

Operation Manual



# DORICO ELEMENTS<sup>2</sup>

Personal Music Notation System

Cristina Bachmann, Heiko Bischoff, Lillie Harris, Christina Kaboth, Insa Mingers, Matthias Obrecht, Sabine Pfeifer, Benjamin Schütte, Marita Sladek

This PDF provides improved access for vision-impaired users. Please note that due to the complexity and number of images in this document, it is not possible to include text descriptions of images.

The information in this document is subject to change without notice and does not represent a commitment on the part of Steinberg Media Technologies GmbH. The software described by this document is subject to a License Agreement and may not be copied to other media except as specifically allowed in the License Agreement. No part of this publication may be copied, reproduced, or otherwise transmitted or recorded, for any purpose, without prior written permission by Steinberg Media Technologies GmbH. Registered licensees of the product described herein may print one copy of this document for their personal use.

All product and company names are ™ or ® trademarks of their respective owners. For more information, please visit [www.steinberg.net/trademarks](http://www.steinberg.net/trademarks).

© Steinberg Media Technologies GmbH, 2020.

All rights reserved.

Dorico\_2.2.20\_en-US\_2019-09-19



403	Changes to the length of bars	451	Deleting octave lines
403	Splits in bars	<b>453 Cues</b>	
404	Combining bars	<b>454 Dynamics</b>	
<b>406 Barlines</b>		454	Types of dynamics
407	Deleting barlines	455	Positions of dynamics
407	Moving barlines rhythmically	458	Showing dynamics in parentheses
408	Barlines across staff groups	458	Copying dynamics
<b>410 Bar numbers</b>		459	Deleting dynamics
410	Appearance of bar numbers	459	Voice-specific dynamics
413	Bar numbers in parts	459	Niente hairpins
413	Hiding/Showing bar number ranges on multi-bar rests	460	Expressive text
414	Hiding/Showing guide bar numbers	462	Gradual dynamics
414	Positions of bar numbers	466	Groups of dynamics
417	Bar number changes	467	Dynamics linked across multiple staves
418	Subordinate bar numbers	469	VST Expression Maps for volume types
420	Bar numbers and repeats	<b>470 Fingering</b>	
<b>421 Beaming</b>		470	General placement conventions for fingering
421	Beaming notes together manually	471	Changing fingerings to substitution fingerings
422	Changing the direction of partial beams	472	Changing existing fingerings
422	Beam groups	472	Changing the placement of fingerings relative to the staff
424	Beam placement relative to the staff	473	Hiding/Showing fingering
424	Beam slants	473	Deleting fingerings
426	Centered beams	473	Cautionary fingerings
427	Creating cross-staff beams	474	Fingerings for valved brass instruments
430	Beam corners	475	Hiding/Showing string fingering shift indicators
430	Secondary beams	476	Fingerings imported from MusicXML files
431	Tuplets within beams	<b>477 Front matter</b>	
432	Stemlets	477	Project information used in default master pages
432	Fanned beams	<b>479 Grace notes</b>	
<b>433 Note and rest grouping</b>		480	General placement conventions for grace notes
433	Conventions for beam grouping according to meter	481	Grace note size
434	Creating custom beat groupings for meters	481	Grace note slashes
<b>435 Brackets and braces</b>		482	Grace note stems
436	Secondary brackets	482	Grace note beams
436	Sub-sub-brackets	<b>483 Holds and pauses</b>	
437	Brackets according to ensemble type	483	Types of holds and pauses
<b>438 Chord symbols</b>		485	Positions of holds and pauses
438	Chord components	<b>489 Key signatures</b>	
438	Transposing chord symbols	489	Key signature arrangements
439	Hiding/Showing chord symbols	490	Types of key signatures
439	Hiding/Showing the root and quality of chord symbols	491	Tonality systems
440	Positions of chord symbols	492	Deleting key signatures
442	Changing the enharmonic spelling of chord symbols	492	Multiple simultaneous key signatures
443	Chord symbols imported from MusicXML	493	Positions of key signatures
<b>444 Clefs</b>		494	Transposing key signatures alongside selections
445	General placement conventions for clefs	495	Enharmonic equivalent key signatures
445	Moving clefs rhythmically	496	Cautionary key signatures
446	Deleting clefs	<b>497 Lyrics</b>	
446	Changing the position of clefs relative to grace notes	497	General placement conventions for lyrics
446	Setting different clefs for concert/transposed pitch	498	Filters for lyrics
447	Transposing clefs	499	Types of lyrics
<b>448 Octave lines</b>		500	Types of syllables in lyrics
449	Lengthening/Shortening octave lines	501	Changing the text of existing lyrics
450	Positions of octave lines	502	Showing lyrics in italics
		503	Positions of lyrics

504	Lyric hyphens and lyric extender lines	560	Playing techniques in playback
504	Deleting lyric lines	<b>562 Rehearsal marks</b>	
505	Lyric line numbers	562	General placement conventions for rehearsal marks
508	Verse numbers	563	Positions of rehearsal marks
509	East Asian elision slurs	564	Deleting rehearsal marks
<b>510 Notes</b>		564	Changing the order of rehearsal marks
510	Notehead sets	565	Changing the rehearsal mark sequence type
516	Changing the size of notes	566	Adding prefixes/suffixes to rehearsal marks
516	Moving notes rhythmically	<b>567 Markers</b>	
517	Rhythm dot consolidation	567	Changing the vertical position of markers
517	Specifying on which string individual notes are played	568	Changing the text shown in markers
<b>519 Ornaments</b>		569	Moving markers rhythmically
519	Changing ornament intervals	569	Changing the timecodes of markers
520	Positions of ornaments	570	Defining markers as important
522	Trills	570	Hiding/Showing markers
525	Trill intervals	<b>571 Timecodes</b>	
529	Trills in playback	572	Changing the initial timecode value
<b>532 Arpeggio signs</b>		572	Showing timecodes on a separate staff
533	Changing the type of arpeggio signs	573	Changing the timecode frequency
533	Changing the end appearance of arpeggio signs	<b>575 Repeat endings</b>	
534	Length of arpeggio signs	575	Changing the total number of playthroughs in repeat endings
534	General placement conventions for arpeggio signs	576	Lengthening/Shortening segments in repeat endings
535	Changing arpeggio playback relative to the beat individually	577	Positions of repeat endings
536	Changing the playback duration of arpeggios individually	577	Changing the appearance of individual final repeat ending segments
<b>537 Glissando lines</b>		578	Repeat endings in MusicXML files
537	General placement conventions for glissando lines	<b>579 Repeat markers</b>	
538	Glissando lines across empty bars	580	Changing the index for repeat markers
538	Changing the style of glissando lines	580	Changing the text shown in repeat markers
539	Changing glissando line text	581	Positions of repeat markers
<b>541 Jazz articulations</b>		582	Including/Excluding repeats in playback after repeat jumps
542	Jazz ornaments	582	Changing the number of playthroughs at repeat barlines
543	Positions of jazz articulations	<b>584 Bar repeats</b>	
543	Changing the type/length of existing jazz articulations	585	Changing the length of the repeated phrase in bar repeat regions
543	Changing the line style of smooth jazz articulations	585	Moving bar repeat regions
544	Deleting jazz articulations	586	Lengthening/Shortening bar repeat regions
<b>545 Page numbers</b>		587	Hiding/Showing bar repeat region highlights
545	Changing the page number numeral style	587	Bar repeat counts
546	Hiding/Showing page numbers	589	Bar repeat grouping
<b>548 Pedal lines</b>		<b>591 Rhythm slashes</b>	
549	Sustain pedal retakes and pedal level changes	591	Slash regions
550	Positions of pedal lines	592	Slashes in multiple-voice contexts
552	Lengthening/Shortening pedal lines	595	Splitting slash regions
553	Pedal line start signs, hooks, and continuation lines	595	Moving slash regions
554	Pedal line start, continuation, and restorative text	596	Lengthening/Shortening slash regions
556	Pedal lines in playback	596	Hiding/Showing stems in slash regions
556	Pedal lines imported from MusicXML files	597	Slash region counts
<b>557 Playing techniques</b>		<b>599 Rests</b>	
557	Positions of playing techniques	599	General placement conventions for rests
559	Adding text to playing techniques	600	Implicit vs. explicit rests
560	Hiding/Showing playing techniques	602	Showing rest colors
		602	Deleting rests
		603	Hiding/Showing bar rests in empty bars
		604	Multi-bar rests

605	Moving rests vertically	670	Time signature styles
<b>606</b>	<b>Slurs</b>	673	Positions of time signatures
606	General placement conventions for slurs	674	Hiding/Showing time signatures
609	Cross-staff and cross-voice slurs	674	Deleting time signatures
610	Nested slurs	675	Changing the design of time signatures
611	Moving slurs rhythmically	<b>676</b>	<b>Tremolos</b>
612	Lengthening/Shortening slurs	677	Tremolos in tie chains
613	Slurs linked across multiple staves	677	General placement conventions for tremolos
614	Slur curvature direction	678	Changing the speed of tremolos
615	Slur styles	678	Deleting tremolos
616	Slur collision avoidance	679	Rhythmic positions of notes with tremolos
617	Slurs over system and frame breaks	<b>680</b>	<b>Tuplets</b>
617	Slurs in playback	680	General placement conventions for tuplets
<b>618</b>	<b>Staff labels</b>	681	Nested tuplets
619	Instrument names in staff labels	682	Notations on tuplet notes
620	Changing the length of staff labels project-wide	682	Turning existing notes into tuplets
621	Hiding/Showing instrument change labels at the start of flows	683	Turning tuplets into normal notes
622	Instrument transpositions in staff labels	683	Moving tuplets rhythmically
623	Staff labels for percussion kits	684	Deleting tuplets
<b>625</b>	<b>Staves</b>	685	Tuplet beams
625	Per-layout options for staves	685	Tuplet brackets
626	Staff size	687	Tuplet numbers/ratios
630	Extra staves	<b>689</b>	<b>Unpitched percussion</b>
630	Ossia staves	689	Percussion kits vs. individual percussion instruments
631	System dividers	690	Percussion kits
632	System objects	691	Changing the playing techniques of notes on percussion kit staves
634	System indents	692	Showing notes in percussion instruments as ghost notes
<b>635</b>	<b>Divisi</b>	692	Moving notes to different instruments in percussion kits
<b>636</b>	<b>Stems</b>	693	Notations on notes in percussion kits
636	Stem direction	694	Percussion kit presentation types
640	Stem length	696	Playing techniques for unpitched percussion instruments
640	Split stems for altered unisons	701	Percussion legends
<b>641</b>	<b>Tempo marks</b>	703	Voices in percussion kits
642	Types of tempo marks	705	Unpitched percussion in Play mode
642	Text in tempo marks	706	Universal Indian Drum Notation
644	Positions of tempo marks	<b>707</b>	<b>Voices</b>
645	Lengthening/Shortening gradual tempo changes	707	Note positions in multiple-voice contexts
646	Hiding/Showing tempo marks	708	Showing voice colors
646	Deleting tempo marks	709	Unused voices
646	Tempo mark components	709	Swapping the order of voices
648	Metronome marks	710	Notes crossed to staves with existing notes in other voices
650	Gradual tempo changes	710	Slash voices
651	Tempo equations	711	
<b>653</b>	<b>Ties</b>	<b>714</b>	<b>Glossary</b>
653	General placement conventions for ties	<b>725</b>	<b>Index</b>
655	Tie chains		
655	Ties vs. slurs		
656	Non-standard ties		
658	Deleting ties		
659	Splitting tie chains		
659	Tie styles		
661	Tie curvature direction		
<b>663</b>	<b>Time signatures</b>		
664	General conventions for time signatures		
665	Types of time signatures		
667	Pick-up bars		
668	Large time signatures		

# 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,

Your 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.
- 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:

---

American Name	British Name
Double whole note	Breve

<b>American Name</b>	<b>British Name</b>
Whole note	Semibreve
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
Staff	Stave
Bar/Measure	Bar

**NOTE**

This documentation only uses “bar”.

---

## Conventions

In our documentation, we use typographical and markup elements to structure information.

### Typographical elements

The following typographical elements mark the following purposes.

**Prerequisite**

Requires you to complete an action or to fulfill a condition before starting a procedure.

**Procedure**

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

**Important**

Informs you about issues that might affect the system, the connected hardware, or that might bring a risk of data loss.

**Note**

Informs you about issues that you should consider.

**Tip**

Adds further information or useful suggestions.

**Example**

Provides you with an example.



### Result

Shows 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

Elements of the user interface are highlighted throughout the documentation.

Names of menus, options, functions, dialogs, windows, and so on, are highlighted in bold.

---

#### EXAMPLE

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

---

If bold text is separated by a greater-than symbol, this indicates a sequence of different menus to open.

---

#### EXAMPLE

Choose **Setup > Layout Options**.

---

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”. Many of the default key commands use modifier keys, some of which are different depending on the operating system.

When key commands with modifier keys are described in this manual, they are indicated with the Windows modifier key first, followed by the macOS modifier key and the key.

---

#### EXAMPLE

**Ctrl/Cmd-Z** means: press **Ctrl** on Windows or **Cmd** on macOS, then press **Z**.

---

## Key commands in Dorico Elements

The default key commands in Dorico Elements depend on your keyboard layout.

If you move the mouse over a tool or a function, the information in brackets shows the key command that is used to activate or deactivate a tool or a function.

You can also do one of the following:

- 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 the **Preferences** dialog. In this dialog, you can also assign new key commands or change default key commands.

RELATED LINKS

[Interactive Dorico Elements key commands map](#) on page 51

[Searching for the key commands of functions](#) on page 52

[Preferences dialog](#) on page 48

[Key Commands page in the Preferences dialog](#) on page 49

[Assigning key commands](#) on page 52

## How you can reach us

On the **Help** menu you find items linking to additional information.

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.

This requires that you have a web browser installed on your computer and a working Internet connection.

# First steps

This chapter helps you to get started with Dorico Elements.

When you start Dorico Elements for the first time, we recommend that you open one of the templates first to have a look at the user interface and the functions that Dorico Elements provides before you start your own projects. You are welcome to skip this part and explore the program for yourself.

The following sections inform you about the following topics:

- Overview of the most important workspaces
- Setting up a new project
- Writing your music and adding notation items to your score
- Laying out and formatting pages
- Playing back what you created
- Printing and exporting

## Getting around

The following sections give you an overview of the user interface and introduce you to how Dorico Elements is structured.

## Opening a template

Before you start your own project, we recommend that you familiarize yourself with the user interface of Dorico Elements. To prepare for this, open one of the templates that are provided with the program.

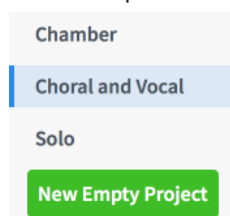
### PREREQUISITE

You have started Dorico Elements. The **Hub** is open.

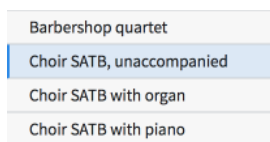
---

### PROCEDURE

1. In the **Hub**, select one of the listed template groups. For example, select the **Choral and Vocal** templates.



2. Select one of the listed templates.



3. Click **New from Template**.

RESULT

The template opens. The players in the template are added to the project and their staves appear in the music area.

RELATED LINKS

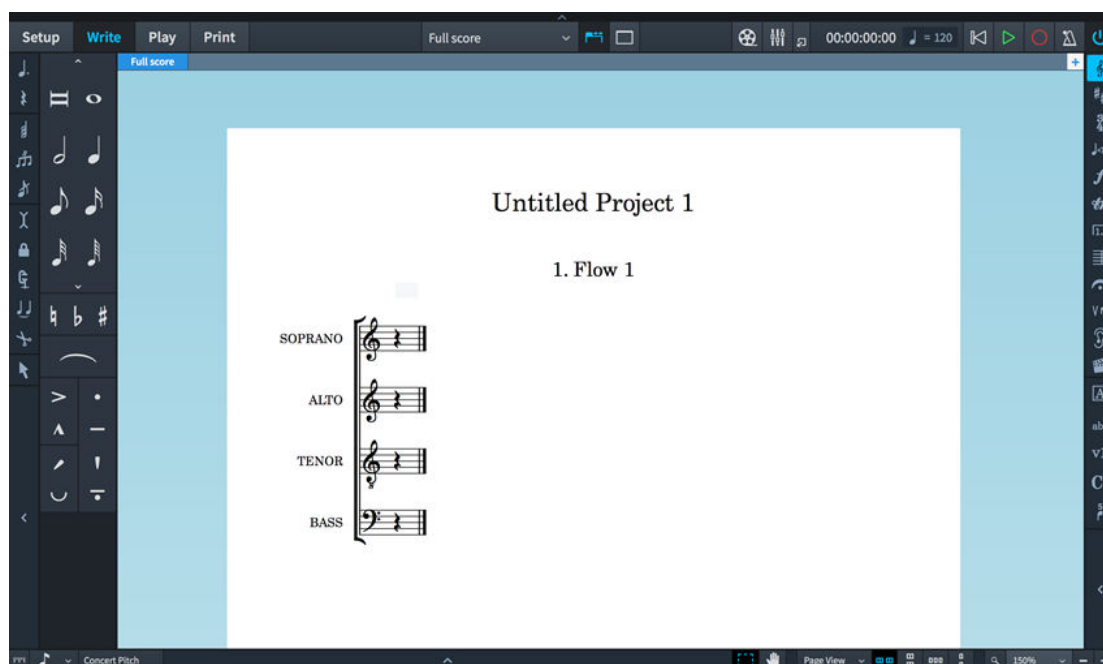
[Hub](#) on page 55

## Quick tour of the user interface

The user interface of Dorico Elements consists of different modes that represent different phases in the workflow of preparing a score.

The user interface has a structure that is the same in each of the application's modes. There is always a large area for editing your music in the center of the project window. In every mode, there are collapsible panels on the left, right, and bottom of the project window, depending on which mode you are using. The contents of these panels change according to the selected mode.

When you open the template, the first view shows the project window in Write mode:



The project window when you open a template

The project window contains the following areas:

### Toolbar

The toolbar is located at the top of the project window.



Toolbar

On the left side of the toolbar, the modes are displayed. By changing the mode, you change the workspace and the available panels. The current mode is highlighted in a different color. In the middle of the toolbar, layout options allow you to switch between the different layouts in your project and to show/hide panels and tabs.

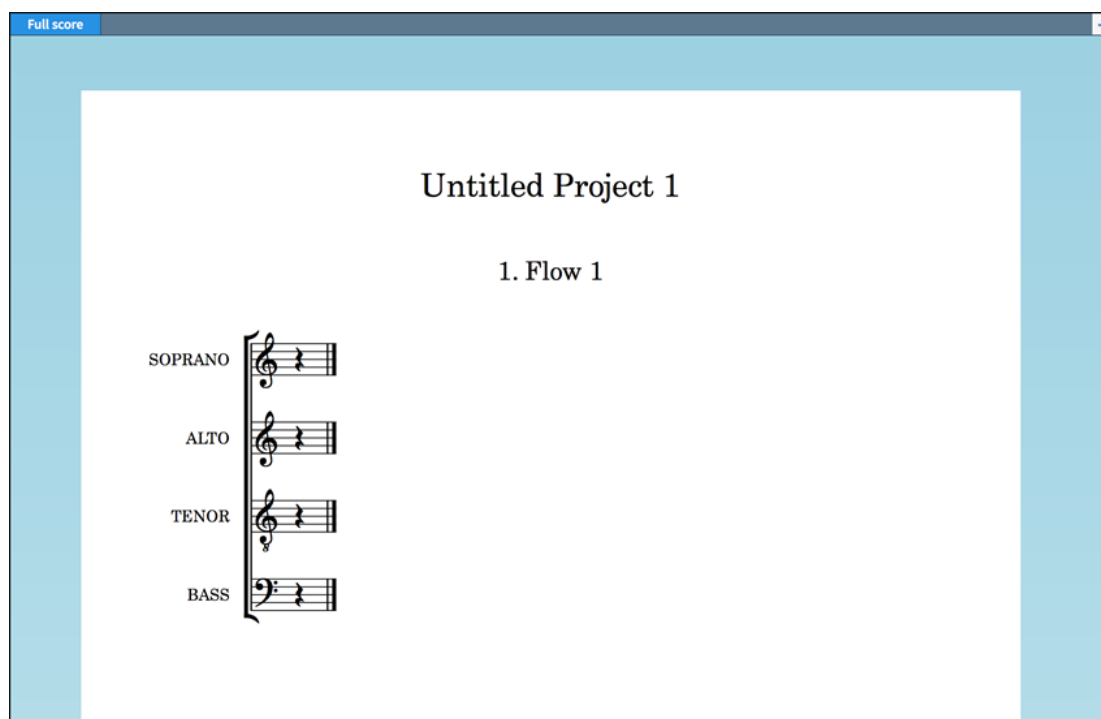
On the right side of the toolbar, you can open a **Mixer** and use basic transport controls that, among other functions, allow you to play back and record your music.



**Show Mixer** button

## Music area

The music area is the main part of the project window in Setup mode and Write mode where you set up, input, edit and format your music. In Play mode, this area is called event display, in which every note is displayed as an event. In Print mode, this area is called print preview area, which shows a preview of what is going to be printed or exported as a graphic.



The music area in Write mode after starting a new project from a choral template

The music area displays the scores or the instrumental parts that you create. Above the music area you can activate several layouts in tabs and switch between them. Layouts in Dorico Elements allow you to show different presentations of your music. If you have a full score with different instrumental parts, such as a violin part and a bassoon part, you can switch between that full score layout and the layouts of each part. To save space on the screen or to focus on a specific layout, you can hide the tabs.

## Toolboxes

Toolboxes are the columns on the left and right edges of the project window. They contain different tools and options according to the current mode, but in general they allow you to input and modify notes and notation items. The Notations toolbox also determines which options are shown in the Notations panel.



## Status Bar

At the bottom of the project window, a status bar allows you to select different views and page arrangements for the music area. It contains different options in different modes.



Status bar

### RELATED LINKS

[User interface](#) on page 30

[Mixer](#) on page 346

[Transport window](#) on page 348

## Functions of the modes

Each mode represents a different phase in the workflow of preparing scores and parts, so contain different toolboxes, panels, and functionality from each other.

### Setup mode

In Setup mode, you can create players and groups of players, and assign instruments to them. You can define different layouts for your project that you can print or export independently. For example, you can print or export a layout for the full score and separate layouts for each instrumental part.

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.

You can switch to Setup mode in any of the following ways:

- Press **Ctrl/Cmd-1**.
- Click **Setup** in the toolbar.
- Choose **Window > Setup**.

### Write mode

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.

You can switch to Write mode in any of the following ways:

- Press **Ctrl/Cmd-2**.
- Click **Write** in the toolbar.
- Choose **Window > Write**.

### Play mode

In Play mode, you can assign virtual instruments and effects for playback to instruments and playing techniques. You can make adjustments to how individual notes are played back in order to produce a more realistic performance.

You can switch to Play mode in any of the following ways:

- Press **Ctrl/Cmd-4**.
- Click **Play** in the toolbar.
- Choose **Window > Play**.

## Print mode

In Print mode, you can print your layouts or export them as graphics files. You can also set the information you want to include in their exported file names.

You can switch to Print mode in any of the following ways:

- Press **Ctrl/Cmd-5**.
- Click **Print** in the toolbar.
- Choose **Window > Print**.

### RELATED LINKS

[Setup mode](#) on page 79

[Write mode](#) on page 128

[Engrave mode](#) on page 274

[Print mode](#) on page 370


[Play mode](#) on page 307

## Hiding/Showing panels

You can hide/show individual or multiple panels. This is useful if you want to see more of the music area, for example.

---

### PROCEDURE

- Hide individual panels or all panels in the following ways:
  - To hide/show the left panel:  
Press **Ctrl/Cmd-7**.  
Click the disclosure arrow on the left edge of the main window.  
Choose **Window > Show Left Panel**.
  - To hide/show the right panel:  
Press **Ctrl/Cmd-9**.  
Click the disclosure arrow on the right edge of the main window.  
Choose **Window > Show Right Panel**.
  - To hide/show the bottom panel:  
Press **Ctrl/Cmd-8**.  
Click the disclosure arrow at the bottom of the main window.  
Choose **Window > Show Bottom Panel**.
  - To hide/show all panels:  
Press **Ctrl/Cmd-0**.  
Click **Hide/Restore Panels**.  
  
Choose **Window > Hide/Restore Panels**.

---

### RESULT

The corresponding panels are hidden/shown. Panels are hidden when no tick is shown beside the corresponding panel in the menu, and shown when a tick is shown in the menu.

If you hide all active panels, the **Hide/Restore Panels** button in the toolbar changes its look and indicates which panels were active but are now hidden.



---

EXAMPLE



Appearance when panels are shown



Appearance when all panels were previously shown but are now all hidden

---

## Working with tabs and windows

Dorico Elements enables you to set up your workspace according to your working style.

Dorico Elements allows you to open multiple tabs to display multiple layouts in the same project within the same window. You can also open the same project in several windows.

RELATED LINKS

[Workspace setup](#) on page 42

### Opening a new tab

You can open a new tab to display a different view or layout within the same project window.


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 you do not see any tabs, click **Show Tabs** in the toolbar.



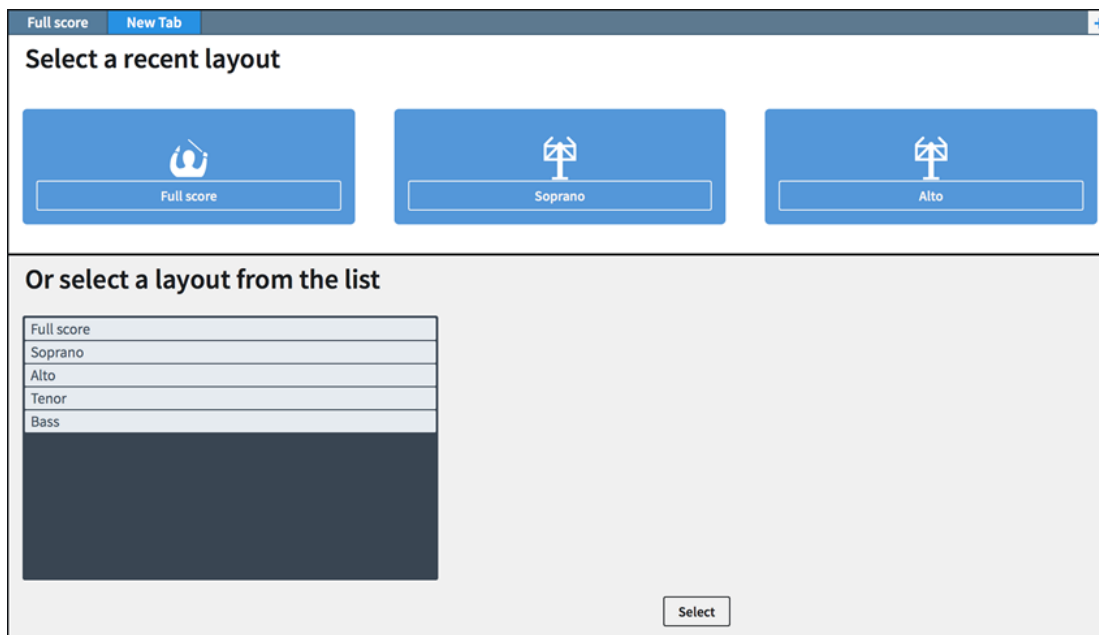
---

PROCEDURE

- To open a new tab, do one of the following:
    - Press **Ctrl/Cmd-T**.
    - At the right end of the tab bar, click **New Tab**.  

    - Choose **Window > New Tab**.
- 

RESULT

A new tab opens that shows several icons at the top and a list of layouts at the bottom.



Options available in the music area when you open a new tab

#### AFTER COMPLETING THIS TASK

You can click one of the icons or select a layout from the list at the bottom. Alternatively, you can select a layout from the layout selector in the toolbar. The layout that you choose opens in the active tab.

#### RELATED LINKS

[Tab bar](#) on page 34

[Toolbar](#) on page 31

## Opening a new window

You can open another window 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.

---

#### 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.

#### RELATED LINKS

[Opening multiple project windows](#) on page 46

## Starting a new project

After getting a first impression of the Dorico Elements user interface, you can get started with inputting your own music. In this section, you learn how to set up a new project.

### PREREQUISITE

### NOTE

All inputs that are made and the images that are used to accompany the steps in this chapter are intended merely to be helpful examples. Therefore, there is no need to make the same entries in order to get the depicted results.

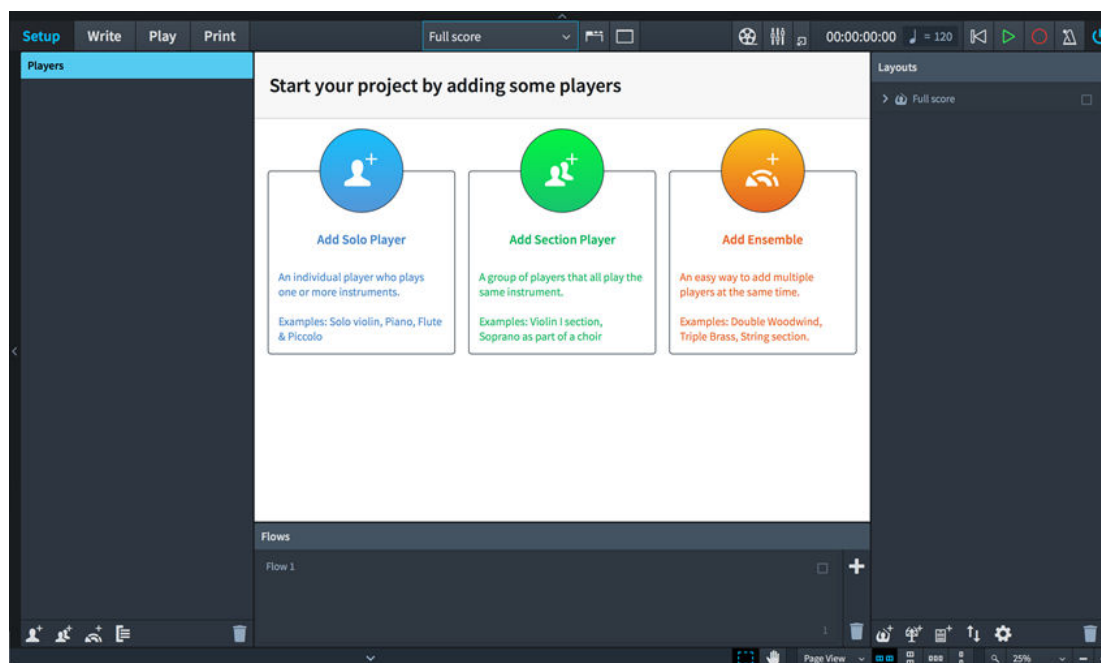
Close the template without saving to reopen the **Hub**.

### PROCEDURE

- Start a new project in any of the following ways:
  - Press **Ctrl/Cmd-N**.
  - Click **New Empty Project**.

### RESULT

A new project window opens.



By default, new projects start in Setup mode. This allows you to specify players and assign instruments straight away. The area in the middle, known as the project start area, allows you to start your project with different types of players. Once you have added at least one player, this area becomes the music area.

On the right, the **Layouts** panel shows a **Full score** layout card. This layout is automatically created in every new project.

At the bottom of the window is the **Flows** panel, where you can specify separate spans of music for your project.

### AFTER COMPLETING THIS TASK

Start your project by adding a player and assigning an instrument to them. You are free to assign any kind of instrument. The following examples use a single piano player.

RELATED LINKS

[Windows](#) on page 30

## Adding a solo player

In this section, you learn how to add a player and assign an instrument.

PREREQUISITE

You have started a new project. You are in Setup mode.

---

PROCEDURE

1. Click **Add Solo Player** to open the instrument picker.



2. Enter **piano** into the instrument picker search box.
3. Click **Add**.

---

RESULT

You have added your first player. In the music area, the required piano staves including their respective clefs are displayed.

AFTER COMPLETING THIS TASK

Save your project. You can do this at any time.

Optionally, you can now edit the project title or add more players.

The following sections help you to create flows and layouts. If you want to start composing, you can skip those sections.

RELATED LINKS

[Writing music](#) on page 21

## Creating a flow

Flows are separate spans of music within your project, for example, movements or songs. In this section, you learn how to create a flow.

PREREQUISITE

You have added at least one player. You are in Setup mode.

---

PROCEDURE

- In Setup mode, click **Add Flow** in the Flows panel at the bottom of the window.



---

RESULT

A new flow is added to your project each time you click **Add Flow**. All existing players are assigned to new flows, and new flows are automatically added to all existing full score and part layouts.

AFTER COMPLETING THIS TASK

You can double-click the flow card to rename the flow.

You can also remove players from the flow by deactivating their checkboxes in the **Players** panel, and remove the flow from layouts by deactivating their checkboxes in the **Layouts** panel.

#### RELATED LINKS

[Flows](#) on page 114

[Renaming flows in Setup mode](#) on page 116

## Creating a layout

Layouts define how music for one or more players in one or more flows is presented, including page size, margins, staff size, and so on. In this section, you learn how to create a new layout.

#### PREREQUISITE

You have added at least one player and one flow. You are in Setup mode.

Several layouts are often used in ensembles with multiple players, where each player may require a layout of the individual instrumental part. Dorico Elements automatically creates a full score layout that contains all players and all flows as well as individual part layouts that each contain one player and all flows. If you require a different combination of players and flows, for example, a part containing the music for two players, you can create your own layouts, as follows:

---

#### PROCEDURE

- In the **Layouts** panel, click **Add Instrumental Part Layout**.



---

#### RESULT

An empty part is created on the **Layouts** panel.

#### AFTER COMPLETING THIS TASK

You can double-click the empty part card to rename it.

You can also assign flows to the layout by activating their checkboxes in the **Flows** panel, and assign players to the layout by activating their checkboxes in the **Players** panel.

## Writing music

Once you have set up your project, you can start writing music.

In Write mode, you can input notes and insert other notations into your score.

#### TIP

Throughout Dorico Elements, most tasks can be accomplished using only your computer's keyboard. You do not need to use the mouse or touchpad. Learning key commands allows you to use Dorico Elements most efficiently. The fastest way to input music is using a MIDI keyboard. If you do not have a MIDI keyboard, you can use your computer's keyboard. Of course, you can still use the mouse or touchpad if you want.

---

In the following sections, you learn how to input notes and notation items.

## Inputting your first notes

In this section, you learn how to input notes. You can start inputting notes without having to first add a time signature or key signature.

### PREREQUISITE

- You have set up your MIDI keyboard.

#### NOTE

If you have not set up a MIDI keyboard yet, you can start inputting notes with the computer keyboard.

---

- You have added a piano player in Setup mode.
  - You are in Write mode.
- 

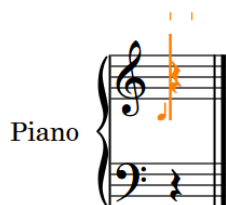
### PROCEDURE

1. Select the rest that was automatically inserted next to the clef when you added a solo player.



2. Start note input in any of the following ways:
  - Press **Shift-N** or **Return**.
  - Double-click the rest.

The caret is activated and appears on the staff.

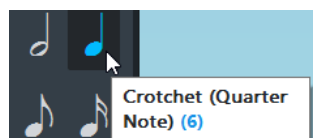


3. In the Notes panel, click a duration.

#### NOTE

By default, Dorico Elements selects a quarter note (crotchet) for you.

---



4. Start playing notes on the MIDI keyboard, or press **A, B, C, D, E, F, G** on the computer keyboard to input the corresponding pitches.

If you want higher or lower pitch for the note that Dorico Elements inputs for you, you can force a different register.

- To input a note above the previously input note, press **Shift-Alt** as well as the letter for the note.

- To input a note below the previously input note, press **Ctrl** (macOS) or **Ctrl-Alt** (Windows) as well as the letter for the note.

#### NOTE

You must press **Ctrl** on Mac, not **Cmd**.

---

#### RESULT

The pitches you enter or play in are input as notes.

---

#### EXAMPLE



Input notes with the caret still active after the final note

---

#### RELATED LINKS

[Write mode](#) on page 128

[Register selection during step input](#) on page 144

## Adding a time signature

In this section, you learn how to add a time signature at the beginning of the staff. You can add a time signature before or after inputting a melody.

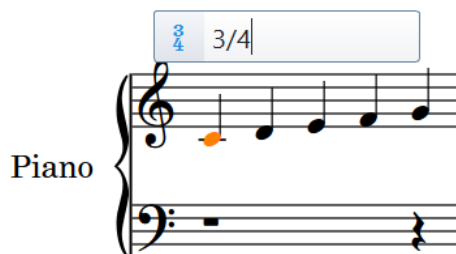
#### PREREQUISITE

Press **Esc** to deactivate the caret.

---

#### PROCEDURE

1. Select the first note on the staff.
2. Press **Shift-M**.  
The time signatures popover opens above the staff.
3. Enter a typical time signature into the popover, such as  $3/4$ .



4. Press **Return** to close the popover.
-

RESULT

Piano

The time signature is automatically input to the left of the note, and the required bar lines are automatically inserted at the correct positions. If you want to insert a key signature, proceed to the next section.

## Adding a key signature

In this section, you learn how to add a key signature. You can add a key signature at any rhythmic position on the staff.

When you start a new project from scratch, by default, there is no key signature shown. Depending on the kind of music you are writing, the key signature might be taken to mean C major or an open key with no specific tonal center.

You can change the key anywhere on the staff. To add a different key signature at the beginning of the staff, for example, D major, proceed as follows:

---

PROCEDURE

1. Select the first note on the staff.
2. Press **Shift-K**.  
This opens the key signatures popover on top of the staff.
3. Enter a key signature into the popover. If you want to enter D major, enter an uppercase D.  
For D minor, enter a lowercase d.

Piano

4. Press **Return**.

---

RESULT

Piano

The key signature is inserted between the clef and the time signature. Dorico Elements automatically adds accidentals where necessary.



## Inputting your first chord

In this section, you learn how to input a chord with the computer keyboard, using chord mode. If you want to use a MIDI keyboard instead, you can input the chord with your keyboard, and you do not need to use chord mode. Dorico Elements automatically inputs the correct notes.

### PREREQUISITE

Select the last note or rest on the staff, and press **Return**. This shows the caret.

---

### PROCEDURE

1. Start chord input in any of the following ways:

- Press **Q**.
- In the Notes toolbox, click **Chords**.



The caret shows a plus sign at the top.

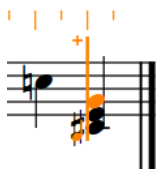


2. Optional: In the Notes panel, select a duration.

3. Input the notes that you want in your chord by pressing keys from **A** to **G**, one after the other. For example, for a C major chord, press **C**, **E**, and **G**.

By default, Dorico Elements adds each new note above the previous note. You can select the register of notes manually.

The example shows a possible result.



4. Press **Space** to advance the caret to the next note position and continue with the next chord.

Dorico Elements expects further chord input until you deactivate it.

5. Optional: To stop chord input, press **Q** or click **Chords** again in the Notes toolbox.

---

### RELATED LINKS

[Register selection during step input](#) on page 144

# Dorico Elements concepts

The following sections give you an overview of the design philosophy as well as the concepts on which Dorico Elements is based.

We recommend that you familiarize yourself with these concepts as these are often returned to throughout the documentation.

## Design philosophy and higher-level concepts

Deep design considerations are required to create a notation software like Dorico Elements, which might be of particular interest to users familiar with scoring applications. Dorico Elements 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 Elements 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 Elements 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 Elements 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 Elements's design philosophy provides several benefits. Chief among them is its ability to produce different score layouts that share the same musical content. For example, in the same project you can create a full score with each player's music on separate staves, a custom score layout containing just the piano and vocal staves, and an instrumental part for each player that only contains the music belonging to them.

## Key musical concepts

In order to work efficiently with Dorico Elements, it is important to understand the conceptual model of the program.

The model is closely based on the practical considerations of how music is written and performed by real humans.

## Projects in Dorico Elements

A project is an individual file that you create within Dorico Elements. It can contain multiple pieces of music of any duration, written for any combination of instruments, and using different layouts.

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.

## Modes in Dorico Elements

Modes in Dorico Elements 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 this mode, you can set up the players and instruments for the project. You can create and manage flows and set up layouts.

### Write

In this mode, you can write your music. You can insert notes and rests, key signatures, time signatures, and idiomatic notations.

### Play

In this mode, you can set up your project for playback. You can assign VST instruments, adjust the mix, and change the sounding duration of notes in playback without affecting their notated duration.

### Print

In this mode, you can define different print jobs, such as printing full scores, study scores, individual parts, and so on. For every print job, you can specify options for page size and duplex printing. You can also manage other output, such as exports to various file types, such as PNG.

### RELATED LINKS

[Functions of the modes](#) on page 15

## Instruments in Dorico Elements

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.

Dorico Elements has a database of information about 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.

### RELATED LINKS

[Instruments](#) on page 100

## Players in Dorico Elements

In Dorico Elements, a player can represent an individual musician or several musicians.

- Solo players are individual musicians 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.
- Section players represent multiple musicians who all play the same instrument, for example, a violin section player can represent eight desks of musicians, or a soprano section player can represent the whole soprano section in a mixed voice choir.

### NOTE

Section players cannot double instruments, but they can play *divisi*. This means that they can be divided into smaller units, which is commonly required for strings.

---

### RELATED LINKS

[Players](#) on page 91

[Divisi](#) on page 635

## Groups in Dorico Elements

A group represents a collection of musicians that are considered together, such as a choir, orchestra, or chamber ensemble.

In a typical project, there might be only one group that contains all of the defined players, but you can define as many groups as required to allow easy separation of forces in larger-scale works. It might also be necessary to assign players to these groups for the purposes of, among other things, properly bracketing and labelling their staves in the conductor's score.

### EXAMPLE

A work for double choir and organ can define the two choirs as separate groups. This allows each choir to have its own label in addition to the labels for each sectional player (soprano, alto, tenor, bass) within the choir.

In a complex work, such as Elliott Carter's "A Symphony of Three Orchestras", each of the orchestras can be defined as a separate group.

---

### RELATED LINKS

[Player groups](#) on page 112

## Flows in Dorico Elements

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 one or more flows.

Each flow can contain music for any combination of players. For example, brass players are often tacet in the second movements of Classical-period symphonies, so you can simply remove brass players from the flow for the second movement. 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 Elements, for example, to generate tacet sheets automatically for individual instrumental parts.

#### RELATED LINKS

[Flows](#) on page 114

## Layouts in Dorico Elements

Layouts combine musical content, as represented by flows, with rules for page layout and music engraving. As well as part layouts for individual players, you can have layouts for multiple players drawn from multiple different flows. You can use layouts to produce paginated music notation that can be printed or exported in various formats.

A typical project for an ensemble of multiple players contains several layouts. For example, a work for string quartet in three movements contains four solo players – two violins, one viola, and one cello – and three flows, one for each movement. Such a project might require five layouts:

- Four layouts each containing the music from all three flows for one of the solo players, that is, the individual instrumental parts
- One layout containing the music from all three flows and all four players, that is, the full score

Each layout provides independent control over practically every aspect of the visual appearance of the music, including independent staff size, note spacing, and system formatting. Each layout can also have independent page layout settings, such as page size, margins, running headers, and footers.

The default formatting of pages in layouts is determined by master frames.

#### RELATED LINKS

[Layouts](#) on page 117

[Page layouts](#) on page 275

[Master pages](#) on page 275

# User interface

The user interface of Dorico Elements is designed to be as unobtrusive as possible while keeping all of the important tools at your fingertips.

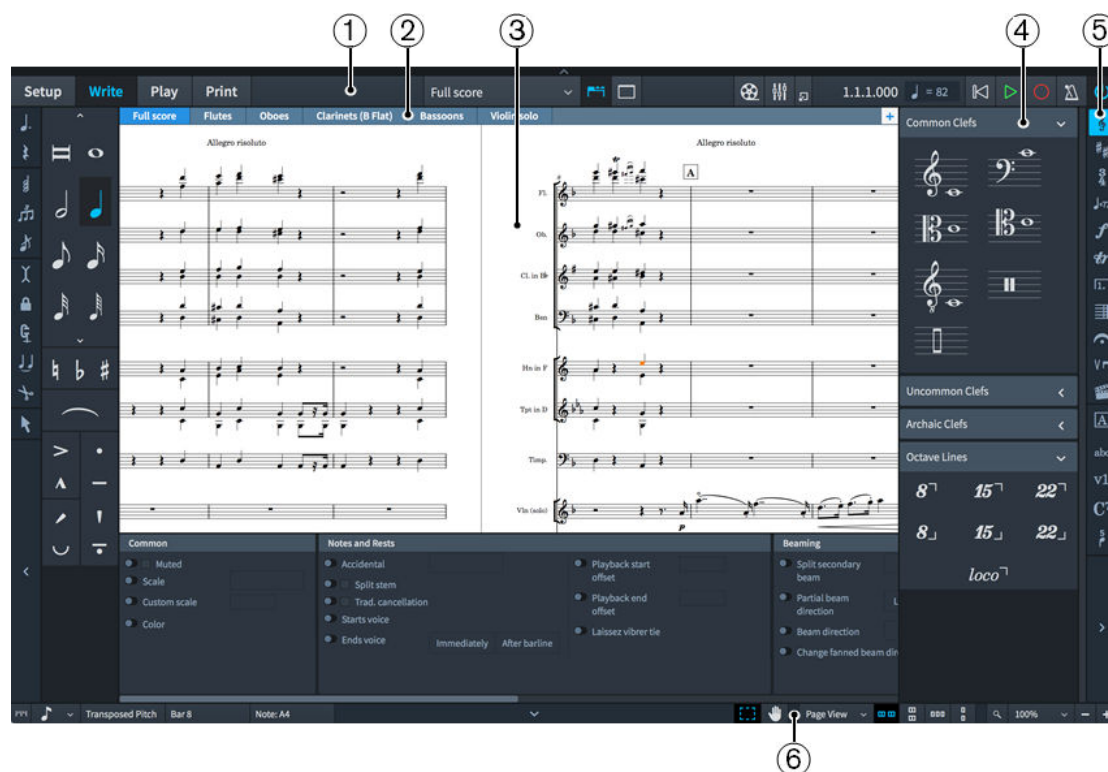
You can explore the interface without doing any damage to your project. You can always undo any inadvertent edits or close your project without saving it.

## Windows

Dorico Elements provides a project window and floating windows.

### Project window

You can open multiple project windows for the same or for different projects. The project window consists of several areas.



Project window

#### 1 Toolbar

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

#### 2 Tab bar

In Setup mode and Write mode, the tab bar shows the tabs that are currently open. If you split the music area and open several tabs, tab groups are shown.

### 3 **Project start area/Music area/Event display/Print preview area**

When you set up a new empty project, this area in Setup mode and Write mode 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 score or parts of the score that you set up, write, edit, and format. In Play mode, this area contains an event display that shows the effects of manipulating the playback of your score. In Print mode, the print preview area shows a preview of how your project is going to be printed onto paper or exported into a graphics file format.

### 4 **Panel**

Provides notes and notations that you need to create and edit your music. Different panels contain different items and functions according to the mode.

### 5 **Toolbox**

Provides 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.

## Floating windows

Dorico Elements allows you to open floating windows, such as the **Mixer** and the **Transport** windows. These can be hidden and shown independently of the mode that is selected in the main window. The following options hide/show floating windows:

### Show Mixer



Hides/Shows the **Mixer** window.

### Show Transport Bar



Hides/Shows the **Transport** window.

### Show Video



Hides/Shows the **Video** window.

## RELATED LINKS

[Opening multiple project windows](#) on page 46

## Toolbar

The toolbar allows you to access the modes and workspace options as well as the **Mixer** and main transport options.

The toolbar is available in all modes and regardless of the tool that you are using. If you must hide the toolbar for a specific reason, click the disclosure arrow above the toolbar.



The toolbar contains the following items:

## 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

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

## 6 Activate Project

Shows which project is activated for playback when you have multiple projects open.

## 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.



Appearance when the tab bar is hidden



Appearance when the tab bar is shown

### Hide/Restore Panels

Shows/Hides all open panels.



Appearance when panels are shown



Appearance when all panels were previously shown but are now all hidden

## Mini transport

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

### Show Transport Bar



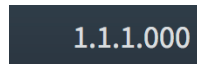
Opens the **Transport** window.

### Time display

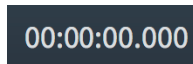
Shows the position of the playhead in one of the following formats:



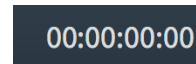
- Bars, beats, and ticks
- Elapsed time in the following order of units: hours, minutes, seconds, milliseconds
- Timecode in the following order of units: hours, minutes, seconds, frames



Time display showing bars and beats



Time display showing elapsed time



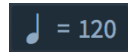
Time display showing the timecode

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

### Tempo

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

You can change the tempo mode by clicking the **Tempo** beat unit.



How **Tempo** appears when fixed tempo mode is active



How **Tempo** appears when follow tempo is active

### Rewind to Beginning of Flow



Moves the playhead back to the beginning of the flow.

### Play

Starts/Stops playback from the previous playhead position.



**Play** when playback is stopped



**Play** during playback

### Record



Starts/Stops MIDI recording.

### Click



Plays/Mutes the metronome click during playback and recording.

### Activate Project



Shows which project is activated for playback when you have multiple projects open.

### TIP

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

---

### RELATED LINKS

[Transport window](#) on page 348

[Playing back music](#) on page 337  
[Moving the playhead](#) on page 337  
[Changing the tempo mode](#) on page 341

## 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.

### TIP

If you cannot see the tab bar, click **Show Tabs** in the toolbar. If **Show Tabs** is activated, the tab bar is always displayed, even if only a single tab is open.



The tab bar contains the following:

### 1 Tabs

All tabs currently open are displayed, 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.



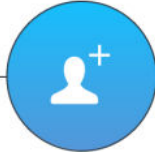
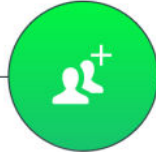

### 2 New Tab

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.

## 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.

### Start your project by adding some players

 <p><b>Add Solo Player</b></p> <p>An individual player who plays one or more instruments.</p> <p>Examples: Solo violin, Piano, Flute &amp; Piccolo</p>	 <p><b>Add Section Player</b></p> <p>A group of players that all play the same instrument.</p> <p>Examples: Violin I section, Soprano as part of a choir</p>	 <p><b>Add Ensemble</b></p> <p>An easy way to add multiple players at the same time.</p> <p>Examples: Double Woodwind, Triple Brass, String section.</p>
---	---	---

Project start area

The project start area shows cards that allow you to add your first players. To add players, click one of the cards:

**Add Solo Player**

Adds an individual player to whom you can assign one or more instruments.

**Add Section Player**

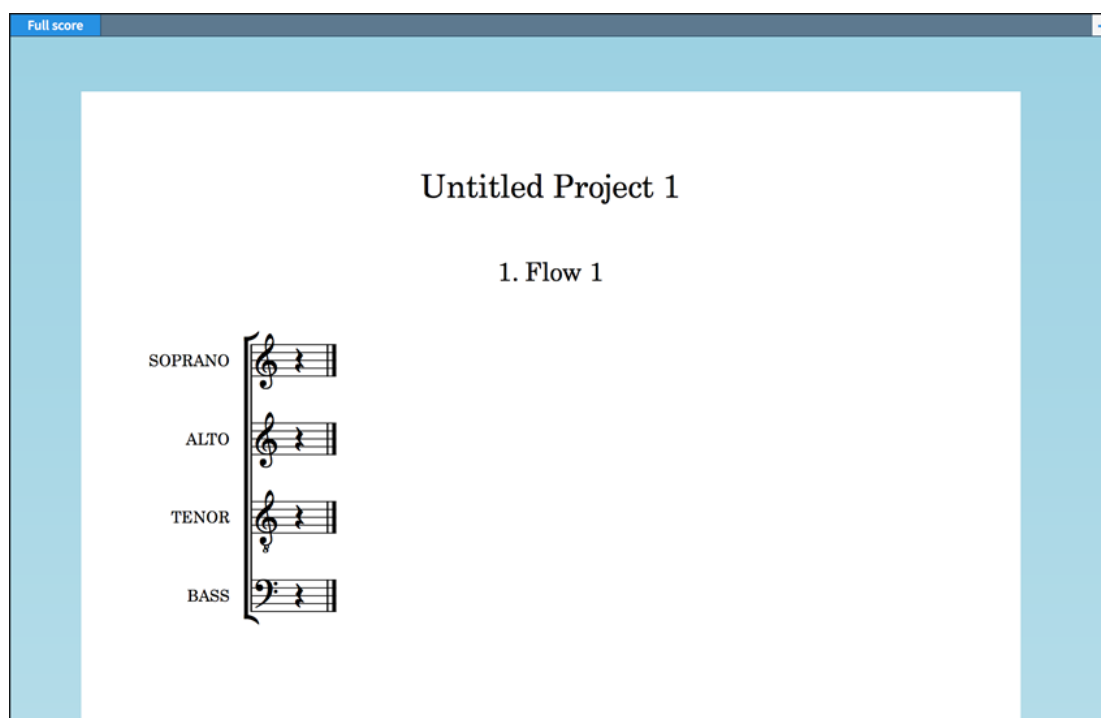
Adds a player that represents multiple players who all play the same instrument.

**Add Ensemble**

Adds multiple players who play different instruments. The ensembles that you can add represent standard combinations of musicians.

## Music area

In Setup mode and Write mode, the music area shows the editable score.



Music area showing a sample of a score

The music area can be displayed in several views. The music area tab bar allows you to open several layouts from your project 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.

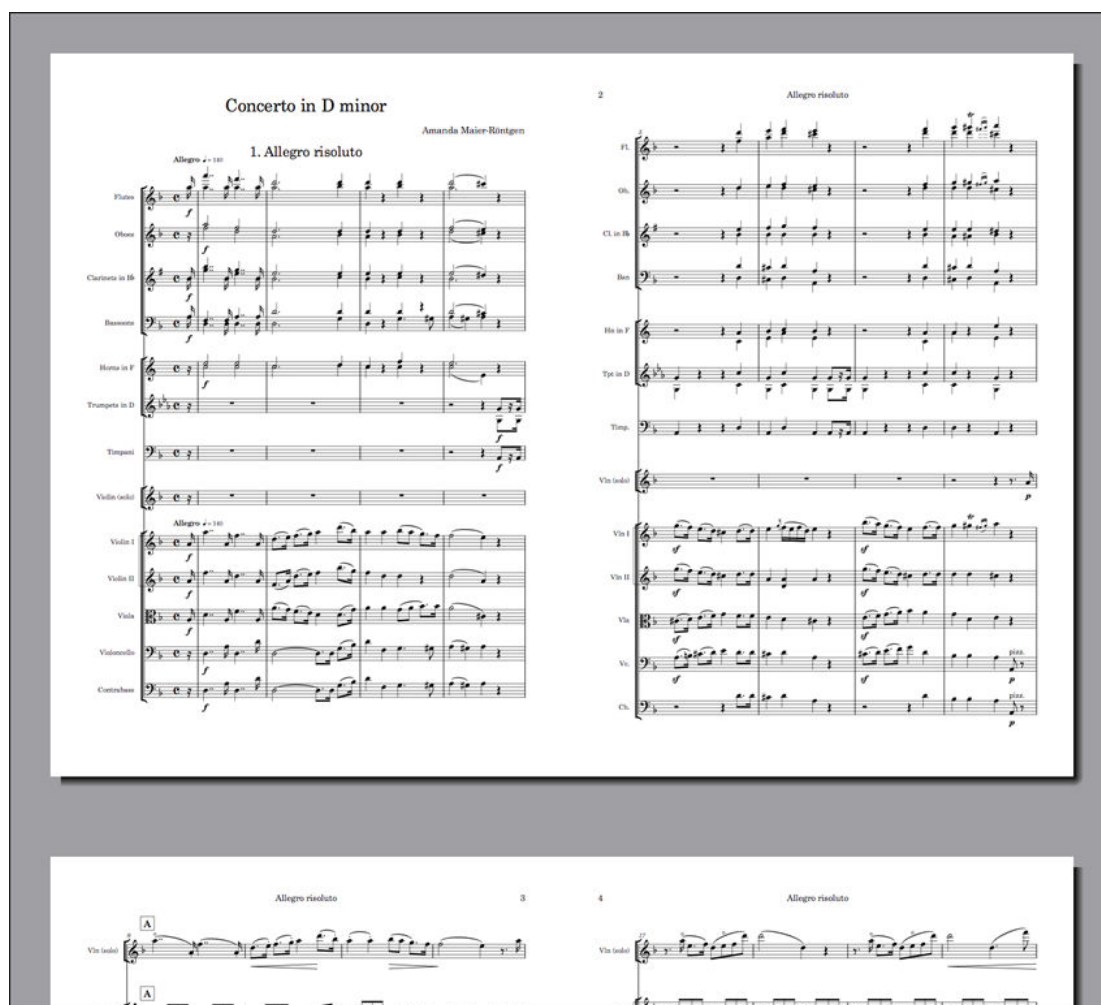
When panels are open on the right, left, and at the bottom of the window, the size of the music area can be reduced. You can hide/show panels when necessary.

RELATED LINKS

[Hiding/Showing panels](#) on page 16

## Print preview area

The print preview area in Print mode shows a preview of what is going to be printed or exported as a graphic.



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

In the print preview area, you can scroll through the pages that are shown, but you cannot edit your layouts. If you want to make changes, you must switch to Setup or Write mode.

### NOTE

You can jump to the first page in the layout by pressing **Home**, and to the last page by pressing **End**.

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 370

## Panels

The panels in the project window provide the notes, notations, and functions that you need to set up, write, edit, and format your music.



Panels in Write mode

- 1 Left panel. In Write mode, this is the Notes panel.
- 2 Right panel. In Write mode, this is the Notations panel.
- 3 Bottom panel. In Write mode, this is the Properties panel.

The panels have different names and functions in each mode in Dorico Elements.

### Modes and their panels

Mode	Left Panel	Right Panel	Bottom Panel
Setup	Players	Layouts	Flows
Write	Notes	Notations	Properties
Play	n/a	VST and MIDI Instruments	n/a
Print	Layouts	Print Options	n/a

Some panels are displayed by default. You can hide/show each panel individually or all of them at the same time.

#### RELATED LINKS

[Modes in Dorico Elements](#) on page 27

- [Hiding/Showing panels](#) on page 16
- [Project window in Setup mode](#) on page 79
- [Project window in Write mode](#) on page 128
- [Project window in Play mode](#) on page 307
- [Project window in Print mode](#) on page 370

## Disclosure arrows

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

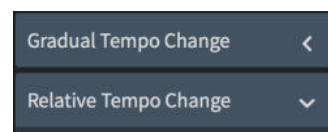
In Dorico Elements, disclosure arrows are commonly used to hide/show panels, sections, and advanced options, and to expand/contract cards, such as player cards in the Players panel in Setup mode.



Disclosure arrow for the bottom panel



Disclosure arrows for both the player card and the instrument within it



Disclosure arrows for sections in the Tempo panel

### RELATED LINKS

- [Hiding/Showing panels](#) on page 16
- [Players panel](#) on page 80
- [Instruments](#) on page 100

## Toolboxes

Toolboxes are available in Write mode and Play mode. They contain different tools and options according to the current mode, but in general they allow you to input and modify notes and notation items. The Notations toolbox also determines which options are shown in the Notations panel.

The following toolboxes are available in the different modes:

### Write mode

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

### Play mode

- Play toolbox on the left of the window

### RELATED LINKS

- [Notes toolbox](#) on page 129
- [Notations toolbox](#) on page 134
- [Play toolbox](#) on page 308

## Status bar

The status bar at the bottom of the project window allows you to choose a different view and page arrangement in 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 value, 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 of a single selected note or the implied chord of multiple selected notes.

#### 3 Disclosure arrow

Allows you to show/hide the bottom panel in Setup mode and Write mode.

#### 4 Selection tools

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

### RELATED LINKS

[Rhythmic grid](#) on page 137

[View types](#) on page 40

[Page arrangements for page view](#) on page 41

[Zoom options](#) on page 42

## Selection tools

Dorico Elements allows you to choose selection tools from the status bar that you can use to select or move items within the music area.

You can use the following tools:

### 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

To use the other tool briefly without selecting it, you can press **Shift** in addition to using the mouse.

---

## 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 mode and Play mode.

---

#### 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 is shown to indicate 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

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.

---

## Moving the view

You can move the view within the music area in Write mode, for example, to bring other parts of pages into view when zoomed in.

---

#### PROCEDURE

1. In the status bar, click **Hand Tool**.



2. Click and drag in any empty space in the music area.  
The mouse pointer changes into a hand symbol during the move.
- 

## View types

In Dorico Elements there are different ways to view your layouts. Dorico Elements saves your chosen view type for each layout, so you only need to set it once.

The following view types are available:

### Galley View

Lays out your music on a single continuous system. It also shows all the instrument staves in the current layout and flow.



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.

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 in galley view is unjustified, meaning it neither expands nor contracts to fit the width of a page or a music frame. However, changes made to note spacing in galley view also apply to page view.

Additionally, there is no automatic vertical collision avoidance in galley view, so notes and items might overlap.

---

### Page View

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

This view type is useful if you want to view spreads or single pages. Spreads allow you to work out page turns, because the performer only needs to turn the page at the end of the right-hand page of a pair. Viewing single pages can be helpful if you want to print the layout as a series of single pages. This might be necessary if you are using, for example, a fan-fold or concertina approach, in which case the distinction between left- and right-hand pages is insignificant.

#### TIP

You can change the default view type used for all future projects on the **General** page in **Preferences**.

---

#### RELATED LINKS

[Preferences dialog](#) on page 48

[Switching to galley/page view](#) on page 47

## Page arrangements for page view

You can change the way pages are arranged for display in the music area.

### 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

[Switching to galley/page view](#) on page 47

## 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

[Preferences dialog](#) on page 48

## 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 to see notes and notations more closely when making detailed graphical amendments.

---

PROCEDURE

1. Zoom in in any of the following ways:
  - Press **Ctrl/Cmd+**.
  - Spread two fingers outwards on a touchpad.
  - Scroll upwards on a mouse wheel.
  - Use the zoom options in the status bar.
2. Zoom out in any of the following ways:
  - Press **Ctrl/Cmd-**.
  - Pinch two fingers together on a touchpad.
  - Scroll downwards on a mouse wheel.
  - Use the zoom options 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

[Zooming in/out of tracks in the event display](#) on page 319

## Workspace setup

Dorico Elements enables you to set up your workspace according to your working style.

Dorico Elements allows you to open multiple tabs to display multiple layouts in the same project within the same window. You can also open the same project in several windows.

RELATED LINKS

[Hiding/Showing panels](#) on page 16

## Switching between layouts

If you have created several layouts in your project, you can switch between which is displayed in the music area in every mode. In Setup mode and Write mode, this changes the layout displayed in the current tab only.

NOTE

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

---

PROCEDURE

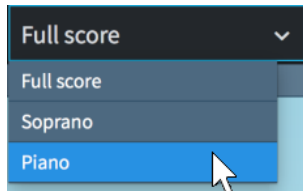
- Switch to another layout in any of the following ways:
  - Press **Shift-Alt-]** to switch to the next layout.
  - Press **Shift-Alt-[** to switch to the previous layout.
  - Select an item on a staff or in the piano roll of the player whose layout you want to open and press **W**.

NOTE

Implicit rests are not items.

---

- Select a layout from the layout selector in the toolbar.



RESULT

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

## 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 you do not see any tabs, click **Show Tabs** in the toolbar.

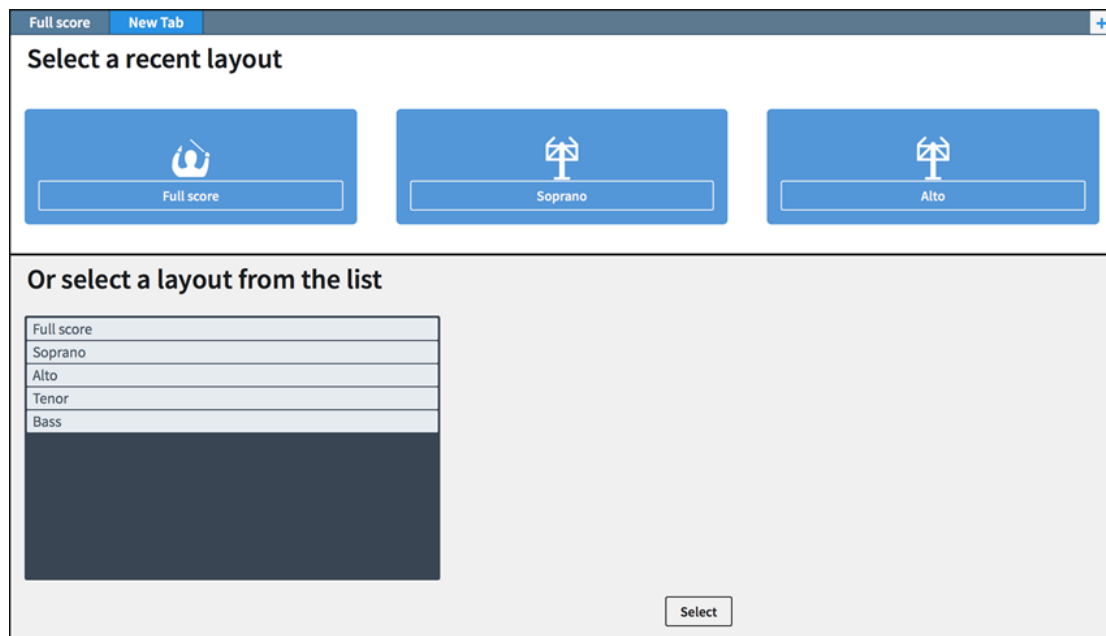


PROCEDURE

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.



2. Select a layout to open in the new tab in any of the following ways:
  - Click one of the icons.
  - Select a layout from the list at the bottom.
  - Select a layout from the layout selector in the toolbar.

---

#### 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

## 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:
    - Press **Ctrl/Cmd-Tab** to cycle through all open tabs.
    - Press **Ctrl/Cmd-Shift-Tab** to cycle through all open tabs in reverse order.
    - Click the tab to which you want to switch.
- 

## 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.

Splitting your project window divides your currently open tabs into two groups. You can move tabs between the groups at any time, for example, to compare different layouts or to compare two views of the same layout.

#### 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 show 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.

#### 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.
- 

#### RELATED LINKS

[Opening new tabs](#) on page 43

## 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.

#### 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 window of the same project with the tab inserted, click and drag a tab horizontally to the right/left, away from the tab bar and release it.
    - To insert the tab into the tab bar of another window of the same project, click and drag a tab onto the tab bar.
    - Select a tab, right-click it, and choose **Move Tab To New Window** from the context menu.
    - Select a tab and choose **Window > Move Tab To New 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 during playback.

---

#### 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.

#### RELATED LINKS

[Playhead](#) on page 336

## Changing to full screen mode

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 panels on the right, left, and at the bottom 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 panels](#) on page 16

## Switching to galley/page view

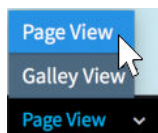
You can switch between different view types in the music area, for example, if a flute player in your project is doubling piccolo, you can switch to galley view to see the piccolo staff in addition to the flute staff.

---

#### PROCEDURE

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

- Press **Ctrl/Cmd-Alt-2** to switch to galley view.
- Press **Ctrl/Cmd-Alt-1** to switch to page view.
- 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.

**Spreads  
Horizontally**



**Spreads Vertically**



**Single Pages  
Horizontally**



**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. However, note spacing is unjustified and there is no automatic vertical collision avoidance, so notes and items might overlap.

## TIP

- You can change the default gaps between staves in galley view on the **Vertical Spacing** page in **Setup > Layout Options**.
- You can change the default view type used for all projects in the **View** section of the **General** page in **Preferences**.

## RELATED LINKS

[View types](#) on page 40

[Page arrangements for page view](#) on page 41

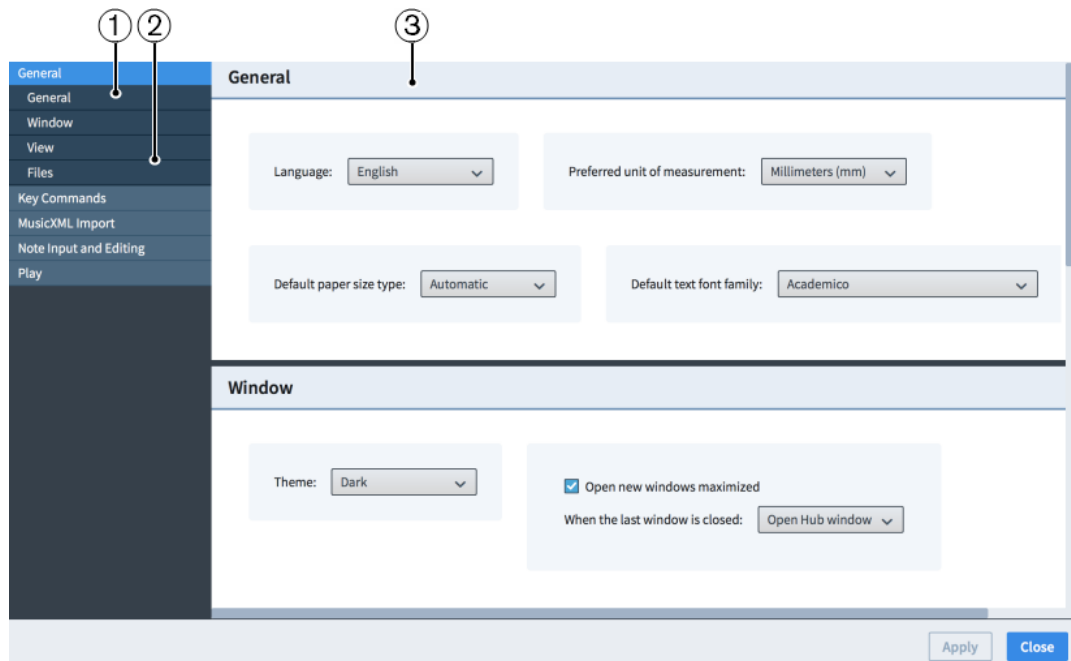
[Changing the staff spacing in galley view](#) on page 304

# Preferences dialog

In the **Preferences** dialog, you can make permanent settings for your workspace and define key commands.

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

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



## Preferences

The **Preferences** dialog contains the following:

### 1 Page list



Contains the categories of options that you can view and change in the dialog, divided into pages. When you click a page in this list, any applicable section titles appear below the page in the page list.

**2 Section titles**

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

**3 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 current 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.

RELATED LINKS

[View types](#) on page 40

[Zoom options](#) on page 42

[Selection tools](#) on page 39

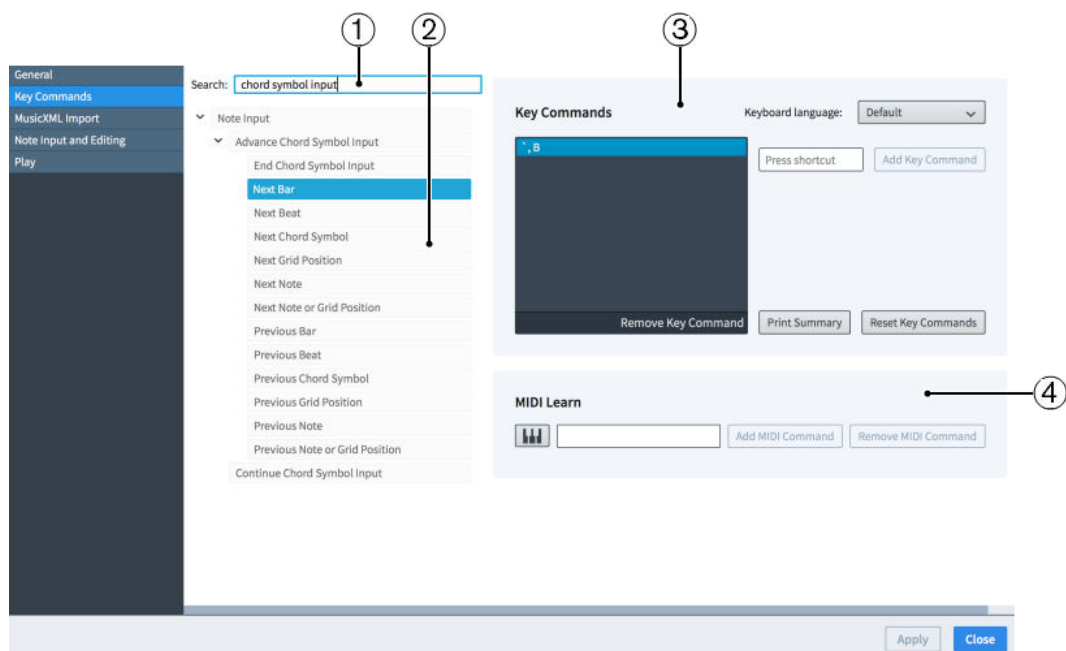
[Layout Options dialog](#) on page 87

## Key Commands page in the Preferences dialog

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

Most of the main menus in Dorico Elements have key commands for certain menu items. In addition, there are other Dorico Elements functions that can be assigned key commands. This can be helpful for items or actions that you find yourself performing regularly, such as changing the rhythmic grid value.

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



**Key Commands** page in **Preferences**

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

**1 Search field**

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

**2 Menu items and functions**

Displays the menu items and 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 menu items and functions shows a tool tip, which is helpful for some functions with particularly long names.

**3 Key Commands section**

Allows you to see any existing key commands set for the selected menu item or function in the list of assigned key commands and to set new ones. If you enter a key command that has already been assigned to another menu item or function, a warning tells you that you cannot use that key command.

You can assign multiple key commands to the same menu item or function, and the **Keyboard language** menu allows you to assign different key commands for each of the available languages.

- **Add Key Command**

Adds the key command you pressed to the selected menu item or function.

- **Remove Key Command**

Removes the currently selected key command from the selected menu item or 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 menu items and 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 menu item or function.

- **Remove MIDI Command**

Removes the MIDI command from the selected menu item or function.

RELATED LINKS

[Assigning key commands](#) on page 52

[Assigning MIDI commands](#) on page 53

## Interactive Dorico Elements 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**.
- Choose **Edit > Preferences**, and click **Print Summary** in the **Key Commands** section of the **Preferences** dialog.



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 the modifier key to form a key command, press a modifier key on your computer keyboard, such as **Shift**, or click a modifier key on the virtual keyboard. You can also press more than one modifier key. The virtual computer keyboard shows the highlighted keys and displays on each key to which functions it is assigned.
- 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 layout](#) on page 53

## 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-**, (comma) to open **Preferences**.
2. Click **Key Commands** in the page list.
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 menu items and functions, for example, if you use a menu item frequently and want to be able to access it quickly but it does not have a key command assigned by default. You can also change existing key commands.

---

### PROCEDURE

1. Press **Ctrl/Cmd-**, (comma) to open **Preferences**.
2. Click **Key Commands** in the page list.
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: Press **Remove Key Command** if the function already has an assigned key command.  
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**.  
The key command is added to the list of assigned key commands.
8. Click **Apply**, then **Close**.

---

### RESULT

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

### RELATED LINKS


[Resetting key commands](#) on page 54

## 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-**, (comma) to open **Preferences**.
  2. Click **Key Commands** in the page list.
  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. 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 layout

You can change the keyboard layout in Dorico Elements to that of another language. This allows you to use the predefined key commands for the selected language.

---

### PROCEDURE

1. Press **Ctrl/Cmd-**, (comma) to open **Preferences**.
  2. Click **Key Commands** in the page list.
  3. Select a different keyboard layout from the **Keyboard language** menu.
  4. Click **Apply**, then **Close**.
- 

### RESULT

You can immediately use the available key commands for the selected language.

## Removing key commands

You can remove individual key commands from a function.

---

### PROCEDURE

1. Press **Ctrl/Cmd-**, (comma) to open **Preferences**.
  2. Click **Key Commands** in the page list.
  3. Search for the name of a function and select it.
  4. 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 52

## Resetting key commands

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

---

### PROCEDURE

1. Press **Ctrl/Cmd-**, (comma) to open **Preferences**.
  2. Click **Key Commands** in the page list.
  3. Click **Reset Key Commands**.
  4. Click **Apply**, then **Close**.
- 

### RESULT

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

## 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**.

---

### PROCEDURE

1. Press **Ctrl/Cmd-**, (comma) to open **Preferences**.
  2. Click **General** in the page list.
  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**.
-

# 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

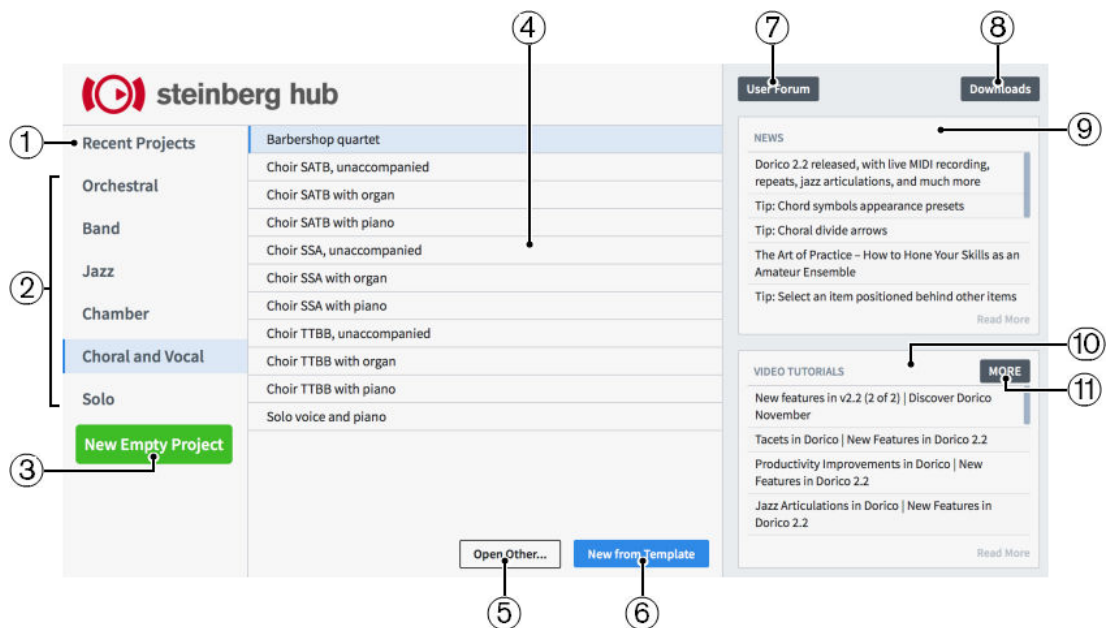
[File import and export](#) on page 60

[Auto-save](#) on page 75

[Project backups](#) on page 77

## Hub

When you start Dorico Elements, the Hub opens. The Hub keeps you up-to-date with the latest Dorico information and tutorials, and assists you with organizing your projects.



The Hub contains the following:

### 1 Recent Projects

Allows you quick access to the projects that you worked on last. Selecting **Recent Projects** shows them in the list. You can scroll through the list using either a mouse/touchpad or the **Up Arrow/Down Arrow** keys.

### 2 Project template categories

Allows you quick access to a suitable project template in the available categories. Selecting a category shows the possible templates in that category in the list.

### 3 New Empty Project

Starts a new project with no players or flows.

- 4 List**  
Displays either recent projects or project templates, depending on your selection on the left of the dialog.
- 5 Open Other**  
Allows you to search for and open any other project file in the File Explorer/macOS Finder.
- 6 New from Template** (project template selected)  
Creates a new project using the selected project template. This option is only available if you have selected a project template.  
**Open Selected Project** (recent project selected)  
Opens the recent project file that you selected in the list.
- 7 User Forum**  
Links you to the user forum on the Steinberg website.
- 8 Downloads**  
Links you to the downloads page on the Steinberg website, where you can find relevant update installers and a link to the documentation.
- 9 News**  
Displays recent Dorico news from the Dorico blog. Double-clicking a news item, or selecting it and clicking **Read More**, opens it in a web browser.
- 10 Video Tutorials**  
Displays recent Dorico tutorials. Double-clicking a video tutorial, or selecting it and clicking **Read More**, opens it in a web browser.
- 11 More**  
Links you directly to the Dorico YouTube channel.

RELATED LINKS

[Brackets according to project template categories](#) on page 57

## Starting new projects

Dorico Elements provides several ways to start new projects.

---

PROCEDURE

- Start a new project in any of the following ways:
  - Press **Ctrl/Cmd-N** at any time.
  - Choose **File > New** at any time.
  - In the Hub, click **New Empty Project**.

---

RESULT

A new project window opens.

## Starting new projects from project templates

Dorico Elements provides multiple project templates that you can use to start a new project, for example, multiple types of orchestras and vocal ensembles.

NOTE

In Dorico Elements, the maximum number of players you can have in a single project is 12, so only templates containing 12 or fewer players are available.

---



#### PROCEDURE

1. In the Hub, select one of the following project template categories:
    - **Orchestral**
    - **Band**
    - **Jazz**
    - **Chamber**
    - **Choral and Vocal**
    - **Solo**
  2. Select a project template in the list.
  3. Click **New from Template**.
- 

#### RESULT

The project template opens in a new project window.

#### TIP

You can also start a new project from a template at any time by choosing **File > New From Template > [Template category] > [Project template]**.

---

#### AFTER COMPLETING THIS TASK

You can add additional players/instruments and delete players/instruments that were included in the template to customize your project.

#### RELATED LINKS

- [Adding solo/section players](#) on page 92
- [Adding instruments to players](#) on page 101
- [Deleting players](#) on page 99
- [Deleting instruments](#) on page 104

## Brackets according to project template categories

Staves are bracketed differently depending on the category of project template you use to start a new project, even if you later change the players in the project. For example, all staves are bracketed together when you start a project using one of the chamber templates.

The following categories of templates are available in Dorico Elements, which bracket staves automatically in different ways.

#### NOTE

- Grand staff instruments, such as piano, are always excluded from brackets. They also split brackets if they are placed within a bracketed group.
  - There must be at least two adjacent instruments for a bracket to be shown.
- 

#### Orchestral

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

In orchestral templates, staves are bracketed according to their instrument family. For example, adjacent string instruments are bracketed together separately from adjacent woodwind instruments.

### **Band**

Large ensembles containing primarily wind instruments, including woodwind and brass instruments, and optionally percussion and other instruments, such as strings and guitars.

Different band templates bracket instruments differently, for example, the concert band template brackets woodwind and brass instruments separately, whereas the brass band template brackets brass instruments 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, and percussion and timpani are bracketed separately.

### **Jazz**

Popular ensembles commonly used to perform jazz.

In jazz templates, no staves are bracketed together. Grand staff instruments are still shown with braces.

### **Chamber**

Typically small ensembles containing only a few players.

In chamber templates, all staves in the project are bracketed together with a single bracket, regardless of their instrument family.

### **Choral and Vocal**

Ensembles containing voices, including popular choir arrangements.

In choral and vocal templates, staves are bracketed according to their instrument family. For example, adjacent vocal staves are bracketed together separately from accompanying instruments. However, vocal staves are not joined by barlines.

### **Solo**

Ensembles containing only a single player/instrument.

In solo templates, no staves are bracketed together. Grand staff instruments are still shown with braces.

