default style for ties. Ties appear as tapered solid lines: thinner at the ends and thicker in the middle.



### Dashed

Ties appear as tapered dashed lines. Can be used to denote optional or suggested ties; for example, in vocal music where some verses have more syllables than others and therefore require more notes.



### Dotted

Ties appear as dotted lines. The dots are the same size and the same distance apart over the whole length of the tie. Can also be used to denote optional or suggested ties.



### Half-dashed start

The first halves of ties appear as dashed lines, the second halves as solid lines. Used to denote that a tie was written incompletely in the source in critical editions.



### Half-dashed end

The first halves of ties appear as solid lines, the second halves as dashed lines. Used to denote that a tie was written incompletely in the source in critical editions.



### Editorial


Ties appear as solid black lines, but with a smaller vertical line intersecting them exactly halfway along their length. Used to show that ties were added by the editor and were not present in the source.



## Changing the style of ties

You can change the style of individual ties. You can do this for the current layout and frame chain only, or for all layouts and frame chains. By default, all ties are solid.

### PREREQUISITE

- The lower zone is shown.
- **Properties**  is selected in the lower zone toolbar.
- You have chosen the appropriate property scope for local properties.

---

### PROCEDURE

1. Select the ties whose style you want to change. You can do this in Write mode and Engrave mode.

#### NOTE

- In Write mode, you can only select whole tie chains. In Engrave mode, you can select individual ties within tie chains.
- Any changes to tie chains in Write mode only affect the first tie in the chain.

2. In the Properties panel, activate **Style** in the **Ties** group.

3. Select one of the following options from the menu:

- **Solid**
- **Dashed**
- **Dotted**
- **Half-dashed start**
- **Half-dashed end**
- **Editorial**

---

### RESULT

The style of the selected ties is changed. If the property scope was set to **Locally**, this change only takes effect in the current layout and frame chain.

### RELATED LINKS

[Changing the property scope](#) on page 617

[Copying property settings to other layouts/frame chains](#) on page 599

## Changing the size of dashes/dots in ties


You can change the size of the dashes/dots in dashed/dotted ties individually. You can do this for the current layout and frame chain only, or for all layouts and frame chains.

#### NOTE

These steps only apply to dashed/dotted ties.

---

### PREREQUISITE

- The lower zone is shown.
- **Properties**  is selected in the lower zone toolbar.
- You have chosen the appropriate property scope for local properties.



---

#### PROCEDURE

1. Select the dashed/dotted ties whose dash/dot size you want to change. You can do this in Write mode and Engrave mode.

#### NOTE

- In Write mode, you can only select whole tie chains. In Engrave mode, you can select individual ties within tie chains.
- Any changes to tie chains in Write mode only affect the first tie in the chain.

2. In the Properties panel, activate **Dash/dot** in the **Ties** group.
3. Change the value in the value field.

---

#### RESULT

Increasing the value makes dashes/dots bigger, decreasing the value makes dashes/dots smaller. If the property scope was set to **Locally**, this change only takes effect in the current layout and frame chain.

#### RELATED LINKS


[Changing the property scope](#) on page 617

[Copying property settings to other layouts/frame chains](#) on page 599

## Changing the size of gaps in dashed/dotted ties

You can change the size of the gaps in dashed/dotted ties individually. You can do this for the current layout and frame chain only, or for all layouts and frame chains.

#### PREREQUISITE

- The lower zone is shown.
- **Properties**  is selected in the lower zone toolbar.
- You have chosen the appropriate property scope for local properties.

---

#### PROCEDURE

1. In Engrave mode, select the individual dashed/dotted ties whose gap size you want to change.
2. In the Properties panel, activate **Gap** in the **Ties** group.
3. Change the value in the value field.

---

#### RESULT

Increasing the value makes the gaps between dashes/dots larger. Decreasing the value makes the gaps between dashes/dots smaller. If the property scope was set to **Locally**, this change only takes effect in the current layout and frame chain.

## Tie curvature direction

The direction of tie curvatures is determined by the stem direction of the notes/chords at each end of the tie, the number of notes in chords at each end, and the number of voices on the staff.

### Tied single notes in single-voice contexts

If a single voice is active and a tie joins two single notes, tie curvature direction is determined by the stem directions of the notes at either end of the tie.

- If the stem directions match, the tie curves away from the notes and is positioned on the notehead side.
- If the stem directions differ, the tie curves upwards by default.

### Tied chords in single-voice contexts

If a tie joins two chords, the direction of the ties is determined by the number of tied notes in the chords.

- For an even number, the ties are equally split between curving towards the notehead end and curving towards the stem end.
- For an uneven number, the majority of ties curve towards the notehead end.

### Tied notes in multiple-voice contexts

Ties are positioned on the stem side and are curved as follows:

- For up-stem voices, ties curve upwards.
- For down-stem voices, ties curve downwards.
- For overlapping/interlocking pitches in multiple voices, the rules for tied chords in single-voice contexts apply. All notes in all voices are treated as if they belong to a single voice.

#### TIP

You can change the curvature direction of ties individually.

---

#### RELATED LINKS


[Tie height](#) on page 1245

[Tie shoulder offset](#) on page 1247

## Changing the curvature direction of ties

You can change the curvature direction of ties individually, including individual ties within tie chains. You can do this for the current layout and frame chain only, or for all layouts and frame chains.

#### PREREQUISITE

- The lower zone is shown.
- **Properties**  is selected in the lower zone toolbar.
- You have chosen the appropriate property scope for local properties.

#### PROCEDURE

1. Select the ties whose curvature direction you want to change. You can do this in Write mode and Engrave mode.

NOTE

- In Write mode, you can only select whole tie chains. In Engrave mode, you can select individual ties within tie chains.
- Any changes to tie chains in Write mode only affect the first tie in the chain.

2. In the Properties panel, activate **Direction** in the **Ties** group.

3. Choose one of the following options:

- **Up** 
- **Down** 

RESULT

The curvature direction of the selected ties is changed. If the property scope was set to **Locally**, this change only takes effect in the current layout and frame chain.

RELATED LINKS

[Changing the property scope](#) on page 617

[Copying property settings to other layouts/frame chains](#) on page 599

[Changing the shape/angle of ties](#) on page 1243

## Non-standard ties

Usually, ties join two notes of the same pitch in the same staff. However, ties can also cross system breaks and frame breaks, clef changes, or time signature changes. These types of ties are all positioned automatically in Dorico Elements.

Ties can also join non-adjacent notes, notes in different voices, or notes in different staves together. In Dorico Elements, you must input these types of ties manually.

### Ties across system/frame breaks

The ends of ties that cross system/frame breaks are automatically positioned in Dorico Elements.

Their vertical position remains the same, as both ends are centered on the noteheads to which they are attached. Their behavior also remains the same, as selecting one note in a tie chain that crosses a system/frame break in Write mode selects all notes in the tie chain.

The horizontal space for the parts of ties shown to the left of notes at the start of new systems/frames may not be sufficient to show an ideal tie curve.



The start of a tie chain before a system break



The end of the same tie chain after a system break

### Tied notes with accidentals across system/frame breaks

The ends of ties for tied notes with accidentals across system/frame breaks are also automatically positioned.

As tied notes in Dorico Elements are treated as one note notated to fit in time signatures, cautionary accidentals at the start of new systems/frames are not shown by default. If you

choose to show accidentals beside notes in tie chains at the start of new systems/frames, the position of the notes is changed to accommodate accidentals. However, this automatic position might not leave sufficient room for the part of the tie to the left of the notes to be shown with an ideal curve.



The start of a tie chain before a system break



The end of the same tie chain, with a cautionary accidental in parentheses

### Ties across time signature changes

Ties are automatically positioned between notes that span a time signature change. If ties crossing a time signature change are joining notes in the middle of a staff, the top or bottom of the time signature change is partially obscured by the ties. However, as ties are curved, the time signature is unlikely to be completely obscured.

### Ties across clef changes

Ties are automatically positioned between notes that span a change of clef. Ties across clef changes are not horizontal, as the same pitch is positioned differently in each clef.

The result of cross-clef ties is likely to be visually and musically confusing, as they can be misread as slurs. In this case, consider moving the change of clef to before/after the tied note.

### Ties between non-adjacent notes

You can input ties between notes of the same pitch that are not directly beside each other and between grace notes and normal notes. This can be useful when inputting ties between multiple notes before a chord, for example.



Tied notes building up a chord



Notes tied to the following chord



Multiple grace notes tied to the following chord

### Ties between different voices

You can input ties between notes of the same pitch in different voices belonging to the same instrument.

### Ties between notes on different staves

You can input ties between notes of the same pitch in different staves belonging to the same instrument, such as the two staves of a piano.

## Laissez vibrer ties

*Laissez vibrer* ties are short ties that indicate a note should be left to ring, and should not be stopped. They extend a small amount to the right of the note to which they apply, but do not connect to another note.

You can add *laissez vibrer* ties to any note. You can edit *laissez vibrer* ties in Engrave mode like any other tie.

### RELATED LINKS

[Inputting ties](#) on page 237

[Hiding/Showing or parenthesizing accidentals](#) on page 713

[System breaks](#) on page 586


[Frame breaks](#) on page 589

[Note spacing](#) on page 579

## Hiding/Showing *laissez vibrer* ties

You can add *laissez vibrer* ties to any note; for example, to specify which notes must not be stopped after being played but instead left to ring.

### PREREQUISITE

- The lower zone is shown.
- **Properties**  is selected in the lower zone toolbar.

---

### PROCEDURE

1. Select the notes on which you want to add a *laissez vibrer* tie. You can do this in Write mode and Engrave mode.
2. In the Properties panel, activate/deactivate **Laissez vibrer tie** in the **Notes and Rests** group.

---

### RESULT

*Laissez vibrer* ties are added to the selected notes when the property is activated, and are removed when the property is deactivated. *Laissez vibrer* ties are positioned automatically.

### TIP

- You can edit the length and shape of *laissez vibrer* ties individually like any other tie in Engrave mode.
  - You can assign a key command for **Toggle Laissez Vibrer Tie** on the **Key Commands** page in **Preferences**.
-

EXAMPLE



Phrase without laissez vibrer ties



Phrase with laissez vibrer ties

---

RELATED LINKS

[Changing the shape/angle of ties](#) on page 1243

## Deleting ties


You can delete ties without deleting the notes to which they are attached.

NOTE

Deleting ties from tie chains removes all ties in the tie chain. If you want to remove single ties from longer tie chains, you can split the tie chain.

---

PROCEDURE

1. In Write mode, select the tie chains from which you want to delete all ties.
  2. Delete all ties in any of the following ways:
    - Press **U**.
    - In the Notes toolbox, click **Scissors** .
- 

RESULT

All ties in the selected tie chains are deleted. Notes previously in the tie chain remain at their rhythmic positions.

RELATED LINKS

[Notes toolbox](#) on page 187

[Changing the duration of notes](#) on page 248

## Splitting tie chains




You can split tie chains at specified positions; for example, if you want to change the pitch halfway through a tie chain or delete individual ties within tie chains. This does not remove any other ties in the tie chain.

NOTE

If you want to split ties because Dorico Elements notated notes differently than you expected, you can change the default note and rest grouping settings according to different meters. You can also set custom beat groupings for individual time signatures.

---

#### PROCEDURE

1. In Write mode, double-click the staff where you want to split a tie chain to start note input at that position.
2. Optional: Move the caret to where you want to split the tie chain.
  - To move the caret according to the current rhythmic grid resolution, press **Right Arrow / Left Arrow**.
  - To advance the caret according to the note value currently selected, press **Space** or click **Advance Caret**  in the Keyboard, Fretboard, or Drum Pads panel toolbar.
  - To move the caret to the next/previous bar, press **Ctrl/Cmd-Right Arrow / Ctrl/Cmd-Left Arrow**.
3. Split the tie chain in any of the following ways:
  - Press **U**.
  - In the Notes toolbox, click **Scissors** .
4. Optional: If you want to split the same tie chain in multiple places, move the caret to the next rhythmic position where you want to split the tie chain and repeat step 3.
5. Stop note input in any of the following ways:
  - Press **Esc** or **Return**.
  - In the Notes toolbox, click **Start Note Input** .

---

#### RESULT

The tie chain is split at the caret position.

#### RELATED LINKS

- [Note and rest grouping](#) on page 774
- [Beam grouping according to meters](#) on page 755
- [Creating custom beat groupings for meters](#) on page 774
- [Splitting notes by duration](#) on page 249
- [Notes toolbox](#) on page 187
- [Caret](#) on page 205
- [Moving the caret manually](#) on page 210
- [Rhythmic grid](#) on page 204
- [Keyboard panel](#) on page 197
- [Fretboard panel](#) on page 199
- [Drum Pads panel](#) on page 200

## Ties in Engrave mode

In Engrave mode, each tie has five square handles that you can move independently. Some handles are connected to others, meaning moving one can affect the position of neighboring handles.



Ties have the following handles in Engrave mode:

- 1 Left endpoint
- 2 Left control point
- 3 Tie height
- 4 Right control point
- 5 Right endpoint

For example, moving the left endpoint moves both the start of a tie and the other handles apart from the right endpoint. However, moving the right control point only causes the tie height handle to move as well. This gives you fine control over the shape of ties, while ensuring the end result remains curved and smooth.

You can move these handles to change the shape/angle of ties with the keyboard, with the mouse, and by using properties in the **Ties** group of the Properties panel.

#### RELATED LINKS

[Tie height](#) on page 1245

[Tie shoulder offset](#) on page 1247

## Changing the shape/angle of ties

You can change move ties and tie handles graphically, allowing you to change the shape and/or angle of individual ties; for example, to adjust an endpoint relative to an individual notehead. You can do this for the current layout and frame chain only, or for all layouts and frame chains.

#### PREREQUISITE

You have chosen the appropriate property scope for local properties.

---

#### PROCEDURE

1. In Engrave mode, select the whole ties or individual tie handles you want to move in any of the following ways:
  - **Ctrl/Cmd**-click multiple ties.
  - **Ctrl/Cmd**-click individual handles on multiple ties.
  - Select a whole tie and press **Tab** to cycle through its handles until the one you want to move is selected.
  - Click the handle you want to move.

#### NOTE

- To change the angle of ties, select tie endpoints only.
  - You cannot move whole ties to the right/left, you can only move them upwards/downwards.
- 
2. Move the ties or handles in any of the following ways:
    - To move them a standard amount to the right, left, up, or down, press **Alt/Opt** plus the corresponding arrow key. For example, press **Alt/Opt-Left Arrow** to move handles to the left. This moves ties/handles by 1/8 space per press.
    - To move them a large amount, press **Ctrl/Cmd** plus the standard key command; for example, **Ctrl/Cmd-Alt/Opt-Left Arrow**. This moves handles by 1 space per press.
    - To move them a moderate amount, press **Shift** plus the standard key command; for example, **Shift-Alt/Opt-Left Arrow**. This moves handles by 1/2 space per press.



- To move them a small amount, press **Ctrl/Cmd - Shift** plus the standard key command; for example, **Ctrl/Cmd-Shift-Alt/Opt-Left Arrow**. This moves handles by 1/32 space per press.
  - Click and drag whole ties upwards/downwards.
  - Click and drag them in any direction.
- 

#### RESULT

The selected ties or tie handles are moved. Depending on the handles you selected and the directions in which you moved them, this can change the shape, angle, and/or proportional size of the corresponding ties. If the property scope was set to **Locally**, this change only takes effect in the current layout and frame chain.

#### TIP

The following properties in the **Ties** group of the Properties panel are activated automatically when you move the corresponding tie handles:

- **Start offset** moves the left endpoints of ties. **X** moves them horizontally, **Y** moves them vertically.
- **End offset** moves the right endpoints of ties. **X** moves them horizontally, **Y** moves them vertically.
- **Start handle offset** moves the left control points of ties. **X** moves them horizontally, **Y** moves them vertically.
- **End handle offset** moves the right control points of ties. **X** moves them horizontally, **Y** moves them vertically.

You can also use these properties to change the shape of individual ties by changing the values in the value fields.

Deactivating the properties resets the corresponding handles on the selected ties to their default positions.

---

#### EXAMPLE

Moving the left endpoint moves both the start of a tie and the other handles apart from the right endpoint. This allows you to change the angle and/or width of the tie without changing its overall shape.

Moving the left control point causes the tie height handle to move but does not affect the position of the left and right endpoints or right control point. This gives you fine control over the shape of ties while ensuring that the end result remains curved and smooth.

---

#### RELATED LINKS

[Changing the property scope](#) on page 617


[Copying property settings to other layouts/frame chains](#) on page 599

## Changing the thickness of ties

You can change the thickness of individual ties, including changing the thickness of the middle of ties independently of the ends of ties. You can do this for the current layout and frame chain only, or for all layouts and frame chains.

#### PREREQUISITE

- The lower zone is shown.

- **Properties**  is selected in the lower zone toolbar.
- You have chosen the appropriate property scope for local properties.

---

#### PROCEDURE

1. In Engrave mode, select the ties whose thickness you want to change.
2. In the Properties panel, activate the following properties, individually or together, in the **Ties** group:
  - **End thickness**
  - **Middle thickness**
3. Change the values in the value fields.

---

#### RESULT

Increasing the values makes the corresponding part of the selected ties thicker, decreasing the values makes the corresponding part of the selected ties thinner. If the property scope was set to **Locally**, this change only takes effect in the current layout and frame chain.

Deactivating the properties returns the corresponding part of the selected ties to their default thickness.

#### RELATED LINKS

[Changing the property scope](#) on page 617

[Copying property settings to other layouts/frame chains](#) on page 599

## Tie height

The height of ties determines how far above/below their endpoints ties extend vertically.

To avoid the end points or curve apexes of ties starting or ending on staff lines, Dorico Elements automatically makes small changes to the curvature shape, height, and vertical position of ties. These changes are small, but the placement of ties is subtly different depending on the position of notes relative to staff lines.



A tie outside noteheads



When transposed one note down, the tie appears with a steeper curve to avoid reaching its apex on the staff line.



A tie between noteheads, with the ends slightly above the vertical center of the noteheads to avoid the tie appearing too close to the staff line at its ends or apex.

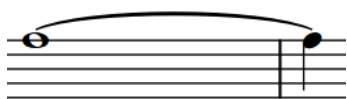


When transposed up, the ends of the tie are now positioned at the vertical center of the notehead, as there is no staff line with which it could collide.

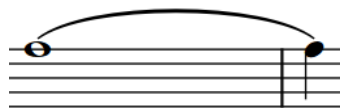
You can change the height of individual ties in Engrave mode.

Increasing the height of ties makes them extend further from the vertical position of their endpoints, which gives them a rounder shape and means they take up more vertical space. Ties generally do not need to be as curved as slurs, as they join notes of the same pitch instead of arching over or above a range of pitches.

Where vertical space is tight, a balance must be found between how curved ties are and ensuring staves do not overlap.



A long tie with default height



A long tie with increased height

## Changing the height of ties

You can change the height of individual ties; for example, to save vertical space on tightly-spaced pages. You can do this for the current layout and frame chain only, or for all layouts and frame chains.

### PREREQUISITE

You have chosen the appropriate property scope for local properties.

---

### PROCEDURE

1. In Engrave mode, select the tie height (middle) handle of the ties whose height you want to change.
2. Move the handles in any of the following ways:
  - To move them upwards/downwards a standard amount, press **Alt/Opt** plus the corresponding arrow key. For example, press **Alt/Opt-Up Arrow** to move handles upwards. This moves handles by 1/8 space per press.
  - To move them upwards/downwards a large amount, press **Ctrl/Cmd** plus the standard key command; for example, **Ctrl/Cmd-Alt/Opt-Up Arrow**. This moves handles by 1 space per press.
  - To move them upwards/downwards a moderate amount, press **Shift** plus the standard key command; for example, **Shift-Alt/Opt-Up Arrow**. This moves handles by 1/2 space per press.
  - To move them upwards/downwards a small amount, press **Ctrl/Cmd - Shift** plus the standard key command; for example, **Ctrl/Cmd-Shift-Alt/Opt-Up Arrow**. This moves handles by 1/32 space per press.
  - Click and drag them upwards/downwards.

---

### RESULT

The height of the selected ties is changed. If the property scope was set to **Locally**, this change only takes effect in the current layout and frame chain.