## **Opening projects/files**

You can open Dorico Elements projects at any time, 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 Other**.
  - Choose **File > Open**.
  - Choose **File > Open Recent > [Project file name]**.
2. In the File Explorer/macOS Finder, locate and select the files you want to open.
3. Click **Open**.

---

### RESULT

The selected Dorico projects 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 Elements 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 12. If you open a project that contains more than 12 players, it opens in read-only mode.
- 

#### RELATED LINKS

- [Hub](#) on page 55
- [Importing MusicXML files](#) on page 63
- [Importing MIDI](#) on page 66

## Opening recent projects from the Hub

You can open a project on which you have recently worked from the Steinberg Hub.

---

#### PROCEDURE

1. In the Hub, click **Recent Projects**.
  2. In the list, select a recent project in any the following ways:
    - Press **Up Arrow/Down Arrow** to navigate to the project file name, then press **Return** to open it.
    - Double-click a project file name.
    - Select a project file name and click **Open Selected Project**.
- 

#### RESULT

The selected Dorico projects are opened.

#### NOTE

In Dorico Elements, the maximum number of players you can have in a single project is 12. If you open a project that contains more than 12 players, it opens in read-only mode.

---

#### RELATED LINKS

- [Hub](#) on page 55

## 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 48

## 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.

## 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. In the File Explorer/macOS Finder, 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.
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 a solo 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 58

## 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.



Flow Import Options dialog

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.

## 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.

### PROCEDURE

1. Choose **File > Export > Flows** to open the **Export Flows** dialog.
2. In the **Export Flows** dialog, 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. In the File Explorer/macOS Finder, locate and select the destination folder you want.
8. Click **Open** (macOS)/**Select Folder** (Windows) 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.

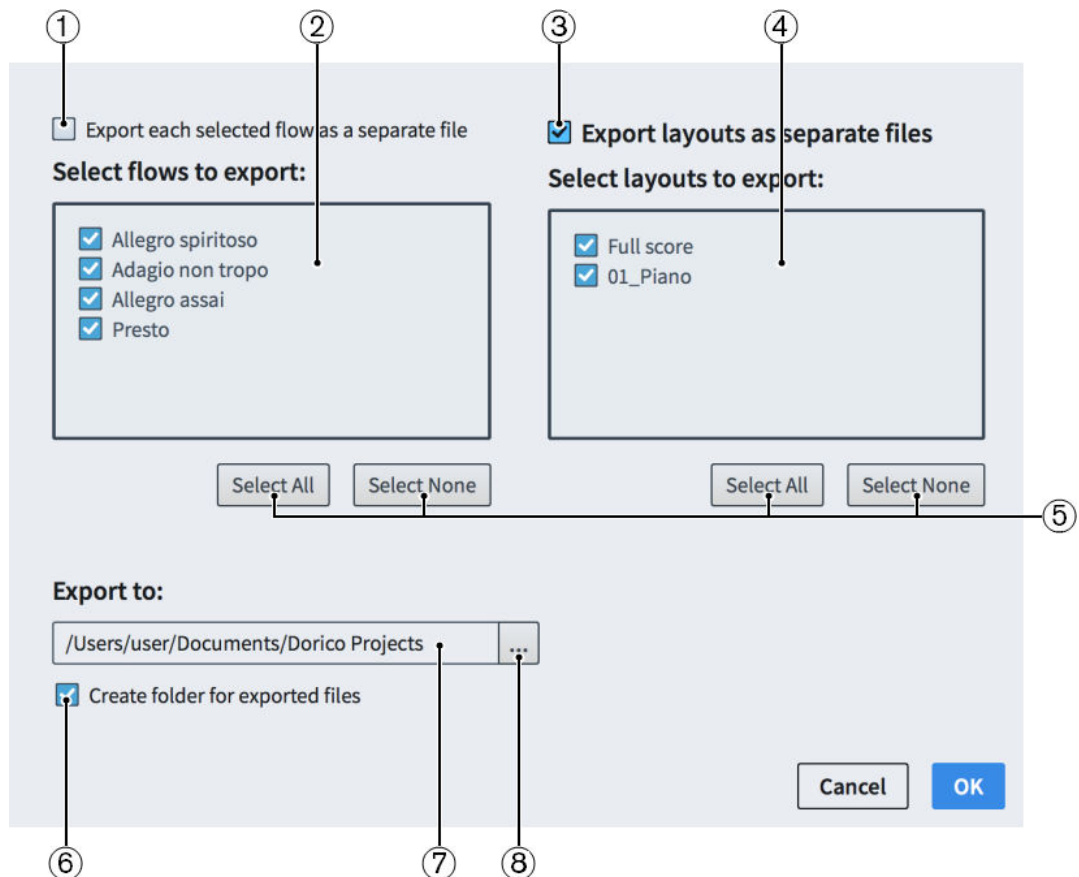
#### RELATED LINKS

- [Exporting MusicXML files](#) on page 64
- [Exporting MIDI](#) on page 69
- [Exporting tempo tracks](#) on page 72
- [Exporting audio](#) on page 73

## 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**.



**Export Flows** dialog

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 current 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.

---

### PROCEDURE

1. Choose **File > Import > MusicXML** to open the File Explorer/macOS Finder.
2. In the File Explorer/macOS Finder, 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 a solo 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.
  - You can change your default preferences for the handling of imported MusicXML files on the **MusicXML Import** page in **Preferences**.
- 

#### RELATED LINKS

[Flow Import Options dialog](#) on page 61


[Opening projects/files](#) on page 58

## 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

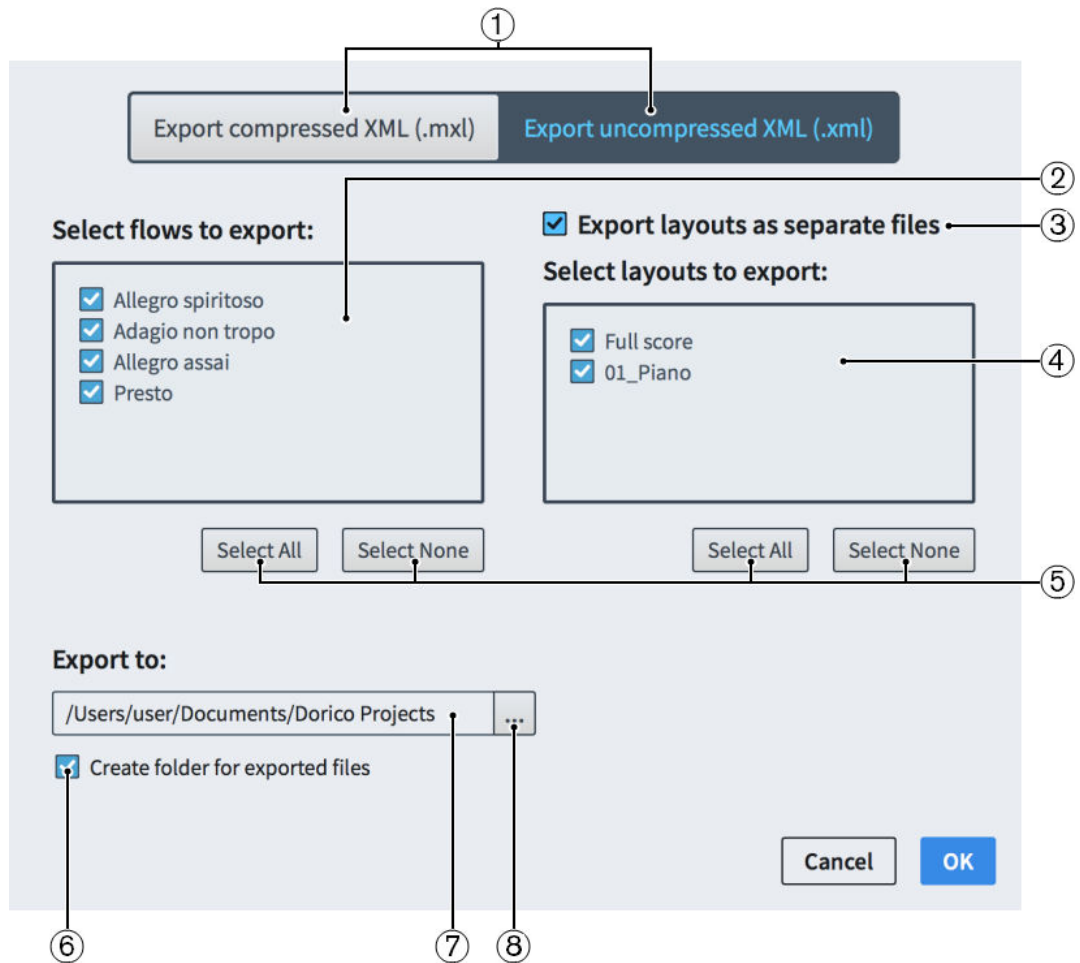
1. Choose **File > Export > MusicXML** to open the **Export MusicXML** dialog.
  2. In the **Export MusicXML** dialog, choose one of the following file format options:
    - **Export compressed XML (.mxl)**
    - **Export uncompressed XML (.xml)**
  3. In the **Select flows to export** list, activate 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. In the File Explorer/macOS Finder, locate and select the destination folder you want.
  8. Click **Open** (macOS)/**Select Folder** (Windows) 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**.





Export MusicXML dialog

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 current 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 separate 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. In the File Explorer/macOS Finder, 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. In the **MIDI Import Options** dialog, change the settings as required.
5. Optional: If you want to customize the quantization settings, click **Quantize Options** and change the settings in the **MIDI Quantize Options** dialog.
6. Optional: Click **OK** to save your quantization settings and return to the **MIDI Import Options** dialog.
7. Click **OK** to close the **MIDI Import Options** dialog, which automatically opens the **Flow Import Options** dialog for the first selected MIDI file.
8. 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**
9. Click **OK** to import the selected flows and close the dialog.
10. Optional: If you selected multiple MIDI files, repeat steps 4 to 9 for each file. The **MIDI Import Options** and **Flow Import Options** dialogs reopen automatically for each file.

---

### RESULT

The selected MIDI files are imported into the project as new flows. Dorico Elements uses an algorithm on imported MIDI notes to produce the correct enharmonic spelling for the imported notes.

- If the MIDI files contained markers, they are also imported, and if they have SMPTE offset values defined, Dorico Elements uses them to set the timecode position for the start of the flow.
- If you chose **Create All New Players**, new players are added as required for each MIDI file.
- If you chose **Merge with Existing Players Where Possible**, any players that the imported MIDI files and existing project have in common are merged, for example, if you imported a MIDI file containing a solo piano into a project containing a piano and viola, the imported MIDI file is added to the existing piano player.

### 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 58

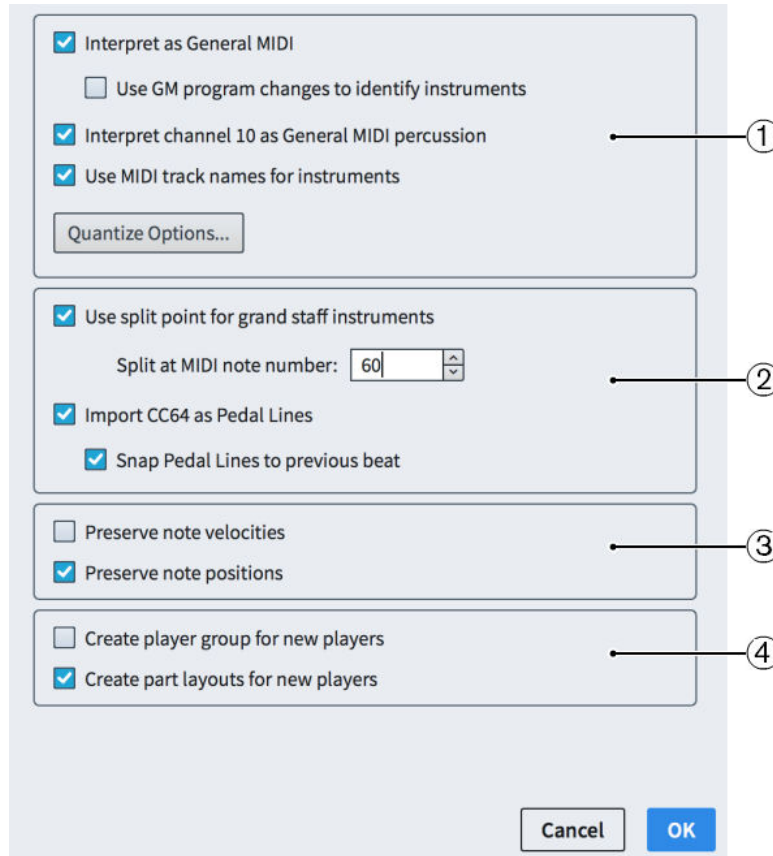
[Requantizing notes](#) on page 172

[Changing the sustain pedal controller settings for MIDI recording/import](#) on page 174

## 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 MIDI files.

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



MIDI Import Options dialog

The **MIDI Import Options** dialog contains the following sections:

### 1 Instrument handling

The options in this section determine how Dorico Elements chooses and names instruments based on the imported MIDI file.

The **Quantize Options** button opens the **MIDI Quantize Options** dialog, which allows you to customize the quantization settings.

### 2 Keyboard handling

The options in this section determine how Dorico Elements interprets keyboard music based on the imported MIDI file, including the MIDI note number at which notes are split between the right and left hand staves and whether CC64 indicates pedal lines.

### 3 Performance preservation

The options in this section allow you to determine how much of the original performance in the MIDI file you want to preserve for playback purposes. They do not affect how the imported MIDI notes are notated, as this is controlled by the quantization options set.

### 4 Player handling

The options in this section allow you to determine the players and layouts to which instruments in the MIDI file are assigned. For example, if you are importing a MIDI file into an existing project in order to orchestrate, you might want to activate **Create player**

**group for new players** and deactivate **Create part layouts for new players** to add a single, independent group of players without creating any extra part layouts for them.

RELATED LINKS

[Changing the sustain pedal controller settings for MIDI recording/import](#) on page 174

## MIDI Quantize Options dialog

The **MIDI Quantize Options** dialog allows you to customize the quantization settings you want to apply to imported MIDI files and notes input by recording with a MIDI device.

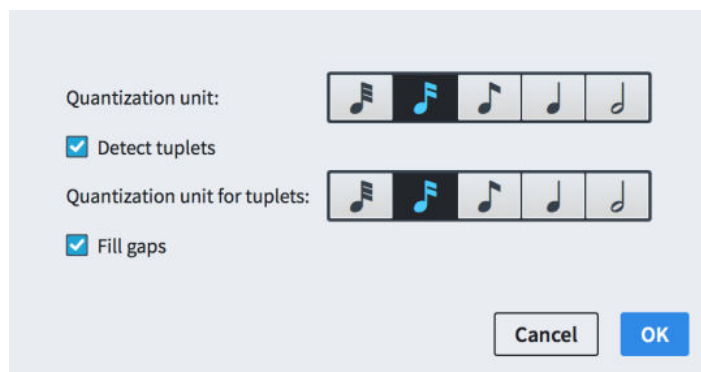
You can open the **MIDI Quantize Options** dialog in any of the following ways:

- Click **Quantize Options** in the **MIDI Import Options** dialog.
- Click **Quantization Options** in the **Recording** subsection of the **Play** page in **Preferences**.

NOTE

Your settings are linked between both ways of accessing the dialog.

---



**MIDI Quantize Options** dialog

The **MIDI Quantize Options** dialog contains the following options:

### 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.


RELATED LINKS

[MIDI recording](#) on page 170

## 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.

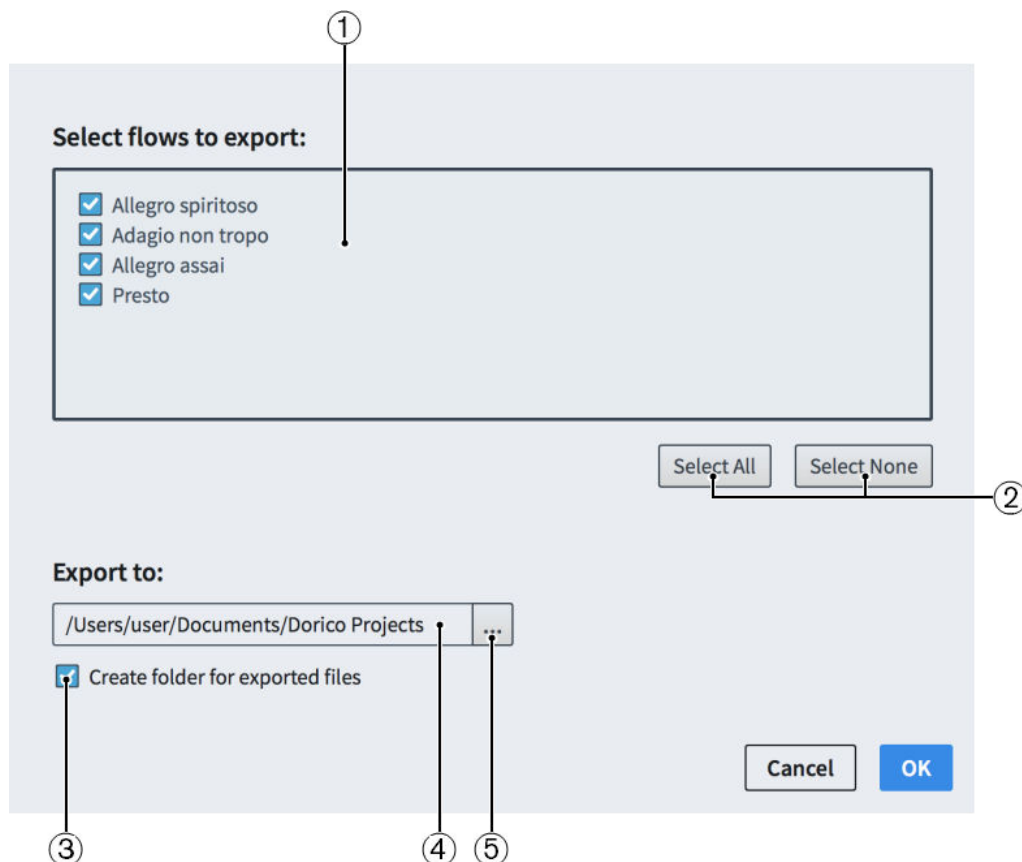
### PROCEDURE

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. In the File Explorer/macOS Finder, locate and select the destination folder you want.
5. Click **Open** (macOS)/**Select Folder** (Windows) 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.

## 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**.



Export MIDI dialog

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

---

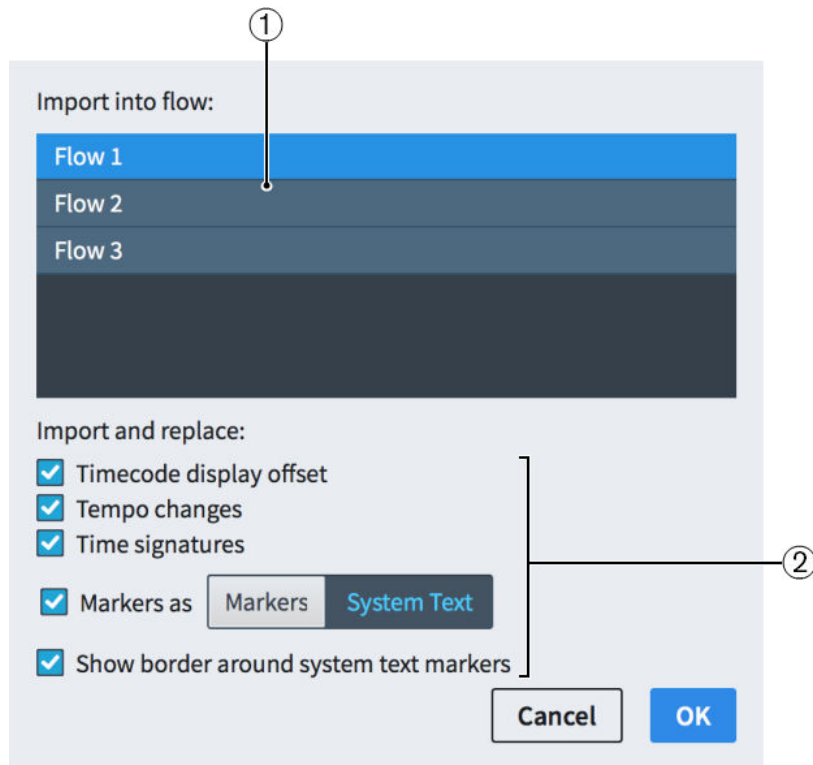
### RESULT

The tempo track is imported into the selected flow. All selected aspects are applied to the existing music, and notes and tempo marks are adjusted as required.

## 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.



**Import Tempo Track** dialog

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 Text**.  
Importing markers as **Markers** replaces any existing markers in the flow with markers from the MIDI file, while importing markers as **System Text** does not replace any existing markers or system text objects.
- **Show border around system text markers** adds borders to markers imported as system text objects when activated. Only available if you have chosen **System 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.

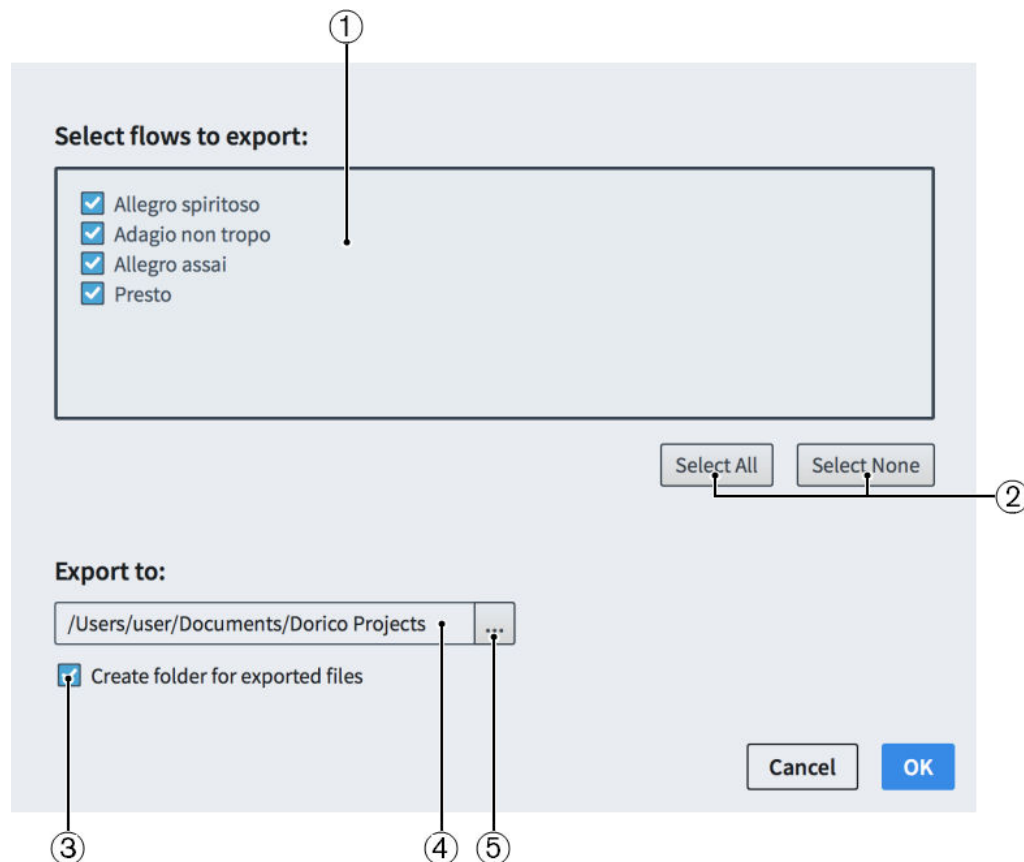
### PROCEDURE

1. Choose **File > Export > Tempo Track** to open the **Export Tempo Track** dialog.
2. In the **Export Tempo Track** dialog, 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. In the File Explorer/macOS Finder, locate and select the destination folder you want.
5. Click **Open** (macOS)/**Select Folder** (Windows) 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.

## 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**.



Export Tempo Track dialog

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 current 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 either MP3 or WAV format, 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.

---

### PROCEDURE

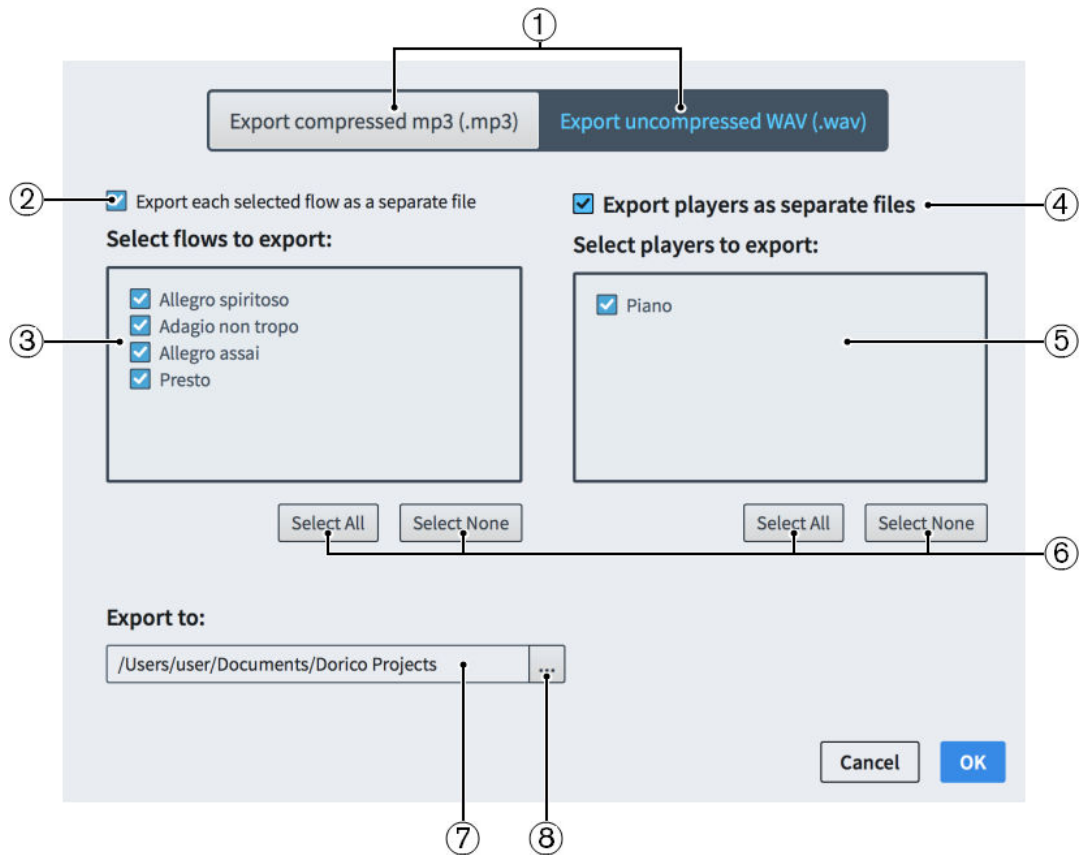
1. Choose **File > Export > Audio** to open the **Export Audio** dialog.
2. In the **Export Audio** dialog, choose one of the following file format options:
  - **Export compressed mp3 (.mp3)**
  - **Export uncompressed WAV (.wav)**
3. Activate/Deactivate **Export each selected flow as a separate file**.
4. 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.
5. Activate/Deactivate **Export players as separate files**.
6. 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.
7. Click **Choose Folder** beside the **Export to** field to open the File Explorer/macOS Finder.  

8. In the File Explorer/macOS Finder, locate and select the destination folder you want.
9. Click **Open** (macOS)/**Select Folder** (Windows) to insert the new path in the **Export to** field.
10. Click **OK** to export the selected flows/players as the selected type of audio file and close the dialog.

---

## Export Audio dialog

The **Export Audio** dialog allows you to save individual flows and players as separate audio files, either MP3 or WAV.

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



#### Export Audio dialog

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

**1 File format options**

Allows you to choose the audio file format you want to export. Compressed MP3 files are smaller than WAV files but this corresponds to a reduced audio quality.

**2 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.

**3 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.

**4 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.

**5 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**.

**6 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.

**7 Export to field**

Displays the current export path where exported audio files will be saved.

**8 Choose Folder**

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

## Auto-save

The auto-save function stores a version of the currently active project at regular intervals. 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.

By default, Dorico Elements uses the **AutoSave** folder inside your **Dorico Projects** folder, whose default location is in the **Documents** folder for your user account. Dorico Elements also auto-saves new projects you have not explicitly saved yet.

### NOTE

Dorico Elements might become less responsive briefly in order to perform auto-saves, particularly for larger projects.

---

### 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.

### IMPORTANT

This includes any file in the **AutoSave** folder, not just auto-save projects. Therefore, it is important that you do not choose your main projects folder as your **AutoSave** location or save projects in the **AutoSave** folder.

---

### TIP

If you want to access earlier versions of projects, you can use project backups.

---

### RELATED LINKS

[Toolbar](#) on page 31

[Project backups](#) on page 77

## 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-**, (comma) to open **Preferences**.
  2. Click **General** in the page list.
  3. In the **Files** section, change the value for **Auto-save every [n] minutes**.
  4. Click **Apply**, then **Close**.
- 

## Changing the auto-save location

You can change the folder that Dorico Elements uses to store auto-save files. By default, Dorico Elements uses the **AutoSave** folder inside your **Dorico Projects** folder, whose default location is in the **Documents** folder for your user account.

#### IMPORTANT

- We strongly recommend not choosing your main **Dorico Projects** as the auto-save location, as all files inside the **AutoSave** folder are deleted when you quit Dorico Elements. Similarly, if you have saved projects in the **AutoSave** folder, those projects are deleted when you quit Dorico Elements.
  - If Dorico Elements is unable to write to the specified folder, it cannot auto-save projects. There is no warning if this is the case, so we recommend that you only change the auto-save location if you are certain your user account can successfully save files there.
- 

#### PROCEDURE

1. Press **Ctrl/Cmd-**, (comma) to open **Preferences**.
  2. Click **General** in the page list.
  3. In the **Files** section, click **Choose** beside the **Auto-save folder** field to open the File Explorer/macOS Finder.
  4. In the File Explorer/macOS Finder, locate and select the folder where you want to save auto-save projects.
  5. Click **Open** (macOS)/**Select Folder** (Windows) to insert the new path in the **Auto-save folder** field.
  6. Click **Apply**, then **Close**.
- 

#### RESULT

The default auto-save folder is changed. If the folder specified does not exist, Dorico Elements creates it.

## 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-**, (comma) to open **Preferences**.
  2. Click **General** in the page list.
  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.

## 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-**, (comma) to open **Preferences**.
  2. Click **General** in the page list.
  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-**, (comma) to open **Preferences**.
  2. Click **General** in the page list.
  3. In the **Files** section, click **Choose** beside the **Project backup folder** field to open the File Explorer/macOS Finder.
  4. In the File Explorer/macOS Finder, locate and select the folder where you want to save project backups.
  5. Click **Open** (macOS)/**Select Folder** (Windows) 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.

# Setup mode

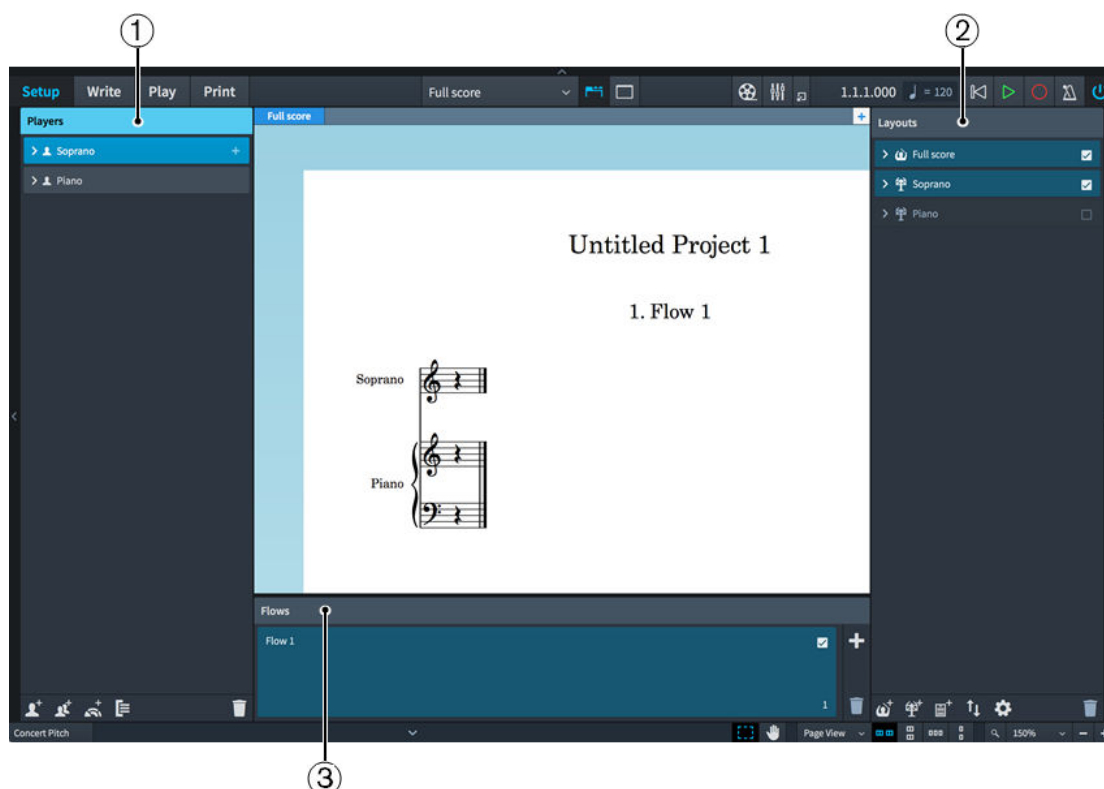
In Setup mode, you can determine the players and instruments for your project. You can also create and manage flows, set up layouts, and add videos.

## Project window in Setup mode

The project window in Setup mode contains the default toolbar, the music area, and the status bar. It provides 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**.
- Click **Setup** in the toolbar.
- Choose **Window > Setup**.



Panels in Setup mode

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 and to both the full score layout 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.

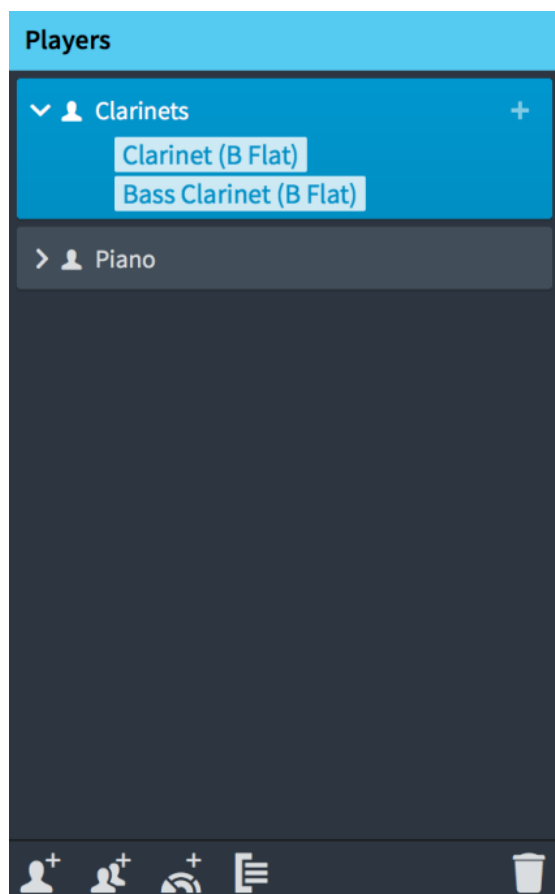
The three panels work together to allow you to control how and where the players, layouts, and flows in your project are used. When you select an item in one of the panels, that panel and the selected item are highlighted in a different color and checkboxes appear in cards in the other panels. You can activate/deactivate these checkboxes independently to change how material is distributed across players, layouts, and flows.

## Players panel

The **Players** panel lists the players, instruments, and groups in your project. 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:

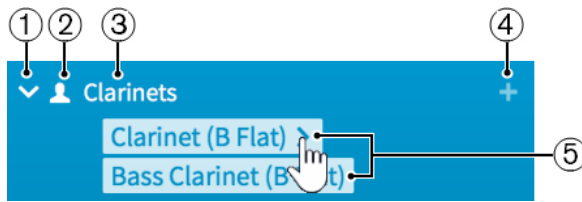
- Press **Ctrl/Cmd-7**.
- Click the disclosure arrow on the left edge of the main window.
- Choose **Window > Show Left Panel**.



**Players** panel in Setup mode

The **Players** panel contains a list of all the groups, players, and ensembles in your project, with each player shown as a card. 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:

- Solo player  

- Section player  


**3 Player name**

Shows the name of the player. Dorico Elements automatically adds the names of the assigned instruments to the player name. If required, you can rename the player.

**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. If you hover the mouse pointer over an instrument label, an arrow appears that allows you to open a menu with further options that allow you to, for example, change the instrument names or move the instrument to another player.



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

**Add Solo Player**



Adds an individual player to your project. Dorico Elements also automatically adds a part layout for the player to the **Layouts** panel.

**Add Section Player**



Adds a player to your project that represents multiple players who all play the same instrument. Dorico Elements also automatically adds a part layout for the player to the **Layouts** panel.

**Add Ensemble**



Adds multiple players to your project that represent standard combinations of musical instruments. Dorico Elements also automatically adds part layouts for each player in the ensemble to the **Layouts** panel.

**Add Group**



Adds a group to your project to which you can assign all types of players.

## Delete Player



Deletes selected players or groups from the **Players** panel.

The order in which the players are listed in the panel is the default order in which they appear in layouts. You can change the player order for each layout individually in the **Players** section of the **Players** page in **Setup > Layout Options**.

### RELATED LINKS

[Players](#) on page 91

[Layouts panel \(Setup mode\)](#) on page 83

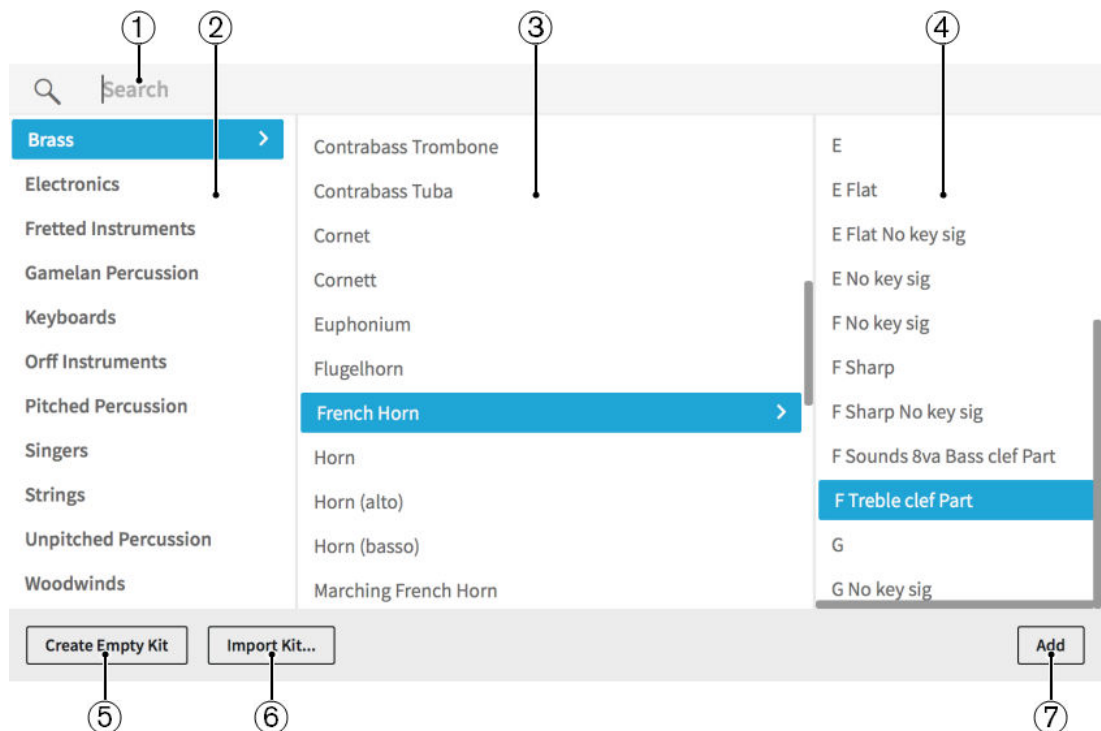
[Layout Options dialog](#) on page 87

## Instrument picker

The instrument picker allows you find and add instruments and ensembles to your project. It contains multiple versions of some instruments that have specific formatting requirements, such as French Horn, which has a version whose part layouts are always in treble clef.

You can open the instrument picker in Setup mode in any of the following ways:

- Click the plus symbol in solo player cards in the **Players** panel.
- Select a player in the **Players** panel and press **Shift-I**.
- Right-click a player in the **Players** panel and choose **Add Instrument to Player**.
- Add a new player or ensemble.



Instrument picker

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 instrument search.

**3 Instrument column**

Contains the instruments available in the selected instrument family.

**4 Instrument type column**

Contains options for multiple possible transpositions 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/Add Ensemble to Score**

Adds the selected instrument/ensemble to the project. Adding an ensemble adds multiple players at once.

In addition to entering the instrument or ensemble 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

[Adding solo/section players](#) on page 92

[Adding ensembles](#) on page 99

[Adding empty percussion kits to players](#) on page 102

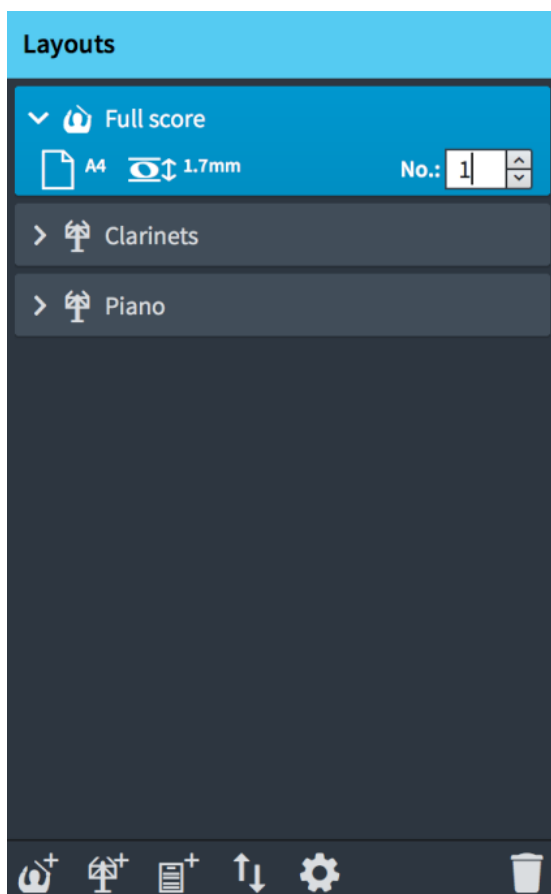
[Importing percussion kits](#) on page 691

## Layouts panel (Setup mode)

In Setup mode, the **Layouts** panel contains a list of all the full score and instrumental part layouts in the project. It is located on the right of the window.

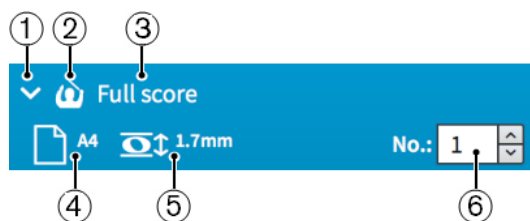
You can hide/show the **Layouts** panel in Setup mode in any of the following ways:




- Press **Ctrl/Cmd-9**.
- Click the disclosure arrow on the right edge of the main window.
- Choose **Window > Show Right Panel**.



**Layouts** panel in Setup mode

The **Layouts** panel lists the default full score layout and all the layouts that you have created for 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 **Setup > 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.

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 automatically included in the layout.

**Add Instrumental Part Layout**



Adds an empty instrumental part layout to your project. You can then add one or multiple players to the layout. By default, a part layout contains all flows that are created in your project.

**Add Custom Score Layout**



Adds a custom score layout that initially without players or flows.

**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. It does not sort part layouts according to orchestral order.

**Layout Options**



Opens the **Layout Options** dialog for one or multiple selected layouts.

**Delete Layout**



Deletes selected layouts from the **Layouts** panel.

RELATED LINKS

[Layouts](#) on page 117

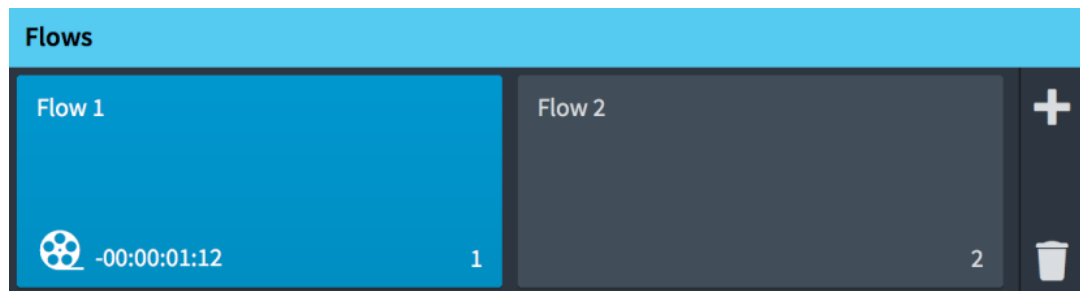
[Layout Options dialog](#) on page 87

## Flows panel

The **Flows** panel shows all the flows that are created for your project. It is located at the bottom of the window in Setup mode.

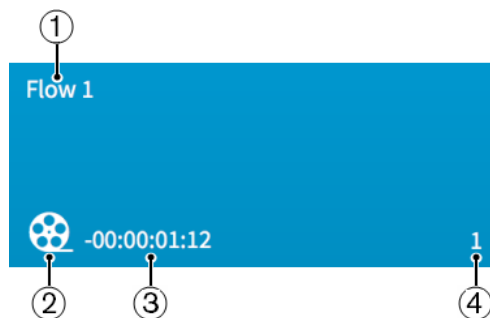
You can hide/show the **Flows** panel in Setup mode in any of the following ways:

- Press **Ctrl/Cmd-8**.
- Click the disclosure arrow at the bottom of the main window.
- Choose **Window > Show Bottom Panel**.



Flows panel in Setup mode

The **Flows** panel shows the default flow and all the flows that you created for your project as cards. 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. The number also indicates the position of the flow in a layout.
- 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. The number also indicates the position of the flow in a layout.

To the right of the **Flows** panel, the following options are available:

### Add Flow

Adds a new flow to your project. By default, every new flow is automatically included in all layouts, and every player is added to the new flow.



### Delete Flow

Deletes one or multiple selected flows.



RELATED LINKS

[Flows](#) on page 114

[Videos](#) on page 122

## Project Info dialog

For every project and every flow that you create in Dorico Elements, you can specify project information in the **Project Info** dialog.

- You can open the **Project Info** dialog by choosing **File > Project Info**.

In the **Project Info** dialog, you can enter information for the whole project and for each flow. For example, each flow in your project might have a different composer and lyricist.

You can use tokens in text frames to refer to the information you enter into the different fields on the different pages in the **Project Info** dialog.

RELATED LINKS

[Text tokens](#) on page 295

## Layout Options dialog

The **Layout Options** dialog provides multiple options that allow you to make changes that affect the way the notation is laid out on pages of each layout.

You can change the physical properties of the layout, such as page size, staff size, or margins, and the notation, such as note spacing or staff labels.

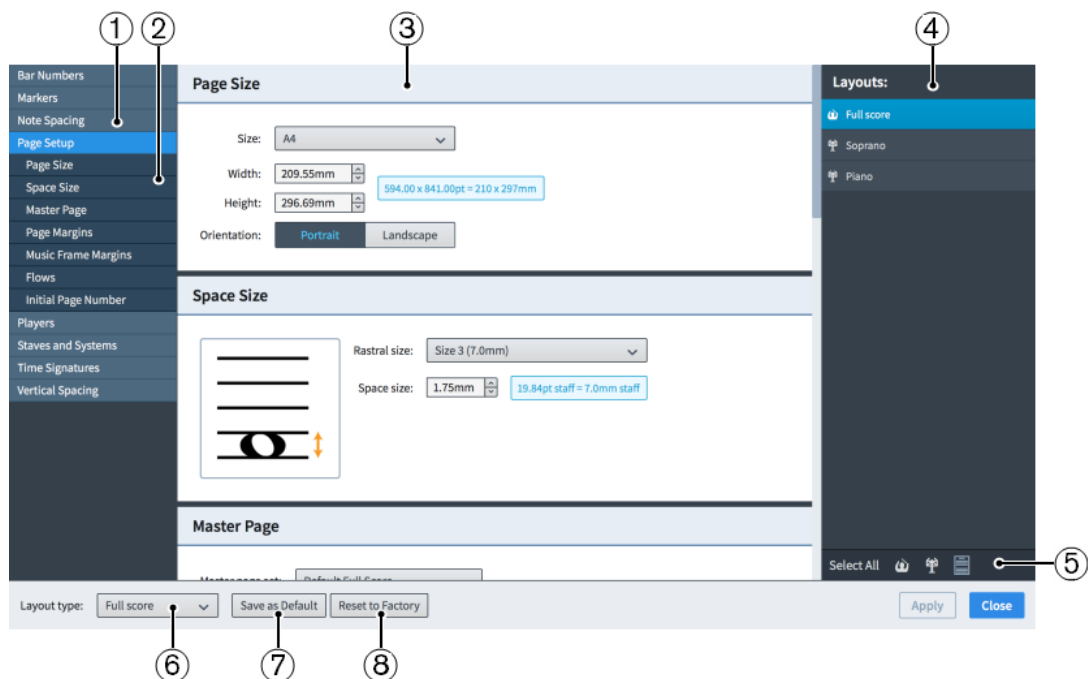
**TIP**

You can save all options that you set in **Layout Options** as the default for new projects by selecting a layout type from the **Layout type** menu and clicking **Save as Default**.

You can open **Layout Options** in any of the following ways:

- Press **Ctrl/Cmd-Shift-L** in any mode.
- Choose **Setup > Layout Options** in Setup mode.
- Click **Layout Options** in the **Layouts** panel in Setup mode.





## Layout Options

The **Layout Options** dialog contains the following:

### 1 Page list

Contains the categories of options that you can view and change in the dialog, divided into pages. When you click a page in this list, any applicable section titles appear below the page in the page list.

### 2 Section titles

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

### 3 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 current setting is highlighted.

### 4 Layouts list

Contains all the layouts in your project. You can select one, multiple, or all layouts. 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.

### 5 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.

### 6 Layout type



Allows you to select the layout type for which you want to save your settings as the default. For example, you can save new default settings for part layouts without affecting the default settings for full score layouts.

#### 7 **Save as Default/Remove Saved Defaults**

This button has different functions depending on whether you have existing saved defaults for the selected layout type.

- **Save as Default** saves all options currently set in the dialog as the default for the selected layout type in new projects.
- **Remove Saved Defaults** deletes your previous saved defaults 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. If you have existing saved defaults, you can access **Remove Saved Defaults** by pressing **Alt** (macOS)/**Ctrl** (Windows).

#### 8 **Reset to Factory/Reset to Saved Defaults**

This button has different functions depending on whether you have existing saved defaults for the selected layout type.

- If you have no saved defaults for the selected layout type, this button is **Reset to Factory**, which resets all the options in the dialog back to the default factory settings for the selected layout type.
- If you have existing saved defaults for the selected layout type, this button is **Reset to Saved Defaults**, which resets all the options in the dialog back to your saved defaults for the selected layout type. You can access **Reset to Factory** instead by pressing **Alt** (macOS)/**Ctrl** (Windows). Resetting options back to the default factory settings only affects the selected layout type in the current project and does not delete your saved defaults, meaning future projects still start with your saved defaults.

#### RELATED LINKS


[Staves](#) on page 625

## Making layout-specific changes in Layout Options

You can make project-wide changes for each layout independently in **Layout Options**.

---

#### PROCEDURE

1. Open **Layout Options** in any of the following ways:
  - Press **Ctrl/Cmd-Shift-L** in any mode.
  - Choose **Setup > Layout Options** in Setup mode.
  - Click **Layout Options** at the bottom of the **Layouts** panel in Setup mode.
2. In the **Layouts** list, select the layouts in which you want to change options in one of the following ways:
  - Click **Select All** in the action bar.
  - Click **Select All Full Score Layouts** in the action bar.
  - Click **Select All Part Layouts** in the action bar.
  - Click **Select All Custom Score Layouts** in the action bar.
  - **Shift**-click adjacent layouts.
  - **Ctrl/Cmd**-click individual layouts

By default, the layout currently open in the music area is selected when you open the dialog.

3. Click a page in the page list.
  4. Look through the available options, and change the settings as required.
  5. Click **Apply**, then **Close**.  
If you make changes and close the dialog without clicking **Apply**, you are prompted to save or discard your changes.
- 

#### RESULT

The changes are applied immediately to the selected layouts.

## Players, layouts, and flows

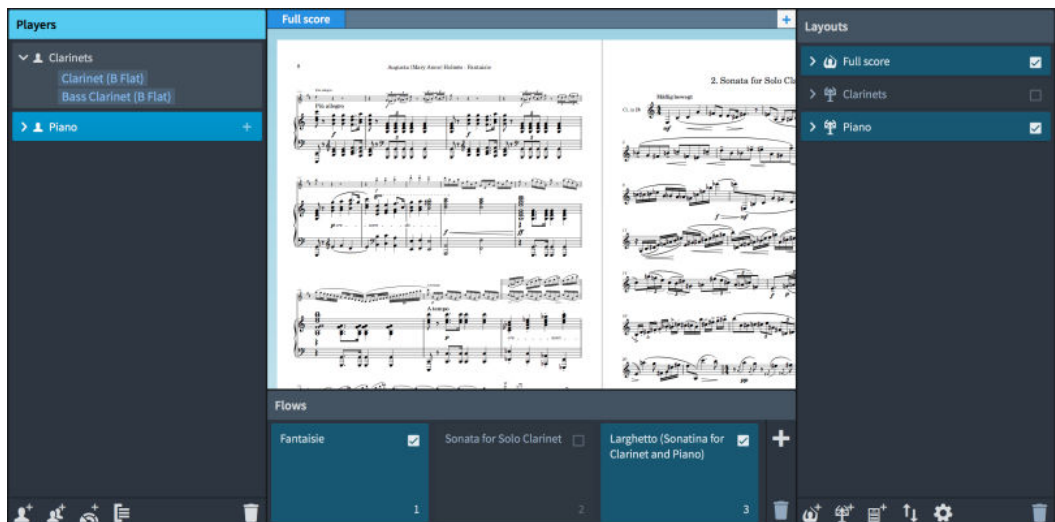
In Dorico Elements, players, layouts, and flows are all connected to each other. Because they exist in the project rather than in a single score, you can, for example, have players and flows saved in the project without showing them in the full score.

- 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 from the layout in which they do not sing. 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 single 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

#### RELATED LINKS

[Project window in Setup mode](#) on page 79

[Flows](#) on page 114

[Layouts](#) on page 117

[Changing the flows assigned to layouts](#) on page 119

[Changing the players assigned to layouts](#) on page 118

[Changing the players assigned to flows](#) on page 115

## Players

Before you start writing music, you must specify the players that are playing one or multiple instruments.

A player can be a solo player, which represents a single person who can play one or more instruments. For example, a clarinetist may double alto saxophone or bass clarinet.

A player can also be a sectional player, which represents multiple people, each of whom plays the same instrument. For example, a violin section or the soprano section of a choir.

Dorico Elements uses this knowledge about players and their instruments to assist you in producing a practical score efficiently, for example, by making it very easy to handle instrument doubling and divisi.

When you add a player in Dorico Elements, the following happens automatically:

- An instrumental part layout is created.
- 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 12. If you open a project that contains more than 12 players, it opens in read-only mode.

#### RELATED LINKS

[Players, layouts, and flows](#) on page 90

[Flows](#) on page 114

[Layouts](#) on page 117

[Changing the players assigned to layouts](#) on page 118

[Changing the players assigned to flows](#) on page 115

## Adding solo/section players

You can add both solo and section players to your project. Solo players can hold multiple instruments, whereas section players can divide.

### NOTE

In Dorico Elements, the maximum number of players you can have in a single project is 12.

---

### PREREQUISITE

The **Players** panel is open.

---

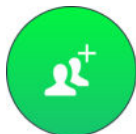
### PROCEDURE

1. In the **Players** panel, add an empty-handed player in any of the following ways:

- If you have started a new project, click **Add Solo Player** in the project start area.



- If you have started a new project, click **Add Section Player** in the project start area.



- At the bottom of the **Players** panel, click **Add Solo Player**.



- At the bottom of the **Players** panel, click **Add Section Player**.



The instrument picker opens.

### TIP

You can also open the instrument picker at any time by clicking the plus symbol in solo player cards, selecting a player in the **Players** panel and pressing **Shift-I**, or right-clicking a player and choosing **Add Instrument to Player**.

---

2. Select the instrument you want in the instrument picker.
  3. Press **Return** to add the selected instrument.
- 

### RESULT

The solo/section player is added to all flows in the project. It is automatically named after the selected instrument.

### 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 solo player and you want them to hold multiple instruments, add other instruments to the solo player.

#### RELATED LINKS

[Instrument picker](#) on page 82

[Changing player names](#) on page 97

[Project start area](#) on page 34

[Adding instruments to players](#) on page 101

[Adding ensembles](#) on page 99

[Starting new projects from project templates](#) on page 56

## Duplicating players

You can duplicate players. This adds another player of the same type.

#### NOTE

In Dorico Elements, the maximum number of players you can have in a single project is 12.

---

#### PROCEDURE

- In the **Players** panel, right-click the player you want to duplicate and choose **Duplicate Player** from the context menu.
- 

#### RESULT

A new player is added, with the same instruments as the original player. The original and new players are automatically numbered to ensure their names are unique.

#### RELATED LINKS

[Changing player names](#) on page 97

[Instrument numbering](#) on page 100

## 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 in the score.

The three different names that relate to players and instruments are:

- Player name
- Layout name
- Instrument name

You can change all of these names for individual players independently of other instruments of the same type. Each name is used in different places. Player and layout names are shown using text tokens.

#### Player name

Given to players in the **Players** panel. It is not used in the score, instead you can use the player name as part of your own workflow, independently of what instruments and players are called in staff labels and layout names.

Player names are automatically generated when you add instruments.

### Layout name

The name for each layout in the **Layouts** panel. They are used at the top of individual part layouts.

Layout names are automatically generated when you add instruments, and are linked to the player name until you change the layout name.

### Instrument names

Used in staff labels. This means that the instrument label on each staff is relevant to the instrument 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.

You can change the instrument names for individual instruments independently, even if other players in the project are playing the same instrument.

You can save your changes to instrument names as default, so your names are used whenever you add that instrument again in the project.

#### NOTE

Changing the default instruments names does not change the instrument names of existing instruments of that type in your project.

---

#### RELATED LINKS

[Instrument numbering](#) on page 100

[Text tokens](#) on page 295

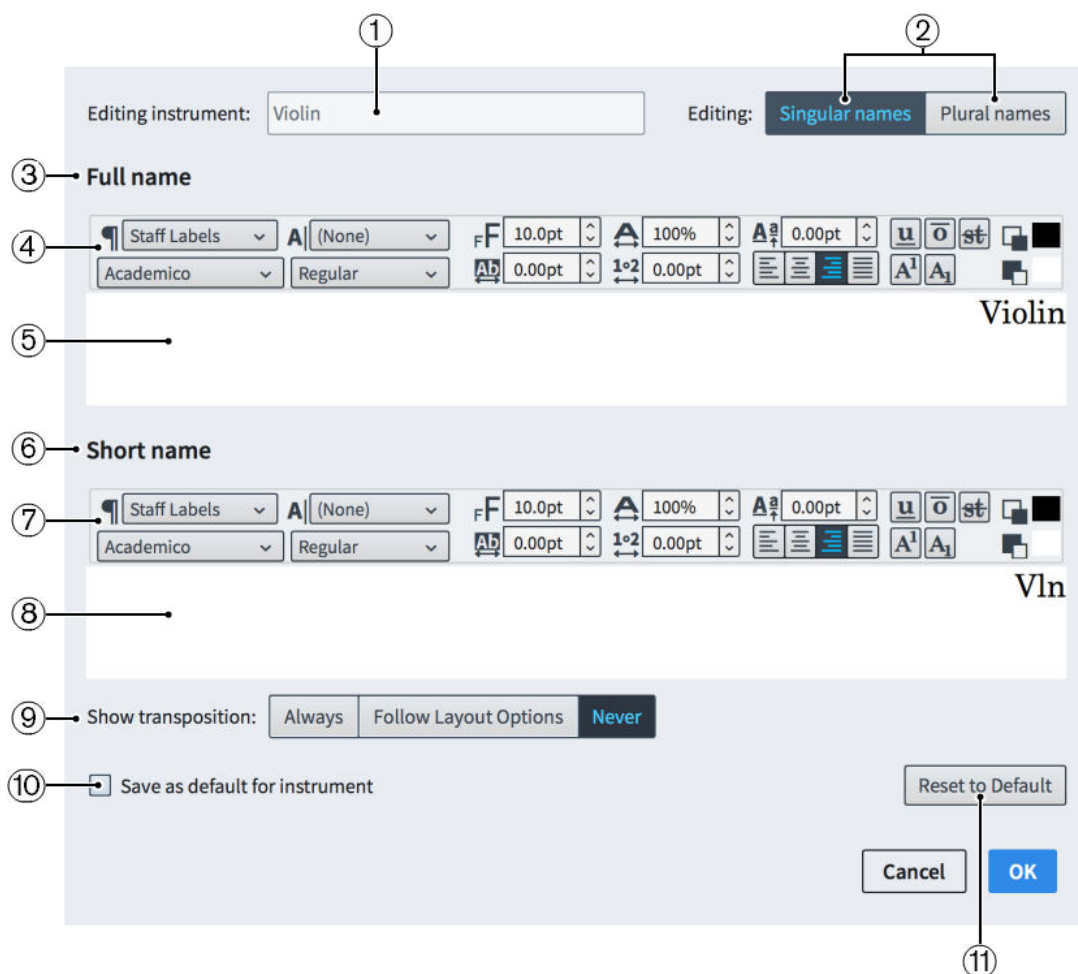
[Staff labels](#) on page 618

[Layouts](#) on page 117

## 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 arrow in an instrument label in the **Players** panel and choosing **Edit Names**.



#### Edit Instrument Names dialog

The **Edit Instrument Names** dialog contains the following options and sections:

#### 1 Editing instrument

Displays the permanent underlying name of the instrument. You cannot change this name.

#### 2 Editing

Allows you to switch between editing the **Singular names** and **Plural names** of the selected instrument.

**Singular names** is used when staff labels are shown by default, **Plural names** is 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 long staff label of the selected instrument.

#### NOTE

The horizontal alignment of staff labels always uses the alignment of the paragraph style, not the alignment set in the **Edit Instrument Names** dialog.

#### 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, when used for instrument change labels above the staff, instrument names 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.

#### NOTE

Staff labels always use the 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.

---

### 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 short staff label of the selected instrument.

#### NOTE

The horizontal alignment of staff labels always uses the alignment of the paragraph style, not the alignment set in the **Edit Instrument Names** dialog.

---

### 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, when used for instrument change labels above the staff, instrument names 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.

#### NOTE

Staff labels always use the 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.

---

### 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 **Setup > 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 for any new instruments of that type that you add to the project.

### 11 Reset to Default

Removes all your changes to staff labels for the selected instrument type and reverts them to the default settings.



RELATED LINKS

[Staff labels](#) on page 618

[Changing the length of staff labels project-wide](#) on page 620

## Changing player names

You can change the player names of players, and reset renamed players to their default name.


### NOTE

Player names are not used for staff labels in the score or for naming layouts, instead they are for your own reference in Setup mode.

Staff labels use the name set for each instrument in the **Edit Instrument Names** dialog.

---

### PROCEDURE

1. In the **Players** panel, select the card of the player whose player name you want to change.
  2. Open the player name text field in any of the following ways:
    - Double-click anywhere in the player card.
    - Right-click in the player card and choose **Rename** from the context menu.
  3. Enter a new name, or click **Reset to Default** to revert the name to the default name.  

  4. Press **Return**.
- 

### RESULT

The player name of the selected player is changed.

### NOTE

This does not change the staff label that appears in the score. You can change the name used for staff labels in the **Edit Instrument Names** dialog, and change the layout name for the names at the top of parts.

---

## Changing layout names


Layout names are used to identify individual layouts, for example, as the name at the top of parts. You can change the layout names of players, and reset renamed players to their default name.

### NOTE

Layout names are not used for staff labels. Staff labels use the name set for each instrument in the **Edit Instrument Names** dialog.

---

### PROCEDURE

1. In the **Layouts** panel, select the name of the player whose layout name you want to change.
2. Open the layout name text field in any of the following ways:
  - Double-click anywhere in the layout card.
  - Right-click in the layout card and choose **Rename** from the context menu.
3. Enter a new name, or click **Reset to Default** to revert the name to the player name.  


4. Press **Return**.
- 

RESULT

The layout name of the selected player is changed, or reverted to the default name.

NOTE

This does not change the staff label that appears in the score. You can change the name used for staff labels in the **Edit Instrument Names** dialog, and change the layout name for the names at the top of parts.

---

## Changing instrument names

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

Changing 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, change the layout name.

---

PROCEDURE

1. In the **Players** panel, click the disclosure arrow in the player card containing the instrument whose names you want to change.  
This expands the card to show the instruments held by the player.
  2. Click the arrow that appears in the instrument label when you hover over it 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 did not save your changes as default, only the names of the selected instrument are changed. Any instruments of the same type added later use the original default names.
- If you saved your changes as default, any instruments of the same type added later use your new instrument names. The instrument names of any other instruments of the same type already in your project are not changed.

RELATED LINKS

[Edit Instrument Names dialog](#) on page 94

## Changing the orchestral order of players

You can change the order in which players appear in the score in the **Players** panel.

---

PROCEDURE

1. In the **Players** panel, select the player card of the player whose position in the score you want to change.
  2. Click and drag the player card upwards/downwards in the panel.  
An insertion line indicates where the player will be positioned.
-

## Deleting players

You can delete players from your project.

---

### PROCEDURE

1. In the **Players** panel, select the players that you want to delete.
2. Press **Backspace** or **Delete**.
3. Choose one of the following options in the warning message that opens:
  - **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.

---

## Ensembles

If you add an ensemble in Dorico Elements, multiple players are added to your project at the same time.

Dorico Elements provides a set of predefined ensembles that you can use. Adding an ensemble is one of the ways to achieve building up an instrumentation quickly. The predefined ensembles that you can create with Dorico Elements follow standard patterns, such as double woodwind which refers to two flutes, two oboes, two clarinets, and two bassoons.

### NOTE

In Dorico Elements, the maximum number of players you can have in a single project is 12, so only ensembles containing 12 or fewer players are available.

---

## Adding ensembles

You can add multiple players at once by adding ensembles, such as a complete string section or four-part choir.

### NOTE

In Dorico Elements, the maximum number of players you can have in a single project is 12.

---

### PREREQUISITE

The **Players** panel is open.

---

### PROCEDURE

1. Open the instrument picker for ensembles in any of the following ways:
  - If you have started a new project, click **Add Ensemble** in the project start area.



- Click **Add Ensemble** at the bottom of the **Players** panel.



2. Select the ensemble you want in the instrument picker.
  3. Click **Add Ensemble to Score**.
- 

#### RESULT

The ensemble players are added to the **Players** panel, either as solo or as section players.

#### TIP

You can also add multiple instruments to your project at the same time by using a project template.

---

#### RELATED LINKS

[Instrument picker](#) on page 82

[Changing player names](#) on page 97

[Project start area](#) on page 34

[Starting new projects from project templates](#) on page 56

## Instruments

You can assign instruments to solo and section players as well as to ensembles.

In Dorico Elements, you can assign multiple instruments to solo players, as solo players often play multiple instruments, such as an oboist doubling the cor anglais.

Before you can assign instruments, you must add players or ensembles, which may in turn also be assigned to groups if needed. If you add ensembles, it is by default not necessary to add any instruments, since these are already included when you select the type of ensemble. However, you can add further instruments to ensembles.

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 in Play mode, 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.

You can always change the initial specification and add or delete instruments.

#### RELATED LINKS

[Piano roll editor](#) on page 314

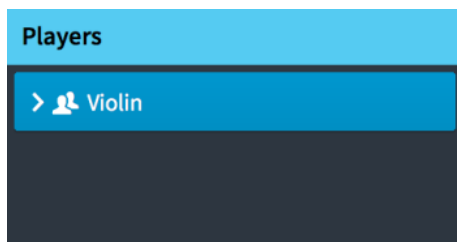
[VST and MIDI Instruments panel](#) on page 309

## Instrument numbering

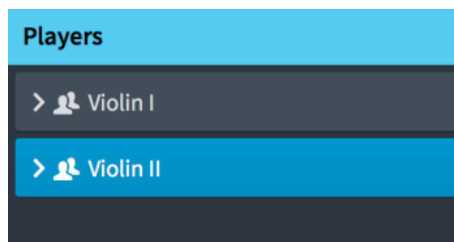
When there are multiple instruments of the same type in the same score, they are each automatically given a number for easy and clear identification.

For example, if there is only one flute in a score, it is called Flute, but if there are three flutes, they are called Flute 1, Flute 2, and Flute 3.

Dorico Elements automatically numbers instruments when there are multiple instruments of the same type in your project.



One violin with no number



Adding a second violin automatically generates numbers for both violins

Instrument numbers are automatically generated for players if the following criteria are met:

- Players are the same type, either solo or section.
- Players have at least one instrument in common.
- Players are in the same group.
- Instrument names are the same.

For example, if you have two flutes in your project, but one flute is a section player and the other flute is a solo player, they are not numbered automatically. Similarly, if the two flutes are in different player groups, they are not numbered automatically.

#### RELATED LINKS

[Player, layout, and instrument names](#) on page 93

[Changing instrument names](#) on page 98

[Player groups](#) on page 112

## 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 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 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.

#### RELATED LINKS

[Concert vs. transposed pitch](#) on page 120

[Making layouts transposing/concert pitch](#) on page 120

[Setting different clefs for concert/transposed pitch](#) on page 446


## Adding instruments to players

You can add instruments to both solo and section players. You can add multiple instruments to solo players, but only a single instrument to section players.

#### PREREQUISITE

You have added a solo or section player.

#### PROCEDURE

1. In the **Players** panel, select the player to which you want to add instruments.
2. Open the instrument picker in any of the following ways:
  - Press **Shift-I**.
  - Click the plus symbol to the right of the player card.  

3. Select the instrument you want in the instrument picker.
4. Press **Return** to add the selected instrument.
5. Optional: Repeat steps 1 to 3 to add multiple instruments to a single solo player.

#### NOTE

- You can only add a single instrument to each section player.
- If you want to add multiple instruments to your project at the same time, you can add ensembles or use a project template.

---

#### RESULT

The selected instrument is added to the player. If you selected multiple players, the instrument is only added to the first player in the **Players** panel.

#### NOTE

Before you have input any notes, only the first instrument held by solo 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 solo players.

---

#### RELATED LINKS

[Instrument picker](#) on page 82

[Adding ensembles](#) on page 99

[Starting new projects from project templates](#) on page 56


[Switching to galley/page view](#) on page 47

## Adding empty percussion kits to players

You can add empty percussion kits to players, to which you can then add unpitched percussion instruments.

---

#### PROCEDURE

1. In the **Players** panel, open the **Edit Percussion Kit** dialog in any of the following ways:
  - Select a solo or section player, press **Shift-I**, and click **Create Empty Kit** in the instrument picker.
  - Click the plus symbol to the right of the added empty-handed player and click **Create Empty Kit** in the instrument picker.  

  - Right-click a player and choose **Create Empty Kit** from the context menu.
2. Add the percussion instruments you want to the kit in the **Edit Percussion Kit** dialog.

---

#### RELATED LINKS

[Edit Percussion Kit dialog](#) on page 105

[Instrument picker](#) on page 82

## 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. Right-click the card of the player whose percussion instruments you want to combine into a kit and choose **Combine Instruments into Kit** from the context menu.
2. Edit the kit in the **Edit Percussion Kit** dialog that opens.  
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

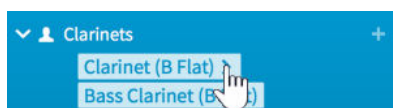
You can change the instruments held by players without affecting any music already entered onto their staves, for example, if your Clarinet part is very low and you want to change it to a Bass Clarinet.


### 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.
- 

### PROCEDURE

1. In the **Players** panel, expand the card of the player whose instrument you want to change. The card lists the instruments of the player.



2. Hover over the label of the instrument you want to change, click the arrow that appears, 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.

#### NOTE

Where appropriate, new clefs are input. This means that notes can appear differently so that they are notated correctly according to the new clef.

---

#### RELATED LINKS

[Instrument picker](#) on page 82

## Moving instruments between players

You can move individual instruments between players without affecting any music already input for those instruments.

---

#### PROCEDURE

- In the Players panel, move instruments to other players in any of the following ways:
  - Click and drag instruments individually and release them over the player card to which you want to move them.
  - Click the arrow that appears in the instrument label when you hover over it and choose **Move Instrument to Player > [Player]**.

#### NOTE

You can only move instruments to players already added to your project.

---

#### RELATED LINKS

[Adding solo/section players](#) on page 92

## Deleting instruments

You can delete instruments from players.

#### IMPORTANT

If you delete an instrument from a player, any music that you have created for this instrument is also deleted.

---

#### PROCEDURE

1. In the **Players** panel, expand the card of the player holding the instrument you want to delete.
  2. Click the arrow that appears in the instrument label when you hover over it and choose **Delete Instrument**.
  3. Click **OK**.
- 

#### RESULT

The instrument is deleted from the player.



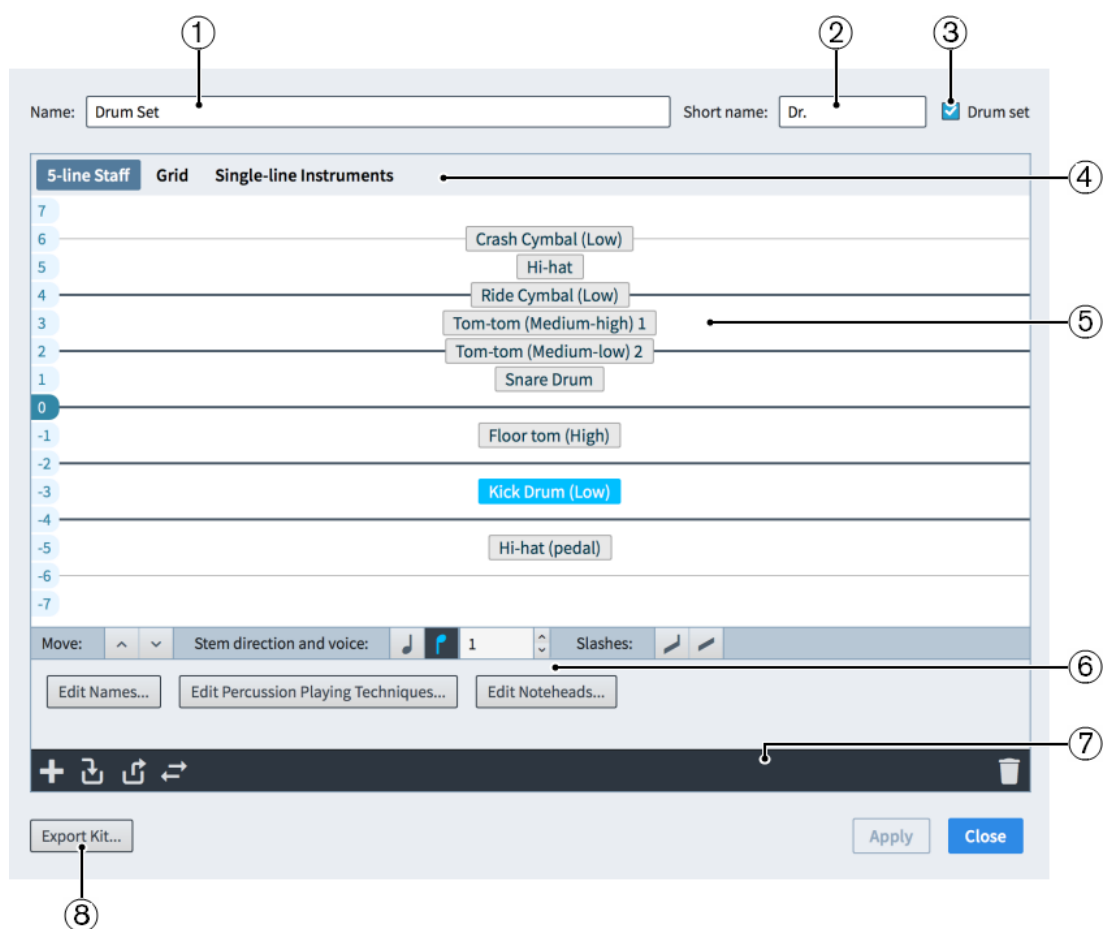
## Edit Percussion Kit dialog

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 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 player card of the player holding the percussion kit in the **Players** panel in Setup mode, then clicking the arrow in its label and choosing **Edit Percussion Kit**.

### NOTE

Percussion kit instrument labels are green in the **Players** panel in Setup mode.



**Edit Percussion Kit** dialog

- 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 have different default settings, 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. Normalized 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.

You can access dialogs to change the noteheads used for each instrument in the kit by clicking **Edit Noteheads**. You can also change how combinations of noteheads, articulations, and tremolos affect playback by clicking **Edit Percussion Playing Techniques**.

You can also change the names of individual instruments within percussion kits. Click **Edit Names** to open the **Edit Instrument Names** dialog.

#### 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.

---

#### 7 **Action bar**

The action bar at the bottom of the dialog provides options that apply to all presentation types.

- **Add New Instrument**



Opens the instrument picker, allowing 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](#) on page 690

[Staff labels for percussion kits](#) on page 623

[Percussion kit presentation types](#) on page 694

[Percussion Instrument Playing Techniques dialog](#) on page 697

[Playing techniques for unpitched percussion instruments](#) on page 696

## Adding instruments to percussion kits

You can add new instruments to percussion kits within the **Edit Percussion Kit** dialog.

---

### PROCEDURE

1. In the **Players** panel, expand the card of the player holding the kit to which you want to add instruments.
2. Click the arrow that appears in the kit instrument label when you hover over it 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.


## Changing instruments in percussion kits

You can change existing instruments in percussion kits while retaining any existing music for that instrument.

---

### PROCEDURE

1. In the **Players** panel, expand the card of the player holding the kit in which you want to change instruments.

2. Click the arrow that appears in the kit instrument label when you hover over it 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 project-wide setting for voicing in drum sets with five-line staff presentations.

---

#### PROCEDURE

1. In the **Players** panel, expand the card of the player holding the kit you want to define as a drum set.
  2. Click the arrow that appears in the kit instrument label when you hover over it 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 the default settings for drum sets.

#### 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

[Percussion Instrument Playing Techniques dialog](#) on page 697

## 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 the **Players** panel, expand the card of the player holding the kit in which you want to create groups in the grid presentation.
2. Click the arrow that appears in the kit instrument label when you hover over it 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.

## 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 grid presentation.

---

#### PROCEDURE

1. In the **Players** panel, expand the card of the player holding the kit in which you want to change the names of groups in the grid presentation.
2. Click the arrow that appears in the kit instrument label when you hover over it and choose **Edit Percussion Kit** to open the **Edit Percussion Kit** dialog.
3. Click **Grid** at the top of the dialog.
4. Open the **Edit Percussion Grid Group Names** dialog in any of the following ways:
  - Double-click the group.
  - Click the group, then click **Edit**.



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

Ride Cymbal —  
Hi-hat —  
Wood Block 1 —  
Wood Block 2   
Wood Block 3   
Tom 1 —  
Tom 2 —  
Kick Drum —

Ungrouped grid presentation percussion kit

Ride Cymbal —  
Hi-hat —  
Wood blocks   
Tom 1 —  
Tom 2 —  
Kick Drum —

Grid presentation percussion kit with wood blocks grouped

---

#### RELATED LINKS

[Staff labels for percussion kits](#) on page 623

## Deleting groups within grid presentation percussion kits

You can delete groups in percussion kits using grid presentation, without deleting the instruments within the group.

#### PROCEDURE

1. In the **Players** panel, expand the card of the player holding the kit from whose grid presentation you want to delete groups.
2. Click the arrow that appears in the kit instrument label when you hover over it 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 the **Players** panel, expand the card of the player holding the kit in which you want to change the positions of instruments.
2. Click the arrow that appears in the kit instrument label when you hover over it 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**

[Moving notes to different instruments in percussion kits](#) on page 692

## 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 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. Click the arrow that appears in the kit instrument label when you hover over it 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, for example, if you want to move an instrument from one percussion kit to another player.

---

**PROCEDURE**

1. In the **Players** panel, expand the card of the player holding the kit from which you want to remove instruments.
2. Click the arrow that appears in the kit instrument label when you hover over it 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 appears as individual instruments belonging to the same player but separate from the percussion kit.

You can then move the instruments to other players if required.

#### RELATED LINKS

[Moving instruments between players](#) on page 104

## Player groups

A group represents a collection of musicians that are considered together, such as a choir, orchestra, or chamber ensemble.

Grouping players together means they are positioned together in the score, numbered independently, and are bracketed together according to the project template.

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 for to bracket players properly 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.

Similarly, you can create a group for an off-stage group of players in a large-scale work.

If the instruments were not already next to each other according to orchestral order, adding a player group changes the order of players in the score project-wide.

#### RELATED LINKS

[Brackets according to project template categories](#) on page 57

## Adding groups of players

You can organize players into groups, for example, if you want to bracket them together.

#### PREREQUISITE

The **Players** panel is open.

---

#### PROCEDURE

1. Optional: In the **Players** panel, select the players that you want to include in the group.
2. At the bottom of the **Players** panel, click **Add Group**.



---

#### RESULT

If you selected one or more players, they are added to the group. If no player was selected, an empty group is added to the **Players** panel.

#### RELATED LINKS

[Adding players to groups](#) on page 113

[Brackets and braces](#) on page 435



## Renaming player groups

You can change the name of player groups after you have added them.

---

### PROCEDURE

1. In the **Players** panel, double-click the name of the group.
  2. Enter a new name for the group or edit the existing name.
  3. Press **Return**.
- 

## 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 the **Players** panel, select the group that you want to delete.
  2. Press **Backspace** or **Delete**.
  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.
- 

## Adding players to groups

You can add existing or new players to player groups.

### PREREQUISITE

You have added at least one player, one ensemble, or one group.

---

### PROCEDURE

- In the **Players** panel, do one of the following:
    - Select one or more players and click **Add Group**.
    - Select a group, and click **Add Solo Player**, **Add Section Player**, or **Add Ensemble**.
- 

### RESULT

If you clicked **Add Group**, a new group is added for the selected players.

If you clicked **Add Solo Player**, **Add Section Player** or **Add Ensemble**, a new player or ensemble is added to the selected group.