### NOTE

- To maintain a visually pleasing and symmetrical curve when changing the height of ties manually, you may need to move tie height handles to the right/left by a small amount, as well as upwards/downwards.

- Moving tie height handles to the right/left affects the shape of the whole tie.
- 

#### RELATED LINKS

[Changing the property scope](#) on page 617

[Copying property settings to other layouts/frame chains](#) on page 599

## Tie shoulder offset

Tie shoulders affect the angles of the curves of ties as they taper towards an endpoint, as the tapered ends often approach noteheads at a steeper angle than that of a tie's arch.

Increasing the shoulder offset makes the onset of the curve shallower, whereas decreasing the shoulder offset makes the onset steeper.



A long tie with default shoulder offset



A long tie with increased shoulder offset

You can change the shoulder offset of ties individually by moving their control point handles in Engrave mode.

## Changing the shoulder offset of ties

You can change the shoulder offset of individual ties. For example, you might want to change the shoulder offset of a few very short or very long ties in your project to improve their shape. You can do this for the current layout and frame chain only, or for all layouts and frame chains.

#### PREREQUISITE

You have chosen the appropriate property scope for local properties.

---

#### PROCEDURE

1. In Engrave mode, select one of the control point handles on each of the ties whose shoulders you want to adjust in any of the following ways:
  - Select a whole tie and press **Tab** to cycle through the handles until the one you want to move is selected.
  - Click the handle you want to move.
  - **Ctrl/Cmd**-click individual handles on multiple ties.
2. Move the handles in any of the following ways:
  - To move them a standard amount to the right, left, up, or down, press **Alt/Opt** plus the corresponding arrow key. For example, press **Alt/Opt-Left Arrow** to move handles to the left. This moves handles by 1/8 space per press.
  - To move them a large amount, press **Ctrl/Cmd** plus the standard key command; for example, **Ctrl/Cmd-Alt/Opt-Left Arrow**. This moves handles by 1 space per press.
  - To move them a moderate amount, press **Shift** plus the standard key command; for example, **Shift-Alt/Opt-Left Arrow**. This moves handles by 1/2 space per press.

- To move them a small amount, press **Ctrl/Cmd - Shift** plus the standard key command; for example, **Ctrl/Cmd-Shift-Alt/Opt-Left Arrow**. This moves handles by 1/32 space per press.
  - Click and drag them in any direction.
3. Optional: Repeat steps 1 and 2 for the other control point handle on the ties whose shoulders you want to adjust.
- 

#### RESULT

Moving tie offset handles further apart reduces the shoulder offset, while moving them closer together increases the shoulder offset. If the property scope was set to **Locally**, this change only takes effect in the current layout and frame chain.

#### TIP

The following properties in the **Ties** group of the Properties panel are activated automatically when you move the corresponding tie handles:

- **Start handle offset** moves the left control points of ties. **X** moves them horizontally, **Y** moves them vertically.
- **End handle offset** moves the right control points of ties. **X** moves them horizontally, **Y** moves them vertically.

You can also use these properties to change the shoulder offset of individual ties by changing the values in the value fields.

Deactivating the properties resets the corresponding handles on the selected ties to their default positions.

---

#### RELATED LINKS

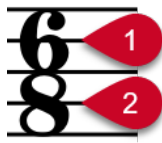
[Changing the property scope](#) on page 617

[Copying property settings to other layouts/frame chains](#) on page 599

# Time signatures

Time signatures indicate the meter of music, and apply to all bars from where they first appear until a subsequent change of time signature. Meter describes the rhythmic pulse of music, and its division into beats and bars.

A time signature is made up of two parts: numerator on top, and denominator underneath. These are the same mathematical terms as are used for fractions due to their similar arrangement.



## 1 Numerator

Specifies the number of beats in each bar for the time signature. The duration of beats is specified by the denominator.

## 2 Denominator

Specifies the beat duration for the time signature. The denominator doubles for every halving of the beat duration: 1 is a whole note (breve), 2 is a half note (minim), 4 is a quarter note (crotchet), 8 is an eighth note (quaver), and so on.

For example, a 4/4 time signature tells you the bar is made up of four beats, and each of those beats is a quarter note in length. A time signature of 4/2 contains four half notes in each bar, and 4/8 contains four eighth notes (quavers) in each bar. Both 3/4 and 6/8 contain six eighth notes, but it is understood that a 3/4 bar contains three quarter note beats, whereas a 6/8 bar contains two dotted quarter note beats.

Bars are rhythmic groups, divided according to the time signature, and they make following the music much more practical and easier to read. Notes are beamed differently in different time signatures for the same reasons.

By default, time signatures apply to all staves. However, there are certain situations, such as in polymetric music, where some parts require their own time signature, independently of the rest of the ensemble. You can input time signatures that apply to all staves or only apply to single staves in Dorico Elements.

Time signatures apply until the next time signature change or the end of the flow, whichever comes first.

Time signatures traditionally use a unique, heavy font that ensures they stand out against staff lines, and fill the height of a single staff. For some types of music, particularly film music, it is typical to use large time signatures that span several staves.

### NOTE

- You can input notes without inputting a time signature.
- Beat lengths are fixed across all staves in your project, regardless of the time signature. For example, if you have a 2/4 time signature on one staff and a 6/8 time signature on another staff, then one quarter note in the 2/4 time signature equals one quarter note in the 6/8 time signature, meaning their barlines do not match.

- Dorico Elements does not automatically add beats to fill bars when you input time signatures unless Insert mode is activated.



A 5/8 time signature input before an existing 4/4 time signature without Insert mode activated, leaving only three eighth note beats in the second 5/8 bar.

---

#### RELATED LINKS

[Input methods for time signatures and pick-up bars](#) on page 270

[Types of time signatures](#) on page 1250

[Time signature styles](#) on page 1256

[Pick-up bars](#) on page 1253

[Large time signatures](#) on page 1254

[Beam grouping according to meters](#) on page 755

[Note and rest grouping](#) on page 774

[Time Signatures \(Meter\) panel](#) on page 273

[Creating custom beat groupings for meters](#) on page 774

[Bars](#) on page 729

[Insert mode](#) on page 427

[Inputting notes](#) on page 211

## Types of time signatures

There are different types of time signatures, which can indicate various and complex meters.

### NOTE

Dorico Elements uses the definitions for meters commonly used in American English. These definitions, such as which meters are considered simple and compound, might be different in other languages.

---

### Simple

In simple time signatures, each beat is divided by two into equal groups of notes.

Simple time signatures can be simple duple, such as 2/4, simple triple, such as 3/4, or simple quadruple, such as 4/4.



### Compound

In compound time signatures, each beat is divided by three into equal groups of dotted notes, such as 6/8, which contains two dotted quarter note beats, or 9/4, which contains three dotted half note beats.



### Irregular

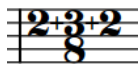
Irregular time signatures, such as 5/4 or 7/8, cannot be subdivided into equal beat groups. Because the numerator is odd, these time signatures must be divided into

unequal beat groups. For example, 5/4 usually contains a half note beat and a dotted half note beat.



### Additive

Additive time signatures show how bars are subdivided into beat groups. You can show beat group numerators for any type of time signature. For example, instead of 7/8, you could show an additive time signature of 2+3+2/8.



### Alternating

An alternating time signature indicates a regular pattern that switches every bar between two or more time signatures, in the indicated order. For example, for a phrase with twelve eighth notes that needs to be emphasized 3+3+2+2+2, an alternating time signature of 6/8+3/4 might allow the two meters to be read more clearly.



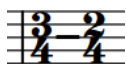
### Interchangeable

An interchangeable time signature indicates a set of time signatures at the start of the piece that can be used during the piece, such as 3/4-2/4. Unlike alternating time signatures, interchangeable time signatures do not require a fixed pattern; any bar in the piece can follow any of the time signatures in the set without having to restate the time signature.

#### NOTE

You must manually input the appropriate time signatures where you want them, as unlike alternating time signatures, there is no fixed pattern for them. Any time signatures you input after an interchangeable time signature that are specified in it are hidden automatically until you end the interchangeable time signature.

They can have different separator styles in Dorico Elements, which you can change for individual time signatures.



### Aggregate

An aggregate time signature shows two or more meters within the same bar, such as 2/4+3/8+5/4. Dorico Elements automatically shows dashed barlines to indicate the divisions between the different meters, but you can also specify that you do not want to show dashed barlines when you input aggregate time signatures with the popover.



### Open

An open time signature has no restrictions on meter, beaming, or beats. Any number of notes can be added, with any beaming. For example, open time signatures might be used for cadenza passages.



NOTE

In open meters, you must input barlines and add beats manually. You can also extend open meter bars by inputting notes with Insert mode activated and set to a global scope.

---



**Non-power of two**

A non-power of two time signature is one such as 5/6, which indicates five sextuplet quarter notes (crotchets) where the sextuplet overall equals a whole note (semibreve). Examples of time signatures like this can be found in the music of Adès.



NOTE

Some composers, such as Boulez, have written fractional time signatures. Dorico Elements does not currently support fractional time signatures.

---

RELATED LINKS

- [Time signature styles](#) on page 1256
- [Large time signatures](#) on page 1254
- [Note and rest grouping](#) on page 774
- [Input methods for time signatures and pick-up bars](#) on page 270
- [Input methods for bars, beats, and barlines](#) on page 287
- [Ending interchangeable time signatures](#) on page 1262
- [Insert mode](#) on page 427

## Cautionary time signatures

When a time signature change occurs at a system break, either in the score or in a part, the new time signature is shown at the end of the first system as well as at the start of the new system.

This is sometimes considered a “cautionary time signature”, because it warns performers of an upcoming change of time signature before it takes effect.

In Dorico Elements, the time signatures shown at the end of one system and at the start of the next system are the same item, not separate items. You cannot hide cautionary time signatures.

If the music is separate enough that you do not want to see a time signature at the end of a system and you cannot change where the system break occurs, you can separate the music by creating a new flow at the point of the system break.

RELATED LINKS

- [Flows](#) on page 162
- [Adding flows](#) on page 163
- [Splitting flows](#) on page 470
- [System breaks](#) on page 586
- [Inserting system breaks](#) on page 586
- [Cautionary key signatures](#) on page 915
- [Clefs](#) on page 816

## Pick-up bars

Pick-up bars allow you to include music before the first full bar. They are also known as an “upbeat” or “anacrusis”. Often, pick-up bars only comprise a few beats whose main purpose is to lead in to the start of the piece.



Pick-up bar of four eighth notes at the start of a piece in 9/8

Pieces that start with a pick-up bar have time signatures that are positioned at the start of the system as normal. However, the first full bar of the time signature occurs after the first barline and not before. Therefore, pick-up bars do not contribute to the bar number count. Bar numbers are counted from the first full bar in the flow.

Because pick-up bars are linked to the number of notes/rests in the music, in Dorico Elements they are linked to time signatures. However, you can hide time signatures you do not want to show in the music.

### TIP

You can use the **Global Adjustment of Current Bar** Insert mode scope to create and delete pick-up bars by deleting notes/rests in the first bar in the flow. You can also use it to shorten the last bar in flows that start with a pick-up bar.

---

### RELATED LINKS

[Input methods for time signatures and pick-up bars](#) on page 270

[Hiding/Showing time signatures](#) on page 1261

[Insert mode scopes](#) on page 428

[Deleting notes/items](#) on page 431

[Bars](#) on page 729

[Bar numbers](#) on page 742

[Track overview](#) on page 486

[Turning existing notes into grace notes](#) on page 899

[Turning grace notes into normal notes](#) on page 900

## Defining partial bars as pick-up bars or irregular bars

You can change whether explicit irregular bars at the start of time signatures are defined as pick-up bars. This affects how notes in the bars are beamed and grouped.


Notes in irregular bars defined as pick-up bars are beamed/grouped backwards from the end of the bar, while notes in irregular bars not defined as pick-up bars are beamed/grouped forwards from the start of the bar.

### NOTE

You must input explicit irregular bars and pick-up bars as part of a time signature, such as by entering **4/4,1.5** into the time signatures popover to input a 4/4 time signature with a pick-up bar containing 1.5 quarter note beats, or three eighth notes.

---

#### PREREQUISITE

- The lower zone is shown.
- **Properties**  is selected in the lower zone toolbar.

---

#### PROCEDURE

1. Select the time signatures or the signposts of time signatures starting with an explicit irregular bar whose pick-up definition you want to change. You can do this in Write mode and Engrave mode.
2. In the Properties panel, activate **Group first bar as pick-up** in the **Time Signatures** group.
3. Activate/Deactivate the corresponding checkbox.

---

#### RESULT

Irregular bars at the start of the selected time signatures are defined as pick-up bars when **Group first bar as pick-up** and its corresponding checkbox are both activated, and defined as normal irregular bars when the corresponding checkbox is deactivated.

When the property is deactivated, Dorico Elements uses internal heuristics to define them as either pick-up bars or normal irregular bars automatically.

---

#### EXAMPLE



Irregular bar defined as pick-up into common time



Irregular bar defined as normal irregular bar, not a pick-up

---

## Large time signatures

Large time signatures are scaled-up time signatures that appear much larger than normal relative to the staff size. They can be helpful in orchestral scores, as the smaller staff size in such scores means standard time signatures are small and harder for conductors to read.

Large time signatures are also very commonly used in film scores, as conductors rarely have much time to prepare the scores before recording sessions. Having large time signatures makes changes in meter more visually clear on the page, especially when music contains multiple changes in meter.

In Dorico Elements, you can show large time signatures at the following positions:

- Once per bracketed group
- Above the staff and at system object positions

### Time signatures shown once per bracketed group

Instead of showing a time signature on every staff that is the same height as the staff, you can instead show a single large time signature on each bracketed group of staves. When shown once per bracketed group, time signatures are scaled up in size according to the number of staves in the bracketed group. The largest time signatures are shown on bracketed groups containing four

or more staves. When shown on single staves, they extend a small amount above and below the staff, which is commonly used for parts for film music recording sessions.



**Narrow, serif** time signatures shown once per bracketed group

Large time signatures shown on bracketed groups occupy horizontal space, which can be a significant amount when they are especially large and use the standard time signature design. Therefore, we recommend that you use one of the narrow designs in layouts that show large time signatures on bracketed groups.

### Time signatures shown at system object positions

Similar to showing large time signatures once per bracketed group, you can also show time signatures only at system object positions and above the staff. Therefore, their positions in each system are controlled by the same options that control the positions of other system objects, such as rehearsal marks and tempo marks.



**Normal** time signatures shown at system object positions

Time signatures shown at system object positions do not occupy horizontal space, meaning it is less important to use a narrow font style. This also reduces the horizontal distance between notes either side of time signatures. Because of this reduced disruption to note spacing, this placement of time signatures has become popular in contemporary art music since the 20th Century.

When using the note denominator style for time signatures shown at system object positions, the note is shown to the right of the numerator rather than below.

By default, time signatures at system object positions are twice the size of normal time signatures and force other items at the same position to appear to the right.

#### RELATED LINKS

[Input methods for time signatures and pick-up bars](#) on page 270

[Changing the design of time signatures](#) on page 1262

[System objects](#) on page 1196

[Changing the positions of system objects](#) on page 1197

[Hiding bar numbers at time signatures shown at system object positions](#) on page 749

## Changing the size and position of time signatures

You can change the size of time signatures in each layout independently, including changing their vertical position. For example, you can show large time signatures centered on each bracket in full score layouts but standard-sized time signatures on each staff in part layouts.

---

### PROCEDURE

1. Press **Ctrl/Cmd-Shift-L** to open **Layout Options**.
2. In the **Layouts** list, select the layouts in which you want to change the size of time signatures.  
By default, the layout currently open in the music area is selected when you open the dialog. You can select other layouts by using the selection options in the action bar, clicking and dragging across multiple layouts, **Shift**-clicking adjacent layouts, and **Ctrl/Cmd**-clicking individual layouts.
3. In the category list, click **Time Signatures**.
4. Choose one of the following options for **Time signature position and size**:
  - **Show on every staff**
  - **Show once per bracket**
  - **Show at system object positions**
5. Click **Apply**, then **Close**.

---

### RESULT

The size and position of time signatures in the selected layouts is changed.

Showing large time signatures above the staff at system object positions means they do not occupy any rhythmic or horizontal space, whereas the other options do cause time signatures to occupy horizontal space.

### RELATED LINKS

[Large time signatures](#) on page 1254

[Positions of time signatures](#) on page 1261

[Changing the design of time signatures](#) on page 1262

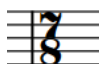
[Hiding bar numbers at time signatures shown at system object positions](#) on page 749

## Time signature styles

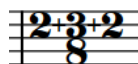
Dorico Elements allows you to show time signatures in a variety of styles. For example, you can show denominators as a number or as a note value.

### Numerator styles

The numerator is always one or more numbers, and can either show the total number of beats in the bar as a single number, or show how the total duration of the bar is subdivided into beat groups.



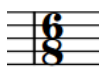
**Number** numerator



**Beat group** numerator

### Denominator styles

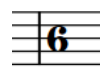
The denominator can appear as a number, as a note indicating the equivalent duration, or not appear at all.



**Number** denominator



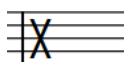
**Note** denominator



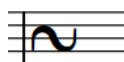
**None** denominator

### Open meter styles

Open time signatures can be shown as an X, Penderecki's symbol, or be hidden with no symbol. Open time signatures with no symbol are indicated by signposts.



**X** open style



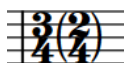
**Penderecki's symbol** open style



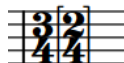
**No symbol** open style

### Interchangeable time signature separator styles

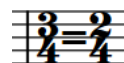
Interchangeable time signatures can have different separator styles. You can specify the separator style when inputting interchangeable time signatures using the popover and for individual interchangeable time signatures after they have been input.



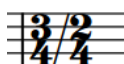
**Parentheses** separator



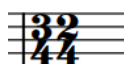
**Brackets** separator



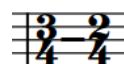
**Equals sign** separator



**Slash** separator



**Space** separator



**Hyphen** separator

#### RELATED LINKS

[Types of time signatures](#) on page 1250

[Inputting time signatures with the popover](#) on page 274

[Time signatures popover](#) on page 271

[Changing the design of time signatures](#) on page 1262

[Changing the open meter style of time signatures](#) on page 1258

[Changing the separator style of interchangeable time signatures](#) on page 1259


[Changing the appearance of common/cut common time signatures](#) on page 1260

[Signposts](#) on page 426

## Changing the numerator style of time signatures

You can choose whether the numerators of individual time signatures show the total number of beats in each bar, or the subdivision of beats in each bar.

#### PREREQUISITE

- The lower zone is shown.
  - **Properties**  is selected in the lower zone toolbar.
- 

#### PROCEDURE

1. Select the time signatures whose numerator style you want to change. You can do this in Write mode and Engrave mode.
  2. In the Properties panel, activate **Numerator style** in the **Time Signatures** group.
  3. Choose one of the following options:
    - **Number**
    - **Beat group**
- 


#### RESULT

The numerator style of the selected time signatures is changed.

## Changing the denominator style of time signatures

You can change the denominator style of individual time signatures; for example, if you want to show the denominator as a note instead of a number.

#### PREREQUISITE

- The lower zone is shown.
  - **Properties**  is selected in the lower zone toolbar.
- 

#### PROCEDURE

1. Select the time signatures whose denominator style you want to change. You can do this in Write mode and Engrave mode.
  2. In the Properties panel, activate **Denominator style** in the **Time Signatures** group.
  3. Choose one of the following options:
    - **Number**
    - **Note**
    - **None**
- 


#### RESULT

The denominator style of the selected time signatures is changed.

## Changing the open meter style of time signatures




You can change the open meter style of individual time signatures.

#### PREREQUISITE

- The lower zone is shown.
- **Properties**  is selected in the lower zone toolbar.

---

#### PROCEDURE

1. Select the open meter time signatures whose style you want to change. You can do this in Write mode and Engrave mode.
2. In the Properties panel, choose one of the following options for **Open style** in the **Time Signatures** group:
  - **No symbol** 
  - **X** 
  - **Penderecki's symbol** 

---

#### RESULT

The open meter style of the selected time signatures is changed. **No symbol** open time signatures are indicated by signposts.