### RELATED LINKS

[Adding solo/section players](#) on page 92

## Moving players between groups

You can move players from one group to another.

---

### PROCEDURE

1. In the **Players** panel, select the players that you want to move to another group.
2. Click and drag the selected players to the position you want in the other group.

An insertion line indicates where the players will be positioned.

---

RESULT

The players are moved to the other group.

## Removing players from groups

You can remove players from groups.

---

PROCEDURE

- In the **Players** panel, remove players from groups in any of the following ways:
  - Click and drag multiple selected players out of the group and release the mouse button.
  - Right-click a single player and choose **Remove Player from Group** from the context menu.

NOTE

You can only remove a single player from a group at a time when using 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 within your project, for example, movements or songs.

Every project contains at least one flow, and by default, every layout includes the music from every flow in your project. If you create a new flow in Dorico Elements, the following happens:

- All music that you write for the new flow is automatically included in the existing full score and instrumental part layouts. You can exclude any flow from any layout by deactivating the respective flow card.
- All players are assigned to the new flow. You can exclude players from the flow by deactivating the respective player card.

IMPORTANT

If you exclude a player from a flow, any notes that you have already input for that player in that flow are deleted.

---

RELATED LINKS

[Flows panel](#) on page 86

[Players](#) on page 91

[Layouts](#) on page 117

[Changing the players assigned to flows](#) on page 115

[Changing the flows assigned to layouts](#) on page 119

[Importing flows](#) on page 60

[Exporting flows](#) on page 61

## Adding flows

If you need more than one flow in your project, you can add new flows.

---

### PROCEDURE

1. In the **Flows** panel, click **Add Flow**.



2. Optional: Repeat for as many flows as you require.
- 

### RESULT

A new flow is added to your project each time you click **Add Flow**. All existing players are assigned to new flows, and new flows are automatically added to all existing full score and part layouts.

### RELATED LINKS

[Importing flows](#) on page 60

## Changing the players assigned 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.

---

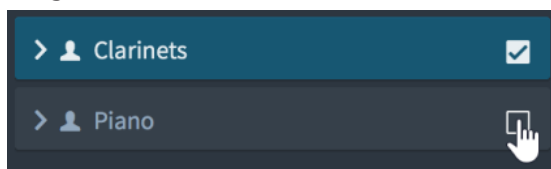
### NOTE

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 the **Flows** panel, select the flow whose assigned players you want to change.
2. In the **Players** panel, activate the checkbox in the player 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.

---

3. Optional: Repeat steps 1 and 2 for other flows whose assigned players you want to change.
- 

### 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

[Players](#) on page 91

[Layouts](#) on page 117

[Tacets](#) on page 285

[Changing the flows assigned to layouts](#) on page 119

[Changing the players assigned to layouts](#) on page 118

## 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. You can rename flows in the **Project Info** dialog and in the **Flows** panel in Setup mode.

When you enter names for flows in the **Flows** panel in Setup mode, those names are automatically added in the **Title** field for the appropriate flow in the **Project Info** dialog. If you change the name in the **Flows** panel again later, the flow title is updated in the **Project Info** dialog.

Titles shown in scores and parts in the music area are linked to the **Title** field for each flow in the **Project Info** dialog.

This link is maintained until you change the names of flows in the **Project Info** dialog. Once you change flow titles in the **Project Info** dialog, changing flow names in the **Flows** panel no longer updates the **Title** field for that flow in the **Project Info** dialog.

This allows you to organize flows in Setup mode with different names to their official title.

### RELATED LINKS

[Project Info dialog](#) on page 87

[Text tokens](#) on page 295

## Renaming flows in Setup mode

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 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.

## Changing flow titles in the Project Info dialog

You can change flow titles in the **Project Info** dialog. Once you have done so, flow titles are no longer changed if you change their name in the **Flows** panel in Setup mode.

---

### PROCEDURE

1. Choose **File > Project Info** to open the **Project Info** dialog.
  2. Select the flow whose title you want to change from the menu. Alternatively, use the arrow buttons beside the menu to choose the flow.
  3. Enter the new title you want 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 to what you entered.

#### NOTE

This breaks the link between flow names in the **Flows** panel in Setup mode and the title shown in the music area.

---

## Deleting flows

You can delete flows that you no longer need. This deletes all music for all instruments belonging to all players in the flows.

---

#### PROCEDURE

1. In the **Flows** panel, select the flows you want to delete.
  2. Press **Backspace** or **Delete**.
- 

## Layouts

Layouts allow you to present the music in your project differently for different purposes. For example, part layouts only include the music that player needs to play whereas full score layouts contain all staves in the project.

Dorico Elements provides the following layout types:

#### Full score

A full score layout includes by default all players and all flows in your project. You can remove players and flows that you do not need. Full score layouts are concert pitch by default.

#### Instrumental part

An instrumental part layout is automatically created when you add a player to your project. You can add further players to the instrumental part layout. You can also create empty instrumental part layouts and add players.

By default, instrumental part layouts contain all flows but you can exclude flows that you do not need. They are also transposed pitch by default.

#### Custom score

A custom score layout initially does not contain any players or flows. This allows you to create your score manually and to add, for example, only one flow instead of all flows or only vocal and piano staves to create a condensed score for the chorus. Custom score layouts are concert pitch by default.

#### RELATED LINKS

[Page layouts](#) on page 275

[Flows](#) on page 114

[Players](#) on page 91

[Changing the flows assigned to layouts](#) on page 119

[Changing the players assigned to layouts](#) on page 118

## Creating layouts

You can create multiple layouts for full scores and instrumental parts. You can also create multiple custom score layouts.

#### PROCEDURE

- At the bottom of 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.

#### AFTER COMPLETING THIS TASK

You can assign players and flows to your layout.

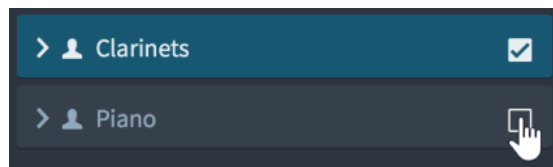
## Changing the players assigned to layouts

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 the **Layouts** panel, select the layout whose assigned players you want to change.
2. In the **Players** panel, activate the checkbox in the player 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.

3. Optional: Repeat steps 1 and 2 for any other layouts whose assigned players you want to change.

---

#### 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

[Player, layout, and instrument names](#) on page 93

[Changing layout names](#) on page 97

[Changing the players assigned to flows](#) on page 115

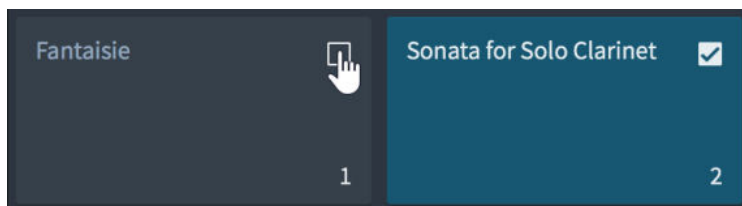
## Changing the flows assigned to layouts

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 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.

3. Optional: Repeat steps 1 and 2 for other layouts whose assigned flows you want to change.

---

### 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.

### RELATED LINKS

[Changing the players assigned to flows](#) on page 115

## Renaming layouts

You can change the name of layouts.

If you add an instrumental part layout to project, its default name is **Empty part**. The default names of full score and custom score layouts are **Full score** and **Custom score**. If you add several layouts, an incremental number is added to the default names.

---

### PROCEDURE

1. In the **Layouts** panel, open the layout name text field in any of the following ways:
  - Double-click the name of the layout.
  - Right-click the name of the layout and choose **Rename** from the context menu.
2. Enter the new name for the layout or edit the existing name.
3. Press **Return**.

---

### RELATED LINKS

[Instrument numbering](#) on page 100

## 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, **Shift**-clicking adjacent layouts, and **Ctrl/Cmd**-clicking individual layouts.
3. Click **Players** in the page list.
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 chord symbols](#) on page 438

[Setting different clefs for concert/transposed pitch](#) on page 446

## 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.

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.

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.

Transposing scores and parts also transpose key signatures according to the transposition of the instrument.

### RELATED LINKS

[Transposing instruments](#) on page 101

[Transposing key signatures alongside selections](#) on page 494

[Enharmonic equivalent key signatures](#) on page 495

[Setting different clefs for concert/transposed pitch](#) on page 446



## Sorting 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 the **Layouts** panel, click and drag a layout card to a different position.  
An insertion line indicates where the players will be positioned.
2. Release the mouse button.

---

### RESULT

The layout is inserted at the selected position.

## Renumbering layouts

You can renumber all the layouts in their project according to their current position in the **Layouts** panel in Setup mode, for example, after you have dragged layouts to different positions.

---

### PROCEDURE

- In the **Layouts** panel, right-click any layout card and choose **Renumber Layouts** 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.

### RELATED LINKS

[Layouts panel \(Setup mode\)](#) on page 83

## Deleting layouts

You can delete any layout from the project, for example, if you only want to use a combined Violin I and II part, you can delete their separate parts.

---

### PROCEDURE

1. In the **Layouts** panel, select the layouts that you want to delete.
2. Press **Backspace** or **Delete**.

## 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

- 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.

## 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 124

[Frame rates](#) on page 126

[Changing the project frame rate](#) on page 127

[Timecodes](#) on page 571

[Markers](#) on page 567

[Changing the volume of video audio](#) on page 126

## 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

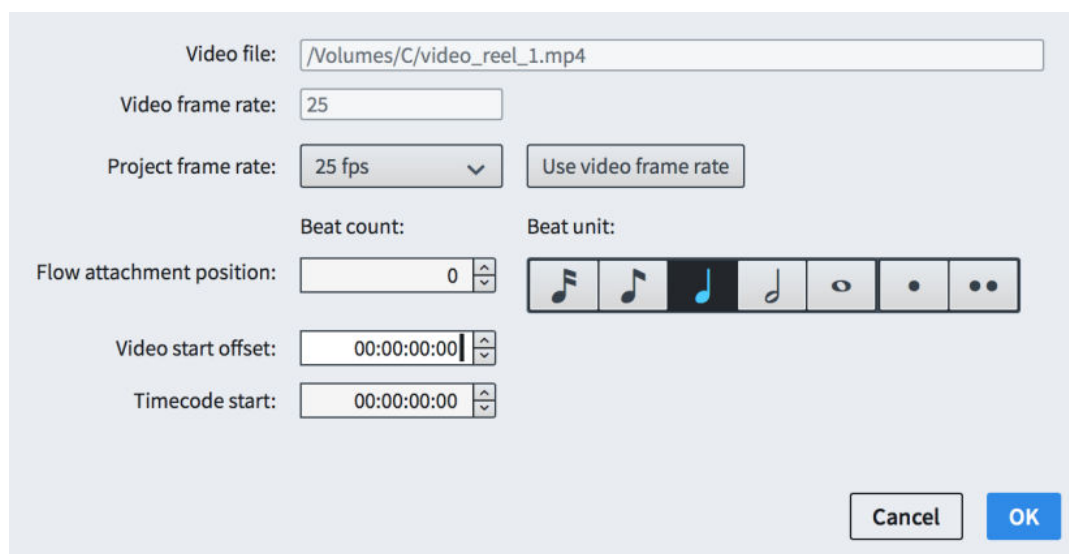
[Frame rates](#) on page 126

## 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.

The dialog also opens automatically when you add a new video.



**Video Properties** dialog

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 571

[Flows panel](#) on page 86

## 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 triangle 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 the **Flows** panel, right-click the flow to which you want to add/reload a video.
2. Choose **Video > Attach** from the context menu to open the File Explorer/macOS Finder.
3. In the File Explorer/macOS Finder, locate and select the video file you want to add.
4. Click **Open** to open the **Video Properties** dialog.
5. In the **Video Properties** dialog, change the options as appropriate for your project.
6. 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

[Timecodes](#) on page 571

[Changing the initial timecode value](#) on page 572

## 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. In the **Video Properties** dialog, change the values for **Flow attachment position** and/or **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.
- 

#### RELATED LINKS

[Timecodes](#) on page 571


[Changing the initial timecode value](#) on page 572

## 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**.
- 

#### RESULT

The **Video** window is hidden/shown. It is shown when a tick appears beside **Video** in the **Window** menu, and hidden when no tick appears.

#### RELATED LINKS

[Toolbar](#) on page 31

## 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 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.

## 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 window is shown.

---

### PROCEDURE

1. Optional: If the **Video** channel is not shown in the Mixer window, click **Video** in the Mixer toolbar.
2. Change the **Video** channel volume in any of the following ways:
  - Click and drag the **Video** channel fader upwards/downwards.
  - Click **Mute** at the top of the **Video** channel.

---

### RESULT

The volume of audio from videos in your project is changed. If you clicked **Mute**, no audio from videos sounds in playback.

### RELATED LINKS

[Hiding/Showing the Mixer window](#) on page 348

## 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, which is used in, 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 571

## 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. In the **Video Properties** dialog, 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

In Write mode, you can create your music. You can input notes and notations into your project, make changes to existing music, and delete notes and notations.

## Project window in Write mode

The project window in Write mode contains the default toolbar, the music area, and the status bar. It provides 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**.
- Click **Write** in the toolbar.
- Choose **Window > Write**.



Toolboxes and panels in Write mode

The following panels and toolboxes are available in Write mode:

- 1 **Notes toolbox**  
Contains tools that affect note input.
- 2 **Notes panel**



Contains the note durations, accidentals, and articulations that are most commonly used during note input.

### 3 Notations panel

Contains notation items that you can add to your music, such as dynamics and playing techniques, divided into separate categories. Your current selection in the Notations toolbox determines which notation items are shown.

### 4 Notations toolbox

Allows you to determine which notation items are shown in the Notations panel, and to input certain items directly, such as rehearsal marks, chord symbols, and fingerings.

### 5 Properties panel

Contains properties that allow you to make individual modifications to the currently selected notes and notations.

#### NOTE

Many properties are layout-specific, meaning changing the properties of an item in one layout does not affect the same item in other layouts. However, you can copy property changes to other layouts.

---

#### RELATED LINKS

[Copying property settings to other layouts](#) on page 293

## Notes toolbox

The tools in the Notes toolbox allow you to modify notes and change the type of notes you input. The Notes toolbox is located on the left of the window in Write mode.

### Dotted Notes



During step input, this inputs dotted notes, rests, or chords based on the currently selected duration. When editing existing notes, you can use this tool to add/remove rhythm dots from existing notes, rests, and chords.

You can also activate/deactivate **Dotted Notes** by pressing **.** (period). You can increase the number of dots on notes by pressing **Alt-.** (period).

### Rests



When this option is activated, you input rests of the currently selected duration instead of notes.

You can also start/stop rest input by pressing **,** (comma).

### Chords



When this option is activated, you add multiple notes at the same rhythmic position in order to build a chord. This function prevents the caret from advancing automatically after inputting a note.

You can also start/stop chord input by pressing **Q**.

### Tuplets



Clicking this option inputs a triplet bracket and the respective number of rests at the specified rhythmic position. If the notes are beamed, no brackets are used.

You can input other types of tuplet, such as quintuplets, by using the tuplets popover.

### Grace Notes



When this option is activated, you input grace notes at the current rhythmic position instead of normal notes.

You can also start/stop grace note input by pressing **/**.

### Insert



When this option is activated, the notes you input are inserted before existing music ahead of the caret instead of overwriting it. Similarly, reducing the duration of notes with Insert mode activated pulls them closer together without leaving rests between the notes.

You can also activate/deactivate Insert mode by pressing **I**.

### Lock to Duration



When this option is activated, the durations of existing notes are used as you input notes. This allows you to maintain the duration of notes while you change their pitches.

You can also activate/deactivate **Lock to Duration** by pressing **L**.

### Force Duration



When this option is activated, Dorico Elements always inputs notes/rests with the explicit duration you have selected. 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.

If you activated **Force Duration** during input, you can remove the restrictions on how Dorico Elements notates the music by selecting the affected passage of music and selecting **Edit > Reset Appearance**.

You can also activate/deactivate **Force Duration** by pressing **O**.

### Tie



During step input, this ties the note to be input to the previous note of the same pitch. When editing existing notes, 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**.

---

**Scissors**



During step input, this splits notes, chords, and explicit rests in two at the caret position. When editing existing notes, it deletes all ties in tie chains.

You can also activate **Scissors** by pressing **U**.

**Select**



Activates/Deactivates mouse input. When mouse input is deactivated, you cannot input notes by clicking on the staff.

RELATED LINKS

[Inputting notes with rhythm dots](#) on page 146

[Inputting chords](#) on page 161

[Inputting triplets](#) on page 162

[Inputting grace notes](#) on page 160

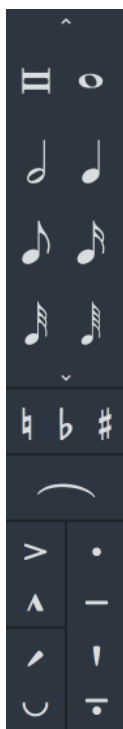
[Activating/Deactivating mouse input](#) on page 145

## 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**.
- Click the disclosure arrow on the left edge of the main window.
- Choose **Window > Show Left Panel**.



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. However, you cannot deactivate slurs, you must delete them.

In the bottom part of the Notes panel, you can activate/deactivate articulations.

#### RELATED LINKS

[Inputting notes](#) on page 143

[Inputting accidentals](#) on page 155

[Inputting articulations](#) on page 175

[Inputting slurs](#) on page 255

## Properties panel (Write mode)

The Properties panel in Write mode contains quick access properties that allow you to change notes and notations, both during note input and by changing existing notes. It is located at the bottom of the window in Write mode.

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.

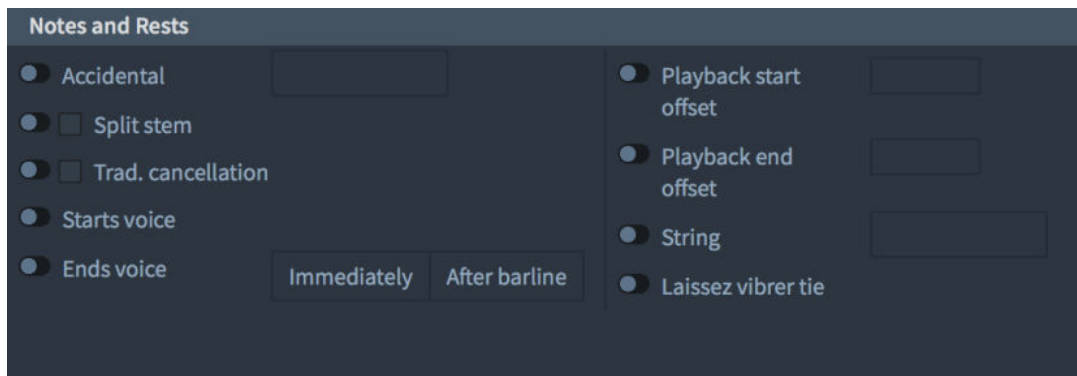
#### NOTE

- 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.

- Many properties are layout-specific, meaning changing the properties of an item in one layout does not affect the same item in other layouts. However, you can copy property changes to other layouts.
- 

You can hide/show the Properties panel in Write 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 Bottom Panel**.



Notes and Rests group of the Properties panel in Write mode

## Changing the properties of individual notes and items

You can change the properties of individual notes and notations independently of your project-wide settings, for example, if you want crescendos to appear as hairpins by default but require a single crescendo to appear as text.

### NOTE

You can only change the properties of complete notes and notations. For example, if a pedal line extends across multiple systems, you cannot change its line style on one system but keep the original line style on another system.

---

### PROCEDURE

1. Select a note or notation item in the music area.
  2. Optional: If the Properties panel is hidden, show it in any of the following ways:
    - Press **Ctrl/Cmd-8**.
    - Click the disclosure arrow at the bottom of the window.
    - Choose **Window > Show Bottom Panel**.
  3. In the Properties panel, change the properties you want.
- 

### RESULT

The complete note or notation item is changed. The changes are immediately displayed in the music area.

### NOTE

Many properties are layout-specific. For example, if you change the placement of an item relative to the staff in a full score layout, this does not affect the placement of the item in the corresponding part layout. However, you can copy property settings to other layouts.

---

#### RELATED LINKS

[Copying property settings to other layouts](#) on page 293

[Resetting the appearance of items](#) on page 266

[Resetting the position of items](#) on page 267

## Notations toolbox

The options in the Notations toolbox allow you to determine what notation items are available in the Notations panel. The Notations toolbox is located on the right of the window in Write mode.

### Clefs



Hides/Shows the Clefs panel, which contains sections for the different clefs and octave lines that you can input.

### Key Signatures, Tonality Systems, and Accidentals



Hides/Shows the Key Signatures, Tonality Systems, and Accidentals panel, which contains sections for the different key signatures, tonality systems, and accidentals that you can input. 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 that you can input, 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 that you can input, including gradual tempo changes, metronome marks, and tempo equations.

### Dynamics



Hides/Shows the Dynamics panel, which contains sections for the different dynamics that you can input, including immediate, gradual, and custom combined dynamics.

### Ornaments



Hides/Shows the Ornaments panel, which contains sections for the different ornaments and glissando lines that you can input.

### 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 allows you to insert bars and to input the different types of barlines.

### Holds and Pauses



Hides/Shows the Holds and Pauses panel, which contains sections for the different types of fermatas, breath marks, and caesuras that you can input.

### 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.

### Cues



Hides/Shows the Cues panel, which allows you to find suitable places for cues and input cues.

### Video



Hides/Shows the Video panel, which allows you to open the **Video Properties** dialog and to view and edit markers in the current flow.

### Rehearsal Marks



Inserts a rehearsal mark at the selected rhythmic position.

### Text



Opens the text editor which allows you to insert text at the selected rhythmic position.

### Lyrics



Opens the lyrics popover above the selected note on the staff, which allows you to input lyrics.

### Chord Symbols



Opens the chord symbols popover above the selected note on the staff, which allows you to input chord symbols.

### Fingerings



Opens the fingerings popover above the selected note on the staff, which allows you to input fingerings.

RELATED LINKS

[Notations input](#) on page 175

[Text editor options in Write mode](#) on page 256

[Video Properties dialog](#) on page 122

## Notations panel

The Notations panel contains different notation items for your music depending on your selection in the Notations toolbox. The Notations panel is located on the right of the window in Write mode.

You can hide/show the Notations panel at any time, 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.

RELATED LINKS

[Hiding/Showing panels](#) on page 16

## 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.

---

### 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 Play mode but not notations. 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.

#### RELATED LINKS

[Editing and selecting](#) on page 258

[Caret](#) on page 139

[Note input](#) on page 139

[Notations input](#) on page 175

## 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 **Allow multiple items to be created with the mouse** 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 all new projects.

---

#### RELATED LINKS

[Preferences dialog](#) on page 48

## 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 value 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. In Play mode, the rhythmic grid is shown by the frequency of vertical lines in tracks and in the ruler at the top of the event display.

The rhythmic grid helps you to identify the following:

- The exact input position when using the caret or the mouse
- 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

It also allows you to control how precisely notes and items are positioned when inputting them with the mouse or when copying and pasting. For example, setting the rhythmic grid value 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.

You can change the rhythmic grid value at any time.

#### RELATED LINKS

[Caret](#) on page 139

[Moving the caret manually](#) on page 142

[Event display](#) on page 312

## Changing the rhythmic grid value

You can change the value of the rhythmic grid. The value is indicated by the note value symbol in the status bar and by the beat divisions and subdivisions in the ruler markings above the caret.

The rhythmic grid value is set to eighth notes (quavers) by default.

---

#### PROCEDURE

- Change the value of the rhythmic grid in any of the following ways:
  - Press **Alt-]** to decrease the rhythmic grid value.
  - Press **Alt-[** to increase the rhythmic grid value.
  - 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 value makes it finer by making the note value shorter. Increasing the rhythmic grid value makes it coarser by making the note value longer.

#### TIP

You can assign your own key commands for increasing and decreasing the rhythmic grid value.

---

#### RELATED LINKS

[Status bar](#) on page 39

[Assigning key commands](#) on page 52

## Note input

In Dorico Elements, you can only input notes during note input, which is when the caret is activated. This allows you to input notations at the caret position at the same time as inputting notes, and also reduces the risk of you adding notes to staves accidentally.

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

### TIP

A MIDI keyboard is the fastest way to input notes.

---

### RELATED LINKS

[Notes](#) on page 510

[Inputting notes](#) on page 143

## Caret

In Dorico Elements, the caret is a vertical line that extends above and below five-line staves but appears shorter on percussion staves. It shows the rhythmic position at which notes, chords, or notation items are input.

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, 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.

### Insert

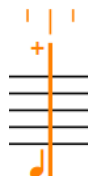
The caret shows V and inverted V shapes at the top and bottom. In Insert mode, inserted notes shift all the music that follows the caret along by the input duration instead of replacing existing notes. Similarly, reducing the duration of notes with Insert mode activated pulls them closer together without leaving rests between the notes.



Caret in Insert mode

### 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

### 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

If you input multiple voices, the caret shows the following:

- A plus symbol at the bottom left
- The voice number into which you are inputting notes
- An up-stem note or a down-stem note symbol to indicate the stem direction of the voice



Caret when inputting notes into a new down-stem voice



Caret when inputting notes into a new, second up-stem voice

### Slash voices

The note beside the caret indicates a slash notehead.

If you input multiple slash voices, the caret shows the following:

- A plus symbol on the left at the bottom
- The number of the slash voice into which you are about to input notes
- An up-stem slash note or a down-stem slash note symbol indicating the stem direction of the voice, and whether it has stems or is stemless



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

### RELATED LINKS

[Inputting notes in Insert mode](#) on page 147

[Inputting chords](#) on page 161

[Repitching notes without changing their rhythm](#) on page 168

[Inputting grace notes](#) on page 160

[Inputting notes into multiple voices](#) on page 153

[Inputting notes in percussion kits](#) on page 147

## Activating 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

- Activate the caret in any of the following ways:
  - Select an item and press **Shift-N** or **Return**.
  - Double-click the rhythmic position on the staff where you want to begin inputting notes.

---

### AFTER COMPLETING THIS TASK

You can deactivate the caret at any time by pressing **Shift-N**, **Return**, or **Esc**. If you have deactivated mouse input, you can click another item in the music area to deactivate the caret.

Switching to another mode also deactivates the caret, as the caret can only be activated in Write mode.

### RELATED LINKS

[Functions of the modes](#) on page 15

[Activating/Deactivating mouse input](#) on page 145

## Moving the caret manually

The caret moves automatically as you input notes, but you can also move it manually. For example, the caret does not move automatically when inputting chords.

---

### PROCEDURE

- Move the caret in any of the following ways:
  - To move the caret according to the current rhythmic grid value, press **Right Arrow/Left Arrow**.
  - To advance the caret according to the note value currently selected, press **Space**.
  - 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 161

## Changing the input pitch setting

You can input and record notes at either sounding pitch or written pitch according to the current layout, 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

- 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 143

[Inputting notes using MIDI recording](#) on page 170

[Making layouts transposing/concert pitch](#) on page 120

## Inputting notes

You can input notes into your project when note input is activated. You can input notes with a computer keyboard, with the mouse, or by playing notes with a MIDI keyboard.

#### NOTE

During step input, you must specify the duration, accidentals, and articulations before specifying the pitch. This applies to all input methods.

You can later add notations to notes after they have been input when note input is deactivated.

---

#### PREREQUISITE

- 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**.
  - You have chosen the appropriate input pitch setting.
- 

#### PROCEDURE

1. 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** or **Return**.

#### NOTE

If you select a notation, such as a dynamic, pressing **Return** opens the corresponding popover instead of starting note input.

---

- Double-click the staff where you want to input notes.
2. Select a note value in any of the following ways:
  - Press the number on your computer keyboard that corresponds to the rhythmic value you want. For example, press **6** for quarter notes (crotchets), **5** for eighth notes (quavers), **7** for half notes (minims), and so on.
  - Click the rhythmic value you want in the Notes panel on the left of the window.
3. Optional: Add an accidental.
4. Optional: Add an articulation.
5. Input the pitches you want in any of the following ways:
  - Press the corresponding letters on your 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** as well as the letter for the note.
- To input a note below the previously input note, press **Ctrl** (macOS) or **Ctrl-Alt** (Windows) as well as the letter for the note.

You must press **Ctrl** on Mac, not **Cmd**.

- 
- 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.
  - Play the notes on a MIDI keyboard.

6. Press **Esc** or **Return** to stop note input.
- 

**RESULT**

Notes are input with the selected duration and are played back as you input them by default. Notes continue to be input with a rhythm dot and any articulations until you deactivate them. However, accidentals are only added to the first note you input after selecting them.

Beams are automatically formed between adjacent notes that are an eighth note or shorter, as appropriate for the time signature and their position in the bar.

**TIP**

You can also move the caret to other rhythmic positions without having to input notes.

---

**AFTER COMPLETING THIS TASK**

You can move notes to different rhythmic positions after they have been input, and move them to other staves.

**RELATED LINKS**

[Changing the input pitch setting](#) on page 142

[Caret](#) on page 139

[Moving the caret manually](#) on page 142

[Adding notes above/below existing notes](#) on page 165

[Moving notes rhythmically](#) on page 516

[View types](#) on page 40

[Arranging tools](#) on page 269

[Playing/Muting notes during note input/selection](#) on page 264

## Register selection during step input

Dorico Elements automatically selects the register of pitches during step input, but you can override this and select the register manually.

During step 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** as well as the letter for the note.



- To input a note below the previously input note, press **Ctrl** (macOS) or **Ctrl-Alt** (Windows) as well as the letter for the note.

#### NOTE

You must press **Ctrl** on macOS, not **Cmd**.

---

### 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** (macOS) or **Ctrl-Alt** (Windows) as well as the letter for the note name.

For example, press **Ctrl-F** (macOS) or **Ctrl-Alt-F** (Windows) to input an F below the lowest note in the chord at the caret position.

#### NOTE

You must press **Ctrl** on macOS, not **Cmd**.

---

#### RELATED LINKS

[Inputting notes](#) on page 143

[Inputting chords](#) on page 161

[Changing the pitch of individual notes](#) on page 167

## 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 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**.

---

#### EXAMPLE



**Select** when deactivated



**Select** when activated

---

#### RELATED LINKS

[Preferences dialog](#) on page 48

## 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.

---

### PROCEDURE

1. In Write mode, do one of the following:
    - Start note input.
    - Select existing notes to which you want to add rhythm dots.
  2. Press the number on your computer keyboard that corresponds to the note value you want to input.  
For example, press **5** for eighth notes (quavers), **6** for quarter notes (crotchets), **7** for half notes (minims), and so on.
  3. Press **.** (period) to activate **Dotted Notes**.
  4. Optional: Press **Alt-.** (period) to change the number of rhythm dots.  
**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.
  5. Optional: Press **O** to activate **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.
  6. Input the dotted notes you want.  
**Dotted Notes** remains activated until you either select a different note duration or deactivate it.
  7. Press **.** again to deactivate **Dotted Notes**.
  8. Press **Esc** or **Return** to stop note input.
- 

### RESULT

During step input, notes are input as dotted notes until you deactivate **Dotted Notes** or change the note duration.

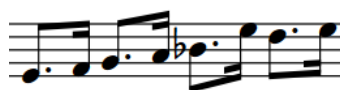
If you add rhythm dots to multiple existing notes that would then overlap, Dorico Elements adjusts the duration of notes in the selection to avoid deleting notes at the end of the selection.

---

### EXAMPLE



A phrase containing eighth notes



After adding rhythm dots to the whole selection

---

### RELATED LINKS

[Note and rest grouping](#) on page 433

## Inputting notes in Insert mode

In Insert mode, you can input notes before existing notes without overriding them. This allows you to push existing notes ahead at the same time as inputting new notes at their previous positions.

### NOTE

You cannot input chords in Insert mode.

---

### PROCEDURE

1. In Write mode, start note input.
2. Press the number on your computer keyboard that corresponds to the note value you want to input.  
For example, press **5** for eighth notes (quavers), **6** for quarter notes (crotchets), **7** for half notes (minims), and so on.
3. Press **I** to activate Insert mode.  
In Insert mode, the caret shows V and inverted V shapes at the top and bottom.



4. Input the pitches you want in any of the following ways:
    - Press the corresponding letters on your keyboard.
    - 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.
    - Play the notes on a MIDI keyboard.
  5. Optional: Press **I** again to deactivate Insert mode and return to normal note input.
  6. Press **Esc** or **Return** to stop note input.
- 

### RESULT

Notes are inserted before existing notes, without overriding any existing notes at rhythmic positions after the caret. Any existing notes after the caret are pushed ahead to subsequent rhythmic positions.

### RELATED LINKS

[Caret](#) on page 139

[Inputting chords](#) on page 161

## Inputting notes in percussion kits

You can input notes on all percussion instruments in percussion kits using any presentation type. When inputting notes in percussion kits, the caret is smaller than when inputting notes on pitched instrument staves.

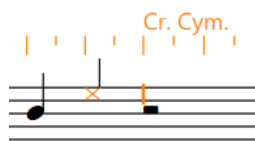
Instead of occupying the whole height of the staff, the caret in percussion kits is positioned at a particular staff position.

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.

---



Inputting notes on instruments with five-line staff kit presentation

---

#### PROCEDURE

1. Optional: If you want to define additional playing techniques for instruments in the kit, do so in the **Percussion Instrument Playing Techniques** dialog.
2. In Write mode, select an item in the percussion kit into which you want to input notes, at the rhythmic position from which you want to input notes.
3. Press **Shift-N** or **Return** to start note input.
4. Move the caret up/down to input notes on different instruments in any of the following ways:
  - Press **Up Arrow** to move it up.
  - Press **Down Arrow** to move it down.
5. Select an appropriate playing technique for the instrument currently selected by the caret before inputting notes.
  - Press **Shift-Alt-Up Arrow** to cycle upwards through playing techniques.
  - Press **Shift-Alt-Down Arrow** to cycle downwards through playing techniques.
  - 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:
  - 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: 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**.

---

- Any kit presentation type: Press **Y** to input notes for the instrument and playing technique shown above the rhythmic grid.
- Any kit presentation type: Click on the staff where you want to input notes, and at the rhythmic positions where you want them.

7. Press **Esc** or **Return** to stop note input.
- 

#### RELATED LINKS

[Caret](#) on page 139

[Percussion kits](#) on page 690

[Note input setup for percussion kits](#) on page 149

[Percussion Instrument Playing Techniques dialog](#) on page 697

[Changing the playing techniques of notes on percussion kit staves](#) on page 691

[Preferences dialog](#) on page 48

## 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.

In the **Note Input** section of the **Note Input and Editing** page in **Preferences** you can find options relating to note input for percussion.

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
- Eb3 (51): Second mapped playing technique
- E3 (52): Third mapped playing technique

And so on, up to:

- B3 (59): Tenth mapped playing technique

In general, it is recommended 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 48

[Edit Percussion Kit dialog](#) on page 105

[Inputting notes in percussion kits](#) on page 147

[Changing the playing techniques of notes on percussion kit staves](#) on page 691

## Default note selection during step input for percussion kits

During step 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.

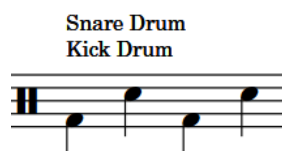
However, when inputting notes in percussion kits, Dorico Elements chooses the staff position of the note with the same stem direction as the last input note, rather than the staff position that is closest to the current position of the caret. This makes it easier to input common note patterns used in 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

[Preferences dialog](#) on page 48

[Stem direction](#) on page 636

## Selecting note/rest durations

You can select different durations for notes/rests either from the Notes panel or by using one of the assigned key commands, 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 key command for the duration you want. For example, press **6** for quarter notes (crotchets), **5** for eighth notes (quavers), **7** for half notes (minims), and so on.
  - Click a duration in the Notes panel.

---

### RELATED LINKS

[Notes panel](#) on page 131

[Key commands in Dorico Elements](#) on page 9

[Inputting notes](#) on page 143

## Changing the duration of notes

You can lengthen/shorten the duration of notes after they have been input.

---

### PROCEDURE

1. Select the notes whose duration you want to change.
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).
  - Click the duration you want in the Notes panel.
  - To lengthen notes by the current rhythmic grid value, press **Shift-Alt-Right Arrow**.
  - To shorten notes by the current rhythmic grid value, press **Shift-Alt-Left Arrow**.
  - To double the length of notes, press **Ctrl/Cmd-Shift-Alt-Right Arrow**.
  - To halve the length of notes, press **Ctrl/Cmd-Shift-Alt-Left Arrow**.
  - To lengthen notes by the current rhythmic grid value, choose **Write > Edit Duration > Lengthen Duration by Grid Value**.
  - To shorten notes by the current rhythmic grid value, choose **Write > Edit Duration > Shorten Duration by Grid Value**.
  - To double the length of notes, choose **Write > Edit Duration > Lengthen Duration**.
  - To halve the length of notes, choose **Write > Edit Duration > Shorten Duration**.

---

### RESULT

The duration of the selected notes is changed. Dorico Elements automatically notates and beams the notes appropriately according to their new duration, the current time signature, and their position in the bar.

### TIP

You can assign your own key commands to lengthen/shorten notes by specific durations. You can find these by searching for **Shorten duration by** and **Lengthen duration by** on the **Key Commands** page in **Preferences**.

---

## Forcing the duration of notes/rests

Dorico Elements automatically notates and beams notes/rests appropriately according to the current 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.
    - Selecting existing notes whose duration you want to force.
  2. Optional: If you want input rests with forced durations, press , (comma) to start rest input.
  3. Press **O** to activate **Force Duration**.
  4. Select 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.

---

### 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 600

[Inputting notes](#) on page 143



- [Inputting rests](#) on page 158
- [Selecting note/rest durations](#) on page 151
- [Beams according to time signatures](#) on page 422
- [Creating custom beat groupings for meters](#) on page 434
- [Turning explicit rests into implicit rests](#) on page 601

## 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 step input, and switch between voices as often as you want.

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, start note input on the staff on which you want to input multiple voices, at the rhythmic position where you want the multiple voices to start.
2. Press **Shift-V** to create a new voice.  
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



Caret when adding the second up-stem voice

3. Optional: Repeat step 2 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 on the staff.
4. Input the notes you want.
5. Optional: Press **V** to cycle between all the active voices on the staff.
6. Press **Esc** or **Return** to stop note input.

---

### RESULT

Notes are input into new voices, as indicated by the caret symbol. 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.

The quarter note symbol beside the caret changes to indicate which voice is currently selected. Any notes input are input into the voice indicated by this symbol.

You can switch between voices as often as you like.

### NOTE

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.

---

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 139

[Inputting notes](#) on page 143

[Adding notes above/below existing notes](#) on page 165

[Voices](#) on page 707

## 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, start note input.
2. Position the caret on the staff on which you want to input slash voices, at the rhythmic position where you want the slash voices to start.
3. Press **Shift-Alt-V** to create a new 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



Caret when adding the second up-stem slash voice

4. Optional: Repeat step 3 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, but you can also create a second new slash voice immediately if you want to input notes into a down-stem slash voice.
5. 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.

6. Optional: Press **V** to cycle between all the active voices on the staff.
  7. Press **Esc** or **Return** to stop note input.
- 

#### RESULT

Notes are input into new slash voices, as indicated by the caret symbol. 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.
  - 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.
- 

#### 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, second up-stem slash voice

---

#### RELATED LINKS

[Slash voices](#) on page 711

[Rhythm slashes](#) on page 591

[Inputting slash regions](#) on page 253

## Inputting accidentals

You can input notes with accidentals, both during step input and by adding them to existing notes.

#### NOTE

Accidentals that are part of the key signature are input automatically. For example, if you press **F** in G major, an  $F\sharp$  is input automatically. You would only need to specify an accidental if you want to input an  $F\flat$ , 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.

---

---

#### PROCEDURE

1. In Write mode, do one of the following:
  - Start note input.
  - Select the existing notes to which you want to add accidentals.
2. Select the accidental you want to input in one of the following ways:
  - Press - for flat.
  - Press = for sharp.
  - Press 0 for natural.
  - Click the accidental you want in the Notes panel.

#### TIP

You can find uncommon accidentals, such as double sharps and 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 step input, enter the note you want with your selected accidental.

#### NOTE

- Depending on the accidental duration system in place, subsequent accidentals for the same note in the same register might 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 accidentals.

---

#### RESULT

The accidental is added to the selected existing notes.

During step input, the selected accidental is only input on the next note you input. You must reselect the accidental for each subsequent note.

#### RELATED LINKS

[Accidentals](#) on page 390

[Inputting notes](#) on page 143

## Respelling accidentals

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 just for part layouts.

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 Write mode, open the layout in which you want to respell accidentals.

If you respell accidentals in a full score layout, this also affects their spelling in part layouts. If you respell accidentals in part layouts, this only affects their spelling in that part layout.

2. Select the notes you want to respell.
3. Respell the selected notes upwards/downwards in any of the following ways:
  - Press **Alt=** to respell upwards.
  - Press **Alt-** to respell downwards.

---

#### 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

---

#### RELATED LINKS

[Accidentals](#) on page 390

## Changing accidentals

You can change the accidentals of notes after they have been input.

---

#### PROCEDURE

1. In Write mode, select the notes whose accidentals you want to change.
  2. Change the accidentals in one of the following ways:
    - Press **0** to change the accidentals to a natural.
    - Press **-** to change the accidentals to a flat.
    - Press **=** to change the accidentals to a sharp.
    - Click the type of accidental that you want in the Notes panel.
- 

#### RESULT

All selected notes are changed to have the accidental you selected, even if notes in your selection originally had different accidentals.

#### RELATED LINKS

[Changing the pitch of individual notes](#) on page 167

## 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 G $\flat$ , the G# is respelled as an A $\flat$ .

#### RELATED LINKS

[Respelling accidentals](#) on page 156

## Inputting rests

Dorico Elements automatically shows rests as appropriate in the gaps between the notes you input. However, you can also input rests manually.

---

#### PROCEDURE

1. Press , (comma) to start rest input.
2. Select the duration you want.
3. Optional: Press **O** to activate **Force Duration**.
4. Input rests in any of the following ways:
  - Press **Y** or any of the letters from **A** to **G**.
  - Play notes on a MIDI keyboard.
5. Optional: Press , (comma) again to stop rest 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 599

[Implicit vs. explicit rests](#) on page 600

[Selecting note/rest durations](#) on page 151

[Forcing the duration of notes/rests](#) on page 152

## Inputting bar rests during step input

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 during step input.

For music in a single voice, you do not have to input bar rests. Bar rests appear in each new bar automatically when you advance the caret, but 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. Press **Shift-B** to open the bars and barlines popover.
  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.
- 

#### RESULT

Bar rests are input 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 step input.

---

#### RELATED LINKS

- [Bars](#) on page 401
- [Rests](#) on page 599
- [Bars and barlines popover](#) on page 194
- [Inputting notes into multiple voices](#) on page 153
- [Caret](#) on page 139
- [Hiding/Showing bar rests in empty bars](#) on page 603

## Inputting ties

Dorico Elements automatically creates ties as required for note durations in each meter. However, you can input ties manually to join two notes of the same pitch, both during step input and by joining two existing notes with a tie.

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.

#### NOTE

These steps do not apply to inputting ties between non-adjacent notes or notes in different voices, for example, between two notes of the same pitch on different staves, or between a grace note and a normal 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.
2. Press **T** to input ties.
3. Optional: During step 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. If the second note is a different pitch to the first note, no tie is input.

---

#### RESULT

During step input, the two notes input are joined by a tie.

When inputting ties between existing notes, the selected note is joined by a tie to the next note of the same pitch on the same staff.

#### NOTE

Depending on the current time signature, inputting a tie between two notes can instead create a single note of a different duration, such as a minim 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.

---

#### RELATED LINKS

[Ties](#) on page 653

[Ties vs. slurs](#) on page 655

[Inputting ties between non-adjacent notes](#) on page 657

## 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. You can only input grace notes during note input.

---

#### PROCEDURE

1. In Write mode, start note input.
2. Position the caret at the rhythmic position where you want to input grace notes.
3. Press / to start grace note input.
4. Press the number for the rhythmic duration you want. For example, press 5 for eighth grace notes.
5. Optional: Press **Alt-/** to switch between inputting slashed/unslashed grace notes.



The **Grace Notes** toolbox button when inputting unslashed grace notes.

6. Input the grace notes you want.
  7. Press / 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.

If you are inputting grace notes after previously inputting normal notes, the rhythmic duration of the grace notes is the same as the last input normal note. You can change the rhythmic duration in the same way as for normal notes.

There is no limit to the number of grace notes that can exist at the same rhythmic position.

#### TIP

You can also change the type of grace notes after they have been input.

---



RELATED LINKS

- [Grace notes](#) on page 479
- [Inputting notes](#) on page 143
- [Inputting accidentals](#) on page 155
- [Inputting articulations](#) on page 175
- [Changing the type of grace notes](#) on page 481

## Inputting chords

You can input chords during step input when both note input and **Chords** are activated. You can input notes with a computer keyboard, with the mouse, or by playing notes with a MIDI keyboard.

### NOTE

You cannot input chords in Insert mode.

---

### PROCEDURE

1. Select the staff where you want to input chords and press **Shift-N** or **Return** to start note input.
2. Press the number on your computer keyboard that corresponds to the note value you want to input.  
For example, press **5** for eighth notes (quavers), **6** for quarter notes (crotchets), **7** for half notes (minims), and so on.
3. Press **Q** to start chord input.  
In chord input, a + sign appears at the top of the caret. This allows you to input multiple notes at the caret position.



4. 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** (macOS) or **Ctrl-Alt** (Windows) as well as the letter for the note name.

---

- 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.
  - Play the notes on a MIDI keyboard.
5. Optional: Advance the caret to input chords at other rhythmic positions.  
During chord input, notes are input at the same rhythmic position and above the previous note until you advance the caret manually.
  6. Press **Q** again to stop chord 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 as split stems by default in Dorico Elements.

---

#### RELATED LINKS

[Register selection during step input](#) on page 144

[Moving the caret manually](#) on page 142

[Altered unisons](#) on page 393

## Inputting tuplets

You can input all types of tuplets using the tuplets popover. Tuplets are input like normal notes, and so can only be input during note input.

You can also input triplets by clicking **Tuplets** in the Notes toolbox. However, you can only input one triplet at a time this way.

---

#### PROCEDURE

1. In Write mode, start note input.
2. Press the number on your computer keyboard that corresponds to the note value on which you want to base your tuplet.  
For example, press **5** for eighth notes (quavers), **6** for quarter notes (crotchets), **7** for half notes (minims), and so on.
3. Press **;** to open the tuplets popover.
4. Enter the tuplet you want into the popover as a ratio. For example, enter 3:2 to input triplets.
5. Press **Return** to close the popover.  
The tuplet is entered.
6. 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.
7. Enter or play in the pitches you want.
8. Optional: press **Space** to advance the caret to continue inputting tuplets of the same ratio at later rhythmic positions.
9. Stop tuplet input in any of the following ways:
  - Press **Shift-;** or move the caret with the arrow keys to return to inputting normal notes.
  - Press **Esc** to stop note input completely.

#### 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.

#### RELATED LINKS

[Tuplets](#) on page 680

[Nested tuplets](#) on page 681

[Inputting notes](#) on page 143

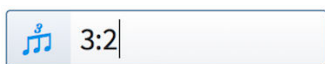
## Tuplets popover

The table contains examples of what you can enter into the tuplets popover to input different types of tuplets. The tuplets popover can only be opened during step input.

You can open the tuplets popover during note input in Write mode 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.
- 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

#### NOTE

Clicking **Tuplets** in the Notes toolbox only inputs a single triplet. It does not open the tuplets popover.

When inputting tuplets with the keyboard, Dorico Elements continues inputting notes as the specified tuplet until any of the following happens:

- You press **Shift-;** 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.	3 or 3:2
Triplet, three notes in the space of four.	3:4
Quintuplet, five notes in the space of four.	5:4
Quintuplet, five notes in the space of two.	5:2
Septuplet, seven notes in the space of four.	7:4
Septuplet, seven notes in the space of two.	7:2

Type of tuplet	Popover entry
Duplet, two notes in the space of three. Often used in compound meters.	2:3
Quintuplet, five notes in the space of six. Often used in compound meters.	5:6
64th note beat unit in tuplet	z or 2
32nd note beat unit in tuplet	y or 3
16th note beat unit in tuplet	x or 4
Eighth note beat unit in tuplet	e or 5
Quarter note beat unit in tuplet	q or 6
Half note beat unit in tuplet	h or 7
Whole note beat unit in tuplet	w or 8
Double whole note beat unit in tuplet	2h or 9
Dotted eighth note beat unit in tuplet	e. or 5.
Dotted quarter note beat unit in tuplet	q. or 6.
Quintuplet, five dotted quarter notes in the space of four.	5:4q. or 5:4-6.

**NOTE**

You must separate the tuplet ratio from the beat unit using a space or hyphen when using a number to specify the beat unit.

---

**NOTE**

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.

---

This list is not comprehensive. It is intended to illustrate how you can structure your entry to input different tuplets.

RELATED LINKS

- [Inputting tuplets](#) on page 162
- [Tuplets](#) on page 680
- [Turning existing notes into tuplets](#) on page 682
- [Selecting note/rest durations](#) on page 151

## 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. Select the notes to which you want to add notes.
2. Press **Shift-I** to open the add intervals popover.
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 you entered into the add intervals popover.

### RELATED LINKS

[Changing the pitch of individual notes](#) on page 167

## Add intervals popover

The add intervals popover allows you to add notes above and below existing notes, and also transpose existing notes. It makes much of the functionality provided by the **Add Notes Above or Below** and **Transpose** dialogs accessible directly via the keyboard.

You can open the add intervals popover in Write mode in any of the following ways when notes are selected, including during note input:

- Press **Shift-I**.
- Choose **Write > Add Intervals Popover**.

The table contains examples of what you can enter into the add intervals popover to transpose notes or add notes to existing notes.

---

Example action	Popover entry
Transpose notes upwards by a third.	t3
Transpose notes downwards by a sixth.	t-6
Add notes a third above.	3 or 3rd
Add notes a fourth below.	-4 or -4th
Add multiple notes	3,6 or -3,3,4

### NOTE

Separate notes with commas, not with spaces.

---

---

**Example action**

**Popover entry**

Add notes above and/or below all notes in selected chords.

3 all or -M2,m3 to all

**NOTE**

Separate notes with commas, not with spaces.

---

Add notes only to the top notes in chords.

-3 top or dim5 top

Add notes only to the bottom notes in chords.

aug4 bottom or -2 bottom

Specify perfect interval.

p, per, or perf

Specify major interval.

M, maj, or major

Specify minor interval.

m, min, or minor

Specify diminished interval.

d, dim, or diminished

Specify augmented interval.

a, aug, or augmented

Specify diatonic interval.

diat or diatonic

Transpose notes by microtonal intervals.

t 3 8 qt

**NOTE**

The first number is the interval degree.

The second number is the number of quarter tones.

---

If you do not otherwise specify it, the interval is calculated by adding or transposing notes by the number of staff positions specified. For example, in C major, if the selected note is a D $\sharp$  and you specify 3 to add a third above, the added note is an F $\sharp$ . You can specify the quality of the interval by including it before the interval.

If the selected material already includes chords, notes are added above the top note in the chord, and added below the bottom note in the chord. You can add notes to all notes in selected chords by including all or to all at the end of your entry.

For microtonal transpositions, the first number is the interval degree, and the second number is the number of quarter tones. For example, if you have a C natural and you enter T 3 8 qt, it changes to an E natural.

RELATED LINKS

[Transposing existing notes with the add intervals popover](#) on page 167

## Changing the pitch of individual notes

You can change the pitch and register of individual notes, including grace notes, after they have been input by octave divisions, by staff position, and by 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-Up Arrow**.
    - To move notes down one staff position, such as from D to C, press **Alt-Down Arrow**.
    - To transpose notes up a single octave division, such as a quarter tone in 24-EDO, press **Shift-Alt-Up Arrow**.
    - To transpose notes down a single octave division, such as a quarter tone in 24-EDO, press **Shift-Alt-Down Arrow**.
    - To transpose notes up an octave, press **Ctrl/Cmd-Alt-Up Arrow**.
    - To transpose notes down an octave, press **Ctrl/Cmd-Alt-Down Arrow**.
- 

### RESULT

The pitch or register of the selected notes is changed.

### NOTE

You can press **Alt-Up Arrow** and **Alt-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 491](#)
- [Adding notes above/below existing notes on page 165](#)
- [Add intervals popover on page 165](#)
- [Changing accidentals on page 157](#)
- [Respelling accidentals on page 156](#)

## Transposing existing notes with the add intervals popover

You can change the pitch of notes after they have been input using the add intervals popover.

---

### PROCEDURE

1. Select the notes you want to transpose.
  2. Press **Shift-I** to open the add intervals popover.
  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.

### RELATED LINKS

- [Add intervals popover on page 165](#)

## 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. Select the first note you want to repitch.
2. Press **Shift-N** or **Return** to start note input.
3. Press **L** to activate **Lock to Duration**.
4. Enter the pitches you want.
5. Optional: Press **L** 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.

### RELATED LINKS

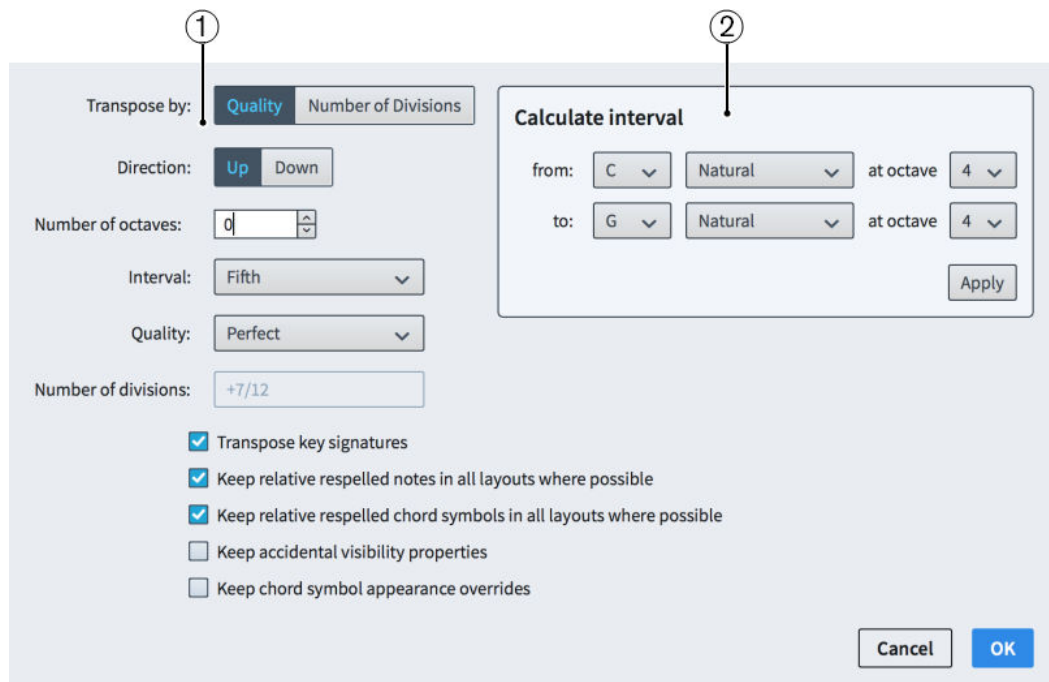
[Caret](#) on page 139

## Transpose dialog

The **Transpose** dialog allows you to transpose selections of notes simultaneously, 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 making a selection in the music area and choosing **Write > Transpose**.





**Transpose** dialog

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.

Additional options also allow you to transpose any key signatures included in your selection and keep relative respelled notes and chord symbols where possible.

### 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 natural becoming a G# 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

[Add intervals popover](#) on page 165

## Transposing selections

You can transpose whole selections together, including key signatures within selections, using the **Transpose** dialog.

---

### PROCEDURE

1. In Write mode, make a selection in the music area.
  2. Choose **Write > Transpose** to open the **Transpose** dialog.
  3. In the **Transpose** dialog, adjust the parameters required for your transposition, such as interval and quality.
  4. Click **OK** to save your changes and close the dialog.
- 

### RESULT

All notes in your selection 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.

## 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. However, you must connect the device to your computer before starting Dorico Elements.

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 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.

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 173

## 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 and enabled the MIDI device you want to use.

### NOTE

You must have connected the device to your computer before starting Dorico Elements. If not, you must restart Dorico Elements.

- 
- You have set the quantization options in the **MIDI Quantize Options** dialog as appropriate for the music you intend to record.
  - You have set the options in the **Recording** section of the **Play** page in **Preferences** as appropriate 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, press **Q** to activate **Chords**.
3. Optional: If you want to record into a specific voice on the staff, press **Shift-N** to start note input and 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.  
In Write mode, no music appears on the staff until you stop recording. In Play mode, notes appear in the piano roll in real time.
6. Press **Space** 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 the first available voice on the staff, which is usually the first up-stem voice. 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 settings, 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.

#### RELATED LINKS

[Disabling MIDI input devices](#) on page 175

[Changing the input pitch setting](#) on page 142

[Changing the sustain pedal controller settings for MIDI recording/import](#) on page 174

[Repeats in MIDI recording](#) on page 172

[Input methods for bars and barlines](#) on page 193

[Input methods for time signatures](#) on page 183

[Inputting notes into multiple voices](#) on page 153

[MIDI Quantize Options dialog](#) on page 68

## 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.

### PREREQUISITE

You have started playback, played notes on a MIDI device alongside playback, then stopped playback.

---

### PROCEDURE

1. 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. Press **Ctrl/Cmd-Alt-R**.

---

### 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 337

## 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 settings, 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 **MIDI Quantize Options** dialog.
  3. Change the quantization settings as appropriate for your selection.
  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 you set. This does not affect their played duration in playback.

#### RELATED LINKS

[MIDI Quantize Options dialog](#) on page 68

## 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.

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 your quantization settings in the **MIDI Quantize 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

[MIDI Quantize Options dialog](#) on page 68

[Changing the sustain pedal controller settings for MIDI recording/import](#) on page 174

## 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-**, (comma) to open **Preferences**.
  2. Click **Play** in the page list.
  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. In the **Device Setup** dialog, 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 macOS systems, select a sample rate from the **Buffer Size** menu.
    - 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.
  5. Click **Close** (macOS)/**OK** (Windows only) 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 MIDI files.

### NOTE

These options are also available in the **MIDI Import Options** dialog, and your settings are linked between this dialog and **Preferences**.

---

### PROCEDURE

1. Press **Ctrl/Cmd-**, (comma) to open **Preferences**.
  2. Click **Play** in the page list.
  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.

#### RELATED LINKS

[MIDI Import Options dialog](#) on page 67

## 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 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-**, (comma) to open **Preferences**.
  2. Click **Play** in the page list.
  3. In the **Recording** subsection, click **MIDI Input Devices**.
  4. In the **MIDI Input Devices** dialog, deactivate the checkbox for each MIDI input device you want to disable.
  5. Click **OK** to save your changes and close the dialog.
  6. Click **Apply**, then **Close**.
- 

## Notations input

You can input many types of notations, both during step input and by adding them to existing notes. In Dorico Elements, “notation” is a broad term that includes many different items, including articulations, slurs, dynamics, and more.

## Inputting articulations

You can input notes with articulations during step input, and you can add articulations to notes after they have been input.

---

#### 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. Select the articulations you want to input in any of the following ways:
    - Press the key commands for the articulations you want.
    - Click the articulations you want in the Notes panel.
  3. Optional: Enter the notes or chords you want with your selected articulations.
- 

#### RESULT

The selected articulations are added to the selected notes.

During step 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.

---

#### RELATED LINKS

[Articulations](#) on page 396

[Note input](#) on page 139

## 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) Shift-' (macOS)
Staccato: ·	]
Tenuto: -	# (Windows) \ (macOS)
Staccatissimo: ', ' or '	}
Combined tenuto and staccato: ¨	~ (Windows)   (macOS)

---

#### RELATED LINKS

[Articulations](#) on page 396

## Inputting fingerings

You can input fingerings on existing notes using the fingerings popover, both during step 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.



- 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 the existing notes 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. Press **Shift-F** to open the fingerings popover.
  3. 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.
  4. Optional: When adding fingerings to existing notes, advance the popover in one of the following ways:
    - To advance the popover to the next note/chord in the current voice, press **Space**.
    - To advance the popover to the first note/chord in the current voice in the next bar, press **Tab**.
    - To navigate the popover back to the first note/chord in the current voice in the previous bar, press **Shift-Tab**.
  5. Press **Return** to close the popover.
- 

#### RESULT

The fingerings are input on the selected notes, including during step input.

#### RELATED LINKS

[Fingering](#) on page 470

[Changing the rhythmic position of substitution fingerings](#) on page 471

[Fingerings for valved brass instruments](#) on page 474

[Deleting fingerings](#) on page 473

## Fingerings popover

The table contains examples of what you can enter into the fingerings popover to input the different types of fingerings available.

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**.
- Choose **Write > Create Fingerings**.
- Click **Fingerings** in the Notations toolbox.



Type of fingering	Example popover entry
Single fingerings for individual notes, including for brass valve numbers and trombone slide positions	1, 2, 3, and so on
Valved brass instruments	12
Single fingerings for each note in chords	1,3,5
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	L2, G2, S5, I2, or H2
Right hand fingerings	R5, D5, or M5
Multiple fingerings for individual notes, for example, for ornaments such as mordents or turns	2343
Single fingerings for multiple notes: enter the same fingering number for two adjacent notes.	1,1
For example, in keyboard music the thumb may depress two keys simultaneously.	
Alternative fingerings	2(3)
Editorial fingerings	[4]
Finger substitutions	1-3
Thumb indicator for string instruments	T

---

This list is 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

[Fingering](#) on page 470

[Changing the rhythmic position of substitution fingerings](#) on page 471

[Fingerings for valved brass instruments](#) on page 474

## 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 489

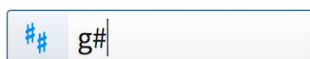
### Key signatures popover

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**.
- 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	open or atonal
Major keys (capital letters)	C, D or G#, Ab, and so on
Minor keys (lowercase letters)	g, d, f#, bb, and so on
Number of sharps	3s, 2#, and so on
<b>NOTE</b>	
Assumes the major key for that many sharps.	
Number of flats	4f, 5b, 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

[Key signatures](#) on page 489

## Key Signatures, Tonality Systems, and Accidentals panel

The Key Signatures, Tonality Systems, and Accidentals panel allows you to create and input common key signatures.

- You can hide/show the Key Signatures, Tonality Systems, and Accidentals panel by clicking **Key Signatures, Tonality Systems, and Accidentals** in the Notations toolbox on the right of the window in Write mode.



You can also hide/show the panel whose icon is currently selected in the Notations toolbox by pressing **Ctrl/Cmd-9** or clicking the disclosure arrow on the right of the window.

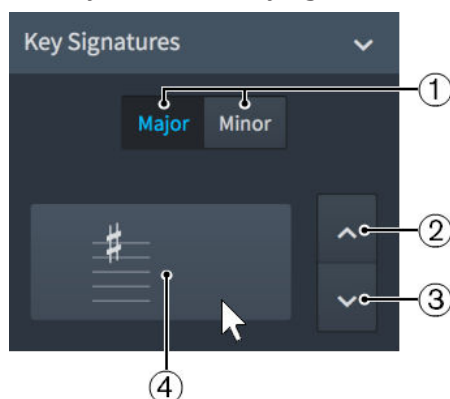
The Key Signatures, Tonality Systems, and Accidentals panel contains the following sections:

### 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 of the Key Signatures, Tonality Systems, and Accidentals panel.

The **Key Signatures** section contains the following parts:

- Major/Minor**  
Allow you to choose whether your key signature is **Major** or **Minor**.
- Up button: 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.
- Down button: 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.
- Input key signature**  
Shows how the key signature looks on a staff. Clicking this button inputs the key signature it displays. If nothing in the project is selected, the key signature is loaded onto the mouse pointer.

### Custom Key Signatures

Contains any custom key signatures you have created for the currently selected tonality system.

### Accidentals

Contains all accidentals available in the currently selected tonality system.

RELATED LINKS

[Key signatures](#) on page 489

[Custom tonality systems](#) on page 492

## Inputting key signatures with the popover

You can input key signatures using the key signatures popover, both during step input and by adding them to existing music. You can also input key signatures only on single staves.

---

PROCEDURE

1. In Write mode, do one of the following:
  - Start note input.
  - Select an existing barline immediately to the left of where you want to input a key signature.
  - Select an existing notehead or rest immediately to the right of where you want to input a key signature.
2. Press **Shift-K** to open the key signatures popover.
3. Enter the key signature you want into the popover.  
For example, enter g for G minor or 3s for 3 sharps.

**NOTE**

Entering 3s creates a key signature of A major, rather than F# minor.

4. 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 on the selected staff only, press **Alt-Return**.

---

RESULT

During step 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.

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.

When adding key signatures to existing music, they are added immediately to the right of a barline, or immediately to the left of a selected note, 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.

**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 179

[Accidental selection during MIDI input](#) on page 157

[Key signatures](#) on page 489

[Moving key signatures rhythmically](#) on page 493

[Transposing instruments](#) on page 101

[Making layouts transposing/concert pitch](#) on page 120

## Inputting key signatures with the panel


You can input key signatures using the Key Signatures, Tonality Systems, and Accidentals panel, both during step 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**.

---

### PROCEDURE

1. In Write mode, do one of the following:
    - Start note input.
    - Select an existing barline immediately to the left of where you want to input a key signature.
    - Select an existing notehead or rest immediately to the right of where you want to input a key signature.
  2. In the Notations toolbox, click **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**-click it in the Key Signatures, Tonality Systems, and Accidentals panel.
- 

### RESULT

During step 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.

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.

When adding key signatures to existing music, they are added immediately to the right of a barline, or immediately to the left of a selected note, 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.

### 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](#) on page 489

[Key Signatures, Tonality Systems, and Accidentals panel](#) on page 180

[Accidental selection during MIDI input](#) on page 157

[Moving key signatures rhythmically](#) on page 493

[Mouse input settings](#) on page 137

[Transposing instruments](#) on page 101

[Making layouts transposing/concert pitch](#) on page 120

## Input methods for time signatures

You can input time signatures 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.

### RELATED LINKS

[Preferences dialog](#) on page 48

[Time signatures](#) on page 663

[Types of time signatures](#) on page 665

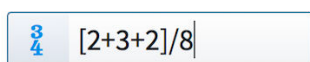
## Time signatures popover

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**.
- 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

---

### Type of time signature

Simple time signatures

For example, 2/4, 6/8, 3/4, 5/4 and so on

Time signatures with a pick-up

For example, a 4/4 bar with a dotted quarter note pick-up, or a 6/8 bar with a pick-up of two eighth notes (quavers).

### Popover entry

2/4, 6/8, 3/4, 5/4, and so on

4/4,1.5, 6/8,2, and so on

Type of time signature	Popover entry
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	c
Cut common time, the equivalent of 2/2	cutc or ¢
Open meter indicated by X	X or x
Open meter with no indication	open
<b>NOTE</b>	
A time signature signpost is shown at the position of the open meter.	
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: a dashed barline is shown in the bar to show the division between the different meters	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
<b>NOTE</b>	
You must include spaces either side of the slashes, equals signs, or dashes, and before opening parentheses.	

---

This list is not comprehensive, as there are many possible time signatures. It is intended to illustrate how you can structure your entry to input different time signatures.

#### RELATED LINKS

[Time signatures](#) on page 663



## 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.

- You can hide/show the Time Signatures (Meter) panel by clicking **Time Signatures (Meter)** in the Notations toolbox on the right of the window in Write mode.



You can also hide/show the panel whose icon is currently selected in the Notations toolbox by pressing **Ctrl/Cmd-9** or clicking the disclosure arrow on the right of the window.

The Time Signatures (Meter) panel contains the following sections:

### Used in This Flow

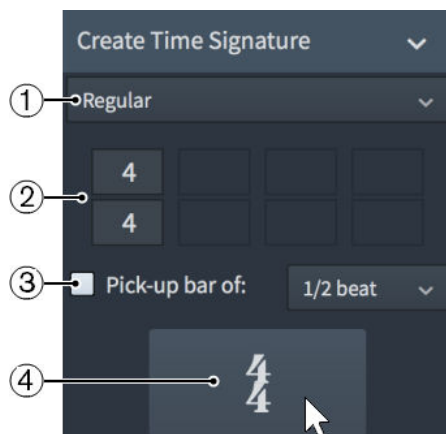
Contains any time signatures already used in the current flow.

### 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 of the Time Signatures (Meter) panel

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**
- 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**

#### 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

[Time signatures](#) on page 663

## Inputting time signatures with the popover

You can input time signatures, including time signatures with pick-up bars, using the time signatures popover, both during step input and by adding them to existing music. You can also input time signatures only on single staves.

#### NOTE

In order to input an upbeat or pick-up bar, you must input a new time signature that includes the upbeat you want. For example, entering  $4/4,1$  into the time signatures popover creates 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. For example,  $4/4,0.75$  creates a dotted eighth note (dotted quaver) upbeat, whereas  $6/8,2$  creates an upbeat of two eighth notes.

---

#### PROCEDURE

1. In Write mode, do one of the following:
  - Start note input.
  - Select a barline immediately to the left of where you want to input a new time signature.
  - Select a notehead or rest immediately to the right of where you want to input a new time signature.
2. Press **Shift-M** to open the time signatures popover.
3. Enter the time signature you want into the popover.  
For example, enter  $[2+2+3]/8$  for a  $7/8$  time signature with a custom beat grouping, or  $4/4,1$  for a  $4/4$  time signature with one quarter note upbeat.
4. 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 on the selected staff only, press **Alt-Return**.

---

#### RESULT

During step 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 immediately to the right of a selected barline, or immediately to the left of a selected note, even if this is in the middle of an existing bar.

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.

#### RELATED LINKS

[Time signatures popover](#) on page 183

[Time signatures](#) on page 663

## Inputting time signatures with the panel

You can input time signatures, including time signatures with pick-up bars, using the Time Signatures (Meter) panel, both during step 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**.


---

#### PREREQUISITE

If necessary, you have created the time signature you want in the **Create Time Signature** section of the Time Signatures (Meter) panel.

---

#### PROCEDURE

1. In Write mode, do one of the following:
  - Start note input.
  - Select a barline immediately to the left of where you want to input a new time signature.
  - Select a notehead or rest immediately to the right of where you want to input a new time signature.
2. In the Notations toolbox, click **Time Signatures (Meter)** to show the Time Signatures (Meter) panel.  

3. Optional: For pick-up bars, activate **Pick-up bar of** in the **Create Time Signature** section of the Time Signatures (Meter) panel and select one of the following options:
  - **1/2 beat**
  - **1 beat**
  - **2 beats**

#### NOTE

Not all pick-up bar lengths are possible using this method. For example, a single eighth note upbeat in 6/8 cannot be produced by any of these three options. In such cases, you must use the time signatures popover.

---

4. 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-click** it in the Time Signatures (Meter) panel.
-

#### RESULT

During step 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 immediately to the right of a selected barline, or immediately to the left of a selected note, even if this is in the middle of an existing bar.

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.

#### RELATED LINKS

[Time signatures](#) on page 663

[Inputting notes](#) on page 143

[Time Signatures \(Meter\) panel](#) on page 185

[Mouse input settings](#) on page 137

## 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 **Time** track in Play mode. You can input a tempo mark containing just a text instruction, metronome mark, or a combination of the two.

Additionally, you can input tempo changes in the **Time** track in Play mode.

#### RELATED LINKS

[Tempo marks](#) on page 641

[Time track](#) on page 327

[Inputting tempo changes in the Time track](#) on page 329

## Tempo popover

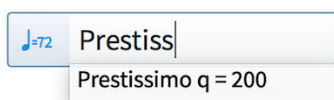
The following tables contain examples of what you can enter into the tempo popover to input tempo marks, tempo equations, and rhythmic feels for swing playback.

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**.
- 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>	Adagio
<i>Presto</i> ♩ = 176	Presto q = 176 or Presto q=176
<i>Largo</i> (♩ = 52)	Largo (q = 52) or Largo (q=52)
♩ = 96-112	q = 96-112, q=96-112, 6 = 96-112, or 6=96-112
♩ = 84	q. = 84, q.=84, 6. = 84, or 6.=84
♩ = 30	w = 30, w=30, 8 = 30, or 8=30
♩ = 60	h = 60, h=60, 7 = 60, or 7=60
♩ = 120	e = 120, e=120, 5 = 120, or 5=120
♩ = 90	e. = 90, e.=90, 5. = 90, or 5.=90
♩ = 240	x=240, x = 240, 4=240 or 4 = 240
<i>rit.</i>	rit. or rit
<i>accel.</i>	accel. or accel
<i>più</i>	più or piu
<i>meno</i>	meno
Faster, with energy	Faster, with energy

## Tempo equations

Tempo equation	Popover entry
♩ = ♩.	e = e., e=e., 5 = 5., or 5=5.
♩ = ♩	q = e, q=e, 6 = 5, or 6=5

This list is not comprehensive as you can enter tempos freely and there are many possible metronome marks, tempo marks, and tempo equations. 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.

## Rhythmic feels for swing playback

Rhythmic feel	Popover entry
Light swing rhythmic feel	light swing
Medium swing rhythmic feel	medium swing
Heavy swing rhythmic feel	heavy swing
Straight rhythmic feel	straight
Triplet 8th fixed rhythmic feel	2:1 swing (fixed)
Dotted 8th-16th fixed rhythmic feel	3:1 swing (fixed)

### RELATED LINKS

[Tempo marks](#) on page 641

[Types of tempo marks](#) on page 642

[Swing playback](#) on page 343

[Enabling swing playback for specific sections/players](#) on page 344

## Tempo panel

The Tempo panel contains all the different types of tempo marks available in Dorico Elements, organized into sections. It is located on the right of the window in Write mode.

- You can hide/show the Tempo panel by clicking **Tempo** in the Notations toolbox on the right of the window in Write mode.



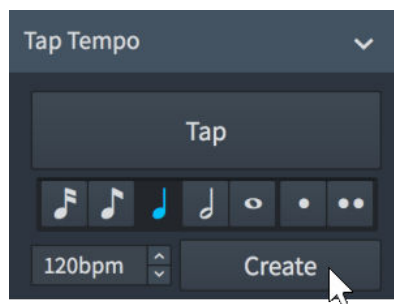
You can also hide/show the panel whose icon is currently selected in the Notations toolbox by pressing **Ctrl/Cmd-9** or clicking the disclosure arrow on the right of the window.

### 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. You can use the available options to set the beat unit on which you want the tempo to be based.



### 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 sliding bar 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.

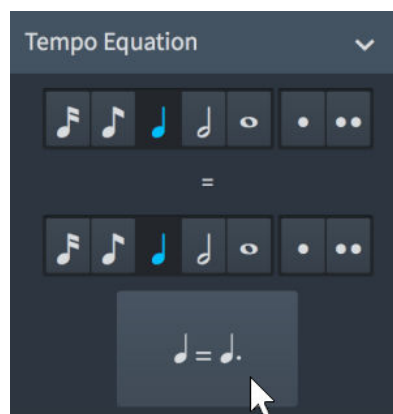
You can later set a relative metronome mark change as a percentage of the previous metronome mark for individual tempo marks.

### 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

[Tempo marks](#) on page 641

[Types of tempo marks](#) on page 642

## Inputting tempo marks with the popover

You can input tempo marks using the tempo popover, both during step input and by adding them to existing music.

---

PROCEDURE

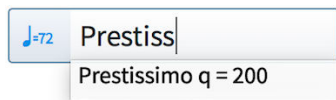
1. In Write mode, do one of the following:
  - Start note input.
  - Select a barline, notehead, or rest at the rhythmic position where you want to add a tempo mark.
  - Select multiple items that span the duration across which you want to add a gradual tempo change.

2. Press **Shift-T** to open the tempo popover.

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.



4. Press **Return** to close the popover.
- 

RESULT

During step 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 selected barline, notehead, or rest. Gradual tempo changes span the duration of the selected items.

AFTER COMPLETING THIS TASK

You can lengthen/shorten gradual tempo changes.

RELATED LINKS

[Tempo marks](#) on page 641

[Lengthening/Shortening gradual tempo changes](#) on page 645

## Inputting tempo marks with the panel

You can input tempo marks using the Tempo panel, both during step 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 a barline, notehead, or rest at the rhythmic position where you want to add a tempo mark.
  - Select multiple items that span the duration across which you want to add a gradual tempo change.
2. In the Notations toolbox, click **Tempo** to show the Tempo panel.
3. In the Tempo panel, click the tempo mark you want.
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 step input, tempo marks are input at the caret position. Gradual tempo changes, such as *rallentando*, are also input at the caret position but do not extend as you input notes, and are input with a default duration of a quarter note.

When adding tempo marks to existing music, they are added at the rhythmic position of the selected barline, notehead, or rest. Gradual tempo changes span the duration of the selected items.

#### AFTER COMPLETING THIS TASK

You can lengthen/shorten gradual tempo changes.

#### RELATED LINKS

[Tempo marks](#) on page 641

[Lengthening/Shortening gradual tempo changes](#) on page 645

[Mouse input settings](#) on page 137

## Input methods for bars 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. Additionally, you can input bars using the system track, which allows you to input other rhythmic durations, that is, a specified beat region.

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 401

[Barlines](#) on page 406

[System track](#) on page 261

[Inputting bar rests during step input](#) on page 158

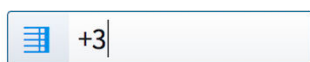
## Bars and barlines popover

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.

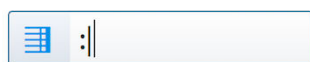
You can open the bars and barlines popover in Write mode in any of the following ways when either an item is selected or the caret is active:

- Press **Shift-B**.
- 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	2 or +2
Add fourteen bars	14 or +14
Delete one bar	-1
Delete six bars	-6
Add a bar rest	rest
Deleting empty bars at the end of the flow	trim

---

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.

### Beats

---

Example action	Popover entry
Add two quarter note beats	2q, 2-6, 2 6, or 2/4
Add two half note beats	2h, 2-7, 2 7, 2/2, or 4/4
Add one whole note beat	1w, 1-8, 1 8, or 4/4
Add four eighth note beats	4e, 4-5, 4 5, 4/8, or 2/4

Example action	Popover entry
Add two 16th note beats	2x, 2-4, 2 4, 2/16, or 1/8
Delete two quarter note beats	-2q, -2-6, -2 6, or -2/4

---

These lists are not comprehensive, as you can add and delete any number of bars and beats using the popover, including specifying beat units using the numbers one to nine as you would to specify durations when inputting notes. These tables are intended to illustrate how you can structure your entry to input and delete bars and beats, and input bar rests.

## Barlines

Type of barline	Popover entry
Normal (Single)	, single, or normal
Double	or double
Final	] or final
Triple	triple
Start repeat	: or start
End repeat	:  or end
End/Start repeat	: :, :   :, end-start, or endstart

---

### RELATED LINKS

[Inputting bar rests during step input](#) on page 158

[Bars](#) on page 401

[Barlines](#) on page 406

[Deleting bars/beats](#) on page 401

## Bars and Barlines panel

The Bars and Barlines panel allows you to input bars, bar rests, and different types of barlines. It is located on the right of the window in Write mode.

- You can hide/show the Bars and Barlines panel by clicking **Bars and Barlines** in the Notations toolbox on the right of the window in Write mode.



You can also hide/show the panel whose icon is currently selected in the Notations toolbox by pressing **Ctrl/Cmd-9** or clicking the disclosure arrow on the right of the window.

The 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

[Hiding/Showing panels](#) on page 16

## Inputting bars/beats with the popover

You can input bars/beats using the bars and barlines popover, both during step input and by adding them to or inserting them into existing music.

---

#### PROCEDURE

1. In Write mode, do one of the following:
  - Start note input.
  - Select an existing barline after which you want to add bars/beats.
  - Select an existing item before which you want to add bars/beats.
2. Press **Shift-B** to open the bars and barlines popover.
3. 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.
4. Press **Return** to close the popover.

---

#### RESULT

The number of bars or beats specified is input.

During step 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 a selected barline and before a selected item, including time signatures.

#### TIP

Another way to add bars is by choosing a note value, such as a whole note when in a 4/4 time signature, and pressing **Space** repeatedly during step input.

---

#### RELATED LINKS

[Bars and barlines popover](#) on page 194

[Bars](#) on page 401

## Inputting bars with the panel

You can input bars using the Bars and Barlines panel, both during step input and by adding them to existing music.

---

#### 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 **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 step 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 value, such as a whole note when in a 4/4 time signature, and pressing **Space** repeatedly during step input.

---

#### RELATED LINKS

[Bars](#) on page 401

## Inputting bars/beats with the system track

You can add bars/beats within existing music, for example, if you decide you want to repeat several bars before the next section. You can add whole bars and you can add 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 261

## Inputting barlines with the popover

You can input barlines using the bars and barlines popover, both during step 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 key signature on those staves.

---

#### PROCEDURE

1. In Write mode, do one of the following:
  - Start note input.
  - Select an existing note or rest immediately to the right of where you want to input a barline.
2. Press **Shift-B** to open the bars and barlines popover.
3. Enter the barline you want into the popover.  
For example, enter `||` for a double barline.
4. 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 on the selected staff only, press **Alt-Return**.

#### NOTE

You can only input barlines onto single staves that already have an independent time signature.

- 
5. Press **Return** to close the popover.
- 

#### RESULT

During step input, barlines are input at the caret position.

When you add barlines to existing music, they are added immediately to the left of a selected note or rest.

When you change existing barlines, the new barline directly replaces the selected barline.

Surrounding music automatically adjusts to accommodate the barline. For example, note grouping, rests, and tied notes all adjust if necessary.

#### RELATED LINKS

[Bars and barlines popover](#) on page 194

[Barlines](#) on page 406

[Inputting notes](#) on page 143

[Inputting time signatures with the popover](#) on page 186

## Inputting barlines with the panel

You can input barlines using the Bars and Barlines panel, both during step 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 key signature on those staves.

---

### PROCEDURE

1. In Write mode, do one of the following:
  - Start note input.
  - Select an existing note or rest immediately to the right of where you want to input a barline.
2. In the Notations toolbox, click **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 Bars and Barlines panel.
  - To input a barline on the selected staff only, **Alt**-click it in the Bars and Barlines panel.

### NOTE

You can only input barlines onto single staves that already have an independent time signature.

---

### RESULT

During step input, barlines are input at the caret position.

When you add barlines to existing music, they are added immediately to the left of a selected note or rest.

When you change existing barlines, the new barline directly replaces the selected barline.

Surrounding music automatically adjusts to accommodate the barline. For example, note grouping, rests, and tied notes all adjust if necessary.