#### RELATED LINKS

[Time signature styles](#) on page 1256


[Input methods for time signatures and pick-up bars](#) on page 270

[Signposts](#) on page 426

## Changing the separator style of interchangeable time signatures

You can change the separator shown in interchangeable time signatures individually.

#### PREREQUISITE

- The lower zone is shown.
- **Properties**  is selected in the lower zone toolbar.







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#### PROCEDURE

1. Select the interchangeable time signatures whose separator you want to change. You can do this in Write mode and Engrave mode.

#### NOTE

In the Properties panel, **Separator** in the **Time Signatures** group is automatically activated for interchangeable time signatures.

2. Select one of the following options from the **Separator** menu:
  - **Parentheses** 
  - **Brackets** 
  - **Equals sign** 
  - **Slash** 
  - **Space** 
  - **Hyphen** 

---

#### RESULT

The separator style of the selected interchangeable time signatures is changed.



TIP

- You can specify the separator style when inputting interchangeable time signatures using the popover.
- Although they might look similar to interchangeable time signatures, aggregate time signatures behave differently. Aggregate time signatures are separated by a + sign, whereas interchangeable time signatures can be shown with six different separators but not a + sign.

Therefore, although you can activate **Separator** and choose from the available options for aggregate time signatures, the property only affects the appearance of interchangeable time signature separators.

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RELATED LINKS

[Time signature styles](#) on page 1256


[Inputting time signatures with the popover](#) on page 274

[Time signatures popover](#) on page 271

## Changing the appearance of common/cut common time signatures

You can show individual common/cut common time signatures with either common/cut common symbols or with a numerator and denominator, such as 2/2 or 4/4.

PREREQUISITE

- The lower zone is shown.
- **Properties**  is selected in the lower zone toolbar.

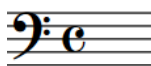
PROCEDURE

1. Select the common/cut common time signatures whose appearance you want to change. You can do this in Write mode and Engrave mode.
2. In the Properties panel, activate/deactivate **Common/Cut common** in the **Time Signatures** group.

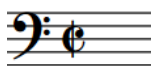
RESULT

The selected time signatures appear with common/cut common symbols when **Common/Cut common** is activated, and with a numerator and denominator when it is deactivated.

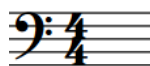
EXAMPLE



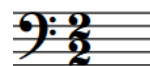
Common time signature symbol



Cut common time signature symbol



Common time signature, appearing as 4/4



Cut common time signature, appearing as 2/2

RELATED LINKS

[Input methods for time signatures and pick-up bars](#) on page 270

## Positions of time signatures

Standard time signatures are positioned on staves with the middle staff line, or only staff line for single-line staves, passing through their center. Large time signatures can be positioned in the middle or at the top of bracket groups, or above staves at system object positions.

Dorico Elements automatically positions time signatures after clefs, key signatures, and barlines.

You can move time signatures to different rhythmic positions in Write mode. They are positioned automatically to avoid collisions.

You can also change the position of time signatures in each layout independently; for example, if you want to show time signatures above the staff and at system object positions in some layouts but only once per bracket in other layouts.

### RELATED LINKS

[System objects](#) on page 1196

[Cautionary time signatures](#) on page 1252

[Large time signatures](#) on page 1254

[Changing the positions of system objects](#) on page 1197


[Moving items graphically](#) on page 481

[Input methods for time signatures and pick-up bars](#) on page 270

## Hiding/Showing time signatures

You can hide/show time signatures without deleting them from your project. This hides/shows them in all layouts, not just the one currently open in the music area.

### PREREQUISITE

- The lower zone is shown.
- **Properties**  is selected in the lower zone toolbar.

---

### PROCEDURE

1. Select the time signatures you want to hide, or the signposts of time signatures you want to show. You can do this in Write mode and Engrave mode.
2. In the Properties panel, activate/deactivate **Hide time signature** in the **Time Signatures** group.

---

### RESULT

The selected time signatures are hidden in all layouts when **Hide time signature** is activated, and shown when it is deactivated.

Signposts are shown at the position of each hidden time signature. However, signposts are not printed by default.

### NOTE

- Hidden time signatures do not take up any horizontal space, so hiding/showing time signatures affects note spacing.
- You can hide/show time signature signposts by choosing **View > Signposts > Time Signatures**.

- You can assign a key command for **Hide/Show Item** on the **Key Commands** page in **Preferences**, which applies to chord symbols, playing techniques, figured bass, text items, and time signatures.
- 

#### RELATED LINKS

[Note spacing](#) on page 579

[Signposts](#) on page 426


[Input methods for time signatures and pick-up bars](#) on page 270

[Annotations](#) on page 554

## Ending interchangeable time signatures

Any time signatures you input after an interchangeable time signature that are specified in it are hidden automatically. You can end interchangeable time signatures from selected time signatures, which shows them.

#### PREREQUISITE

- The lower zone is shown.
  - **Properties**  is selected in the lower zone toolbar.
- 

#### PROCEDURE

1. Select the barlines or signposts of time signature from which you want to end interchangeable time signatures. You can do this in Write mode and Engrave mode.
  2. In the Properties panel, activate **End interchangeable** in the **Time Signatures** group.
- 

#### RESULT

Interchangeable time signatures are ended at the selected time signatures. The selected time signatures and all subsequent time signatures specified in the prevailing interchangeable time signature are shown until the next existing interchangeable time signature or the end of the flow, whichever comes first.

## Changing the design of time signatures

You can change the design of time signatures in each layout independently, including changing the font style used for them; for example, if you want to use a plain font for time signatures in full score layouts but the standard time signature font in part layouts.

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#### PROCEDURE

1. Press **Ctrl/Cmd-Shift-L** to open **Layout Options**.
2. In the **Layouts** list, select the layouts in which you want to change the design of time signatures.  
By default, the layout currently open in the music area is selected when you open the dialog. You can select other layouts by using the selection options in the action bar, clicking and dragging across multiple layouts, **Shift**-clicking adjacent layouts, and **Ctrl/Cmd**-clicking individual layouts.
3. In the category list, click **Time Signatures**.
4. Choose one of the following options for **Time signature design**:
  - **Normal**

- **Narrow, serif**
- **Narrow, sans serif**
- **Plain font**

5. Click **Apply**, then **Close**.

---

#### RESULT

The design of time signatures in the selected layouts is changed. If you choose **Plain font**, time signatures use a different font style than the one used for the other options.

#### RELATED LINKS

[Large time signatures](#) on page 1254

# Tremolos

Tremolos are thick, slanted lines that cross individual stems or are positioned between multiple stems. They are used to indicate that notes are repeated, either individually or in sequences of multiple notes.

Using tremolo strokes instead of notating each notehead can save horizontal space and make fast passages easier to read.



The number of tremolo strokes indicates both how many times notes are repeated and how fast they are. In measured tremolos, for example, one tremolo stroke on the stem of a quarter note (crotchet) indicates two eighth notes (quavers) are played, whereas three tremolo strokes on the stem of a quarter note indicates eight 32nd notes are played.



Quarter note with a one-stroke single-note tremolo and its equivalent notation



Quarter note with a three-stroke single-note tremolo and its equivalent notation

There are different types of tremolos:

## Single-note tremolos

Individual notes are repeated. Single-note tremolos are positioned on note stems.



Two-stroke single-note tremolos added to four quarter notes

## Multi-note tremolos

Multiple notes, usually two, are played in sequence, similar to a trill. However, trills usually indicate a fast alternation between two adjacent notes, such as G and A, whereas multi-note tremolos can be between any notes, limited only by the capabilities of the instrument.

All notes in multi-note tremolos indicate the total duration of the tremolo. For example, two quarter notes joined by a multi-note tremolo both appear as half notes.

Multi-note tremolos are positioned between the stems of two or more notes.



Four quarter notes without tremolos



Multi-note tremolos input between those quarter notes, in two pairs

### Tuplet tremolos

Multiple notes in tuplets are repeated in the notated sequence. Tuplet tremolos are positioned between all the notes in the tuplet.



Quarter notes in two different tuplets without tremolos



Multi-note tuplet tremolos input across those tuplets

Depending on the musical context, tremolos can be either measured or unmeasured. There is no visual difference between measured/unmeasured tremolos, so composers/arrangers often specify how they want tremolos to be played, such as an indication in the front matter of the score or as a text instruction in the score.

### Measured tremolos

The number of tremolo strokes corresponds to a precise rhythm in the prevailing tempo and meter.

### Unmeasured tremolos

There is no link between the number of strokes and rhythm. Instead, unmeasured tremolos are played as fast as possible, whatever the tempo.

Unmeasured tremolos often use three or more tremolo strokes, and can also be accompanied by a "trem." text indication.

### RELATED LINKS

[Input methods for repeats and tremolos](#) on page 386

[Deleting tremolos](#) on page 1268

[Tremolos in tie chains](#) on page 1266

[Changing the speed of tremolos](#) on page 1268

[MIDI Import Options dialog](#) on page 86

## General placement conventions for tremolos

Single-note tremolos are positioned on note stems, whereas multi-note tremolos are positioned between the stems of two or more notes. When multi-note tremolos cross three or more notes, the tremolo strokes are positioned between all the notes.

Tremolo strokes are slightly thinner than beams, so that the gaps between strokes are large enough and the number of strokes can be instantly recognized.

Dorico Elements automatically avoids collisions between tremolo strokes and ledger lines or stem flags.

Tremolo strokes within the staff are positioned so that they are at least one staff space clear of noteheads, and at valid positions relative to staff lines and staff spaces. This means that tremolo strokes might not move every time you change the pitch of notes.



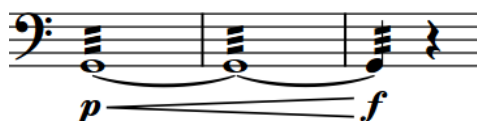
The positions of the tremolo strokes on the first two notes and the last two notes are the same, although the pitches are all different.

In Dorico Elements, the angle of single-note tremolo strokes is always the same, no matter the direction of the phrase. The angles of multi-note tremolo strokes are determined by the height of the stems to which the multi-note tremolos apply. You can change the angles of multi-note tremolo strokes individually by lengthening/shortening the stems at the start/end of the tremolo.

## Tremolos in tie chains

By default, single-note tremolos appear either on all notes in tie chains, or on all notes apart from the first or last note. Deleting tremolo strokes from tied notes removes tremolo strokes from all notes in tie chains.

In Dorico Elements, we use “tremolo with attack” and “tremolo with release” to refer to single-note tremolos that appear on all notes in tie chains apart from the first and last note, respectively.



Single-note tremolo added to tie chain



Tremolo with release added to tie chain

In Dorico Elements, tremolos are considered measured by default, so the number of tremolo strokes shown is automatically adjusted on subsequent notes in tie chains as required. For example, if an eighth note with two tremolo strokes is tied to a quarter note, the quarter note has three tremolo strokes. This is because tremolo strokes function like beams, so two tremolo strokes and an eighth note stem flag is the equivalent of three tremolo strokes.



The default number of tremolo strokes in a tie chain where the second note is longer than the first.



The number of tremolo strokes on the second note has been changed to match the first.

However, there might be circumstances in which you want all notes to have the same number of tremolo strokes, whatever their duration. You can also start tremolos partway through tie chains, or stop tremolos partway through tie chains.

You can change the number of tremolo strokes shown on individual notes independently in Engrave mode.

### RELATED LINKS

[Ties on page 1232](#)

[Inputting tremolos with the popover on page 395](#)

[Inputting tremolos with the panel](#) on page 397

[Deleting tremolos](#) on page 1268

## Changing the number of tremolo strokes on individual notes in tie chains


Dorico Elements automatically changes the number of tremolo strokes on subsequent notes in tie chains according to their duration, but you can manually change the number of single-note tremolo strokes shown on each note in tie chains individually to represent your intended rhythm. For example, if you want all notes in a tie chain to have the same number of tremolo strokes, whatever their duration.

### TIP

If you want to remove tremolo strokes from the first or last notes in tie chains, you can input tremolos with an attack or release, respectively.

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### PREREQUISITE

- The lower zone is shown.
  - **Properties**  is selected in the lower zone toolbar.
- 

### PROCEDURE

1. In Engrave mode, select the noteheads of the notes whose number of tremolo strokes you want to change.
  2. In the Properties panel, activate **Single stem tremolo** in the **Notes and Rests** group.
  3. Select one of the following options from the menu:
    - **None**
    - **One stroke**
    - **Two strokes**
    - **Three strokes**
    - **Four strokes**
    - **Buzz roll**
- 

### RESULT

The number of tremolo strokes shown on the selected notes is changed.

---

### EXAMPLE



The default number of tremolo strokes in a tie chain where the second note is longer than the first.



The number of tremolo strokes on the second note has been changed to match the first.

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### RELATED LINKS

[Changing the speed of tremolos](#) on page 1268

[Input methods for repeats and tremolos](#) on page 386



## Changing the speed of tremolos

You can change the speed of tremolos after they have been input by changing the number of strokes.



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### PROCEDURE

1. In Write mode, select the notes with tremolos whose speed you want to change.  
The buttons with the number of tremolo strokes corresponding to your selection are highlighted in the **Tremolos** section of the Repeat Structures panel.

#### NOTE

Select single-note tremolos and multi-note tremolos separately.

2. Click the button with the number of tremolo strokes you want in the **Tremolos** section of the Repeat Structures panel.  
For example, click **Two Strokes Single-note Tremolo**  to input single-note tremolos with two strokes, or click **Three Strokes Multi-note Tremolo**  to input multi-note tremolos with three strokes.

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### RESULT

The number of tremolo strokes on the selected notes is changed, which changes the speed of the tremolos.

### RELATED LINKS





[Changing the number of tremolo strokes on individual notes in tie chains](#) on page 1267

## Deleting tremolos

You can remove single-note tremolos and multi-note tremolos from notes separately without affecting the notes to which they applied.

---

### PROCEDURE

1. In Write mode, select the notes whose tremolo strokes you want to delete.
2. In the Notations toolbox, click **Panels** , then **Repeat Structures**  to show the Repeat Structures panel.
3. In the **Tremolos** section, click one or both of the following buttons, depending on the types of tremolos selected:
  - **Remove Single-note Tremolo** 
  - **Remove Multi-note Tremolo** 

---

### RESULT

The corresponding types of tremolo strokes are deleted.

#### TIP

You can also delete tremolos by entering **0** or **clear** into the repeats popover.

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### RELATED LINKS

[Notations toolbox](#) on page 192

[Repeat Structures panel](#) on page 390

[Repeats popover](#) on page 387

[Changing the number of tremolo strokes on individual notes in tie chains](#) on page 1267

## Rhythmic positions of notes with tremolos

You can move notes with single-note tremolos and multi-note tremolos to new rhythmic positions in the same ways as normal notes. However, if you move multi-note tremolos across barlines, the tremolo strokes are deleted automatically.

You can move single-note tremolos to new rhythmic positions and across barlines without affecting their tremolo strokes. The notes are automatically respelled as tie chains if required by their new rhythmic positions and time signature, in the same ways as normal notes.

### NOTE

If tie chains with single-note tremolos contain notes of different durations, the number of tremolo strokes on each note in the tie chain is different. You can change the number of tremolo strokes shown on each note in tie chains individually.

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### RELATED LINKS

[Moving notes/items rhythmically](#) on page 437


## Moving tremolo strokes

You can move tremolo strokes upwards/downwards graphically. You can do this for the current layout and frame chain only, or for all layouts and frame chains.

### NOTE

- You cannot move tremolo strokes to the right/left.
  - You cannot move tremolo strokes rhythmically, as they apply to specific notes, but you can move notes with tremolos to different rhythmic positions. Notes with single-note tremolos can cross barlines; however, multi-note tremolo strokes are deleted automatically when their notes cross barlines.
- 

### PREREQUISITE

- The lower zone is shown.
  - **Properties**  is selected in the lower zone toolbar.
  - You have chosen the appropriate property scope for local properties.
- 

### PROCEDURE

1. In Engrave mode, select the tremolo strokes you want to move.
2. Move the tremolo strokes in any of the following ways:
  - To move them upwards/downwards a standard amount, press **Alt/Opt** plus the corresponding arrow key. For example, press **Alt/Opt-Up Arrow** to move tremolo strokes upwards. This moves tremolo strokes by 1/8 space per press.
  - To move them upwards/downwards a large amount, press **Ctrl/Cmd** plus the standard key command; for example, **Ctrl/Cmd-Alt/Opt-Up Arrow**. This moves tremolo strokes by 1 space per press.

- To move them upwards/downwards a moderate amount, press **Shift** plus the standard key command; for example, **Shift-Alt/Opt-Up Arrow**. This moves tremolo strokes by 1/2 space per press.
- To move them upwards/downwards a small amount, press **Ctrl/Cmd - Shift** plus the standard key command; for example, **Ctrl/Cmd-Shift-Alt/Opt-Up Arrow**. This moves tremolo strokes by 1/32 space per press.
- Click and drag them upwards/downwards.

---

#### RESULT

The selected tremolo strokes are moved upwards/downwards. If the property scope was set to **Locally**, this change only takes effect in the current layout and frame chain.

#### NOTE

- Moving multi-note tremolo strokes also changes the length of the stems to which they are attached. You can change the angles of multi-note tremolo strokes individually by lengthening/shortening the stems at the start/end of the tremolo.
- When you first move tremolo strokes graphically, they may appear to move in the wrong direction or by a larger increment than you expected. This is because their positions are reset when you override those positions by moving them.
- The following properties in the **Beaming** group of the Properties panel are activated automatically when you move the start/end of multi-note tremolo strokes:
  - **Start Y offset** moves the start of multi-note tremolo strokes vertically by moving the end of the corresponding stem.
  - **End Y offset** moves the end of multi-note tremolo strokes vertically by moving the end of the corresponding stem.

**Tremolo Y** in the **Notes and Rests** group of the Properties panel is activated automatically when you move single-note tremolo strokes. It moves single-note tremolo strokes vertically.

For example, if you move a whole multi-note tremolo stroke upwards, both stem handles are moved so both properties are activated. You can also use these properties to move tremolo strokes by changing the values in the value fields. However, you must select the noteheads rather than the tremolo strokes in order to see the relevant groups in the Properties panel.

Deactivating the properties resets the selected stem handles, and therefore tremolo strokes, to their default positions.

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#### RELATED LINKS

[Changing the property scope](#) on page 617

[Copying property settings to other layouts/frame chains](#) on page 599

[Input methods for repeats and tremolos](#) on page 386

[Deleting tremolos](#) on page 1268

# Tuplets

Tuplets indicate where a beat is divided into a different number of subdivisions than is usually expected according to the current meter. They can be used to fit more notes or fewer notes in a beat than usually exist in a beat, according to the usual pattern of subdivision.



Because these subdivisions are not standard but tuplet notes use the same rhythmic notation as normal notes, tuplets must be clearly marked to show that their rhythmic duration is different. Tuplet numbers/ratios indicate the number of notes in the tuplet, and tuplet brackets show the duration of tuplets that are not joined by beams.

In Dorico Elements, tuplets function like containers into which you can input notes of any duration, such as inputting a quarter note at the start of an eighth note triplet.

When tuplets extend across barlines, Dorico Elements automatically notates them correctly, such as a sextuplet appearing as two triplets. You can also allow tuplets to span barlines without division.

During tuplet input, tuplets are sticky when you input notes with the keyboard, meaning that Dorico Elements continues inputting notes as the specified tuplet until you stop tuplet input or note input.

You can show tuplets with different combinations of tuplet brackets and tuplet numbers/ratios. You can also show note symbols indicating the note value of the tuplet alongside tuplet numbers/ratios.

## RELATED LINKS

[Inputting tuplets](#) on page 243

[Tuplet brackets](#) on page 1276

[Tuplet numbers/ratios](#) on page 1279

[Allowing/Disallowing tuplets to span barlines](#) on page 1274

[Moving notes/items rhythmically](#) on page 437

## Nested tuplets

Nested tuplets are tuplets within larger tuplets that are often used to create complex rhythms. In Dorico Elements, there is no limit to the number of levels you can have in nested tuplets.