### RELATED LINKS

[Barlines](#) on page 406

[Bars and barlines popover](#) on page 194

[Inputting notes](#) on page 143

[Mouse input settings](#) on page 137

## 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.

### RELATED LINKS

[Dynamics](#) on page 454

[Inputting dynamics with the popover](#) on page 202

[Inputting dynamics with the panel](#) on page 204

[Niente hairpins](#) on page 459

[Adding expressive text to existing dynamics](#) on page 461

## 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**.
- 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

---

Dynamic or expression	Popover entry
<i>pianissimo: pp</i>	pp
<i>piano: p</i>	p
<i>mezzo piano: mp</i>	mp
<i>mezzo forte: mf</i>	mf
<i>forte: f</i>	f
<i>fortissimo: ff</i>	ff
<i>subito</i>	subito, sub, or sub.
<i>possibile</i>	possibile, poss, or poss.
<i>poco</i>	poco
<i>molto</i>	molto



Dynamic or expression	Popover entry
<i>più</i>	piu or più
<i>meno</i>	meno
<i>mosso</i>	mosso
<i>crescendo</i> : <	<
<i>cresc.</i> (text)	cresc
<i>diminuendo</i> : >	>
<i>dim.</i> (text)	dim
<i>crescendo</i> then <i>diminuendo</i> messa di voce: <>	<>
<i>diminuendo</i> then <i>crescendo</i> : ><	><
<i>niente</i> hairpins that start/end with a small circle	o< or >o
<i>niente</i> hairpins that start/end with the letter "n"	n< or >n
<i>sforzando</i> : <i>sfz</i>	sfz
<i>rinforzando</i> : <i>rfz</i>	rfz

---

This list is not comprehensive as you can enter anything as expressive text. It is intended to illustrate how you can structure your entry to input different types of dynamics.

#### TIP

You can input hairpins directly into the score without the popover by pressing **Shift-**, for a crescendo hairpin and **Shift-** for a diminuendo hairpin.

You can change the appearance of gradual dynamics individually by activating **Gradual style** in the **Dynamics** group of the Properties panel, and selecting one of the available options.

---

### Inputting expressive text into the dynamics popover

You can enter expressive text 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 expressive text.

#### RELATED LINKS

[Dynamics](#) on page 454

[Niente hairpins](#) on page 459

[Hiding immediate dynamics](#) on page 461

## Dynamics panel

The Dynamics panel contains all the different dynamics available in Dorico Elements, including gradual dynamics, dynamic modifiers, and expressive text, such as *poco* and *possibile*.

- You can hide/show the Dynamics panel by clicking **Dynamics** in the Notations toolbox on the right of the window in Write mode.



You can also hide/show the panel whose icon is currently selected in the Notations toolbox by pressing **Ctrl/Cmd-9** or clicking the disclosure arrow on the right of the window.

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  $\langle$  and  $\rangle$ , and modifiers, such as *poco* and *niente*. Available modifiers are shown at the top of the section in boxes.

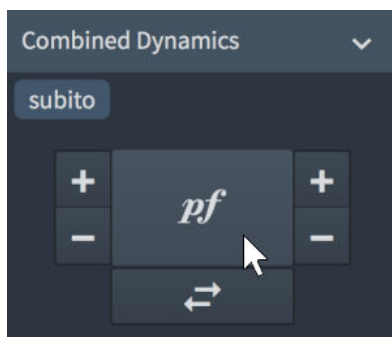
You can only input modifiers alongside a dynamic.

### Force/Intensity of Attack

Contains dynamics such as *sfz* and *fz*.

### Combined Dynamics

Allows you to create your own combinations of dynamics, such as *fff pp*. The controls allow you to increase and decrease the dynamic on each side, and to swap their order.



Combined Dynamics section of the Dynamics panel

## Inputting dynamics with the popover

You can input dynamics and expressive text using the dynamics popover, both during step input and by adding them to existing notes. You can also input different dynamics into each voice independently in multiple-voice contexts.

### TIP

You can also change dynamics during step input by following these steps when the caret is at the rhythmic position of the dynamic you want to change.

---

### PROCEDURE

- In Write mode, do one of the following:

- Start note input.
  - Select existing notes across which you want to add dynamics.
2. Press **Shift-D** to open the dynamics popover.
  3. Enter the dynamic you want into the popover.  
For example, *p*, *p<f>p*, or *f>*.
  4. Input the dynamics and close the popover in one of the following ways:
    - To input the dynamics for all voices on the staff, press **Return**.
    - During note input, input the dynamics only into the voice indicated by the caret indicator by pressing **Alt-Return**.

Open-ended dynamics, such as *p<*, automatically extend during step input as you continue inputting notes, or if you advance the caret by pressing **Space**.

5. Optional: During step input, stop open-ended dynamics by pressing **Shift-/** or by opening the dynamics popover again and inputting another immediate dynamic, such as *f*.

---

#### RESULT

The selected dynamics are input. Voice-specific dynamics are placed below the staff by default, even if they are input into an up-stem voice.

During step 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.

When you add dynamics to existing notes, immediate dynamics are added to the first note in the selection while gradual dynamics are added across the selection.

#### NOTE

- If you entered a dynamic phrase into the popover, such as *p<f>p*, each dynamic and hairpin lasts a quarter note (crotchet) by default. You can lengthen/shorten gradual dynamics and groups of dynamics later.
- Some expressive text, such as *molto*, appears before immediate dynamics rather than after them, even if you do not enter them in that order. This follows the generally accepted practice for expressive text placement.

You can hide immediate dynamics later if you only want to show expressive text.

---

#### AFTER COMPLETING THIS TASK

You can move dynamics within dynamic phrases and change the placement of dynamics relative to the staff.

#### RELATED LINKS

[Dynamics](#) on page 454

[Groups of dynamics](#) on page 466

[Voice-specific dynamics](#) on page 459

[Moving dynamics rhythmically](#) on page 457

[Lengthening/Shortening gradual dynamics and groups of dynamics](#) on page 462

[Hiding immediate dynamics](#) on page 461

[Changing the placement of dynamics relative to the staff](#) on page 455

## Inputting dynamics with the panel

You can input dynamics and expressive text using the Dynamics panel, both during step input and by adding them to existing notes. You can also input different dynamics into each voice independently in multiple-voice contexts.

### NOTE

- You can also change dynamics during step 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.
  - Select existing notes across which you want to add dynamics.
2. In the Notations toolbox, click **Dynamics** to show the Dynamics panel.



3. Input the dynamics you want in one of the following ways:
  - To input dynamics for all voices on the staff, click them in the Dynamics panel.
  - During note input, input the dynamics only into the voice indicated by the caret indicator by **Alt**-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** 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 selected dynamics are input. Voice-specific dynamics are placed below the staff by default, even if they are input into an up-stem voice.

During step input, dynamics are input at the caret position. Voice-specific dynamics are input in the voice indicated by the quarter note symbol beside the caret.

When you add dynamics to existing notes, immediate dynamics are added to the first note in the selection while gradual dynamics are added across the selection.

### NOTE

- Some expressive text, such as *molto*, appears before immediate dynamics rather than after them, even if you do not enter them in that order. This follows the generally accepted practice for expressive text placement.
  - 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

[Dynamics](#) on page 454

[Hiding immediate dynamics](#) on page 461

[Mouse input settings](#) on page 137

## Input methods for chord symbols

You can input chord symbols in Dorico Elements with the computer keyboard and any connected MIDI keyboard.

#### RELATED LINKS

[Chord symbols](#) on page 438

[Inputting chord symbols](#) on page 209

[Navigation during chord symbol input](#) on page 208

## Chord symbols popover

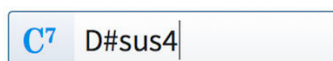
The following tables contain examples of what you can enter into the chord symbols popover to input the different possible chord symbol components. You can enter them in any combination.

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**.
- Select an existing chord symbol and press **Return**.
- Choose **Write > Create Chord Symbol**.
- Click **Chord Symbols** in the Notations toolbox.



The icon on the left-hand side of the popover matches the corresponding button in the Notations toolbox on the right of the window.



Chord symbols popover with an example entry



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<sup>b</sup>Loc.**

### Chord symbol roots

---

Type of chord symbol root	Popover entry
English note names C, D $\flat$ , F $\sharp$ , B, and so on	C, D $\flat$ , F $\sharp$ , B, and so on
German note names C, D $\flat$ , F $\sharp$ , H, and so on	C, Des, Fis, H, and so on
Fixed-do solfège C, D $\flat$ , F, F $\sharp$ , B, and so on	do, reb, so, so $\sharp$ , ti, and so on
Nashville numbers representing scale degrees Assuming C major: C, D $\flat$ , F $\sharp$ , B, and so on	1, 2 $\flat$ , 4 $\sharp$ , 7, and so on

---

### Chord symbol qualities

---

Chord symbol quality	Popover entry
Major	maj, M, ma, or nothing after entering the root.
Minor	m, min, or mi
Diminished	dim, di, or o
Augmented	aug, au, ag, or +
Half-diminished	half-dim, halfdim, or hd
6/9	6/9, 69, or %

---

### Chord symbol intervals

---

Interval	Popover entry
Major 7th	$\wedge 7$ or $\wedge$
Major 9th	$\wedge 9$ , maj9, or 9maj7

---

### Chord symbol alterations

---

Type of chord symbol alteration	Popover entry
Alterations	b5, #9, and so on
Added notes	add#11, addF $\sharp$ , addB $\flat$ , and so on

---

**Type of chord symbol alteration****Popover entry**

Suspensions

sus4, sus9, and so on

Omissions

omit3, no7, and so on

---

**Chord symbols with altered bass notes**

---

**Example altered bass note chord symbols****Popover entry**

G7/D

G7,D or Gmaj7,D

C(♭5)/E♭

CM♭5/E♭ or Cmaj♭5/E♭

Fm/D♯

Fm/D♯ or Fmi/D♯

---

**Polychord chord symbols**

---

**Example polychord chord symbols****Popover entry**

G/E

G;E or Gmaj;E

Cmaj7/D

CM7|D or Cmaj7|D

Fm/D♯

Fm|D♯ Fmi|D♯

---

**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

Mixolydian

mixolydian

Aeolian

aeolian

Locrian

locrian

<b>Modal chord symbol</b>	<b>Popover entry</b>
Melodic minor	melodicminor
Harmonic minor	harmonicminor
Whole tone	wholetone
Octatonic or diminished half-whole	diminishedhalfwhole, diminishedsemitonetone, octatonichalfwhole, or octatonicsemitonetone
Octatonic or diminished whole-half	diminishedwholehalf, diminishedtonesemitone, octatonicwholehalf, or octatonictonesemitone

---

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 depends 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.

---

#### RELATED LINKS

[Chord symbols](#) on page 438

## Navigation during chord symbol input

You can input multiple chord symbols without re-opening the popover each time by manually advancing it to other positions.

### Navigating with a computer keyboard

You can move the chord symbols popover to input chord symbols on other notes without having to close and reopen the popover on each note.

---

<b>Popover navigation</b>	<b>Key command</b>
Advance the popover to the next beat.	<b>Space</b>
Move the popover back to the previous beat.	<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>



---

### Popover navigation

### Key command

Move the popover to one of the following positions, whichever is closest:

**Right Arrow/Left Arrow**

- Next/Previous note
- Next/Previous rest
- Next/Previous rhythmic grid position

Move the popover to the next/previous chord symbol.

**Ctrl/Cmd-Right Arrow/Ctrl/Cmd-Left Arrow**

---

## 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 **NoteInput > Advance Chord Symbol Input** commands.

### RELATED LINKS

[Key Commands page in the Preferences dialog](#) on page 49

[Assigning MIDI commands](#) on page 53

[Assigning key commands](#) on page 52

## Inputting chord symbols

You can add chord symbols to existing music using the chord symbols popover. You can also open the chord symbols popover during note input; however, inputting a chord symbol stops note input.

---

### PROCEDURE

1. In Write mode, select the note or rest where you want to input the first chord symbol.
  2. Press **Shift-Q** to open the chord symbols popover.
  3. 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.
    - Play the chord using a MIDI keyboard.
  4. Optional: Advance the popover to continue inputting chord symbols on following notes.
  5. Press **Return** to close the popover.
- 

### RESULT

The chord symbol specified is input.

### NOTE

The chord symbol may look different to what you entered into the popover because Dorico Elements uses default settings to determine their appearance.

---

### RELATED LINKS

[Chord symbols](#) on page 438

## Inputting polychord chord symbols

Polychord chord symbols indicate that multiple different chords, commonly two, are played simultaneously. You can input polychords when inputting chord symbols with a MIDI keyboard.

---

### PROCEDURE

1. In Write mode, open the chord symbols popover.
2. Play the first chord of the polychord with one hand.  
Keep the keys of the first chord depressed.
3. Play the second chord with the other hand.

---

### RESULT

The two chords you played are input as a polychord chord symbol.

---

### TIP

You can also input polychords by entering the two chords separated by a semicolon or pipe/vertical line character into the chord symbols popover.

---

### RELATED LINKS

[Chord symbols popover](#) on page 205

## Indicating root notes in chord symbols

You can indicate the root note of chord symbols when inputting chord symbols with a MIDI keyboard.

---

### PROCEDURE

1. In Write mode, open the chord symbols popover.
2. Indicate the root note of a chord symbol in any of the following ways when using a MIDI keyboard:
  - 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.

---

### TIP

To input a chord symbol that consists only of the root note, just play a single note.

---

### RELATED LINKS

[Chord symbols popover](#) on page 205

## Indicating altered bass notes in chord symbols

You can indicate that chords have altered bass notes when inputting chord symbols with a MIDI keyboard.

---

### PROCEDURE

1. In Write mode, open the chord symbols popover.
2. Indicate which note is the altered bass note of a chord in any of the following ways on your MIDI keyboard:
  - 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.
- 

RELATED LINKS

[Chord symbols popover](#) on page 205

## 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 444

[Octave lines](#) on page 448

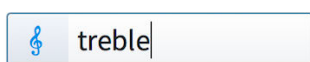
## Clefs and octave lines popover

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**.
- 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	g, G, sol, or treble
Bass F clef	f, F, fa, or bass
Tenor C clef	ct, CT, ut4, or tenor
Alto C clef	ca, CA, ut3, or alto
Treble G clef, octave below	g8ba, G8ba, g8d, G8d, treble8ba, or treble8d

Type of clef	Popover entry
Unpitched percussion	perc

---

#### NOTE

Percussion clef (rectangular) is available in the Clefs panel.

---

## Octave lines

Function of octave line	Popover entry
Shifts notes up by 1 octave.	8va, 8, 8u, or 1u
Shifts notes up by 2 octaves.	15ma, 15, 15u, or 2u
Shifts notes up by 3 octaves.	22ma, 22, 22u, or 3u
Shifts notes down by 1 octave.	8ba, 8vb, 8d, or 1d
Shifts notes down by 2 octaves.	15ba, 15vb, 15d, or 2d
Shifts notes down by 3 octaves.	22ba, 22vb, 22d, or 3d
<i>Loco</i> indication	loco
End of octave line	or stop

For example, enter **stop** to specify where an octave line ends during step input.

---

#### RELATED LINKS

[Clefs](#) on page 444

[Octave lines](#) on page 448

## Clefs panel

The Clefs panel contains all the different types of clefs and octave lines available in Dorico Elements.

- You can hide/show the Clefs panel by clicking **Clefs** in the Notations toolbox on the right of the window in Write mode.



You can also hide/show the panel whose icon is currently selected in the Notations toolbox by pressing **Ctrl/Cmd-9** or clicking the disclosure arrow on the right of the window.

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.

## Inputting clefs with the popover

You can input clefs using the clefs and octave lines popover, both during step input and by adding them to existing music. You can also use the popover to change the type of existing clefs.

In Dorico Elements, you cannot hide clefs. Therefore, if you do not want to show any clef, you must input an invisible clef.

---

### PROCEDURE

1. In Write mode, do one of the following:
  - Start note input.
  - Select the note from which you want a new clef to start.
2. Press **Shift-C** to open the clefs and octave lines popover.
3. Enter the appropriate entry for the clef you want into the popover.  
For example, enter **bass** or **G8ba**.
4. Press **Return** to close the popover.

---

### RESULT

During step 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.

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 444

## Inputting clefs with the panel


You can input clefs using the Clefs panel, both during step input and by adding them to existing music.

### NOTE

- In Dorico Elements, you cannot hide clefs. Therefore, if you do not want to show any clef, you must input an invisible clef.
- 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 note from which you want a new clef to start.
  2. In the Notations toolbox, click **Clefs** to show the Clefs panel.  

  3. In the Clefs panel, click the clef you want.
-

#### RESULT

During step 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.

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 444

[Mouse input settings](#) on page 137

## Inputting octave lines with the popover

You can input octave lines using the clefs and octave lines popover, both during step input and by adding them to existing music.

---

#### 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.
2. Press **Shift-C** to open the clefs and octave lines popover.
3. 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.
4. Press **Return** to close the popover.
5. Optional: During step input, press **Space** to advance the caret and extend the octave line.  
The octave line also extends automatically as you continue inputting notes.
6. Optional: During step input, stop any octave line by opening the clefs and octave lines popover again and entering one of the following:
  - |
  - stop

---

#### RESULT

During step input, octave lines are input from the caret position. When you stop octave lines, they end at the caret position.

When you add octave lines to existing notes, they are added either above or below your selection, depending on whether the octave line indicates that notes are played higher or lower than notated.

#### TIP

You can also lengthen/shorten octave lines after they have been input.

---

#### RELATED LINKS

[Clefs and octave lines popover](#) on page 211

[Octave lines](#) on page 448

[Lengthening/Shortening octave lines](#) on page 449

## Inputting octave lines with the panel


You can input octave lines using the Clefs panel, both during step 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 the notes to which you want to add an octave line.
  2. In the Notations toolbox, click **Clefs** to show the Clefs panel.  

  3. In the Clefs panel, click the octave line you want.  
Alternatively, when adding octave lines to existing notes, you can click the octave lines you want in the Clefs panel first, and then click and drag to the length you want.
- 

### RESULT

During step input, octave lines are input at the caret position. However, if input using the mouse, octave lines do not automatically extend as you continue inputting notes.

When you add octave lines to existing notes, they are added either above or below your selection, depending on whether the octave line indicates that notes are played higher or lower than notated.

### TIP

You can also lengthen/shorten octave lines after they have been input.

---

### RELATED LINKS

- [Octave lines](#) on page 448
- [Lengthening/Shortening octave lines](#) on page 449
- [Mouse input settings](#) on page 137

## 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 483
- [Correct positioning for caesura input](#) on page 219

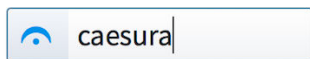
## Holds and pauses popover

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**.
- 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

---

**Type of hold or pause**

**Popover entry**

Fermata

fer or fermata



Very long fermata

fermataverylong



Long fermata

fermatalong



Short fermata

fermatashort



Very short fermata

fermataveryshort



Short fermata (Henze)

fermatashorthenze



Long fermata (Henze)

fermatalonghenze



Curlew (Britten)

curlew



Caesura

caesura or //









Thick caesura

caesurathick





Type of hold or pause	Popover entry
Curved caesura 	caesuracurved
Short caesura 	caesurashort
Breath mark (Comma-like) 	breathmarkcomma, comma, or , (comma)
Breath mark (Tick-like) 	breathmarktick
Breath mark (Upbow-like) 	breathmarkupbow
Breath mark (Salzedo) 	breathmarksalzedo

---

#### 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.

---

#### RELATED LINKS

- [Holds and pauses](#) on page 483
- [Types of fermatas](#) on page 483
- [Types of caesuras](#) on page 485
- [Types of breath marks](#) on page 485

## 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.

- You can hide/show the Holds and Pauses panel by clicking **Holds and Pauses** in the Notations toolbox on the right of the window in Write mode.



You can also hide/show the panel whose icon is currently selected in the Notations toolbox by pressing **Ctrl/Cmd-9** or clicking the disclosure arrow on the right of the window.

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.

---

## Inputting holds and pauses with the popover

You can input holds and pauses using the holds and pauses popover, both during step input and by adding them to existing music.

---

PROCEDURE

1. In Write mode, do one of the following:
  - Start note input.
  - Select an existing note to which you want to add a hold or pause.

**NOTE**

You can only add one hold or pause to one note at a time.

---

2. Press **Shift-H** to open the holds and pauses popover.
  3. Enter the hold or pause you want into the popover.  
For example, enter fermata or caesura.
  4. Press **Return** to close the popover.
- 

RESULT

During step input, the specified hold or pause is input at the caret position.

Fermatas appear above the selected note, and above all notes or rests at that rhythmic position on all staves, or 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 to the left of the caret or selected note, and appear on all staves at that same rhythmic position.

RELATED LINKS

[Holds and pauses](#) on page 483

## Inputting holds and pauses with the panel

You can input holds and pauses using the Holds and Pauses panel, both during step 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 existing note to which you want to add a hold or pause.

#### NOTE

You can only add one hold or pause to one note at a time.

2. In the Notations toolbox, click **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 step input, the specified hold or pause is input at the caret position.

Fermatas appear above the selected note, and above all notes or rests at that rhythmic position on all staves, or 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 to the left of the caret or selected note, and appear on all staves at that same rhythmic position.

#### RELATED LINKS

[Holds and pauses](#) on page 483

[Mouse input settings](#) on page 137

## 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 483

[Types of caesuras](#) on page 485

## 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 step input and by adding them to existing notes, but you cannot input glissando lines during step 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 519

[Arpeggio signs](#) on page 532

[Glissando lines](#) on page 537

[Jazz articulations](#) on page 541

[Jazz ornaments](#) on page 542

[Inputting ornaments with the popover](#) on page 223

[Inputting ornaments with the panel](#) on page 224

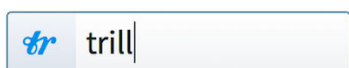
## Ornaments popover

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**.
- 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: <i>tr</i>	tr or trill
Short trill: <i>tr</i>	shorttr
Turn: <i>∞</i>	turn
Mordent: <i>mv</i>	mor or mordent

---

### Trill intervals

---





Trill interval	Popover entry
Major second	tr 2 or tr M2
Minor third	tr m3
Perfect fifth	tr p5
Augmented fourth	tr aug4
Diminished fifth	tr dim5

---

This list is not comprehensive, as there are many possible trill intervals. It is intended to illustrate how you can structure your entry to input different trill intervals.

### Jazz ornaments

---

Type of jazz ornament	Popover entry
Flip 	flip
Smear 	smear
Jazz turn 	jazz or shake
Bend 	bend

---

### Arpeggio signs

---

Type of arpeggio sign	Popover entry
Up arpeggio sign	arp, arpup, or arpeggioup
Down arpeggio sign	arpdown or arpeggiodown
Non arpeggio sign	nonarp or nonarpeggio

---

### Glissando lines

---

Type of glissando line	Popover entry
Straight glissando line	gliss

Type of glissando line	Popover entry
Wavy glissando line	glisswavy

---

### Jazz articulations

Type of jazz articulation	Popover entry
Plop (bend)	plop
Plop (smooth)	plopsmooth
Scoop	scoop
Doit (bend)	doit
Doit (smooth)	doitsmooth
Fall (bend)	fall
Fall (smooth)	fallsmooth

---

#### TIP

Other ornaments are available in the Ornaments panel on the right of the window in Write mode.

You can specify the type/length of jazz articulations when using the Ornaments panel but not when using the ornaments popover.

---

#### RELATED LINKS

[Inputting arpeggio signs with the popover](#) on page 224

[Inputting glissando lines with the popover](#) on page 226

[Ornaments](#) on page 519

[Trill intervals](#) on page 525

[Arpeggio signs](#) on page 532

[Glissando lines](#) on page 537

[Jazz articulations](#) on page 541

[Jazz ornaments](#) on page 542

## Ornaments panel

The Ornaments panel allows you to input all the different types of ornaments, including jazz articulations, as well as arpeggio signs and glissando lines.

- You can hide/show the Ornaments panel by clicking **Ornaments** in the Notations toolbox on the right of the window in Write mode.



You can also hide/show the panel whose icon is currently selected in the Notations toolbox by pressing **Ctrl/Cmd-9** or clicking the disclosure arrow on the right of the window.

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 step input.

---

### Glissandi

Contains the different types of glissando lines.

## Inputting ornaments with the popover

You can input ornaments and jazz ornaments using the ornaments popover, both during step input and by adding them to existing notes.

---

### PROCEDURE

1. In Write mode, do one of the following:
  - Start note input.
  - Select a single existing note to which you want to add an ornament.
  - Select existing notes across which you want to add a trill.

#### NOTE

You can only add one ornament to one note at a time.

---

2. Press **Shift-O** to open the ornaments popover.
  3. Enter the appropriate entry for the ornament you want into the popover.  
For example, enter trill for a trill or mor for a mordent.
  4. Press **Return** to close the popover.
- 

### RESULT

During step input, ornaments are input at the caret position. Trills last the duration of the rhythmic value of the note input at the caret position and 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 notes, ornaments are input above the selected note. Trills are input above the first selected note, with an extender line across any subsequent selected notes.

### RELATED LINKS

[Ornaments](#) on page 519

[Jazz ornaments](#) on page 542

[Inputting notes](#) on page 143

[Changing intervals partway through trills](#) on page 527

## Inputting ornaments with the panel

You can input ornaments and jazz ornaments using the Ornaments panel, both during step 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 a single existing note to which you want to add an ornament.
  - Select existing notes across which you want to add a trill.

### NOTE

You can only add one ornament to one note at a time.

---

2. In the Notations toolbox, click **Ornaments** to show the Ornaments panel.



3. In the Ornaments panel, click the ornament you want.
- 

### RESULT

During step input, ornaments are input at the caret position. Trills are input with a default duration of a quarter note.

When adding ornaments to existing notes, ornaments are input above the selected note. Trills are input above the first selected note, with an extender line across any subsequent selected notes.

### RELATED LINKS

[Ornaments](#) on page 519

[Jazz ornaments](#) on page 542

[Inputting notes](#) on page 143

[Mouse input settings](#) on page 137

## Inputting arpeggio signs with the popover

You can input arpeggio signs using the ornaments popover, both during step input and by adding them to existing notes. You can also input cross-staff arpeggio signs between notes in different staves that belong to the same instrument, such as piano or harp.

### NOTE

You can only add one arpeggio sign to one note or chord at a time.

---

### PROCEDURE

1. In Write mode, do one of the following:
  - Start note input.
  - Select the existing notes 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 in 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 same voice at the selected rhythmic position.
- 

2. Optional: During step input, press **Q** to start chord input.
  3. Press **Shift-O** to open the ornaments popover.
  4. Enter the appropriate entry for the arpeggio sign you want into the popover. For example, enter `arpup` for an up arpeggio or enter `arpdown` for a down arpeggio.
  5. Press **Return** to close the popover.
  6. Optional: During step input, input the notes you want.
- 

#### RESULT

During step 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 note or chord.

The length of arpeggio signs is adjusted automatically so that they span the range of all notes in the selected voice at that rhythmic position.

#### RELATED LINKS

[Ornaments popover](#) on page 220

[Arpeggio signs](#) on page 532

[Inputting notes](#) on page 143

[Inputting chords](#) on page 161

## Inputting arpeggio signs with the panel

You can input arpeggio signs on existing notes using the Ornaments panel. You can also input cross-staff arpeggio signs between notes in different staves that belong to the same instrument, such as piano or harp.

#### NOTE

- You can only add one arpeggio sign to one note or chord at a time, and you cannot input arpeggio signs with the mouse during step 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 the existing notes 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 in 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 same voice at the selected rhythmic position.
-

2. In the Notations toolbox, click **Ornaments** to show the Ornaments panel.



3. In the Ornaments panel, click the arpeggio sign you want in the **Arpeggiation** section.
- 

#### RESULT

The arpeggio sign specified is input to the left of the selected note or chord. Its length is adjusted automatically so that it spans the range of all notes in the selected voice at that rhythmic position.

#### RELATED LINKS

[Arpeggio signs](#) on page 532

[Mouse input settings](#) on page 137

## 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/non-adjacent notes.

#### NOTE

You cannot input glissando lines during step input.

---

#### PROCEDURE

1. In Write mode, select one of the following:
  - The note from which you want a glissando line to start.
  - Any two notes that you want to join with a glissando line.

#### TIP

The two notes can be in different voices.

---

2. Press **Shift-O** to open the ornaments popover.
  3. Enter the appropriate entry for the glissando line you want into the popover.
    - Enter **gliss** for a straight glissando line.
    - Enter **glisswavy** for a wavy glissando line.
  4. Press **Return** to close the popover.
- 

#### RESULT

If you selected two notes, the glissando line specified is input between the selected notes.

If you selected a single note, the glissando line specified starts from the selected note and ends at the next note on the staff, even if this crosses rests.

#### NOTE

- You cannot input a glissando line on the last note on a staff.
  - 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.
- 

#### RELATED LINKS

[Ornaments popover](#) on page 220

[Glissando lines](#) on page 537

[Changing glissando line text](#) on page 539

[Changing when glissando line text is shown](#) on page 539

## 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/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 step input.
- 

### PROCEDURE

1. In Write mode, select one of the following:

- The note from which you want a glissando line to start.
- Any two notes that you want to join with a glissando line.

### TIP

The two notes can be in different voices.

---

2. In the Notations toolbox, click **Ornaments** to show the Ornaments panel.



3. In the Ornaments panel, click the style of glissando line you want.

- **Glissando (Straight)**



- **Glissando (Wavy)**



### RESULT

If you selected two notes, the glissando line specified is input between the selected notes.

If you selected a single note, the glissando line specified starts from the selected note and ends at the next note on the staff, even if this crosses rests.

### NOTE

- You cannot input a glissando line on the last note on a staff.
  - 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.
- 

### RELATED LINKS

[Glissando lines](#) on page 537

[Mouse input settings](#) on page 137

## Inputting jazz articulations with the popover

You can input jazz articulations using the ornaments popover, both during step 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.
    - Select the existing notes to which you want to add jazz articulations.
  2. Press **Shift-O** to open the ornaments popover.
  3. 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.
  4. 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 previous note you input.

### NOTE

When using the popover, all jazz articulations follow your project-wide settings for their line style. 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.

---

### RELATED LINKS

- [Ornaments popover](#) on page 220
- [Inputting ornaments with the popover](#) on page 223
- [Jazz articulations](#) on page 541
- [Changing the type/length of existing jazz articulations](#) on page 543
- [Changing the line style of smooth jazz articulations](#) on page 543

## Inputting jazz articulations with the panel

You can input jazz articulations using the Ornaments panel, both during step 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.
  - Select the existing notes to which you want to add jazz articulations.

2. In the Notations toolbox, click **Ornaments** to show the Ornaments panel.



3. In the Ornaments panel, click the jazz articulation you want in the **Jazz** section.
- 

#### RESULT

The jazz articulation you specify is input on all selected notes. During note input, this is usually the previous note you input.

#### RELATED LINKS

[Inputting ornaments with the panel](#) on page 224

[Mouse input settings](#) on page 137

## Input methods for playing techniques and pedal lines

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.

#### RELATED LINKS

[Playing techniques](#) on page 557

[Inputting playing techniques with the popover](#) on page 232

[Inputting playing techniques with the panel](#) on page 233

## Playing techniques popover

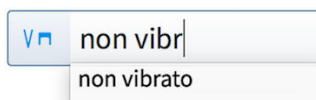
The following tables contain the entries for the playing techniques popover that you can use to input playing techniques, pedal lines, and retakes.

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.

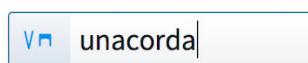
You can open the playing techniques popover in Write mode in any of the following ways when either an item is selected or the caret is active:

- Press **Shift-P**.
- 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

---

<b>Playing technique</b>	<b>Popover entry</b>
<i>Vibrato</i>	vibrato
<i>Senza vibrato</i>	senza vibrato
<i>Naturale</i> (nat.)	nat
Con sord.	con sord
Strong air pressure	strong air pressure
Double-tongue	double-tongue
Down bow	downbow
Up bow	upbow
<i>Sul ponticello</i>	sul pont
<i>Sul tasto</i>	sul tasto
<i>Poco sul tasto</i>	pst
Pizzicato	pizz
<i>Spiccato</i>	spicc
Arco	arco
Tongue click (Stockhausen)	tongue click
Finger click (Stockhausen)	finger click
Vibraphone motor on	motor on
Vibraphone motor off	motor off
Open	open
Damp	damp
Damp (large)	damp large
Full <i>barré</i>	full barre
Half <i>barré</i>	half barre
Strum up	strum up

Playing technique	Popover entry
Strum down	strum down
Left hand	lh
Right hand	rh

---

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

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	ped
Retake in sustain pedal line	^, notch, or retake
Remove retake in sustain pedal line	nonotch
Stop sustain pedal line	*
<i>Sostenuto</i> pedal line	sost
Stop <i>sostenuto</i> pedal line	s*
<i>Una corda</i> pedal line	unacorda
Stop <i>una corda</i> pedal line	u*

---

#### RELATED LINKS

[Playing techniques](#) on page 557

[Pedal lines](#) on page 548

[Sustain pedal retakes and pedal level changes](#) on page 549

[Adding retakes to existing pedal lines with the popover](#) on page 234

## Playing Techniques panel

The Playing Techniques panel contains all the different playing techniques available in Dorico Elements, divided into instrument families. Pedal lines are included in the **Keyboard** section.

- You can hide/show the Playing Techniques panel by clicking **Playing Techniques** in the Notations toolbox on the right of the window in Write mode.



You can also hide/show the panel whose icon is currently selected in the Notations toolbox by pressing **Ctrl/Cmd-9** or clicking the disclosure arrow on the right of the window.

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 “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.

---

## Inputting playing techniques with the popover

You can input playing techniques using the playing techniques popover, both during step input and by adding them to existing notes.

---

PROCEDURE

1. In Write mode, do one of the following:
  - Start note input.
  - Select an existing note to which you want to add a playing technique.

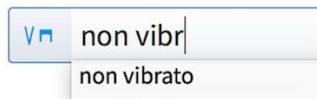


**NOTE**

You can only add playing techniques to one note at a time.

---

2. Press **Shift-P** to open the playing techniques popover.
3. Enter the appropriate entry for the playing technique you want into the popover.  
For example, enter **non vibrato** or **tongue click**.  
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.



4. Press **Return** to close the popover.
- 

**RESULT**

The playing technique is added to the selected note.

During step input, playing techniques are input at the caret position.

## Inputting playing techniques with the panel

You can input playing techniques using the Playing Techniques panel, both during step input and by adding them to existing notes.

**NOTE**

These steps describe inputting with the default mouse input preference **Create item at selection**.

If you want to add the same playing technique to multiple notes, activate **Allow multiple items to be created with the mouse** in the **Editing** section of the **Note Input and Editing** page in **Preferences**, 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 existing note to which you want to add a playing technique.

**NOTE**

You can only add playing techniques to one note at a time.

---

2. In the Notations toolbox, click **Playing Techniques** to show the Playing Techniques panel.



3. In the Playing Techniques panel, click the playing technique you want.
- 

**RESULT**

The playing technique is added to the selected note.

During step input, playing techniques are input at the caret position, even if your preference is set to **Load pointer with item**.

RELATED LINKS

[Mouse input settings](#) on page 137

## Inputting pedal lines and retakes with the popover

You can input pedal lines using the playing techniques popover, both during step input and by adding them to existing music. Because the pedal line extends automatically as you input notes during step input, you can input retakes when you reach the appropriate rhythmic position.

---

PROCEDURE

1. In Write mode, do one of the following:
  - Start note input.
  - Select the notes to which you want the pedal line to apply.
2. Press **Shift-P** to open the playing techniques popover.
3. Enter the appropriate entry for the pedal line you want into the popover.  
For example, enter `ped` for a sustain pedal line.
4. Press **Return** to close the popover.  
The pedal line is input.
5. Optional: During step input, extend the pedal line by pressing **Space** to advance the caret.  
The pedal line also extends automatically as you continue inputting notes.
6. Optional: During step 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 step 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 step input, pedal lines start at the caret position, and end at the caret position.  
When you add pedal lines to existing notes, pedal lines are added across the selected notes.

RELATED LINKS

[Sustain pedal retakes and pedal level changes](#) on page 549

[Inputting notes](#) on page 143

[Adding retakes to existing pedal lines with the popover](#) on page 234

[Positions of pedal lines](#) on page 550

## Adding retakes to existing pedal lines with the popover

You can add retakes to existing sustain pedal lines using the playing techniques popover.

NOTE

You cannot add retakes to *sostenuto* or *una corda* pedal lines.

---

PREREQUISITE

You have input a sustain pedal line.

---

PROCEDURE

1. In Write mode, select an item at the rhythmic position where you want the retake to apply.

2. Press **Shift-P** to open the playing techniques popover.
  3. Enter **^** or **retake** into the popover.
  4. Press **Return** to close the popover.
- 

#### RESULT

The retake is input at the selected rhythmic position.

#### RELATED LINKS

[Sustain pedal retakes and pedal level changes](#) on page 549

[Playing techniques popover](#) on page 229


## Inputting pedal lines and retakes with the panel

You can input pedal lines and retakes using the Playing Techniques panel.

#### NOTE

- When using the panel, you cannot input pedal lines or retakes during step input.
  - These steps describe inputting with the default mouse input preference **Create item at selection**.
- 

#### PROCEDURE

1. In Write mode, select the notes to which you want the pedal line to apply.
  2. In the Notations toolbox, click **Playing Techniques** to show the Playing Techniques panel.  

  3. In the Playing Techniques panel, click the pedal line you want in the **Keyboard** section. Alternatively, with nothing selected, click the pedal line you want in the **Keyboard** section of the Playing Techniques panel, then click and drag in the score to create a pedal line and extend it to the duration you want.
  4. Optional: Select an item at the rhythmic position where you want to input a retake.
  5. Optional: In the Playing Techniques panel, click **Retake Pedal** in the **Keyboard** section.
- 

#### RESULT

The pedal line is input across the selected range.

#### RELATED LINKS

[Sustain pedal retakes and pedal level changes](#) on page 549

[Adding retakes to existing pedal lines with the panel](#) on page 235

[Mouse input settings](#) on page 137

## Adding retakes to existing pedal lines 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.

---

#### PREREQUISITE

You have input a sustain pedal line.

---

#### PROCEDURE

1. In Write mode, select an item at the rhythmic position where you want the retake to apply.
  2. Input the retake in one of the following ways:
    - Click **Retake Pedal** in the **Keyboard** section of the Playing Techniques panel.
    - Choose **Edit > Pedal Lines > Add Retake**. You can also choose this option from the context menu.
- 

#### RESULT

The retake is input at the selected rhythmic position.

#### TIP

Alternatively, if nothing is selected in the score, you can click **Retake Pedal** in the **Keyboard** section of the Playing Techniques panel, and then click at the rhythmic position where you want to input the retake.

---

#### RELATED LINKS

[Sustain pedal retakes and pedal level changes](#) on page 549

[Input methods for playing techniques and pedal lines](#) on page 229

## 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 first note to which you want to input lyrics.
2. Press **Shift-L** to open the lyrics popover.  
By default, the lyrics popover opens with lyric line input selected.
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-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-Space**.
  - To include a hyphen within a single word or syllable, press **Alt--** (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**.
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.

If you advanced 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.

If 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.

#### NOTE

You can later change whether a gap or a hyphen appears between lyrics by changing their syllable type.

---

#### RELATED LINKS

[Lyrics on page 497](#)

[Navigation during lyric input on page 238](#)

[Types of lyrics on page 499](#)

[Types of syllables in lyrics on page 500](#)

[Lyric line numbers on page 505](#)

[Lyric hyphens and lyric extender lines on page 504](#)

## 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:

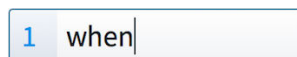
- Press **Shift-L**.
- Select an existing lyric and press **Return**.
- Choose **Write > Create Lyrics**.
- Click **Lyrics** in the Notations toolbox.



### 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 **Down Arrow** when the lyrics popover is open.



The lyrics popover with an example entry for Line 2

### Lyric lines above the staff

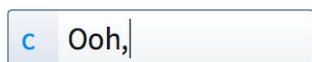
You can input lyrics into lines above the staff by pressing **Shift-Up Arrow** when the lyrics popover is open.

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.

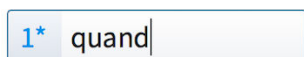


The lyrics popover with an example entry for a chorus line

### Lyric line translations

You can input lyric line translations by pressing **Alt-Down Arrow** when the lyrics popover is open.

An asterisk (\*) is shown beside the lyric line number to which you want to add a lyric line translation on the left-hand side of the popover.



The lyrics popover with an example entry for a lyric line translation

### RELATED LINKS

[Inputting lyrics](#) on page 236

[Lyrics](#) on page 497

[Types of lyrics](#) on page 499

## 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.	- (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-Right Arrow/Alt-Left Arrow</b>
Add spaces within a word or syllable, without advancing the popover.	<b>Shift-Alt-Space</b>

---

### Popover navigation

### Key command

Add a hyphen within a single word or syllable without advancing the popover.

**Alt-** (hyphen)

Add an elision slur within a word or syllable.

**\_** (underscore)

---

#### RELATED LINKS

[Lyrics on page 497](#)

[Inputting lyrics on page 236](#)

## Inputting rehearsal marks

You can input rehearsal marks with the mouse and the keyboard. You can input rehearsal marks during step input and later 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 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. Press **Shift-A**.

Alternatively, you can click **Rehearsal Marks** in the Notations toolbox.



---

#### RESULT

A rehearsal mark is input at the selected barline, or at the rhythmic position of the start of a note, a rest, or an object.

The order of rehearsal marks is updated automatically, meaning you can input them in any order, including before and between existing rehearsal marks.

#### RELATED LINKS

[Rehearsal marks on page 562](#)

[Mouse input settings on page 137](#)

## Inputting markers/timcodes

You can input markers at specific positions in time. Depending on your project-wide settings, timcodes can also be 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-M**.

---

RESULT

A marker is input at the position of the playhead. It shows the default text “Marker” and includes a timecode reflecting that position if you have chosen to show timecodes in markers.

TIP

You can also input markers by clicking **Add Marker** in the Markers section of the Video panel. This method allows you to enter a timecode directly into the **Add Marker** dialog, rather than input a marker at the playhead position, so it can be useful if, for example, you already know the timecodes for each marker.

Additionally, you can input markers in the **Markers** track in Play mode.

---

AFTER COMPLETING THIS TASK

You can change the text shown in the marker.

RELATED LINKS

[Markers](#) on page 567

[Timecodes](#) on page 571

[Moving the playhead](#) on page 337

[Changing the text shown in markers](#) on page 568

[Markers track](#) on page 333

[Inputting markers in the Markers track](#) on page 334

## Markers section of the Video panel

In the **Markers** section of the Video panel in Write mode, you can input and edit markers and timecodes, and also define markers as important.

- You can hide/show the Video panel by clicking **Video** in the Notations toolbox.

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.

RELATED LINKS

[Markers](#) on page 567

[Timecodes](#) on page 571



## Add Marker dialog

The **Add Marker** dialog allows you to input markers with custom text at specific timecodes.

- You can open the **Add Marker** dialog in Write mode by clicking **Add Marker** in the **Markers** section of the Video panel.



Text:

Timecode:

Valid range: 00:00:00:00 - 00:02:16:24 (flow end: 00:06:40:12)

**Add Marker** dialog

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.

### Valid range

Displays the timecode range of the flow.

### RELATED LINKS

[Markers](#) on page 567

[Timecodes](#) on page 571

[Inputting markers/timecodes](#) on page 239

[Markers section of the Video panel](#) on page 240

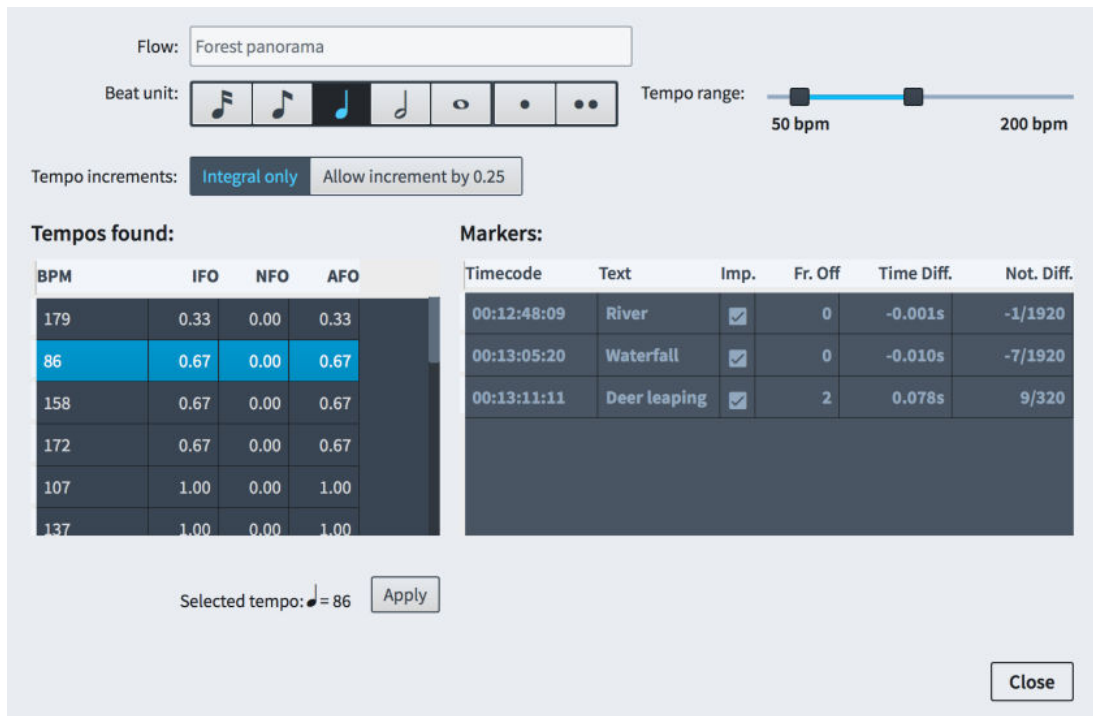
## Find Tempo dialog

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 flow whose tempo you want to determine and then opening the dialog.
  - The **Find Tempo** dialog is only available if you have input at least one marker in the flow whose tempo you want to determine and defined at least one marker as important.
-



Find Tempo dialog

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 570

[Metronome marks](#) on page 648

## 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.

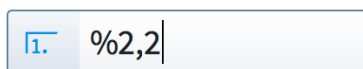
## Repeats popover

The following tables contain the entries for the repeats popover that you can use to input the different tremolos, bar repeats, rhythm slash regions, repeat markers, and repeat endings 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**.
- 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	end or ending
Additional repeat ending segment	add

---

## Repeat markers

---

Type of repeat marker	Popover entry
D.C.	dc, D.C., da capo, and so on
D.C. al Fine	dcalf, DC al Fine, D.C. al Fine, and so on
D.C. al Coda	dcalc, DC al Coda, D.C. al Coda, and so on
D.S.	ds, D.S., dal segno, and so on
D.S. al Fine	dsalf, DS al Fine, D.S. al Fine, and so on
D.S. al Coda	dsalc, DS al Coda, D.S. al Coda, and so on
to Coda	toc, tc, to coda, To Coda, and so on
Segno	s, seg, segno, and so on
Fine	f, fin, fine, and so on
Coda	c, co, coda, 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	/, \, or 1
Two strokes	//, \\, or 2
Three strokes	///, \\, or 3
Four strokes	////, \\, or 4
Z on stem (buzz roll)	z or zonstem
Remove all tremolos	0 or clear

---

### 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
Z on stem (buzz roll)	z or zonstem
Remove all tremolos	0 or clear

---

### Slash regions

---

Slash region	Popover entry
New slash region	slash

---

### Bar repeats

---

Type of bar repeat	Popover entry
Repeat last bar	% or %1
Repeat last 2 bars	%2
Repeat last 4 bars	%4

---

Type of bar repeat	Popover entry
Repeat last bar, group in 2	%1,2
Repeat last bar, group in 4	%1,4
Repeat last 2 bars, group in 2	%2,2
Repeat last 4 bars, group in 4	%4,4

---

#### RELATED LINKS

[Inputting repeat markers with the popover](#) on page 250

[Inputting tremolos with the popover](#) on page 251

[Inputting slash regions](#) on page 253

[Inputting bar repeats](#) on page 254

[Repeat endings](#) on page 575

[Tremolos](#) on page 676

[Rhythm slashes](#) on page 591

[Bar repeats](#) on page 584

## Repeat Structures panel

The Repeat Structures panel contains all the different types of repeat notations, including repeat endings, repeat markers, tremolos, rhythm slashes, and bar repeats.

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 **Repeat Structures** in the Notations toolbox on the right of the window in Write mode.



You can also hide/show the panel whose icon is currently selected in the Notations toolbox by pressing **Ctrl/Cmd-9** or clicking the disclosure arrow on the right of the window.

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 a set number of bars is repeated without re-notating those bars.

## Inputting repeat endings with the popover

You can input repeat endings using the repeats popover, both during step 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/Left Arrow**.

- Select at least one item in each bar that you want to include in the first ending.

2. Press **Shift-R** to open the repeats popover.
  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 notes, 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 244

[Repeat endings](#) on page 575

## Adding additional repeat endings with the popover

You can have more than two possible endings in each repeat ending structure by adding repeats using the repeats popover. You can add additional endings both during step 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/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. Press **Shift-R** to open the repeats popover.
  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.

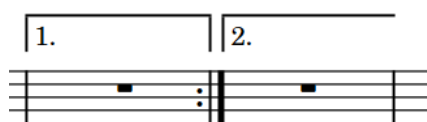
#### TIP

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.

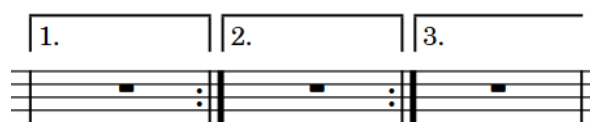
However, **No. endings** only adds additional repeat ending segments that contain one bar, and does not automatically input or reposition repeat barlines. You must input repeat barlines as appropriate manually.

---

#### EXAMPLE



Default repeat ending structure with two endings



Repeat ending structure with additional third ending

---

#### RELATED LINKS

[Repeat endings](#) on page 575

[Repeats popover](#) on page 244

## Inputting repeat endings with the panel

You can input repeat endings using the Repeat Structures panel, both during step 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/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 **Repeat Structures** to show the Repeat Structures panel.



3. In the Repeat Structures panel, click **Create Repeat Ending** in the **Repeat Endings** section.





#### RESULT

The repeat ending is input, with the first ending segment covering the bars in which you selected notes, 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 endings](#) on page 575

## Adding additional repeat endings with the panel

You can have more than two possible endings in each repeat ending structure by adding repeats using the Repeat Structures panel. You can add additional endings both during step 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/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 **Repeat Structures** to show the Repeat Structures panel.



3. In the Repeat Structures panel, click **Add Section To Repeat Ending** in the **Repeat Endings** section.



#### 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.

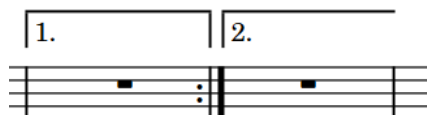
#### TIP

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.

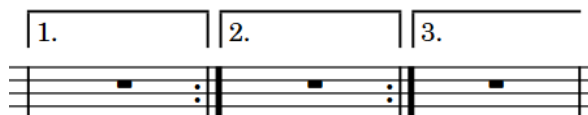
However, **No. endings** only adds additional repeat ending segments that contain one bar, and does not automatically input or reposition repeat barlines. You must input repeat barlines as appropriate manually.

---

#### EXAMPLE



Default repeat ending structure with two endings



Repeat ending structure with additional third ending

---

#### RELATED LINKS

[Repeat endings](#) on page 575

## Inputting repeat markers with the popover

You can input repeat markers, including repeat jumps and repeat sections, using the repeats popover, both during step 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/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. Press **Shift-R** to open the repeats popover.
  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 step 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, repeat markers are input at the rhythmic position of the selected note or 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 244

[Repeat markers](#) on page 579

## Inputting repeat markers with the panel

You can input repeat markers using the Repeat Structures panel, both during step 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/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 **Repeat Structures** to show the Repeat Structures panel.



3. In the Repeat Structures panel, click the repeat marker you want to input in any of the following sections:

- **Repeat Jumps**
  - **Repeat Sections**
- 

### RESULT

During step 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, repeat markers are input at the rhythmic position of the selected note or 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

[Repeat markers](#) on page 579

## Inputting tremolos with the popover

You can input both single-note and multi-note tremolos using the repeats popover, both during step 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/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, which can also be tuplets.

---

2. Press **Shift-R** to open the repeats popover.
  3. Enter the appropriate entry for the type of tremolo you want into the popover.  
For example, to input a three-stroke multi-note tremolo, enter `///2`.
  4. Press **Return** to close the popover.
  5. Optional: Repeat steps 2 to 3 to input other tremolos on the selected notes.  
For example, if you want notes to have both single-stem and multi-stem tremolos.
- 

#### RESULT

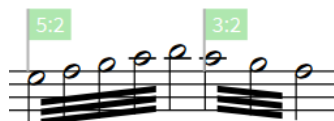
Single-note tremolos are input on the selected notes with the number of tremolo strokes specified.

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.

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

---

#### RELATED LINKS

[Repeats popover](#) on page 244

[Tremolos](#) on page 676

## Inputting tremolos with the panel

You can input both single-note and multi-note tremolos using the Repeat Structures panel, both during step 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/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, which can also be tuplets.

---

2. In the Notations toolbox, click **Repeat Structures** to show the Repeat Structures panel.



3. In the Repeat Structures panel, click the button with the number of single-note or multi-note tremolo strokes you want in the **Tremolos** section.

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.



**Two Strokes Single-note Tremolo** button



**Three Strokes Multi-note Tremolo** button

---

**RESULT**

Single-note tremolos are input on the selected notes with the number of tremolo strokes specified.

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.

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

---

**RELATED LINKS**

[Tremolos](#) on page 676

[Deleting tremolos](#) on page 678

---

## Inputting slash regions

You can input slash regions using the repeats popover.

---

**PROCEDURE**

1. In Write mode, do one of the following:
    - Start note input.
    - Select the region in which you want to show rhythm slashes.
  2. Press **Shift-R** to open the repeats popover.
  3. Enter slash into the popover.
  4. Press **Return** to close the popover.
-

#### RESULT

During step 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** group of the Repeat Structures panel.

---

#### RELATED LINKS

[Repeats popover](#) on page 244

[Rhythm slashes](#) on page 591

[Slash regions](#) on page 591

[Slash voices](#) on page 711

## Inputting bar repeats

You can input bar repeat regions when at least one bar before the region contains notes.

---

#### PROCEDURE

1. In Write mode, select the bars you want to show as a bar repeat.

#### NOTE

- You cannot input bar repeat regions in the first bar of a flow.
  - You can only input bar repeat regions on one staff at a time.
- 

2. Press **Shift-R** to open the repeats popover.
  3. Enter the appropriate entry for the type of bar repeat region you want into the popover. For example, enter %2,2 to repeat the previous two bars, grouped in two.
  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 step 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 bar repeat regions by clicking **Create Bar Repeat Region** in the **Bar Repeats** group of the Repeat Structures panel. However, this only inputs a bar repeat region containing single-bar repeats.
- 

#### RELATED LINKS

[Repeats popover](#) on page 244

[Bar repeats](#) on page 584

## Inputting slurs

You can input slurs, both during step input and by adding them to existing notes. You can also add slurs to existing notes in multiple staves at the same time.

---

### PROCEDURE

1. In Write mode, do one of the following:
  - Start note input.
  - Select the notes to which you want to add slurs.

#### TIP

- You can select notes in multiple staves and input slurs on them at the same time.
- If you only select a single note, the slur connects that note to the next note on the staff.

2. Press **S**.

#### TIP

Alternatively, click **Slur** in the Notes panel, and then click and drag to input a slur and extend it to your preferred length.

3. Optional: During step input, input the notes you want.  
The slur extends automatically, even if there are rests between the notes you input.
4. Optional: During step input, press **Shift-S** to end the slur on the currently selected note.

---

### RESULT

During step input, a slur begins from the currently selected note, not from the caret position. The slur extends automatically as you input notes, and ends 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 in one staff and two notes in another staff, two slurs are input. They connect the notes on each selected staff.

### RELATED LINKS

[Slurs on page 606](#)

[Inputting notes on page 143](#)

## Inputting text

You can input text at specific rhythmic positions in the score. You can input text for single staves or input system text that applies to all staves.


### NOTE

If you want to insert text that is independent of rhythmic positions and attached to a particular page, you can use text frames.

---

### PROCEDURE

1. In Write mode, do one of the following:
  - Start note input.
  - Select a note or item at the position where you want to input text.
2. Open the text editor in any of the following ways:

- To input staff text, press **Shift-X** or click **Text** in the Notations toolbox.  

  - To input staff text with a specific paragraph style, choose **Write > Create Text > [Paragraph style]**.
  - To input system text, press **Shift-Alt-X**.
  - To input system text with a specific paragraph style, choose **Write > Create System Text > [Paragraph style]**.
3. Enter the text you want.
  4. Optional: Press **Return** to insert a line break.
  5. Optional: Format the text using the text editor options.
  6. Press **Esc** or **Ctrl/Cmd-Return** to close the text editor.

#### RESULT

During step input, the text you entered into the text editor is input at the caret position. It is automatically placed above the staves to which it applies, using the default paragraph style, and follows the default settings for the vertical position of text.

When adding text to existing music, it is input at the position of the earliest selected item.

#### NOTE

- In Dorico Elements, system text is categorized as a system object. Therefore, system 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

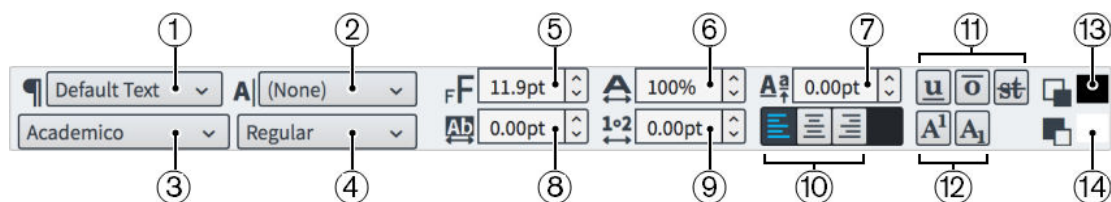
[Changing the placement of text objects relative to the staff](#) on page 300

[System objects](#) on page 632

[Changing the positions of system objects](#) on page 633

## 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 change staff text or system text.



Text editor in Write mode

The text editor provides the following options:

### 1 Paragraph Style

Allows you to change the paragraph style applied to the whole paragraph, which can change the appearance, formatting, and alignment of the text.

Staff text and system text are always treated as single paragraphs.

### 2 Character Style

Allows you to change the appearance of selected text within paragraphs. This overrides the paragraph style applied to the corresponding paragraph.



- 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.
- 5 Font Size**  
Allows you to change the size of selected text.
- 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 the alignment of selected text relative to the rhythmic position of the text in the score. For text in a text frame, the text is aligned along the left margin of a text frame.  
You can choose from the following alignments:
  - **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**
- 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.

## Editing text

You can edit text objects added to staves or text displayed in text frames at any time, including changing the text and changing its formatting.

---

### PROCEDURE

- 1.** Double-click the text you want to edit to open the text editor.

**TIP**

You can also select text/system text objects and press **Return**.

---

2. Optional: Change the text in the text frame/object.
  3. Optional: Use the text editor options to format the text.
  4. Press **Esc** or **Ctrl/Cmd-Return** to close the text editor.
- 

RELATED LINKS

[Text objects vs. text in text frames](#) on page 295

## Editing and selecting

In Dorico Elements, there are multiple different ways you can select and edit the items in your project, from selecting items individually to making large selections covering multiple staves.

RELATED LINKS

[Filters](#) on page 263

[Selection tools](#) on page 39

## 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.

**NOTE**

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:
    - **Ctrl/Cmd**-click individual notes/items.
    - **Shift**-click adjacent notes/items.
    - Click a single note/item.
    - Make a marquee selection around multiple notes/items.
  2. Deselect all currently selected items in any of the following ways:
    - Press **Ctrl/Cmd-D**.
    - Click outside of the staves within the music area.
- 

RELATED LINKS

[Selecting multiple items using marquee selections](#) on page 40

[Playing/Muting notes during note input/selection](#) on page 264

## 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.

#### 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.

---

## 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**, and 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**.
- Make a marquee selection that includes the staff you want to select.

### 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.
- Make a marquee selection that includes the 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 263

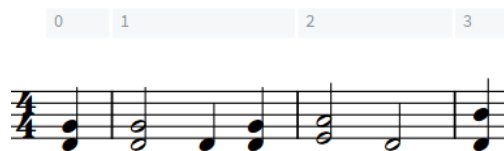
[Selecting/Deselecting notes and items individually](#) on page 258

[Selecting multiple items using marquee selections](#) on page 40

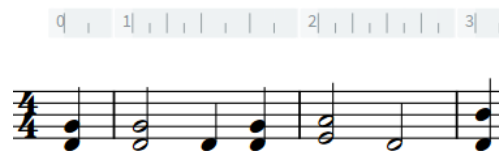
[Selecting more items of the same type](#) on page 259

## 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

The color of the system track changes depending on how you are interacting with it.

- When you hover the mouse over it, it becomes 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 Delete

Allows you to delete the selected region.

#### NOTE

When you hover over **Delete**, the highlight color of the selected region changes.

### 2 System Track Select

Allows you to select all items on all staves in the system across the selected region.

### 3 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 197

[Deleting bars/beats with the system track](#) on page 402

## Hiding/Showing the system track

The system track is shown by default in new projects, but you can hide/show it at any time.

---

PROCEDURE

- Hide/Show the system track in any of the following ways:
  - Press **Alt-T**.
  - Choose **View > System Track**.

---

RESULT

The system track is shown when a tick appears beside **System Track** in the **View** menu, and hidden when no tick appears.

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 48

## Selecting bars with the system track

The system track allows you to select all staves in the system across the selected bars.

PREREQUISITE

The system track is shown.

---

PROCEDURE

1. Click a bar in the system track.
2. Optional: Select multiple bars to the right/left of the first selected bar 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** button in the system track



The **System Track Select** button appears filled in when you hover over it

---

RESULT

Everything on all staves in the selected bars is selected and highlighted, including 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

[Hiding/Showing the system track](#) on page 262

[Deleting the contents of bars](#) on page 403

[Deleting bars/beats with the system track](#) on page 402

## Selecting beats with the system track

The system track allows you to select all staves in the system across the selected beats.

#### PREREQUISITE

The system track is shown.

---

#### PROCEDURE

1. Press and hold **Alt**.  
Grid lines that match the current rhythmic grid resolution appear in the system track.
2. Without releasing **Alt**, 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** button in the system track



The **System Track Select** button appears filled in when you hover over it

---

#### RESULT

Everything on all staves in the selected beats is selected and highlighted, including 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

[Hiding/Showing the system track](#) on page 262

[Deleting the contents of bars](#) on page 403

[Deleting bars/beats with the system track](#) on page 402

## 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 fingerings, beams, articulations, or tremolos, as they are considered part of the notes to which they apply.

---

#### RELATED LINKS

[Filters for lyrics](#) on page 498

## 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.

---

#### PROCEDURE

1. Press **Ctrl/Cmd-**, (comma) to open **Preferences**.
  2. Click **Note Input and Editing** in the page list.
  3. In the **Note Input** section, activate/deactivate **Play notes during note input and selection** in the **Auditioning** subsection.
  4. 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.

#### RELATED LINKS

[Inputting notes](#) on page 143

[Selecting/Deselecting notes and items individually](#) on page 258



## 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-**, (comma) to open **Preferences**.
  2. Click **Note Input and Editing** in the page list.
  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.

## Disabling automatic linking of dynamics and slurs when pasting

By default, slurs and dynamics are automatically linked when you copy them to other staves at the same rhythmic position. You can disable this behavior so slurs are not linked by default.

---

### PROCEDURE

1. Press **Ctrl/Cmd-**, (comma) to open **Preferences**.
  2. Click **Note Input and Editing** in the page list.
  3. In the **Editing** section, deactivate **Link dynamics and slurs to existing items when pasting**.
  4. Click **Apply**, then **Close**.
- 

### RELATED LINKS

[Dynamics linked across multiple staves](#) on page 467

[Slurs linked across multiple staves](#) on page 613

## 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. Press **Return** to open the popover for that 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

- 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

[Changing the text of existing lyrics](#) on page 501

## 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.

---

#### PROCEDURE

1. Select the items you want to flip.

#### NOTE

You cannot flip items during note input.

---

2. Press F.
- 

#### RESULT

The staff-relative placement of the selected items is changed by setting **Placement** or **Direction** properties appropriately in the corresponding groups of the Properties panel.

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.

---

## 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. 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.

---

#### PROCEDURE

1. Select the items whose appearance you want to reset.
  2. Choose **Edit > Reset Appearance**.
-

#### RESULT

All properties that affect the appearance of the selected items are reset to their default settings. For properties that are layout-specific and frame chain-specific, this only resets the appearance of the selected items in the current layout and frame chain.

#### RELATED LINKS

[Copying property settings to other layouts](#) on page 293

## Resetting the position of items

You can reset the position of individual items you have moved graphically, which returns them to their default position. Properties relating to the position of items include horizontal and vertical offsets, beat-relative position, and staff-relative placement.

---

#### PROCEDURE

1. Select the items whose position you want to reset.
2. Choose **Edit > Reset Position**.

---

#### RESULT

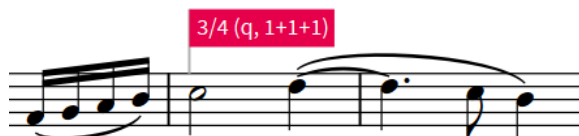
All properties that affect the position of the selected items are reset to their default settings. For properties that are layout-specific and frame chain-specific, this only resets the position of the selected items in the current layout and frame chain.

## 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 note spacing 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.

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.



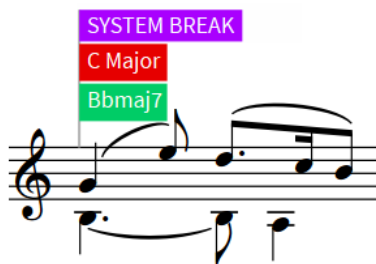
The signpost of a hidden time signature

You can hide/show signposts for the following items:

- Accidentals
- Chord symbols
- Bracket and barline changes
- Clefs
- Cues
- Dynamics
- Frame breaks

- Key signatures
- Pedal lines
- System breaks
- Tempo marks
- Text, both system and staff
- Percussion legends
- Time signatures
- Triplets

When multiple signposts can exist at a single rhythmic position, they stack vertically so that they do not overlap and remain legible.



Multiple signposts for different items at the same rhythmic position

#### NOTE

By default, signposts are not printed or included when you export graphics files.

---

#### RELATED LINKS

[Annotations](#) on page 387

## Hiding/Showing signposts

You can hide/show all signposts or only hide/show signposts for specific items at any time in Setup mode and Write mode.

#### 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]**.
- 

#### RESULT

Signposts for individual items are shown when a tick appears beside the corresponding item in the menu, and hidden when no tick appears.

All signposts are shown when no tick appears beside **Hide Signposts** in the menu, and hidden when a tick appears.

## 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, changing the voices of notes, expanding notes onto more staves, and reducing notes onto fewer staves.

## Deleting notes and 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 mode or Print mode.

You can also delete notes in Play mode, but not other notation items.

---

### PROCEDURE

1. In Write mode, select the notes/items you want to delete.
2. Press **Backspace** or **Delete**.

---

### RESULT

All selected notes/items are deleted from your project. Deleted notes are replaced by implicit rests as appropriate. 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 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.

### TIP

You can also delete markers by selecting them in the **Markers** section of the Video panel and clicking **Delete** in the action bar.

---

### RELATED LINKS

[Deleting barlines](#) on page 407

## Copying and pasting items

You can copy and paste items, including notes and notations, to other rhythmic positions in different ways.

---

### PROCEDURE

1. In Write mode, select the items you want to copy.
2. Copy the selected items to other rhythmic positions in any of the following ways:
  - **Alt**-click each position to which you want to paste them.
  - Press **Ctrl/Cmd-C**, select the position to which you want to paste them, and press **Ctrl/Cmd-V**.

- To copy items into a specific voice, including a slash voice, choose **Edit > Copy**, select the position to which you want to paste them, and choose **Edit > Paste Special > Paste Into Voice > [Voice]**.
  - To copy items to the staff above, select them and choose **Edit > Paste Special > Duplicate to Staff Above**.
  - To copy items to the staff below, select them and choose **Edit > Paste Special > Duplicate to Staff Below**.
- 

#### RESULT

The selected items are copied to other staves without deleting them from their original positions.

#### RELATED LINKS

[Large selections](#) on page 259

[Selecting/Deselecting notes and items individually](#) on page 258

[Moving notes to other staves](#) on page 271

[Disabling automatic linking of dynamics and slurs when pasting](#) on page 265

## Copying and pasting 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 items you want to copy to multiple staves.
  2. Press **Ctrl/Cmd-C** to copy the selected items.
  3. Select an item on each staff to which you want to paste the selected items.
  4. Press **Ctrl/Cmd-V** to paste the selected items.
- 

#### RESULT

The selected items are copied to all of the selected staves.

#### TIP

If you selected a range of items on each staff, the selected items are also pasted multiple times to fill the selected range.

---

#### RELATED LINKS

[Large selections](#) on page 259

[Disabling automatic linking of dynamics and slurs when pasting](#) on page 265

## Copying and pasting 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 items you want to copy throughout a range.

2. Press **Ctrl/Cmd-C** to copy the selected items.
  3. Select the range throughout which you want to paste the selected items.
  4. Press **Ctrl/Cmd-V** to paste the selected items.
- 

#### RESULT

The selected items are copied as many times as will fit within the selected range without extending beyond it.

#### TIP

If you selected a range on multiple staves, the selected items are also pasted to multiple staves.

---

#### RELATED LINKS

[Large selections](#) on page 259

## Moving notes to other staves

You can move notes 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.

---

#### PROCEDURE

1. In Write mode, select the notes you want to move to another staff.
  2. Move the notes to another staff in one of the following ways:
    - To move notes to the staff above, press **Alt-N**.
    - To move notes to the staff below, press **Alt-M**.
- 

#### RESULT

The selected notes are moved to another staff by cutting them from their original staff and pasting them to the new staff. By default, they are pasted into the first voice active on that staff.

#### NOTE

When moving notes within tuplets to other staves, those notes do not remain tuplets unless you have also selected the tuplet bracket, tuplet number/ratio, or tuplet signpost.

---

#### RELATED LINKS

[Creating cross-staff beams](#) on page 427

[Copying and pasting items to multiple staves](#) on page 270

## Swapping the contents of staves

You can swap the contents of two staves for a selected range, for example, if you want to change quickly the default voicing in two particular bars that was achieved by exploding a chord.

---

#### PROCEDURE

1. In Write mode, select the range of music on two staves that you want to swap.
  2. Choose **Edit > Paste Special > Swap**. You can also choose this option from the context menu.
- 

#### RESULT

The contents of the selected staves for the selected duration are swapped.

RELATED LINKS

[Swapping the contents of voices](#) on page 272

## 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.

---

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:
  - Choose **Edit > Voices > Change Voice > [Voice]**.
  - Choose **Edit > Voices > Change Voice > [Slash Voice]**.

**TIP**

- 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.
- 

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, and add implicit rests to ensure correct notation based on convention.

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

[Showing voice colors](#) on page 708

[Large selections](#) on page 259

[Filters](#) on page 263

[Implicit rests in multiple-voice contexts](#) on page 601

[Deleting rests](#) on page 602

[Changing the stem direction of notes](#) on page 638

[Changing the slash voice type](#) on page 712

## 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 > 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 709

[Voice column index](#) on page 710

## Splitting flows

You can split flows at specific rhythmic positions. Flows in Dorico Elements are independent of each other, meaning they can contain different players and have different options for notations, including note grouping and accidental duration rules.

---

#### 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 start on a new page in page view and are shown on a separate background in galley view.

#### RELATED LINKS

[Flows](#) on page 114

[Adding flows](#) on page 115

[Deleting flows](#) on page 117

[Deleting empty bars at the end of flows](#) on page 402

# Layout and formatting

There are various ways you can control the layout and formatting of pages in your project, including changing the size of pages and adjusting note spacing.

## NOTE

In Dorico Elements, you cannot edit all the objects and settings used to determine page formatting, such as frames and master pages. However, we have included basic information about these for your information.

## RELATED LINKS

[Engrave mode](#) on page 274

[Frames](#) on page 274

[Master pages](#) on page 275

[Page layouts](#) on page 275

[Note spacing](#) on page 301

[Staff spacing](#) on page 303

## Engrave mode

Engrave mode is only available in Dorico Pro. It allows you to position items graphically wherever you want, and create and edit master pages that determine the appearance and layout of pages. If you find you need these finer controls over the appearance of your music, consider upgrading to Dorico Pro.

## Frames

Dorico uses rectangular 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 master pages control the layouts of pages in your project.

In Dorico Elements, there are the following types of frames:

- Music frames that show the music of selected players and flows
- Text frames that allow you to enter text and text tokens
- Graphics frames that allow you to load images or illustrations in a variety of formats

## RELATED LINKS

[Flows in Dorico Elements](#) on page 28

[Layouts in Dorico Elements](#) on page 29

[Frame breaks](#) on page 288

[Text tokens](#) on page 295

## Master pages

Master pages function like templates in Dorico Elements, allowing the same page formatting to be applied to multiple different pages in different layouts.

### NOTE

Page size and margins, page orientation, and staff size for full score and part layouts are specified in **Setup > Layout Options**.

All pages in your score and parts inherit their layout formats from master pages. However, in Dorico Elements, you cannot edit master pages or create new ones like you can in Dorico Pro.

Dorico Elements provides default master pages for first (**First**) and subsequent (**Default**) pages. Master pages are contained in master page sets for full score and part layouts. Master page sets are automatically applied to every layout that you create.

### RELATED LINKS

[Layout Options dialog](#) on page 87

## 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 master pages.

Flow headings exist as part of master page sets. By default, Dorico Elements provides one flow heading in each master page set, which contains tokens to display the flow number and flow title. This is the default for all flow headings, but you can insert flow heading changes to individual pages and ranges of pages.

Flow headings are automatically inserted 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. They also occupy vertical space within music frames. You can change the margins for the space above and below flow headings.

**3. Menuetto**

Allegretto

F. Hn in G 2



The image shows a musical staff with a treble clef, a key signature of two flats (B-flat and E-flat), and a 3/4 time signature. The notation includes a quarter rest, a dotted quarter note, an eighth note, a quarter note, a quarter rest, a quarter note, and a dotted quarter note. A dynamic marking 'f' is placed below the first dotted quarter note.

A flow heading above the third flow in a part layout

### RELATED LINKS

[Tacets](#) on page 285

[Hiding/Showing flow headings](#) on page 280

[Text tokens](#) on page 295

## Page layouts

In Dorico Elements, the layout of pages is determined by their margins, the master page applied to them, any casting off values applied to them, system and frame breaks, and frame padding.

Casting off, meaning the process of determining a set number of bars per system and systems per page, allows you to fix a regular appearance across entire layouts.

System and frame breaks allow you to adjust layouts on a local level, by determining which bars are shown on each system and where music is pushed into the next frame.

Frames cannot exceed the boundaries set by the margins of the layout, which you can change on the **Page Setup** page in **Setup > Layout Options**. You can change the size of margins in millimeters on each edge of each page, and choose one of the following styles of 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 inside/outside edges of pages.

Music frames in the default master pages have padding that ensures 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 padding of all music frames in each layout in **Layout Options**.

#### RELATED LINKS

- [Master pages](#) on page 275
- [Casting off](#) on page 287
- [Tacets](#) on page 285
- [Layouts](#) on page 117
- [Flows](#) on page 114
- [Players](#) on page 91

## 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, **Shift**-clicking adjacent layouts, and **Ctrl/Cmd**-clicking individual layouts.
3. Click **Page Setup** in the page list.
4. In the **Page Margins** section, choose one of the following options for **Page margins**:
  - **Same**
  - **Different**
  - **Mirrored**
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.

## Changing the page size and orientation

You can change the page size and 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, **Shift**-clicking adjacent layouts, and **Ctrl/Cmd**-clicking individual layouts.
3. Click **Page Setup** in the page list.
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 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

[Page sizes and paper sizes](#) on page 384

[Paper orientation](#) on page 385

[Paper size and orientation setup](#) on page 385

[Changing the default staff/system spacing](#) on page 303

## 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, **Shift**-clicking adjacent layouts, and **Ctrl/Cmd**-clicking individual layouts.
3. Click **Page Setup** in the page list.
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, **Shift**-clicking adjacent layouts, and **Ctrl/Cmd**-clicking individual layouts.
3. Click **Page Setup** in the page list.
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

- When you choose **Always start new page**, flows in the selected layouts always begin at the start of the next page after the end of the previous flow.
- When you choose **Allow on existing page**, flows in the selected layouts 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

[Text tokens](#) on page 295

[Casting off](#) on page 287

[Changing the flows assigned to layouts](#) on page 119

[Changing the players assigned to flows](#) on page 115

[Hiding/Showing information in running headers above flow headings](#) on page 281

## Changing when the First master page is used

You can change the circumstances when the **First** master page 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** master page 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, **Shift**-clicking adjacent layouts, and **Ctrl/Cmd**-clicking individual layouts.
  3. Click **Page Setup** in the page list.
  4. In the **Flows** section, choose one of the following options for **Use 'First' master page**:
    - **Never**
    - **First flow only**
    - **Any flow starting at top of page**
  5. Click **Apply**, then **Close**.
- 

#### RESULT

- Choosing **Never** means the **First** master page is not used for any page in the selected layouts.
- Choosing **First flow only** means the **First** master page 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** master page is used for all pages in the layout that begin with the start of a flow.

#### RELATED LINKS

[Layout Options dialog](#) on page 87

## 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.

### PREREQUISITE

You have allowed multiple flows on the same page in the layouts in which you want to show 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 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, **Shift**-clicking adjacent layouts, and **Ctrl/Cmd**-clicking individual layouts.
3. Click **Page Setup** in the page list.
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.

### RELATED LINKS

[Allowing/Disallowing multiple flows on the same page](#) on page 278

## 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, **Shift**-clicking adjacent layouts, and **Ctrl/Cmd**-clicking individual layouts.
3. Click **Page Setup** in the page list.



4. In the **Flows** section, change the values for **Flow heading top margin** and/or **Flow heading bottom margin**.
  5. Click **Apply**, then **Close**.
- 

#### RESULT

Changing the value for **Flow heading top margin** increases/decreases the gap between the top of flow headings and the end of the preceding flow.

Changing the value for **Flow heading bottom margin** increases/decreases 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



The image shows a musical score with two systems. The first system is a piano accompaniment starting with a treble clef, a key signature of one sharp (F#), and a common time signature (C). It features a series of chords, with a dynamic marking of *ff* (fortissimo) under the first chord. The second system is a vocal line starting with a treble clef, a key signature of one sharp (F#), and a common time signature (C). It begins with a 4-measure rest, followed by a melodic line with a dynamic marking of *p* (piano). A green horizontal bar labeled "2. Andante maestoso" is positioned between the two systems. Vertical blue lines mark the start and end of the flow heading area.

Flow heading with default margins above/below



This image is identical to the one on the left, showing the same musical score and green flow heading bar. However, the vertical blue lines are positioned closer to the music, indicating that the margins between the flow heading and the musical systems have been decreased.

Flow heading with decreased margins above/below

---

## 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, **Shift**-clicking adjacent layouts, and **Ctrl/Cmd**-clicking individual layouts.
  3. Click **Page Setup** in the page list.
  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 274

[Master pages](#) on page 275

## Changing the music frame margins in layouts

You can change the margins in all music frames in individual layouts, for example, if you 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 in which you want to change the music frame 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, **Shift**-clicking adjacent layouts, and **Ctrl/Cmd**-clicking individual layouts.
  3. Click **Page Setup** in the page list.
  4. In the **Music Frame Margins** section, change the values for **Top** and/or **Bottom**.
  5. Click **Apply**, then **Close**.
- 

#### RESULT

The margins within all music frames in the selected layouts is changed.

#### RELATED LINKS

[Changing the default staff/system spacing](#) on page 303

## Changing the justification of final systems

By default in Dorico Elements, the final systems in flows only justify to the full width of the page when they are more than half full. You can change this setting 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 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, **Shift**-clicking adjacent layouts, and **Ctrl/Cmd**-clicking individual layouts.
3. Click **Note Spacing** in the page list.
4. Optional: If you want the final systems in flows to justify fully always, deactivate **Only justify final system in flow when more than [n]% full**.

5. Optional: 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**.
  6. 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 independently.

---

## 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 justified or only systems are 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, **Shift**-clicking adjacent layouts, and **Ctrl/Cmd**-clicking individual layouts.
  3. Click **Vertical Spacing** in the page list.
  4. In the **Ideal Gaps** section, choose one of the following options for **Gap to use for divisi 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 musical score page for a string quartet (Violin I, Violin II, Viola, and Cello/Double Bass). The page is divided into three systems. Each system contains four staves. The staves are justified, meaning the music is aligned to the right margin. The systems are also justified, meaning the first staff of each system is aligned to the right margin. The lyrics 'u - a - mor lan - tae u - a - mor lan - tae u - a - mor lan - tae' are written below the staves.

A page with staves and systems both justified

The same musical score page as the first example, but with only the systems justified. The staves within each system are not justified to the right margin. The lyrics 'u - a - mor lan - tae u - a - mor lan - tae u - a - mor lan - tae' are written below the staves.

The same page with only systems justified

## RELATED LINKS

[Per-layout vertical spacing options](#) on page 304

[Changing the default staff/system spacing](#) on page 303

## Hiding/Showing empty staves

You can hide/show empty staves differently in each layout in your project. 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, **Shift**-clicking adjacent layouts, and **Ctrl/Cmd**-clicking individual layouts.
3. Click **Vertical Spacing** in the page list.
4. In the **Hide Empty Staves** 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 **All 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 630

[Changing the default staff/system spacing](#) on page 303

[Per-layout vertical spacing options](#) on page 304

## 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 master page frame chain in the part layout.
- Multiple flows are allowed on the same page in the part layout.
- You have chosen to show tacets in the part layout.



### 2. Andante

Tacet

### 3. Menuetto



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

[Changing the players assigned to flows](#) on page 115

- [Allowing/Disallowing multiple flows on the same page](#) on page 278
- [Staff spacing](#) on page 303
- [Inserting system breaks](#) on page 290
- [Inserting frame breaks](#) on page 289
- [Flow headings](#) on page 275

## 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.

---

### 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, **Shift**-clicking adjacent layouts, and **Ctrl/Cmd**-clicking individual layouts.
3. Click **Players** in the page list.
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 player is not assigned to the flows in which they do not play.

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

- [Tacets](#) on page 285
- [Multi-bar rests](#) on page 604
- [Changing the players assigned to flows](#) on page 115
- [Hiding/Showing multi-bar rests](#) on page 604

## Changing the text shown in tacets

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 in which you want to change the tacet text shown.  
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, **Shift**-clicking adjacent layouts, and **Ctrl/Cmd**-clicking individual layouts.
3. Click **Players** in the page list.
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, **Shift**-clicking adjacent layouts, and **Ctrl/Cmd**-clicking individual layouts.
  3. Click **Players** in the page list.
  4. In the **Tacets** section, change the values for **Margin above tacet** and/or **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 275

## 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. In Dorico Elements, you can fix both the number of bars per system and the number of systems per music frame for each layout independently.