### EXAMPLE





Nested tuplets

## Inputting nested tuplets

You can input nested tuplets on empty staves and select existing tuplets and input nested tuplets within them.

---

### PROCEDURE

1. In Write mode, start note input.
2. Open the tuplets popover in any of the following ways:
  - Press **;**.
  - In the Notes toolbox, click and hold **Tuplets** , then click **x:y** .

When inputting tuplets with the keyboard, Dorico Elements automatically continues inputting notes as the specified tuplet.

### NOTE

You can skip steps 3 and 4 if you are inputting nested tuplets into existing tuplets.

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3. Optional: If inputting nested tuplets on an empty staff, enter the ratio for the outer tuplet into the popover.  
For example, enter **3:2q** to input quarter note triplets.
4. Optional: Press **Return** to close the popover and input the outer tuplet.
5. Press **;** to open the tuplets popover again.
6. Enter the ratio for the inner tuplet into the popover.  
For example, enter **5:4e** to input eighth note quintuplets.
7. Press **Return** to close the popover and input the inner tuplet.
8. Input the notes you want.  
When inputting tuplets with the keyboard, Dorico Elements automatically continues inputting notes as the specified tuplet.
9. Stop inputting nested tuplets in one of the following ways:
  - To stop the inner tuplet and continue inputting the outer tuplet, press **;** once.
  - To stop both tuplets and return to inputting normal notes, press **;** twice or move the caret with the arrow keys.
  - To stop note input completely, press **Esc**.


### RESULT

Notes are input as nested tuplets, starting from the caret position.

If multiples of the inner tuplet fit exactly inside the outer tuplet, you can continue inputting notes as the specified nested tuplet until you stop the tuplets manually.

If multiples of the inner tuplet do not fit exactly inside the outer tuplet, the inner tuplet stops automatically at the end of the last tuplet that fits in the outer tuplet. After that, the outer tuplet continues until you stop it manually.

### NOTE

You can also input nested tuplets by clicking and holding **Tuplets**  in the Notes toolbox, then clicking the tuplet you want. However, the inner tuplet you click must fit inside the outer tuplet, based on the currently selected note duration.

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RELATED LINKS



- [Tuplets popover](#) on page 244
- [Notes toolbox](#) on page 187
- [Inputting notes](#) on page 211
- [Selecting note/rest durations](#) on page 247

## Turning existing notes into tuplets

You can turn any existing notes into tuplets; for example, if you need to fit extra notes into an existing duration.

---

PROCEDURE

1. In Write mode, select the notes on a single staff that you want to turn into tuplets.
2. Open the tuplets popover in any of the following ways:
  - Press **;**.
  - In the Notes toolbox, click and hold **Tuplets** , then click **x:y** .

The popover is automatically populated with a suggested ratio based on your selection.

3. Optional: Change the ratio in the popover. For example, enter **3:2** to input triplets.
4. Press **Return** to close the popover.


---

RESULT

The selected notes are turned into tuplets according to the ratio in the popover. For example, if you select five eighth notes and enter **5:4** into the popover, the selected notes become quintuplet eighth notes.

If the selected notes fit into a single tuplet of the specified ratio, only a single tuplet is created. If the selected notes do not fit into a single tuplet, as many tuplets as required are created automatically.

TIP

You can also turn existing notes into tuplets by clicking and holding **Tuplets**  in the Notes toolbox, then clicking the tuplet you want.

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RELATED LINKS

- [Tuplets popover](#) on page 244
- [Inputting tuplets](#) on page 243
- [Notes toolbox](#) on page 187
- [Turning existing notes into grace notes](#) on page 899

## Turning tuplets into normal notes

You can turn any existing tuplet notes into normal notes; for example, if you want to turn tuplet eighth notes into standard eighth notes.

---

PROCEDURE

1. In Write mode, select just the brackets, numbers/ratios, or signposts of the tuplets you want to turn into normal notes.

#### NOTE

You must not select any of the noteheads in the tuplets.

---

- Optional: If you want the selected tuplets to push subsequent notes to later rhythmic positions if required, press **I** to activate Insert mode.
  - Optional: If you activated Insert mode, choose the appropriate Insert mode scope.
  - Press **Backspace or Delete**.
- 

#### RESULT

The selected tuplets are deleted. All notes previously in the tuplets are unscaled and appear as normal notes with the same notated duration; for example, a tuplet quarter note becomes a standard quarter note.

When Insert mode is activated, all notes in the tuplets are retained and any subsequent existing notes are pushed to later rhythmic positions to accommodate the extra rhythmic durations required. When Insert mode is deactivated, the earliest selected tuplets expand and overwrite subsequent notes and tuplets.

#### RELATED LINKS

[Tuplet numbers/ratios](#) on page 1279

[Tuplet brackets](#) on page 1276

[Inputting notes](#) on page 211

[Turning grace notes into normal notes](#) on page 900


[Insert mode](#) on page 427

[Insert mode scopes](#) on page 428

## Allowing/Disallowing tuplets to span barlines

You can allow tuplets to span barlines; for example, in Renaissance music, you might want tuplets to span tick barlines without affecting their notation. By default, Dorico Elements automatically splits tuplets over barlines so that both the durations of bars and the divisions in tuplets are clear.

#### PREREQUISITE

- The lower zone is shown.
  - Properties**  is selected in the lower zone toolbar.
- 

#### PROCEDURE

- Select the tuplet brackets or tuplet numbers/ratios of the tuplets you want to allow/disallow to span barlines. You can do this in Write mode and Engrave mode.
  - In the Properties panel, activate/deactivate **Spans barline** in the **Tuplets** group.
- 

#### RESULT

The selected tuplets span barlines when **Spans barline** is activated, and are automatically split at barlines when it is deactivated.

EXAMPLE



A 16th note sextuplet across a barline, notated as two triplets



The same sextuplet allowed to span the barline

---

AFTER COMPLETING THIS TASK

You can beam notes in the selected tuplets together.

RELATED LINKS

[Barlines](#) on page 734

[Beaming notes together manually](#) on page 755

[Tuplet brackets](#) on page 1276

[Tuplet numbers/ratios](#) on page 1279

## Tuplet beams

Tuplet beams join notes in tuplets that can be joined with beams just like non-tuplet beams. You can make the same changes to tuplet beams that you can make to any other beam.

For example, duplet eighth notes do not need a bracket as they can be joined by a beam and notated using only a tuplet number/ratio.



A 6/8 bar with the standard subdivision of six eighth notes



A 6/8 bar with a subdivision of four duplet eighth notes in the space of six regular eighth notes

RELATED LINKS

[Beaming](#) on page 754

[Tuplets within beams](#) on page 771

[Beaming notes together manually](#) on page 755

[Unbeaming notes](#) on page 757

[Splitting beam groups](#) on page 757

[Changing the direction of partial beams](#) on page 769

[Changing beam slants](#) on page 761



## Tuplet brackets

Tuplet brackets show the duration of tuplets that are not joined by beams, such as triplet quarter notes, by showing the notes within the tuplet under a bracket.

### EXAMPLE



A 4/4 bar with the standard subdivision of four quarter notes



A 4/4 bar with a subdivision of six triplet quarter notes in the space of four regular quarter notes

You can change the precise positions and shapes of tuplet brackets individually in Engrave mode.

Each tuplet bracket has four handles that can be moved graphically.



- The two upper handles set the position of the start/end of the tuplet bracket. These handles can be moved independently of each other to create angled tuplet brackets.
- The two lower handles set the length of the tuplet bracket hooks. Moving either of these handles changes the length of both hooks.

### NOTE

You can use properties in the **Tuplets** group of the Properties panel to edit individual tuplet brackets; however, the **Tuplets** group is only shown if you select tuplet numbers/ratios or brackets. It is not shown if you select notes within the tuplet, or notes within the tuplet and the tuplet number/ratio or bracket.

### RELATED LINKS


[Moving items graphically](#) on page 481

[Lines](#) on page 1075

## Hiding/Showing tuplet brackets

You can hide/show tuplet brackets for individual tuplets, and independently of tuplet numbers/ratios. You can do this for the current layout and frame chain only, or for all layouts and frame chains.



### PREREQUISITE

- The lower zone is shown.
- **Properties**  is selected in the lower zone toolbar.
- You have chosen the appropriate property scope for local properties.

### PROCEDURE

1. Select the tuplet brackets you want to hide, or the signposts of tuplets whose brackets you want to show. You can do this in Write mode and Engrave mode.
2. In the Properties panel, activate **Bracket** in the **Tuplets** group.

3. Choose one of the following options:

- **Hidden** 
  - **Shown** 
- 

#### RESULT

Brackets on the selected tuplets are hidden/shown. If the property scope was set to **Locally**, this change only takes effect in the current layout and frame chain.

Signposts are shown at the position of each hidden tuplet; that is, tuplets with no numbers/ratios or brackets shown.

#### AFTER COMPLETING THIS TASK

If you want to hide indications of tuplets entirely, you might also need to hide the tuplet numbers/ratios.

#### RELATED LINKS

[Signposts](#) on page 426

[Hiding/Showing tuplet numbers/ratios](#) on page 1279


[Changing the property scope](#) on page 617

[Copying property settings to other layouts/frame chains](#) on page 599





## Changing the staff-relative placement of tuplet brackets

You can show individual tuplet brackets and tuplet numbers/ratios above or below the staff or between staves. You can do this for the current layout and frame chain only, or for all layouts and frame chains.

#### PREREQUISITE

- The lower zone is shown.
  - **Properties**  is selected in the lower zone toolbar.
  - You have chosen the appropriate property scope for local properties.
- 

#### PROCEDURE

1. Select the tuplet brackets and tuplet numbers/ratios whose staff-relative placement you want to change. You can do this in Write mode and Engrave mode.
  2. In the Properties panel, activate **Placement** in the **Tuplets** group.
  3. Choose one of the following options:
    - **Above** 
    - **Below** 
    - **Cross-staff above** 
    - **Cross-staff below** 
- 

#### RESULT

The placement of the selected tuplet brackets is changed. If the property scope was set to **Locally**, this change only takes effect in the current layout and frame chain.

#### TIP

- Deactivating **Placement** returns the selected tuplets to their default placement.

- You can also switch selected tuplets between being above/below the staff or cross-staff above/cross-staff below by pressing **F**.
- 

#### RELATED LINKS

[Tucking index properties](#) on page 825


[Changing the property scope](#) on page 617

[Copying property settings to other layouts/frame chains](#) on page 599




## Changing the rhythmic end position of tuplet brackets

You can change the rhythmic end position of tuplet brackets relative to individual notes individually. You can do this for the current layout and frame chain only, or for all layouts and frame chains.

#### PREREQUISITE

- The lower zone is shown.
  - **Properties**  is selected in the lower zone toolbar.
  - You have chosen the appropriate property scope for local properties.
- 

#### PROCEDURE

1. Select the tuplet brackets whose end position you want to change. You can do this in Write mode and Engrave mode.
  2. In the Properties panel, activate **End position** in the **Tuplets** group.
  3. Choose one of the following options:
    - **End at right-hand side of final note** 
    - **End immediately before following note** 
    - **End at position of final tuplet division** 
- 

#### RESULT

The end position for the selected tuplet brackets is changed. If the property scope was set to **Locally**, this change only takes effect in the current layout and frame chain.

Deactivating the property returns the selected tuplets to your default settings.

#### RELATED LINKS

[Changing the property scope](#) on page 617


[Copying property settings to other layouts/frame chains](#) on page 599

[Moving items graphically](#) on page 481

## Forcing tuplet brackets to be horizontal

You can change the angle of individual tuplet brackets so that they appear horizontal. You can do this for the current layout and frame chain only, or for all layouts and frame chains.

#### PREREQUISITE

- The lower zone is shown.
- **Properties**  is selected in the lower zone toolbar.
- You have chosen the appropriate property scope for local properties.

---

#### PROCEDURE

1. Select the tuplet brackets whose angle you want to change. You can do this in Write mode and Engrave mode.
  2. In the Properties panel, activate **Force horizontal** in the **Tuplets** group.
- 

#### RESULT

The selected tuplet brackets appear horizontal when the property is activated. If the property scope was set to **Locally**, this change only takes effect in the current layout and frame chain.

## Tuplet numbers/ratios

Tuplet numbers and ratios are very similar: both indicate the number of equal notes included in the tuplet, such as 3 for triplets, but tuplet ratios also include the number of normal notes into whose duration the tuplet fits, such as 3:2 for triplets.

Additionally, tuplet ratios can include a note glyph that indicates the duration of notes in the tuplet.



A triplet with a ratio and note value indication

Tuplet numbers/ratios help performers quickly identify the type of tuplet and how they must fit the number of notes indicated into the prevailing tempo and meter.

#### NOTE


You can use properties in the **Tuplets** group of the Properties panel to edit individual tuplet numbers/ratios; however, the **Tuplets** group is only shown if you select tuplet numbers/ratios or brackets. It is not shown if you select notes within the tuplet, or notes within the tuplet and the tuplet number/ratio or bracket.

---

## Hiding/Showing tuplet numbers/ratios

You can hide/show tuplet numbers/ratios for individual tuplets, and independently of tuplet brackets. You can do this for the current layout and frame chain only, or for all layouts and frame chains. When showing tuplet numbers/ratios, you can choose a different type for each tuplet individually.





#### PREREQUISITE

- The lower zone is shown.
  - **Properties**  is selected in the lower zone toolbar.
  - You have chosen the appropriate property scope for local properties.
- 

#### PROCEDURE

1. Select the tuplet brackets whose numbers/ratios you want to hide/change, or the signposts of tuplets whose numbers/ratios you want to show. You can do this in Write mode and Engrave mode.
2. In the Properties panel, activate **Number** in the **Tuplets** group.

3. Choose one of the following options:

- **None** 
  - **Number** 
  - **Ratio** 
  - **Ratio+note** 
- 

#### RESULT

The tuplet number/ratio shown for the selected tuplets is changed. If you selected **None**, the tuplet numbers/ratios for the selected tuplets are hidden. If the property scope was set to **Locally**, this change only takes effect in the current layout and frame chain.

Signposts are shown at the position of each hidden tuplet; that is, tuplets with no numbers/ratios or brackets shown.

Deactivating **Number** returns the selected tuplets to the default setting.

#### AFTER COMPLETING THIS TASK

If you want to hide indications of tuplets entirely, you might also need to hide the tuplet brackets.

#### RELATED LINKS

[Hiding/Showing tuplet brackets](#) on page 1276


[Changing the property scope](#) on page 617

[Copying property settings to other layouts/frame chains](#) on page 599

## Changing the position of tuplet numbers/ratios

You can show individual tuplet numbers/ratios at either the visual or rhythmic horizontal center of tuplets. You can do this for the current layout and frame chain only, or for all layouts and frame chains.

#### PREREQUISITE

- The lower zone is shown.
  - **Properties**  is selected in the lower zone toolbar.
  - You have chosen the appropriate property scope for local properties.
- 

#### PROCEDURE

1. Select the tuplets or the signposts of tuplets whose tuplet number/ratio horizontal position you want to change. You can do this in Write mode and Engrave mode.
  2. In the Properties panel, activate **Center** in the **Tuplets** group.
  3. Choose one of the following options:
    - **Visual**
    - **Rhythmic**
- 

#### RESULT

The horizontal position of tuplet numbers/ratios on the selected tuplets is changed. If the property scope was set to **Locally**, this change only takes effect in the current layout and frame chain.

- **Visual** positions tuplet numbers/ratios at the visual center of the tuplet.

- **Rhythmic** positions tuplet numbers/ratios at the rhythmic center of the tuplet, which might be visually off-center.

---

EXAMPLE



Visual center



Rhythmic center

---

RELATED LINKS

[Tuplet brackets](#) on page 1276

[Moving items graphically](#) on page 481

[Signposts](#) on page 426

# Unpitched percussion

The term “unpitched percussion” covers all percussion instruments that are not tuned to specific pitches. This includes instruments such as bass drum, guiro, maracas, cymbals, and shakers.

Dorico Elements provides comprehensive support for unpitched percussion notation, with flexible options for combining music for multiple instruments into percussion kits that can then be displayed differently in different layouts. You can also define percussion kits as drum sets, which changes the default stem directions of notes.

You can also customize and create new playing technique-specific noteheads for unpitched percussion. This allows you to indicate how notes are played by using different noteheads for different playing techniques on each instrument in percussion kits.

## RELATED LINKS

[Percussion kits and drum sets](#) on page 1289

[Percussion kit presentation types](#) on page 1293

[Staff labels for percussion kits](#) on page 1189

[Defining percussion kits as drum sets](#) on page 154

[Inputting notes for unpitched percussion](#) on page 227

[Playing techniques for unpitched percussion instruments](#) on page 1282

[Playing technique-specific noteheads](#) on page 1283

[Showing brackets on noteheads](#) on page 954

[Percussion editor](#) on page 631

## Playing techniques for unpitched percussion instruments

Playing techniques for unpitched percussion instruments, both as individual instruments and within percussion kits, can be notated in different ways, including using different notehead designs and positions.

You can indicate playing techniques for unpitched percussion instruments in any of the following ways:

- Use playing technique-specific noteheads, including positioning notes above/below their normal staff line
- Add articulations or single-note tremolos
- Add playing techniques in the same ways as for pitched instruments

For example, you can add open and closed techniques for hi-hats as playing techniques and use playing technique-specific cross noteheads for side stick notes for the snare drum.

You can select playing technique-specific noteheads for unpitched percussion instruments when inputting notes and change the playing technique-specific noteheads of existing notes. You can input playing techniques during note input and by adding them to existing music.

## RELATED LINKS

[Playing techniques](#) on page 1062

[Articulations](#) on page 723

[Tremolos](#) on page 1264

[Edit Percussion Kit dialog](#) on page 150

[Inputting notes for unpitched percussion](#) on page 227

[Changing playing technique-specific noteheads](#) on page 1286

[Defining how combinations of articulations and single-note tremolos sound in playback](#) on page 705

[Exporting percussion kits](#) on page 1290

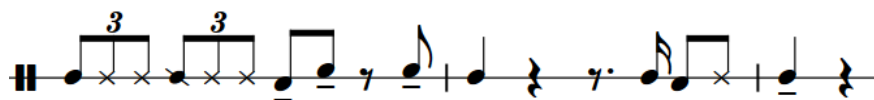
[Importing percussion kits](#) on page 1290

[Input methods for playing techniques, pedal lines, string indicators, and harp pedal diagrams](#) on page 351

## Playing technique-specific noteheads

Playing technique-specific noteheads use the design and position of noteheads to indicate different playing techniques for unpitched percussion instruments, both as individual instruments and within percussion kits.

For example, side stick notes on the snare drum notes are typically notated using cross noteheads. Other techniques might use the staff positions above or below the single-line staff to indicate different playing techniques.



Multiple different playing technique-specific noteheads for snare drum

You can edit the set of playing technique-specific noteheads and staff positions defined for each unpitched percussion instrument in the **Percussion Instrument Playing Techniques** dialog.

You can select playing technique-specific noteheads for unpitched percussion instruments when inputting notes and change the playing technique-specific noteheads of existing notes.