### RELATED LINKS

[Per-layout vertical spacing options](#) on page 304

## Fixing the number of bars per system

You can define a fixed number of bars you want included in each system in each layout in your 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 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, **Shift**-clicking adjacent layouts, and **Ctrl/Cmd**-clicking individual layouts.
3. Click **Staves and Systems** in the page list.
4. In the **Casting Off** section, activate **Fixed number of bars per system**.
5. Change the number of bars you want in each system by changing 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 584
- [Inserting system breaks](#) on page 290
- [Inserting frame breaks](#) on page 289

## 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 in your project. Because the default master pages 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, **Shift**-clicking adjacent layouts, and **Ctrl/Cmd**-clicking individual layouts.
  3. Click **Staves and Systems** in the page list.
  4. In the **Casting Off** section, activate **Fixed number of systems per frame**.
  5. Change the number of systems you want in each frame by changing 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.

## Frame breaks

In Dorico Elements, you can use frame breaks to push musical material into the next frame, which is usually on the next page, meaning you can use frame breaks to create page breaks. For example, you can use frame breaks to insert page turns at specific positions in part layouts.

Frame breaks are indicated by signposts, which you can hide/show at any time.

#### TIP

You can also control the content of music frames by fixing the number of systems per music frame in each layout.

---

#### RELATED LINKS

- [Per-layout vertical spacing options](#) on page 304



## Inserting frame breaks

You can insert frame breaks that allow you to create page turns in particular places in your music.

---

### PROCEDURE

1. Select a note or item at the rhythmic position where you want to insert a frame break.  
For example, if you select a clef, the clef is placed at the end of the frame, and the notes are moved to the start of the next music frame.
2. Choose **Edit > Frame Break**.

---

### RESULT

A frame break is inserted immediately before the rhythmic position of the earliest selected item. 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.

---

## Hiding/Showing frame break signposts

You can hide/show frame break signposts at any time.

---

### PROCEDURE

- Choose **View > Signposts > Frame Breaks**.

---

### RESULT

Frame break signposts are shown when a tick appears beside **Frame Breaks** in the menu, and hidden when no tick appears.

## 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**.
- 

## System breaks

System breaks are where musical material must be split across multiple systems or pages in order to fit on the required paper. 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 are indicated by signposts, which you can hide/show at any time.

#### TIP

You can also control the content of systems by fixing the number of bars per system in each layout.

---

#### RELATED LINKS

[Fixing the number of bars per system](#) on page 287

[Per-layout vertical spacing options](#) on page 304

## Inserting system breaks

You can insert system breaks at any rhythmic position.

---

#### PROCEDURE

1. Select a note or item at the rhythmic position where you want to insert a system break. For example, if you select a clef, the clef is placed at the end of the system, and the notes are moved to the start of the next system.
  2. Choose **Edit > System Break**.
- 

#### RESULT

A system break is inserted immediately before the rhythmic position of the earliest selected item. 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.

---

## Hiding/Showing system break signposts

You can hide/show system break signposts at any time.

---

#### PROCEDURE

- Choose **View > Signposts > System Breaks**.
- 

#### RESULT

System break signposts are shown when a tick appears beside **System Breaks** in the menu, and hidden when no tick appears.

## 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**.
-

## Part formatting propagation

The propagation of part formatting involves copying the layout options and system formatting that determine the layouts of pages and applying them to other 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 **Setup > 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

We do not recommend using layouts with multiple music frame chains as either source or destination layouts as you can get unexpected results.

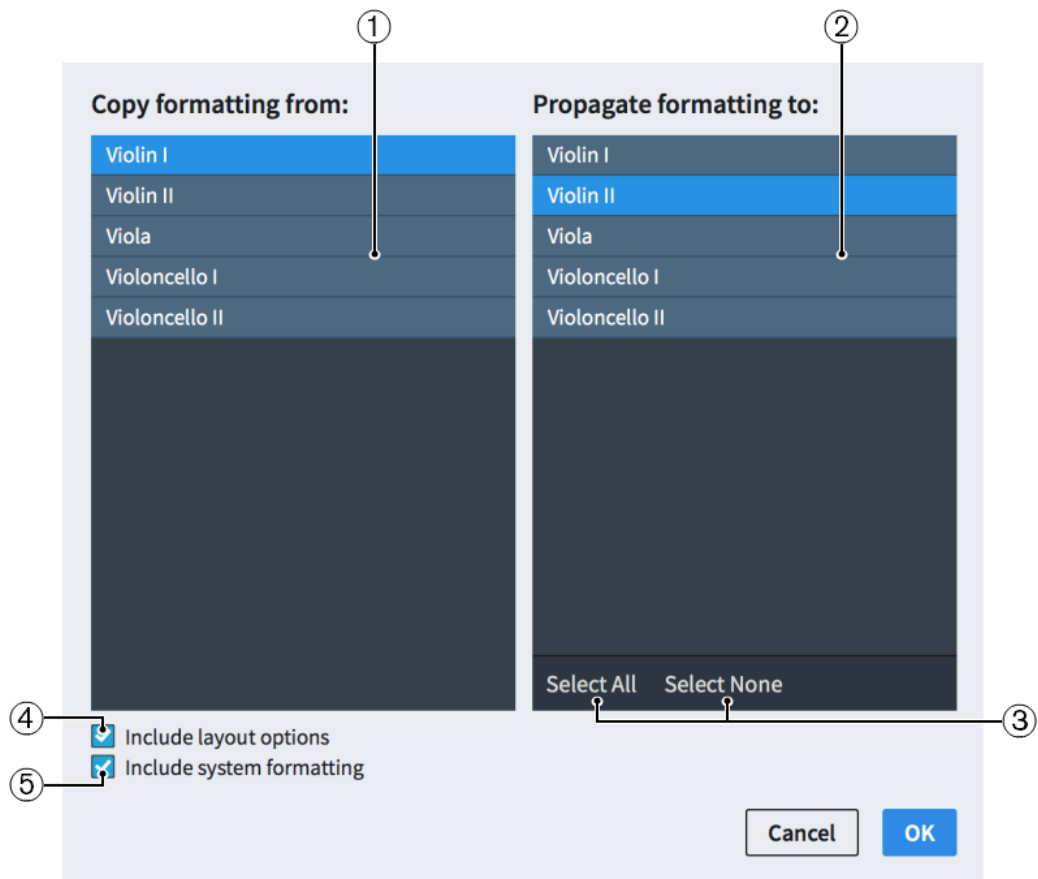
---

## 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:

- Right-click a layout in the **Layouts** panel and choose **Propagate Part Formatting** from the context menu. This automatically selects that layout as the source layout in the **Copy formatting from** list.
- Choose **Setup > Propagate Part Formatting**.



**Propagate Part Formatting** dialog

The **Propagate Part Formatting** dialog contains the following sections and options:

- 1 Copy formatting from list**  
Contains a list of all the layouts in the project. You can only select a single layout as the source layout.
- 2 Propagate formatting to list**  
Contains a list of all the layouts in the project. You can select multiple layouts as destination layouts.
- 3 Selection options**  
Allow you to select/deselect all the 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 master page 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.

## Copying part formatting to other layouts

You can copy all the formatting from one layout to other 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

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 the **Layouts** panel in Setup mode, right-click the card of the layout whose part formatting you want to copy and choose **Propagate Part Formatting** from the context menu.
  2. In the **Propagate Part Formatting** dialog, select the layout whose part formatting you want to copy in the **Copy formatting from** list.  
By default, the layout whose card you used to open the dialog is selected.
  3. In the **Propagate formatting to** list, select the layouts to which you want to copy part formatting.  
You can use the selection options in the action bar, **Shift-click** adjacent layouts, and **Ctrl/Cmd-click** individual layouts.
  4. Activate/Deactivate **Include layout options**.
  5. Activate/Deactivate **Include system formatting**.
  6. 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 **Setup > 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.

---

## Copying property settings to other layouts

Many properties are layout-specific, meaning they only affect the layout currently open in the music area by default. You can copy the properties set on notes and items to all other layouts 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.
  2. Choose **Edit > Propagate Properties**.
-

#### RESULT

All properties set on the selected notes/items are copied to all layouts in which those notes/items appear.

#### RELATED LINKS

[Large selections](#) on page 259

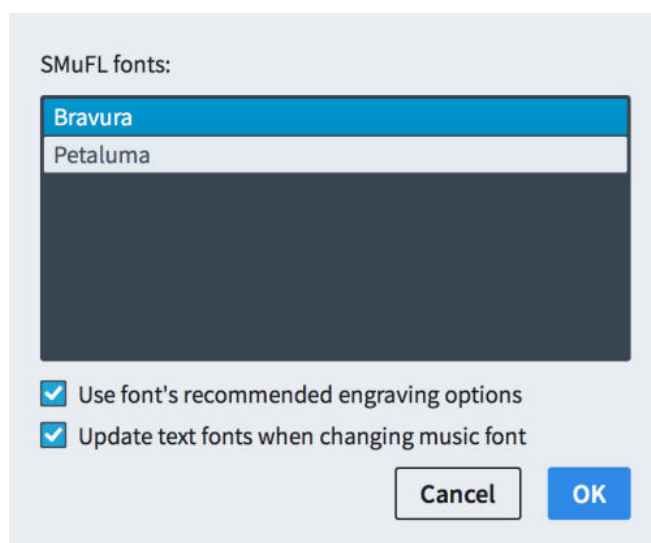
[Resetting the appearance of items](#) on page 266

[Resetting the position of items](#) on page 267

## 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 **Edit > Music Fonts**.



**Music Fonts** dialog

The 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:

#### **Use font's recommended engraving options**

Allows you to import the default settings that come with the font.

#### **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.

#### 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.

---

## Text objects vs. text in text frames

Text in Dorico Elements can exist as a text object, added to individual staves or as system text, and in text frames, which are fixed to the page rather than the music.

As you cannot see or edit frames in Dorico Elements, both types of text look very similar. You can tell the difference between them by clicking them once: if the text appears highlighted with an attachment line to a staff, it is a text/system text object. If the text does not appear highlighted or has no attachment line, it is in a text frame.

You can edit both types of text in the same ways, but you can only use text tokens in text frames. You cannot use tokens in text added to staves/systems.

#### RELATED LINKS

[Editing text](#) on page 257

[Text tokens](#) on page 295

## Text tokens

Text 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. Text 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 the project-wide information on the **Project** page in the **Project Info** dialog, or to individual **Flow** pages in the **Project Info** dialog. 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 text tokens in text frames. You cannot use tokens in text/system text objects.
- Flow tokens refer to the nearest flow below the top edge of their text frame. 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 stave 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.

---

The following tokens are available in Dorico Elements:

### General tokens

---

Description	Token
Page number	<code>{@page@}</code>

Description	Token
Player list	{@playerlist@}
Player names	{@playernames@}
Layout name	{@layoutname@}
Layout number, as set in the <b>Layouts</b> panel in Setup mode	{@layoutnumber@}

### Project/Flow-specific information tokens

Field in the Project Info dialog	Token for Project page	Token for Flow pages
<b>Title</b>	{@projecttitle@}	{@flowtitle@}
<b>Subtitle</b>	{@projectsubtitle@}	{@flowsubtitle@}
<b>Dedication</b>	{@projectdedication@}	{@flowdedication@}
<b>Composer</b>	{@projectcomposer@}	{@flowcomposer@}
<b>Arranger</b>	{@projectarranger@}	{@flowarranger@}
<b>Lyricist</b>	{@projectlyricist@}	{@flowlyricist@}
<b>Artist</b>	{@projectartist@}	{@flowartist@}
<b>Copyist</b>	{@projectcopyist@}	{@flowcopyist@}
<b>Publisher</b>	{@projectpublisher@}	{@flowpublisher@}
<b>Editor</b>	{@projecteditor@}	{@floweditor@}
<b>Copyright</b>	{@projectcopyright@}	{@flowcopyright@}
<b>Work number</b>	{@projectworknumber@}	{@flowworknumber@}
<b>Composer dates</b>	{@projectcomposerdates@}	{@flowcomposerdates@}
<b>Composition year</b>	{@projectcompositionyear@}	{@flowcompositionyear@}
<b>Other information</b>	{@projectotherinfo@}	{@flowotherinfo@}



## Per-flow tokens

---

Per-flow token function	Token
Flow number of the current flow, according to its position in the <b>Flows</b> panel in Setup mode	{@flownumber@}
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@}
Number of this page within the current flow, counting from 1	{@flowPage@}
Total number of pages in the current flow	{@flowPageCount@}
The displayed page number on which the specified flow “n” begins, such as {@flow3PageCount@}	{@flownPageCount@}
Duration of the current flow in minutes and seconds	{@flowDuration@}
Duration of the specified flow “n” in minutes and seconds, such as {@flow3Duration@}	{@flownDuration@}

---

## Page number tokens

---

Page number token function	Token
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@}
Displayed page number of the page on which the specified flow “n” begins, according to its position in the <b>Flows</b> panel in Setup mode For example, {@flow5FirstPage@}	{@flownFirstPage@}

---

### 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 to show when the project was last saved

Time/Date description	Time/Date example	Token
Standard date and time string (locale dependent)	Sun Dec 31 11:10:12 2017	{@projectdate@}
Four-digit year	2017	{@projectdateyear@}
Two-digit year	17	{@projectdateyearshort@}
Full month name (locale dependent)	October	{@projectdatemonth@}
Short month name (locale dependent)	Oct	{@projectdatemonthshort@}
Month as a decimal number, range 1-12	10	{@projectdatemonthnum@}
Full weekday name (locale dependent)	Friday	{@projectdateday@}
Abbreviated weekday name (locale dependent)	Fri	{@projectdatedaysshort@}
Day of month as decimal number, range 1-31	24	{@projectdatedaynum@}
ISO 8601 date	2017-12-31	{@projectdateymd@}
Month day, year	December 31, 2017	{@projectdatemdy@}
Day month year	31 December 2017	{@projectdatedmy@}
Time representation (locale dependent)	11:10:12	{@projectdatetime@}
Hours:minutes, hour in 24-hour clock range	23:10	{@projectdatetimeHHMM@}
Hours:minutes:seconds, hour in 24-hour clock range	13:02:24	{@projectdatetimeHHMMSS@}
Hour in 24-hour clock range	23	{@projectdatetimehour24@}
Hour in 12-hour clock range	11	{@projectdatetimehour12@}
Minute as decimal number, range 00-59	10	{@projectdatetimeminute@}
Second as decimal number, range 00-59	44	{@projectdatetimesecond@}

### Time/Date tokens to show the 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	{@date@}
Four-digit year	2017	{@dateyear@}
Two-digit year	17	{@dateyearshort@}
Full month name (locale dependent)	October	{@datemonth@}
Short month name (locale dependent)	Oct	{@datemonthshort@}
Month as a decimal number, range 1-12	10	{@datemonthnum@}
Full weekday name (locale dependent)	Friday	{@dateday@}
Abbreviated weekday name (locale dependent)	Fri	{@datedaysshort@}
Day of month as decimal number, range 1-31	24	{@datedaynum@}
ISO 8601 date	2017-12-31	{@dateymd@}
Month day, year	December 31, 2017	{@datemdy@}
Day month year	31 December 2017	{@datedmy@}
Time representation (locale dependent)	11:10:12	{@datetime@}
Hours:minutes, hour in 24-hour clock range	23:10	{@datetimeHHMM@}
Hours:minutes:seconds, hour in 24-hour clock range	13:02:24	{@datetimeHHMMSS@}
Hour in 24-hour clock range	23	{@datetimehour24@}
Hour in 12-hour clock range	11	{@datetimehour12@}
Minute as decimal number, range 00-59	10	{@datetimeminute@}
Second as decimal number, range 00-59	44	{@datetimesecond@}

---

#### RELATED LINKS

- [Project Info dialog](#) on page 87
- [Player, layout, and instrument names](#) on page 93
- [Flow names and flow titles](#) on page 116
- [Renumbering layouts](#) on page 121

## Adding borders to text objects

You can add borders to text and system text objects individually, for example, if you want to make the boundaries of text objects clear.

---

#### PROCEDURE

1. Select the text objects to which you want to add borders.
2. In the Properties panel, activate **Border** in the **Text** group.

---

#### RESULT

Borders are added to the selected text objects.

#### TIP

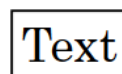
- You can show borders on text objects in addition to erasing their background.
- Deactivating **Border** removes borders from the selected text objects.

---

#### EXAMPLE

Text

Text with no border



Text with border shown

---

## Changing the placement of text objects relative to the staff

You can show text objects either above or below the staff. Text is automatically positioned to ensure that it does not collide with other objects.

#### NOTE

This does not apply to text in text frames.

---

#### PREREQUISITE

The text editor is closed.

---

#### PROCEDURE

1. Select the text objects whose staff-relative placement you want to change.
2. In the Properties panel, choose one of the following options for **Position** in the **Text** group:
  - **Above**
  - **Below**

---

#### RESULT

The selected text objects appear above/below the staff.

## Note spacing

The positions of notes and rests relative to each other, and the automatic gaps between them, are known as note spacing.

### Note spacing changes project-wide

You can change the default note spacing values for each layout independently on the **Note Spacing** page in **Setup > 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

[Changing the default note spacing](#) on page 301

[Layout Options dialog](#) on page 87

## 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.

---

#### 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, **Shift**-clicking adjacent layouts, and **Ctrl/Cmd**-clicking individual layouts.
3. Click **Note Spacing** in the page list.
4. Change the values of the options you want to change.
5. Click **Apply**, then **Close**.

---

#### RESULT

The default note spacing is changed project-wide in the selected layouts.

#### RELATED LINKS

[Note Spacing page in Layout Options](#) on page 301

## Note Spacing page in Layout Options

The **Note Spacing** page in **Layout Options** allows you to change the default values for note spacing project-wide in each layout independently. You can also change how full the final system in flows must be before it is automatically justified.


- You can access the **Note Spacing** page by choosing **Setup > Layout Options** and clicking **Note Spacing** in the page list.

## Note Spacing

Default space for crotchet/quarter note:  spaces

Minimum space for short notes:  spaces

Use custom spacing ratio:



Scale space for grace notes by  %

Scale space for cue notes by  %

Only justify final system in flow when more than  % full

Use optical spacing for beams between staves

Options on the **Note Spacing** page in **Layout Options**

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.

### Use custom spacing ratio

Sets the spacing of notes in relation to other notes according to their rhythmic values. For example, setting **Use 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.

### 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

[Changing the default note spacing](#) on page 301

[Optical spacing for cross-staff beams](#) on page 428

## 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.

### Staff spacing changes project-wide

You can change the default vertical and staff spacing settings for each layout independently on the **Vertical Spacing** page in **Setup > Layout Options**.

The options available allow you to set your ideal spacing, which Dorico Elements then produces as closely as possible. For example, as part of the calculation to decide 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.

We recommend familiarizing yourself with the available vertical spacing options.

#### RELATED LINKS

[Per-layout vertical spacing options](#) on page 304

[Staves](#) on page 625

[Brackets and braces](#) on page 435

[Hiding/Showing empty staves](#) on page 284

[Changing your preferred unit of measurement](#) on page 54

## 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, **Shift**-clicking adjacent layouts, and **Ctrl/Cmd**-clicking individual layouts.

3. Click **Vertical Spacing** in the page list.
  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

[Changing the staff size in layouts](#) on page 626

[Changing the vertical justification of staves/systems](#) on page 283

## 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, **Shift**-clicking adjacent layouts, and **Ctrl/Cmd**-clicking individual layouts.
  3. Click **Vertical Spacing** in the page list.
  4. In the **Ideal Gaps** section, change the value for **In galley view, expand ideal staff gaps to**.
  5. Click **Apply**, then **Close**.
- 

## 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 choosing **Setup > Layout Options** and clicking **Vertical Spacing** in the page 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.

---

### 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.

### 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.

TIP

To achieve consistently spaced systems in part layouts where all the systems contain only a single staff or a pair of braced staves, we recommend making the **Justify distance only between systems when frame is at least [n]% full** value the same as or smaller than the **Justify distance between staves and systems when frame is at least [n]% full**.

- **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.

### Hide Empty Staves

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

[Page layouts](#) on page 275

[Casting off](#) on page 287

[Changing the vertical justification of staves/systems](#) on page 283

# Play mode

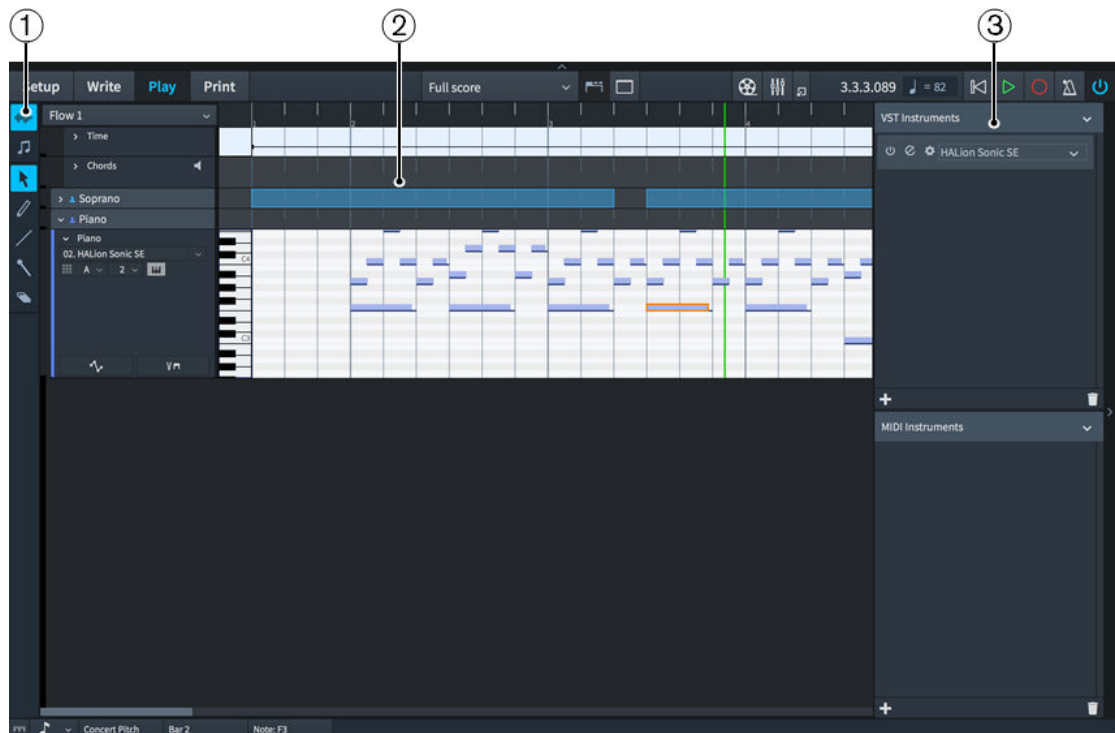
Play mode allows you to set up your project for playback. You can assign VST instruments, adjust the mix, and change the sounding duration of notes in playback without affecting their notated duration.

## Project window in Play mode

The project window in Play mode contains the default toolbar and the event display, and also a toolbox and panels that contain all the tools and functions that allow you to set up your project for playback.

You can switch to Play mode in any of the following ways:

- Press **Ctrl/Cmd-4**.
- Click **Play** in the toolbar.
- Choose **Window > Play**.



Project window in Play mode

### NOTE

There is no Properties panel in Play mode.

The project window in Play mode comprises the following:

- 1 Play toolbox**  
Contains tools that allow you to select and edit note events in the event display.
- 2 Event display**  
Allows you to view, input, and edit the playback of each flow in your project, including changing the played duration of notes and the tempo at any rhythmic position.
- 3 VST and MIDI Instruments panel**  
Allows you to load new VST and MIDI instruments. You can also select existing VST and MIDI instruments and edit their settings.

RELATED LINKS

[Event display](#) on page 312

## Play toolbox

The Play toolbox contains tools that allow you to select and edit the note events in the event display in Play mode. It is located on the left of the window in Play mode.

### Played Durations



Allows you to change when notes start/end in playback without affecting their notated durations. When **Played Durations** is selected, the played durations of notes are shown as a lighter event, above a thinner line that shows the notated duration of notes.

### Notated Durations



Allows you to change the rhythmic duration of notes, which affects the position and notation of those notes. When **Notated Durations** is selected, the full, notated durations of notes are shown as single events in the piano roll editor.

### Object Selection



Allows you to select notes in the piano roll editor. Select **Object Selection** to deselect **Erase**.

You can also select **Object Selection** by pressing **S**.

### Draw



Allows you to add and edit notes. You can click and drag in the piano roll editor to input notes with the durations you want. The ends of the notes you draw snap to rhythmic positions according to the current rhythmic grid value.

It also allows you to add points on time and automation tracks. Using the **Draw** tool rather than the **Line** tool adds a point at regular intervals according to the current rhythmic grid value.

You can also select **Draw** by pressing **D**.

### Line



Allows you to draw straight lines between two points on time and automation tracks, without adding extra values between those points.

### Draw Percussion



Allows you to add notes to percussion staves in the drum editor with one click. You do not have to click and drag to a duration when using **Draw Percussion**.

### Erase

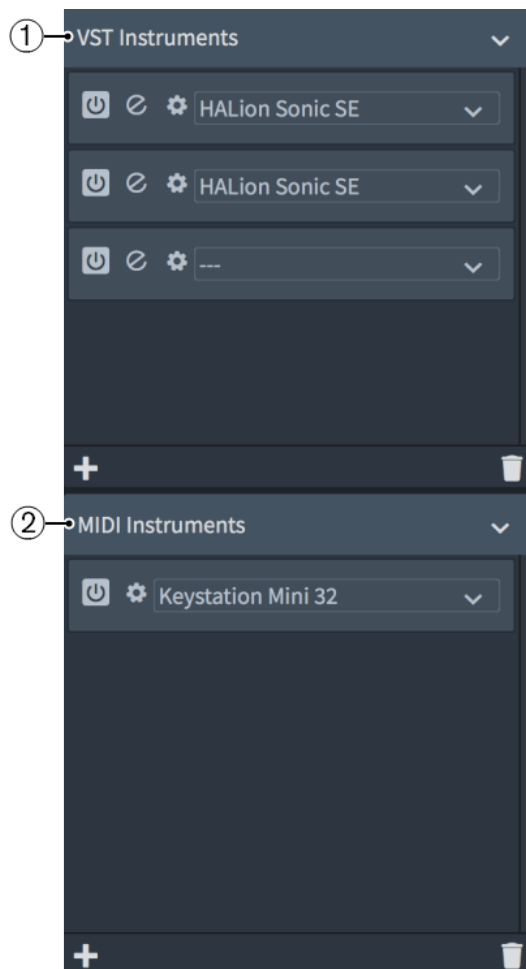


Allows you to delete notes. You can make marquee selections to delete multiple notes when **Erase** is selected.

You can also select **Erase** by pressing E.

## VST and MIDI Instruments panel

The VST and MIDI instruments panel contains the VST and MIDI instruments available and used in your project, and allows you to edit their settings. It is located on the right of the window in Play mode.



VST and MIDI Instruments panel

The VST and MIDI Instruments panel contains the following sections:

- 1 **VST Instruments**
- 2 **MIDI Instruments**

## VST Instruments

The **VST Instruments** section of the panel contains rack slots in which you can select VST instruments to use for playback.

### NOTE

Dorico Elements only shows VST 3 instruments by default. If you want VST 2 instruments to be available in the **VST Instruments** section of the VST and MIDI Instruments panel, you must whitelist them. Only Kontakt is available by default.

---

When you add instruments in your project, Dorico Elements automatically creates a playback template containing instances of HALion Sonic SE with sounds chosen from the HALion Sonic SE and HALion Symphonic Orchestra libraries. Dorico Elements also sets up expression maps and percussion maps as required.

If you change any of these default settings, Dorico Elements no longer makes automatic changes, meaning you must then load sounds for new instruments manually. Additionally, the HALion plug-in does not communicate changes in the plug-in to Dorico Elements, meaning Dorico Elements still tries to play back the music in your project using the expression map for the original sounds.

You must change the expression map manually for each plug-in you change.

Therefore, we recommend that you do one of the following if you want to update the sounds used for playback after making changes:

- Choose **Play > Load Sounds for Unassigned Instruments** to change the default settings and then add new instruments to your project. This automatically loads sounds for instruments in your project without assigned sounds.
- Choose **Play > Playback Template** to open the **Playback Template** dialog, where you can reload a default playback template.

You can add new slots for VST instruments and delete VST instruments by clicking the respective button in the action bar.

- **Add**



Adds a new slot for a VST instrument in the **VST Instruments** section of the VST and MIDI Instruments panel.

- **Delete**



Deletes the selected VST instrument from the **VST Instruments** section of the VST and MIDI Instruments panel.

## MIDI Instruments

The **MIDI Instruments** section of the panel contains rack slots in which you can select MIDI devices to use for output during playback.

### NOTE

For your MIDI device to be available for selection, you must plug it into your computer before starting Dorico Elements. If you plug it in after starting Dorico Elements, you must restart the program.

---

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 Audio MIDI Setup. For example, this allows you to use MIDI from one application in another application.

You can add new slots for MIDI instruments and delete MIDI instruments by clicking the respective button in the action bar.

- **Add**



Adds a new slot for a MIDI instrument in the **MIDI Instruments** section of the VST and MIDI Instruments panel.

- **Delete**



Deletes the selected MIDI instrument from the **MIDI Instruments** section of the VST and MIDI Instruments panel.

## Loading VST and MIDI instruments manually

Dorico Elements automatically loads enough VST slots for all the samples required for your project. However, you can also load VST and MIDI instruments manually, either into new slots or into existing slots to replace existing VST and MIDI instruments.

### PREREQUISITE

- You have any VST instruments you want to use saved on your computer.
- You have connected the MIDI device you want to use.

### NOTE

You must have connected the device to your computer before starting Dorico Elements. If not, you must restart Dorico Elements.

---

### PROCEDURE

1. In either the **VST Instruments** or **MIDI Instruments** section of the VST and MIDI Instruments panel, click **Add**.



2. In the slot in which you want to load a VST or MIDI instrument, select an instrument from the menu.
- 

## Whitelisting VST instruments

You must whitelist any VST 2 instruments you want to use in Dorico Elements. Because whitelisting works like a preference, you must only whitelist plug-ins once for them to be available in any project.

A default `vst2whitelist.txt` file is included with your Dorico Elements installation, which lists VST 2.x plug-ins that Steinberg has qualified for use with Dorico Elements.

You can create a second `vst2whitelist.txt` file in a user-specific location that is not overwritten if you subsequently update or reinstall Dorico Elements.

When Dorico Elements starts up, it reads both the default whitelist file and your user-specific whitelist file to build up the list of whitelisted plug-ins.

### PREREQUISITE

You have quit Dorico Elements and all other programs.

#### PROCEDURE

1. Open a new text document in a plain text editor, such as Notepad.
  2. Enter the file names of the VST plug-ins you want to whitelist without their file extension (.dll on Windows and .vst on macOS).  
Each plug-in must have its own line in the text file.
  3. Save your own `vst2whitelist.txt` file in one of the following places, depending on your operating system:
    - `C:\Users\username\AppData\Roaming\Steinberg\VSTAudioEngine2_64` (Windows)
    - `/Users/username/Library/Preferences/VSTAudioEngine2` (macOS)
  4. Delete the following files from the folder:
    - `Vst2xPlugin Blacklist VSTAudioEngine.xml`
    - `Vst2xPlugin Infos VSTAudioEngine.xml`
    - `Vst2xPlugin SearchPaths VSTAudioEngine.xml`
- 

#### RESULT

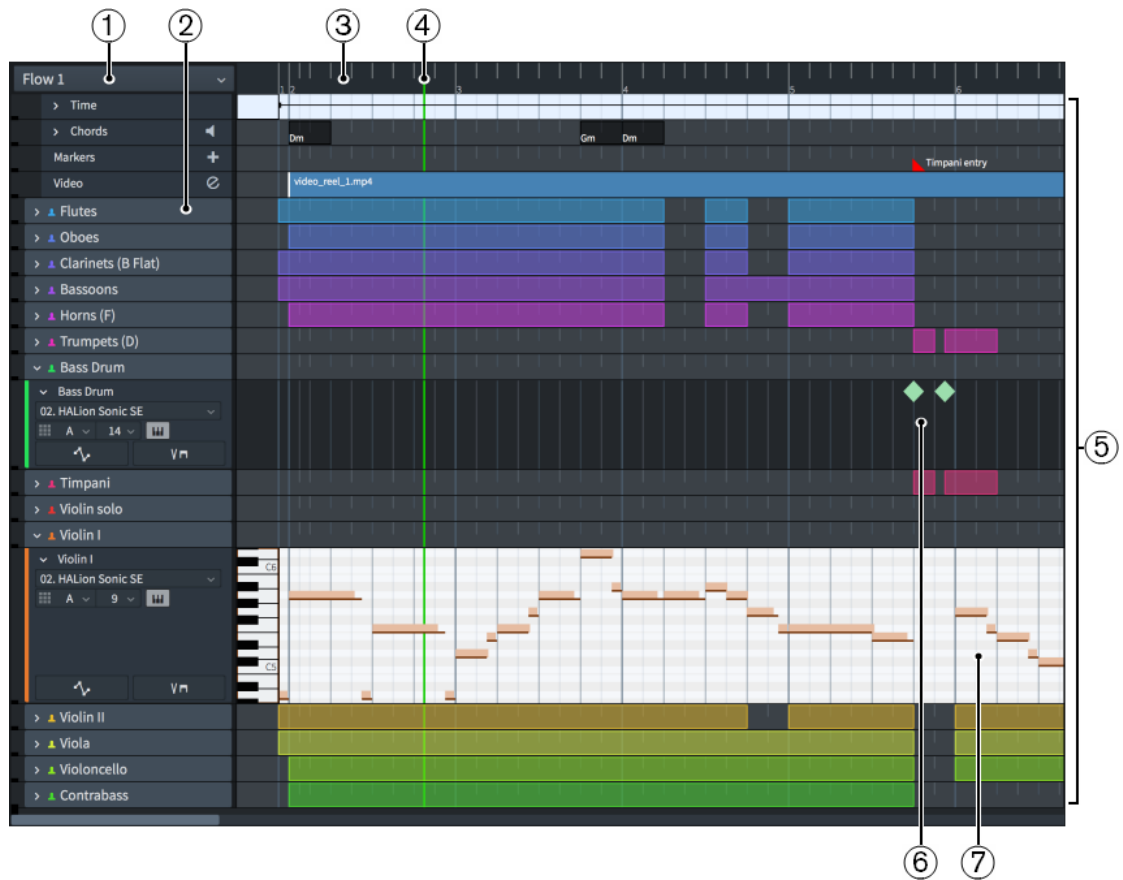
When you next start Dorico Elements, it considers your whitelisted VST plug-in entries, making them available for use in the program.

## Event display

The event display in Play mode is the equivalent of the music area in Write mode. It allows you to view and edit your music, but focuses more on how it sounds in playback rather than its notation.



The event display presents your project in a similar way to that used in a digital audio workstation, or “DAW”, such as Cubase.



Event display in Play mode

The event display comprises the following:

- 1 Flow menu**  
Allows you to select the flow you want to be shown in the event display. Only a single flow is shown at a time.
- 2 Track headers**  
Display the name of each track and contain appropriate options for the track type. You can expand the track headers of some track types, which reveals further options.
- 3 Ruler**  
Displays bar numbers and shows beat divisions that match the current rhythmic grid value.
- 4 Playhead**  
Shows the current rhythmic position in playback.
- 5 Tracks**  
Horizontal rows that contain musical elements represented in time from left to right.
- 6 Drum editor**  
Displays notes for unpitched percussion instruments.
- 7 Piano roll editor**  
Displays notes for pitched instruments.

Tools and options in the Play toolbox allow you to input, edit, and delete notes and other events, such as tempo changes, in the event display.

RELATED LINKS

[Playhead](#) on page 336

[Tracks](#) on page 319

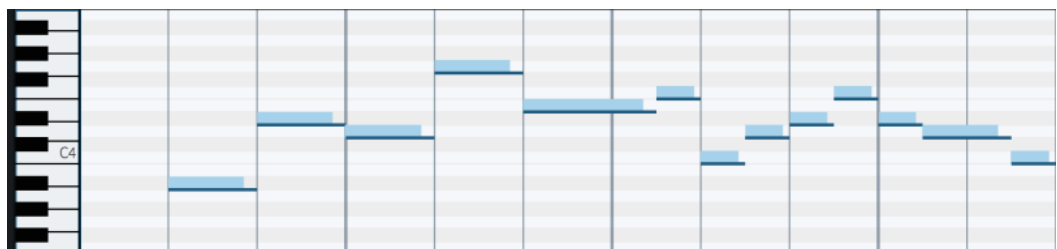
[Play toolbox](#) on page 308

## Piano roll editor

The piano roll editor displays MIDI notes for pitched instruments in a continuous sequence, with the vertical position of note events indicating their pitch.

In Dorico Elements, pitched instruments are displayed in an individual piano roll editor for their instrument track.

Pitched instruments are positioned in the piano roll editor according to their pitch, which is demonstrated by a piano keyboard on the left edge of the piano roll editor.



Piano roll editor

Each instrument is automatically assigned a color when you add them in Setup mode, so that you can tell them apart more easily in Play mode. This color is used for notes in the piano roll on that instrument track, as well as shown as a strip on the instrument track header.

You can edit notes in the piano roll editor, including moving and transposing them.

### NOTE

Editing the played duration of notes causes them to appear in a darker color in the piano roll editor to notes whose played duration you have not changed.

RELATED LINKS

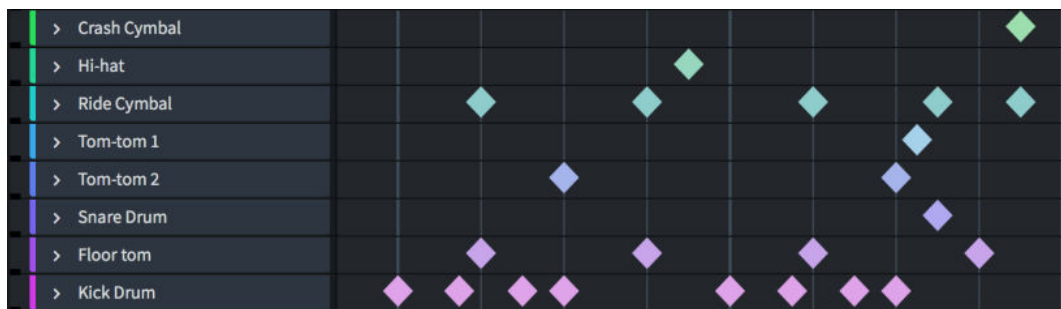
[Instrument tracks](#) on page 321

[Played vs. notated note durations](#) on page 368

## Drum editor

The drum editor displays MIDI notes for unpitched percussion instruments in a continuous sequence. The drum editor appears different to the piano roll editor and has different functionality.

Instead of showing the piano roll view as used in the piano roll editor, in the drum editor the onset of each note on each percussion instrument is shown. Each note is shown as an event of the same size, unlike note events in the piano roll, whose width reflects the duration of the notes.



#### Drum editor

Each unpitched percussion instrument has its own instrument track, including when they are in a percussion kit. You can expand unpitched percussion instrument tracks like other instrument tracks if you want to make changes, such as assigning the instrument to another playback endpoint.

#### NOTE

If you change the endpoint for an unpitched percussion instrument, that endpoint must have an appropriate percussion map chosen, otherwise Dorico Elements does not know how to play the music for that instrument.

You can move notes in the drum editor to new rhythmic positions. Unpitched percussion instruments only have one vertical position for their notes, so you cannot transpose notes in the drum editor.

#### RELATED LINKS

[Instrument tracks](#) on page 321

[Expanding/Collapsing tracks](#) on page 335

## Inputting notes in the event display

You can input notes into the instruments in your project using the event display in Play mode. You can follow these steps for both pitched and unpitched instruments.

#### PROCEDURE

1. Expand the instrument tracks into which you want to input notes.

#### TIP

When inputting notes in unpitched percussion instruments, expanding just the player track is sufficient.

2. Select one of the following tools, depending on the instrument type:

- To input notes in pitched instrument tracks, select **Draw** by pressing **D** or clicking **Draw** in the Play toolbox.



- To input notes in unpitched percussion instrument tracks, select **Draw Percussion** by clicking **Draw Percussion** in the Play toolbox.



3. Input notes in one of the following ways, depending on the instrument type:

- For pitched instruments, click and drag horizontally in the piano roll for the required duration at the pitch position you want.

- For unpitched percussion instruments, click in the drum editor at the positions where you want to input notes.
- 

#### RESULT

In the piano roll editor, notes are input at the pitches indicated by the piano keyboard on the left of the piano roll.

In the drum editor, a note is input in the corresponding instrument each time you click. The current rhythmic grid value determines the duration of the notes. The duration of notes is indicated by a highlighted area in the track. The shape of the note event in the drum editor is the same for all durations.

#### AFTER COMPLETING THIS TASK

You can change both the notated and played durations of notes. You can also change the duration of notes in the score in Write mode.

#### RELATED LINKS

[Instrument tracks](#) on page 321

[Expanding/Collapsing tracks](#) on page 335

[Changing the played duration of notes](#) on page 368

[Changing the duration of notes](#) on page 151

## Moving notes in the event display

You can move notes rhythmically within the event display. This also affects how the selected notes are notated in any relevant score and part layouts.

#### PREREQUISITE

- **Object Selection** is selected in the Play toolbox.
  - **Notated Durations** is selected in the Play toolbox.
- 

#### PROCEDURE

1. Expand the instrument tracks whose notes you want to move.

#### TIP

When moving notes belonging to unpitched percussion instruments, expanding just the player track is sufficient.

---

2. Select the notes you want to move rhythmically.
  3. Move the selected notes according to the current rhythmic grid value in any of the following ways:
    - Press **Alt-Right Arrow** to move them to the right.
    - Press **Alt-Left Arrow** to move them to the left.
    - Click and drag them to the right/left.
- 

#### RESULT

The selected notes are moved to new rhythmic positions according to the current rhythmic grid value. If you selected multiple notes, they are moved together as a block.

#### NOTE

When using the keyboard, you can both transpose and move notes in the piano roll editor in the same action. When using the mouse, you must release the mouse between transposing and moving.

---

RELATED LINKS

[Play toolbox](#) on page 308

## Lengthening/Shortening notes in the piano roll editor

You can change the duration of notes belonging to pitched instruments from within the piano roll editor in Play mode. This automatically changes the notated duration of notes in any relevant score and part layouts.

PREREQUISITE

- **Object Selection** is selected in the Play toolbox.
- **Notated Durations** is selected in the Play toolbox.

---

PROCEDURE

1. Expand the instrument tracks whose notes you want to lengthen/shorten.
2. In the piano roll editor, select the notes you want to lengthen/shorten.
3. Lengthen/Shorten the notes in any of the following ways:
  - To lengthen notes by the current rhythmic grid value, press **Shift-Alt-Right Arrow**.
  - To shorten notes by the current rhythmic grid value, press **Shift-Alt-Left Arrow**.
  - To double the length of notes, press **Ctrl/Cmd-Shift-Alt-Right Arrow**.
  - To halve the length of notes, press **Ctrl/Cmd-Shift-Alt-Left Arrow**.
  - Click and drag the right end of one of the selected notes to the length you want.

**NOTE**

You can only change the notated duration of notes with the mouse when **Notated Durations** is selected in the Play toolbox. When **Played Durations** is selected, you can click and drag notes to change their played duration.

---

RESULT

The notes are lengthened/shortened.

**NOTE**

If you select multiple notes that end at different rhythmic positions and drag them with the mouse pointer, changing their duration forces all the notes to end at the same rhythmic position.

---

RELATED LINKS

[Expanding/Collapsing tracks](#) on page 335  
[Played vs. notated note durations](#) on page 368  
[Changing the duration of notes](#) on page 151  
[Play toolbox](#) on page 308

## Transposing notes in the piano roll editor

You can transpose notes in the piano roll editor by moving them vertically to other pitch positions. You cannot transpose notes in the drum editor, or move them to other unpitched percussion instruments.

PREREQUISITE

**Object Selection** is selected in the Play toolbox.

---

#### PROCEDURE

1. Expand the instrument tracks whose notes you want to transpose.
  2. In the piano roll editor, select the notes you want to transpose.
  3. Transpose the notes in any of the following ways:
    - To move notes up one staff position, such as from C to D, press **Alt-Up Arrow**.
    - To move notes down one staff position, such as from D to C, press **Alt-Down Arrow**.
    - To transpose notes up a single octave division, such as a quarter tone in 24-EDO, press **Shift-Alt-Up Arrow**.
    - To transpose notes down a single octave division, such as a quarter tone in 24-EDO, press **Shift-Alt-Down Arrow**.
    - To transpose notes up an octave, press **Ctrl/Cmd-Alt-Up Arrow**.
    - To transpose notes down an octave, press **Ctrl/Cmd-Alt-Down Arrow**.
    - Click and drag them upwards/downwards.
- 

#### RESULT

The selected notes are transposed according to their new pitch positions in the piano roll editor.

#### NOTE

- This also affects how the selected notes are notated in any relevant score and part layouts.
  - When using the keyboard, you can both transpose and move notes in the piano roll editor in the same action. When using the mouse, you must release the mouse between transposing and moving.
- 

#### RELATED LINKS

[Moving notes in the event display](#) on page 316  
[Equal Division of the Octave \(EDO\)](#) on page 491  
[Play toolbox](#) on page 308

## Deleting notes in the event display

You can delete notes in the event display in Play mode. This also removes notes from any relevant score and part layouts.

---

#### PROCEDURE

1. Expand the instrument tracks whose notes you want to delete.

#### TIP

When deleting notes from unpitched percussion instruments, expanding just the player track is sufficient.

---

2. Press **E** to select **Erase**.
3. Delete notes in any of the following ways:
  - Click individual notes.
  - Make a marquee selection to delete multiple notes at once.

#### NOTE

You can only make marquee selections on a single instrument, including percussion instruments in percussion kits.

---

#### RESULT

The notes you click or include in a marquee selection are deleted.

#### TIP

You can also delete notes by selecting **Object Selection** in the Play toolbox, then selecting the notes you want to delete in the event display and pressing **Backspace** or **Delete**.

---

#### RELATED LINKS

[Selecting multiple items using marquee selections](#) on page 40

## Zooming in/out of tracks in the event display

You can change the zoom level in the tracks in the event display to make notes appear larger/smaller. This does not affect the height of tracks.

---

#### PROCEDURE

- Change the zoom in any of the following ways:
    - To make notes appear wider, press **Z**.
    - To make notes appear narrower, press **X**.
    - To make notes appear taller, **Shift**-click and drag upwards on the piano keyboard on the left.
    - To make notes appear shorter, **Shift**-click and drag downwards on the piano keyboard on the left.
    - To make notes appear wider and taller, spread two fingers outwards on a touchpad.
    - To make notes appear narrower and shorter, pinch two fingers together on a touchpad.
    - To make notes appear wider, click and drag downwards along the playhead in the ruler.
    - To make notes appear narrower, click and drag upwards along the playhead in the ruler.
- 

#### RELATED LINKS

[Changing the height of tracks](#) on page 335

## Tracks

Tracks are rows in the event display that represent time horizontally 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 the event display in Play mode:

### Player tracks

Contain all the instrument tracks belonging to that player. You can expand/collapse player tracks to show the instrument tracks they contain.

### Instrument tracks

Display the notes belonging to the instrument in a piano roll or drum editor, depending on the type of instrument.

Each instrument track also has its own playing techniques lane and automation lane.

### Time track

Displays tempo changes in the flow, including tempo marks input in Write mode as well as tempo changes input in the **Time** track.

### Chords track

Displays chord symbols in the flow.

### Markers track

Displays markers in the flow, including their text.

### Video track

Shows where there is video in the flow, if applicable, including its file name.

#### RELATED LINKS

[Event display](#) on page 312

[Player tracks](#) on page 320

[Instrument tracks](#) on page 321

[Time track](#) on page 327

[Chords track](#) on page 331

[Markers track](#) on page 333

[Video track](#) on page 335

[Expanding/Collapsing tracks](#) on page 335

## Player tracks

Player tracks represent each player in the flow currently shown in the event display and show where notes exist for any of the instruments held by that player. Player tracks are labelled using the player names given to players in Setup mode.



Example player track

Each player track comprises the following:

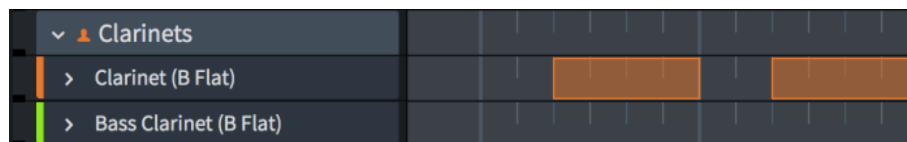
**1 Track height adjuster**

Allows you to change the height of the track by clicking and dragging its bottom corner.

**2 Track disclosure arrow**

Allows you to expand/collapse the track. Expanding player tracks reveals the instrument tracks of all the instruments held by that player. You can then expand/collapse each instrument track individually.





Expanded player track revealing two collapsed instrument tracks

**3 Track name**

Shows the name of the track. Player tracks use the player name given to the player in the **Players** panel in Setup mode.

**4 Track header**

Shows the name of the track and contains the track disclosure arrow.

**5 Colored regions**

Show where notes exist for any of the instruments held by the player. On collapsed instrument tracks, colored regions show where notes exist for that instrument.

- Colored regions on player tracks use the color assigned to the top instrument held by the player.
- Colored regions on collapsed instrument tracks use the color assigned to that instrument.

**NOTE**

To interact with the notes indicated by a colored region, you must expand the player track and the corresponding instrument track.

---

RELATED LINKS

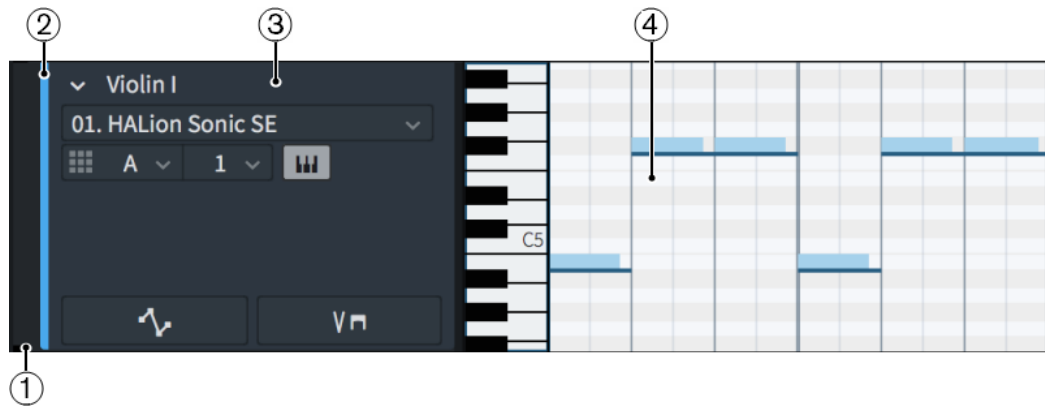
- [Event display](#) on page 312
- [Piano roll editor](#) on page 314
- [Drum editor](#) on page 314
- [Expanding/Collapsing tracks](#) on page 335
- [Player, layout, and instrument names](#) on page 93

## Instrument tracks

Instrument tracks allow you to view, input, and edit notes belonging to the corresponding instrument, displayed on a piano roll editor or drum editor, depending on the type of instrument. They are labelled using the instrument name for each instrument.

Each instrument in your project has its own instrument track in the event display in Play mode, including when a single player holds multiple instruments.

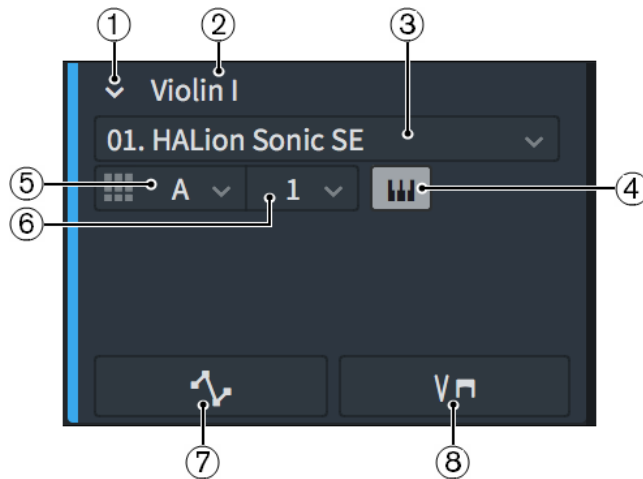
Instruments are automatically assigned a track color when you add them in Setup mode, so that you can tell them apart more easily in Play mode. This color appears as a strip on the instrument track and is used for notes in the event display.



Example instrument track

Each instrument track comprises the following:

- 1 Track height adjuster**  
Allows you to change the height of the track by clicking and dragging its bottom corner.
- 2 Color strip**  
Displays the color assigned to the track. This color is also used for notes in the piano roll editor/drum editor and for colored regions on player tracks/collapsed instrument tracks.
- 3 Track header**  
Shows the name of the track and contains appropriate options for instrument tracks, such as VST or MIDI slot menus.
- 4 Piano roll editor/Drum editor**  
Displays notes belonging to the instrument in either a piano roll editor or drum editor, depending on the instrument type.



Example instrument track header

Each instrument track header contains the following:

- 1 Track disclosure arrow**  
Allows you to expand/collapse the track.
  - Collapsed player tracks show colored regions in the event display. You cannot select or move colored regions.
  - Expanded player tracks show notes in either a piano roll editor or drum editor, depending on the instrument type.
- 2 Track name**

Shows the name of the track. Instrument tracks use the instrument name set in the **Edit Instrument Names** dialog for the instrument.

**3 VST or MIDI Instrument menu**

Allows you to select an instance of a VST or MIDI instrument to use for the instrument track.

**4 Edit Instrument**

Opens the corresponding VST instrument, allowing you to edit settings for the slot or channel.

**5 Port menu**

Allows you to change the endpoint to which the instrument is assigned by selecting the port you want to use when using a plug-in that has multiple ports of 16 channels.

**6 Slot menu**

Allows you to change the endpoint to which the instrument is assigned by selecting the slot in the selected VST instrument, or channel in the selected MIDI instrument, that you want to use for the instrument track.

**7 Show the automation lane**

Hides/Shows the automation lane below the instrument track.

**8 Show the playing techniques lane**

Hides/Shows the playing techniques lane below the instrument track.

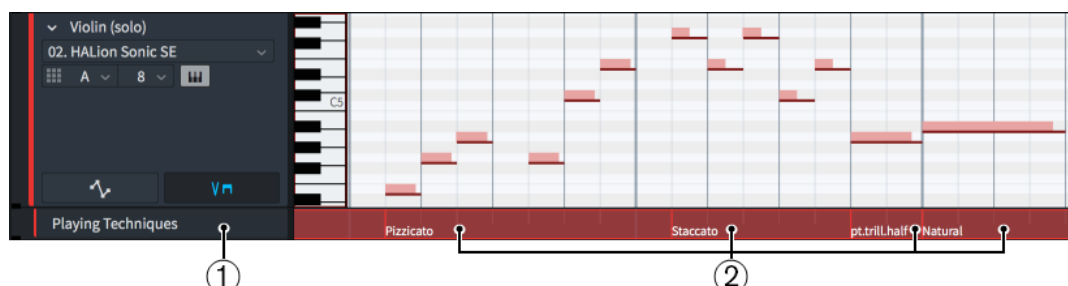
RELATED LINKS

- [Expanding/Collapsing tracks](#) on page 335
- [Event display](#) on page 312
- [Player tracks](#) on page 320
- [Piano roll editor](#) on page 314
- [Drum editor](#) on page 314
- [Automation lanes](#) on page 324
- [Player, layout, and instrument names](#) on page 93
- [Endpoint Setup dialog](#) on page 350
- [Assigning instruments to endpoints](#) on page 352

## Playing techniques lanes

Playing techniques lanes display where you have input playing techniques for the corresponding instrument. Each instrument track has its own playing techniques lane that you can show in the event display.

- You can hide/show the playing techniques lane for an instrument track by clicking **Show the playing techniques lane** in the instrument track header.



Playing techniques lane below an instrument track

Playing techniques lanes comprise the following:

**1 Lane header**

Shows the name of the lane.

## 2 Playing technique regions

Display the playing technique that applies to notes in the region. You can hover your mouse pointer over playing technique regions on the lane to see the following related information:

- Playing technique/Playing technique combination used in the expression map
- VST or MIDI instrument used for the region
- Channel in the VST instrument used for the region
- Expression map used for the region

### NOTE

You cannot change playing techniques using this lane.

### RELATED LINKS

[Instrument tracks](#) on page 321

[Event display](#) on page 312

[Expression maps](#) on page 353

## Hiding/Showing playing techniques lanes

You can hide/show the playing techniques lane for each instrument track.

### PROCEDURE

1. Expand the instrument tracks whose playing technique lanes you want to hide/show.
2. In each instrument track header, click **Show the playing techniques lane**.

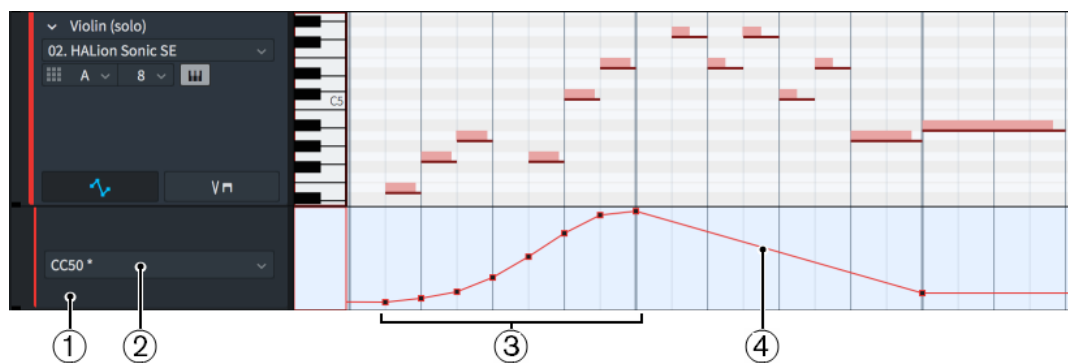
### RESULT

The playing techniques lane for each instrument track is shown when the button is highlighted, and hidden when the button is not highlighted.

## Automation lanes

Automation lanes allow you to view, input, and edit MIDI controller data that applies to the corresponding instrument. Each instrument track has its own automation lane that you can show in the event display.

- You can hide/show the automation lane for an instrument track by clicking **Show the automation lane** in the instrument track header.
- You can change the MIDI controller whose data is displayed in the automation lane by selecting the controller from the menu in the automation lane track header.



Automation lane below an instrument track

Automation lanes comprise the following:

**1 Lane header**

Contains the MIDI controller menu.

**2 MIDI Controller menu**

Allows you to select the MIDI controller whose automation data you want to view and edit in the automation lane. Controllers that already contain automation data are shown with an asterisk beside their name in the menu.

**3 Automation events input using the Draw tool**

When you use the **Draw** tool to input automation, separate events are created where you click. If you click and drag, separate events are created at regular intervals according to the current rhythmic grid value.

**4 Gradual automation events input using the Line tool**

When you use the **Line** tool to input automation, a smooth line is created with a single automation event at each end.

Although only a single automation lane can be displayed, it is possible to create data for multiple MIDI controllers in the same lane.

All automation events drawn in automation lanes are included when exporting MIDI files.

RELATED LINKS

[Instrument tracks](#) on page 321

## Hiding/Showing automation lanes

You can hide/show the automation lane for each instrument track.

---

PROCEDURE

1. Expand the instrument tracks whose automation lanes you want to hide/show.
2. In each instrument track header, click **Show the automation lane**.

---

RESULT

The automation lane for each instrument track is shown when the button is highlighted, and hidden when the button is not highlighted.

## Inputting automation in automation lanes

You can input automation data for multiple MIDI controllers in the automation lane for each instrument track.

PREREQUISITE

The automation lane is shown for each instrument to which you want to add automation.

---

PROCEDURE

1. In each automation lane header, select the MIDI controller into which you want to input automation from the **MIDI Controller** menu.
2. Select one of the following tools, depending on the type of automation you want to input:
  - To input single automation events, or multiple automation events at regular intervals according to the current rhythmic grid value, select **Draw** by pressing **D** or clicking **Draw** in the Play toolbox.



- To input gradual automation events, select **Line** by clicking **Line** in the Play toolbox.



3. Input automation in one of the following ways:
    - To input single automation events, click in the automation lane at each position where you want an automation event.
    - To input multiple automation events at regular intervals, click and drag in the automation lane.
    - To input gradual automation events, click and drag in the automation lane from where you want the gradual automation event to start to where you want it to end.
- 

#### RESULT

Automation events are input.

## Moving automation events

You can move individual automation events, including moving them upwards and downwards to change their values.

#### PREREQUISITE

The automation lane is shown for each instrument whose automation events you want to move.

---

#### PROCEDURE

1. In the automation lane header, select the MIDI controller whose automation events you want to move from the **MIDI Controller** menu.
2. Select the automation events you want to move in one of the following ways:
  - Click a single automation event
  - Make a marquee selection around multiple automation events

#### NOTE

You can only move automation events in a single automation lane at a time.

---

3. Move the selected automation events in any of the following ways:
  - To move them to the right/left, **Ctrl/Cmd**-click and drag them to the right/left.
  - To move them upwards/downwards, **Ctrl/Cmd**-click and drag them upwards/downwards.

#### TIP

If you want to move automation events upwards/downwards by smaller increments, you can press **Alt** when dragging.

---

- Click and drag them in any direction.

#### NOTE

You cannot move automation events beyond other existing automation events during the same action. Releasing the mouse causes the moved automation event to replace the existing one. You can then reselect it and move it further.

---

#### RELATED LINKS

[Hiding/Showing automation lanes](#) on page 325

## Deleting automation events

You can delete individual or multiple automation events.

### PREREQUISITE

The automation lane is shown for each instrument whose automation events you want to delete.

### PROCEDURE

1. Press **E** to select **Erase**.
2. Delete automation events in any of the following ways:
  - Click each automation event you want to delete.
  - Make a marquee selection around the automation events you want to delete.

### RESULT

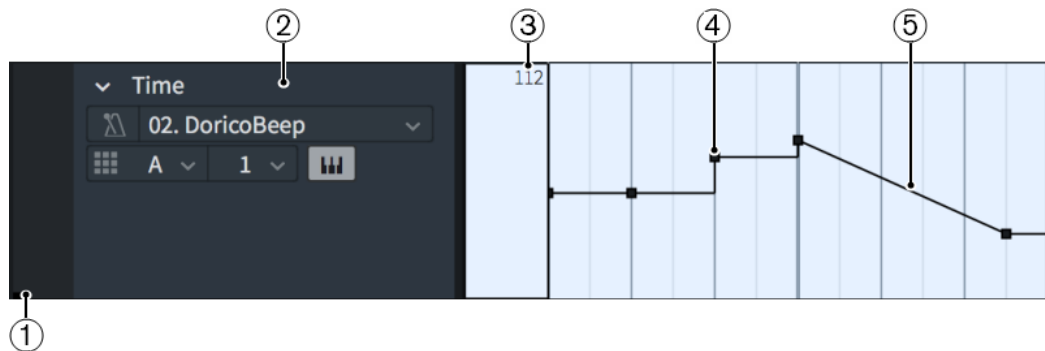
The automation events you click or include in a marquee selection are deleted.

### RELATED LINKS

[Hiding/Showing automation lanes](#) on page 325

## Time track

The **Time** track allows you to view and edit the tempo of your project, including inputting new tempo changes. It appears above the top player track in the event display in Play mode, and is one of the tracks you can hide/show.



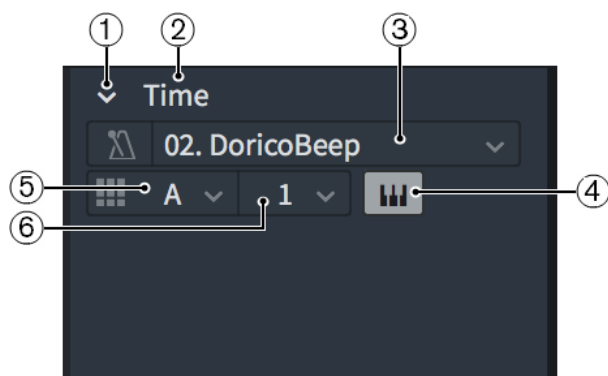
①  
**Time** track

The **Time** track comprises the following:

- 1 **Track height adjuster**  
Allows you to change the height of the track by clicking and dragging its bottom corner.
- 2 **Track header**  
Shows the name of the track and contains appropriate options, such as the menu for the sound source for the metronome.
- 3 **Fixed tempo read-out**  
Displays the tempo that corresponds to the current mouse pointer position in the **Time** track.
- 4 **Absolute tempo change**  
Indicates an immediate change in tempo, shown as a step change.
- 5 **Gradual tempo change**  
Indicates a steady change in tempo across the duration of the line between the tempo changes at each end.

TIP

Clicking and dragging tempo changes in the **Time** track causes a tempo read-out to appear temporarily, showing their precise tempo.



**Time** track header

The **Time** track header contains the following:

- 1 Track disclosure arrow**  
Allows you to expand/collapse the track.
- 2 Track name**  
Shows the name of the track.
- 3 VST or MIDI Instrument menu**  
Allows you to select an instance of a VST or MIDI instrument to use for the click.
- 4 Edit Instrument**  
Opens the corresponding VST instrument, allowing you to edit settings for the slot or channel.
- 5 Port menu**  
Allows you to change the endpoint to which the **Time** track is assigned by selecting the port you want to use when using a plug-in that has multiple ports of 16 channels.
- 6 Slot menu**  
Allows you to change the endpoint to which the **Time** track is assigned by selecting the slot in the selected VST instrument, or channel in the selected MIDI instrument, that you want to use for the click.

You can use the following tools to input tempo changes into the **Time** track in Play mode:

- **Draw:** Inputs a separate tempo change at regular intervals, as determined by the current rhythmic grid value.
- **Line:** Inputs a tempo change only at the start and end of the drawn range.

Tempo changes input in the **Time** track in Play mode appear as signposts in Write mode by default to avoid changing the appearance of the printed score. Signposts are not printed by default, so if you want such tempo changes to be printed in the score, we recommend that you select them in Write mode and activate **Metronome mark shown** in the **Tempo** group of the Properties panel. You can also change their appearance in other ways, for example, by adding text.

All tempo changes input in the **Time** track are included when exporting MIDI files.

RELATED LINKS

[Play toolbox](#) on page 308

[Rhythmic grid](#) on page 137



[Tempo marks](#) on page 641

[Changing the type and appearance of absolute tempo changes](#) on page 647

[Signposts](#) on page 267

## Inputting tempo changes in the Time track



You can input tempo changes, including gradual tempo changes, in the **Time** track in Play mode. Tempo changes input in the **Time** track do not appear in layouts, but instead are shown as signposts.

### PREREQUISITE

The **Time** track is shown.

---

### PROCEDURE

1. Expand the **Time** track.
2. 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 according to the current rhythmic grid value, select **Draw** by pressing **D** or clicking **Draw** in the Play toolbox.  

  - To input gradual tempo changes, select **Line** by clicking **Line** in the Play toolbox.  

3. Input tempo changes in one of the following ways:
  - To input single absolute tempo changes, click in the **Time** track at each position where you want a tempo change.
  - To input multiple absolute tempo changes at regular intervals, click and drag in the **Time** track.
  - To input gradual tempo changes, click and drag in the **Time** track from where you want the gradual tempo change to start to where you want it to end.

### TIP

The metronome value corresponding to the current vertical position of the mouse pointer is displayed in the **Time** track header.

---

### RESULT

Tempo changes are input. This affects the speed of playback, but the tempo changes are not shown in layouts. Instead, they appear as signposts.

The tempo changes are included when exporting MIDI files.

### RELATED LINKS

[Hiding/Showing tracks](#) on page 336

[Hiding/Showing tempo marks](#) on page 646

[Signposts](#) on page 267

[Changing the rhythmic grid value](#) on page 138

## Moving tempo changes in the Time track

You can move individual tempo changes to new rhythmic positions in the **Time** track. This affects their rhythmic position everywhere in the project.

### PREREQUISITE

- The **Time** track is shown.
  - **Object Selection** is selected in the Play toolbox.
- 

### PROCEDURE

1. In the **Time** track, select the tempo changes you want to move in one of the following ways:
  - Click a single tempo change
  - Make a marquee selection around multiple tempo changes
2. **Ctrl/Cmd**-click and drag the selected tempo change, or one of the selected tempo changes, to the right/left.

### NOTE

- You can also simply click and drag to the right/left but this does not prevent the selected tempo changes from moving upwards/downwards, which affects their tempo.
  - You cannot move tempo changes beyond other existing tempo changes during the same move. Releasing the mouse causes the moved tempo change to replace the existing one. You can then reselect it and move it further.
- 

### RESULT

The rhythmic positions of the selected tempo changes are changed. 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 tempo.

### RELATED LINKS

[Time track](#) on page 327

[Hiding/Showing tracks](#) on page 336

[Hiding/Showing tempo marks](#) on page 646

[Selecting multiple items using marquee selections](#) on page 40

## Changing the tempo in the Time track

You can change the tempo of individual tempo changes in the **Time** track.

### PREREQUISITE

- The **Time** track is shown.
  - **Object Selection** is selected in the Play toolbox.
- 

### PROCEDURE

1. In the **Time** track, select the tempo changes whose tempo you want to change in one of the following ways:
  - Click a single tempo change
  - Make a marquee selection around multiple tempo changes

2. **Ctrl/Cmd**-click and drag the selected tempo change, or one of the selected tempo changes, upwards/downwards.

A tempo read-out appears beside the mouse pointer, providing visual feedback of the tempo.

**TIP**

- If you want to change the tempo by smaller increments, you can press **Alt** when dragging.
  - You can also simply click and drag them upwards/downwards but this does not prevent the selected tempo changes from moving to the right/left, which affects their rhythmic positions.
- 

**RESULT**

The tempo of the selected tempo changes is changed. This affects the speed of playback and the displayed metronome mark of any tempo changes also shown in layouts.

**RELATED LINKS**

[Hiding/Showing tracks](#) on page 336

## Deleting tempo changes in the Time track

You can delete tempo changes in the **Time** track.

**PREREQUISITE**

The **Time** track is shown.

---

**PROCEDURE**

1. Press **E** to select **Erase**.
  2. Delete tempo changes in any of the following ways:
    - Click each tempo change you want to delete.
    - Make a marquee selection around the tempo changes you want to delete.
- 

**RESULT**

The tempo changes you click or include in a marquee selection are deleted. This also deletes their corresponding tempo marks or tempo mark signposts from layouts.

**RELATED LINKS**

[Selecting multiple items using marquee selections](#) on page 40

## Chords track

A **Chords** track is included in every project. You can assign a VST or MIDI instrument to this track to hear any chords that you input into the score as chord symbols in playback.

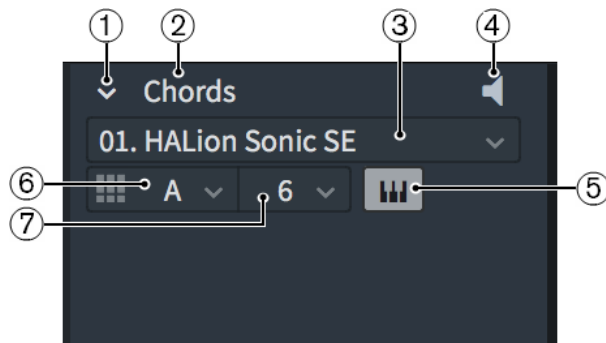
The **Chords** track appears above the top player track in the event display, and is one of the tracks you can hide/show.



①  
**Chords track**

The **Chords** track comprises the following:

- 1 Track height adjuster**  
Allows you to change the height of the track by clicking and dragging its bottom corner.
- 2 Track header**  
Shows the name of the track and contains appropriate options, such as the button that enables/disables chords playback.
- 3 Chords**  
Indicates where chord symbols exist in the flow and shows the chord symbol name.



**Chords track header**

The **Chords** track header contains the following:

- 1 Track disclosure arrow**  
Allows you to expand/collapse the track.
- 2 Track name**  
Shows the name of the track.
- 3 VST or MIDI Instrument menu**  
Allows you to select an instance of a VST or MIDI instrument to use for chords playback.
- 4 Enable Chords Playback**  
Allows you to include chords in, or exclude chords from, playback.
- 5 Edit Instrument**  
Opens the corresponding VST instrument, allowing you to edit settings for the slot or channel.
- 6 Port menu**  
Allows you to change the endpoint to which the **Chords** track is assigned by selecting the port you want to use when using a plug-in that has multiple ports of 16 channels.
- 7 Slot menu**  
Allows you to change the endpoint to which the **Chords** track is assigned by selecting the slot in the selected VST instrument, or channel in the selected MIDI instrument, that you want to use for chords playback.

You can use an existing slot containing a sound already loaded in the project, or you can use a new slot with a new sound loaded just for chords.

**NOTE**

- You must assign a VST or MIDI instrument and a slot for the **Chords** track in order to hear chords in playback.
- If you assign an empty slot to your **Chords** track and later add more instruments to your project, the sounds for the new instruments overwrite the slot.

RELATED LINKS

[Chord symbols](#) on page 438

[Loading VST and MIDI instruments manually](#) on page 311

[Hiding/Showing tracks](#) on page 336


## 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 using a MIDI keyboard use the same voicing as you used to input them.

PREREQUISITE

The **Chords** track is shown.

PROCEDURE

1. In the **Chords** track header, click **Enable chords playback**.  

2. Optional: If you want to specify the sound used for chords playback, expand the **Chords** track.
3. In the **Chords** track header, select the endpoint you want using the **Port** and **Slot** menus.

RELATED LINKS

[Hiding/Showing tracks](#) on page 336

[Endpoints](#) on page 350

[Endpoint Setup dialog](#) on page 350

## Markers track

The **Markers** track allows you to view the markers in your project and input new ones. It appears above the top player track in the event display in Play mode, and is one of the tracks you can hide/show.



**Markers** track

The **Markers** track comprises the following:

- 1 **Track height adjuster**  
Allows you to change the height of the track by clicking and dragging its bottom corner.

**2 Track header**

Shows the name of the track and contains any appropriate options for the track type.

**3 Add Marker**

Allows you to add a new marker at the current position of the playhead.

**4 Markers**

Shows the position of each marker in the flow, including their text.

RELATED LINKS

[Markers](#) on page 567

[Videos](#) on page 122

[Hiding/Showing tracks](#) on page 336

[Changing the text shown in markers](#) on page 568

## 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

1. 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**.

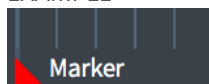


RESULT

A marker is input at the position of the playhead. It shows the default text "Marker".

---

EXAMPLE



Marker in the **Markers** track

---

AFTER COMPLETING THIS TASK

You can change the text shown in the marker.

RELATED LINKS

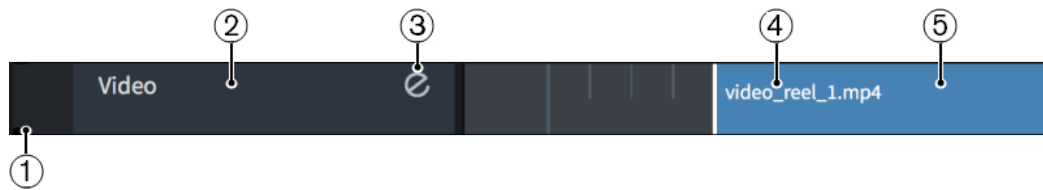
[Changing the start position of videos](#) on page 124

[Changing the text shown in markers](#) on page 568

[Moving the playhead](#) on page 337

## Video track

The **Video** track shows where videos exist in the flow relative to the music. It appears above the top player track in the event display in Play mode and is one of the tracks you can hide/show.



**Video** track

The **Video** track comprises the following:

- 1 Track height adjuster**  
Allows you to change the height of the track by clicking and dragging its bottom corner.
- 2 Track header**  
Shows the name of the track and contains any appropriate options for the track type.
- 3 e**  
Allows you to hide/show the **Video** window. This performs the same function as **Show Video** in the toolbar.
- 4 Video file name**
- 5 Video region**  
Shows the position of the video file relative to the music and its length.

### RELATED LINKS

- [Videos](#) on page 122
- [Adding videos](#) on page 124
- [Hiding/Showing the Video window](#) on page 125
- [Changing the start position of videos](#) on page 124
- [Toolbar](#) on page 31

## Expanding/Collapsing tracks

You can expand/collapse tracks in Play mode individually, and you can expand/collapse all player tracks in the current flow at the same time.

---

### PROCEDURE

- Expand/Collapse tracks in any of the following ways:
    - To expand/collapse an individual track, click its disclosure arrow.
    - To expand/collapse all player tracks, **Ctrl/Cmd**-click any player track disclosure arrow.
- 

## Changing the height of tracks

You can change the height of all types of tracks at any time, for example, if you want a single track to occupy more space in the event display temporarily so you can work on it in more detail.

---

### PROCEDURE

- Change the height of tracks in any of the following ways:
  - To make tracks taller, select them and press **Shift-H**.

- To make tracks shorter, select them and press **Shift-G**.
- Click and drag the bottom left corner of a single track upwards/downwards.

**TIP**

When the mouse pointer is in the correct position, it appears as a split arrow.

---

RELATED LINKS

[Zooming in/out of tracks in the event display](#) on page 319

## Hiding/Showing tracks

You can hide/show the tracks that appear above the top player track in the event display in Play mode.

By default, only the **Time** and **Chords** tracks are shown. If you have added at least one video to one flow in the project, the **Time**, **Chords**, **Markers**, and **Video** tracks are all shown by default.

**NOTE**

You cannot hide/show player and instrument tracks.

---

PROCEDURE

- Choose **Play > Tracks > [track type]**.  
For example, choose **Play > Tracks > Time Track** to hide/show the **Time** track.
- 

RESULT

The selected track type is shown when a tick appears beside their entry in the submenu, and hidden when no tick appears.

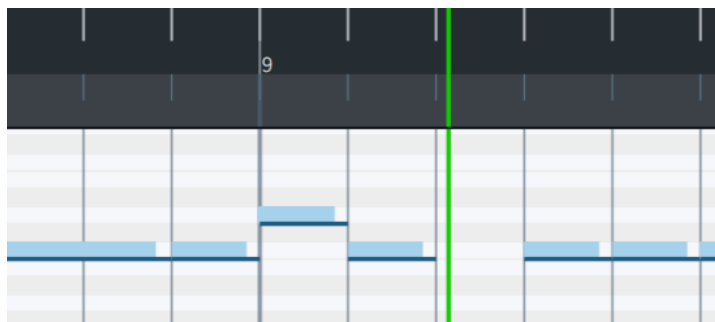
RELATED LINKS

[Tracks](#) on page 319

## 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 is shown at all times in Play mode, but you can also see it in other modes during playback. You can also choose to show the playhead when playback is stopped in other modes on the **Play** page in **Preferences**.



The playhead in Play mode



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.

RELATED LINKS

[Preferences dialog](#) on page 48

## 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. You can choose to show the playhead at all times on the **Play** page in **Preferences**.

---

PROCEDURE

- Move the playhead in any of the following ways:
  - To move the playhead forwards, press + (plus) on a numeric keypad.
  - To move the playhead backwards, press **Num -** (minus on a numeric keypad).
  - To move the playhead back to the start of the flow, press **Num .** (period on a numeric keypad).
  - To move the playhead to the start of the earliest selected item, press **Alt-P**.
  - To move the playhead to the next frame, press **Ctrl/Cmd-F9** or **Ctrl/Cmd-Num +** (plus on a numeric keypad).
  - To move the playhead back to the previous frame, press **Ctrl/Cmd-F7** or **Ctrl/Cmd-Num -** (minus on a numeric keypad).
  - Click **Fast Forward** in the **Transport** window to navigate forwards.
  - Click **Rewind** in the **Transport** window to navigate backwards.
  - Click **Rewind to Beginning of Flow** in the **Transport** window to go back to the start of the flow.
  - In Play mode, click the ruler at any position.

**NOTE**

You cannot click the ruler to move the playhead during playback.

---

RELATED LINKS

[Transport window](#) on page 348

[Preferences dialog](#) on page 48

## 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 also use the playback key commands in any mode.

---

PROCEDURE

1. Start playback in one of the following ways:

- Play back all instruments from the selection by selecting a single note and pressing **P**.
- Play back all instruments from the selection by selecting a single note and choosing **Play > Play From Selection**.
- Play back only a single staff by selecting multiple items on the staff and pressing **P**.

**NOTE**

This does not affect which channels are soloed or muted in Play mode.

---

- Play back multiple staves by selecting items on multiple staves and pressing **P**.

**NOTE**

This does not affect which channels are soloed or muted in Play mode.

---

- Continue playback from the playhead position by pressing **Space**.
  - Play back from the last playback start position by pressing **Shift-Space**. This works even if you have since deselected the item at that position.
  - Play back from the start of the flow by pressing **Shift-Alt-Space**.
  - Click **Play From Playhead Position** in the **Transport** window.
  - Click **Play From Selection** in the **Transport** window.
  - Choose **Play > Play From Playhead Position**.
  - Choose **Play > Play From Last Start Position**.
  - Choose **Play > Play From Start of Flow**.
  - Choose **Play > Play From Start of Project**.
2. Optional: Move the playhead during playback to later/earlier positions.
  3. Stop playback in any of the following ways:
    - Press **Space** or **P**.
    - Press **0** on a numeric keypad.
    - Click **Stop** in the **Transport** window.
- 

RELATED LINKS

[Muting/Soloing tracks](#) on page 338

[Endpoint Setup dialog](#) on page 350

## Muting/Soloing tracks

You can mute/solo individual tracks. This allows you to set fixed groups to sound in playback, for example, if you only want to listen to certain groups of players at a time.

---

PROCEDURE

1. In the toolbar, click **Show Mixer** to show the Mixer.



2. In the Mixer, click the appropriate button at the top of each channel you want to mute/solo.

- **Mute**



- **Solo**

**S**

---

RESULT

Each track is muted/soloed and the corresponding buttons are enabled.

This affects which tracks play back until you change which tracks are muted/soloed, meaning you do not have to reselect the tracks you want to hear each time. For example, if you have eight tracks and solo four, only those four are played back. If you mute two tracks, those tracks are not played back but the other six are played back.

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 certain tracks/staves by selecting notes/items on each track/staff you want to hear.
- 

EXAMPLE



**Mute** when enabled



**Solo** when enabled

---

RELATED LINKS

[Expanding/Collapsing tracks](#) on page 335

[Muting notes/items individually](#) on page 340

## Muting/Soloing instruments

You can solo the currently selected instruments, which automatically mutes all other instruments. 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. Select at least one note belonging to each instrument you want to solo. You can do this in Write, Engrave, and Play modes.
  2. Press **Alt-S**.
- 

RESULT

The selected instruments are soloed and all other instruments are muted by changing their mute/solo states in the Mixer. This affects which instruments are muted/soloed until you deactivate their mute/solo states.

TIP

You can also determine which staves are included in playback for each separate playback without changing their states in the Mixer.

---

RELATED LINKS

[Mixer](#) on page 346

## 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. You can do this in any mode.

---

### PROCEDURE

- Deactivate mute/solo instrument states in the following ways:
  - To deactivate all mute instrument states, press **Alt-U**.
  - To deactivate all solo instrument states, press **Shift-Alt-S**.
  - In the Mixer, click **Deactivate All Mute States**.
  - In the Mixer, click **Deactivate All Solo States**.