### RELATED LINKS

[Creating new playing technique-specific noteheads](#) on page 1287



[Changing playing technique-specific noteheads](#) on page 1286

[Inputting notes for unpitched percussion](#) on page 227

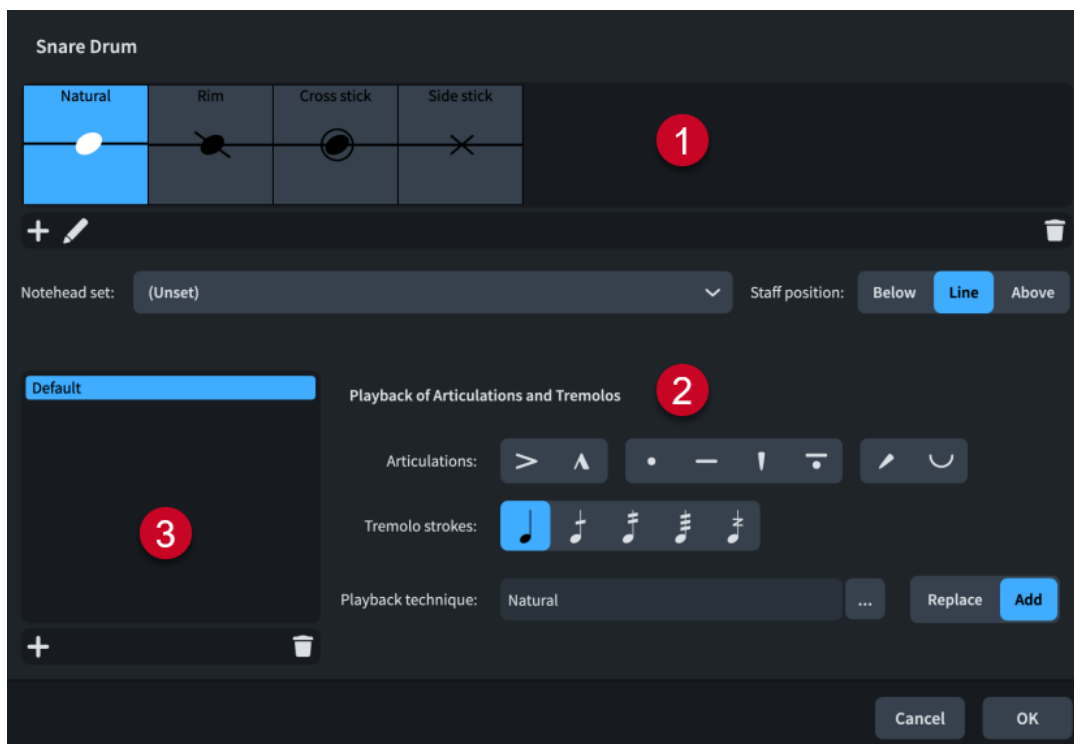
## Percussion Instrument Playing Techniques dialog

The **Percussion Instrument Playing Techniques** dialog allows you to edit the set of playing technique-specific noteheads defined for each unpitched percussion instrument.

You can open the **Percussion Instrument Playing Techniques** dialog in Setup mode in the following ways:

- For an individual percussion instrument: In the **Players** panel, click the instrument menu  in the instrument label, and choose **Edit Percussion Playing Techniques** from the menu.
- For percussion instruments that are part of percussion kits: In the **Players** panel, click the instrument menu  in the kit instrument label and choose **Edit Percussion Kit** to open the **Edit Percussion Kit** dialog. In the main editing area, select the instrument whose playing techniques you want to edit, then click **Edit Percussion Playing Techniques**.





### 1 Playing technique-specific noteheads list

Contains the main playing technique-specific noteheads currently defined for the selected percussion instrument, showing the notehead set and the staff position corresponding to the playing technique as applicable.

You can add new playing technique-specific noteheads for unpitched percussion instruments. Normally, percussion instruments define at least the **Natural** playing technique, which is usually shown using the default notehead set.

### 2 Playback of Articulations and Tremolos

Allows you to define how combinations of articulations and tremolo strokes affect or override the playback of playing techniques.

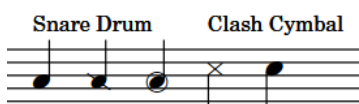
For example, you can define an entirely different playing technique for a playing technique-specific notehead for when an accent is added to it.

### 3 Overrides of articulations and tremolos list

Displays any overrides of articulations and tremolos you define.

---

#### EXAMPLE



Three different snare drum playing technique-specific noteheads followed by two clash cymbal playing technique-specific noteheads

---

All of these settings are saved in the percussion instrument within your project, and you can export them from one project and import them into others.

#### NOTE

Overrides for articulations and tremolos are not currently reflected in playback, but this is planned for future versions.

#### RELATED LINKS

[Changing playing technique-specific noteheads](#) on page 1286

[Creating new playing technique-specific noteheads](#) on page 1287

[Overriding the appearance of playing technique-specific noteheads](#) on page 1288

[Defining how combinations of articulations and single-note tremolos sound in playback](#) on page 705

[Inputting notes for unpitched percussion](#) on page 227

[Exporting percussion kits](#) on page 1290

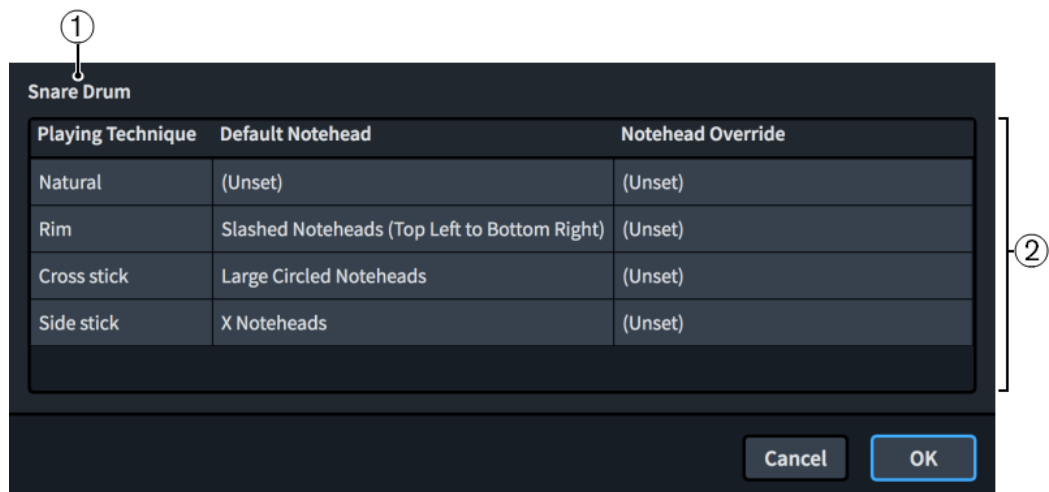
[Importing percussion kits](#) on page 1290

## Override Percussion Noteheads dialog

The **Override Percussion Noteheads** dialog lists the playing technique-specific noteheads defined for the selected instrument in the **Percussion Instrument Playing Techniques** dialog, shows the notehead type mapped for each technique, and allows you to override those noteheads for five-line staff kit presentations only.

For example, the same notehead can indicate different playing techniques for different instruments. When those instruments are presented on the same five-line staff, this can cause confusion, so you can use the **Override Percussion Noteheads** dialog to disambiguate the notes for one instrument from another in five-line staff kit presentations only.

- You can open the **Override Percussion Noteheads** dialog by selecting an instrument in the **Edit Percussion Kit** dialog and clicking **Edit Noteheads**.



The **Override Percussion Noteheads** dialog comprises the following:

### 1 Instrument name

Displays the name of the percussion instrument whose noteheads are listed in the dialog.

### 2 Playing techniques table

Contains the noteheads for the selected percussion instrument, arranged into the following columns:

- Playing Technique:** Displays the playing technique associated with the notehead in the corresponding row of the table.

- **Default Notehead:** Displays the notehead used by default for the playing technique in the corresponding row of the table.
- **Notehead Override:** Displays the notehead override used in five-line staff presentations for the playing technique in the corresponding row of the table. You can change the notehead override by clicking it and selecting another notehead from the menu.

#### RELATED LINKS

[Overriding the appearance of playing technique-specific noteheads](#) on page 1288  
[Changing playing technique-specific noteheads](#) on page 1286  
[Inputting notes for unpitched percussion](#) on page 227  
[Percussion kit presentation types](#) on page 1293

## Changing playing technique-specific noteheads

You can change the playing technique-specific noteheads of notes belonging to unpitched percussion instruments after they have been input; for example, to switch selected snare drum notes to the side stick technique and corresponding notehead.

#### PREREQUISITE

The unpitched percussion instruments whose playing techniques you want to change have at least two playing technique-specific noteheads defined in the **Percussion Instrument Playing Techniques** dialog.

---

#### PROCEDURE

1. In Write mode, select the notes whose playing technique-specific notehead you want to change.

#### TIP

If you select a single note in percussion kits using five-line staff or grid presentations, the current playing technique is shown above the rhythmic grid.

2. Cycle through the available playing techniques for the selected unpitched percussion instruments in any of the following ways:
  - To cycle upwards, press **Shift-Alt/Opt-Up Arrow**.
  - To cycle downwards, press **Shift-Alt/Opt-Down Arrow**.

---

#### RESULT

The playing techniques of the selected unpitched percussion notes are changed. Their notehead design and/or staff position might be changed.

#### RELATED LINKS

[Playing technique-specific noteheads](#) on page 1283  
[Playing techniques for unpitched percussion instruments](#) on page 1282  
[Percussion Instrument Playing Techniques dialog](#) on page 1283  
[Inputting notes for unpitched percussion](#) on page 227  
[Moving notes to different instruments in percussion kits](#) on page 1291  
[Percussion editor](#) on page 631  
[Inputting notes using the Drumstick tool](#) on page 633  
[Moving percussion notes between instruments/playing techniques](#) on page 637  
[Defining how combinations of articulations and single-note tremolos sound in playback](#) on page 705  
[Playing techniques](#) on page 1062

[Input methods for playing techniques, pedal lines, string indicators, and harp pedal diagrams on page 351](#)

[Showing brackets on noteheads on page 954](#)




[Changing the notehead design of individual noteheads on page 946](#)

## Creating new playing technique-specific noteheads

You can define new playing technique-specific noteheads for unpitched percussion instruments, which are saved for that type of percussion instrument in your project. You can also export playing technique-specific noteheads from your project and import them into other projects.

---

### PROCEDURE

1. In Setup mode, open the **Percussion Instrument Playing Techniques** dialog in one of the following ways:
  - For an individual percussion instrument: In the **Players** panel, click the instrument menu  in the instrument label, and choose **Edit Percussion Playing Techniques** from the menu.
  - For percussion instruments that are part of percussion kits: In the **Players** panel, click the instrument menu  in the kit instrument label and choose **Edit Percussion Kit** to open the **Edit Percussion Kit** dialog. In the main editing area, select the instrument whose playing techniques you want to edit, then click **Edit Percussion Playing Techniques**.
2. In the playing technique-specific noteheads list, click **Add Playing Technique** .
3. Select the playback technique you want to use in the dialog that opens.
4. Click **OK** to add the selected playback technique as a new playing technique-specific notehead.
5. From the **Notehead set** menu, select the notehead you want for the playing technique-specific notehead.

### NOTE

To use the default notehead set, leave **Notehead set** as **(Unset)**.

---

6. Choose one of the following options for **Staff position**:
    - **Below**
    - **Line**
    - **Above**
- 

### RESULT

A new playing technique-specific notehead is added to the selected unpitched percussion instrument.

### RELATED LINKS

[Defining how combinations of articulations and single-note tremolos sound in playback on page 705](#)


[Input methods for playing techniques, pedal lines, string indicators, and harp pedal diagrams on page 351](#)

## Overriding the appearance of playing technique-specific noteheads

It might be necessary to override the appearance of playing technique-specific noteheads in order to disambiguate the notes for one instrument from another if they share a staff position in five-line staff kit presentations.

---

### PROCEDURE

1. In Setup mode, in the **Players** panel, expand the card of the player holding the kit whose playing technique-specific noteheads you want to override.
2. In the kit instrument label, click the instrument menu  and choose **Edit Percussion Kit** to open the **Edit Percussion Kit** dialog.
3. Select the instrument whose noteheads you want to override in the main editing area of the dialog.
4. Click **Edit Noteheads** to open the **Override Percussion Noteheads** dialog.
5. Click in the **Notehead Override** column for the appropriate playing technique and select a new notehead type from the menu to override its notehead.
6. Click **OK** to save your changes and close the dialog.

---

### RESULT

The playing technique-specific notehead is overridden for the selected instrument in five-line staff kit presentations.

### NOTE

This does not affect the appearance of playing technique-specific noteheads in grid and single-line instrument kit presentation types.

---

### RELATED LINKS

[Players panel](#) on page 107

[Override Percussion Noteheads dialog](#) on page 1285

## Percussion kits vs. individual percussion instruments

Percussion kits allow you to show multiple unpitched percussion instruments held by a single player at the same time in different ways. Multiple percussion instruments not combined into kits are shown on a single line that only shows the instrument currently being played by default.

One common type of percussion kit is a drum set. A drum set consists of a number of separate instruments mounted together on a frame, and is typically written on a regular five-line staff. Each instrument has its own position on the staff, and sometimes its own notehead type. Similarly, a pair of bongos is a percussion kit by default in Dorico Elements, consisting of the two bongo drums, typically written on a grid with two lines: the smaller drum shown on the top line, and the larger drum shown on the bottom line.

Showing individual percussion instruments separately can be appropriate if a player only has one or two percussion instruments. However, combining percussion instruments into a kit gives you more flexibility over the presentation of music, which you can vary in each layout independently. Kits also give you greater control over the labeling of instruments.

If instrument changes are enabled on the **Players** page in **Layout Options**, Dorico Elements changes from one instrument to the next, just as it does for pitched instruments.

NOTE

Kit instruments in player cards in the **Players** panel in Setup mode are colored green, whereas individual percussion instruments not part of percussion kits are colored the same light blue as all other instruments.

---

## Per-flow notation options for unpitched percussion

You can find options for how notes in percussion kits are notated in each flow independently on the **Percussion** page in **Notation Options**.

For example, you can choose to notate all notes in a percussion kit in a single voice rather than in multiple voices.

RELATED LINKS

[Notation Options dialog](#) on page 679

## Percussion kits and drum sets

A percussion kit is a collection of unpitched percussion instruments that are played by a single player. Drum sets are a particular type of percussion kit that are often used in pop and rock music.

NOTE

In this documentation, we use “percussion kit” to refer to both percussion kits and drum sets.

---

In Dorico Elements, you can present percussion kits in different ways, including as a five-line staff and as a grid. If you want percussion kits to behave as drum sets, you can define them as drum sets. For example, there are options on the **Percussion** page in **Notation Options** for handling voices that only apply to drum sets.

You can create percussion kits in Setup mode. You can combine existing unpitched percussion instruments into kits and add empty kits to players, to which you can then add unpitched percussion instruments. You can also import existing kits you have previously exported and saved.

You can move percussion instruments between players without affecting any music already added to that instrument.

NOTE

If the instrument you want to move is combined into a percussion kit, you must first remove the instrument from the kit before you can move it to another player.

---

You can change individual percussion instruments like any other instrument. However, you can only change unpitched percussion instruments to other unpitched percussion instruments, and you can only change the percussion instruments in kits within the **Edit Percussion Kit** dialog.

RELATED LINKS

[Note input setup for percussion kits](#) on page 230

[Percussion kit presentation types](#) on page 1293

[Staff labels for percussion kits](#) on page 1189

[Universal Indian Drum Notation](#) on page 1301


- [Edit Percussion Kit dialog](#) on page 150
- [Combining individual percussion instruments into kits](#) on page 135
- [Defining percussion kits as drum sets](#) on page 154
- [Adding instruments to percussion kits](#) on page 153
- [Removing individual instruments from percussion kits](#) on page 158
- [Moving instruments](#) on page 137
- [Inputting notes for unpitched percussion](#) on page 227
- [Per-flow notation options for unpitched percussion](#) on page 1289

## Exporting percussion kits

You can export percussion kits as `.doricolib` files. This allows you to use kits again without having to create them from scratch.

---

### PROCEDURE

1. In Setup mode, in the **Players** panel, expand the card of the player whose percussion kit you want to export.
2. In the kit instrument label, click the instrument menu  and choose **Edit Percussion Kit** to open the **Edit Percussion Kit** dialog.
3. Click **Export Kit** at the bottom of the dialog to open the File Explorer/macOS Finder.
4. In the File Explorer/macOS Finder, specify a name and location for the library file.
5. Click **Save**.

---

### RESULT

The kit is exported and saved as a `.doricolib` file.

---

### TIP

You can later import the `.doricolib` file into other projects to reuse the percussion kit.

---

## Importing percussion kits



You can import `.doricolib` files containing percussion kits, which allows you to use kits again without having to create them from scratch.

### PREREQUISITE

Your project contains at least one single player or empty-handed section player.

---

### PROCEDURE

1. In Setup mode, in the **Players** panel, open the instrument picker for the player to which you want to assign the imported percussion kit in any of the following ways:
  - Select the player and press **Shift-I**.
  - Click the plus symbol  in the player card.
  - Select the player, then click **Player Settings**  in the action bar and choose **Add Instrument to Player**. You can also right-click players and choose this option from the context menu.
2. Click **Import Kit** in the instrument picker to open the File Explorer/macOS Finder.
3. Locate and select the percussion kit `.doricolib` file you want to import.

#### 4. Click **Open**.

---

##### RESULT

The selected `.dorico.lib` file is imported as a percussion kit. It is assigned to the player from whose card you opened the instrument picker.

##### RELATED LINKS

[Players panel](#) on page 107

[Adding players](#) on page 121

## Moving notes to different instruments in percussion kits

You can move notes to different instruments in the same percussion kit after they have been input.

##### NOTE

These steps do not apply in layouts using the single-line instruments kit presentation type. In such layouts, you can cross or move notes to other staves.

---

##### PROCEDURE

1. In Write mode, select the notes you want to move to a different instrument in the percussion kit.
  2. Move the notes to another instrument in any of the following ways:
    - To move them to the instrument above, press **Alt/Opt-Up Arrow**.
    - To move them to the instrument below, press **Alt/Opt-Down Arrow**.
- 

##### RESULT

The notes are moved to another instrument in the kit.

##### AFTER COMPLETING THIS TASK

You can change the position of each instrument in the kit.

##### RELATED LINKS

[Edit Percussion Kit dialog](#) on page 150

[Changing the positions of instruments within percussion kits](#) on page 156

[Changing playing technique-specific noteheads](#) on page 1286

[Percussion kit presentation types](#) on page 1293

[Changing the percussion kit presentation type](#) on page 1294

[Creating cross-staff beams/tremolos](#) on page 764

[Moving notes/items to other staves](#) on page 440

## Notations on notes in percussion kits

You can add notations to notes and use different rhythms in percussion kits in the same ways as for normal notes; however, they can behave differently.

### Articulations

You can add articulations to percussion instruments in all kit presentation types in the same ways as for other instruments.



However, in grid and five-line staff presentations, any articulations you add apply to all instruments in the same voice that have notes at that rhythmic position. For example, if both a snare drum and tom-tom note are at the same rhythmic position, and you add an accent, the accent is added to both instruments because they are both shown in the same down-stem voice by default.

You can see the accent applied to each note if you switch to the single-line instruments presentation type.

## Tuplets

When working in the grid and five-line staff kit presentation types, tuplets are added to all instruments in the same voice.

You can switch to the single-line instruments presentation type to input cross-rhythms on each instrument separately. When you switch back to the grid or five-line staff kit presentation types, Dorico Elements attempts to resolve the rhythmic conflicts.

- **Conflicting tuplets:** One tuplet is moved into an extra voice for the duration of the conflict.
- **Tuplet notes in one instrument and non-tuplet notes in another instrument starting at the same rhythmic position:** The non-tuplet note is displayed as if it were part of the tuplet. This is because the note onset is at the same position as the start of the tuplet, so it sounds the same as the original notation.
- **Tuplet notes in one instrument and non-tuplet notes in another instrument that do not start at the same rhythmic position, or other non-tuplet notes that start part-way through the tuplet:** Non-tuplet notes are moved into an extra voice for the duration of the conflict.

### NOTE

Deleting a tuplet from grid and five-line staff kit presentation types deletes the tuplet from all instruments whose notes contribute to the same shared voice.

---

## Playing techniques

You can input playing techniques, such as **+** for closed and **o** for open hi-hat, during note input and add them later to existing music in the same ways as for other instruments.

Playing techniques are only added to the instrument to which the note you select belongs, even if there are other instruments in the same voice.

## Percussion stickings

Dorico Elements does not yet have a dedicated feature for percussion stickings. However, you can use lyrics to represent percussion stickings in all kit presentation types:

- **Grid/Five-line staff presentation types:** Select a note in the instrument in which you want to show stickings.
- **Single-line instruments presentation type:** Input lyrics directly into instruments in which you want to show stickings.

### RELATED LINKS

[Inputting articulations](#) on page 259

[Inputting tuplets](#) on page 243

[Changing the pitch of individual notes](#) on page 444

[Input methods for playing techniques, pedal lines, string indicators, and harp pedal diagrams](#) on page 351

[Inputting lyrics](#) on page 374

## Dynamics in percussion kits

Unlike other items, dynamics are not shared between the grid/five-line staff presentation types and the single-line instruments presentation type. Any dynamics added to instruments in the single-line instruments presentation type do not appear when you switch to grid/five-line presentations.