---

### 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.

### RELATED LINKS

[Mixer](#) on page 346

## 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 or hear a passage with multiple dynamics at a single volume level.

---

### PROCEDURE

1. In Write mode, select the notes/items you want to mute in playback.
2. In the Properties panel, activate **Muted** in the **Common** group.
3. Activate/Deactivate the corresponding checkbox.

---

### RESULT

The selected notes/items are muted when the checkbox is activated, meaning they do not affect playback, and are not muted when the checkbox is deactivated.

## Resetting changes to volume faders

You can reset changes you have made to volume faders in the Mixer back to their default level.

### PREREQUISITE

The Mixer window is shown.

---

### PROCEDURE

- In the Mixer, **Ctrl/Cmd**-click each volume fader that you want to reset.

---

### RELATED LINKS

[Hiding/Showing the Mixer window](#) on page 348

[Mixer](#) on page 346

## 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

- Change the tempo mode in any of the following ways:
    - In any mode, click **Fixed Tempo Mode** in the toolbar.
    - In Play mode, choose **Play > Fixed Tempo Mode**.
- 

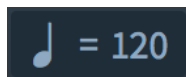
### RESULT

Follow tempo mode is active when **Fixed Tempo Mode** in the toolbar appears highlighted, and when no tick appears beside **Fixed Tempo Mode** in the **Play** menu.

Fixed tempo mode is active when **Fixed Tempo Mode** in the toolbar is not highlighted, and when a tick appears beside **Fixed Tempo Mode** in the **Play** menu.

---

### EXAMPLE



**Tempo** when fixed tempo mode is active



**Tempo** when follow tempo mode is active

---

## 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 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 current position of the playhead in repeat structures.

Dynamics and tempo marks are reflected in repeats. Repeats are also included in both audio and MIDI exports.

### RELATED LINKS

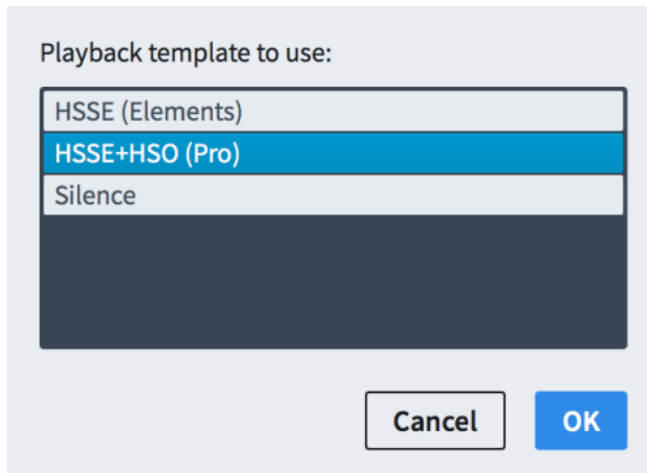
[Transport window](#) on page 348

[Mini transport](#) on page 32

## Playback templates

Dorico Elements uses playback templates to allocate sounds from VST instruments and MIDI devices to the instruments in your project.

- You can find the available playback templates by choosing **Play > Playback Template**, which opens the **Playback Template** dialog.



**Playback Template** dialog

Dorico Elements offers the following 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, when sending them electronically.

When you use any of these playback templates, Dorico Elements automatically loads new sounds for any new instruments you add to the project.

**NOTE**

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.

You can override the template 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. Overriding the playback template prevents Dorico Elements from making further changes to these settings. This includes preventing Dorico Elements from automatically loading new sounds for new instruments until you reapply one of the default playback templates.

RELATED LINKS

[Endpoint Setup dialog](#) on page 350

[Assigning expression/percussion maps to endpoints](#) on page 353

## Changing/Resetting the playback template

You can change the playback template used for the project currently open, for example, if you do not need to use playback and so want to prevent Dorico Elements from loading sounds. Re-selecting playback templates resets them to their default settings.

PROCEDURE

1. Choose **Play > Playback Template** to open the **Playback Template** dialog.

2. Select the playback template you want to use.
  3. Click **OK** to save your changes and close the dialog.
- 

#### RESULT

The playback template used for the current project is changed. If you re-selected the playback template already in use, the playback template is reset.

#### TIP

You can change the default playback template used for all future projects on the **Play** page in **Preferences**.

---

#### RELATED LINKS

[Playback templates](#) on page 341

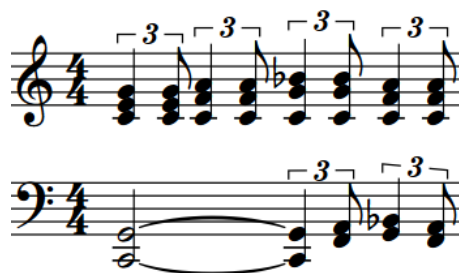
[Preferences dialog](#) on page 48

## 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 only for individual instruments.

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.

#### NOTE

Dorico Elements currently only supports eighth note swing playback. 16th note swing playback is planned for future versions.

---

## 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 (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 (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**

Produces a tempo-dependent swing ratio of between 3:1 at low tempos and 1.5:1 at high tempos.

**Light swing**

Produces a tempo-dependent swing ratio of between 1.5:1 at low tempos and 1:1 at high tempos.

**Medium swing**

Produces a tempo-dependent 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 for specific sections/players

You can enable swing playback for specific sections in your project and for individual players independently, for example, if you want only the soloist to swing for a twelve-bar section.

---

PROCEDURE

1. In Write mode, select an item at the start of the bar where you want to change the rhythmic feel for swing playback.

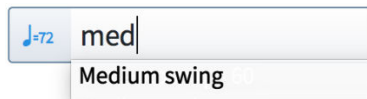
**NOTE**

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. Press **Shift-T** to open the tempo popover.
3. Enter the rhythmic feel you want into the popover. For example, enter *med* for Medium swing.

When you start entering a rhythmic feel into the tempo popover, a menu appears that shows suggested rhythmic feels containing the letters/words you enter, which you can select.





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 staff, press **Alt-Return**.
- 

#### RESULT

The rhythmic feel used for swing playback is changed from the start of the bar, or the start of the next bar if you selected an item in the middle of a bar. If you pressed **Alt-Return**, the rhythmic feel change only applies to the staff on which you selected an item.

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 an individual staff for rhythmic feel changes that apply only to that staff.

#### RELATED LINKS

[Tempo popover](#) on page 188

## Deleting rhythmic feel changes

You can delete rhythmic feel changes you have enabled for specific changes 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

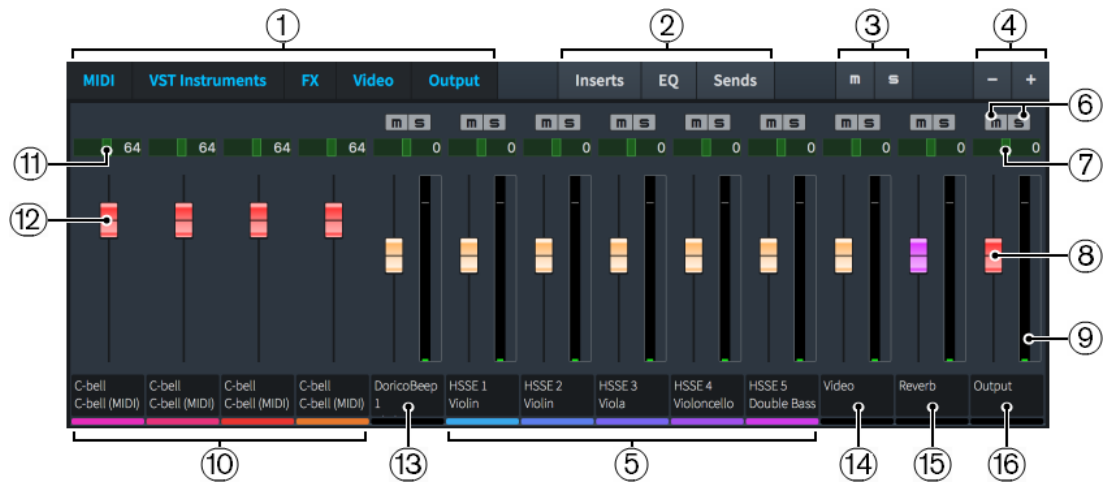
The rhythmic changes are deleted. The playback of the affected staves returns to your project-wide settings until the next existing rhythmic change signpost, if applicable.

#### RELATED LINKS

[Hiding/Showing signposts](#) on page 268

## Mixer

The Mixer allows you to control the sounds produced in playback, both for the master output and on each individual channel.



Mixer

### 1 Channel type buttons

Allow you to hide/show channels in the Mixer according to their type, and in any combination.

### 2 Channel controls

Allow you to hide/show the corresponding controls in the channel strip according to their type, and in any combination.

### 3 Deactivate All Mute States/Deactivate All Solo States

Allows you to deactivate all mute/solo states by clicking the corresponding button.

### 4 Zoom

Allows you to make channels wider/narrower.

### 5 VST channels

There is a mixer channel for each stereo output from the VST instruments in your project, and all instruments in your project are shown, even if they are spread across multiple VST instrument instances. Channels are stereo by default.

### 6 Mute/Solo

Allows you to mute/solo individual tracks.

### 7 Balance panner

Allows you to position the sound of each individual track on the stereo spectrum for stereo playback.

### 8 Fader

Allows you to control the volume level of each individual track.  
MIDI channels have a MIDI fader.

### 9 Channel meter

Indicates the output volume of each individual channel in real time.

### 10 MIDI channels

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.

### 11 MIDI pan

Allows you to position the MIDI output of the channel on the stereo spectrum for stereo playback.

**12 MIDI fader**

Allows you to change the MIDI volume of the channel.

Some plug-ins require MIDI faders, and this is often useful if you are using a MIDI device for playback.

**13 Click channel**

Allows you to control the volume of the metronome click.

**14 Video channel**

Allows you to control the volume of video audio.

**15 FX Send channel**

Allows you to control the volume of send effects, such as reverb. By default, this channel has REVERence loaded automatically.

**16 Output channel**

Allows you to control the master output volume.

**NOTE**

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.

Any changes you make in the Mixer are automatically saved and applied to the project.

RELATED LINKS

[Hiding/Showing the Mixer window](#) on page 348

[Muting/Soloing tracks](#) on page 338

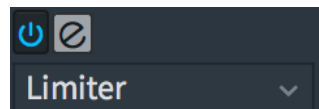
[Resetting changes to volume faders](#) on page 340

## Mixer channel strips

Each channel in the Mixer has its own channel strip, which contains the channel controls. You can hide/show each type of channel control by clicking the corresponding button at the top of the mixer.

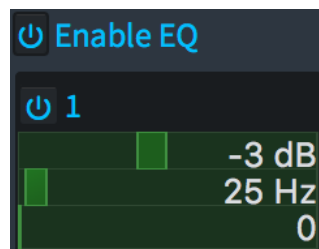
Each channel strip contains the following types of controls:

**Inserts**



Each channel has four slots into which you can load an insert. You can select an insert from the available options in the menu.

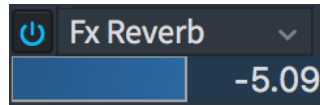
**EQ**



Each channel has four bands of EQ.

In order to make changes to the EQ bands on a channel, you must first click **Enable EQ**. You can use this to bypass the EQ on a channel without losing your settings.

### Sends



Each channel has four slots for sends. By default, the first slot for each channel sends to the FX channel, which has reverb loaded on it.

## Hiding/Showing the Mixer window

You can open and close 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**.
- Click **Show Mixer** in the toolbar.



- Choose **Window > Mixer**.

The Mixer window is shown when a tick appears beside **Mixer** in the menu, and hidden when no tick appears.

## Transport window

The **Transport** window contains all the transport functions in Dorico Elements. It contains more precise versions of the transport functions available in the toolbar and additional transport functions.

You can open/close the **Transport** window in any of the following ways:

- Press **F2**.
- Click **Show Transport Bar** in the toolbar.



Transport window

The **Transport** window contains the following information and functions:

### 1 Bars/Beats display

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.

### 2 Time display

Shows the position of the playhead as elapsed time in the following order of units: hours, minutes, seconds, milliseconds. Alternatively, it can show the timecode position of the playhead in the current flow in the following order of units: hours, minutes, seconds, frames.

You can switch between having the time display show the time and timecode by clicking it.

**3   Rewind to Beginning of Flow**

Moves the playhead back to the beginning of the flow.

**4   Rewind**

Moves the playhead back by a half note each time you click.

**5   Fast Forward**

Moves the playhead forwards by a half note each time you click.

**6   Stop**

Stops playback.

**7   Play From Playhead Position**

Plays back from the position of the playhead.

**8   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.

**9   Record**

Starts/Stops MIDI recording.

**10  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.

**11  Click**

Plays/Mutes the metronome click during playback and recording.

**12  Tempo**

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

RELATED LINKS

[Mini transport](#) on page 32

[Changing the tempo mode](#) on page 341

## 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 32

[Transport window](#) on page 348

[Timecodes](#) on page 571

[Preferences dialog](#) on page 48

## 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 particular VST instrument or MIDI output device
- A specific channel on that VST instrument or MIDI output device
- The patch or program assigned to that channel
- The expression map, and optionally percussion map as well, that describes the instrument or instruments that can be played by that patch or program, and the playing techniques and articulations provided

Each instrument in your project is connected to a specific endpoint, and assigning an expression map to the same endpoint allows Dorico Elements to translate playing technique changes and note articulations into the key switches and controller switches necessary to reflect the required sounds for the instrument in playback.

If you are using the **HSSE+HSO (Pro)** playback template with HALion Sonic SE or HALion Symphonic Orchestra, endpoints and expression maps are set up automatically. However, if you want to load other plug-ins or change the patches within HALion Sonic SE, then you must use the **Endpoint Setup** dialog.

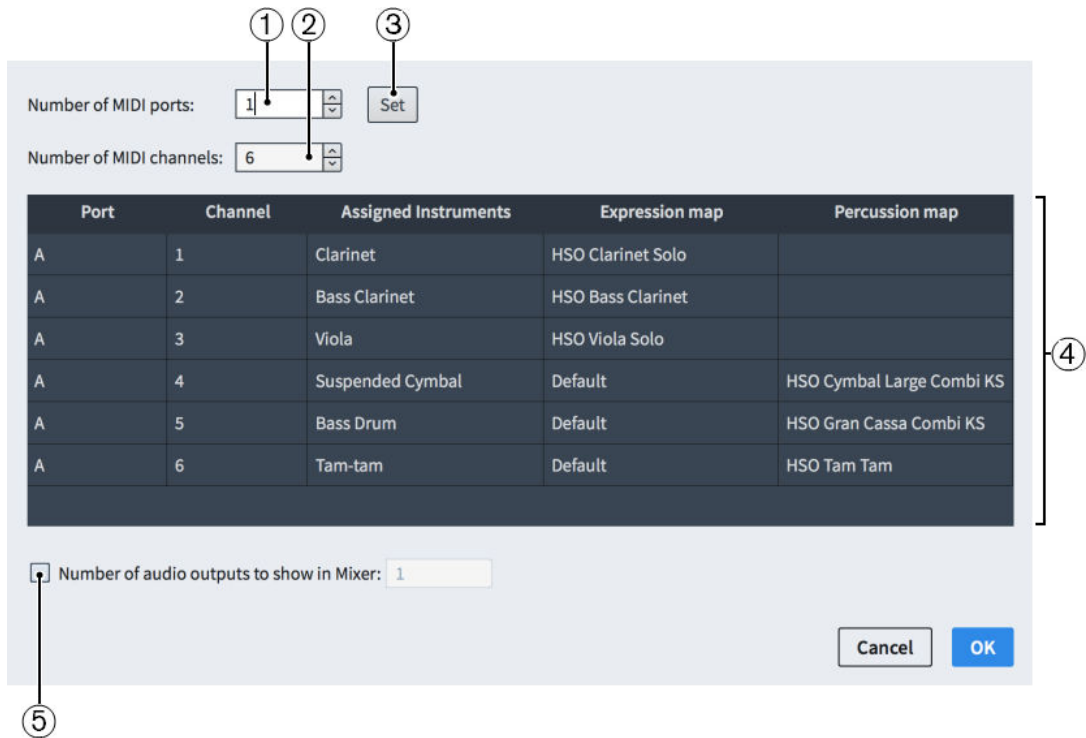
For example, if you have a project that uses the **HSSE+HSO (Pro)** playback template and you change one of the sounds in HALion Sonic SE, such as changing Clarinet Combi in HALion Symphonic Orchestra to GM Clarinet, this plays back incorrectly because the HALion Symphonic Orchestra patch uses a modulation wheel to control volume dynamics, but the GM patch uses note velocity. In playback, notes consequently have no dynamics and too much vibrato. You can correct this in the **Endpoint Setup** dialog by changing the expression map for that channel from the HALion Symphonic Orchestra Clarinet to **Default**, which uses note velocity for dynamics instead of a modulation wheel.

## Endpoint Setup dialog

The **Endpoint Setup** dialog displays which expression and percussion maps are currently linked to each endpoint, and allows you to change these settings.

- You can open the **Endpoint Setup** dialog by clicking the cog button beside each plug-in in the VST and MIDI Instruments panel.





**Endpoint Setup** dialog

The **Endpoint Setup** dialog contains the following options and sections:

**1 Number of MIDI ports**

Displays the number of MIDI ports currently used by the corresponding plug-in.

Allows you to 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.

**2 Number of MIDI channels**

Displays the number of MIDI channels currently used by the corresponding plug-in.

Allows you to 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.

**3 Set**

Sets the plug-in to have the number of MIDI ports and channels specified in the **Number of MIDI ports** and **Number of MIDI channels** fields.

**4 Endpoint setup table**

Contains the settings for the corresponding plug-in, 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 instrument track headers.

- **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 instrument track headers.

- **Assigned Instruments**

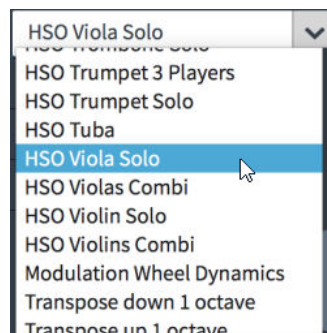
Displays the name of the instrument in the corresponding row.

**NOTE**

This field uses the underlying instrument name, meaning that any changes you have made to the instrument name in the **Edit Instrument Names** dialog are not shown.

- **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.

## 5 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 are used by Dorico Elements.

RELATED LINKS

[Expression Maps dialog](#) on page 354

[Edit Instrument Names dialog](#) on page 94

## Assigning instruments 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.

PROCEDURE

1. Expand the instrument tracks whose assigned endpoints you want to change.
2. In each instrument track header, select a new option from one or both of the following menus:
  - **Port**
  - **Slot**



#### RESULT

The endpoints to which the instruments are assigned are changed in one of the following ways:

- Changing just the **Slot** value changes the channel in the plug-in used by the corresponding instrument.
- Changing both the **Port** and **Slot** values changes both the port in the plug-in, and the channel in that port, used by the corresponding instrument.

#### RELATED LINKS

[Expression Maps dialog](#) on page 354

[Instrument tracks](#) on page 321

## 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.

---

#### PROCEDURE

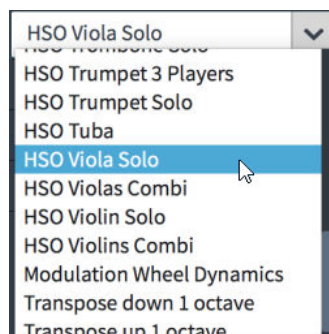
1. In the VST and MIDI Instruments panel, click the cog button beside the plug-in in which you want to change the expression/percussion maps assigned to endpoints to open the **Endpoint Setup** dialog.



2. Double-click the expression/percussion map you want to change.

3. Click the disclosure arrow on 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

[Percussion maps](#) on page 362

## 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 playing 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*.

Dorico Elements supports the following ways of sending information to VST instruments:

- Key switches
- Controllers

#### NOTE

Program changes are not currently supported.

---

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 the 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.

#### RELATED LINKS

[Percussion maps](#) on page 362

## Expression Maps dialog

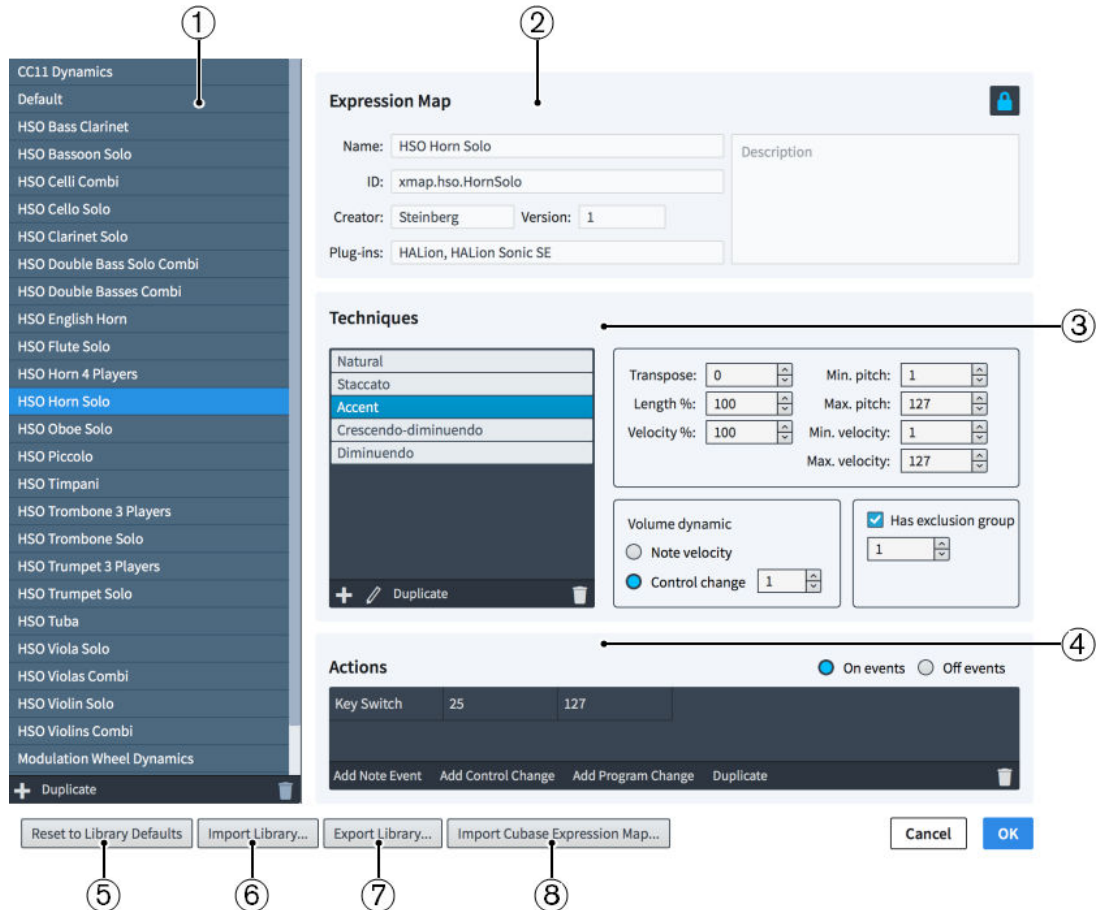
The **Expression Maps** dialog allows you to create new expression maps, edit existing expression maps, and import/export expression maps. You can also import expression maps made in Cubase.

- You can open the **Expression Maps** dialog in Play mode by choosing **Play > Expression Maps**.

Although the format of expression maps in Dorico Elements is similar to Cubase, Dorico Elements does not handle expression maps in exactly the same ways. For example, Dorico Elements allows you to use more playing techniques, but Cubase can reproduce more combinations of multiple playing techniques.

**NOTE**

During playback, Dorico Elements does not currently support all fields in the **Expression Maps** dialog. This is planned for future versions.



**Expression Maps** dialog

The **Expression Maps** dialog contains the following sections and options:

**1 Expression maps list**

Contains the expression maps currently available for your project.

You can add and delete expression maps using the following buttons in the action bar at the bottom of the expression maps list:

- **Add Expression Map**



Allows you to add a new expression map that contains no existing settings.

- **Duplicate**

Creates a copy of an existing expression map that you can edit separately from the original.

- **Delete Expression Map**



Allows you to delete the selected expression maps.

**NOTE**

You can only delete custom expression maps. You cannot delete any default expression maps.

---

## 2 Expression Map section

Allows you to specify the following identifying information for the selected expression map:

- **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.hso.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.

**NOTE**

All fields in the **Expression Map** section are locked by the **Lock Info** button at the top right. You must click this button in order to change the information in the fields.

---

## 3 Techniques section

The **Techniques** section contains the following groups:

- **Techniques list**  
Contains a list of techniques for the expression map currently selected.

**NOTE**

Most instruments have a “natural” technique, which is the most common way of playing the instrument. Dorico Elements requires every instrument to have a defined natural technique.

---

- **Dynamics**  
Allows you to choose whether the volume dynamic for the selected technique is controlled by its **Note velocity** or a **Control change**.

**NOTE**

**Control change** requires you to 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.

---

- **Technique controls**

Contains controls that affect the technique selected in the Techniques list, such as **Velocity**.

- **Exclusion Groups**

Allows you to specify techniques that are mutually exclusive. For example, players cannot play vibrato and non-vibrato at the same time. Putting techniques into the same exclusion group means only one can be used at a time.

**NOTE**

Although settings are imported into the Technique controls and Exclusion Groups from Cubase, Dorico Elements does not currently implement all the information. This is planned for future versions.

---

In simple cases, techniques in the Techniques list are individual techniques, such as **Staccato** or **Accent**. However, it is possible to combine multiple techniques for plug-ins that have separate samples for different combinations of techniques. For example, **Staccato + Accent** might require a separate set of key switches to **Staccato** and **Accent** individually.

Selecting a technique in the Techniques list makes it available for editing in the **Actions** section. All the controls in this panel apply to the current technique.

You can add new techniques, edit existing techniques, and delete techniques using the following buttons in the Techniques list action bar:

- **Add Technique**



Allows you to add a new technique or combination of techniques to the expression map from the available techniques in the **Technique Combinations** dialog.

- **Edit Technique**



Allows you to edit the combination of techniques used in the selected technique in the **Technique Combinations** dialog.

You can also edit existing techniques by double-clicking them in the Techniques list.

- **Duplicate**

Creates a copy of an existing technique that you can then edit separately from the original.

- **Delete Technique**



Allows you to delete the selected technique.

**NOTE**

You can only select one technique at a time in the Techniques list.

---

#### 4 **Actions section**

Allows you to determine how the switch required to execute each technique is controlled. This section also contains the details of existing actions required to produce the selected playing technique.

Actions can be any of the following types:

- Key switch
- Control change
- Program change

**NOTE**

Depending on your plug-in, multiple types of actions can be required to change individual techniques.

---

In the **Actions** section, actions are displayed in a table with three columns.

Key Switch	30	127
Control Change	1	64
Program Change	1	

**Actions** table

The first column shows the type of action.

The second column controls the first parameter of the MIDI event. For note events, this indicates the pitch. For control changes, this indicates the control change number. For program changes, this indicates the program number.

The third column controls the second parameter of the MIDI event. For note events, 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.

You can add new actions of each type and duplicate existing actions using the corresponding button in the action bar.

You can delete actions by selecting them individually and clicking **Delete Action** in the action bar.



The **Actions** section also allows you to specify which actions affect the start of notes and which affect the end of notes. For example, you might want an event that resets the 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.

**5 Reset to Library Defaults**

Allows you to revert any changes you have made to the expression maps from the Default Library.

**6 Import Library**

Allows you to import expression maps from .doricolib files.

**7 Export Library**

Allows you to select multiple expression maps and export them into a .doricolib file, which you can import into other projects and share with other users.

**8 Import Cubase Expression Map**

Allows you to import an expression map in Cubase format.

**NOTE**

It is not currently possible to import all combinations of techniques. Cubase expression maps in Dorico Elements often require some editing to function correctly.

However, switch data is preserved.

---



RELATED LINKS

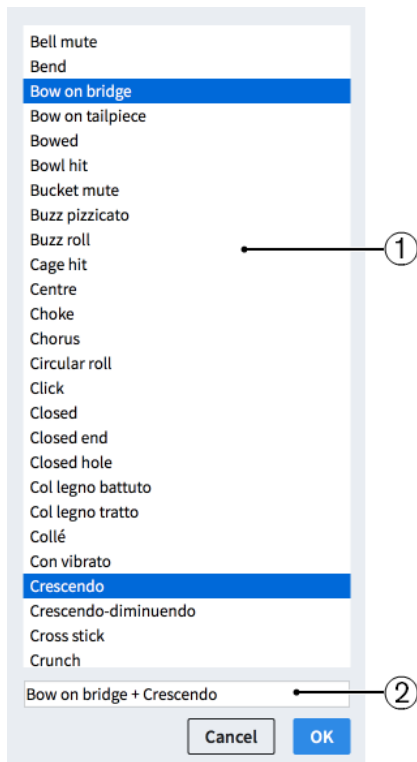
[Endpoint Setup dialog](#) on page 350

## Technique Combinations dialog

The **Technique Combinations** dialog allows you to create combinations of techniques. You can later assign actions to these combinations to create specific sounds in playback.

You can open the **Technique Combinations** dialog in the following ways:

- In the **Expression Maps** dialog, click **Add Technique** in the **Techniques** action bar.  

- In the **Expression Maps** dialog, select an existing technique in the Techniques list and click **Edit Technique** in the **Techniques** action bar.  

- In the **Expression Maps** dialog, double-click an existing technique in the Techniques list.



**Technique Combinations** dialog

### 1 Techniques list

Allows you to select techniques to include in a new technique or to replace existing techniques.

You can select multiple techniques to combine by **Ctrl/Cmd**-clicking each technique.

### 2 Name

Displays the name of the selected technique. If you select multiple techniques, each name is automatically separated by a + symbol.

You cannot change the name of techniques.

### RELATED LINKS

[Expression Maps dialog](#) on page 354





[Creating playing technique combinations](#) on page 361

## Creating new expression maps

You can create new expression maps from scratch and you can duplicate existing expression maps and edit the settings.

---

### PROCEDURE

1. Choose **Play > Expression Maps** to open the **Expression Maps** dialog.
  2. Create a new expression map in one of the following ways:
    - Click **Add Expression Map** to create an empty expression map.  

    - In the list on the left of the dialog, select an existing expression map on which you want to base a new map and click **Duplicate**.
  3. Click **Lock Info** to unlock the fields in the **Expression Map** section.  
 Locked                       Unlocked
  4. In the **Expression Map** section, enter information for your expression map in the relevant fields.
  5. Optional: In the Techniques list, add a new technique in one of the following ways:
    - Click **Add Technique**.  

    - Select an existing technique and click **Duplicate**.
  6. Optional: If technique combinations you require do not exist in the expression map, create them in the **Technique Combinations** dialog.
  7. In the Techniques list, select a technique.
  8. In the **Techniques** section, change any of the options relevant to the selected technique. For example, choose whether the volume of the selected technique is controlled by its **Note velocity** or a **Control change**.
  9. In the **Actions** section, add an action for the currently selected technique in one of the following ways:
    - Click **Add Note Event**.
    - Click **Add Control Change**.
    - Click **Add Program Change**.
    - Select an existing action and click **Duplicate**.
  10. Choose the type of event from one of the following options:
    - **On events**
    - **Off events**
  11. Optional: Repeat steps 9 and 10 for each action you require for each technique.
  12. Optional: To change the values for actions, double-click them and change their values.
  13. Click **OK** to save your changes and close the dialog.
- 

### RELATED LINKS



- [Expression Maps dialog](#) on page 354
- [Endpoint Setup dialog](#) on page 350
- [Technique Combinations dialog](#) on page 359



## Creating playing technique combinations

---

### PROCEDURE

1. Choose **Play > Expression Maps** to open the **Expression Maps** dialog.
  2. In the page list, select the expression map to which you want to add new technique combinations.
  3. Open the **Technique Combinations** dialog to change the technique combination for a technique in one of the following ways:
    - To create a new playing technique, click **Add Techniques** in the Techniques list action bar.  

    - To change the technique combination for an existing playing technique, select the technique and click **Edit Technique** in the Techniques list action bar.  

  4. In the **Technique Combinations** dialog, select the techniques you want to combine. You can select multiple techniques, but you can also only select a single technique.
  5. Click **OK** to save your changes and close the dialog. The **Technique Combinations** dialog closes.
- 

### RESULT

A new technique combination is created and becomes available in the Techniques list for the selected expression map in the **Expression Maps** dialog.

### RELATED LINKS

[Technique Combinations dialog](#) on page 359

[Expression Maps dialog](#) on page 354

## Importing expression maps

You can import expression maps into projects.

---

### PROCEDURE

1. Choose **Play > Expression Maps** to open the **Expression Maps** dialog.
  2. Click **Import Library** to open the File Explorer/macOS Finder.
  3. In the File Explorer/macOS Finder, 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.

## Exporting expression maps

You can export expression maps so you can use them in other projects.

---

### PROCEDURE

1. Choose **Play > Expression Maps** to open the **Expression Maps** dialog.
2. Click **Export Library** to open the File Explorer/macOS Finder.

3. In the File Explorer/macOS Finder, specify a name and location for the library file.
  4. Click **Save**.
- 

#### RESULT

The expression map is exported 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, sample 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 playing 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.

---

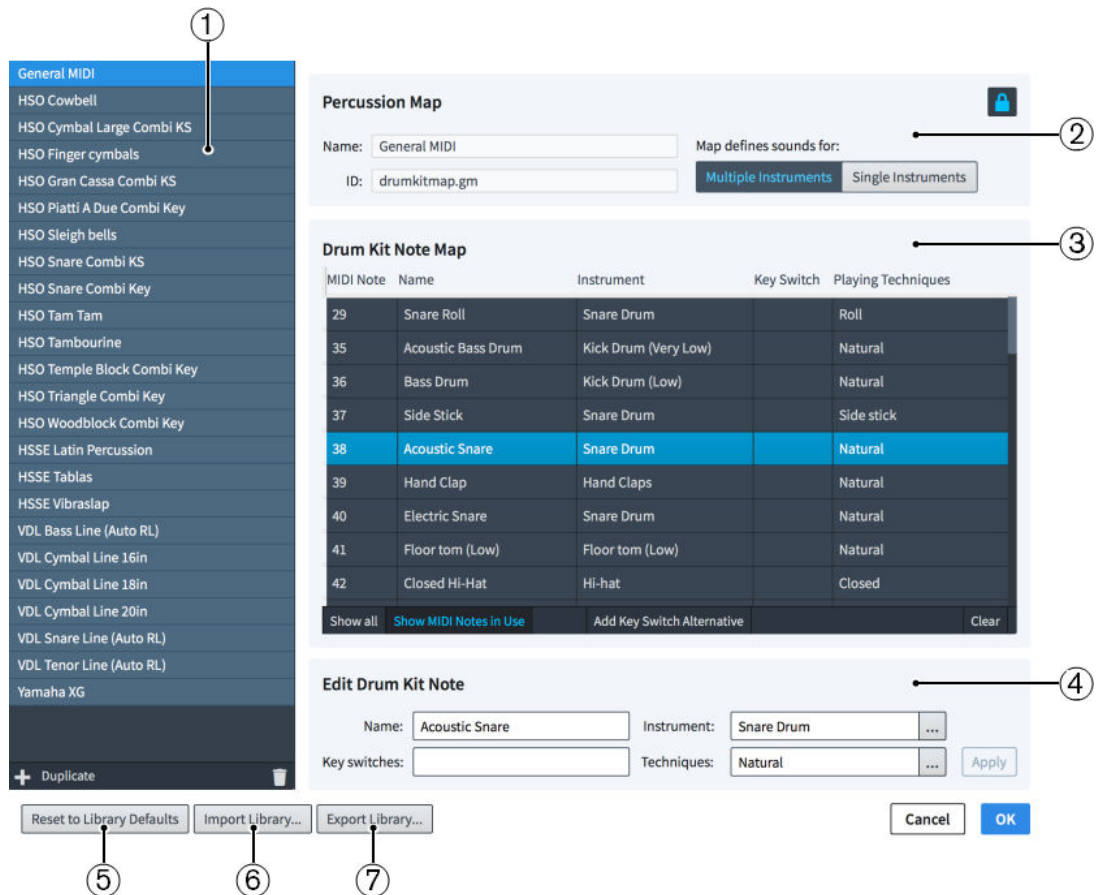
A set of percussion maps for the unpitched percussion patches that are part of the HALion Symphonic Orchestra and HALion Sonic SE factory libraries is provided with Dorico Elements. They are automatically chosen when you add percussion instruments to your project.

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.

## 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 in Play mode by choosing **Play > Percussion Maps**.



Percussion Maps dialog

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**



Allows you to add a new percussion map that contains no existing settings.

- **Duplicate**

Creates a copy of an existing percussion map that you can edit separately from the original.

- **Delete Percussion Map**



Allows you to delete the selected percussion maps.

### NOTE

You can only delete custom percussion maps. You cannot delete any default percussion maps.

## 2 Percussion Map 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`.

#### NOTE

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.

You can choose one of the options for **Map defines sounds for**, 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 playing techniques for that instrument. For example, a snare drumline patch in Virtual Drumline or another specialist sample library.  
This can also be useful when your VST instrument has several patches that have the same 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.

### 3 Drum Kit Note Map section

Lists all MIDI notes from 0 to 127. You can specify which combination of unpitched instrument and playing technique is produced by each note.

### 4 Edit Drum Kit Note section

Allows you to specify data in the following fields for the MIDI note selected in the **Drum Kit Note Map** section:

- **Name**  
The displayed name for the specific combination of instrument and 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 MIDI note selected in the **Drum Kit Note Map** section from a list of all the unpitched percussion instruments you can create in Dorico Elements.
- **Techniques**  
Allows you to select a playing technique to apply to the instrument selected in the **Instrument** field from a list of all the playing techniques 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 playing techniques.

NOTE

Key switches are not compulsory.

---

**5 Reset to Library Defaults**

Allows you to revert any changes you have made to the percussion maps from the Default Library.

**6 Import Library**

Allows you to import percussion maps from .doricolib files.

**7 Export Library**

Allows you to select multiple percussion maps and export them into a .doricolib file, which you can import into other projects and share with other users.

## Creating custom percussion maps

You must define custom percussion maps in order to obtain correct playback when using third-party sound libraries or MIDI devices. You can create new, empty percussion maps, or create custom percussion maps based on existing maps that you have duplicated.

---

PROCEDURE

1. Choose **Play > Percussion Maps** to open the **Percussion Maps** dialog.

2. Create a new custom percussion map in any of the following ways:

- Click **Add Percussion Map** to create an empty map.



- In the list on the left of the dialog, select an existing percussion map on which you want to base a new custom map and click **Duplicate**.

3. Click **Lock Info** to unlock fields in the **Percussion Map** section.



Locked



Unlocked

4. In the **Percussion Map** section, enter the display name you want for the percussion map in the **Name** field.

This name appears in the **Endpoint Setup** dialog.

5. In the **Percussion Map** section, 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. In the **Percussion Map** section, 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** section, click the following button beside the **Instrument** field.



A dialog containing a list of instruments opens.

10. Select the instrument that corresponds to the sound produced by the selected MIDI note from the list.

11. Click **OK**.
  12. In the **Edit Drum Kit Note** section, click the following button beside the **Techniques** field.  
  
A dialog containing a list of playing techniques opens.
  13. Select the appropriate playing techniques for the sound produced by the selected MIDI note from the list.  
For example, **Ctrl/Cmd**-click **Buzz roll** and **Rim**.
  14. Click **OK**.
  15. In the **Edit Drum Kit Note** section, enter the display name you want for this combination of instrument and playing technique in the **Name** field.
  16. In the **Edit Drum Kit Note** section, specify the MIDI note number of the key switch if this sound requires one 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

Your new percussion map is created.

#### AFTER COMPLETING THIS TASK

You must assign custom 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 362

[Assigning expression/percussion maps to endpoints](#) on page 353

[Endpoint Setup dialog](#) on page 350

## Importing percussion maps

You can import percussion maps into projects.

---

#### PROCEDURE

1. Choose **Play > Percussion Maps** to open the **Percussion Maps** dialog.
  2. Click **Import Library** to open the File Explorer/macOS Finder.
  3. In the File Explorer/macOS Finder, 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.

---

#### PROCEDURE

1. Choose **Play > Percussion Maps** to open the **Percussion Maps** dialog.

2. Click **Export Library** to open the File Explorer/macOS Finder.
  3. In the File Explorer/macOS Finder, specify a name and location for the library file.
  4. Click **Save**.
- 

#### RESULT



The percussion map is exported 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, expand the card of the player holding the instrument, click the arrow 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 arrow in the kit instrument label, and choose **Edit Percussion Kit** to open the **Edit Percussion Kit** dialog, select the instrument whose playing techniques you want to edit in the main editing area, and click **Edit Percussion Playing Techniques**.
  2. Select the playing technique-specific notehead whose playback behaviors you want to define in the list at the top of the dialog.
  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.  

  5. Select the playing technique you want from the list in the dialog that opens. You can select multiple playing techniques by holding down **Ctrl/Cmd** and clicking the playing techniques you want.
  6. 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.
  7. Choose any articulations and a tremolo stroke that you want from the available options.
  8. 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 697

[Creating new playing technique-specific noteheads for unpitched percussion instruments](#) on page 699

## Played vs. notated note durations

You can show notes in the piano roll editor in Play mode with their played duration or notated duration.

### Played duration

When **Played Durations** in the Play toolbox is selected, note events in the piano roll 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.

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.

By default in Dorico Elements, notes in the piano roll editor in Play mode are shown with their played duration.

#### NOTE

Editing the played duration of notes causes them to appear in a darker color in the piano roll editor to notes whose played duration you have not changed.

---

### Notated duration

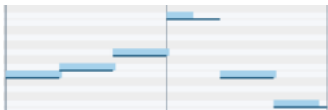


You can select **Notated Durations** in the Play toolbox to see note events as single rectangles, which span the full width that corresponds to the notated duration of the note.

You can change the notated duration of notes in the piano roll editor when **Notated Durations** is selected.

---

#### EXAMPLE

The following examples all contain the same musical phrase, shown in different ways.

Played duration	Notated duration	Score
		

#### RELATED LINKS

[Slurs in playback](#) on page 617

## 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

**Played Durations** is selected in the Play toolbox.



---

#### PROCEDURE

1. In the piano roll editor, select the notes whose played duration you want to change.
  2. Click and drag the end of one of the notes to the right/left.  
Your cursor becomes a two-way arrow when you are in the correct position.
  3. Optional: Repeat step 2 for the start of the notes.
- 

#### RESULT

The played duration of the selected notes is changed.

#### RELATED LINKS

[Play toolbox](#) on page 308

## Removing changes to the played duration of notes

You can remove all changes made to the played duration of individual notes, for example, if you change your mind about playback overrides you have made and want to revert those notes 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

Note velocity is not currently displayed in Dorico Elements, but note velocities are imported from MIDI files. If you want dynamics you input in Write mode to take effect in playback, you must remove playback overrides.

---

#### PROCEDURE

1. In the piano roll editor or drum editor, select the notes whose played durations you want to reset.
  2. Choose **Play > Reset Playback Overrides**.
- 

#### RESULT

All overrides to the default played duration of the selected notes are removed.

#### NOTE

The played duration of the selected notes appears to revert to match their notated duration. However, starting playback or switching modes refreshes their appearance to their default played duration. For example, if the notes are staccato, their played duration is half their notated duration by default.

---

# Print mode

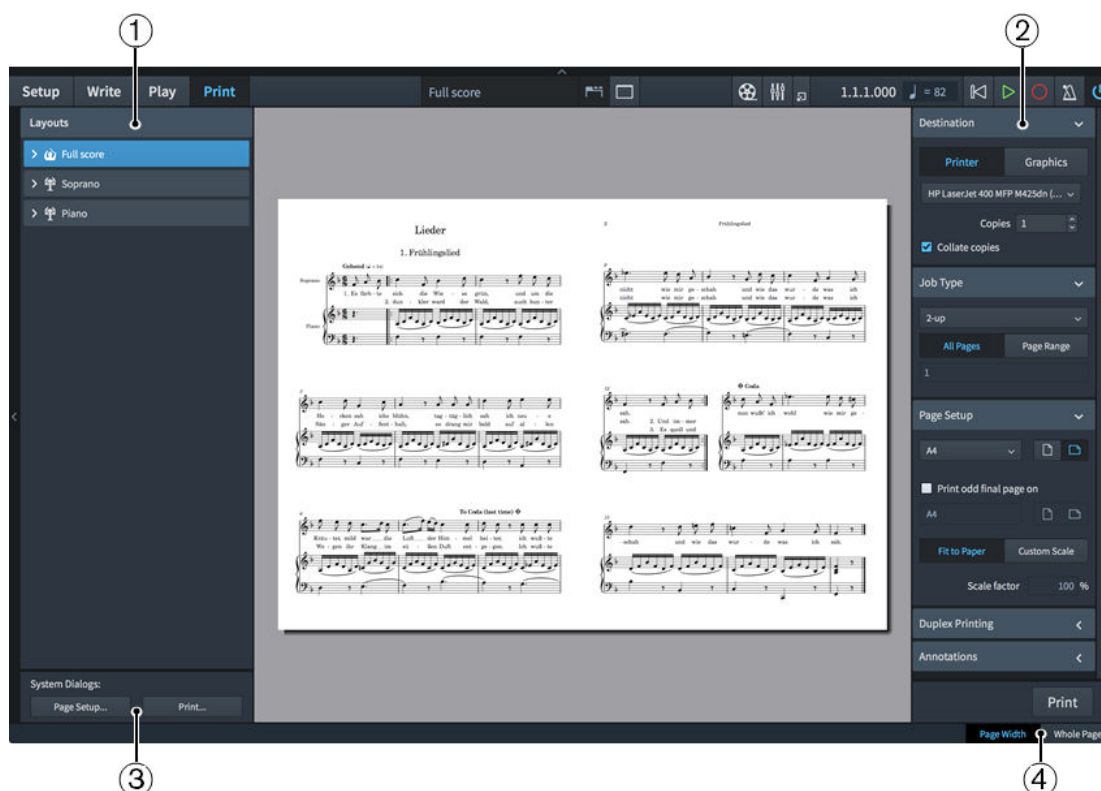
Print mode allows you to print your layouts or to export them as graphics files, such as PDF and SVG.

## Project window in Print mode

The project window in Print mode contains the default toolbar and the print preview area as well as panels and sections that provide all the tools and functions that allow you to prepare printing or exporting your layouts.

You can switch to Print mode in any of the following ways:

- Press **Ctrl/Cmd-5**.
- Click **Print** in the toolbar.
- Choose **Window > Print**.



Panels and sections in Print mode

The following panels and sections are available in Print mode:

### 1 Layouts panel

Shows a list of all layouts in your project and allows you to select what to print or export.

**NOTE**

The layout selector in the toolbar is disabled in Print mode. If you want to see 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 macOS: System Dialogs**

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.

RELATED LINKS

[Toolbar](#) on page 31

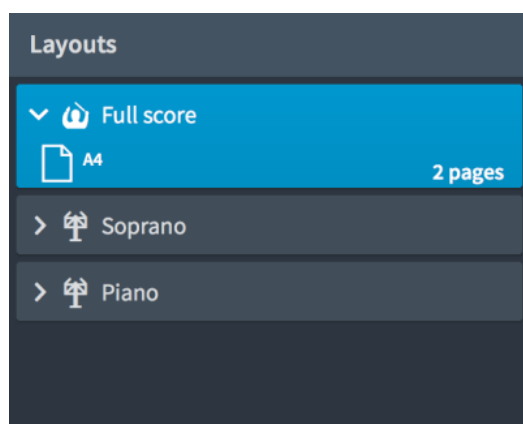
[Print preview area](#) on page 36

## 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 print or export. It is located on the left of the window.

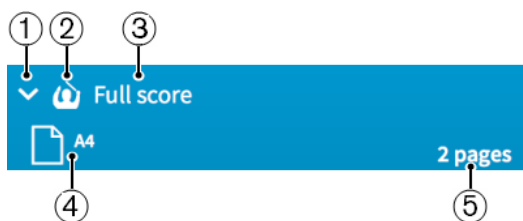
You can hide/show the **Layouts** panel in Print mode in any of the following ways:

- Press **Ctrl/Cmd-7**.
- Click the disclosure arrow on the left edge of the main window.
- Choose **Window > Show Left Panel**.



**Layouts** panel in Print mode

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 **Setup > 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**. If you have selected some layouts set to print and some set to export graphics, the button reads **Print and Export**.

**RELATED LINKS**

[Page arrangements for printing/exporting](#) on page 382

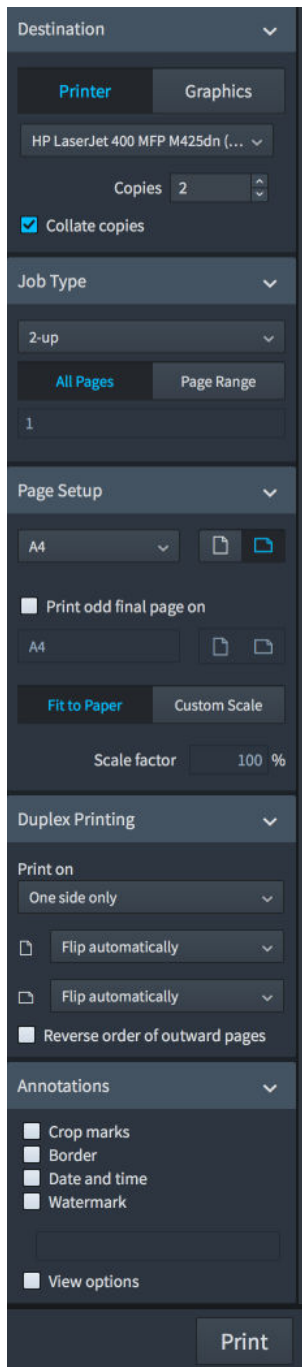
[Booklet printing](#) on page 383

## 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 Panel**.



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. If you print your work, you can choose how many copies you want to print. If you choose to export a graphics file, you can specify the format, file name, and directory of the saved file.

Depending on the destination type selected, the button at the bottom of the panel reads either **Print** or **Export**. If you have selected some layouts set to print and some set to export graphics, the button reads **Print and Export**.

### Job Type

Allows you to choose the range of pages to be printed or exported and how they are arranged.

### 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. This option is only available if you select **Printer** 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

[Duplex printing](#) on page 383

[Page arrangements for printing/exporting](#) on page 382

## Printing layouts

You can print layouts individually or multiple layouts together. You can specify print settings for each layout independently, for example, you can select different printers for different 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.

---

#### 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. If you want to see 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

- Changing the **Copies** value changes the number of copies for all currently selected layouts. However, you can change the number of copies for layouts individually. For example, you can select a full score layout and set it to print 3 copies and leave the part layouts to print only 1 copy. You can then select all layouts to print them together and the previously set values are followed.
- 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: If you only want to print a specified range of pages, choose **Page Range** in the **Job Type** section.
7. Optional: If you selected **Page Range**, enter the pages you want into the value field.
8. In the **Page Setup** section, select a paper size from the menu.
9. Choose the paper orientation you want.
10. 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.
11. Select a paper size and paper orientation for the odd final page.
12. Choose one of the following size options:
  - **Fit to Paper**
  - **Custom Scale**
13. Optional: If you selected **Custom Scale**, enter the scale factor you want into the **Scale factor** field.
14. In the **Duplex Printing** section, select one of the printing options from the **Print on** menu.
15. 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.
16. In the **Annotations** section, activate each annotation you want to add to the selected layouts.
17. Click **Print**.

---

RESULT

The selected layouts are printed according to the print settings you have applied.

If your selection included part layouts sets to concert pitch, 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 select individual layouts and set up their printing options without printing straight away. Once you have set up the printing options you want for multiple 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.
  - You can assign key commands to different printing and exporting commands on the **Key Commands** page in **Preferences**, which you can use in any mode.
-

RELATED LINKS

- [Printers](#) on page 381
- [Paper size and orientation setup](#) on page 385
- [Export File Names dialog](#) on page 379
- [Page arrangements for printing/exporting](#) on page 382
- [Print Options panel](#) on page 372
- [Duplex printing](#) on page 383
- [Annotations](#) on page 387
- [Changing the page size and orientation](#) on page 277

## Printing/Exporting a page range

By default, Dorico Elements prints/exports all pages of the selected layouts. You can specify a specific page range to print/export.

### NOTE

You can only print booklets using the complete range of pages. You cannot define any page ranges.

---

### PROCEDURE

1. In the **Layouts** panel, select the layouts from which you want to print/export a range of pages.
2. Optional: In the **Destination** section, check the layouts are set to print/export using the printer/graphics file formats you want.
3. In the **Job Type** section, choose **Page Range**.
4. Enter the pages you want into the value field.
  - 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.

### NOTE

Separate ranges are exported as separate files.

---

5. Click **Print/Export/Print and Export**.
- 

### RESULT

The specified pages in the selected layouts are printed/exported. Exported files use the file name recipe set for their graphics file format in the **Export File Names** dialog.

RELATED LINKS

- [Export File Names dialog](#) on page 379
- [Page arrangements for printing/exporting](#) on page 382

## 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 graphic files

You can export individual layouts as a variety of graphic files, such as PDF or PNG.

---

#### PROCEDURE

1. In the **Layouts** panel, select the layouts you want to export.
2. In the Print Options panel, choose **Graphics** in the **Destination** section.
3. Choose a color mode.
  - **Mono** exports the graphic in black and white.
  - **Color** exports the graphic in full color.

#### NOTE

If you export a graphic file with a resolution of 72 dpi, we recommend that you select **Color**. If you select **Mono**, staff lines can disappear.

---

4. Select a graphics file format from the menu.
5. Optional: If you selected **PNG** or **TIFF**, select a resolution from the **Resolution** menu.

#### TIP

You cannot change the resolution if you select **PDF** or **SVG**. However, if you select **PNG** or **TIFF**, change the resolution, and then select **PDF** or **SVG**, the resolution you selected still applies.

---

6. Optional: Specify an export path.
7. Optional: If you want to change the file name recipe, click **File Name Options** to open the **Export File Names** dialog.
8. Optional: In the **Export File Names** dialog, change the file name recipe for your selected graphics file formats.
9. Optional: If you only want to export a specified range of pages, choose **Page Range** in the **Job Type** section.
10. Optional: If you selected **Page Range**, enter the pages you want into the value field.

#### NOTE

Separate ranges are exported as separate files.

---

11. 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.

If your selection included part layouts sets to concert pitch, 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 assign key commands to different printing and exporting commands on the **Key Commands** page in **Preferences**, which you can use in any mode.

---

#### RELATED LINKS

[Export File Names dialog](#) on page 379

[Graphics file formats](#) on page 386

[Image resolution](#) on page 387


## Specifying an export path for graphics files

You can specify a path to any folder to which you want to export 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 the default user folder of your operating system.

---

#### 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. In the File Explorer/macOS Finder, locate and select the destination folder you want.
  4. Click **Open** (macOS)/**Select Folder** (Windows) 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.
- 

#### 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

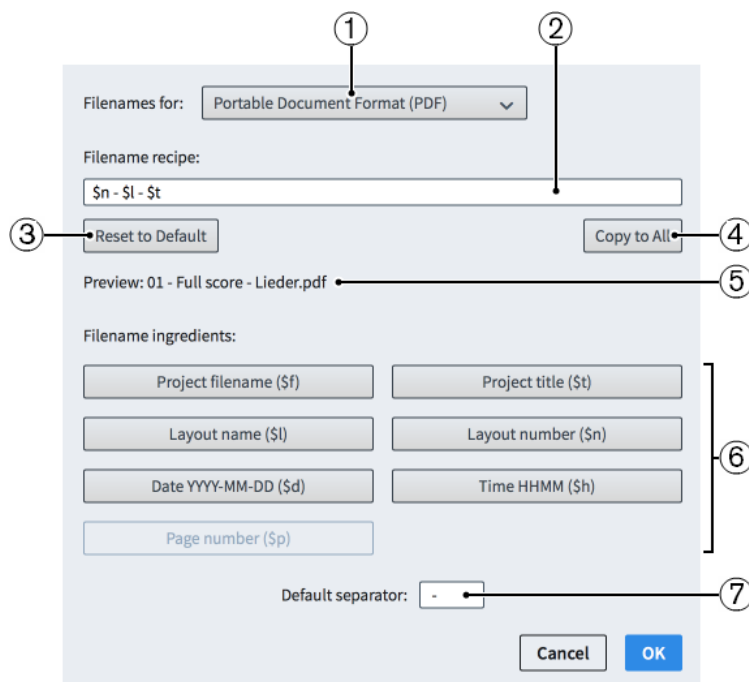
The **Export File Names** dialog allows you to determine the contents of file names for each graphics file format independently. You can use universal ingredients that update to show the correct information for each layout automatically, and you can enter text that is the same for all layouts.

You can open the **Export File Names** dialog in any of the following ways:

- Click **File Name Options** in the **Destination** section of the Print Options panel in Print mode when the currently selected layout is set to **Graphics**.
- Click **Edit** in the **Exporting Files** subsection of the **General** page in **Preferences**.

### 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 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.

### 3 Reset to Default

Resets the file name recipe to the default for the selected graphics file format.

### 4 Copy to All

Copies the file name recipe to all layouts in the project.

### 5 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

## 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 graphic files](#) on page 377

## 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 colored elements. 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.

### RELATED LINKS

[Exporting layouts as graphic files](#) on page 377

## 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.

## 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 372

[Printing layouts](#) on page 374

## 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 define any page 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 Pages

Allows you to print/export all pages of the selected layouts.

### Page Range

Allows you to set a range of pages to be printed. Choosing **Page Range** 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.

#### RELATED LINKS

[Paper size and orientation setup](#) on page 385

[Printing/Exporting a page range](#) on page 376

## 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 define any page 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 374

[Duplex printing](#) on page 383

## 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 374

## Page sizes and paper sizes

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 **Setup > Layout Options**. This means that you define the dimensions of the layout. For printing your layout, 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.

## 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 orientation](#) on page 277

## 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

You can 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 382

[Changing the page size and orientation](#) on page 277

## 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 graphic files](#) on page 377

## 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 graphic files](#) on page 377

## 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.

#### **View options**

Adds all active view options, such as signposts and note colors, to the printout or exported graphic.

# **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 project-wide 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 **Setup > 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.

You can find basic input methods for notations in the Write mode chapter.

## RELATED LINKS

[Write mode](#) on page 128

# Accidentals

Accidentals show that the pitch of a note has been altered so that it does not conform to the current prevailing key signature.

In music that has no key signatures, some or all notes might require accidentals, depending on the notation convention in use.

Dorico Elements provides comprehensive duration rules that determine when accidentals are shown, and also allows you to control how accidentals are arranged in complex chords.

## RELATED LINKS

[Inputting accidentals](#) on page 155

## 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.

### 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:
  - Press **0** to delete naturals.
  - Press **-** to delete flats.
  - Press **=** to delete sharps.
  - Click the button of the accidental in the Notes panel.

### RESULT

The corresponding accidentals are deleted from the selected notes.

### NOTE

- If a note of the same pitch appears with an accidental earlier in the bar, but that accidental has not been deleted, any subsequent notes of the same pitch assume that accidental even if it does not appear by every notehead.
- 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 G#s 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 155

[Hiding/Showing or parenthesizing accidentals](#) on page 391

## Hiding/Showing or parenthesizing accidentals

You can show individual accidentals in parentheses, and also hide/show accidentals individually, including cautionary accidentals shown by default.

---

PROCEDURE

1. Select the notes whose accidental appearance you want to change, or beside which you want to show cautionary accidentals.
2. In the Properties panel, activate **Accidental** in the **Notes and Rests** group.
3. Select one of the following options from the menu:
  - **Show**
  - **Hide**
  - **Parenthesize**

NOTE

Hiding accidentals does not affect the pitch of notes in playback.

---

RESULT

Accidentals on the selected notes are shown, hidden, or shown in parentheses.

TIP

- If you are hiding/showing many accidentals, it might be easier to change the accidental duration rule.
  - You can assign key commands for different accidental hiding, showing, and parenthesizing commands on the **Key Commands** page in **Preferences**.
- 

RELATED LINKS

[Accidental duration rules](#) on page 394

[Preferences dialog](#) on page 48

## 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.

### NOTE

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.

---

## 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.

---



## 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, which allows both notes to appear with their corresponding accidental directly beside them. A split stem is sometimes known as a “cherry stalk” or a “tree”.

You can also have altered unisons appear 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.

### 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 161

## Changing how altered unisons appear

You can change how individual altered unisons appear, including within chords containing other altered unisons.

### PROCEDURE

1. Select the altered unison notes whose appearance you want to change.
  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.

### TIP

**Split stem** applies to individual notes. You can have altered unisons appear differently within the same chord by setting their properties independently.

---

## 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 uses the common practice accidental duration rule.

### Common practice

In common practice, an accidental applies for the duration of a bar and only to the pitch at which it is written, meaning each octave requires a separate accidental.

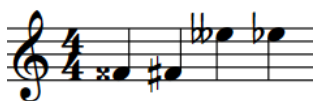
### RELATED LINKS

[Common practice accidental duration rule](#) on page 394

## Double accidental cancellation

There are two generally accepted practices for the cancellation of double accidentals, which are archaic and modern.

By default, Dorico Elements uses modern cancellation. This means that if a double sharp is cancelled by a single sharp, or a double flat is cancelled by a single flat, then no natural sign is shown in front of the single sharp or single flat, as these accidentals are unambiguous.



Modern cancellation

## Common practice accidental duration rule

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.

### NOTE

To ensure that the cancellation is unambiguous, it is customary to add a cautionary accidental to the first note of the same pitch in the following bar.

In Dorico Elements, the common practice accidental duration rule is used by default.

In common practice, the accidental of a note in one bar is automatically cancelled in the following bar. For example, in the key of G major, if an F $\sharp$  is in one bar, an F in the following bar shows a sharp sign, even though the sharp is already implied by the key signature.

When using the common practice accidental duration rule by default, Dorico Elements also displays cautionary accidentals, which are restatements of an earlier accidental. They are considered optional; that is, they are neither explicit confirmations nor cancellations, but help to eliminate ambiguities. Cautionary accidentals are also known as “courtesy accidentals”.

Cautionary accidentals are shown in the following circumstances:

- Subsequent notes within the same bar have the same note name in different octaves.

- Subsequent notes in the following bar have the same note name in the same octave.
- The first occurring note in the following bar has the same note name in any octave.
- Augmented/Diminished or double-diminished/augmented intervals are identified within the same bar.

For each of these situations, you can choose whether cautionary accidentals are shown in parentheses, shown without parentheses, or not shown at all.

# 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.

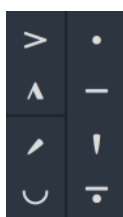
In Dorico Elements, articulations are defined as something that alters the way a note is played, in a way that is consistent across all instruments.

As instructions like bowing directions, harmonics, or tonguing apply to different instrument groups, in Dorico Elements such directions are defined as playing techniques, and can be found in the Notations panel on the right of the window.

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.

You can find articulations at the bottom of the Notes panel in Write mode.



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 of the three types of articulations.

## RELATED LINKS

[Inputting articulations](#) on page 175

## Copying articulations

Articulations are automatically included if you copy notes, but they cannot be copied and pasted independently of notes.

---

### PROCEDURE

1. In Write mode, select the notes with articulations you want to copy.
  2. Copy the notes in one of the following ways:
    - Press **R** to repeat the material directly after itself.
    - Press **Ctrl/Cmd-C**, select the position where you want to copy the selected notes, then press **Ctrl/Cmd-V**.
    - **Alt**-click the position where you want to copy the selected notes with articulations.
- 

## Changing articulations

You can change the articulations on notes after they have been input.

---

### PROCEDURE

1. In Write mode, select the note whose articulation you want to change.
  2. Change the articulation in any of the following ways:
    - Press the key command of the articulation you want. For example, press **]** for staccato.
    - Click the new articulation you want in the Notes panel.
- 

### RESULT

The new articulation is added. This replaces any existing articulation of the same type.

### RELATED LINKS

[Inputting articulations](#) on page 175  
[Key commands for articulations](#) on page 176

## 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.
    - Click the articulations you want to delete in the Notes panel.
- 

### RELATED LINKS

[Key commands for articulations](#) on page 176

## 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.

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.

### RELATED LINKS

[Changing the placement of articulations individually](#) on page 399

## 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 tied notes

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.

---

### PROCEDURE

1. Select the tied notes/chords whose articulation position you want to change.
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**
4. Optional: Repeat steps 2 and 3 to change the position of other types of articulations on the selected tied notes/chords.

---

### RESULT

The position of articulations in the selected tie chains is changed.

## Changing the placement of articulations individually

You can change whether individual articulations are placed on the notehead side or stem side of notes.

---

### PROCEDURE

1. Select the notes/chords whose articulation placement you want to change.
  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**
  4. Optional: Repeat steps 2 and 3 to change the placement of other types of articulations on the selected notes/chords.
-

#### RESULT

The articulation is placed on the selected side of the notes or chords. 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.

## Articulations in playback

Adding articulations to your score affects how notes sound in playback.

If you do not have a sample library, Dorico Elements still changes how a note sounds in playback if you have put an articulation on it. For example, a staccato mark causes a note to sound shorter than normal, and an accent causes a note to sound louder than normal.

If you do have a sample library, Dorico Elements loads the specific sample for an articulation if such a sample is included in your sample library for that instrument.

As the articulation applies to the whole note, the sample is triggered at the start of a note. This includes notes that are tie chains.



# Bars

Bars indicate a usually regular segment of time according to the number of beats, which is usually determined by the prevailing time signature. Bars are separated from other bars to the left and the right by vertical barlines.

Bars are usually the same length and at the same position for all players, but in some music, bars of different lengths may coincide, and there are situations where some players may have no bars indicated at all.

Each bar has a number, allowing players to keep track of their place in the music and aiding rehearsal. This is especially important in music for multiple players.

## RELATED LINKS

[Bar numbers](#) on page 410

[Input methods for bars and barlines](#) on page 193

## Deleting bars/beats

You can delete whole bars and specific beats 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. Press **Shift-B** to open the bars and barlines popover.
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.

## RELATED LINKS

[Bars and barlines popover](#) on page 194

## Deleting bars/beats with the system track

You can delete whole bars and selected beats from your project completely using the system track, for example, if you want to delete the last beat in the final bar for flows that begin with a pick-up bar.

### 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 active, music to the right of the selection moves up to fill in the gap.

### NOTE

Any signposts in the selection are also deleted.

---

### RELATED LINKS

[System track](#) on page 261

[Hiding/Showing the system track](#) on page 262

## Deleting empty bars at the end of flows

You can delete any empty bars left at the ends of flows.

---

### PROCEDURE

1. In Write mode, select an item in the flow you want to trim.
  2. Press **Shift-B** to open the bars and barlines popover.
  3. Enter **trim** into the popover.
  4. Press **Return** to close the popover.
- 

### RESULT

Empty bars at the end of the selected flow are deleted.

### RELATED LINKS

[Bars and barlines popover](#) on page 194

[Splitting flows](#) on page 273

## 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**.
- 

### RESULT

The contents of the selected bars are deleted.

### RELATED LINKS

[Large selections](#) on page 259

[Filters](#) on page 263

## Changes to the length of bars

You can change the length of a bar so that its duration is longer or shorter.

You can change the length of a bar by changing its time signature. You can later hide the time signature, 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

[Input methods for time signatures](#) on page 183

[Hiding/Showing time signatures](#) on page 674

## Splits in bars

You can split bars rhythmically by changing the number of beats in each bar. You can split bars visually across systems 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. New time signatures apply until the next existing time signature or the end of the flow, whichever comes first.

If the new time signature does not fit completely into the given space, for example, if you wanted to replace two 4/4 bars (eight quarter notes) with either two 3/4 bars or three 3/4 bars (either six or nine quarter notes), then Dorico Elements does not override your existing time signature. Instead, the final bar is made shorter.

For example, replacing a 4/4 time signature with a 3/4 time signature two bars before an existing time signature creates two 3/4 bars and the equivalent of a 2/4 bar, as shown in this example.



However, in Insert mode, Dorico Elements inserts time at the end of the final bar of the new time signature to make sure the final bar is the correct length. For example, in the same scenario as

above but with Insert mode activated, two 4/4 bars become three 3/4 bars, with the extra beat required to fill the third 3/4 bar added at the end of the phrase.



## 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 pattern of the 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.

After a normal (single) barline is added, a signpost appears to show how it affects the time signature.



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 time signatures](#) on page 183
- [Input methods for bars and barlines](#) on page 193
- [Inserting system breaks](#) on page 290
- [Inserting frame breaks](#) on page 289
- [Inputting notes in Insert mode](#) on page 147

## Combining bars

You can combine two or more bars into one, longer bar by deleting the barline between them.

---

### PROCEDURE

1. In Write mode, select the barline you want to delete.
2. Press **Backspace** or **Delete**.

---

### RESULT

The bars on either side of the deleted barline combine into one bar. If required, the notes inside are automatically re-beamed appropriately.

NOTE

Deleting a barline does not automatically change the time signature. To avoid confusion, we recommend that you input a new time signature to reflect the new rhythmic duration of the bar.

---

RELATED LINKS

[Deleting barlines](#) on page 407

[Input methods for time signatures](#) on page 183

[Hiding/Showing multi-bar rests](#) on page 604

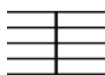
# Barlines

Barlines are vertical lines that cross staves in order to show how music is divided into bars, according to the time signature.

There are a number of different types of barlines that are used in different contexts:

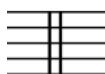
## Normal (Single)

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.

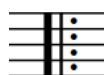
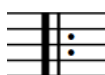


## Start repeat

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 and barlines](#) on page 193

[Repeats in playback](#) on page 341

## Deleting barlines

You can delete barlines without affecting the rhythmic positions of notes.

---

#### PROCEDURE

1. In Write mode, select the barlines you want to delete.
2. Press **Backspace** or **Delete**.

---

#### RESULT

The barline is deleted. The two bars either side of the barline combine into one bar, containing the same number of beats but without changing the time signature.

To avoid confusion, you can add a new time signature to reflect the new rhythmic duration of the bar.

#### RELATED LINKS

[Input methods for time signatures](#) on page 183

## Moving barlines rhythmically

You can only move barlines to new rhythmic positions after they have been input by inputting new barlines at the positions you want.

---

#### PROCEDURE

1. In Write mode, input a new barline of your preferred type at the position you want.
2. Delete the barline from the old position.

NOTE

You can complete these steps in any order. However, deleting barlines can cause note and beam groupings to change. If you are choosing a new barline position based on particular phrases, this might make it harder to find the new position you want.

RELATED LINKS

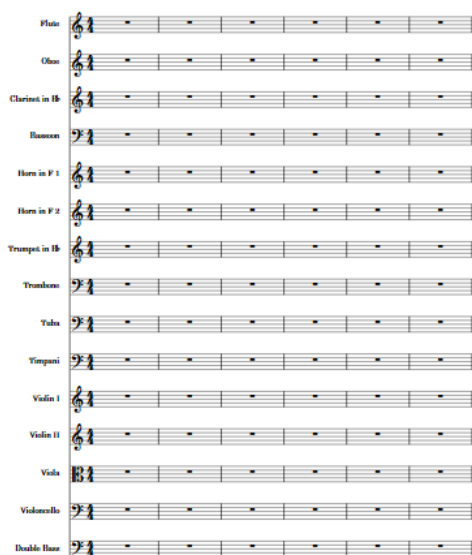
[Input methods for bars and barlines](#) on page 193

## Barlines across staff groups

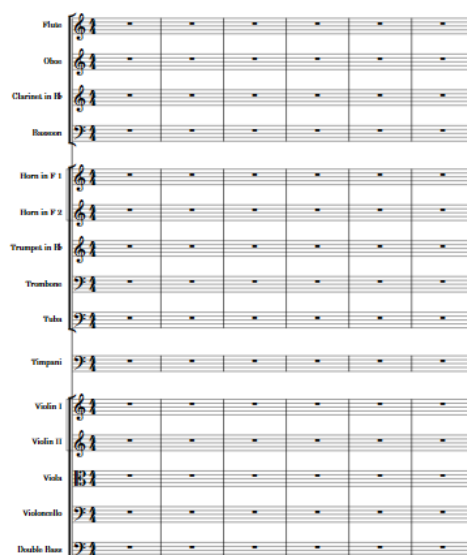
In order to make it easier to find a particular instrument within a score, barlines can extend across instrumental and staff groups.

### 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.



Barlines on individual staves



Barlines across instrumental groups

Barlines extend across staff groups automatically when they are joined by a bracket. 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.

In Dorico Elements, you can only determine which staves are bracketed together by starting a new project using the appropriate template for how you want staves to be bracketed.

### Custom barline groups

You can create custom barline joins and bracket groups by manually arranging your players into groups. If one or more players included in your group were previously in another group, any remaining instruments in their previous group remain grouped.

You can put a single player in its own player group so they appear separately, for example, to separate the soloist from the remainder of the ensemble in a concerto.



RELATED LINKS

[Brackets according to project template categories](#) on page 57

[Adding groups of players](#) on page 112

[Adding players to groups](#) on page 113

[Deleting player groups](#) on page 113

## 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.

---

PROCEDURE

1. Select the time signature changes where you want to join all staves with a barline.
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.

# Bar numbers

Bar numbers provide a crucial reference point for music that has multiple players, and make the chronological sequence of the music clear. They indicate where players are in the piece, which allows them to co-ordinate themselves easily in rehearsals and concerts.

Bar numbers can also be useful when preparing parts and scores, as you can use bar numbers and rehearsal marks to help you quickly compare a part to the score and check it is correct.

In Dorico Elements, bar numbers appear automatically, following the most common practice of showing a bar number at the start of each system in scores and parts by default.

However, sometimes it is useful to show a bar number for every bar, which is frequently done for film music scores. You can also show bar numbers at a regular interval, such as every five bars, but this can be misleading as it can give the impression that those bars are significant, particularly if bar numbers are shown within an enclosure.

## RELATED LINKS

[Changing the bar number frequency](#) on page 411

[Changing the bar number enclosure type](#) on page 412

## Appearance of bar numbers

You can change the appearance, frequency, and position of bar numbers in each layout independently.

### Layout Options

On the **Bar Numbers** page in **Setup > Layout Options**, you can change the following aspects of the appearance and position of bar numbers:

- Paragraph style used for bar numbers in the selected layouts
- Bar number frequency
- Placement above/below the staff
- Distance from the staff and from other objects
- Horizontal position
- Enclosure type
- Hiding/Showing bar numbers at rehearsal marks
- Hiding/Showing the first bar number when bar numbers are shown every bar

You can change options for bar numbers for each instrument layout and full score layouts independently of each other within the dialog. For example, you can use different paragraph styles for bar numbers in different layouts, and show bar numbers every bar in full score layouts but only at the start of each system in part layouts.

## RELATED LINKS

[Changing the bar number enclosure type](#) on page 412

[Layout Options dialog](#) on page 87

## Changing the bar number frequency

You can change how frequently bar numbers appear in each layout independently of other layouts. For example, you can have bar numbers appear with different frequencies in full score layouts compared to individual 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 bar number 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, **Shift**-clicking adjacent layouts, and **Ctrl/Cmd**-clicking individual layouts.
  3. Click **Bar Numbers** in the page list.
  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

The frequency of bar numbers in the selected layouts is changed.

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.

### RELATED LINKS

[Appearance of bar numbers](#) on page 410

## 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, bar numbers in full score layouts use one paragraph style and bar numbers in part layouts use a different paragraph style.

### PREREQUISITE

If you want to use a custom paragraph style for bar numbers in some layouts, you have already created it in the **Paragraph Styles** dialog.

---

### 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, **Shift**-clicking adjacent layouts, and **Ctrl/Cmd**-clicking individual layouts.
3. Click **Bar Numbers** in the page list.

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.

## Changing the bar number enclosure type

If you want bar numbers to stand out, you can enclose them in a rectangular or circular enclosure. You can change the bar number enclosure type in each layout independently of other layouts.

For example, you can have bar numbers appear with rectangle enclosures in full score layouts but with no enclosures 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 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, **Shift**-clicking adjacent layouts, and **Ctrl/Cmd**-clicking individual layouts.
  3. Click **Bar Numbers** in the page list.
  4. In the **Appearance** subsection, choose one of the following options for **Enclosure type**:
    - **None**
    - **Rectangle**
    - **Circle**
  5. Click **Apply**, then **Close**.
- 

#### RESULT

Bar numbers in the selected layouts are shown within your selected enclosure type. The size of the enclosure is relative to the font size of the bar numbers, but the size and shape of the enclosure are also determined by your padding values.

---

#### 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 87

## Bar numbers in parts

You can show bar numbers differently in each layout, including using different font sizes, fonts, frequency, and enclosure types. Parts often require differently formatted bar numbers compared to full score layouts.

By default in Dorico Elements, there are two paragraph styles for bar numbers: one for full score layouts and one for part layouts, but initially both paragraph styles have the same settings. You can change the settings of these paragraph styles independently, for example, if you want to set the paragraph style for bar numbers in part layouts to use a bold italic font but set the paragraph style for bar numbers in full score layouts to use a plain font with a much larger font size.

In addition to changing the appearance of bar number fonts, you can change the following aspects of the appearance and position of bar numbers independently in each layout:

- Bar number frequency
- Minimum distance from staff and other objects
- Horizontal position
- Enclosure type

For example, you can show bar numbers every bar in full score layouts but only at the start of each system in part layouts.

### NOTE

Changing values for enclosure sizes, padding values, and line thickness changes the corresponding aspect of bar number enclosures in all layouts in the project.

---

### RELATED LINKS

[Changing the bar number paragraph style used in layouts](#) on page 411

[Changing the bar number frequency](#) on page 411

[Changing the distance between bar numbers and the staff/other objects](#) on page 415

## Hiding/Showing bar number ranges on multi-bar rests

You can hide/show bar number ranges on multi-bar rests, for example, to make it clear in part layouts the bars in which players do 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, **Shift**-clicking adjacent layouts, and **Ctrl/Cmd**-clicking individual layouts.
  3. Click **Bar Numbers** in the page list.
  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 multi-bar rests](#) on page 604

## 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 shown for every bar and above every staff in the corresponding view type when a tick appears beside the corresponding option in the menu, and hidden when no tick appears.

## 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**.

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.

NOTE

Bar numbers can only be shown at one position per system. You cannot show bar numbers above/below multiple staves in a single system.

---

RELATED LINKS

[Changing the placement of bar numbers relative to the staff](#) on page 416

## 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, **Shift**-clicking adjacent layouts, and **Ctrl/Cmd**-clicking individual layouts.
3. Click **Bar Numbers** in the page list.

4. In the **Horizontal Position** subsection, choose one of the following options for **Horizontal position**:
    - **Centered on barline**
    - **Centered on bar**
  5. Click **Apply**, then **Close**.
- 

#### RESULT

**Centered on barline** shows bar numbers above barlines, at the top left of the bar.

**Centered on bar** shows bar numbers above the staff, in the middle of the bar.

## 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, **Shift**-clicking adjacent layouts, and **Ctrl/Cmd**-clicking individual layouts.
  3. Click **Bar Numbers** in the page list.
  4. Optional: In the **Placement** subsection, change the value for **Minimum distance from staff**.

The default value is 2 spaces.
  5. Optional: In the **Placement** subsection, change the value for **Minimum distance from other objects**.

The default value is 3/4 of a space.
  6. Click **Apply**, then **Close**.
- 

#### RESULT

If you increase the values, bar numbers are positioned further away from the staff and/or other objects, either above or below the staff depending on your setting for **Placement relative to staff**. If you decrease the values, bar numbers are positioned closer to the staff and/or other objects.

#### 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.

---

## Changing the placement of bar numbers relative to the staff

You can change the side of the staff on which bar numbers appear for each layout independently. For example, bar numbers can appear below the staff in full score layouts but above the staff in individual 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 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, **Shift**-clicking adjacent layouts, and **Ctrl/Cmd**-clicking individual layouts.
3. Click **Bar Numbers** in the page list.
4. In the **Placement** subsection, choose one of the following options for **Placement relative to staff**:
  - **Above**
  - **Below**
5. Click **Apply**, then **Close**.

---

### RESULT

The placement of bar numbers relative to the staff 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, **Shift**-clicking adjacent layouts, and **Ctrl/Cmd**-clicking individual layouts.
3. Click **Bar Numbers** in the page list.
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

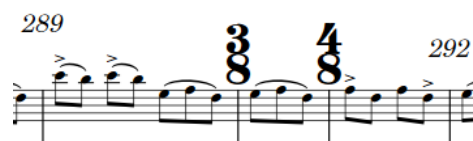
Bar numbers are shown at time signatures shown at system object positions when the option is activated, and hidden when it is deactivated.



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 663

[Large time signatures](#) on page 668

## 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 418

## 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. 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 > 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**, after which the bar number 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 lower case letters.

**4a**

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. 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 > 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. 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.
5. 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. It has the same bar number as the bar immediately before, but with subordinate alphabetical letters.

For example, if you start a subordinate bar number sequence from what was originally bar 5, 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. 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 > 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.

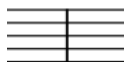
---

## 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 417

# Beaming

A beam is a line that connects notes with tails to show rhythmic grouping, which varies according to the metrical structure of the current 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

## RELATED LINKS

[Inputting notes](#) on page 143

## Beaming notes together manually

You can beam notes 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 current 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.

---

### PROCEDURE

1. Select the notes you want to beam together.
2. Choose **Edit > Beaming > Beam Together**. You can also choose this option from the context menu.

---

### RESULT

The selected notes 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.

### NOTE

Even if part of the beamed group previously had a centered beam, the new beam is not centered.

---

## Unbeaming notes

You can separate all notes in a beamed group so that each note shows its own tail, for example, when fast rhythms have syllabic text settings.

---

### PROCEDURE

1. Select the notes you want to make unbeamed.
  2. Choose **Edit > Beaming > Make Unbeamed**. You can also choose this option from the context menu.
- 

## 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.

---

### PROCEDURE

1. Select the notes whose partial beam direction you want to change.
  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**

---

## Beam groups

Notes are commonly beamed as regular groups to help reflect the meter. You can control how notes are beamed in multiple ways in Dorico Elements.

- You can set beam groups by controlling subdivisions of time signatures.
- You can change beam groups individually using properties in the Properties panel, and by choosing **Edit > Beaming** and selecting one of the available options.

### RELATED LINKS

[Beaming notes together manually](#) on page 421

## Beams according to time signatures

Default beam groupings are determined by the time signature, which you can customize by specifying the subdivision of beats within bars.

Dorico Elements has default beaming settings for common time signatures, based on general conventions. 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.

For situations where you want to control the beam 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.

#### RELATED LINKS

[Note and rest grouping](#) on page 433

[Creating custom beat groupings for meters](#) on page 434

## Splitting beam groups

You can split beams and secondary 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.
2. Split the beam or secondary beam in one of the following ways:
  - Choose **Edit > Beaming > Split Beam**.
  - Choose **Edit > 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.

#### NOTE

To unbeam the entire selection and give all notes in the group individual tails, you can make all notes unbeamed.

---

#### RELATED LINKS

[Unbeaming notes](#) on page 422

## 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.
  2. Choose **Edit > Beaming > Reset Beaming**. You can also choose this option from the context menu.
- 

#### RESULT

Beam grouping is reset to the default settings.

## Beam placement relative to the staff

You can change the staff-relative placement of the stems within beams, so that beams appear on the other side of the staff to their default placement.

The default placement of beams relative to the staff is determined by the staff positions of the notes within the beamed group.

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 placement of beams relative to the staff.

Changing the placement of beams relative to the staff involves changing the direction of the stems in the beam. Therefore, Dorico Elements categorizes changing the placement of beams relative to the staff as a stem change.

## Changing the placement of beams relative to the staff

You can change on which side of the staff a beam appears by forcing the stem direction to change.

---

### PROCEDURE

1. Select at least one note in each of the beamed phrases whose staff-relative placement you want to change.
2. Force the stem direction of notes in the selected beams in any of the following ways:
  - Choose **Edit > Stem > Force Stem Up**.
  - Choose **Edit > Stem > Force Stem Down**.

### TIP

You can also choose these options from the context menu.

---

### RESULT

The beam appears on the side of the staff that corresponds to its forced stem direction.

## Removing beam placement changes

You can undo changes to the placement of beams relative to the staff 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 placement change relative to the staff you want to remove.
  2. Choose **Edit > 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.

## Changing beam slants

You can change the slants, or angles, of individual beams.

---

### PROCEDURE

1. Select at least one note in each beam group whose slant you want to change.
2. In the Properties panel, activate **Beam direction** in the **Beaming** group.
3. Select one of the following options from the menu:
  - **Flat**
  - **Up**
  - **Down**

---

### RESULT

The slants of the selected beams are changed while retaining correct positions relative to staff lines.

## Centered beams

Centered beams are positioned between high and low notes within the same beamed group, typically drawn in the middle of the staff or between the staves of grand staff instruments.

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.



A phrase with high and low notes with default beaming



The same phrase with high and low notes, but with a centered beam

### RELATED LINKS

[Changing the placement of beams relative to the staff](#) on page 424

## Creating centered beams

You can make beams appear in the middle of staves, with high notes above the beam and lower notes below the beam.

### 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 **Beaming** in the **Edit** menu.

### PROCEDURE

1. Select at least one note in each of the beams you want to center.
2. Choose **Edit > Stem > Force Centered Beam**. You can also choose this option from the context menu.

### RESULT

Beams are centered between the notes in the selected beam groups.

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.

---

#### RELATED LINKS

[Beaming notes together manually](#) on page 421

[Changing beam slants](#) on page 425

## 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.
  2. Choose **Edit > Stem > Remove Centered Beam**. You can also choose this option from the context menu.
- 

#### RESULT

The centered beams are removed.

## Creating cross-staff beams

Cross-staff beams work in a similar way to normal beams, but allow a phrase that covers a wide pitch range to be shown on two staves. You can create cross-staff beams 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.

#### NOTE

You can only cross notes to other staves in multi-staff instruments.

---

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**.
- 

#### 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

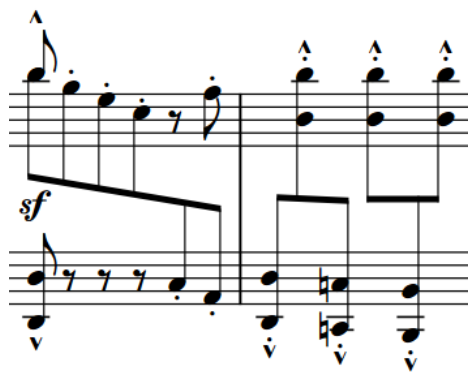
- When crossing notes to a staff that already contains notes, the stem direction of the existing notes on the staff can change. This is due to how multiple voices at the same rhythmic position are handled. Therefore, you may have to change the stem direction of notes manually.

- You can reset notes to appear on their default staff by selecting them and choosing **Edit > Cross Staff > Reset to Original Staff**.
  - 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

- [Moving notes to other staves](#) on page 271
- [Notes crossed to staves with existing notes in other voices](#) on page 710
- [Note positions in multiple-voice contexts](#) on page 707
- [Changing the stem direction of notes](#) on page 638

## Optical spacing for cross-staff beams

Normally, the human eye perceives the evenness of rhythmic spacing according to the distance between noteheads. However, for cross-staff beams we consider the distance between stems, rather than the noteheads, to be even/uneven.



Default spacing: The distance between noteheads is optimized.



Optical spacing for cross-staff beaming: the distance between stems is optimized.

---

## 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.

---

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, **Shift**-clicking adjacent layouts, and **Ctrl/Cmd**-clicking individual layouts.

3. Click **Note Spacing** in the page list.
  4. Activate **Use optical spacing for beams between staves**.
  5. Click **Apply**, then **Close**.
- 

## 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.

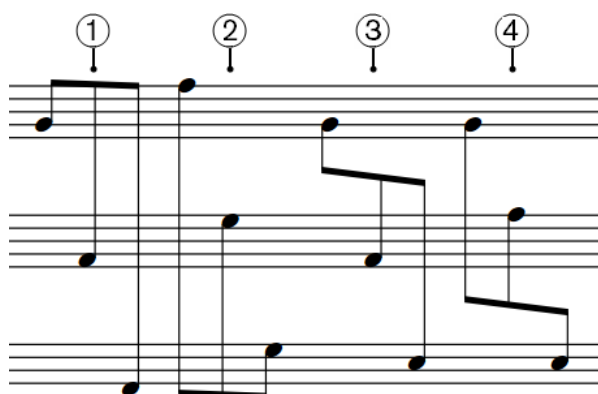


A cross-staff beam across the upper two staves on an instrument with three staves



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 638

## 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

## Changing the number of beam lines in secondary beams

You can change the number of beam lines shown in secondary beams individually.

---

#### PROCEDURE

1. Select the notes to the right of where you want to change the number of secondary beaming lines.

- 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.

**NOTE**

The **Beaming** group is only shown in the Properties panel if your selection only contains notes.

- Choose **Edit > Beaming > Split Secondary Beam**. You can also choose this option from the context menu.

- 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.

---

**RESULT**

The number of beam lines shown immediately to the left of each selected note is changed.

**NOTE**

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.

---

## Resetting changes to the number of secondary beam lines

You can reset any changes you have made to the number of beam lines shown in secondary beams and return them to their default appearance.

---

**PROCEDURE**

- Select the notes to the right of where you want to reset the number of secondary beam lines.
  - Reset your changes to the number of secondary beam lines in any of the following ways:
    - In the Properties panel, deactivate **Split secondary beam** in the **Beaming** group.
    - Choose **Edit > Beaming > Reset Beaming**. You can also choose this option from the context menu.
- 

## Tuplets within beams

Tuplets that contain notes that produce beams are also beamed together, but 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.

You can alter the appearance of the bracket by selecting the bracket and changing relevant properties in the **Tuplets** group of the Properties panel.



Tuplets in beam groups with secondary beams are beamed together with a split secondary beam by default.

The default setting for a tuplet in a beamed group with only a primary beam is to separate the tuplet entirely.



Eighth note (quaver) triplets are not beamed together with subsequent non-triplet eighth notes by default.

RELATED LINKS

[Triplets](#) on page 680

## 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 a project that contains them.

## Fanned beams

Fanned, or “feathered”, 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.

A single 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 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.

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.

There are also 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.

## Conventions for beam grouping according to meter

According to accepted conventions, notes are beamed differently in different time signatures to make the meter clear and easily readable.

For example, music in 3/4 is beamed in one group of six eighth notes (quavers), whereas music in 6/8 is beamed in two groups, each the value of a dotted quarter note (crotchet). Although these two time signatures describe the same rhythmic value, the implicit meter within them is different, and so the beam grouping is different.



Default beam grouping in 3/4



Default beam grouping in 6/8

For irregular time signatures, such as 5/8 or 7/8, Dorico Elements beams notes by default according to the most common practices for those time signatures.



Default beam grouping in 5/8



Default beam grouping in 7/8

## 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.

---

### PROCEDURE

1. In Write mode, select an item at the rhythmic position where you want to input a time signature with a custom beam grouping.
2. Press **Shift-M** to open the time signatures popover.
3. 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.
4. 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 on the selected staff only, press **Alt-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 independently of your project-wide settings.

---

### RELATED LINKS

[Time signature styles](#) on page 670

[Changing the numerator style of time signatures](#) on page 670

# 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.

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, 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 with braces cannot show sub-brackets or sub-sub-brackets.

---

#### RELATED LINKS

[Barlines across staff groups](#) on page 408

[Player groups](#) on page 112

[Adding groups of players](#) on page 112

[Secondary brackets](#) on page 436

## Secondary brackets

Secondary brackets extend beyond brackets, allowing you to mark groups of staves within a bracketed group. You can show secondary brackets as a brace positioned outside the bracket or as a sub-bracket in Dorico Elements.

By default in Dorico Elements, secondary brackets appear as sub-brackets: thin lines with square corners that extend beyond the bracket.



## 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.



## Brackets according to ensemble type

In Dorico Elements, the default staff grouping settings for staves are determined by the ensemble type chosen for the project. However, in Dorico Elements, you can only do this by starting a new project using the appropriate template for how you want staves to be bracketed.

### RELATED LINKS

[Brackets according to project template categories](#) on page 57

# 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.

Depending on the style of music, there are different conventions regarding how to present chord names.

## RELATED LINKS

[Input methods for chord symbols](#) on page 205

## 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 Cm7b5/Eb.

## Transposing chord symbols

Chord symbols can be transposed, and appear at the appropriate transposed pitch when shown on transposing instruments.

---

### PROCEDURE

1. In Write mode, select the chord symbols you want to transpose.
2. Choose **Write > Transpose** to open the **Transpose** dialog.
3. Change the transposition using the options in the dialog.

4. Click **OK** to save your changes and close the dialog.
- 

RESULT

The selected chord symbols are transposed.

TIP

You can show chord symbols at the appropriate transposed pitch for transposing instruments in the current layout, rather than at concert pitch, by choosing **Edit > Transposed Pitch**.

---

RELATED LINKS

[Making layouts transposing/concert pitch](#) on page 120

## Hiding/Showing chord symbols

You can hide/show chord symbols in the current layout without deleting them.

---

PROCEDURE

1. Select the chord symbols or chord symbol signposts you want to hide/show.
  2. In the Properties panel, activate/deactivate **Hidden** in the **Chord Symbols** group.
- 

RESULT

Chord symbols are hidden when the property is activated, and shown when the property is deactivated.

Signposts are shown at the positions of each chord symbol so you can always find them again. However, signposts are not printed by default.

TIP

- If you do not want to show chord symbol signposts, choose **View > Signposts > Chord Symbols**. Chord symbol signposts are shown when a tick appears beside **Chord Symbols** in the menu, and hidden when no tick appears.
  - You can assign a key command for **Hide/Show Item** on the **Key Commands** page in **Preferences**, which applies to chord symbols, playing techniques, and time signatures.
- 

RELATED LINKS

[Signposts](#) on page 267

## 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.

---

PROCEDURE

1. Select the chord symbols whose root and quality you want to hide.
  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.

## Positions of chord symbols

By default, chord symbols are centered horizontally on the middle of the front notehead in the first voice column, at the rhythmic position to which they are attached.

### NOTE

The front notehead is the notehead on the correct side of the stem at that rhythmic position.

---

Their vertical positions in full scores is determined by the staves above which they are set to appear. This also affects in which part layouts chord symbols appear.

### Alignment of chord symbols relative to notes and chords

You can change whether chord symbol text is left-aligned above the notehead, center-aligned above the notehead, or right-aligned above the notehead, although right-aligned typically produces unclear results.

You can change the horizontal alignment of individual chord symbols by activating **Alignment** in the **Chord Symbols** group of the Properties panel and selecting an option from the menu.

### Alignment of chord symbols across the system

Chord symbols are aligned at the same vertical position across the width of the system by default.

### RELATED LINKS

[Changing the staves above which chord symbols appear](#) on page 441

[Changing the layouts in which chord symbols appear](#) on page 441

## Moving chord symbols rhythmically

You can move chord symbols to new rhythmic positions after they have been input.

---

### PROCEDURE

1. In Write mode, select the chord symbols you want to move.

### NOTE

When using the mouse, you can only move one chord symbol rhythmically at a time.

---

2. Move the chord symbols according to the current rhythmic grid value in any of the following ways:
    - Press **Alt-Right Arrow** to move them to the right.
    - Press **Alt-Left Arrow** to move them to the left.
    - Click and drag the chord symbol to the right/left.
- 

### RESULT

The selected chord symbols are moved to new rhythmic positions.

### NOTE

Only one chord symbol can exist at each rhythmic position. If a chord symbol passes over another chord symbol as part of its move, the existing chord symbol is deleted.

You can undo this action, but any chord symbols deleted in the process are only restored if you moved the chord symbol using the keyboard.

---



## Changing the staves above which chord symbols appear

You can change the players above whose staves chord symbols appear. By default, chord symbols appear above the staves belonging to rhythm section instruments, such as keyboards, guitars, and bass guitars.

---

### PROCEDURE

1. In Setup mode, select a player in the **Players** panel above which you want to hide/show chord symbols.
2. Right-click the player and choose one of the following options from the context menu:
  - **Chord Symbols > Show For All Instruments**  
Chord symbols are shown above the staff of the selected player.
  - **Chord Symbols > Show For Rhythm Section Instruments**  
Chord symbols are shown above the staff of the selected player if it is a rhythm section instrument.
  - **Chord Symbols > Hide For All Instruments**  
Chord symbols are not shown above the staff of the selected player.

---

### RESULT

Chord symbols are hidden/shown above the staff of the selected player. For example, if you choose **Show For All Instruments**, chord symbols can now appear above the selected player in the full score and any corresponding part layouts, depending on the layouts in which chord symbols are shown in your project.

## Changing the layouts in which chord symbols appear

You can change which layouts show chord symbols. By default, chord symbols appear both in full score and part layouts for rhythm section instruments.

---

### NOTE

If chord symbols are not set to appear for any instrument in the current layout, signposts are shown above the top staff.

---

### PROCEDURE

1. In Setup mode, select a player in the **Players** panel.
  2. Right-click the player and choose one of the following options from the context menu:
    - **Chord Symbols > Show in Full Score and Parts**  
Chord symbols are shown above the staff of the selected player in all layouts that include the player.
    - **Chord Symbols > Show in Full Score Only**  
Chord symbols are only shown above the staff of the selected player in full score layouts and not in any part layouts.
    - **Chord Symbols > Show in Parts Only**  
Chord symbols are only shown above the staff of the selected player in part layouts and not in full score layouts.
-

## Changing the enharmonic spelling of chord symbols

You can respell a chord symbol for transposing instruments, for example, to choose a simpler enharmonic equivalent spelling. This changes the enharmonic spelling of chord symbols in all layouts with the same transposition.

---

### PROCEDURE

1. In Write mode, open a layout with the transposition for which you want to respell chord symbols.
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  $D\flat\text{maj}13$  from  $D\flat$  to  $C\sharp$ .

---

### RESULT

The spelling of the chord symbol is altered 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 a Trumpet in  $B\flat$  layout.

## Showing chord symbols as modes

You can show individual chord symbols as their modal equivalent if one exists for that chord symbol.

---

### PROCEDURE

1. Select the chord symbols you want to show as a 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 can remove overrides for the current instrument only, or for all instruments to which the chord symbol applies.

---

### PROCEDURE

1. In Write mode, select the chord symbol you want to respell.
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 remove the enharmonic spelling override for a chord symbol for the instrument above which the popover appears, enter **Alt-S** into the chord symbols popover.
  - To remove all enharmonic spelling overrides for a chord symbol for all instruments, enter **Shift-Alt-S** into the popover.

## 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.

# 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.

For example, the treble clef is also known as a “G clef”, because the spiral shape in the middle centers around G, normally the one above middle C.



The other common clefs are:

- 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.  
Middle C uses one ledger line below staves with treble clefs, and one ledger line above staves with bass clefs.
- 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.

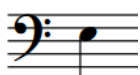
The C clef today is commonly used at two positions on the staff:

- On the middle line of the staff, commonly called the alto clef.
- On the line above the middle line of the staff, commonly called the tenor clef.

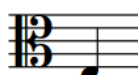
To minimize the number of ledger lines required, these clefs are used to match the register of the instrument for which they are used.



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, clefs and octave lines are both contained in the Clefs panel on the right of the window.

## RELATED LINKS

[Input methods for clefs and octave lines](#) on page 211

## General placement conventions for clefs

Clefs are placed at the start of every system, with a small gap between the start of the staff and the left edge of the clef. Their vertical placement must be precise, as this signifies which pitches are intended by the subsequent notes on the staff.

Clef changes that occur during a piece are usually smaller than the clefs shown at the start of each system. 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 to ensure the performer notices the change of clef.

Wherever possible, clef changes should not be positioned in the middle of tie chains. Changing the clef changes the position of the tied note on the staff, which could easily cause a performer to misread the tie as a slur and play two different notes. You can input clef changes in the middle of tie chains in Dorico Elements, but we recommend that you position clef changes either before or after tie chains.

### RELATED LINKS

[Tie chains](#) on page 655

[Input methods for clefs and octave lines](#) on page 211

## Moving clefs rhythmically

You can move clefs to new rhythmic positions after they have been input.

---

### PROCEDURE

1. In Write mode, select the clefs you want to move.

#### NOTE

- You cannot select an initial clef at the start of the flow or clefs shown automatically at the start of each system.
- When using the mouse, you can only move one clef rhythmically at a time.

2. Move the clefs according to the current rhythmic grid value in any of the following ways:

- Press **Alt-Right Arrow** to move them to the right.
- Press **Alt-Left Arrow** to move them to the left.
- Click and drag the clef to the right/left.

---

### RESULT

The selected clefs are moved to new rhythmic positions. They take effect from their new positions until the next clef, or the end of the flow, whichever comes first.

#### NOTE

- You can only move clefs along staves. If you want to move a clef across staves, you must delete the clef and input a new clef on the other staff.
- Only one clef can exist at each rhythmic position, except for clefs that only apply to single staves. If a clef passes over another clef as part of its move, the existing clef is deleted.

You can undo this action, but any clefs deleted in the process are only restored if you moved the clef using the keyboard.

---

### RELATED LINKS

[Input methods for clefs and octave lines](#) on page 211

## Deleting clefs

You can delete clefs without affecting the pitches of notes. Notes are automatically respelled according to the previous clef on the staff.

### NOTE

You cannot delete an initial clef at the start of the flow 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 clefs you want to delete.
  2. Press **Backspace** or **Delete**.
- 

### RESULT

The selected clefs are deleted. Any music on the staff is respelled according to the previous clef, up until the next existing clef or the end of the flow.

### RELATED LINKS

[Input methods for clefs and octave lines](#) on page 211

## Changing the position of clefs relative to grace notes

By default, clefs are not positioned between a note and its grace note. Dorico Elements automatically positions clefs correctly and updates their position according to what you input. However, in some circumstances you might want to position clefs between a note and its grace note.

---

### PROCEDURE

1. Select the clef whose position you want to change.
  2. Choose **Edit > Clef Position > After Grace Notes**. You can also choose this option from the context menu.
- 

### RESULT

The clef is positioned between a note and its grace note.

### 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 > Clef Position > Reset Clef Position**. You can also choose this option from the context menu.

---

## Setting different clefs for concert/transposed pitch

You can set clef changes to show a different clef in concert pitch layouts compared to transposed pitch layouts. For example, if you want a clef change on a Bass Clarinet staff to appear as a treble clef in the part layout but as a bass clef in the full score layout.

### NOTE

- This only applies to clefs you have input, as you cannot select initial clefs or the clefs shown automatically at the start of each system.

- Many instruments in Dorico Elements show different clefs in full score and part layouts by default. You can select the appropriate instrument type from the instrument picker when adding or changing instruments.
- 

#### PROCEDURE

1. Select the clefs whose concert/transposed pitch versions you want to change.
2. Choose one of the following options:
  - To change the concert pitch version of the selected clefs, choose **Edit > Clef > Concert Pitch > [Clef]**.
  - To change the transposed pitch version of the selected clefs, choose **Edit > Clef > Transposed Pitch > [Clef]**.

#### TIP

You can also choose these options from the context menu.

---

#### RESULT

The clefs shown at the selected clef changes in layouts of the corresponding transposition are changed up to the next existing clef change or the end of the flow, whichever comes first.

#### NOTE

Clef changes appear in all layouts. It is not possible to show clef changes only in one layout.

---

#### RELATED LINKS

- [Transposing instruments](#) on page 101
- [Adding instruments to players](#) on page 101
- [Changing instruments](#) on page 103
- [Instrument picker](#) on page 82

## Transposing clefs

Transposing clefs indicate that notes are played in a different register to the one notated. A number above the clef indicates that notes are played higher than notated, while a number 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.



#### RELATED LINKS

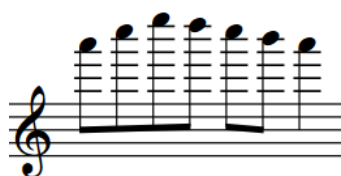
- [Transposing instruments](#) on page 101
- [Making layouts transposing/concert pitch](#) on page 120
- [Concert vs. transposed pitch](#) on page 120

# Octave lines

Octave lines indicate where notes are played higher/lower than they appear in the score or part.

Octave lines 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 the line.

You can use octave lines across a few notes, a single phrase, or multiple phrases, but they must not confuse the contour of the music. If used excessively and for inappropriate sections, octave lines can mask the shape of the original melody. However, careful usage of octave lines can make music easier to read quickly as the performer has fewer ledger lines to count.



An angular phrase with no octave lines



The same phrase with many octave lines, which distort the overall shape of the phrase.



The same phrase with just two octave lines to reduce ledger lines. They do not change the overall shape of the phrase.



It is generally best to use a different clef for a whole phrase if appropriate for that instrument, or to input an octave line for the whole phrase in order to ensure the shape and register are clear to the performer.

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 211

## Lengthening/Shortening octave lines

You can lengthen/shorten octave lines after they have been input.

---

#### PROCEDURE

1. In Write mode, select the octave lines you want to lengthen/shorten.

#### NOTE

When using the mouse, you can only lengthen/shorten one octave line at a time.

2. Lengthen/Shorten the selected octave lines in any of the following ways:
  - To lengthen them by the current rhythmic grid value, press **Shift-Alt-Right Arrow**.
  - To shorten them by the current rhythmic grid value, press **Shift-Alt-Left Arrow**.
  - To snap the end of a single octave line to the next notehead, press **Ctrl/Cmd-Shift-Alt-Right Arrow**.
  - To snap the end of a single octave line to the previous notehead, press **Ctrl/Cmd-Shift-Alt-Left Arrow**.

#### NOTE

- You can only lengthen/shorten octave lines by the current rhythmic grid value when multiple octave lines are selected.
  - When using the keyboard, you can only move the end of octave lines. You can move the start of octave lines by moving the whole line, or by clicking and dragging the start handle.
- 
- Click and drag the circular handle at the start/end of a single octave line to noteheads to the right/left.

---

#### RESULT

Single octave lines are lengthened/shortened according to the current rhythmic grid value or to the next/previous notehead, whichever is closer.

Multiple octave lines are lengthened/shortened according to the current rhythmic grid value.

## 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.

## Moving octave lines rhythmically

You can move octave lines to new rhythmic positions after they have been input.

---

### PROCEDURE

1. In Write mode, select the octave lines you want to move.

#### NOTE

When using the mouse, you can only move one octave line rhythmically at a time.

2. Move the octave lines to the next or previous notehead on the staff, while maintaining their total durations, in any of the following ways:
  - Press **Alt-Right Arrow** to move them to the right.
  - Press **Alt-Left Arrow** to move them to the left.
  - Click and drag the octave line to the right/left.

---

### RESULT

The octave lines are moved to noteheads to the right/left along the staff. The octave lines now apply to the notes at their new positions. If an octave line passes over another octave line as part of its move, the existing line is unaffected as multiple octave lines can exist at the same rhythmic position.

#### NOTE

Octave lines can only be moved along staves. If you want to move an octave line across staves, you must delete the octave line and input a new octave line on the other staff.

---

### RELATED LINKS

[Input methods for clefs and octave lines](#) on page 211

## 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.

---

### PROCEDURE

1. Select the octave lines whose numeral alignment relative to notes you want to change.
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.

## 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.

---

#### PROCEDURE

1. Select the octave lines whose numeral alignment relative to accidentals you want to change.
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.

## Changing the placement of octave lines relative to the staff

You can change the side of the staff on which individual octave lines appear.

---

#### PROCEDURE

1. Select the octave lines whose staff-relative placement you want to change.
2. In the Properties panel, activate **Placement** in the **Octave Lines** group.
3. Choose one of the following options:
  - **Above**
  - **Below**

---

#### RESULT

The selected octave lines appear above/below the staff.

## Deleting octave lines

You can delete octave lines without deleting notes and other items.

---

#### PROCEDURE

1. In Write mode, select the octave lines you want to delete.
2. Press **Backspace** or **Delete**.

---

#### RESULT

The selected octave lines are deleted. 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.

RELATED LINKS

[Input methods for clefs and octave lines](#) on page 211

[Making layouts transposing/concert pitch](#) on page 120

# 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 violin part showing music from a Bassoon 1 part

In Dorico Elements, you cannot input or edit cues. However, cues are shown if you import a project that contains them.

# Dynamics

Dynamics indicate the loudness of the music, and can be combined with other instructions to give the performer a detailed understanding of how to perform the music, while also leaving room for interpretation.

Dynamics can indicate an immediate change in volume or a gradual change over a specified duration. By default, they are placed below the staff for instruments and above the staff for voices.

You can add qualifying and expressive text to dynamics that can give stylistic direction context alongside the volume level, for example, *f* *espressivo* indicates that a passage is played loudly but also with expressive feeling.

While almost all expression text is written in italics, dynamics such as *p* and *pp* use a bold italic font.

## RELATED LINKS

[Input methods for dynamics](#) on page 200

[Positions of dynamics](#) on page 455

## Types of dynamics

Dorico Elements categorizes dynamics into four groups.

### 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 qualifying text, such as *subito* or *molto*.

### Gradual dynamics and hairpins

Gradual dynamics are often shown as hairpins but can also be shown using text. In Dorico Elements, 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

Gradual dynamics can also have qualifying text, 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 *sfz*, 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 *ffffpppp*.

### RELATED LINKS

[Gradual dynamics](#) on page 462

## Positions of dynamics

Dynamics are placed below the staff for instruments, where they can be read alongside the notes, and above the staff for voices. 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 placement of dynamics relative to the staff 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.

### RELATED LINKS

[Moving dynamics rhythmically](#) on page 457

## Changing the placement of dynamics relative to the staff

By default, dynamics are placed below the staff for instruments and above the staff for voices. You can change the placement of individual dynamics relative to the staff, for example, to have different dynamics above and below the staff in multiple-voice contexts.

---

### PROCEDURE

1. Select the dynamics whose staff-relative placement you want to change.
2. In the Properties panel, activate **Placement** in the **Dynamics** group.
3. Choose one of the following options:
  - **Above**
  - **Below**

---

### RESULT

The placement of the selected dynamics is changed.

## Changing the horizontal beat-relative position of dynamics

You can position individual dynamics before or after the beat.

---

### PROCEDURE

1. Select the dynamics whose position relative to the beat you want to change.
  2. In the Properties panel, activate **Beat-relative position** in the **Dynamics** group.
  3. Choose one of the following options:
    - **Before**
    - **After**
- 

### EXAMPLE



A dynamic positioned before the beat



A dynamic positioned after the beat




---

## Changing the alignment of immediate 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.

---

### PROCEDURE

1. Select the dynamics whose alignment relative to noteheads you want to change.
  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.



## Moving dynamics rhythmically

You can move dynamics to new rhythmic positions after they have been input.

### NOTE

- You can only move dynamics to existing noteheads.
  - If you want 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.
- 

### PROCEDURE

1. In Write mode, select the dynamics you want to move.

### NOTE

When using the mouse, you can only move one dynamic rhythmically at a time.

---

2. Move the dynamics to the next/previous notehead on the staff in any of the following ways:
    - Press **Alt-Right Arrow** to move them to the right.
    - Press **Alt-Left Arrow** to move them to the left.
    - Click and drag the dynamic to the right/left.
- 

### RESULT

The selected dynamics are moved to noteheads to the right/left along the staff.

## 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.

Hairpins that end on the first note of a bar extend across the preceding barline in certain cases.

- If there is not an immediate dynamic on the first note in the next bar.
- If there is a time signature or key signature change at the barline which 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 two different staves can appear differently if one of the staves does not have the barline extending below it.



The ends of the two hairpins are not aligned despite their duration being identical, as the barline does not extend to the bottom staff of the system.

## Showing dynamics in parentheses

You can show individual dynamics in parentheses, for example, to show editorial dynamics that were not in the original manuscript.

---

### PROCEDURE

1. Select the dynamics you want to appear parenthesized.
  2. In the Properties panel, activate **Parenthesized** in the **Dynamics** group.
- 

### RESULT

Each of the selected dynamics is shown in parentheses individually.

Deactivating **Parenthesized** removes parentheses from the selected dynamics.

## Copying dynamics

You can copy dynamics to other rhythmic positions after they have been input. You can select dynamics on a single staff to copy to another single staff, or you can select dynamics across multiple staves to copy across the same number of staves.

---

### PROCEDURE

1. In Write mode, select the dynamics you want to copy.

#### TIP

If you want to copy many dynamics or, for example, just gradual dynamics, you can use a filter.

---

2. Press **Ctrl/Cmd-C** to copy the dynamics.
  3. Select the notehead at the rhythmic position to which you want to copy the dynamics.
  4. Press **Ctrl/Cmd-V** to paste the dynamics.
- 

### RESULT

The selected dynamics are pasted to new rhythmic positions. If you copied dynamics to other staves at the same rhythmic position as the original dynamics, the dynamics on all staves are automatically linked.

If you selected multiple dynamics at different rhythmic positions, their new positions reflect their original rhythmic spacing.

#### TIP

- You can also copy dynamics without adding them to your clipboard by selecting them and **Alt**-clicking each notehead to which you want to copy the selected dynamics.
  - If you want to copy dynamic phrases immediately after where they were originally input, you can select them and press **R**. If you select a single immediate dynamic, it is copied to the same position.
- 

### RELATED LINKS

[Dynamics linked across multiple staves](#) on page 467

[Filters](#) on page 263

## Deleting dynamics

You can delete dynamics from your project. If you delete some but not all dynamics from a group that is linked to dynamics on other staves, all equivalent linked dynamics are also deleted.

---

### PROCEDURE

1. In Write mode, select the dynamics you want to delete.
2. Press **Backspace** or **Delete**.

---

### RESULT

The selected dynamics are deleted. If you delete immediate dynamics immediately before/after hairpins, the length of hairpins can adjust automatically, depending on the context.

### NOTE

Deleting dynamics that are linked to other staves can cause the selected dynamics to be deleted from all linked staves as well. If you do not select and delete all dynamics in the group, 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 staves.

---

### RELATED LINKS

[Groups of dynamics](#) on page 466

[Dynamics linked across multiple staves](#) on page 467

## Voice-specific dynamics

You can input different dynamics into each voice independently in multiple-voice contexts.

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 texture. They change the dynamics of each voice in playback.

During step input, voice-specific dynamics are added to the voice indicated by the stem direction of the quarter note symbol beside the caret.

By default, dynamics apply to all voices on a staff if input without pressing **Alt**. If you want each voice to have their own dynamic in playback as well as in the score, press **Alt** when inputting dynamics for every voice on a staff.

### RELATED LINKS

[Input methods for dynamics](#) on page 200

## Niente hairpins

*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 two ways: as a circle at the end of a hairpin, and as text directly before or after a hairpin. You can input both types of *niente* markings in Dorico Elements using the dynamics popover and by clicking **niente** in the **Gradual Dynamics** section of the Dynamics panel.

#### TIP

You can turn existing hairpins into *niente* hairpins by selecting them and clicking **niente** in the **Gradual Dynamics** section of the Dynamics panel, or by activating **Niente** in the **Dynamics** group of the Properties panel.

---

#### EXAMPLE



A niente shown as **Circle on hairpin**



A niente shown as **Text**

---

#### RELATED LINKS

[Lengthening/Shortening gradual dynamics and groups of dynamics](#) on page 462

[Input methods for dynamics](#) on page 200

## Changing the appearance of individual niente hairpins

You can show *niente* hairpins in two ways in Dorico Elements, and you can change how they appear individually.

---

#### PROCEDURE

1. Select the hairpins whose *niente* style you want to change.
2. In the Properties panel, activate **Niente style** in the **Dynamics** group.
3. Choose one of the following options:

- **Circle on hairpin**



- **Text**



#### RESULT

The *niente* style of the selected hairpins is changed.

---

#### EXAMPLE



A niente shown as **Circle on hairpin**



A niente shown as **Text**

---

## Expressive text

Expressive text adds further detail to a dynamic than simply its volume level, and can help guide how a player performs a note or phrase.

In Dorico Elements, expressive text, such as “*sim.*”, *poco*, *molto*, or *subito*, must accompany a dynamic level, such as *p* or *f*.

#### NOTE

You cannot input expressive text on its own. However, you can hide the immediate dynamic that follows/precedes it.

---

You can input expressive text by entering it into the dynamics popover alongside an immediate dynamic or by clicking available options in the **Immediate Dynamics** section of the Dynamics panel. You can also add it to existing dynamics by entering the expressive text you want into one of the following properties in the **Dynamics** group of the Properties panel:

- **Prefix** adds expressive text before existing dynamics.
- **Suffix** adds expressive text after existing dynamics.

#### RELATED LINKS

[Hiding immediate dynamics](#) on page 461

## Adding expressive text to existing dynamics

You can add expressive text to dynamics after they have been input, for example, if you want to add “sim.” instead of repeating dynamics across multiple phrases.

---

#### PROCEDURE

1. Select the dynamics to which you want to add expressive text.
  2. In the Properties panel, activate the following properties, individually or together, in the **Dynamics** group:
    - **Prefix** adds expressive text before the existing dynamic.
    - **Suffix** adds expressive text after the existing dynamic.
  3. Enter the expressive 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 expressive text.

Deactivating the properties removes the corresponding expressive text from the selected dynamics.

#### NOTE

Deactivating properties permanently deletes any custom text entered.

---

#### RELATED LINKS

[Niente hairpins](#) on page 459

[Input methods for dynamics](#) on page 200

## Hiding immediate dynamics

You can hide immediate dynamics such as *f* and *pp*, for example, if you only want to show an expressive text, such as “sim.”, without the immediate dynamic that accompanies it.

---

#### PROCEDURE

1. Select the immediate dynamics you want to hide.
  2. In the Properties panel, activate **Hide intensity marking** in the **Dynamics** group.
-

#### RESULT

The selected immediate dynamics are hidden. If no other dynamic exists at their rhythmic position, they are indicated by signposts so you can always find them again. However, signposts are not printed by default.

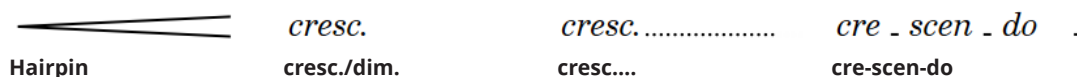
Deactivating **Hide intensity marking** shows the selected immediate dynamics again.

## Gradual dynamics

Gradual dynamics indicate a change in volume that happens incrementally over the specified duration. By default, gradual dynamics appear either as hairpins or as text instructions, such as *cresc.* or *dim.*.

You can change the appearance and placement of gradual dynamics individually using properties in the **Dynamics** group of the Properties panel. For example, you can change the type of gradual dynamics so that they are shown as a hairpin with a single direction or as a *mesa di voce* pair of hairpins with two directions.

You can change the style of gradual dynamics to show them in any of the following ways:



#### TIP

You can also change the line style of hairpins using **Hairpin line style** in the **Dynamics** group of the Properties panel.



Hairpin not shown as continuation



Hairpin shown as continuation

You can also change the diminuendo style of gradual dynamics using the **cresc./dim.** style so they show either “diminuendo” or “decrescendo”, and you can change the continuation line style of gradual dynamics using the **cresc....** style.

#### RELATED LINKS

[Types of dynamics](#) on page 454

## Lengthening/Shortening gradual dynamics and groups of dynamics

You can change the length of gradual dynamics and groups of dynamics after they have been input.

#### NOTE

You can only lengthen/shorten one gradual dynamic or group of dynamics at a time.

#### PROCEDURE

1. In Write mode, select one of the following that you want to lengthen/shorten:
  - A single gradual dynamic
  - A single gradual dynamic in a group of dynamics

2. Lengthen/Shorten the gradual dynamic or groups of dynamics in any of the following ways:
  - To lengthen them by the current rhythmic grid value or to the next notehead, whichever is closer, press **Shift-Alt-Right Arrow**.
  - To shorten them by the current rhythmic grid value or to the previous notehead, whichever is closer, press **Shift-Alt-Left Arrow**.
  - To lengthen them to the next notehead, press **Ctrl/Cmd-Shift-Alt-Right Arrow**.
  - To shorten them to the previous notehead, press **Ctrl/Cmd-Shift-Alt-Left Arrow**.

**NOTE**

When using the keyboard, you can only move the end of dynamics. You can move the start of dynamics by moving the whole dynamic, or by clicking and dragging the start handle.

- Click and drag the circular handle at the start/end.
- 

**RESULT**

Individual gradual dynamics are lengthened/shortened either according to the rhythmic grid or to next/previous noteheads.

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.

In the example, the *p* at the end moves two quarter notes to the right, but the *f* in the middle only moves one quarter note to the right. This keeps the lengths of the gradual dynamics equal.

**EXAMPLE**



Original dynamic phrase



Lengthened dynamic phrase

---

**RELATED LINKS**

[Groups of dynamics](#) on page 466

[Ungrouping dynamics and removing dynamics from groups](#) on page 467

## 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.

---

**PROCEDURE**

1. Select the hairpins on which you want to hide/show flared ends.
  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

---

## Adding poco a poco text to gradual dynamics

You can add *poco a poco* text to individual gradual dynamics after they have been input.

---

#### PROCEDURE

1. Select the gradual dynamics to which you want to add *poco a poco*.
  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

---

## 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.

## Gradual dynamics that start/end partway through notes

If the start/end of a gradual dynamic is not attached to a note, there are restrictions on how you can move the start/end position.

For example, if you enter two hairpins separated by a space into the dynamics popover, pair of hairpins that looks like a *mesa di voce* is created but containing two separate hairpins, rather than the combined option. Neither of the open ends of the hairpins is attached to a specific notehead, and you cannot move the center of the pair of hairpins rhythmically. You can



lengthen/shorten the two hairpins as a group but you cannot lengthen/shorten each hairpin individually.



However, if you enter two hairpins without a space between them into the dynamics popover, you can move the center of the pair of hairpins and each hairpin rhythmically, but only to noteheads. You can lengthen/shorten each hairpin separately according to the current rhythmic grid value.

#### RELATED LINKS

[Lengthening/Shortening gradual dynamics and groups of dynamics](#) on page 462

[Note spacing](#) on page 301

## 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

[Lengthening/Shortening gradual dynamics and groups of dynamics](#) on page 462

## Sustaining and non-sustaining instruments

The volume settings for sustaining instruments and non-sustaining instruments vary in terms of their control of gradual dynamics.

You can control settings for each software instrument by choosing **Play > Expression Maps** and selecting software instruments from the list on the left.

### 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. You can control settings for each software instrument by choosing **Play > Expression Maps** and selecting software instruments from the list on the left.

## 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.

## Groups of dynamics

When dynamics are grouped together, they are automatically aligned in a row and can be moved and edited as a group. For example, you can move the *f* in the middle of the example within the group, and the hairpins either side automatically adjust to compensate.

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.



A group of dynamics



The same group of dynamics adjusts to compensate when the *f* moves position.

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.
- As well as horizontal groups of dynamics, you can also link groups of dynamics across staves 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

[Dynamics linked across multiple staves](#) on page 467

## 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 > 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

[Groups of dynamics](#) on page 466

[Dynamics linked across multiple staves](#) on page 467

## Ungrouping dynamics and removing dynamics from groups

You can ungroup dynamics so that all dynamics in the group become ungrouped, and you can remove only selected dynamics from groups while leaving dynamics that were not selected in the group.

---

#### PROCEDURE

1. In Write mode, select the dynamics you want to ungroup or remove from groups.
2. Do one of the following:
  - Choose **Edit > Dynamics > Ungroup Dynamics**.
  - Choose **Edit > Dynamics > Remove from Group**.

#### TIP

You can also choose these options from the context menu.

---

#### RESULT

If you ungroup dynamics, all dynamics in the group are ungrouped. This includes dynamics in the group that were not included in your selection.

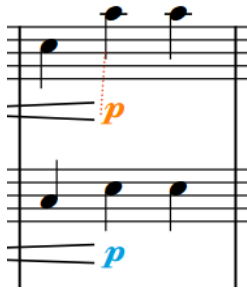
If you remove dynamics from groups, only the selected dynamics are removed from their groups. Any unselected dynamics in the group remain grouped.

This applies to all layouts in which the dynamics appear.

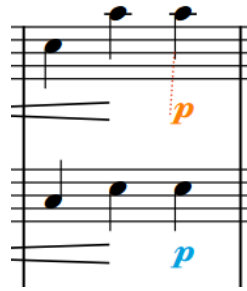
## Dynamics linked across multiple staves

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

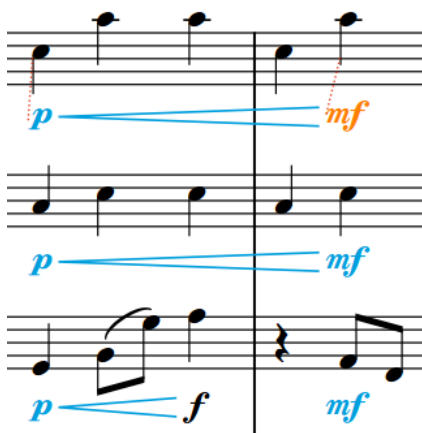


Moving just the top dynamic of the linked group automatically moves the other to match its new position.

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.



Three linked dynamics, where a hairpin added to the top staff and grouped with the dynamics on that staff has been automatically added to the staves below.



Deleting the **f** at the end of the first bar in the third 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 466

[Unlinking dynamics](#) on page 469

[Disabling automatic linking of dynamics and slurs when pasting](#) on page 265

## 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.

However, the 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 > 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

[Dynamics linked across multiple staves](#) on page 467  
[Copying dynamics](#) on page 458

## Unlinking dynamics

You can unlink dynamics, including dynamics that were linked automatically.

---

### PROCEDURE

1. In Write mode, select a dynamic in each linked group that you want to unlink.
2. Choose **Edit > 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

[Dynamics linked across multiple staves](#) on page 467

## 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:

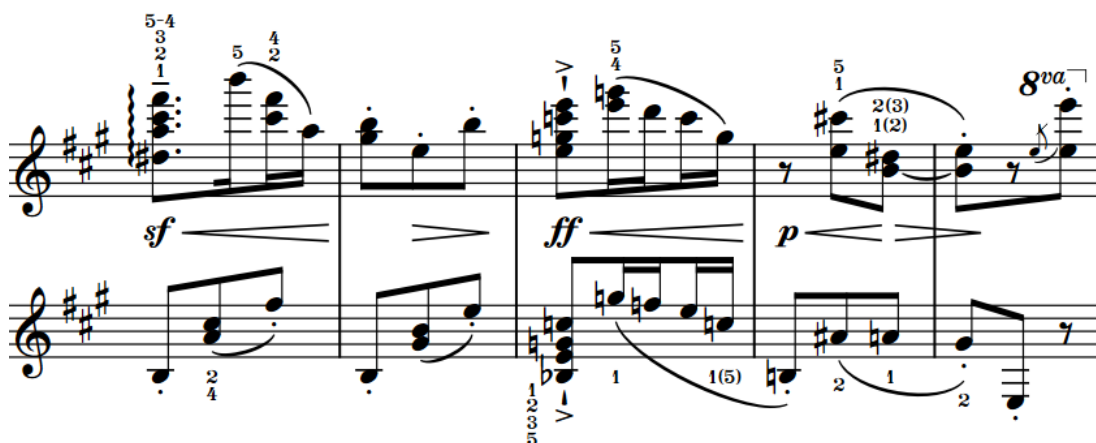
- **CC11 Dynamics** for dynamics produced by changing MIDI channel expression
- **Modulation Wheel Dynamics** for dynamics produced by changing MIDI controller 1

You can edit expression maps in the **Expression Maps** dialog, which you can open by choosing **Play > Expression Maps**.

# Fingering

Fingerings can be added to music 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.

They 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.

A musical score for piano in G major, consisting of two staves. The top staff contains a melodic line with various fingerings indicated by bold numbers above the notes. Fingerings include 5-4, 3, 2, 1, 5, 4, 2, 5, 4, 5, 1, 2(3), and 1(2). A fermata is placed over the final note, labeled '8va.'. The bottom staff contains a bass line with fingerings 2, 4, 1, 2, 3, 5, 1, 1(5), 2, 1, and 2. Dynamic markings include sf, ff, and p. The key signature has two sharps (F# and C#).

Piano music containing multiple fingerings, including a substitution fingering and alternative fingerings

Dorico Elements also provides fingerings for brass 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.

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 176

[Fingerings popover](#) on page 177

## 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.

## 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.

---

### PROCEDURE

1. Select the fingerings you want to change to substitution fingerings.
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.

## 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.
2. Change the rhythmic position of the substitution fingering in any of the following ways:
  - Click and drag the circular handle to the right/left.
  - 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.

---

### RELATED LINKS

[Fingerings popover](#) on page 177

## Changing existing fingerings

You can change fingerings after you have input them, for example, if you decide a different fingering would be better.

---

### PROCEDURE

1. Select the fingerings you want to change.
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 176

[Fingerings popover](#) on page 177

## Changing the placement of fingerings relative to the staff

Dorico Elements automatically follows conventions for fingering placement, but you can change the placement of fingerings relative to the staff individually, independently of your project-wide setting.

According to conventions, 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.

---

### PROCEDURE

1. Select the fingerings whose position relative to the staff you want to change.
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.



## Hiding/Showing fingering

You can hide/show fingering in each layout in your project independently of other layouts. 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, **Shift**-clicking adjacent layouts, and **Ctrl/Cmd**-clicking individual layouts.
  3. Click **Players** in the page list.
  4. In the **Fingering** section, activate/deactivate **Show fingering**.
  5. Click **Apply**, then **Close**.
- 

### RESULT

All fingerings in the selected layouts are shown when the checkbox is activated, and hidden when the checkbox is deactivated.

## Deleting fingerings

You can remove fingerings from notes after you have input them. However, because fingerings are considered an intrinsic part of notes rather than a separate item, you cannot select and delete them as you would for other items.

---

### PROCEDURE

1. Select the notes from which you want to remove fingerings.
  2. In the Properties panel, deactivate **Finger or position** in the **Fingering and Positions** group.
- 

### RESULT

All fingerings are removed from the selected notes.

### RELATED LINKS

[Large selections](#) on page 259

## 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.



Cautionary fingering shown in parentheses (default)

## 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

[Fingerings popover](#) on page 177

[Inputting fingerings](#) on page 176

## 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.

---

### PROCEDURE

1. Select the horn fingerings to which you want to add branch indicators.
  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.

### RELATED LINKS

[Inputting fingerings](#) on page 176

## Hiding/Showing string fingering shift indicators

An angled line can be used to 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.

---

### PROCEDURE

1. Select the notes on string instrument staves from which you want to indicate a fingering shift.
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.

---

### EXAMPLE



---

### RELATED LINKS

[Specifying on which string individual notes are played](#) on page 517

## 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.

---

### PROCEDURE

1. Select the shift indicators whose direction you want to change.
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.

---

### RELATED LINKS

[Specifying on which string individual notes are played](#) on page 517

## 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.

# 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:

- Performance instructions
- Contents
- Instrumentation list

Front matter also includes information above the music on the first page of scores and parts, such as:

- Dedications
- Titles
- Subtitles
- Composers

#### RELATED LINKS

[Master pages](#) on page 275

[Frames](#) on page 274

## Project information used in default master pages

An efficient way of ensuring all text information in the different layouts in your project is consistent is to use tokens that link to information for the current project entered in the **Project Info** dialog.

Tokens are codes that refer to text elsewhere, meaning they are updated automatically if the source text is changed.

The default master pages in Dorico Elements include tokens, so that any information you include for each flow in the **Project Info** dialog is automatically shown. For example, the **Default Full Score** master page set shows the following information for each flow:

- Composer
- Lyricist
- Title

#### NOTE

These tokens are linked to the project information for each flow by default. If you only enter information for **Project** in the **Project Info** dialog, no text is shown.

#### RELATED LINKS

[Project Info dialog](#) on page 87

[Flow names and flow titles](#) on page 116

[Text tokens](#) on page 295

# 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.

Grace notes do not take up space rhythmically, as they are intended to be fitted into the space before the notehead to which they are attached, which is the notehead 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 160

[Grace note slashes](#) on page 481

[Slur placement relative to grace notes](#) on page 608

[Note spacing](#) on page 301

[Changing the pitch of individual notes](#) on page 167

[Inputting articulations](#) on page 175

[Inputting slurs](#) on page 255

## 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 appear stem up by default, except when there are multiple voices with grace notes in a single staff, in which case grace notes in the lower voices appear stem down. This affects the placement of slurs relative to grace notes.

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. However, groups of three or more grace notes can be placed before the barline so that the note of the first beat in the bar is not pushed too far from the barline.

Grace note stem slashes appear at the beginning of a grace note beam if multiple grace notes can be joined by a single beam at the same rhythmic position. If there is a single grace note, the slash appears across the stem, and its 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.

### 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.

#### RELATED LINKS

[Changing the position of grace notes relative to barlines](#) on page 481

[Slur placement relative to grace notes](#) on page 608

[Slur position relative to tie chains](#) on page 607

[Changing the position of slurs relative to tie chains](#) on page 607

[Note spacing](#) on page 301

## Grace note placement 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 all grace notes. This adjustment happens automatically in Dorico Elements, but you can also override the stem direction of grace notes in multiple voices and change their directions individually if necessary.





RELATED LINKS

[Changing the stem direction of notes](#) on page 638

[Slur placement relative to grace notes](#) on page 608

## Changing the position of grace notes relative to 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.

---

PROCEDURE

1. Select the grace notes whose position relative to barlines you want to change.
2. In the Properties panel, activate/deactivate **Grace note before barline** in the **Grace Notes** group.

---

RESULT

The selected grace notes are positioned before barlines when the property is activated, and after barlines when the property is deactivated.

## 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](#) on page 516

## 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.

---

PROCEDURE

1. Select the grace notes whose type you want to change.
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 grace note type during step input.

---

RELATED LINKS

[Grace note slashes](#) on page 481

[Inputting grace notes](#) on page 160

## 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 636

[Grace note slashes](#) on page 481

[Changing the stem direction of notes](#) on page 638

## 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 421

[Beam groups](#) on page 422

# 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.

## 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 215

## Types of holds and pauses

There are three types of holds and pauses in Dorico Elements, and they can all be input, moved, and deleted in the same ways.

### Fermatas

Fermatas indicate that a note is held for longer than its notated length, which applies to the whole ensemble.

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.

## 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

Very short fermata











### Description

Indicates that a note is held only a fraction longer than the rhythm indicates.

Fermata	Description
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
Normal					
Henze	N/A				N/A

#### RELATED LINKS

[Holds and pauses popover](#) on page 215

[Changing existing items](#) on page 265

## 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



Two diagonal slashes

### Thick caesura



Two thick diagonal slashes

### Short caesura



Two straight, vertical slashes

### Curved caesura



Two curved diagonal slashes

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

[Changing existing items](#) on page 265

## 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.

### Fermatas

Fermatas are positioned horizontally so that they are centered on noteheads, regardless of the stem direction of notes.



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, 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.

## 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 curliew 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.

## 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 curliew 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.

## Moving holds and pauses rhythmically

You can move holds and pauses to new rhythmic positions after they have been input.

---

### PROCEDURE

1. In Write mode, select the holds and pauses you want to move.

#### NOTE

When using the mouse, you can only move one hold or pause rhythmically at a time.

2. Move the holds and pauses according to the current rhythmic grid value in any of the following ways:
  - Press **Alt-Right Arrow** to move them to the right.
  - Press **Alt-Left Arrow** to move them to the left.
  - Click and drag the hold or pause to the right/left.

---

### RESULT

The selected holds and pauses are moved to new rhythmic positions on each staff where they appear, even if their position does not appear to move. For example, if one staff has a bar rest, the rhythmic position of the hold or pause moves, but the hold or pause still appears above the rest.

#### NOTE

Only one type of hold or pause can exist at each rhythmic position. If a hold or pause passes over another hold or pause as part of its move, the existing hold or pause is deleted.

You can undo this action, but any holds and pauses deleted in the process are only restored if you moved the hold or pause using the keyboard.

---

## Changing the number of fermatas per staff

You can change the maximum number of fermatas that appear in each staff at individual positions when there are multiple voices on a staff.

---

### PROCEDURE

1. Select a fermata or multiple fermatas.
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.

---

### PROCEDURE

1. Select the fermatas you want to position over barlines.
  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.

### RELATED LINKS

[Changing the number of fermatas per staff](#) on page 487



# 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.

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.

By default, key signatures apply to the whole score. However, there are certain situations 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.

Traditionally, accidentals are organized following the pattern of the circle of fifths, which is different for sharp keys and flat keys.

In Dorico Elements, key signatures exist within the overarching tonality system for your project. The only tonality system in Dorico Elements is 12-EDO.

## RELATED LINKS

[Tonality systems](#) on page 491

[Input methods for key signatures](#) on page 179

## 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.

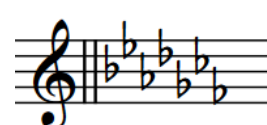
---

### Clef

### Arrangement of sharps

### Arrangement of flats

Treble



Clef	Arrangement of sharps	Arrangement of flats
Bass		
Alto		
Tenor		

---

RELATED LINKS

[Positions of key signatures](#) on page 493

## Types of key signatures

There are four types of key signatures in Dorico Elements, which can all be input, moved, and deleted in the same ways.

The four types are:

- Major
- Minor
- Open key, or atonal
- No key signature (for specific instruments, such as horn or percussion)

### Major/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# in particular is preferred, whether the music is going up or going down, as G# 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

[Adding instruments to players](#) on page 101

## 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 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.

#### RELATED LINKS

[Custom tonality systems](#) on page 492

## 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 semitone, and there are two semitones between A and B according to standard equal temperament, but only one semitone 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.

#### RELATED LINKS

[Custom tonality systems](#) on page 492

## Custom tonality systems

Custom tonality systems allow you to specify a unique number of divisions of the octave for your project. This can be useful for music not based on traditional Western harmony. Custom tonality systems are only available in Dorico Elements if you open a project that already contains them, and you cannot change where they apply.

## Deleting key signatures

You can delete key signatures without affecting the pitches of notes. Where appropriate, pitches are shown with accidentals after you have deleted a key signature.

### 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.
- Instruments that do not usually have key signatures, such as timpani or horn, have a **No key sig** version in Dorico Elements which ensures no key signature is shown for those instruments. You can select **No key sig** versions of instruments when adding/changing instruments in Setup mode.

---

### PROCEDURE

1. In Write mode, select any of the following that you want to delete:
  - Key signatures
  - Key signature signposts of key signatures with no accidentals in the current layout
2. Press **Backspace** or **Delete**.

---

### RESULT

The selected key signatures are deleted from the score. The pitches of notes in the bars following the deleted key signatures are not changed, but the notes are shown with accidentals if the deleted key signature indicated an accidental for them, up until the next existing key signature or the end of the flow.

### NOTE

If you delete the only key signature in the flow, your music appears without a key signature, with accidentals shown as necessary. This is treated as if there were an open key signature rather than a key signature of A minor or C major.

---

### RELATED LINKS

[Input methods for key signatures](#) on page 179  
[Adding instruments to players](#) on page 101  
[Changing instruments](#) on page 103

## Multiple simultaneous key signatures

You can have multiple key signatures simultaneously by inputting each one onto a single staff.

### NOTE

You do not have to input multiple simultaneous key signatures if you have transposing instruments in your score. Dorico Elements handles instrument transpositions automatically.

---

You can check the transposition of transposing instruments by choosing **Edit > Transposed Pitch** to see the music in your layout at written pitch rather than concert pitch.

Alternatively, you can open the individual part layout of a transposing instrument and compare it to the full score.

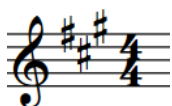
#### RELATED LINKS

[Input methods for key signatures](#) on page 179

## Positions of key signatures

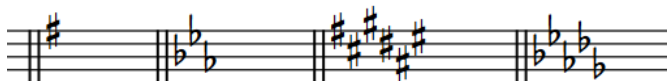
Key signatures are positioned between clefs and time signatures by default, and are shown on every staff that requires a key signature. They are not shown on staves for unpitched instruments.

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 in full score and part layouts, 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

[Key signature arrangements](#) on page 489

[Moving key signatures rhythmically](#) on page 493

## Moving key signatures rhythmically

You can move key signatures to new rhythmic positions after they have been input.

---

#### PROCEDURE

1. In Write mode, select the key signatures you want to move.

#### NOTE

When using the mouse, you can only move one key signature rhythmically at a time.

2. Move the selected key signatures according to the current rhythmic grid value in any of the following ways:
  - Press **Alt-Right Arrow** to move them to the right.
  - Press **Alt-Left Arrow** to move them to the left.

- Click and drag the key signature to the right/left.
- 

#### RESULT

The key signatures are moved to new rhythmic positions. They take effect from their new positions until the next key signature, or the end of the flow, whichever comes first.

#### NOTE

- Key signatures can only be moved along the staff. If you want to move a key signature across staves, you must delete the key signature and input a new key signature on the other staff.
- Only one key signature can exist at each rhythmic position, except for key signatures that only apply to single staves. If a key signature passes over another key signature as part of its move, the existing key signature is deleted and replaced by the key signature being moved.

You can undo this action, but any key signatures deleted in the process are only restored if you moved the key signature using the keyboard.

---

#### RELATED LINKS

[Input methods for key signatures](#) on page 179

## Transposing key signatures alongside selections

You can transpose key signatures at the same time as transposing notes, which transposes both key signatures and notes by the same degree.

---

#### PROCEDURE

1. In Write mode, make a selection that includes both a key signature change and notes.
  2. Choose **Write > Transpose** to open the **Transpose** dialog.
  3. In the **Transpose** dialog, adjust the parameters required for your transposition, such as interval and quality.
  4. Activate **Transpose key signatures**.  
It is activated automatically if your selection includes a key signature.
  5. Click **OK** to save your changes and close the dialog.
- 

#### RESULT

All notes and key signatures within the selection are transposed by the degree you set in the dialog.

#### NOTE

If a key signature included in the transposed selection applies to all staves, then it is transposed on all staves in the layout, even if your selection did not include all staves.

Individual key signatures, that is, key signatures added only to single staves using the **Alt** key, are transposed if included in a selection, but this does not affect any other staff in the layout.

---

#### RELATED LINKS

[Selecting/Deselecting notes and items individually](#) on page 258

[Large selections](#) on page 259

[Transpose dialog](#) on page 168

## Enharmonic equivalent key signatures

Enharmonic equivalent key signatures are keys with different names that include the same pitches, such as C# major and D♭ 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♭ 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#, but transposing to A♭ instead means the leading note is G♭.



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.

### 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♭ clarinet part has a key of F# major, as a B♭ clarinet sounds a whole 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

[Transpose dialog](#) on page 168

[Transposing selections](#) on page 170

[Adding instruments to players](#) on page 101

## 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, as key signature changes occur immediately after barlines, the key signature at the end of a system is the key signature itself, rather than a cautionary key signature.

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 114

[Splitting flows](#) on page 273

[Inserting system breaks](#) on page 290



# Lyrics

In Dorico Elements, the term lyrics is used for all text that is sung by singers.

To differentiate sung text from any other forms of text that often appear in musical scores, other forms of text are referred to as performance instructions, tempos, dynamics, and so on.

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.

Lyrics are organized into 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 a chorus line are shown in an italic font.

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 lyrics according to their type and lyric line by choosing **Edit > Filter > Lyrics** and choosing a lyric type or lyric line from the menu.

## RELATED LINKS

[Types of lyrics](#) on page 499

[Lyric line numbers](#) on page 505

[Filters for lyrics](#) on page 498

[Inputting lyrics](#) on page 236

[Changing the syllable type of existing lyrics](#) on page 501

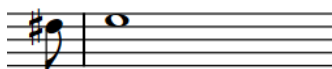
## General placement conventions for lyrics

Lyrics are generally placed below the staff to which they apply, and are positioned so that they align horizontally with their corresponding notehead.

A plain font is generally used for normal lyrics, and an italic font is generally used for chorus lyrics and translation lyrics in order to differentiate them.

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.



great strength\_\_\_\_\_

A short note followed by a long note, where the horizontal position of the lyrics is automatically adjusted for legibility

#### RELATED LINKS

[Positions of lyrics](#) on page 503

## 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 filters are available in the menu when you choose **Edit > Filter > Lyrics**:

### 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

[Large selections](#) on page 259

## 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**. You can check this by choosing **Edit > Filter > 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.

RELATED LINKS

[Filters for lyrics](#) on page 498

[Large selections](#) on page 259

## 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.

### 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 505

[Changing the line number and type of lyric lines](#) on page 505

[Lyrics popover](#) on page 237

## 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.

---

### PROCEDURE

1. Select the individual lyrics whose type you want to change.
2. In the Properties panel, activate/deactivate the following properties, individually or together, in the **Lyrics** group:
  - **Chorus**
  - **Is translation**

---

### RESULT

If you activate **Chorus**, the selected individual lyrics are changed to chorus lyrics.

If you activate **Is translation**, the selected lyrics are changed 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.

If you activate both properties, the selected lyrics are changed to translation lyrics of the chorus.

If you deactivate both properties, the selected lyrics are changed 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

[Lyric line numbers](#) on page 505

[Showing lyrics in italics](#) on page 502

[Changing the line number and type of lyric lines](#) on page 505

## 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 236

## 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.

---

#### PROCEDURE

1. Select the lyrics whose syllable type you want to change.
  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.

#### RELATED LINKS

[Inputting lyrics](#) on page 236

## Changing the text of existing lyrics

You can change the text of lyrics after they have been input.

---

#### PROCEDURE

1. In Write mode, select the lyric you want to change.

#### NOTE

You can only change one lyric at a time.

---

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 as well, 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.
- 

#### RELATED LINKS

[Lyric line numbers](#) on page 505

[Inputting lyrics](#) on page 236

## Showing lyrics in italics

You can show individual lyrics in an italic font without changing their font style, lyric type, or staff-relative placement.

---

#### PROCEDURE

1. Select the lyrics you want to show in an italic font.
  2. In the Properties panel, activate **Italic** in the **Lyrics** group.
- 

#### RESULT

The selected lyrics are shown in an italic font.

#### 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.

If you want all normal lyric lines to appear in an italic font project-wide, you can change the font style of the **Lyrics Font**.

---

#### RELATED LINKS

[Changing the line number and type of lyric lines](#) on page 505

[Changing the type of individual lyrics](#) on page 500

## 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.

### NOTE

The horizontal position of lyrics is automatically adjusted in Dorico Elements to minimize changes to the note spacing. Syllables are moved by small amounts either left or right to accommodate longer syllables without distorting the appearance of note rhythms.

---

### Positions of syllables

The number of notes sung on syllables or words determines how the lyrics are positioned:

- 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.

### Placement of lyric lines

Lyrics are placed 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.

---

### 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

[Changing the placement of lyric lines relative to the staff](#) on page 507

## Moving lyrics rhythmically

You can move lyrics to new rhythmic positions after they have been input.

---

### PROCEDURE

1. In Write mode, select the lyrics you want to move.
2. Move the lyrics according to the current rhythmic grid value in any of the following ways:
  - Press **Alt-Right Arrow** to move them to the right.
  - Press **Alt-Left Arrow** to move them to the left.

### NOTE

You cannot move lyrics rhythmically with the mouse, you can only move them using the keyboard.

---

---

#### RESULT

The selected lyrics are moved to the right/left according to the current rhythmic grid value.

## Changing the alignment of lyrics relative to notes

By default, the center of lyrics is aligned horizontally with noteheads, but you can change the horizontal alignment of individual lyrics.

You cannot change the alignment of lyrics relative to notes project-wide, as the horizontal position of lyrics is automatically adjusted in Dorico Elements to minimize changes to the note spacing.

#### NOTE

Changing the alignment of lyrics manually overrides the automatic spacing for the selected lyrics. If you change the alignment of a lyric whose position was automatically readjusted, the note spacing at that rhythmic position might change.

---

#### PROCEDURE

1. Select the lyrics whose alignment you want to change.
  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.

## 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 extend across multiple notes.

Dorico Elements automatically inputs and positions 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.

## Deleting lyric lines

You can delete whole lines of lyrics.

---

#### PROCEDURE

1. In Write mode, select the staves from which you want to delete a whole lyric line.
  2. Select just the lyric line you want to delete by choosing **Edit > Filter > Lyrics > [Lyrics type]**.
  3. Press **Backspace** or **Delete**.
- 

#### RESULT

All lyrics in the selected lyric line are deleted.



#### RELATED LINKS

[Filters for lyrics](#) on page 498

[Selecting lyrics using filters](#) on page 499

[Large selections](#) on page 259

## Deleting lyrics individually

You can delete individually selected lyrics without deleting other lyrics in the same lyric line.

---

#### PROCEDURE

1. In Write mode, select the lyrics you want to delete.
2. Press **Backspace** or **Delete**.

---

#### RESULT

The selected lyrics are deleted.

## 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.

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 508

[Filters for lyrics](#) on page 498

[Showing lyrics in italics](#) on page 502

## 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 type of the selected lyric line in one of the following ways:

- Choose **Edit > Lyrics > Line > [Line number]**.
- Choose **Edit > Lyrics > Line > Chorus**.
- Choose **Edit > Lyrics > Translations > [Line number Translation]**.
- Choose **Edit > 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**

[Lyric line numbers](#) on page 505

[Types of lyrics](#) on page 499

[Filters for lyrics](#) on page 498

[Selecting lyrics using filters](#) on page 499

## Changing the line number of individual lyrics

You can change the lyric line number of individually selected lyrics after they have been input.

---

**PROCEDURE**

1. Select the individual lyrics whose line number you want to change.
  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.

---

**RELATED LINKS**

[Lyric line numbers](#) on page 505

## Changing the placement of lyric lines relative to the staff

You can change the staff-relative placement of whole lyric lines after they have been input.

---

### PROCEDURE

1. In Write mode, select a lyric in each line whose staff-relative placement you want to change.

#### NOTE

You can also make a selection and use the lyric filters to select different lyric lines according to their line numbers, and to select lyric lines according to their position relative to the staff.

---

2. Select the staff-relative placement you want in one of the following ways:

- Choose **Edit > Lyrics > Placement > Above**.
- Choose **Edit > 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 505

[Filters for lyrics](#) on page 498

[Selecting lyrics using filters](#) on page 499

[Changing the line number and type of lyric lines](#) on page 505

## Changing the placement of individual lyrics relative to the staff

You can change the placement of individual lyrics relative to the staff after they have been input.

---

### PROCEDURE

1. Select the lyrics whose staff-relative placement you want to change.
  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 individual 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, change the lyric line number of one of the lyric lines, or change their staff-relative placement by choosing **Edit > Lyrics > Placement** and selecting an option from the menu, which avoids collisions.

---

#### RELATED LINKS

[Lyric line numbers](#) on page 505

[Changing the placement of lyric lines relative to the staff](#) on page 507

[Changing the line number and type of lyric lines](#) on page 505

## 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 on individual lyrics

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.

---

#### PROCEDURE

1. Select the lyrics before which you want to hide/show verse numbers.
  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 property and the corresponding checkbox are both activated. Verse numbers are not shown when the property is activated but the checkbox is deactivated.

When the property is deactivated, lyrics follow your project-wide setting for hiding/showing verse numbers.

## East Asian elision slurs

East Asian elision slurs are used to show that two or more characters in East Asian languages are part of the same lyric.



A phrase containing an East Asian elision slur

In Dorico Elements, you can hide/show East Asian elision slurs on all applicable lyrics project-wide and on individually selected lyrics.

## Hiding/Showing East Asian elision slurs

You can hide/show East Asian elision slurs for individual lyrics.

---

### PROCEDURE

1. Select the lyrics on which you want to show East Asian elision slurs.
  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 **Show East Asian elision slur** and the corresponding checkbox are both activated, and hidden when the property is activated but the checkbox is deactivated.

When the property is deactivated, lyrics follow your project-wide setting.

# 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.

## RELATED LINKS

[Inputting notes](#) on page 143

[Note spacing](#) on page 301

[Stems](#) on page 636

[Changing the notehead design of individual noteheads](#) on page 515

[Add intervals popover](#) on page 165

[Adding notes above/below existing notes](#) on page 165

## 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 514

## 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 choosing **Edit > Notehead > [Notehead type] > [Notehead design]**.

### NOTE

Dorico Elements does not offer stemless noteheads. Instead, you can hide the stems of notes with any notehead design.

---

#### Notehead set design



#### Notehead set name

Larger Noteheads



Default Noteheads



Large Circled Noteheads



Circled Noteheads



Slashed Noteheads (Bottom Left to Top Right)



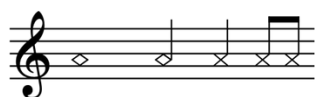
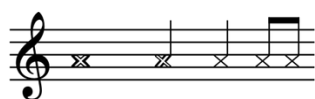
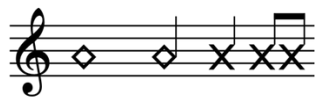
Slashed Noteheads (Top Left to Bottom Right)

---

### 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



---

**Notehead set design**



**Notehead set name**

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**

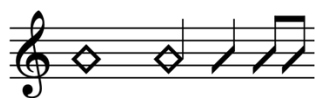


**Notehead set name**

Muted Slash Noteheads

---

**Notehead set design**

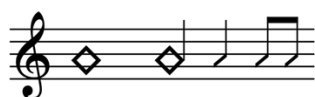


**Notehead set name**

Oversized Slash Noteheads



Slash Noteheads



Small Slash Noteheads

---

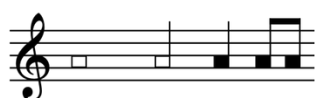
**Round and square noteheads**

---

**Notehead set design**



Moon Noteheads



Rectangular Noteheads



Round White with Dot Noteheads

---

RELATED LINKS

[Notehead sets](#) on page 510

[Changing the notehead design of individual noteheads](#) on page 515

## 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 choosing **Edit > Notehead > [Notehead type] > [Notehead design]**.

**Scale degree noteheads**

---

**Notehead set design**



**Notehead set name**

Aikin 7-shape Noteheads

---

**Notehead set design**



**Notehead set name**

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 510

[Changing the notehead design of individual noteheads](#) on page 515

## 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.

---

### PROCEDURE

1. Select the noteheads whose design you want to change.
  2. Choose **Edit > Notehead > [Notehead type] > [Notehead design]**. You can also choose these options from the context menu.  
For example, to change the notehead design of the selected notes to X noteheads, choose **Edit > Notehead > Crosses > X Noteheads**.
- 

### RESULT

The notehead design of the selected notes is changed.

RELATED LINKS

[Rhythm slashes](#) on page 591

[Slash voices](#) on page 711

## Changing the size of notes

You can change the size of notes individually using the default scale sizes for notes in cues or grace notes, or you can use a custom scale size.

**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.

---

PROCEDURE

1. Select the notes whose size you want to change.
  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 want activated **Custom Scale**, change the value in the value field.
- 

RESULT

- If you activated **Scale**, the selected notes are changed to the selected default scale size.
- If you activated **Custom Scale**, the selected notes are changed to the custom percentage scale size you set.
- If you activated both **Scale** and **Custom Scale**, the selected notes 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 is half the size of grace notes.

RELATED LINKS

[Inputting grace notes](#) on page 160

[Notehead set designs](#) on page 511

## Moving notes rhythmically

You can move notes, including grace notes, to different rhythmic positions along staves after they have been input.

---

PROCEDURE

1. In Write mode, select the notes you want to move.
2. Move the selected notes according to the current rhythmic grid value in any of the following ways:

- Press **Alt-Right Arrow** to move them to the right.
  - Press **Alt-Left Arrow** to move them to the left.
- 

#### RESULT

The selected notes are moved to new rhythmic positions according to the current rhythmic grid value. If you selected multiple notes, they are moved together as a block.

Notes are automatically positioned according to their rhythmic duration and position relative to other notes.

#### NOTE

If **Chords** is not activated and any of your selected notes collide with other notes in the same staff and at the same rhythmic position that are in the same voice as your selected notes, the existing notes are deleted and replaced with your selected notes.

---

#### RELATED LINKS

[Rhythmic grid](#) on page 137

[Inputting chords](#) on page 161

[Notes toolbox](#) on page 129

[Note spacing](#) on page 301

[Creating cross-staff beams](#) on page 427

[Moving notes to other staves](#) on page 271

## Rhythm dot consolidation

Rhythm dot consolidation controls how many rhythm dots appear at the same rhythmic position in multiple-voice contexts. Depending on the number of notes and voices present, and their positions on the staff, different numbers of rhythm dots can be required to appear, and in different positions.

In Dorico Pro, you can choose how rhythm dots in multiple voices are consolidated both project-wide and for individual rhythmic positions.



Notes of any duration have rhythm dots consolidated



No rhythm dot consolidation

## Specifying on which string individual notes are played

You can specify on which string individually selected notes are played when notes are in the staves of string instruments, such as violins or cellos. Many notes can be played on multiple strings, depending on where along its length the string is stopped.

Specifying the string can be useful for notes that also have 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 fingerings, which can help string players understand the string on which they should play.

**NOTE**

You can only specify strings on notes belonging to string instruments.

---

**PROCEDURE**

1. Select the notes whose assigned string you want to change.

**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 your preferred string 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 on which the selected notes are played 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 specified string.

---

**RELATED LINKS**

[Glissando lines](#) on page 537

[Changing the direction of string fingering shift indicators](#) on page 475

# 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.

Dorico Elements offers a range of ornament symbols to allow you to notate different styles of ornaments.

The term “ornaments” covers a wide range of decorative notes, including:

- Mordents
- Trills
- Turns
- Grace notes
- Acciaccaturas
- Appoggiaturas

In Dorico Elements, the term “ornaments” refers to ornament symbols and trill marks that are input above notes.



A phrase containing a turn, short trills, and a trill with extension line

## RELATED LINKS

[Input methods for ornaments, arpeggio signs, glissando lines, and jazz articulations](#) on page 220

[Grace notes](#) on page 479

[Positions of ornaments](#) on page 520

## 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.

---

#### PROCEDURE

1. Select the ornaments whose interval you want to change.
2. In the Properties panel, activate the appropriate properties for the selected ornaments in the **Ornaments** group:

- **Interval above**
- **Interval below**

For trills, activate **Interval** in the **Trills** group of the Properties panel.

3. Change the value in the value field to the interval you want.

- 0 or 4 and above shows no accidental.
  - 1 shows a flat.
  - 2 shows a natural.
  - 3 shows a sharp.
- 

#### RESULT

The interval of the selected ornaments is changed.

#### NOTE

Some ornaments do not show accidentals either above or below, depending on their type.

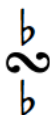
---

#### EXAMPLE

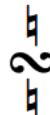
**No accidentals**



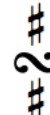
**Flats above and below**



**Naturals above and below**



**Sharps above and below**



#### RELATED LINKS

[Changing the intervals of existing trills](#) on page 526

## Positions of ornaments

Ornaments, including trills, are placed above the notes to which they apply. They are only placed below the staff when there are multiple voices on the staff.

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.

## Moving ornaments rhythmically

You can move ornaments to new rhythmic positions.

---

### PROCEDURE

1. In Write mode, select the ornaments you want to move.

#### NOTE

When using the mouse, you can only move one ornament at a time.

2. Move the ornaments in any of the following ways:
    - Press **Alt-Right Arrow** to move them to the right.
    - Press **Alt-Left Arrow** to move them to the left.
    - Click and drag the ornament to the right/left to snap it to different rhythmic positions.
- 

### RESULT

A single ornament is moved to the next or previous notehead on that staff.  
Multiple ornaments are moved according to the current rhythmic grid value.

## Changing the placement of ornaments relative to the staff

Ornaments are usually placed above the staff, but they are placed below the staff for down-stem voices when there are multiple voices on the staff. You can change the staff-relative placement of ornaments individually.

---

### PROCEDURE

1. Select the ornaments whose staff-relative placement you want to change.
  2. In the Properties panel, activate **Placement** in the corresponding group for the selected ornaments:
    - **Ornaments**
    - **Trills**
  3. Choose one of the following options:
    - **Above**
    - **Below**
- 

### RESULT

The placement of the selected ornaments is changed.

## 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.

---

### PROCEDURE

1. Select the trills whose start position you want to change.

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.

## 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, and hear them in playback.

#### RELATED LINKS

- [Trill intervals](#) on page 525
- [Trill interval appearance](#) on page 527
- [Trills in playback](#) on page 529

## 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.

---

#### PROCEDURE

1. Select the trills whose trill marks you want to hide/show.
  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.

## 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.

---

### PROCEDURE

1. Select the trills whose speed you want to change.
  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

---

### AFTER COMPLETING THIS TASK

You can customize the playback speed of trills individually.

### RELATED LINKS

[Changing the playback speeds of trills](#) on page 530

## 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.

---

### PROCEDURE

1. Select the trills whose speed changes you want to hide/show.
  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.

---

EXAMPLE



Trill speed changes shown



Trill speed changes hidden

---

## Hiding/Showing trill extension lines

You can hide/show the extension lines of individual trills.

---

PROCEDURE

1. Select the trills whose extension lines you want to hide/show.
  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.

When the property is deactivated, trill extension lines are only shown on tied notes by default.

RELATED LINKS

[Changing the speed of trills](#) on page 523

[Changing the playback speeds of trills](#) on page 530

## Lengthening/Shortening trills rhythmically

You can lengthen/shorten trills after they have been input. Multiple ornaments can exist at the same rhythmic position, so you can also lengthen/shorten trills to noteheads that already have ornaments.

---

PROCEDURE

1. In Write mode, select the trills you want to lengthen/shorten.

NOTE

When using the mouse, you can only lengthen/shorten one trill at a time.

---

2. Lengthen/Shorten the trills in any of the following ways:
  - To lengthen them by the current rhythmic grid value, press **Shift-Alt-Right Arrow**.
  - To shorten them by the current rhythmic grid value, press **Shift-Alt-Left Arrow**.
  - To lengthen a single trill to the next notehead, press **Ctrl/Cmd-Shift-Alt-Right Arrow**.
  - To shorten a single trill to the previous notehead, press **Ctrl/Cmd-Shift-Alt-Left Arrow**.

NOTE

- You can only lengthen/shorten trills by the current rhythmic grid value when multiple trills are selected.
  - Key commands lengthen/shorten items by moving their end only.
-

- Click and drag the circular handle at the start/end of the trill to noteheads to the right/left.
- 

#### RESULT

Single trills are lengthened/shortened according to the current rhythmic grid value or to the next/previous notehead, whichever is closer.

Multiple trills are lengthened/shortened according to the current rhythmic grid value.

#### RELATED LINKS

[Positions of ornaments](#) on page 520

[Moving ornaments rhythmically](#) on page 521

## 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 their intervals after they have been input.

### 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, you can specify trill intervals based on diatonic steps and the total number of divisions from the written note. In 24-EDO, you can describe trill intervals based on their quality, such as major or minor. In tonality systems with a greater number of divisions or an unequal number of divisions between each diatonic step, you must specify trill intervals based on their octave divisions, as specifying only the interval quality is insufficient in such cases.

RELATED LINKS

[Trill interval appearance](#) on page 527

## Hiding/Showing trill interval accidentals

You can hide/show trill interval accidentals for individual trills.

### NOTE

These steps only hide the accidentals shown in trill intervals, they do not hide auxiliary notes or Hollywood-style markings.

---

### PROCEDURE

1. Select the trills whose accidentals you want to hide/show.
  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**.

### NOTE

Trill accidentals are restated at each new pitch over which the trill extends.

---

RELATED LINKS

[Changing the appearance of trill intervals](#) on page 528

## Changing the intervals of existing trills

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 individually after they have been input.

---

### PROCEDURE

1. Select the trills whose interval you want to change.
  2. In the Properties panel, activate **Interval** in the **Trills** group.  
The existing interval of the trill is shown as a number and quality.
  3. Change the interval by changing the value in the value field.
  4. Select one of the following interval qualities from the menu:
    - **Diminished**
    - **Minor**
    - **Major**
    - **Augmented**
- 

### RESULT

The interval of the selected trills is changed. By default, trill intervals appear as accidentals when the interval is a second and as auxiliary notes for all other intervals.

RELATED LINKS

[Ornaments popover](#) on page 220

## Changing intervals partway through trills

You can change the interval of trills multiple times within their duration, including before you have input notes, 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 input notes and specify trill intervals.
2. Press **Shift-N** or **Return** to start note input.
3. Press **Right Arrow/Left Arrow** to move the caret according to the current rhythmic grid value to the notehead where you want to change the trill interval.

NOTE

You can only change trill intervals at noteheads.

4. Press **Shift-O** to open the ornaments popover.
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. Press **Esc** or **Return** to stop 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.

---

EXAMPLE



Trill with interval changes shown as accidentals



Trill with interval changes shown as auxiliary notes

---

## Trill interval appearance

There are different accepted ways to present trill intervals, 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:

### Accidental

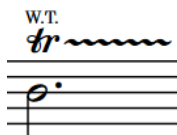
Indicates the trill interval using accidentals positioned above, below, or beside the **tr** mark. This is the default trill interval appearance in Dorico Elements for major or minor second trills.



### Hollywood-style

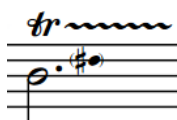
Indicates the trill interval using text.

- **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.



## Changing the appearance of trill intervals

You can change the appearance of trills with a second interval 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.

---

### PROCEDURE

1. Select the trills whose trill interval appearance you want to change.
  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 is changed.

### 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 515

## Changing the position of trill interval indicators

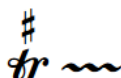
You can change where trill interval indicators, such as an accidental or W.T. marking, are positioned relative to individual trills.

---

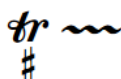
PROCEDURE

1. Select the trills whose interval indicator position you want to change.
2. In the Properties panel, activate **Interval position** in the **Trills** group.
3. Select one of the following options from the menu:

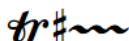
- **Above**



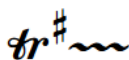
- **Below**



- **On the right**



- **Superscript**



---

RESULT

The position of interval indicators relative to the selected trills is changed.

## 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 sample 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 523

[Hiding/Showing speed changes in trill extension lines](#) on page 523

[Changing the starting pitch of trills](#) on page 531

## 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.

---

#### PROCEDURE

1. Select the trills whose playback speeds you want to change.
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 523

[Hiding/Showing speed changes in trill extension lines](#) on page 523

## 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.

---

PROCEDURE

1. Select the trills whose starting note you want to change.
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.

When the property is deactivated, trills follow your project-wide setting for the starting pitch of trills.