This is due to the complexity of combining a large number of different dynamics at the same rhythmic position, as allowed in the single-line instruments presentation, into the single position required for both the grid and five-line staff presentations. Therefore, you can add dynamics in the grid and five-line staff presentation types independently of the single-line instruments presentation type.

### RELATED LINKS

[Input methods for dynamics](#) on page 296

## Percussion kit presentation types

You can show percussion kits in three different presentation types, which can be different in each layout in your project.

### NOTE

Dynamics are not shared between the grid/five-line staff presentation types and the single-line instruments presentation type. Any dynamics added to instruments in the single-line instruments presentation type do not appear when you switch to grid/five-line presentations.

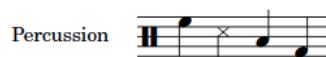
You can edit the appearance/structure of each presentation type independently in the **Edit Percussion Kit** dialog. For example, changing the order of instruments in the five-line staff presentation does not affect the order of instruments in the grid presentation of the same percussion kit.

### 5-line staff

Kit instruments are shown on a five-line staff. You can determine which instruments are shown on each line and in each space of the staff. A single staff label containing the name of the kit is shown.

The numbers down the left-hand side of the editing area in the **Edit Percussion Kit** dialog correspond to staff positions. For example, position 0 is the middle line of the five-line staff, position 1 is the space immediately above the middle staff line, position -2 is the line below the middle staff line, and so on.

Bold black lines show the five staff lines, while gray lines above and below the staff show nominal staff line positions. Each instrument is shown on its staff position.



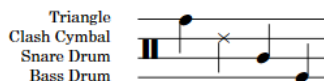
### Grid

Kit instruments are shown on a grid, with each instrument on its own line. You can customize the size of the gaps between each line. Staff labels are shown for each instrument in a smaller font than normal staff labels.

The numbers down the right-hand side of the editing area in the **Edit Percussion Kit** dialog correspond to the number of staff spaces between each instrument line. By default, all instruments in a grid are two spaces apart.

The order in which the instruments are listed matches the order in which they appear in the score.

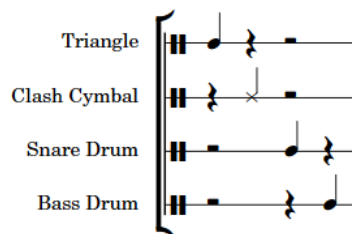
Each instrument in a grid shows its own staff label by default, aligned vertically with its own line, but you can group adjacent instruments together and show a single label for each group.



### Single-line instruments

Kit instruments are shown as individual instruments with their own lines. Normal-sized staff labels are shown for each instrument.

The editing area in the **Edit Percussion Kit** dialog lists all of the instruments in the order in which they appear in the score.



### RELATED LINKS

[Percussion kits and drum sets](#) on page 1289

[Edit Percussion Kit dialog](#) on page 150

[Staff labels for percussion kits](#) on page 1189

[Overriding the appearance of playing technique-specific noteheads](#) on page 1288

[Override Percussion Noteheads dialog](#) on page 1285

[Layout Options dialog](#) on page 677

## Changing the percussion kit presentation type

You can change the presentation type of percussion kits in each layout independently and independently of each other. For example, you can use a five-line staff in the full score layout but a grid in the percussion part layout, and have two percussion kits with different presentation types in the same full score layout.

---

### PROCEDURE

1. Press **Ctrl/Cmd-Shift-L** to open **Layout Options**.
2. In the **Layouts** list, select the layouts in which you want to change the percussion kit presentation type.  
By default, the layout currently open in the music area is selected when you open the dialog. You can select other layouts by using the selection options in the action bar, clicking and dragging across multiple layouts, **Shift**-clicking adjacent layouts, and **Ctrl/Cmd**-clicking individual layouts.
3. In the category list, click **Players**.
4. In the **Percussion** section, choose one of the following options for each percussion kit in your project:

- **5-line Staff**
- **Grid**
- **Single-line Instruments**

5. Click **Apply**, then **Close**.

---

#### RESULT

The presentation type is changed for the selected percussion kits in the selected layouts.

## Percussion legends

Percussion legends list the percussion instruments in use when using the five-line presentation type. Percussion legends can include all instruments that are represented on the staff, or only show sounding instruments in a set range to remind players which instruments to play at certain points.

The image shows a musical staff with a treble clef and a 4/8 time signature. The staff contains several measures of music. Above the staff, there are labels for percussion legends: Temple Block 1, Temple Block 2, Temple Block 3, Temple Block 4, and Temple Block 5 on the left; and Suspended Cymbal, Side Drum, and Kick Drum on the right. The notation includes notes, rests, and dynamic markings such as *f* and accents (>). The staff is divided into measures by bar lines, and there are some changes in time signature indicated by the numbers 4, 5, and 7.

Two sounding instrument percussion legends

By default, percussion legends appear above the staff. You can change the staff-relative placement of percussion legends individually.

Percussion legends appear as signposts if there are no instruments sounding at their position, or when the layout uses the grid presentation type. Percussion legends do not appear at all in layouts using the single-line instrument presentation type.

#### NOTE

- Percussion legends only appear in the layout in which they were added. If you want to show percussion legends in multiple layouts, you must add them in each layout.
  - You can hide/show percussion legend signposts by choosing **View > Signposts > Percussion Legends**. Percussion legend signposts are shown when a tick is shown beside **Percussion Legends** in the menu, and hidden when no tick is shown.
- 

#### RELATED LINKS

[Changing the staff-relative placement of items](#) on page 414

[Per-flow notation options for unpitched percussion](#) on page 1289

[Edit Percussion Kit dialog](#) on page 150

[Percussion kit presentation types](#) on page 1293

[Hiding/Showing instrument change labels at the start of flows](#) on page 1187

[Staff labels for percussion kits](#) on page 1189

## Adding percussion legends to five-line staff kit presentations

You can add percussion legends at specific rhythmic positions to indicate the instruments in the kit. Percussion legends can show all instruments in the kit or only instruments sounding within the specified range.

### NOTE

Percussion legends only appear when kits use the five-line staff percussion kit presentation type and in the layout in which they were added. If you want to show percussion legends in multiple layouts, you must add them in each layout.

---

### PROCEDURE

1. In Write mode, select one of the following:
  - An item on the staff at the rhythmic position where you want to add a percussion legend for all instruments.
  - The range of notes/items for which you want to show a percussion legend for sounding instruments.
2. Add a percussion legend in one of the following ways:
  - Choose **Edit > Notations > Percussion > Legend for All Instruments**.
  - Choose **Edit > Notations > Percussion > Legend for Sounding Instruments**.

### TIP

You can also choose these options from the context menu.

---

### RESULT

A percussion legend is added to the kit. It appears above the staff when the kit uses the five-line staff presentation. It lists instruments, either all instruments or just instruments with notes within the selected range, in the order in which they appear in the five-line staff, from highest down to lowest.

### RELATED LINKS


[Percussion kit presentation types](#) on page 1293

[Editing percussion legend text](#) on page 1298

## Changing the percussion legend type

You can change the type of percussion legends so they show all instruments or only sounding instruments in five-line staff presentations.

### PREREQUISITE

- The lower zone is shown.
- **Properties**  is selected in the lower zone toolbar.

### PROCEDURE

1. Select the percussion legends whose type you want to change. You can do this in Write mode and Engrave mode.
2. In the Properties panel, activate **Legend type** in the **Percussion Legends** group.

**NOTE**

The property is already activated for sounding instrument percussion legends.

---

3. Choose one of the following options:

- **Legend**
  - **Sounding instruments**
- 

RESULT

The legend type of the selected legends is changed.

RELATED LINKS

[Percussion legends](#) on page 1295

[Percussion kit presentation types](#) on page 1293

[Adding percussion legends to five-line staff kit presentations](#) on page 1296

## Changing the sounding instrument percussion legend range

You can change the rhythmic range of sounding instrument percussion legends to include more/fewer instruments in the legend, as they only show the instruments playing at the rhythmic positions included in the range.

---

PROCEDURE

1. In Write mode, select the sounding instrument percussion legend whose range you want to change.
2. Change the range in any of the following ways, according to the current rhythmic grid resolution:
  - To move the whole range to the right, press **Alt/Opt-Right Arrow**.
  - To move the whole range to the left, press **Alt/Opt-Left Arrow**.
  - To lengthen the range, press **Shift-Alt/Opt-Right Arrow**.
  - To shorten the range, press **Shift-Alt/Opt-Left Arrow**.

**NOTE**

Key commands lengthen/shorten items by moving their end only.

---

- Click and drag the circular handle at the start/end to the right/left.
- 

RESULT

The rhythmic range covered by the selected sounding instrument percussion legend is changed according to the current rhythmic grid resolution.

The instruments included in the percussion legend are automatically updated to reflect the instruments playing within the range.


RELATED LINKS

[Rhythmic grid](#) on page 204

## Showing short instrument names in percussion legends

Percussion legends use full instrument names by default, but you can choose to use short names to save space.

### PREREQUISITE

- The lower zone is shown.
- **Properties**  is selected in the lower zone toolbar.

---

### PROCEDURE

1. Select the percussion legends whose instrument name lengths you want to change. You can do this in Write mode and Engrave mode.
2. In the Properties panel, activate **Use short names** in the **Percussion Legends** group.

---

### RESULT

Short instrument names are shown in the selected percussion legends.

Deactivating **Use short names** returns the selected percussion legends to showing full instrument names.

### RELATED LINKS

[Staff labels for percussion kits](#) on page 1189

[Percussion legends](#) on page 1295


[Percussion kit presentation types](#) on page 1293

[Adding percussion legends to five-line staff kit presentations](#) on page 1296

## Editing percussion legend text

By default, percussion legends show the instrument names of percussion instruments in five-line staff presentations, stacked vertically. You can change the text shown in percussion legends to show custom text.

### PREREQUISITE

- The lower zone is shown.
- **Properties**  is selected in the lower zone toolbar.

---

### PROCEDURE

1. Select the percussion legends you want to edit. You can do this in Write mode and Engrave mode.
2. In the Properties panel, activate **Custom text** in the **Percussion Legends** group.
3. Enter the text you want into the value field.
4. Press **Return**.

---

### RESULT

The text shown in the selected percussion legends is changed.

### RELATED LINKS


[Hiding/Showing zones](#) on page 44

[Properties panel](#) on page 615

## Erasing the background of percussion legends

You can erase the background of individual percussion legends; for example, to ensure they remain legible when crossing barlines. You can do this for the current layout and frame chain only, or for all layouts and frame chains.

### PREREQUISITE

- The lower zone is shown.
- **Properties**  is selected in the lower zone toolbar.
- You have chosen the appropriate property scope for local properties.

---

### PROCEDURE

1. In Engrave mode, select the percussion legends whose backgrounds you want to erase.
2. In the Properties panel, activate **Erase background** in the **Percussion Legends** group.

---

### RESULT

The backgrounds of the selected percussion legends are erased. If the property scope was set to **Locally**, this change only takes effect in the current layout and frame chain.

Deactivating **Erase background** returns the selected percussion legends to the default non-erased background.

### AFTER COMPLETING THIS TASK

You can change the padding between percussion legends and each edge of their erased areas.

### RELATED LINKS

[Properties panel](#) on page 615


[Changing the property scope](#) on page 617

[Copying property settings to other layouts/frame chains](#) on page 599

## Changing the erasure padding of percussion legends

You can change the erasure padding of individual percussion legends, including changing the padding between percussion legends and each edge of their erased areas independently. You can do this for the current layout and frame chain only, or for all layouts and frame chains.

### PREREQUISITE

- The lower zone is shown.
- **Properties**  is selected in the lower zone toolbar.
- You have chosen the appropriate property scope for local properties.

---

### PROCEDURE

1. In Engrave mode, select the percussion legends whose erasure padding you want to change.
2. In the Properties panel, activate the **Erasure padding** properties, individually or together, in the **Percussion Legends** group.
  - **L** changes the padding between percussion legends and their left edge.
  - **R** changes the padding between percussion legends and their right edge.
  - **T** changes the padding between percussion legends and their top edge.
  - **B** changes the padding between percussion legends and their bottom edge.



3. Change the values in the value fields.
- 

#### RESULT

Increasing the values increases the padding, decreasing the values decreases the padding. If the property scope was set to **Locally**, this change only takes effect in the current layout and frame chain.

## Voices in percussion kits

Dorico Elements automatically combines music into a smaller number of voices when multiple percussion instruments are presented in a five-line staff or as a grid, even if they contain different rhythms. By default, music is combined into one up-stem voice and one down-stem voice.

Alternatively, you can choose to notate all notes in a percussion kit in a single voice when the kit is defined as a drum set on the **Percussion** page in **Notation Options**. This convention is used less frequently for orchestral percussion.

You can also override this option for individual notes and whole instruments in individual percussion kits.

Notes in the same voice cannot be notated using different durations and are notated using ties by default instead. You can eliminate the use of ties by choosing to truncate longer notes so that only their onsets appear on the **Percussion** page in **Notation Options**.

If one of the instruments in a percussion kit has a tuplet rhythm, other instruments can share the voice if their notation is compatible, such as if the tuplet structure is the same, or if they have a single note that coincides with the start of the tuplet. In this case, the single non-tuplet note is notated as the same duration of the first note of the tuplet.

If the music of the different instruments in the same voice is incompatible, Dorico Elements dynamically creates another voice and notates the remaining music in that voice until the music is compatible again.

#### RELATED LINKS


- [Edit Percussion Kit dialog](#) on page 150
- [Notations on notes in percussion kits](#) on page 1291
- [Defining percussion kits as drum sets](#) on page 154
- [Adding slash voices to percussion kits](#) on page 1142



## Specifying the stem direction/voice of instruments in percussion kits

You can specify the stem direction for each instrument in individual percussion kits. You can also set which voice they are in, allowing you to control which instruments share voices in percussion kits.

---

#### PROCEDURE

1. In Setup mode, in the **Players** panel, expand the card of the player holding the kit whose instrument stem directions and voices you want to specify.
2. In the kit instrument label, click the instrument menu  and choose **Edit Percussion Kit** to open the **Edit Percussion Kit** dialog.
3. In the dialog, select an instrument whose stem direction and voice you want to specify.
4. Choose one of the following stem directions for **Stem direction and voice**:

- **Up-stem** 
- **Down-stem** 

5. Specify a voice by changing the value for **Stem direction and voice**.

#### NOTE

You do not have to change the voice number if you are switching between up- and down-stem voices as the number corresponds to the voice number for each stem direction.

---

6. Click **Apply**, then **Close**.
- 

#### RESULT

The default stem direction and voice of the selected instrument is changed.

#### RELATED LINKS

[Players panel](#) on page 107

[Edit Percussion Kit dialog](#) on page 150

## Changing the voice of individual notes in percussion kits

You can override the default voice for individual notes in percussion kits, including drum sets.

---

#### PROCEDURE

1. Select the notes whose voice you want to override. You can do this in Write mode and Engrave mode.
  2. Choose **Edit > Notations > Percussion > Change Voice > [Voice]**.  
For example, to change notes to the second down-stem voice, choose **Edit > Notations > Percussion > Change Voice > Down-stem Voice 2**. You can also choose this option from the context menu.
- 

#### RESULT

The voice of the selected notes is changed, independently of the default voice for their instrument and independently of your setting for voices in drum sets.

#### TIP

You can reset the voice of individual notes by selecting them and choosing **Edit > Notations > Percussion > Change Voice > Reset Note Destination Voice**. You can also choose this option from the context menu.

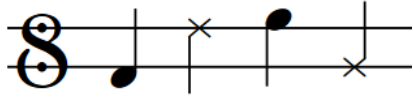
---

## Universal Indian Drum Notation

Dorico Elements supports the Universal Indian Drum Notation system developed by Keda Music Ltd.

Universal Indian Drum Notation has been designed primarily for tabla, but can also be applied to other Indian drums with two heads, such as nagara, dhol, dholak, mridangam, and pakhawaj.

Indian drum clefs are automatically shown on the staves of tabla instruments and tabla percussion kits, but you can also input Indian drum clefs manually.



RELATED LINKS

[Adding players](#) on page 121

[Adding instruments to players](#) on page 133

[Inputting clefs with the panel](#) on page 318

[Percussion kits and drum sets](#) on page 1289

[Percussion maps](#) on page 700

# Voices

For many instruments, such as flute or trombone, each staff usually contains a single musical line in a single voice that is read from left to right along the staff. When multiple, independent lines must be shown in a single staff, each line can be a separate voice.



An excerpt of piano music with two voices active on each staff

One common use for showing multiple voices in a single staff is in vocal music, when the soprano and alto lines share a single staff and the tenor and bass lines share another staff. Showing each vocal line in its own voice helps to separate the lines, making the music easier to read and making the shape of each melodic line clear.

In Dorico Elements, notes belong to voices. You can create as many voices as you like on each pitched instrument staff. Each voice has its own color, which you can see if you show voice colors. This can help you to keep track of which notes are in which voices if there are multiple overlapping musical lines in your project.

Voices in Dorico Elements are divided into up-stem voices and down-stem voices. Stems of notes in up-stem voices point upwards, while stems of notes in down-stem voices point downwards. However, in bars where only one voice contains notes, stem directions are automatically changed to the directions they would have if there were only one voice on the staff. By default, the first voice on the staff is up-stem.

Following most notation conventions, rests are shown in bars for all voices that have notes in the bar. If two or more voices have a rest of the same rhythmic duration at the same rhythmic position, that rest is consolidated by default: instead of showing two identical rests, only one is shown.

## RELATED LINKS

[Inputting notes into multiple voices](#) on page 221

[Changing the voice of existing notes](#) on page 442

[Swapping the contents of voices](#) on page 443

[Voices in percussion kits](#) on page 1300

[Slash voices](#) on page 1141

[Adding notes above/below existing notes](#) on page 247

[Stem direction](#) on page 961

[Voice column index](#) on page 1307

[Unused voices](#) on page 1309

[Implicit rests in multiple-voice contexts](#) on page 1146

[Moving rests vertically](#) on page 1148

[Deleting rests](#) on page 1149

## Per-flow notation options for voices

You can find options controlling how notes in multiple voices are positioned in each flow independently on the **Voices** page in **Notation Options**.

The options on this page allow you to change the position and order of notes in multiple-voice contexts, and choose when noteheads in different voices can overlap.

Musical examples demonstrate how each option affects the appearance of your music.

### RELATED LINKS

[Notation Options dialog](#) on page 679

[Per-flow notation options for rests](#) on page 1147

## Hiding/Showing voice colors

You can show notes in different colors according to their voice; for example, to check which notes are in which voice. When voice colors are hidden, all notes appear black by default.

Voice colors are considered annotations and are not printed by default.

### NOTE

You cannot show colors for voices and notes out of range simultaneously.

---

### PROCEDURE

- Do one of the following:
    - To show voice colors, choose **View > Note And Rest Colors > Voice Colors**.
    - To hide voice colors, choose **View > Note And Rest Colors > None**.
- 

### RESULT

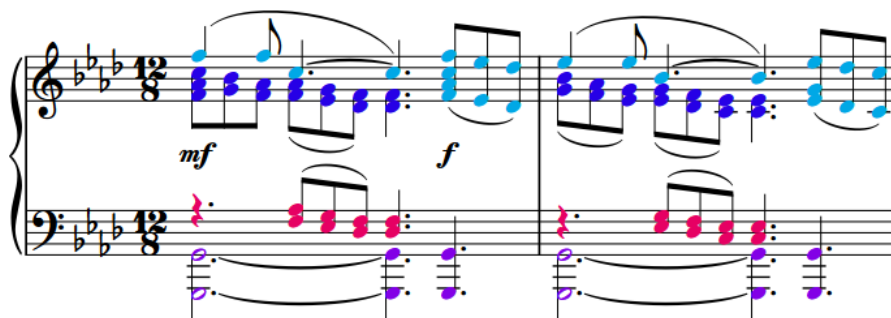
Voice colors are hidden/shown. The first eight voices on each staff use the colors set in **Preferences > Colors > Voice Colors**. Voice colors are automatically assigned to subsequent voices.

### TIP

You can also identify voices by selecting individual notes and looking at the display in the status bar.

---

### EXAMPLE



The image shows a musical score for piano in 12/8 time, featuring two staves. The treble staff contains multiple voices of notes, with dynamic markings *mf* and *f*. The bass staff also contains multiple voices. The notes are color-coded to represent different voices: blue, red, purple, and green. The colors are consistent across both staves for each voice, demonstrating how voice colors are applied to notes in different voices.

Voice colors shown

---

## AFTER COMPLETING THIS TASK

If showing voice colors reveals some notes are not in the voice you want, you can change their voice.

## RELATED LINKS

[Preferences dialog](#) on page 58

[Changing music area colors](#) on page 54

[Changing the voice of existing notes](#) on page 442

[Stem direction](#) on page 961

[Viewing options for notes and rests](#) on page 951

[Hiding/Showing colors for notes out of range](#) on page 951

[Annotations](#) on page 554

[Status bar](#) on page 39

## Allowing/Disallowing noteheads in opposing voices to overlap

You can allow/disallow the noteheads of unison notes in opposing voices to overlap in different contexts in each flow independently. For example, if you want to allow notes with and without rhythm dots to overlap but disallow half notes to overlap with shorter notes.

---

PROCEDURE

1. Press **Ctrl/Cmd-Shift-N** to open **Notation Options**.
  2. In the category list, click **Voices**.
  3. In the **Ordering Multiple Voices** section, choose one of the following options for **Unison half notes (minims) and shorter notes in opposing voices**:
    - **Allow noteheads to overlap**
    - **Do not allow noteheads to overlap**
  4. Choose one of the following options for **Unison dotted and undotted notes in opposing voices**:
    - **Allow noteheads to overlap**
    - **Do not allow noteheads to overlap**
  5. Click **Apply**, then **Close**.
- 

## RELATED LINKS

[Notation Options dialog](#) on page 679

[Swapping the order of voices](#) on page 1307

[Changing the voice column of notes](#) on page 1308

[Inputting notes into multiple voices](#) on page 221

[Note and rest grouping](#) on page 774

## Note positions in multiple-voice contexts

Notes are usually placed directly above each other and at the same horizontal position, so that it is immediately clear which notes are played together. However, the horizontal alignment of notes can be different in multiple-voice contexts.

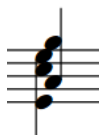
There are circumstances when some notes must be positioned slightly to one side in a different voice column to ensure the division of notes across the voices is clear. For example, when there are three or more voices in a single staff, or when notes in two voices are a second interval apart.



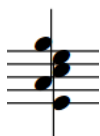
A phrase with multiple voice columns for some beats on the top staff

Interlocking notes in different voices can be positioned in two ways:

1. Notehead to notehead, which allows noteheads to overlap partially. This voice order often takes up less horizontal space than positioning notes stem to stem, as notes can overlap.



2. Stem to stem, which does not allow noteheads to overlap. This voice order keeps notes in different voices separate.



Dorico Elements positions notes by default with the noteheads partially overlapping, in order to minimize the horizontal space they occupy and to maintain the clarity of the rhythm. The order and position of notes in different voices is also automatically adjusted so that each rhythmic position uses as little horizontal space as possible, while remaining clear and legible.

- You can change the default order of notes in multiple voices project-wide on the **Voices** page in **Notation Options**.
- You can manually swap the order in which opposing voices are positioned horizontally and change the voice column of individual notes.

### RELATED LINKS

[Stem direction](#) on page 961

[Slashes in multiple-voice contexts](#) on page 1134

[Implicit rests in multiple-voice contexts](#) on page 1146

[Per-flow notation options for voices](#) on page 1304

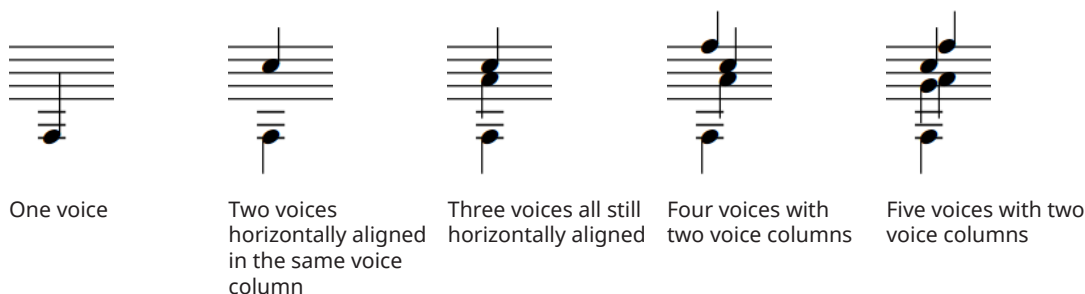
[Notation Options dialog](#) on page 679

[Note spacing](#) on page 579

## Voice column index

The voice column index is used to determine the positions of notes when multiple columns are needed; for example, when notes in two voices are a second interval apart and therefore cannot be placed directly above each other vertically, instead they must partially overlap.

Dorico Elements automatically changes the voice column of voices according to the number of active voices and the pitch of notes. Dorico Elements prefers showing voices with the widest pitch range between them on the left of the rhythmic position and voices with narrower pitch ranges to the right, as this produces the most balanced result, especially when there are multiple accidentals.



## Swapping the order of voices

Dorico Elements automatically positions notes with the noteheads partially overlapping, in order to minimize the horizontal space they occupy and maintain the clarity of the rhythm. You can manually swap the order in which opposing voices are positioned horizontally. You can do this for the current layout and frame chain only, or for all layouts and frame chains.

### PREREQUISITE

You have chosen the appropriate property scope for local properties.

### PROCEDURE

1. Select the notes whose order you want to change. You can do this in Write mode and Engrave mode.
2. Choose **Edit > Notations > Voices > Swap Voice Order**. You can also choose this option from the context menu.

### RESULT

The voice order of the selected notes is changed by changing their voice column index. If the property scope was set to **Locally**, this change only takes effect in the current layout and frame chain.

### NOTE

If you want to revert voices to their default voice order, we recommend that you reset their voice column by deactivating **Voice column index** in the **Notes and Rests** group of the Properties panel instead of swapping their voice order again.



EXAMPLE



Interlocking notes in opposing voices positioned notehead to notehead.



Interlocking notes in opposing voices positioned stem to stem.

---

RELATED LINKS

[Stem direction](#) on page 961

[Implicit rests in multiple-voice contexts](#) on page 1146

[Swapping the contents of voices](#) on page 443

[Changing the voice of existing notes](#) on page 442


[Changing the property scope](#) on page 617

[Copying property settings to other layouts/frame chains](#) on page 599

## Changing the voice column of notes

You can change the voice column, and therefore the horizontal order, of all notes in selected voices at individual rhythmic positions, independently of your per-flow settings. You can do this for the current layout and frame chain only, or for all layouts and frame chains.

PREREQUISITE

- The lower zone is shown.
- **Properties**  is selected in the lower zone toolbar.
- You have chosen the appropriate property scope for local properties.

PROCEDURE

1. In Engrave mode, select at least one note in each voice whose voice column you want to change.
2. In the Properties panel, activate **Voice column index** in the **Notes and Rests** group.
3. Change the value in the value field.

RESULT

The voice column of the selected voices is changed. If the property scope was set to **Locally**, this change only takes effect in the current layout and frame chain.

Deactivating the property returns the selected voice to their default order according to your per-flow settings.

TIP

The **Voice column index** property in the **Notes and Rests** group of the Properties panel is automatically activated when you swap the order of voices manually.

---

## Unused voices

An unused voice is one that contains no notes anywhere in the project. Any unused voices are automatically deleted when you close a project, but you cannot manually delete voices once they have been created. You can create as many voices as you want in each staff.

### NOTE

Deleting all notes in a voice does not delete the voice immediately.

---

If you later want to input notes in a voice that was automatically deleted when you last closed the project, you can create a new voice at any rhythmic position.

## Notes crossed to staves with existing notes in other voices

When you create cross-staff beams by crossing notes to staves that already contain notes, the stem direction of the existing notes may change. This is due to how multiple voices at the same rhythmic position are handled in Dorico Elements.

For example, if a piano part contains notes in up-stem voices on both staves, the stem direction of notes in both voices can change if notes from the upper staff are crossed to the lower staff. In this situation, the notes from the two staves are not combined, but are instead treated as two up-stem voices in a multiple-voice context.



Two piano staves, each with notes in a single up-stem voice.



When the notes in the upper staff are crossed to the lower staff, the stem direction of the notes already in the lower staff changes so they point upwards.

You can change the stem direction of the notes originally in the lower staff in any of the following ways:

- Select the notes originally in the lower staff and change their voice to another voice, such as a down-stem voice.
- Select the notes originally in the lower staff and change their stem direction.

Alternatively, you can move the notes in the upper staff permanently to the lower staff.

### RELATED LINKS

[Creating cross-staff beams/tremolos](#) on page 764

[Moving notes/items to other staves](#) on page 440

[Inputting notes into multiple voices](#) on page 221

[Changing the voice of existing notes](#) on page 442

[Stem direction](#) on page 961

# Glossary

## A

### **action (expression maps)**

A control in expression maps that determines how individual switches are controlled in order to trigger the required playback technique or combination of playback techniques.

### **action (harps)**

The mechanism that raises or lowers the pitch of harp strings, as controlled by the position of each pedal.

### **action (pianos)**

The mechanism that allows piano hammers to strike the strings with different forces, depending on the strength with which the player depresses the corresponding key. It allows pianos to use a greater dynamic range, hence their full name “pianoforte”.

### **alignment relative to noteheads**

When calculating the horizontal alignment of items relative to noteheads, Dorico Elements uses the front notehead in the first voice column at the corresponding rhythmic position. The front notehead is the notehead on the correct side of the stem; that is, on the left of up-stems and on the right of down-stems. Items that can be aligned relative to noteheads include lyrics, chord symbols, and playing techniques.

### **anacrusis**

See [pick-up bar](#).

### **articulation (music notation)**

A symbol that indicates how a note should be played, typically affecting its onset (attack), release, or duration. For example, staccato marks and accents.

### **articulation (sound libraries)**

A term that refers to playing techniques generally.

### **attachment**

The rhythmic position at which an item occurs, or to which an item applies, in the music.

## B

### **bar**

A span of music comprising a specific number of beats, as defined by the prevailing time signature, whose boundaries are indicated by bar lines. Also known as a “measure”, but this documentation uses “bar”.

## C

### **cancellation natural**

A natural accidental positioned on the staff immediately before a change in key signature or a single note. It indicates that the previous accidental no longer applies and can be followed immediately by a new accidental if applicable. Showing cancellation naturals before single accidentals that follow double accidentals is also known as “archaic cancellation”. Cancellation naturals before a change in key signature are known as “traditional” when positioned after the barline and “Russian” when positioned before the barline.

**caret**

Shown during note input, the caret is the vertical line that extends above and below the staff and indicates the rhythmic position at which items are input. Also known as an “insertion point”. In Dorico Elements, the caret, cursor, and mouse pointer are related but serve different purposes. See also [rhythmic grid](#), [note input](#), [cursor](#), [mouse pointer](#).

**casting off**

The act of fixing the layout of pages of music, such as defining a set number of systems per page or the number of bars per system.

**cautionary accidental**

A restatement of an earlier accidental to eliminate ambiguities, such as when a tied note with an accidental continues onto another page. Also known as a “courtesy accidental”.

**CC**

Short for “continuous controller” or “control change”, it is a MIDI message that combines a controller number and a value. The value for an individual controller can change over time, allowing incremental manipulation of the corresponding sound or effect, such as increasing/ decreasing the string vibrato intensity. You can specify the sound or effect that each CC switches to and controls in each sound library using expression maps. In Dorico Elements, each instrument track has 127 available MIDI CCs, each with a value range from 0 to 127. Because MIDI CC does not use notes on a MIDI keyboard, it allows you to use the full range of MIDI keyboard notes for note input. However, it is therefore harder to trigger MIDI CC whilst recording notes. See also [MIDI](#), [PC](#).

**channel**

In MIDI, a channel determines which note, controller, or other data is played by which sound on which device. In Dorico Elements, notes on a single staff may be played by different channels, depending on which playing techniques are provided by the patch assigned to each channel. See also [MIDI](#), [patch](#).

**chord**

Two or more notes of the same duration that start at the same rhythmic position and share a stem.

**chord input**

A variation of note input where notes are stacked on top of each other to create chords, rather than being input after the previous note in sequence. Notes are input at the caret position, which does not advance automatically. See also [caret](#), [note input](#), [Insert mode](#).

**collision avoidance**

Automatic adjustments made by Dorico Elements to ensure multiple items at the same position do not overlap and that all remain clearly legible. Includes changing the shape of items, such as slurs, and changing the vertical and/or horizontal position of items, such as accidentals in chords.

**column**

A vertical line representing the same horizontal position across all staves in the system. Used to determine the position of notes and chords for the purposes of spacing music accurately. Multiple columns can be used for the same rhythmic position to accommodate multiple voices, with notes or chords in some voices being offset horizontally from notes or chords in other voices.

**concert pitch**

All notes are written as they sound. Full scores are often notated in concert pitch, so that harmonies and themes are easier to identify. Also known as “sounding pitch”. See also [transposed pitch](#), [instrument transposition](#).

**condensing**

The process of showing the music for multiple players on fewer staves than is normal, usually by allowing multiple instruments of the same type to share a staff, such as Flutes 1-2 or Horns 1-4. Most commonly used for large orchestral scores, as when there are fewer staves on a page it is possible to use a larger staff size, which is easier for conductors to read. See also [divisi](#), [pitch crossing](#), [reducing](#).

**constant point**

A change in value in the Key Editor that sets a fixed value until the next point. See also [point \(Key Editor\)](#), [linear point](#), [value line](#).

**context menu**

A menu that you can access by right-clicking on a mouse or double-tapping on a touchpad. Its options vary by the location of the mouse pointer and what is selected when you access it, but it most commonly contains options also found on the **Edit** menu.

**cursor**

The vertical blinking line that appears when entering or editing text. See also [caret](#), [mouse pointer](#).

**D****dead note**

A note played on a fretted instrument whose sound is muted to produce a sound that is more percussive than pitched. Usually produced by gently resting one hand on the string. Also known as a “muted”, “muffled”, “ghost”, or “silenced” note. In Dorico Elements, only notes belonging to fretted instruments, such as the guitar or banjo, can be dead notes.

**disclosure arrow**

A small arrow that is shown on all edges of the main window in Dorico Elements. It allows you to hide/show the toolbar and panels individually.

**divisi**

Italian for “divide” or “divided”, divisi is when players split in order to play multiple lines of music. This commonly involves a section, such as Violin I, dividing and using two staves rather than one for a limited passage. Divisi passages can be notated all on the same staff, using multiple voices if required, or across multiple staves. See also [tutti](#), [condensing](#), [exploding](#), [reducing](#).

**drum set**

A particular type of percussion kit that is often used in pop and rock music. Drum sets often use a different arrangement of voices than percussion kits. In this documentation, references to “percussion kits” also apply to drum sets, as drum sets are a type of percussion kit.

**E****EDO**

An abbreviation for Equal Division of the Octave, it is a unit used to describe how an octave can be divided into equal parts, often for the purpose of defining a microtonal scale or tonality system. Traditional Western European music uses 12-EDO; that is, each octave is divided into 12 equal half-steps (semitones). Music that uses equal quarter tones uses 24-EDO. See also [pitch delta](#).

**endpoint**

The unique combination of inputs and outputs that together allow the correct sounds to be played for each instrument.

**Engrave mode**

A mode in Dorico where you can manipulate and modify every item in your project, but without deleting them, moving them rhythmically, or changing the pitch of notes. You can also determine how the pages in each layout of your project are formatted for printing or exporting. See also [modes](#).

**enharmonic equivalent**

An alternative spelling of a note that uses a different scale degree and accidental but produces the same sounding pitch, such as G $\sharp$  and A $\flat$ .

**ensemble**

A predefined collection of players, each holding instruments that are often used together, such as string quartet, wind quintet, brass quintet, string ensemble, and double woodwinds.

**envelope**

A change in sound over time that comprises multiple stages, such as attack, sustain, and decay. In the Dynamics editor, envelopes are represented by highlighted regions and multiple separate points, each controlling a different parameter of the overall envelope. See also [point \(Key Editor\)](#), [constant point](#), [linear point](#), [value line](#).

**explicit rest**

A rest that was deliberately input during rest input or imported from a MusicXML file. Explicit rests cannot be suppressed between notes in a particular voice. See also [rest](#), [implicit rest](#).

**exploding**

The process of assigning music to more instruments than it was written for originally. Exploding music is often a key step in arranging and orchestrating music, such as when a piano piece is arranged for string quartet. See also [reducing](#), [divisi](#).

**F****family**

Instruments of a similar kind that are typically bracketed together in a score, such as woodwind, brass, percussion, and strings.

**fermata**

A notation that indicates all notes at that position are held for longer than their notated length. It is most commonly shown as a curved line with a dot under the curve, but it can also be shown with a pointed arch or square shape. Also known as a “pause” or a “birds’ eye”.

**flow**

A self-contained span of music of any scope, such as a movement in a symphony, a song in an album, a number in a musical, or a short exercise in a music theory worksheet. A flow can contain the same players as other flows in the project or separate players just for that flow. See also [player](#).

**formatting**

The act of determining the number of bars in a system, the number of systems on a page, and the distances between staves and systems.

**fps**

A unit of measurement, short for “frames per second”, that refers to the number of video frames occurring each second.

**fragment**

Part of a notation item. For example, fragments of a note include its notehead, rhythm dots, accidentals, the tip of its stem, and beam. In Write mode, selecting any part of an item also selects all of its fragments, so any changes you make affect the whole item. See also [item](#), [segment](#).

**frame**

A rectangular container for music, text, or graphics on a page.

**fretted instrument**

A type of instrument that in most cases has multiple strings, a neck with marked frets, and is played by stopping the strings at fret positions on the neck with one hand, usually the left, and plucking the corresponding strings with the other hand, usually the right. Common fretted instruments include the guitar, ukulele, and banjo.

**full score**

A score comprising all of the music for all of the players and their instruments, typically laid out in a specific order. The order used varies according to the ensemble for which the music is written. In full scores for orchestra, the players are typically ordered from the highest wind

instrument at the top of the page, such as piccolo, to the lowest string instrument at the bottom of the page, such as contrabass, with brass, keyboards, voices, and percussion in between.

## G

### **galley view**

A viewing option that shows music laid out as a single, infinitely wide system.

### **grace note**

A small note, often used to show an ornament or embellishment, that is not counted towards the number of beats in the bar; instead, it steals from the duration of either the preceding or the following rhythmic notes. Also known as an “arhythmic” or “crushed” note. In common practice, a grace note with a slashed stem is an “acciaccatura”, which is to be played as quickly as possible, either immediately before or at the rhythmic position of the note or chord that follows it. A grace note with an unslashed stem is an “appoggiatura”, which is played as half of the written duration of the note or chord that follows it.

### **grand staff instrument**

An instrument that normally uses two or more staves joined by a brace to display their notes. Common grand staff instruments include the piano, organ, and harp. Upper staves usually indicate higher notes and use the treble clef, while lower staves usually indicate lower notes and use the bass clef.

## H

### **hairpin**

A notation for dynamics that uses a pair of angled lines, diverging from or converging on a single point, to show a gradual increase or reduction in the dynamic level; that is, a crescendo or diminuendo.

### **half-bar**

The rhythmic position that divides bars into two equal sections when the prevailing time signatures can be divided into four equal beats. In Dorico Elements, specific beam grouping and note grouping settings apply to bars with a half-bar. Time signatures that have a half-bar include 4/4 and 12/8.

### **handle**

A selectable item that marks the ends of lines, the corners of frames, and other moveable positions, such as pedal line retakes and slur control points. In Write mode, handles are circular and mark rhythmic positions.

### **harmonic series**

A naturally-occurring set of frequencies that are all related to a single pitch, known as the “fundamental”. When a fundamental pitch is played, the note produced contains many different notes within the harmonic series. These additional notes are known as “partials” or “overtones”. It is also possible to bring out the sound of individual partials by playing them as harmonics. There is a consistent pattern of intervals between partials within the harmonic series, and these intervals become progressively smaller the further up the harmonic series they occur. For example, the interval between the first and second partials is an octave whereas the interval between the seventh and eighth partials is only approximately a major second. At the top end of the harmonic series, most partials are microtones. See also [partial](#).

### **hook**

A short line that extends from other lines, most commonly at a right angle, that helps to clarify the end position of lines. In Dorico Elements, hooks can be used at the end of pedal lines, octave lines, repeat endings, and tuplet brackets.

### **horizontal justification**

The alignment of musical content to the left and right edges of the frame. To ensure that all staves in a system occupy the same width, any remaining space that is left over after the music is spaced is distributed evenly between all of the columns in the system. Sometimes the final

system of a flow is not fully justified and is allowed to end partway across the width of the frame. See also [frame](#), [justification](#).

## I

### **implicit rest**

A rest that is automatically shown around the notes you input. Its notated duration automatically adjusts according to the time signature and its position in the bar. Implicit rests can be suppressed between notes in a particular voice, which hides them. See also [rest](#), [explicit rest](#), [padding rest](#), [multi-bar rest](#).

### **Insert mode**

A way of changing how notes are input. When Insert mode is activated, new notes push all subsequent notes in the same voice along by the input duration instead of overwriting existing notes. Similarly, reducing the duration of notes with Insert mode activated pulls them closer together without leaving rests between the notes. This also affects edits you make outside of note input, such as deleting notes, changing the duration of notes, or inputting time signatures. See also [note input](#), [chord input](#).

### **instrument**

Anything that requires at least one staff to represent the sounds or music it produces. Common instruments include the violin, flute, tuba, and bass drum. However, human voices, computer triggering samples, and tape recordings can also be instruments.

### **instrument transposition**

The interval difference between the pitch the instrument plays and the resulting sounding pitch, often included as part of the instrument name. For example, when a Clarinet in B $\flat$  plays a C, the pitch produced is a concert B $\flat$ . Instrument transposition is also known as “instrument pitch”. See also [concert pitch](#), [transposed pitch](#).

### **item**

Generic term for any note, rest, chord, notation, or other selectable object that appears in the score in Dorico Elements. See also [fragment](#), [segment](#).

## J

### **justification**

The alignment of musical content to the edges of the frame, both horizontally and vertically. See also [frame](#), [horizontal justification](#), [vertical justification](#).

## K

### **key command**

A set of keys that perform a defined task when pressed together. Also known as a “keyboard shortcut” or “hotkey”.

## L

### **layout**

A page-based presentation of the music for one or more players in one or more flows; for example, a full score that contains all players or an instrumental part that contains only a single player. See also [flow](#), [player](#).

### **layout options**

Options that affect the setup of an individual layout, such as page and staff size. These options can be set in each layout independently in the **Layout Options** dialog. See also [layout](#).



**linear point**

A change in value in the Key Editor that acts as a point on a curve, setting a value for its position only and allowing for a smooth change in value from that position until the next point. See also [point \(Key Editor\)](#), [constant point](#), [value line](#).

**lock duration**

Functionality that allows you to change the pitches of existing music while retaining existing rhythms.

**lyric**

Any text that is intended to be sung or spoken by an individual singer or group of singers. A lyric can be a whole word or an individual syllable in a multi-syllabic word. Lyrics are shown at each rhythmic position where a new word or syllable begins. Typically, lyrics are found below the staff, but are sometimes placed above the staff; for example, in the case of a short score.

**M****measure**

See [bar](#).

**MIDI**

An abbreviation for Musical Instrument Digital Interface, a standard for how electronic musical instruments, computers, and virtual instruments can connect to and communicate with each other. In Dorico Elements, MIDI data can be sent to one of 16 channels, which allow either a specific instrument, or a specific patch on a specific instrument, to receive and respond to the data. See also [channel](#), [patch](#), [CC](#), [PC](#).

**minor key**

A key signature based on a minor scale, which has a different pattern of intervals to a major scale. See also [minor scale](#).

**minor scale**

A sequence of notes containing the pitches of a minor key. There are three types of minor scales: natural, harmonic, and melodic. Natural minor scales follow the interval pattern of the Aeolian mode, which on a keyboard is all the white notes from A-A. Harmonic minor scales also follow the Aeolian mode interval pattern but the seventh degree of the scale is sharpened; for example, G $\sharp$  in A harmonic minor. Melodic minor scales follow different interval patterns when they are rising/falling: when rising, melodic minor scales have sharpened sixth and seventh degrees, but when falling, the sixth and seventh degrees are both natural. See also [minor key](#).

**modes**

Selectable workspaces in the project window that represent different phases in the workflow of preparing a score. See also [Setup mode](#), [Write mode](#), [Engrave mode](#), [Play mode](#), [Print mode](#).

**mouse pointer**

The icon on the screen that allows you to interact with items and the user interface, usually by clicking. Its position is typically controlled by an external mouse or touchpad. Its appearance varies depending on the context, such as appearing as a hand when it hovers over a hyperlink, but it most commonly appears as an arrow pointing towards the top left corner of the screen. Also known as a "mouse arrow", "cursor", or simply a "pointer" or "mouse" In this documentation, we use the term "mouse pointer" to differentiate from the cursor and caret. See also [cursor](#), [caret](#), [touchpad](#).

**multi-bar rest**

A consolidation of multiple adjacent empty bars into a smaller unit, typically shown as a single bar with the total number of bars' rest written above the staff. A multi-bar rest normally shows an H-bar symbol, which is a thick horizontal line with vertical lines at each end. In some older published scores, a multi-bar rest of up to nine bars in length is shown using a combination of double whole and whole rests. Also known as a "multirest".

**music area**

The main part of the window in Setup mode and Write mode where you input and edit your music.

**MusicXML**

A file format designed to allow the interchange and archiving of music notation data in an open and non-proprietary way. It is useful for exchanging scores between different music applications.

**N****node**

A position along the length of a string that marks an equal division of the string, such as a quarter of the way along a string. Touching, but not fully stopping, a string at a node produces a harmonic partial. See also [partial](#), [harmonic series](#).

**notation options**

Options that affect the way the music is notated, particularly concerning how notes and rests are grouped according to meter, rules for the extent of accidentals, and options for transposition. These options can be set independently for each flow in the **Notation Options** dialog.

**note input**

The standard method of adding notes to staves in sequence that is possible when the caret is active. The caret automatically advances to the next rhythmic position after each note is input. During note input, it is also possible to input other items at the caret position. Also known as “step input” because notes are input step-by-step. See also [caret](#), [chord input](#), [Insert mode](#).

**O****octave division**

A single step within an octave whose interval depends on the total number of divisions in the octave. For example, in 12-EDO, there are twelve octave divisions, each a half-step (semitone) apart. See also [EDO](#), [pitch delta](#).

**overtone**

See [partial](#). See also [harmonic series](#), [node](#).

**P****padding**

The minimum distance/gap between two items, such as text and its enclosure. Padding values can be independent of other set values, such as minimum height or width.

**padding rest**

A rest that fills the extra rhythmic space before or after cues that start or end partway through bars. This shows clearly how the rhythm of the cue fits within the time signature and how it relates to the player’s existing material. See also [implicit rest](#).

**page break**

The forced termination of a page of music at a particular rhythmic position, typically at a barline. Often used to ensure a convenient page turn in a part. In Dorico Elements, page breaks can be achieved using frame breaks, which are indicated using signposts. See also [system break](#).

**page view**

A viewing option that shows music laid out on a page with a fixed width and height, as it appears when printed. See also [galley view](#).

**panel**

Wide palettes of tools on the left, right, and bottom edges of the program window that are available in all modes, but their content varies in each mode.

**part**

The music belonging to the instruments played by one or more players, shown on its own rather than in a full score. Performers who do not need to see the music belonging to the whole ensemble play from parts so they only have to read the music they play themselves. See also [full score](#), [layout](#).

**partial**

A single pitch or frequency in the harmonic series, which varies in pitch according to the pitch of the fundamental but is always a consistent interval above the fundamental according to its number in the harmonic series. For example, the second partial is an octave above the fundamental, the third partial is an octave and a fifth above the fundamental, and the fourth partial is two octaves above the fundamental. Also known as simply a “harmonic” or “overtone”, although when described as an overtone it has a different number, as the first overtone is the same as the second partial. See also [harmonic series](#).

**patch**

An older term for a discrete sound on a MIDI device or virtual instrument. See also [channel](#), [MIDI](#), [PC](#).

**pause (holds)**

A notation that shows where the established rhythmic flow of the music is interrupted, either with a moment of repose or a short silence, before continuing. Also known as a “hold”, “fermata”, “breath mark”, and “caesura”. See also [fermata](#).

**pause (rest)**

A marking with a rhythmic value that indicates no note is played for that duration. In this documentation, we refer to this as a “rest”. See also [rest](#).

**PC**

Short for “program change” or “patch change”, it is a MIDI message that allows you to access different sounds by switching to the corresponding programs. Because programs can also include effects presets, they allow you to change to specific sounds quickly, which is particularly useful in live performances. You can specify the programs that each PC switches to in each sound library using expression maps. See also [MIDI](#), [CC](#), [patch](#).

**pedal level change**

A change to how far a piano sustain pedal is depressed, between 1 (fully depressed) and 0 (not depressed). It is notated as a change to the height of a pedal line. Also known as a “pedal lift”.

**pick-up bar**

A note or notes played before the first full bar of a piece. Also known as an “upbeat” or “anacrusis”. Pick-up bars often only comprise one or two beats whose main purpose is to lead in to the start of the piece.

**pitch crossing**

A possible situation on staves containing multiple voices or parts, such as condensed staves, where notes in down-stem voices have higher pitches than notes in up-stem voices. See also [condensing](#).

**pitch delta**

The number of octave divisions by which accidentals raise or lower the pitch of notes. For example, in 12-EDO, a pitch delta of 1 raises notes by a half-step (semitone) and is commonly notated using the sharp accidental (#). See also [EDO](#).

**player**

A musician who plays one or more instruments. Players are defined as either single players or section players and are assigned to flows and layouts. See also [single player](#), [section player](#), [flow](#), [layout](#).

**player group**

A collection of players that comprises either a subset of the main ensemble, such as a choir within an orchestra, or a separate group, such as an off-stage brass group or second orchestra. Each group of players is labeled separately in the full score and is grouped and numbered together in the instrument order. See also [player](#).

**playhead**

A vertical line that moves alongside music during playback and when recording, showing the current rhythmic position. Also known as a “playback line”.

**Play mode**

A mode in Dorico where you can change how your music sounds in playback, including by changing the playback template and assigning VST instruments, inputting automation, adjusting the mix, and changing the sounding duration of notes in playback without affecting their notated duration. See also [modes](#).

**playthrough**

A single time playing from the beginning of the piece to the end. Music that contains multiple possible endings, such as music with repeat endings or codas, requires multiple playthroughs.

**plug-in**

A software program that can operate within another software program. Dorico Elements supports VST instruments and effects and script plug-ins written in Lua.

**point (Key Editor)**

A change in value in the Key Editor. Points appear as squares that you can select and edit, such as by dragging them. Points can be constant or linear. See also [constant point](#), [linear point](#), [value line](#).

**point (size)**

A unit of measurement in typography that describes the size of fonts.

**pointer**

See [mouse pointer](#).

**polymeter**

Music containing multiple simultaneous meters; for example, one instrument in the ensemble plays in 6/8 and another plays in 7/4.

**popover**

A temporary value field that is evoked using a key command and allows you to input items using text entries. You can open popovers in Write mode during note input or when items are selected in the music area. There are dedicated popovers for different types of items.

**preamble**

The notations typically drawn before the first note or rest on each system of music. The preamble usually includes clefs, key signatures, and time signatures. In Dorico Elements, the preamble is drawn automatically, so you cannot select any items included in it.

**Print mode**

A mode in Dorico that allows you to print and export the layouts in your project. See also [modes](#).

**print preview area**

The main part of the window in Print mode where you can see a preview of what is going to be printed or exported as a graphic. See also [Print mode](#).

**project**

A Dorico Elements file that can contain multiple flows and layouts. See also [flow](#) and [layout](#).

**properties**

The characteristics of individual items and fragments of items in your project that can be edited via the Properties panel. There are two types of properties: local and global. Local properties are layout- and frame chain-specific, meaning that by default, changing local properties for an item in one layout does not affect the same item in other layouts or other frame chains.

## Q

### **quantization**

In music, the act of adjusting the positions and durations of notes so they align with the nearest defined beat. This process eliminates small variations in rhythm and duration produced naturally by live performers, and can be useful when importing/exporting MIDI data as quantized music produces neater notation.

## R

### **rastral size**

The size of a full five-line staff, measured from the bottom line to the top line. The term comes from the rastra engravers historically used to draw five-line staves on blank paper. Because the rastrum is a fixed object, people became used to their set sizes and Dorico Elements continues this tradition by offering users a selection of rastral staff sizes.

### **reducing**

The process of taking music for more than one instrument and assigning it to fewer instruments, such as a keyboard reduction of a choral piece. A piece of music that has been reduced is known as a “reduction”. See also [exploding](#), [condensing](#), [divisi](#).

### **rest**

A marking with a rhythmic value that indicates no note is played for that duration. Also known as a “silence” or “pause”, but in this documentation, we refer to them as “rests”. See also [implicit rest](#), [explicit rest](#), [padding rest](#), [multi-bar rest](#), [pause \(holds\)](#).

### **rhythmic grid**

A unit of rhythmic duration whose value affects certain aspects of inputting and editing, such as the amount by which items move. Its current value is shown by the note value in the status bar, and by ruler markings indicating beat divisions and subdivisions above the staff on which the caret is active. See also [caret](#).

## S

### **score**

See [full score](#), [part](#), [layout](#), [project](#).

### **section player**

Multiple musicians who all play the same instrument and read from the same part layout; for example, Violin I. Section players may not play multiple different instruments, but can divide. See also [player](#), [single player](#).

### **segment**

Part of a notation item that functions autonomously in Engrave mode. Segments can exist regardless of their position, such as individual ending brackets within a repeat ending, or only when a single item is split across a system or frame break, such as glissando lines. See also [item](#), [fragment](#).

### **Setup mode**

A mode in Dorico where you can set up the fundamental elements of the project: instruments and the players that hold them, flows, layouts, and videos. You can also determine how they interact with each other; for example, by changing the players assigned to layouts. See also [modes](#).

### **single player**

An individual musician who can play one or more instruments; for example, a flute doubling piccolo. See also [player](#), [section player](#).

### **SMuFL**

Short for “Standard Music Font Layout”, it is a font specification that maps all the different symbols required for music notation onto a standard layout. Dorico Elements requires SMuFL-

compliant fonts for certain areas of the program, such as clefs and dynamic glyphs, to ensure it can locate the correct symbol. SMuFL-compliant fonts include Bravura, Petaluma, and November 2.0.

**space**

A unit of measurement in music engraving based on the distance between the center of two adjacent staff lines. Practically all notation items are scaled in proportion to the size of a space; for example, a notehead is normally one space tall.

**spacing**

The act of determining the horizontal distance between successive columns in order to format the music. Horizontal spacing in Dorico Elements considers the graphical shape and size of notes and other items, such as rhythm dots and accidentals, and the note spacing values set. Full systems are automatically horizontally justified.

**spelling**

The way in which a note of a given pitch is specified by a letter name plus an accidental. For example, assuming the conventional 12-EDO pitch system, MIDI note 61 can be spelled as C#, D $\flat$ , and B\*. The same pitch is normally spelled a certain way in a given key; for example, MIDI note 61 is normally spelled as C# in D major, but is spelled as D $\flat$  in A $\flat$  major. See also [EDO](#), [MIDI](#).

**split stem**

A way of presenting altered unisons that keeps each accidental directly beside the notehead to which it applies. Also known as a “cherry stalk” or “tree”.

**staff-relative placement**

The vertical position of items relative to musical staves; that is, either above or below.

**string shift indicator**

An angled line that indicates the direction of movement when string players have to shift position on the fingerboard to play a higher/lower note with the same finger as the previous note.

**stroke**

The short line that bisects editorial slurs and ties. Also known as a “notch”.

**SVG**

SVG stands for Scalable Vector Graphics, which is an XML-based way of displaying and modifying graphics. Due to the way it is coded, it allows you to modify graphics very flexibly compared to other formats.

**system**

A horizontal span of music that is played together. Most printed music displays systems spanning the full width of pages. A system can contain any number of staves. For example, in orchestral full scores, systems typically contain staves for all instruments in the orchestra, meaning a single system often occupies the full height of the page. In part layouts, each system only contains the staves required for that player, which is often a single staff and means multiple systems can fit on each page. See also [system break](#), [page break](#), [casting off](#).

**system break**

The forced termination of a system of music at a particular rhythmic position, typically at a barline. Indicated in Dorico Elements with signposts. See also [page break](#).

**system formatting**

The distribution of bars into systems and systems into frames. When copying part formatting between layouts, Dorico Elements considers the positions of system breaks, frame breaks, and note spacing changes to be aspects of system formatting.

**system object**

An item that applies to all staves in the system, but is not necessary to show on every staff, such as tempo marks and rehearsal marks. In Dorico Elements, you can show system objects at multiple positions in each system by showing them above multiple instrument families.

**T****tempo track**

The timing-related information included in MIDI data that affects tempo, SMPTE offsets, time signatures, timecodes, and markers, which can be imported independently of the rest of the data in MIDI files.

**token**

A code used in a text string that is automatically replaced by a piece of information from elsewhere in the project, such as the title of the current flow, the name of the player, or the page number. Also known as a “wildcard” or “text code”.

**touchpad**

Any flat device with a tactile sensor that functions as an alternative to the traditional computer mouse. Commonly built into laptop computers but can also be separate appliances connected wirelessly or via a cable.

**transport**

Encompasses all options related to playback and recording.

**transposed pitch**

In transposed pitch, the pitches notated are the pitches that the instrument plays, rather than the desired sounding pitch. Instrumental parts are always in transposed pitch so that players can simply play the written notes, which is especially important for transposing instruments. See also [concert pitch](#), [instrument transposition](#).

**tuplet**

A rhythm that is performed at a fraction of its normal written duration. For example, a triplet is three notes of a given note value played in the time it would normally take to play two notes of that note value. Also known as an “irrational rhythm” or a “countermetric rhythm”.

**tutti**

Italian for “everyone”, tutti indicates that a passage of music is to be played by all players reading from that part or staff. It is most commonly used to indicate the end of a divisi passage, or for clarification when a staff can indicate both solos and tutti passages at different times. See also [divisi](#).

**U****upbeat**

See [pick-up bar](#).

**V****value line**

A visual representation of value over time. In Dorico Elements, you typically find value lines in the Key Editor. Fully horizontal value lines indicate a constant value, while angled value lines indicate a smooth change in value within a given duration, usually between two points. See also [point \(Key Editor\)](#), [constant point](#), [linear point](#).

**vertical justification**

The spreading out of staves and systems across the full height of frames with as even a distribution of space as possible. If the music in the frame requires less vertical space than is available, the remaining space is distributed evenly between the systems, and between the staves of the systems. See also [frame](#), [justification](#).

**vibrato bar**

A device on electric fretted instruments, typically guitars, that allows the performer to add vibrato to notes and to adjust the pitch of notes, similar to a guitar bend. Also known as a “whammy bar”, “tremolo bar”, “tremolo arm”, or “vibrato arm”.

**voice**

In Dorico Elements, a series of notes, chords, rests, and other notations that make up a single musical line and are normally played by the same instrument. Assigning notes and items to different voices allows multiple lines of music to be presented on the same staff as clearly as possible, such as in vocal music where the soprano line uses an up-stem voice and the alto line uses a down-stem voice. Dorico Elements allows as many voices as are needed to be input onto a single staff, and lays them out and spaces them automatically. See also [instrument](#).

**VST instrument**

Short for “Virtual Studio Technology instrument”, it is a digital plug-in that converts MIDI data into audio output. It can emulate an existing piece of studio hardware or can be an entirely new creation.

**W**

**Write mode**

A mode in Dorico where you can input and edit your music, including changing the rhythmic positions of items, changing the pitch of notes, and deleting notes and items. See also [modes](#).



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