# 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 with wavy lines similar to trill extension 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.

Dorico Elements offers the following types of arpeggio signs:

## Up arpeggio

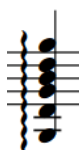
A vertical wavy line that indicates chords are to be arpeggiated from the bottom note upwards.

## Down arpeggio

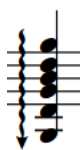
A vertical wavy line that indicates chords are to be arpeggiated from the top note downwards.

## Non arpeggio

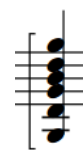
A bracket with straight lines that indicates all notes in the chord are to be played together, not arpeggiated.



Default up arpeggio



Default down arpeggio

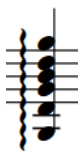


Default non arpeggio

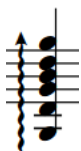
It is most common for up arpeggios to be shown with nothing at the top end, because chords are usually arpeggiated upwards, and for down arpeggios to be shown with an arrow at the bottom, so this is the default in Dorico Elements. However, it is also accepted practice to show up arpeggios with an arrow at the top if down arpeggios are also used in the same piece of music.

You can show both up arpeggios and down arpeggios with one of three ends in Dorico Elements:

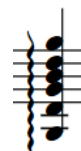
- Nothing
- Arrow
- Swash



Up arpeggio with nothing at the end



Up arpeggio with an arrow at the end



Up arpeggio with a swash at the end

#### RELATED LINKS

[Input methods for ornaments, arpeggio signs, glissando lines, and jazz articulations](#) on page 220

## Changing the type of arpeggio signs

You can change the type of arpeggio signs after they have been input.

---

#### PROCEDURE

1. Select the arpeggio signs whose type you want to change.
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**

---

#### 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.

---

#### RELATED LINKS

[Ornaments popover](#) on page 220

[Changing existing items](#) on page 265

## 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.

---

#### PROCEDURE

1. Select the arpeggio signs of any direction whose ends you want to change.

#### NOTE

You cannot change the ends of non arpeggio signs.

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.

---

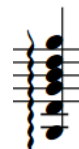
EXAMPLE



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

Dorico Elements automatically adjusts the length of arpeggio signs when the pitches of the notes in the voices to which the sign applies change, or when you add notes to the chords or delete notes from the chords.

## 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.

RELATED LINKS

[Length of arpeggio signs](#) on page 534

## Moving arpeggio signs rhythmically

You can move arpeggio signs to new rhythmic positions after they have been input.

---

PROCEDURE

1. In Write mode, select the arpeggio signs you want to move.
2. Move the arpeggio signs in any of the following ways:
  - Press **Alt-Right Arrow** to move them to the right.
  - Press **Alt-Left Arrow** to move them to the left.

**NOTE**

You cannot move arpeggio signs rhythmically with the mouse.

---

**RESULT**

Arpeggio signs are moved to the right/left, according to the current rhythmic grid value.

If no notes exist at the next rhythmic position according to the rhythmic grid, the arpeggio sign is not shown. If you continue moving it to the right/left, it is shown again beside the next note at a rhythmic position that can be reached according to the current rhythmic grid value.

You can change the rhythmic grid if you want to move arpeggio signs to notes at other rhythmic positions.

**NOTE**

Only one arpeggio sign can exist at each rhythmic position. If an arpeggio sign in your selection passes over another arpeggio sign as part of its move, the existing arpeggio sign is deleted.

---

## Showing arpeggio signs before/after grace notes

You can show arpeggio signs before/after grace notes individually. 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.

---

**PROCEDURE**

1. Select the arpeggio signs you want to show before grace notes.
  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.

## Changing arpeggio playback relative to the beat individually

You can change whether individual arpeggios are played before their notated position or after their notated position.

---

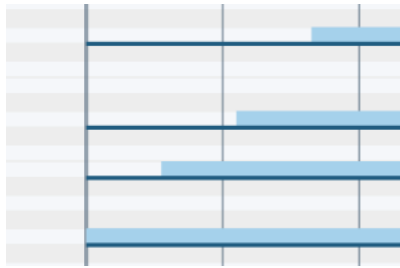
**PROCEDURE**

1. Select the arpeggio signs whose playback relative to the beat you want to change.
  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**
- 

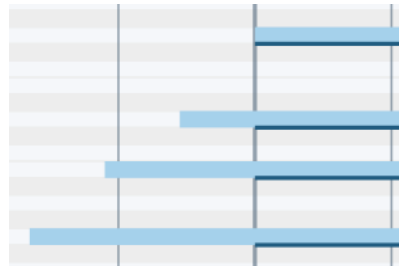
**RESULT**

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 individually

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.

---

PROCEDURE

1. Select the arpeggio signs whose playback offset you want to change.
2. In the Properties panel, activate **Note offset** in the **Arpeggios Playback** group.
3. Change the playback offset of the selected arpeggio signs by changing the value in the value field.
4. Press **Return**.

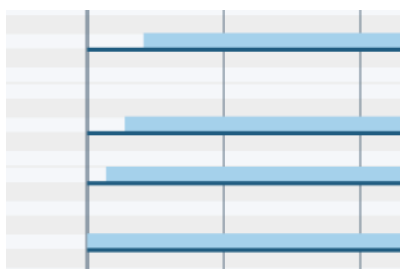
---

RESULT

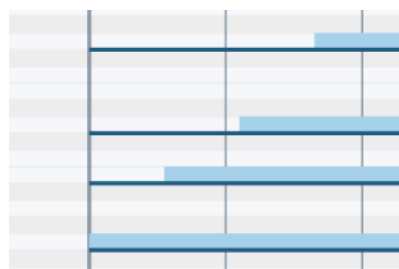
The playback duration of the selected arpeggios is changed. This overrides your project-wide settings for the duration of arpeggios for the selected arpeggios.

---

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

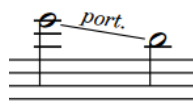
Glissando lines indicate a continuous transition between two notes, which can be smooth or in chromatic steps. They can have straight lines or wiggly lines, and can be shown with a text indication or as a line without text.

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 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.



An example glissando line with text shown and a wiggly line



An example portamento line with text shown and a straight line

## RELATED LINKS

[Input methods for ornaments, arpeggio signs, glissando lines, and jazz articulations](#) on page 220

## General placement conventions for glissando lines

Glissando lines are positioned between noteheads and the steepness of their angle should reflect the interval between the notes: the steeper the angle, the greater the interval. The endpoints of glissando lines must be directly beside noteheads but not directly touching them.

Glissando lines must not collide with accidentals, and instead must stop short so the accidental can be clearly read. Dorico Elements automatically positions glissando lines so they do not collide with accidentals.

Usually, glissando lines join two adjacent noteheads because they indicate a gradual but constant change in pitch between those two notes, but they can also cross multiple notes.

Glissando lines can cross system breaks and page breaks. If text is shown for glissando lines that span across a system break or page break, then that text is shown on every part of the glissando line. By default, the start position and end position of each segment matches the original start point and end point of the whole glissando line.

## Glissando lines across empty bars

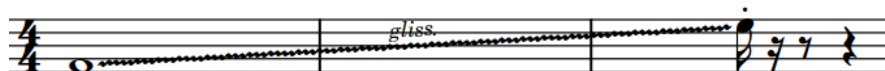
In Dorico Elements, you can input glissando lines between any two notes, even if there are rests or other notes between them, and including between notes in different voices and notes on different staves.

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

[Inputting glissando lines with the popover](#) on page 226

[Inputting glissando lines with the panel](#) on page 227

[Hiding/Showing bar rests in empty bars](#) on page 603

[Deleting rests](#) on page 602

[Turning explicit rests into implicit rests](#) on page 601

## 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.

---

### PROCEDURE

1. Select the glissando lines whose style you want to change.
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 220

[Changing existing items](#) on page 265

## Changing glissando line text

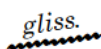
Glissando lines can be shown with text or without text. You can change the text of glissando lines individually.

---

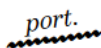
PROCEDURE

1. Select the glissando lines whose text you want to change.
2. In the Properties panel, activate **Glissando text** in the **Glissando Lines** group.
3. Select one of the following options from the menu:

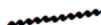
- **Gliss.**

A short, wavy glissando line with the text "gliss." written above it.

- **Port.**

A short, wavy glissando line with the text "port." written above it.

- **No text**

A short, wavy glissando line with no text.

---

RESULT

The text shown on the selected glissando lines is changed.

## 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.

---

PROCEDURE

1. Select the glissando lines whose setting for when text is shown you want to change.
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

If **Show if sufficient space** is chosen, glissando line text is not shown if the glissando line is too short.

If **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.

**TIP**

You can increase the default gaps between noteheads by changing the default note spacing.

---

RELATED LINKS

[Note spacing on page 301](#)

[Changing the default note spacing on page 301](#)

# 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.

#### NOTE

Jazz articulations are not currently reflected in playback.

---

#### RELATED LINKS

[Ornaments popover](#) on page 220

[Input methods for ornaments, arpeggio signs, glissando lines, and jazz articulations](#) on page 220

## 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 in 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 519

[Input methods for ornaments, arpeggio signs, glissando lines, and jazz articulations](#) on page 220

[Ornaments popover](#) on page 220

## 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.

## 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 doit to a long bend doit. 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 in the Properties panel.

---

### EXAMPLE



Short bend doit



Medium bend doit



Long bend doit

---

### RELATED LINKS

[Input methods for ornaments, arpeggio signs, glissando lines, and jazz articulations](#) on page 220

## 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.

---

### PROCEDURE

1. Select the notes with smooth jazz articulations whose line style you want to change.

---

### 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

---

**RELATED LINKS**

[Changing the type/length of existing jazz articulations](#) on page 543

[Input methods for ornaments, arpeggio signs, glissando lines, and jazz articulations](#) on page 220

## Deleting jazz articulations

You can remove jazz articulations from notes after you have input them. However, because jazz articulations are considered an intrinsic part of notes rather than a separate item, 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.

**RELATED LINKS**

[Input methods for ornaments, arpeggio signs, glissando lines, and jazz articulations](#) on page 220



# 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 of the others. 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 text 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.

The default master pages contain text frames with page number tokens. You can change the position of page number text frames in the master page editor, which changes the position of page numbers on all pages that use that master page. 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

[Text tokens](#) on page 295

## Changing the page number numeral style

Page numbers can appear as Arabic or Roman numerals. You can change the numeral style of page numbers project-wide 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, **Shift**-clicking adjacent layouts, and **Ctrl/Cmd**-clicking individual layouts.

3. Click **Page Setup** in the page list.
  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 project-wide in the selected layouts. You can change settings for other layouts before closing the dialog.

## 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 default master page formats for first pages do not contain text frames containing page number tokens, so you must add these if you want to show page numbers on first pages in your project that use the default master page formats.

---

#### 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, **Shift**-clicking adjacent layouts, and **Ctrl/Cmd**-clicking individual layouts.
  3. Click **Page Setup** in the page list.
  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

[Flow headings on page 275](#)

[Hiding/Showing information in running headers above flow headings on page 281](#)

# 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.



An example sustain pedal line

## 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.



An example sostenuto pedal line

## 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”.



An example una corda pedal line

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.

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 and pedal lines](#) on page 229

[Pedal lines in playback](#) on page 556

[Pedal line start signs, hooks, and continuation lines](#) on page 553

[Pedal line start, continuation, and restorative text](#) on page 554

## 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.

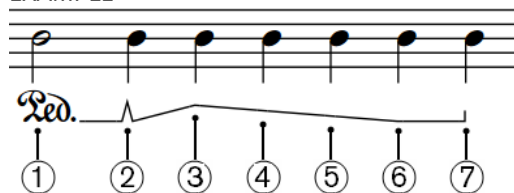
Dorico Elements provides clear representations of pedal retakes and level changes.

#### NOTE

- In Dorico Elements, you cannot input pedal level changes. However, pedal level changes are shown if you import 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



Example pedal line with retake and level changes

- 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

[Removing retakes and pedal level changes](#) on page 549

[Input methods for playing techniques and pedal lines](#) on page 229

## 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 the note at the rhythmic position of the retake or pedal level change you want to remove.

**NOTE**

You can only remove one retake or pedal level change at a time.

---

2. Remove the retake or pedal level change 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 > Pedal Lines > Remove Retake**. You can also choose this option from the context menu.
- 

RESULT

The selected retake or pedal level change is removed, and the pedal line returns to its previous level as set by either the start of the pedal line, or the retake or pedal level change immediately preceding the one you removed.

RELATED LINKS

[Playing techniques popover](#) on page 229

## 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.

---

RELATED LINKS

[Pedal line start, continuation, and restorative text](#) on page 554

[Pedal line start signs, hooks, and continuation lines](#) on page 553

[Lengthening/Shortening pedal lines](#) on page 552

[Input methods for playing techniques and pedal lines](#) on page 229

## Moving pedal lines rhythmically

You can move pedal lines to new rhythmic positions after they have been input. Any retakes or pedal level changes on the pedal lines are also moved.

### NOTE

If you want to move retakes independently of the pedal line, you must first remove them from their original positions and input new retakes at the new positions.

---

### PROCEDURE

1. In Write mode, select the pedal lines you want to move.

### NOTE

When using the mouse, you can only move one pedal line rhythmically at a time.

---

2. Move the pedal lines in any of the following ways:
    - Press **Alt-Right Arrow** to move them to the right.
    - Press **Alt-Left Arrow** to move them to the left.
    - Click and drag the pedal line to the right/left.
- 

### RESULT

A single pedal line is moved to the next/previous notehead on that staff.

Multiple pedal lines are moved according to the current rhythmic grid value.

### NOTE

Pedal lines can only be moved along staves. If you want to move a pedal line across staves, you must delete the pedal line and input a new pedal line on the other staff.

---

### RELATED LINKS

[Lengthening/Shortening pedal lines](#) on page 552

[Input methods for playing techniques and pedal lines](#) on page 229

## Changing the position of pedal lines relative to grace notes individually

You can change the start/end positions of individual pedal lines relative to grace notes.

---

### PROCEDURE

1. Select the pedal lines whose position relative to grace notes you want to change.
  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.

EXAMPLE



Pedal line starting/ending before grace notes



Pedal line starting/ending after grace notes

---

## Lengthening/Shortening pedal lines

You can lengthen/shorten pedal lines rhythmically after they have been input.

PROCEDURE

1. In Write mode, select the pedal lines you want to lengthen/shorten.

NOTE

When using the mouse, you can only lengthen/shorten one pedal line at a time.

2. Lengthen/Shorten the pedal lines in any of the following ways:
  - To lengthen them by the current rhythmic grid value, press **Shift-Alt-Right Arrow**.
  - To shorten them by the current rhythmic grid value, press **Shift-Alt-Left Arrow**.
  - To snap the end of a single pedal line to the next notehead, press **Ctrl/Cmd-Shift-Alt-Right Arrow**.
  - To snap the end of a single pedal line to the previous notehead, press **Ctrl/Cmd-Shift-Alt-Left Arrow**.

NOTE

- You can only lengthen/shorten pedal lines according to the current rhythmic grid value when multiple pedal lines are selected.
  - When using the keyboard, you can only move the end of pedal lines. You can move the start of pedal lines by moving the whole line, or by clicking and dragging the start handle.
- 
- Click and drag the circular handle at the start/end to the right/left.

RESULT

Single pedal lines are lengthened/shortened according to the current rhythmic grid value or to the next/previous notehead, whichever is closer.

Multiple pedal lines are lengthened/shortened according to the current rhythmic grid value.

RELATED LINKS

[Positions of pedal lines](#) on page 550

[Moving pedal lines rhythmically](#) on page 551



## 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.

In Dorico Elements, you can change the appearance of each part of pedal lines both individually and for all pedal lines project-wide. For example, you can show all pedal lines with a glyph as their start sign, but change the start sign of an individual pedal line to show text instead.

You can select any whole pedal line 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.

### 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.

---

#### PROCEDURE

1. Select the pedal lines whose start sign appearance you want to change.

#### 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

Deactivating **Sign appearance** returns the selected pedal lines to your default setting for start sign appearance.

---

### 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.

---

#### PROCEDURE

1. Select the pedal lines whose hook type you want to change.
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.

## Changing the continuation line type of pedal lines

You can change the type of continuation line used for the different types of pedal lines individually.

---

**PROCEDURE**

1. Select the pedal lines whose continuation line type you want to change.
  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 line type of the selected pedal lines is changed.

## Parenthesizing pedal line continuation signs

You can show individual pedal line continuation signs with/without parentheses. Pedal line continuation signs are shown by default at the start of new systems when pedal lines continue across system breaks.

---

**PROCEDURE**

1. Select the pedal lines whose continuation sign appearance you want to change.
  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.

When the property is deactivated, pedal lines follow your project-wide setting.

## Pedal line start, continuation, and restorative text

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 a new system, 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.

## Changing the start text shown in pedal lines

You can change the text shown at the start of individual pedal lines that use text as their start sign.

---

#### PROCEDURE

1. Select the pedal lines whose start text you want to override.
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.

---

## Changing the pedal line continuation text shown

You can change the text shown at the start of new systems when pedal lines cross system breaks.

#### NOTE

This only applies to pedal lines that use text as their start sign.

---

#### PROCEDURE

1. Select the pedal lines whose continuation text you want to override.
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 new 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.

---

## Changing the restorative text shown in *una corda* pedal lines

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

This only applies to *una corda* pedal lines that use text as their start sign.

---

PROCEDURE

1. Select the *una corda* pedal lines whose restorative text you want to override.
  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.

## 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

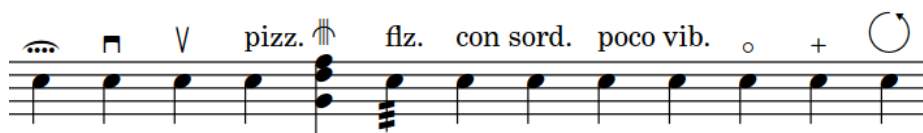
The term “playing techniques” covers a wide range of instructions intended to tell performers to modify the sound of the notes they are playing, for example, by changing their embouchure or changing the position of their bow, or by modifying their instrument, such as adding a mute or depressing a pedal.

In Dorico Elements, playing techniques can be expressed as symbols or as text. All available playing techniques can be found 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 in the Properties panel that is separate from the **Playing Techniques** group.

Adding playing techniques can change how the instrument plays back. For example, adding pizzicato to a violin staff activates a key switch that changes the sound produced by the VST instrument.



Some of the playing techniques in Dorico Elements

## RELATED LINKS

[Input methods for playing techniques and pedal lines](#) on page 229

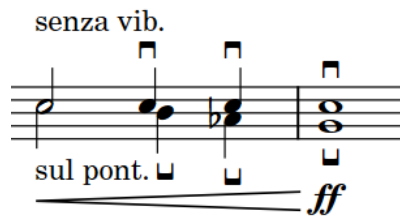
[Playing techniques in playback](#) on page 560

[Pedal lines](#) on page 548

## Positions of playing techniques

Playing techniques, both as text and symbols, are placed above the staff. 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 placed below the staff.



Placement of playing techniques with two voices on the same staff

Playing technique texts use a plain font, neither bold nor italic, so they are not confused with expressive text and dynamics.

#### NOTE

This does not apply to pedal lines, as they use a separate font style to other playing techniques.

---

You can move playing techniques to different rhythmic positions in Write mode. They are automatically positioned to avoid collisions.

#### RELATED LINKS

[Pedal line start, continuation, and restorative text](#) on page 554

## Moving playing techniques rhythmically

You can move playing techniques to new rhythmic positions after they have been input.

---

#### PROCEDURE

1. In Write mode, select the playing techniques you want to move.

#### NOTE

When using the mouse, you can only move one playing technique rhythmically at a time.

---

2. Move the playing techniques in any of the following ways:
    - Press **Alt-Right Arrow** to move them to the right.
    - Press **Alt-Left Arrow** to move them to the left.
    - Click and drag the playing technique to the right/left to the notehead you want.
- 

#### RESULT

A single playing technique is moved to the next or previous notehead on that staff.  
Multiple playing techniques are moved according to the current rhythmic grid value.

#### RELATED LINKS

[Moving pedal lines rhythmically](#) on page 551

## Changing the placement of playing techniques relative to the staff

You can change the placement of individual playing techniques relative to the staff.

---

#### NOTE

These steps do not apply to pedal lines.

---

---

PROCEDURE

1. Select the playing techniques whose staff-relative placement you want to change.
  2. In the Properties panel, activate **Placement** in the **Playing Techniques** group.
  3. Choose one of the following options:
    - **Above**
    - **Below**
- 

RESULT

The selected playing techniques appear above/below the staff.

## Adding text to playing techniques

You can add text above or alongside playing techniques after they have been input, for example, to clarify the intention of the playing technique.

NOTE

These steps do not apply to pedal lines.

---

PROCEDURE

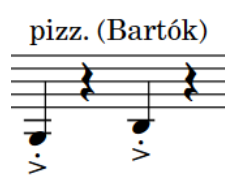
1. Select the playing techniques to which you want to add text.
  2. In the Properties panel, activate **Alternative text** in the **Playing Techniques** group.
  3. Enter the text you want into the value field.
  4. Press **Return**.
- 

RESULT

The text you entered into the value field is shown directly after text playing techniques, and directly above symbol playing techniques.

---

EXAMPLE



Alternative text added to text playing technique



Alternative text added to symbol playing technique

---

RELATED LINKS

[Pedal line start, continuation, and restorative text](#) on page 554

## 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.

---

### PROCEDURE

1. Select the playing techniques you want to hide or the signposts of hidden playing techniques you want to show.
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.

Signposts are shown at the positions of each hidden playing technique, so you can always find them again. However, signposts are not printed by default.

---

### TIP

- If you do not want to show playing technique signposts, choose **View > Signposts > Playing Techniques**. Playing technique signposts are shown when a tick appears beside **Playing Techniques** in the menu, and hidden when no tick appears.
- You can assign a key command for **Hide/Show Item** on the **Key Commands** page in **Preferences**, which applies to chord symbols, playing techniques, and time signatures.

---

### RELATED LINKS

[Expression maps](#) on page 353

[Signposts](#) on page 267

## Playing techniques in playback

Each playing technique you can create in Write mode corresponds to a technique that you can map in the **Expression Maps** dialog.

- You can open the **Expression Maps** dialog in Play mode by choosing **Play > Expression Maps**.

In the **Techniques** section of the dialog, you can edit existing techniques. You can also create new combinations of playing techniques in the **Technique Combinations** dialog. For example, you can combine **Pizzicato** and **Tremolo** to allow the pizzicato and tremolo techniques to be applied to the same note simultaneously.

When you input a playing technique in Write mode, the expression map looks for that playing technique. If it cannot be found, the playing technique applied either remains the same as the previous technique or reverts to the natural technique.

Custom playing techniques that use playback playing techniques that 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 required to execute the technique is controlled.

You can see which playing techniques are being applied in the **Playing Techniques** lane, which you can show by expanding individual instruments in Play mode.



TIP

If you have input a playing technique but cannot hear a change in the sound, that could be because you are using a combination of playing 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 playing techniques together if the expression map does not have an entry for those two techniques combined.

To avoid playing technique clashes, input a “naturale”, or “nat.”, playing technique to return the software instrument to its natural state. You can then input new playing techniques without clashes.

---

RELATED LINKS

[Expression Maps dialog](#) on page 354

[Technique Combinations dialog](#) on page 359

# Rehearsal marks

Rehearsal marks are an ordered sequence of letters or numbers, which along with bar numbers, provide a reference point for music that has multiple players, and make the chronological sequence of the music clear.

They tell performers where they are in the piece, and allow performers to orient and co-ordinate themselves easily in rehearsals and concerts. Rehearsal marks can also be used to indicate significant changes in the music, and you can freely decide their positions.

They can also be useful when preparing parts and scores, as you can use rehearsal marks and bar numbers to compare quickly a part to the score and check it is correct. In Dorico Elements, rehearsal marks follow an automatic sequence, ensuring there are never duplicate rehearsal marks.

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, which you can change on the **Staves and Systems** page in **Setup > Layout Options**.

## RELATED LINKS

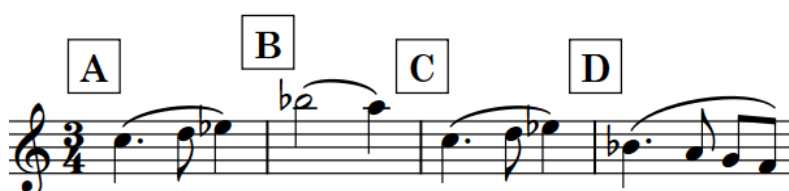
[Inputting rehearsal marks](#) on page 239

[System objects](#) on page 632

[Changing the positions of system objects](#) on page 633

## General placement conventions for rehearsal marks

Rehearsal marks should be at noticeable positions in the score so they can be seen easily. They should use a large, non-italic bold font, and be positioned above the system and outside the music.



Rehearsal marks should be positioned above barlines, and not below the system. Although you can input rehearsal marks at rhythmic positions within a bar in Dorico Elements, this is not common practice. Depending on the style of music and the context, it can be helpful to input a double barline beneath each rehearsal mark.

In order to ensure they are easily noticeable, and cannot be confused with bar numbers if you are using numbers for rehearsal marks, rehearsal marks should be shown in an enclosure. You can change the shape and size of rehearsal mark enclosures.

The placement of rehearsal marks relative to the music is discretionary, but they are most helpful to players when they coincide with a change in the music, such as a tempo change or a change in texture. They are also helpful when placed at a point in the music where players are likely to start

from in order to rehearse a specific section, such as a significant solo entry or the start of a difficult passage.

In general, it is good practice to place rehearsal marks at regular intervals as well as at significant moments. It is often recommended to have rehearsal marks every 5-20 bars to reduce the amount of bars players need to count before or after a rehearsal mark.

If a rehearsal mark coincides with a tempo change, you should position the tempo text to the right of the rehearsal mark. However, if space is tight, the text can be positioned above or below the rehearsal mark. The position of the rehearsal mark should remain clear, so it should not be moved away from the barline to which it applies, otherwise its position can be misunderstood. Dorico Elements automatically adjusts staff spacing to ensure rehearsal marks are correctly positioned.



The vertical spacing between the top two staves is increased to allow room for the rehearsal mark and the tempo marks.

#### RELATED LINKS

[Inputting rehearsal marks](#) on page 239

[Input methods for bars and barlines](#) on page 193

## Positions of rehearsal marks

Rehearsal marks are placed above the staff and at the same positions as other system objects.

You can move rehearsal marks to different rhythmic positions in Write mode. They are automatically positioned to avoid collisions.

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, if you want rehearsal marks to appear at multiple vertical positions in each system in the full score only.

#### RELATED LINKS

[Changing the positions of system objects](#) on page 633

## Moving rehearsal marks rhythmically

You can move rehearsal marks to new rhythmic positions after they have been input.

---

#### PROCEDURE

1. In Write mode, select the rehearsal marks you want to move.

#### NOTE

When using the mouse, you can only move one rehearsal mark rhythmically at a time, and you can only drag it to existing barlines.

---

2. Move the rehearsal marks in any of the following ways:
    - Press **Alt-Right Arrow** to move them to the right.
    - Press **Alt-Left Arrow** to move them to the left.
    - Click and drag the rehearsal mark to barlines to the right/left.
- 

#### RESULT

A single rehearsal mark is moved to existing barlines to the right/left.

Multiple rehearsal marks are moved according to the current rhythmic grid value.

#### NOTE

Only one rehearsal mark can exist at each rhythmic position. If a rehearsal mark passes over another rehearsal mark as part of its move, the existing rehearsal mark is deleted and replaced by the rehearsal mark being moved.

You can undo this action, but any rehearsal marks deleted in the process are only restored if you moved the rehearsal mark using the keyboard.

---

## Deleting rehearsal marks

You can delete rehearsal marks in full score and part layouts.

#### NOTE

Deleting a rehearsal mark in any layout deletes the rehearsal mark from all layouts.

---

#### PROCEDURE

1. In Write mode, select the rehearsal marks you want to delete.
  2. Press **Backspace** or **Delete**.
- 

#### RESULT

The selected rehearsal marks are deleted. Any subsequent rehearsal marks are adjusted until the next change in the sequence or the end of the flow. 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.

#### RELATED LINKS

[Changing the rehearsal mark sequence type](#) on page 565

## Changing the order 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 a rehearsal mark.

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.

---

#### PROCEDURE

1. Select the rehearsal mark whose index position you want to change.
  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 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.

#### NOTE

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.

---

#### PROCEDURE

1. Select the rehearsal mark whose sequence type you want to change.
  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 bar number sequence using this method.

---

#### RELATED LINKS

[Adding bar number changes](#) on page 417

## Adding prefixes/suffixes to rehearsal marks

You can add both prefixes and suffixes to individual rehearsal marks.

---

### PROCEDURE

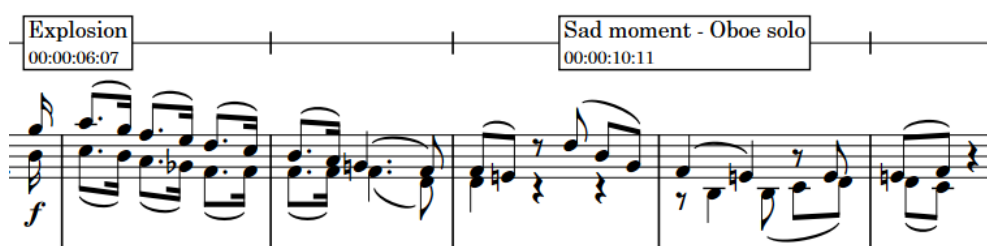
1. Select the rehearsal marks to which you want to add a prefix or suffix.
  2. In the Properties panel, activate one of the following properties in the **Rehearsal Marks** group:
    - **Prefix**
    - **Suffix**
  3. Enter the text you want into the value field.
  4. Press **Return**.
- 

### 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.

Any markers you input are automatically included when you export MIDI.

## RELATED LINKS

- [Inputting markers/timecodes](#) on page 239
- [Changing the text shown in markers](#) on page 568
- [Markers section of the Video panel](#) on page 240
- [Markers track](#) on page 333
- [Find Tempo dialog](#) on page 241
- [Defining markers as important](#) on page 570

## Changing the vertical position of markers

You can show markers above or below the system, and you can show them on a separate single-line staff above a selected instrument family group.

---

### 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, **Shift**-clicking adjacent layouts, and **Ctrl/Cmd**-clicking individual layouts.

3. Click **Markers** in the page list.
  4. 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**.

---

#### RELATED LINKS

[Changing the timecode frequency](#) on page 573

## Changing the text shown in markers

The default text shown in new markers is "Marker". You can change the text shown in each marker individually.

---

#### PROCEDURE

1. Select the markers whose text you want to change.
  2. In the Properties panel, activate **Marker text** in the **Markers** group.
  3. Enter the text you want.
  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 241

[Markers section of the Video panel](#) on page 240



## Moving markers rhythmically

You can move markers to new rhythmic positions. However, as markers have a fixed position in time, moving markers relative to the notated music automatically changes the tempo on either side of the marker.

### TIP

If you want to move a marker to a new time position, for example, if you want to move it from 25 seconds to 28 seconds, you must change the timecode of the marker.

---

### PROCEDURE

1. In Write mode, select the marker you want to move.

### NOTE

You can only move one marker at a time.

---

2. Move the marker according to the current rhythmic grid in any of the following ways:
    - Press **Alt-Right Arrow** to move it to the right.
    - Press **Alt-Left Arrow** to move it to the left.
    - Click and drag it to the right/left.
- 

### RESULT

The selected marker is moved to a new rhythmic position. However, its 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.

### NOTE

The tempo change affects the positions of all other markers in the flow relative to the notated music.

---

### RELATED LINKS

[Markers](#) on page 567

[Inputting markers/timecodes](#) on page 239

## Changing the timecodes of markers

You can change the timecode of markers, for example, if the video is 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, click **Video** in the Notations toolbox to show the Video panel.
2. In the **Markers** section, double-click the timecode you want to change.

3. Enter the new timecode you want into the value field.
  4. 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

[Markers section of the Video panel](#) on page 240  
[Moving markers rhythmically](#) on page 569

## 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 241

## 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, **Shift**-clicking adjacent layouts, and **Ctrl/Cmd**-clicking individual layouts.
  3. Click **Markers** in the page list.
  4. Activate/Deactivate **Show markers**.
  5. Click **Apply**, then **Close**.
- 

#### RESULT

Markers are hidden/shown in the selected layouts.

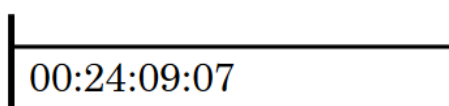
#### RELATED LINKS

[Changing the vertical position of markers](#) on page 567

# 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

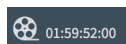
Some frame numbers are skipped in order to accommodate the difference in frame rate between 29.97 fps and 30 fps. In every minute except every tenth minute, two timecode numbers are dropped from the frame count.

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.



You can show timecodes on their own single-line staff and at different intervals. 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

[Frame rates](#) on page 126

[Video Properties dialog](#) on page 122

[Showing timecodes on a separate staff](#) on page 572

[Changing the timecode frequency](#) on page 573


[Changing the content shown in the transport display](#) on page 349

## 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 **Video** to show the Video panel.  

3. In the Video panel, click **Properties** to open the **Video Properties** dialog.
4. In the **Video Properties** dialog, 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

[Timecodes](#) on page 571

[Changing the start position of videos](#) on page 124

## Showing timecodes on a separate staff

You can show timecodes on a separate single-line staff in each layout independently, as this can make timecodes clearer in the score. You can also specify above which bracketed instrument group the timecode staff appears.

### NOTE

- If you show timecodes on a separate staff, markers are also shown on this staff.
- You cannot show timecodes on multiple staves in a system.

---

### 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 show timecodes on a separate 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, **Shift**-clicking adjacent layouts, and **Ctrl/Cmd**-clicking individual layouts.
3. Click **Markers** in the page list.
4. For **Vertical position**, choose **Timecode staff**.

5. 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

A separate timecode staff is shown above the top instrument staff that belongs to the selected instrument family group.

#### TIP

You can change the default distance between timecode staves and other staves on the **Vertical Spacing** page in **Setup > Layout Options**.

---

#### RELATED LINKS

[Timecodes](#) on page 571

[Hiding/Showing markers](#) on page 570

[Changing the vertical position of markers](#) on page 567

## 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, **Shift**-clicking adjacent layouts, and **Ctrl/Cmd**-clicking individual layouts.
  3. Click **Markers** in the page list.
  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

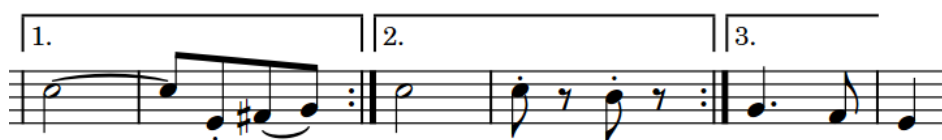
[Hiding/Showing markers](#) on page 570

[Hiding/Showing multi-bar rests on page 604](#)

# 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 a number that indicates on which repeat the segment is to be played.



A repeat ending with three possible 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, which you can change on the **Staves and Systems** page in **Setup > Layout Options**.

## RELATED LINKS

[Input methods for repeats and tremolos](#) on page 243

[System objects](#) on page 632

[Changing the positions of system objects](#) on page 633

## 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.

---

### PROCEDURE

1. Select the repeat endings whose total number of repeats you want to change.
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 repeats than the number of segments.

---

**RESULT**

The total number of repeats in the selected repeat endings is changed. This is updated automatically in the layout.

By default, Dorico Elements automatically adds any repeats not already assigned to specific segments to the final closed segment.

**RELATED LINKS**

[Repeats in playback](#) on page 341

## 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 reposition repeat barlines. You must input 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:
    - Press **Shift-Alt-Right Arrow** to lengthen the final segment.
    - Press **Shift-Alt-Left Arrow** to shorten the final segment.
-



## 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 change the positions of repeat endings individually and by changing their default positions project-wide. For example, you can override the default position for individual repeat endings if the musical material at those positions requires more vertical space.

You can move repeat endings to different rhythmic positions in Write mode.

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

[System objects](#) on page 632

[Changing the positions of system objects](#) on page 633

## Moving repeat endings rhythmically

You can move repeat endings to different rhythmic positions after they have been input.

---

### PROCEDURE

1. In Write mode, select the repeat ending you want to move.

#### NOTE

You can only move one repeat ending rhythmically at a time.

2. Move the repeat ending to the next/previous bar in any of the following ways:
  - Press **Alt-Right Arrow** to move it to the right.
  - Press **Alt-Left Arrow** to move it to the left.
  - Click and drag it to the right/left.

---

### RESULT

The selected repeat ending is moved to the next/previous bar.

#### NOTE

- This does not automatically input or reposition repeat barlines. You must input repeat barlines manually as appropriate.
- Only one repeat ending can exist at each rhythmic position. If any part of a selected repeat ending collides with any part of another repeat ending as part of its move, the other repeat ending is deleted. However, its repeat barlines are not deleted.

You can undo this action, but any repeat endings deleted in the process are only restored if you moved the repeat ending using the keyboard.

---

## 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.

---

PROCEDURE

1. Select the repeat endings whose final segment appearance you want to change.
  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.

## 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.

2. Und im - mer  
3. Es quoll und

⊕ Coda  
nun wußt' ich wohl

⊕ Coda

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*. You can qualify the conditions under which repeat jumps are used, such as “second time only”.

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.

Repeat markers are left-aligned with their rhythmic position, meaning their text or symbol starts at that rhythmic position and extends to the right.

⌘

⊕ Coda

Fine

By default, repeat markers are shown on a single line.

## RELATED LINKS

[Input methods for repeats and tremolos](#) on page 243

[Repeats in playback](#) on page 341

## 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.

---

### PROCEDURE

1. Select the repeat marker whose index you want to change.
2. In the Properties panel, activate the following properties, individually or together as appropriate for your selection, in the **Repeat Markers** section:
  - **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

---

## Changing the text shown in repeat markers

You can change the text shown in individual repeat markers, for example, if you are typesetting a score with an unusual repeat marker instruction.

---

### PROCEDURE

1. Select the repeat markers whose text you want to change.
  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. This replaces the text in the selected repeat markers without removing any symbols.

## 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 change the default placement of repeat markers relative to the staff in each layout independently in the **Repeat Markers** section of the **Staves and Systems** page in **Setup > 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

[Changing the placement of repeat markers relative to the staff](#) on page 581

[Changing the positions of system objects](#) on page 633

## Moving repeat markers rhythmically

You can move repeat markers to new rhythmic positions after they have been input.

---

#### PROCEDURE

1. In Write mode, select the repeat markers you want to move.

#### NOTE

When using the mouse, you can only move one repeat marker rhythmically at a time.

2. Move the selected repeat markers in any of the following ways:
  - Press **Alt-Right Arrow** to move them to the right.
  - Press **Alt-Left Arrow** to move them to the left.
  - Click and drag it to the right/left.

---

#### RESULT

The selected repeat markers are moved according to the current rhythmic grid value.

## Changing the placement of repeat markers relative to the staff

You can change the default placement of repeat markers relative to the staff in each layout independently, including showing them both above and below the 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 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, **Shift**-clicking adjacent layouts, and **Ctrl/Cmd**-clicking individual layouts.

3. Click **Staves and Systems** in the page list.
  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 placement of all repeat markers relative to the staff is changed in the selected layouts.

## 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 independently of your project-wide setting.

#### NOTE

You can only include/exclude repeats after repeat jumps, such as *D.C. al Fine* and *D.S. al Coda*.

---

#### PROCEDURE

1. Select the repeat jumps after which you want to include/exclude repeats in playback.
  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.

When the property is deactivated, repeat markers follow your project-wide setting for including repeats in playback after repeat jumps.

## 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.

---

#### PROCEDURE

1. Select the end repeat barlines whose number of playthroughs you want to change.
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. A marker is shown at system object positions that indicates the number of playthroughs set when this is 3 or more.

---

EXAMPLE



*ff* Final repeat barline with the default 2 playthroughs set

*ff* Final repeat barline with 4 playthroughs set and marker shown

Play 4 times

---

RELATED LINKS

[Including/Excluding repeats in playback after repeat jumps](#) on page 582


[Changing the total number of playthroughs in repeat endings](#) on page 575

[Repeats in playback](#) on page 341

# 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.



The image shows two musical staves. The first staff, labeled 'One-bar repeat region', shows a sequence of notes followed by three bars with a repeat symbol (two dots) and a '(4)' above the third bar, indicating a four-bar repeat of the first bar. The second staff, labeled 'Two-bar repeat region', shows a sequence of notes followed by two bars with a repeat symbol and a '2' above the second bar, indicating a two-bar repeat of the first two bars.

One-bar repeat region

Two-bar repeat region



The image shows a musical staff with a sequence of notes followed by four bars with a repeat symbol and a '4' above the fourth bar, indicating a four-bar repeat of the first four bars.

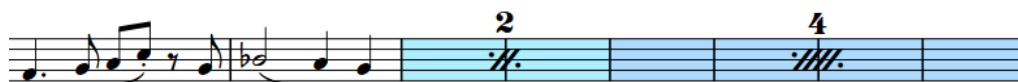
Four-bar repeat region

This notational 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.

By default, bar repeat regions are highlighted with a colored background, as this makes them easier to see. As you zoom out, the highlights become more opaque, which is especially useful when viewing full score layouts in galley view. These highlights are not printed, and you can hide and show them at any time.

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.



The image shows a musical staff with a sequence of notes followed by two bars with a repeat symbol and a '2' above the second bar, and then four bars with a repeat symbol and a '4' above the fourth bar, indicating a two-bar repeat followed by a four-bar repeat.

Phrase containing two adjacent bar repeat regions

## RELATED LINKS

[Inputting bar repeats](#) on page 254

[Repeats popover](#) on page 244

[Bar repeat counts](#) on page 587

[Bar repeat grouping](#) on page 589

[Hiding/Showing bar repeat region highlights](#) on page 587

[Moving bar repeat regions](#) on page 585



[Lengthening/Shortening bar repeat regions](#) on page 586  
[Hiding/Showing multi-bar rests](#) on page 604

## 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.

---

### PROCEDURE

1. Select the bar repeat regions whose phrase length you want to change.
  2. 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 589  
[Inputting bar repeats](#) on page 254  
[Repeats popover](#) on page 244  
[Changing existing items](#) on page 265

## Moving bar repeat regions

You can move bar repeat regions to different rhythmic positions after they have been input.

---

### PROCEDURE

1. In Write mode, select the bar repeat region you want to move.

### NOTE

You can only move one bar repeat region at a time.

---

2. Move the bar repeat region to the right/left in any of the following ways:

- Press **Alt-Right Arrow** to move it to the right.
  - Press **Alt-Left Arrow** to move it to the left.
  - Click and drag it to the right/left.
- 

#### RESULT

The selected bar repeat region is moved to bars to the right/left.

When you move bar repeat regions using the keyboard, they are moved to the right by the duration of their grouping, for example, two-bar repeats are moved two bars to the right. However, when you move them to the left, they are always moved to the next bar, regardless of their grouping.

When you move bar repeat regions using the mouse, they are always moved to the next/previous bar.

#### NOTE

Only one bar repeat region can exist at each rhythmic position. If any part of a selected bar repeat region collides with any part of another bar repeat region as part of its move, the other bar repeat region is shortened to accommodate the one you moved. In some cases, this means the grouping of the other bar repeat region is changed or it is deleted entirely.

You can undo this action and restore the previous length of the other bar repeat region.

---

## Lengthening/Shortening bar repeat regions

You can lengthen/shorten bar repeat regions after they have been input.

---

#### PROCEDURE

1. In Write mode, select the bar repeat region you want to lengthen/shorten.

#### NOTE

You can only lengthen/shorten one bar repeat region at a time.

---

2. Lengthen/Shorten the bar repeat region in any of the following ways:
  - Press **Shift-Alt-Right Arrow** to lengthen the region by the duration of its grouping.
  - Press **Shift-Alt-Left Arrow** to shorten the region by the duration of its grouping.

#### NOTE

Key commands lengthen/shorten items by moving their end only.

---

- Click and drag the start/end handle to the next/previous bar.
- 

#### RESULT

The bar repeat region is lengthened/shortened.

#### 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 one bar repeat region can exist at each rhythmic position. If any part of a selected bar repeat region collides with any part of another bar repeat region when it is lengthened/shortened, the other bar repeat region is shortened to accommodate this. In some cases, this means the grouping of the other bar repeat region is changed or it is deleted entirely.

You can undo this action and restore the previous lengths of all bar repeat regions involved.

---

#### RELATED LINKS

[Bar repeats](#) on page 584

[Bar repeat grouping](#) on page 589

[Hiding/Showing multi-bar rests](#) on page 604

## Hiding/Showing bar repeat region highlights

You can hide/show colored highlights for bar repeat 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**.
- 

#### RESULT

Highlights on bar repeat regions are shown when a tick appears beside **Highlight Bar Repeat Regions** in the menu, and hidden when no tick appears.

## Bar repeat counts

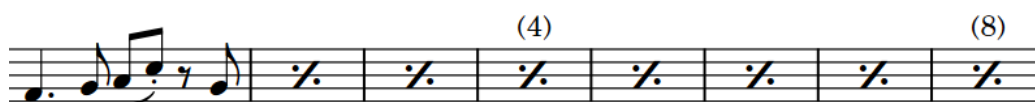
Bar repeat counts are numbers shown at regular intervals either above or below bar repeats, to help players keep track of how many bars have passed. The intervals are usually based on typical musical phrases, such as every four or eight bars.

#### 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.



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 bar repeat counts are shown, and whether they are parenthesized.

#### RELATED LINKS

[Changing the bar repeat count appearance](#) on page 589

[Changing the bar repeat count frequency](#) on page 588

[Repeats popover](#) on page 244

[Inputting bar repeats](#) on page 254

[Hiding/Showing bar number ranges on multi-bar rests](#) on page 413

## 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.

---

### PROCEDURE

1. Select the one-bar repeat regions whose start count you want to change.
2. In the Properties panel, activate **Count from** in the **Bar Repeat Regions** group.
3. Change the value in the value field.

---

### RESULT

The number and position of bar repeat counts on the selected bar repeats is changed. 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 (indicated by a double bar line and repeat sign) followed by two more bars. A count of (4) is shown at the end of each system. The first system starts with a count of 1, the second with a count of 5, and the third with a count of 9.

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 (indicated by a double bar line and repeat sign) followed by two more bars. A count is shown at the end of each system: (4) for the first, (8) for the second, and (12) for the third. The first system starts with a count of 1, the second with a count of 5, and the third with a count of 9.

Separate bar repeats on multiple systems in the same part layout with their counts changed to imply a continuous region

---

### RELATED LINKS

[Bar repeat counts](#) on page 587

## Changing the bar repeat count frequency

You can change how often counts are shown on individual one-bar repeat regions independently of your project-wide setting, 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.

---

### PROCEDURE

1. Select the one-bar repeats whose count frequency you want to change.

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 587

[Changing the bar repeat count appearance](#) on page 589

[Hiding/Showing bar number ranges on multi-bar rests](#) on page 413

## Changing the bar repeat count appearance

You can show individual bar repeat counts with or without parentheses, or not show any repeat count at all.

#### NOTE

Bar repeat counts are only shown on one-bar repeat regions.

---

#### PROCEDURE

1. Select the one-bar repeats whose count appearance you want to change.
  2. In the Properties panel, activate **Count appearance** in the **Bar Repeat Regions** group.
  3. Select one of the following options from the menu:
    - **Parenthesized**
    - **No parentheses**
    - **Don't show**
- 

#### RESULT

The appearance of counts on the selected bar repeat regions is changed.

#### RELATED LINKS

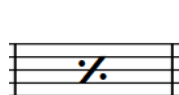
[Bar repeat counts](#) on page 587

[Changing the bar repeat count frequency](#) on page 588

## Bar repeat grouping

Bar repeat grouping allows you to condense 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



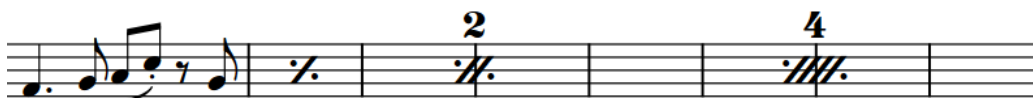
Three-bar repeat symbol



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

#### RELATED LINKS

[Repeats popover](#) on page 244

[Inputting bar repeats](#) on page 254

## 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.

---

#### PROCEDURE

1. Select the bar repeat regions whose grouping you want to change.
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.

#### RELATED LINKS

[Bar repeat grouping](#) on page 589

[Inputting bar repeats](#) on page 254

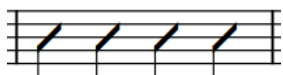
[Repeats popover](#) on page 244

# Rhythm slashes

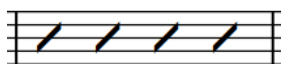
Rhythm slashes are diagonal lines positioned on staves that are used to indicate that performers should play something, but without specifying the exact rhythms and pitches. They are often accompanied by chord symbols to indicate the set of notes the performer should use.

There are two different types of rhythm slashes:

- Slashes with stems, which usually indicate the rhythm to be played, but not the pitches.



- Slashes without stems, which do not usually indicate either rhythms or pitches.



Slashes with stems are also known as “rhythmic notation”, and slashes without stems are 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 711

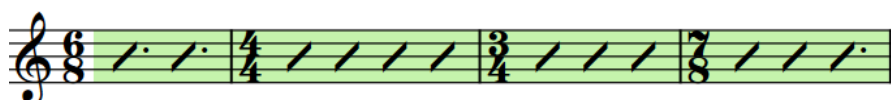
[Chord symbols](#) on page 438

[Inputting slash regions](#) on page 253

[Inputting notes into slash voices](#) on page 154

## 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. A single slash region can extend across multiple different meters.



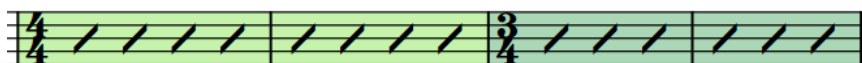
A single slash region covering multiple different meters

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.

By default, slash regions are highlighted with a colored background, as this makes them easier to see. As you zoom out, the highlights become more opaque, which is especially useful when viewing full score layouts in galley view. These highlights are not printed, and you can hide and show them at any time.

Each region has a handle at the start and end, which you can use to move and lengthen/shorten regions.

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.

#### RELATED LINKS

[Slash voices](#) on page 711

[Slash region counts](#) on page 597

[Slashes in multiple-voice contexts](#) on page 592

[Moving slash regions](#) on page 595

[Lengthening/Shortening slash regions](#) on page 596

## Hiding/Showing slash region highlights

You can hide/show the colored highlights for slash 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 Slash Regions**.

---

#### RESULT

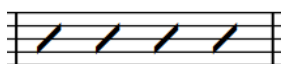
Highlights on slash regions are shown when a tick appears beside **Highlight Slash Regions** in the menu, and hidden when no tick appears.

#### RELATED LINKS

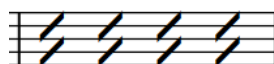
[Slash voices](#) on page 711

## Slashes in multiple-voice contexts

Multiple slash regions and slash voices can exist at the same rhythmic positions. In multiple-voice contexts for slash voices and when slash regions overlap, Dorico Elements automatically changes their staff position and offset to accommodate all slashes as legibly as possible.



Single slash region



Two slash regions, one up-stem and one down-stem

You can also control the positions of rhythm slashes relative to each other manually by changing their stem/voice direction and by changing their staff position.

#### RELATED LINKS

[Note positions in multiple-voice contexts](#) on page 707

[Changing the voice of existing notes](#) on page 272



[Changing the staff position of rhythm slashes](#) on page 593

## 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.

---

### PROCEDURE

1. Select any part of each slash region whose voice direction you want to change.
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 636

## 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.

---

### PROCEDURE

1. Select the rhythm slashes whose staff position you want to change.
  - 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.

RELATED LINKS

[Stem direction](#) on page 636

## 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.

---

PROCEDURE

1. Select any part of each slash region alongside which you want to hide/show other notes.
2. In the Properties panel, activate/deactivate **Show other voices** in the **Slash Regions** group.

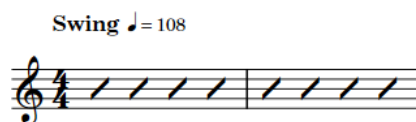
---

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 591

[Slash voices](#) on page 711

[Hiding/Showing slash region highlights](#) on page 592

## 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.

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.

---

PROCEDURE

1. Select any part of each slash region whose padding rests you want to hide/show.
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.

RELATED LINKS

[Implicit vs. explicit rests](#) on page 600

## 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. Press **U**.

---

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

[Changing the slash region count frequency](#) on page 597

[Lengthening/Shortening slash regions](#) on page 596

## Moving slash regions

You can move slash regions to different rhythmic positions after they have been input. Because multiple slash regions can exist at the same rhythmic position, you can also move slash regions so they overlap with other slash regions.

---

PROCEDURE

1. In Write mode, select any part of each slash region you want to move.
2. Move the selected slash regions to the right/left in any of the following ways:
  - Press **Alt-Right Arrow** to move them to the right.
  - Press **Alt-Left Arrow** to move them to the left.

**NOTE**

You cannot move slash regions rhythmically with the mouse.

---

RESULT

The selected slash regions are moved to the right/left according to the current rhythmic grid value. If any part of them overlap rhythmic positions with other slash regions, the staff positions of slashes are automatically adjusted to accommodate multiple slash regions at the same positions.

RELATED LINKS

[Slashes in multiple-voice contexts](#) on page 592

[Changing the voice direction of slash regions](#) on page 593

## Lengthening/Shortening slash regions

You can lengthen/shorten slash regions after they have been input. Because multiple slash regions can exist at the same rhythmic position, you can also lengthen/shorten slash regions so they overlap with other slash regions.

---

### PROCEDURE

1. In Write mode, select any part of each slash region you want to lengthen/shorten.

#### NOTE

When using the mouse, you can only lengthen/shorten one slash region at a time.

---

2. Lengthen/Shorten the selected slash regions in any of the following ways:
  - To lengthen them by the current rhythmic grid value, press **Shift-Alt-Right Arrow**.
  - To shorten them by the current rhythmic grid value, press **Shift-Alt-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 selected slash regions are lengthened/shortened according to the current rhythmic grid value. If any part of them overlap rhythmic positions with other slash regions, the staff positions of slashes are automatically adjusted to accommodate multiple slash regions at the same positions.

### RELATED LINKS

[Slashes in multiple-voice contexts](#) on page 592

[Changing the voice direction of slash regions](#) on page 593

## Hiding/Showing stems in slash regions

You can hide/show stems on slashes in individual slash regions. By default, slashes in slash regions are shown without stems.

---

### PROCEDURE

1. Select any part of each slash region in which you want to hide/show stems.
  2. In the Properties panel, activate **Slash type** in the **Slash Regions** group.
  3. Choose one of the following options:
    - **With stems**
    - **Without stems**
- 

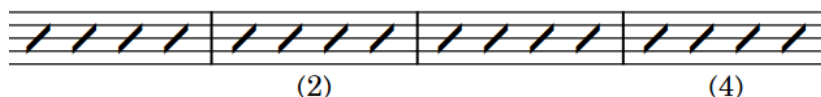
### RESULT

Stems are hidden in the selected slash regions when you choose **Without stems**, and shown when you choose **With stems**.

## Slash region counts

Slash region counts are numbers shown at regular intervals, either above or below slash regions, to help players 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 every four bars and are placed below the staff.



Slash region with counts shown every two bars

In Dorico Elements, you can change the start count of each slash region, how frequently slash region counts are shown, their staff-relative placement, and whether they are parenthesized.

### RELATED LINKS

[Slash regions](#) on page 591

[Changing the slash region count appearance](#) on page 598

## 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.

---

### PROCEDURE

1. Select any part of each slash region whose start count you want to change.
2. In the Properties panel, activate **Count from** in the **Slash Regions** group.
3. Change the value in the value field.

---

### RESULT

The number and position of counts on the selected slash regions is changed. 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 slash region instead of the fourth.

---

### EXAMPLE



Two separate slash regions, where the start count on 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 slash regions individually, 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.

---

### PROCEDURE

1. Select any part of each slash region whose count frequency you want to change.

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 595

## Changing the slash region count appearance

You can show individual slash region counts with or without parentheses, or not show any count at all.

---

PROCEDURE

1. Select any part of each slash region whose count appearance you want to change.
  2. In the Properties panel, activate **Count appearance** in the **Slash Regions** group.
  3. Select one of the following options from the menu:
    - **Parenthesized**
    - **No parentheses**
    - **Don't show**
- 

RESULT

The appearance of counts on the selected slash regions is changed.

## Changing the placement of slash region counts relative to the staff

You can change whether counts on individual slash regions appear above or below the staff.

NOTE

Changing the placement of slash region counts relative to the staff affects all counts on the region. You cannot change the placement of a single count independently of other counts on the same slash region.

---

PROCEDURE

1. Select any part of each slash region whose count staff-relative placement you want to change.
  2. In the Properties panel, activate **Count position** in the **Slash Regions** group.
  3. Choose one of the following options:
    - **Above**
    - **Below**
- 

RESULT









The placement of all counts relative to the staff on the selected slash regions is changed.

# 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.

The table shows some examples of notes and the rests with the equivalent rhythmic value.

Duration	Note	Rest
Half		
Quarter		
Eighth		
Sixteenth		

During note input, 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.

## RELATED LINKS

[Implicit vs. explicit rests](#) on page 600

[Inputting rests](#) on page 158

[Deleting rests](#) on page 602

## 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

[Deleting rests](#) on page 602

[Turning explicit rests into implicit rests](#) on page 601

## Implicit vs. explicit rests

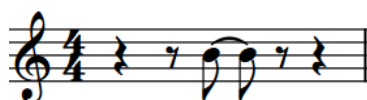
Implicit rests are automatically shown around the notes you input, and their duration automatically follows the time signature and their position in the bar. Explicit rests are rests that are explicitly entered during note input by forcing their duration, or rests that were imported from a MusicXML file.

Dorico Elements notates implicit rests according to the current 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 158

[Forcing the duration of notes/rests](#) on page 152

[Turning explicit rests into implicit rests](#) on page 601

[Deleting rests](#) on page 602

[Showing rest colors](#) on page 602



## 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. 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

### 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 hide rests before the first note in voices and after the last note in voices individually by activating properties in the Properties panel. You can show rests that you have hidden by deactivating the corresponding property.



A phrase with multiple voices showing implicit rests. The same phrase without implicit rests.

You can also delete rests from selected passages.

### RELATED LINKS

[Moving rests vertically](#) on page 605

[Deleting rests](#) on page 602

## 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

[Showing rest colors](#) on page 602

[Deleting rests](#) on page 602

## Showing rest colors

You can show implicit rests and explicit rests in different colors.

---

PROCEDURE

- Choose **View > Note and Rest Colors > Implicit Rests**.
- 

RESULT

Rest colors are shown when a tick appears beside **Implicit Rests** in the menu, and hidden when no tick appears.

When rest colors are shown, rests in your project appear gray if they are implicit, and black if they are explicit. For example, this can be useful to help diagnose why rests do not disappear when you activate **Starts voice** and **Ends voice**, as these properties only hide implicit rests.

Once you have identified rests as explicit rests, you can delete them. The implicit rests that replace them now respect the **Starts voice** and **Ends voice** properties.

---

EXAMPLE



Rests colored black, as they appear without implicit rests shown



Rests colored gray to indicate implicit rests

---

## 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.

---

NOTE

You cannot delete rests from unpitched percussion instruments.

---

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 so that no rests are shown in the selected regions.

**TIP**

You can undo deleting rests immediately.

You can also show rests again later by selecting the notes or rests immediately to the right/left of deleted rests and deactivating the corresponding **Starts voice** or **Ends voice** properties in the **Notes and Rests** group of the Properties panel.

---

**RELATED LINKS**

[Rests](#) on page 599

[Implicit vs. explicit rests](#) on page 600

[Large selections](#) on page 259

[Implicit rests in multiple-voice contexts](#) on page 601

## Hiding/Showing bar rests in empty bars

You can hide/show bar rests in empty bars in each layout in your project independently of other layouts. 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, **Shift**-clicking adjacent layouts, and **Ctrl/Cmd**-clicking individual layouts.
  3. Click **Players** in the page list.
  4. In the **Bar Rests and Multi-bar Rests** section, activate/deactivate **Show bar rests in empty bars**.
  5. Click **Apply**, then **Close**.
-

#### RESULT

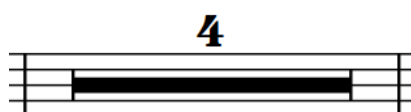
All bar rests in empty bars in the selected layouts are shown when the checkbox is activated, and hidden when the checkbox is deactivated.

#### RELATED LINKS

[Hiding/Showing multi-bar rests](#) on page 604

## 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 can 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 split by items positioned within their range, such as system text, rehearsal marks, and holds and pauses. This includes when the items are invisible, except for hidden tempo marks, such as those input in the **Time** track in Play mode. 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 413

[Time track](#) on page 327

## Hiding/Showing multi-bar rests

You can hide/show multi-bar rests in each layout in your project independently of other layouts, and choose whether bar repeats are consolidated into multi-bar rests. 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, **Shift**-clicking adjacent layouts, and **Ctrl/Cmd**-clicking individual layouts.
3. Click **Players** in the page list.
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 bar repeats are consolidated into multi-bar rests in the selected layouts. Multi-bar rest counts are also shown above consolidated bar repeats.

#### RELATED LINKS

[Bar repeats](#) on page 584

[Multi-bar rests](#) on page 604

[Hiding/Showing bar number ranges on multi-bar rests](#) on page 413

## 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.

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 rests in multiple-voice contexts and automatically positions rests in multiple-voice contexts to avoid collisions.

#### NOTE

You cannot change the vertical position of rests when using the mouse.

---

#### 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.
  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, multiple rests are now shown.

Deactivating **Rest pos.** returns the selected rests to their default positions.

#### RELATED LINKS

[Note spacing](#) on page 301

# 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 can be placed both above and below the staff, depending on the stem directions of the notes to which they apply. In order to keep slur endpoints close to notes, slurs are placed outside articulations on notes in the middle of slurs, but between notes and larger articulations on the first/last notes of slurs. 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 by default.



Slurs both above and below the staff, including a cross-staff slur

## 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 255

[Ties](#) on page 653

## General placement conventions for slurs

The placement of slurs relative to the staff, and therefore their curvature direction, depends on the stem direction of the notes within the slur. Depending on whether slurs are placed on the notehead or stem side of notes, their endpoint positions are different.

### Slur direction

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

#### NOTE

In jazz scores, slurs are sometimes treated as an articulation and so positioning all slurs above the staff is preferred.

---

### Stem-side slurs between unbeamed notes

In Dorico Elements, slurs appear between the stems of unbeamed notes when placed on their stem side, and the default setting is for them to attach a short distance from the end of the stem.



#### RELATED LINKS

[Slur endpoint position relative to other items](#) on page 609

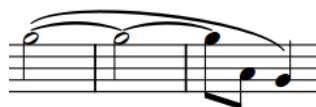
## Slur position relative to tie chains

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.

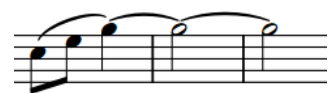


Slur ending on the last note in a tie chain



Slur starting from the first note in a tie chain

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 ending on the first note in a tie chain



Slur starting on the last note in a tie chain

## 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, to save vertical space.

---

#### PROCEDURE

1. Select the slurs whose position relative to tie chains you want to change.

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.



Automatic changes to the curvature direction of slurs on grace notes in multiple-voice contexts

#### RELATED LINKS

- [Changing the curvature direction of slurs](#) on page 614
- [Changing the stem direction of notes](#) on page 638
- [General placement conventions for grace notes](#) on page 480

## 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.

---



## Slur endpoint position relative to other items

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.

#### NOTE

This value affects all slur collisions in your project.

---

### 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.

### 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

[Articulations](#) on page 396

## 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.

Dorico Elements positions cross-staff and cross-voice slurs in the same way as it positions standard slurs, so their appearance might be the same as 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 shorten cross-voice slurs if noteheads under the slur are not in one of the voices 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

[Lengthening/Shortening slurs](#) on page 612

[Moving slurs rhythmically](#) on page 611

## Inputting cross-staff and cross-voice slurs

You can input cross-staff and cross-voice slurs. For example, musical phrases in grand staff instruments, such as piano and harp, can span both staves and may need slurs to join them.

---

### PROCEDURE

1. In Write mode, select the note from which you want the slur to start, in any voice or staff.
2. **Ctrl/Cmd**-click the note where you want the slur to end, in any voice and on any staff belonging to the same instrument as the note in step 1.

### NOTE

Only select those two notes.

- 
3. Press **S**.

---

### RESULT

A cross-voice or cross-staff slur is input spanning the select notes. It is placed either above or below the notes, depending on the stem direction of the notes within the selection.

### AFTER COMPLETING THIS TASK

You can change the curvature direction of individual slurs.

### RELATED LINKS

[Changing the curvature direction of slurs](#) on page 614

## 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 616

## Inputting nested slurs during step input

You can input nested slurs directly during step input, for example, if you already know how you want to phrase the notes you are currently inputting.

---

### PROCEDURE

1. In Write mode, start note input.
  2. Press **S** twice to start two slurs from the currently selected note. One slur is the inner slur, the other slur is the outer slur.
  3. Input your notes.  
The slurs extend automatically as you continue inputting notes, even if there are rests between the notes you input.
  4. Press **Shift-S** once to end the inner slur on the currently selected note.
  5. Continue inputting notes.
  6. Optional: Start/End other inner slurs.
  7. Press **Shift-S** again to end the outer slur on the currently selected note.
- 

### RELATED LINKS

[Nested slurs](#) on page 610

## Adding nested slurs to existing notes

You can add multiple slurs to existing notes so that they appear as nested slurs.

---

### PROCEDURE

1. In Write mode, select the notes you want to include in the outer slur.
2. Press **S** to input the outer slur.
3. Select the notes within the outer slur that you want to place under an inner slur.
4. Press **S** to input the inner slur.
5. Optional: Repeat steps 3 and 4 for any other inner slurs you want.

### NOTE

- 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 makes sure they do not collide.
  - Slur collisions are not automatically avoided if you activate **Disable auto curve adjustment** in the **Slurs** group of the Properties panel for individual notes.
- 

### RELATED LINKS

[Slur collision avoidance](#) on page 616

## Moving slurs rhythmically

You can move slurs to new rhythmic positions after they have been input.

---

### PROCEDURE

1. In Write mode, select the slurs you want to move.

**NOTE**

When using the mouse, you can only move one slur rhythmically at a time.

---

2. Move the slurs to the next or previous noteheads on the staff in any of the following ways:
    - Press **Alt-Right Arrow** to move them to the next notehead on the staff.
    - Press **Alt-Left Arrow** to move them to the previous notehead on the staff.
    - Click and drag the slur to the right/left.
- 

**RESULT**

The slurs are moved to the next or previous noteheads on the staff.

**NOTE**

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 they were moved.

---

## Lengthening/Shortening slurs

You can change the length of slurs rhythmically after they have been input.

**NOTE**

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.

---

**PROCEDURE**

1. In Write mode, select the slurs you want to lengthen/shorten.

**NOTE**

When using the mouse, you can only lengthen/shorten one slur at a time.

---

2. Lengthen/Shorten the slurs in any of the following ways:
  - Press **Shift-Alt-Right Arrow** to lengthen the slur to the next notehead.
  - Press **Shift-Alt-Left Arrow** to shorten the slur to the previous notehead.

**NOTE**

Key commands lengthen/shorten items by moving their end only. You can move the start of slurs by moving the whole slur, or by clicking and dragging the start handle.

---

- Click and drag the start/end of the slur to the next/previous notehead.
- 

**RESULT**

The selected slurs are lengthened/shortened.

**RELATED LINKS**

[Moving slurs rhythmically](#) on page 611

[Cross-staff and cross-voice slurs](#) on page 609

## Slurs linked across multiple staves

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.



Three linked slurs with the top slur selected

You can also manually link and unlink slurs.

### RELATED LINKS

[Inputting slurs](#) on page 255

[Unlinking slurs](#) on page 614

[Disabling automatic linking of dynamics and slurs when pasting](#) on page 265

## 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 > Slurs > Link**. You can also choose this option from the context menu.
- 

### RESULT

The selected slurs are linked together.

### RELATED LINKS

[Slurs linked across multiple staves](#) on page 613

## Unlinking slurs

You can unlink slurs manually that were automatically linked together, for example, if you want to lengthen/shorten them independently of each other.

---

### PROCEDURE

1. In Write mode, select a slur from each linked group you no longer want to be linked.
2. Choose **Edit > Slurs > Unlink**. You can also choose this option from the context menu.

---

### RESULT

All slurs linked to the selected slurs are unlinked.

---

### NOTE

You cannot only unlink a single slur from the group.

---

## Slur curvature direction

Slurs can curve upwards, downwards, or have a multi-segment S-shape.

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.



## 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.

---

### PROCEDURE

1. Select the slurs whose curvature direction you want to change.
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.

## 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.



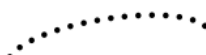
#### Dashed

Slurs appear as tapered dashed lines. Can be used to indicate an optional slur, for example, to recommend breathing/bowing patterns.



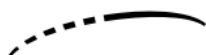
#### Dotted

Slurs appear as dotted lines. The dots are the same size and the same distance apart over the whole length of the slur.



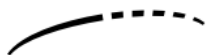
#### Half-dashed start

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.



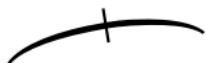
#### Half-dashed end

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.

---

### PROCEDURE

1. Select the slurs whose style you want to change.
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**

---

## 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.

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 likewise be unusual only to use flat slurs once or twice in a project.

### NOTE

We recommend that you avoid changing the curvature style for only one or two slurs in a project.

---

### PROCEDURE

1. Select the slurs whose curvature style you want to change.
2. In the Properties panel, activate **Curvature style** in the **Slurs** group.
3. Choose one of the following options:
  - **Normal (curved)**
  - **Flat**

---

### RESULT

The curvature style of the selected slurs is changed.

## 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.





Slur with collision avoidance activated (default)



Slur with collision avoidance deactivated

## Slurs over system and frame breaks

Slurs automatically cross system breaks and frame breaks.

A system or frame break divides slurs into two parts. The end of the first part of the slur, and the start of the second part of the slur, are both positioned 1 space vertically outside the staff by default.

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.

## 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.

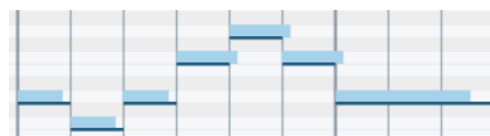
Slurred notes sound for 105% of the length indicated by their notated rhythm, as opposed to non-slurred notes which sound for 85% of their notated rhythm.

The final note of a slur sounds for 85% of its notated rhythm, as there is no slur after it and the legato technique is no longer required.

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 in Play mode

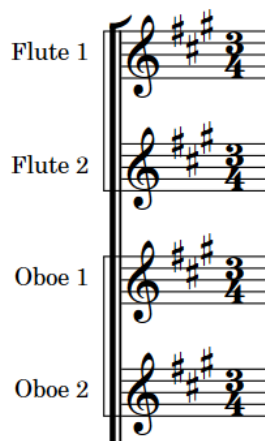
### RELATED LINKS

[Played vs. notated note durations](#) on page 368

# Staff labels

Staff labels are used to identify staves in music containing multiple players, and are positioned to the left of systems, before the initial barline of each system. Staff labels indicate the instrument or instruments currently playing the music on the staff or staves to which they apply.

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

In Dorico Elements, staff labels use the instrument names set for each instrument in the **Edit Instrument Names** dialog. In the dialog, you can specify singular and plural names for each instrument, and singular and plural abbreviations for each instrument.

## TIP

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 playing instruments of the same type.

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.

## NOTE

Layout names are different to the instrument names used for staff labels.

For players holding multiple instruments, 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.

#### NOTE

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.

---

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.

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.

### 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 93

[Instrument numbering](#) on page 100

[Edit Instrument Names dialog](#) on page 94

[Changing instrument names](#) on page 98

## Instrument names in staff labels

Staff labels use the instrument names set for each instrument, and instruments with the same instrument names are automatically numbered. Staff labels can show full or short instrument names.

On the **Staves and Systems** page in **Setup > Layout Options**, you can choose whether you want to show full, short, or no instrument names in staff labels in each layout independently.

- **Full** staff labels use full instrument names.
- **Abbreviated** staff labels use short instrument names.
- **None** shows no staff labels.

You can change the full and short instrument names for each instrument in the **Edit Instrument Names** dialog in Setup mode.

#### NOTE

Changing instrument names does not change the name shown at the top of each part layout, as that uses the layout name. You can change the layout name in Setup mode.

---

It is usual to number instruments when there are multiple players holding the same type of instrument. For example, if there are four horn players in an orchestra, they are usually called Horn 1, Horn 2, Horn 3, and Horn 4.

In Dorico Elements, instruments are automatically numbered. This also applies to players holding multiple instruments. 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](#)

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.

#### RELATED LINKS

- [Player, layout, and instrument names](#) on page 93
- [Changing the length of staff labels project-wide](#) on page 620
- [Edit Instrument Names dialog](#) on page 94
- [Instrument numbering](#) on page 100
- [Changing instrument names](#) on page 98
- [Changing layout names](#) on page 97
- [Moving instruments between players](#) on page 104

## Changing the length of staff labels project-wide

You can show full, abbreviated, or no instrument names in staff labels project-wide depending on their context in each layout independently.

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 change the length of instrument names 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, **Shift**-clicking adjacent layouts, and **Ctrl/Cmd**-clicking individual layouts.
3. Click **Staves and Systems** in the page list.
4. In the **Staff Labels** section, select one of the following options from the **Staff labels on first system** menu:
  - **Full**
  - **Abbreviated**
  - **None**
5. Select one of the following options from the **Staff labels on subsequent systems** menu:
  - **Full**
  - **Abbreviated**
  - **None**
6. Click **Apply**, then **Close**.

---

#### RESULT

The staff labels are changed project-wide in the selected layouts.

#### TIP

- You can change both full and short instrument names in the **Edit Instrument Names** dialog.
- Your per-layout settings for staff labels apply to each flow, not the whole project. For example, if you want to show full staff labels on the first system in the first flow in your

project, but do not want to show full staff labels on the first system of subsequent flows, you must change the staff labels at the start of each subsequent flow individually.

---

RELATED LINKS

[Instrument names in staff labels](#) on page 619

[Changing instrument names](#) on page 98

[Edit Instrument Names dialog](#) on page 94

## Changing the minimum indent for systems with staff labels

You can change the default minimum indent for all systems that show staff labels project-wide to optimize horizontal space. You can have different minimum indents 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, **Shift**-clicking adjacent layouts, and **Ctrl/Cmd**-clicking individual layouts.
  3. Click **Staves and Systems** in the page list.
  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 project-wide in the selected layouts.

RELATED LINKS

[System indents](#) on page 634

[Changing the first system indent](#) on page 634

## 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, **Shift**-clicking adjacent layouts, and **Ctrl/Cmd**-clicking individual layouts.
3. Click **Players** in the page list.
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.

## 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.

You can change the option for **Show transposition** to **Follow Layout Options** in the **Edit Instrument Names** dialog for each instrument.

#### RELATED LINKS

[Edit Instrument Names dialog](#) on page 94

[Changing instrument names](#) on page 98

[Transposing instruments](#) on page 101

## Hiding/Showing instrument transpositions in staff labels

You can hide/show instrument transpositions in staff labels in each layout in your project 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, **Shift**-clicking adjacent layouts, and **Ctrl/Cmd**-clicking individual layouts.
  3. Click **Staves and Systems** in the page list.
  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. Optional: Repeat steps 2 to 4 for other layouts.
  6. Click **Apply**, then **Close**.
-

#### RESULT

Instrument transpositions are shown in staff labels of the corresponding length project-wide 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.

---

#### RELATED LINKS

[Changing instrument names](#) on page 98

## Changing the position of instrument transpositions in full staff labels

You can change the position of instrument transpositions in staff labels. They can be shown before/after instrument names in each layout independently of other layouts.

---

#### PROCEDURE

1. Press **Ctrl/Cmd-Shift-L** to open **Layout Options**.
  2. In the **Layouts** list, select the layouts whose instrument transposition 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, **Shift**-clicking adjacent layouts, and **Ctrl/Cmd**-clicking individual layouts.
  3. Click **Staves and Systems** in the page list.
  4. In the **Staff Labels** section, choose one of the following options for **Position of instrument pitch in full staff labels**:
    - **Start**
    - **End**
  5. Click **Apply**, then **Close**.
- 


#### RESULT

The position of instrument transpositions relative to instrument names in staff labels is changed project-wide in the selected layouts.

## Staff labels for percussion kits

The staff labels shown for percussion kit staves depend on how kits are presented in your project. Kits can be presented as five-line staves, grids, and as single-line instruments.

---

Percussion kit presentation type	Staff label	Example
5-line staff	Single instrument name using the instrument name of the percussion kit.	Percussion 

Percussion kit presentation type	Staff label	Example
Grid	<p>Multiple instrument names: one for each kit instrument, positioned at the staff position of the corresponding instrument.</p> <p>Staff labels for grids use a smaller font and a different paragraph style than used for standard instrument staff labels.</p>	
Single-line instruments	<p>Multiple instrument names: one for each kit instrument, positioned beside the corresponding single-line staff.</p> <p>Staff labels for single-line instruments use the same font and paragraph style as used for standard instrument staff labels.</p>	

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 94

[Player, layout, and instrument names](#) on page 93

[Edit Percussion Kit dialog](#) on page 105

[Unpitched percussion](#) on page 689

[Changing the presentation type of percussion kits](#) on page 695



# 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 **Setup > Layout Options**.

## RELATED LINKS

[Clefs](#) on page 444

[Octave lines](#) on page 448

[Percussion kit presentation types](#) on page 694

[Hiding/Showing empty staves](#) on page 284

## Per-layout options for staves

You can change settings that affect staves project-wide independently for each layout.

You can change the size of staves in each layout in the **Space Size** section of the **Page Setup** page in **Setup > 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.

---

You can show system dividers between systems when systems contain a minimum number of players. You can also change the appearance of system dividers.

#### RELATED LINKS

[Changing the staff size in layouts](#) on page 626

[System objects](#) on page 632

[Changing the positions of system objects](#) on page 633

[Hiding/Showing empty staves](#) on page 284

[Brackets and braces](#) on page 435

## 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 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.

- Rastral size is the size of the full staff, measured from the bottom line to the top line.
- 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 632

## Changing the staff size in layouts

You can change the staff size project-wide for each layout in your project. 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, **Shift**-clicking adjacent layouts, and **Ctrl/Cmd**-clicking individual layouts.
3. Click **Page Setup** in the page list.
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 millimeters.

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 in the selected layouts is changed project-wide.

#### TIP

You can also change the staff size from specific points in layouts, and change the size of individual staves.

---

#### RELATED LINKS

[Brackets and braces](#) on page 435

[System objects](#) on page 632

[Changing the size of individual staves](#) on page 627

## Changing the size of individual staves

You can change the size of individual staves independently of other 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.

The image shows a musical score for Viola and Piano. The Viola part is written on a single staff with a smaller vertical height than the Piano part. The Piano part consists of two staves (treble and bass clef). The tempo is marked 'Adagio' with a metronome marking of 58-60. The key signature has two flats (B-flat and E-flat), and the time signature is 3/4. The Viola part starts with a *pp* dynamic marking. The Piano part also starts with a *pp* dynamic marking. The Viola staff is positioned above the Piano staves, demonstrating how the staff size can be adjusted independently.

A piano part with smaller viola staff above

You can change the size of individual 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.

#### NOTE

You can only change the size of a single staff at a time.

---

2. Choose **Edit > Staff Size > [Staff size]**. You can also choose this option from the context menu.
  3. Optional: If you choose **Custom Staff Size**, you must set the staff size using the **Custom Staff Size** dialog that opens.
- 

#### RESULT

The size of the selected staff is changed. 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 a specific point.

#### NOTE

- Changing the staff size of individual staves affects the staff size of all instruments held by that player.
  - Changing the staff size of individual staves affects its size 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.
- 

#### RELATED LINKS

[Changing the staff size in layouts](#) on page 626

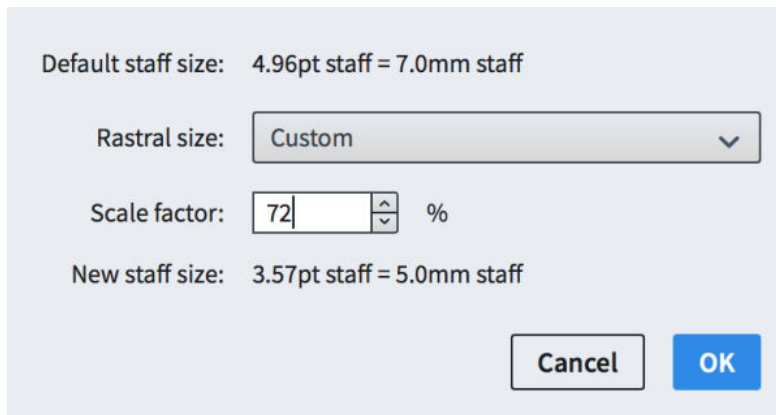
[Brackets and braces](#) on page 435

[System objects](#) on page 632

## 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 in the music area and choosing **Edit > Staff Size > Custom Staff Size**.



**Custom Staff Size** dialog

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 **Setup > Layout Options**.

The default staff size is expressed as both a point size and in millimeters.

**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.

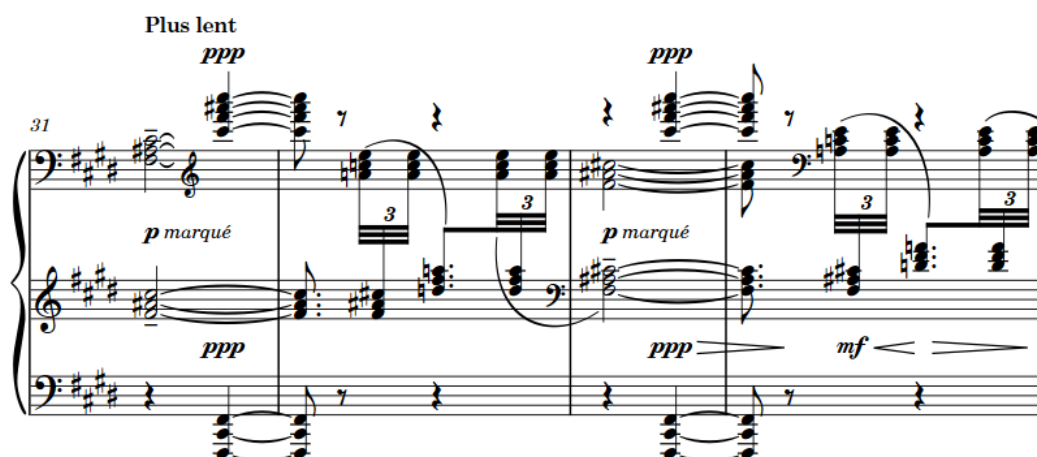
The new staff size is expressed as both a point size and in millimeters.

RELATED LINKS

[Changing the size of individual staves](#) on page 627

## Extra staves

In Dorico Elements, you can add extra staves to any instrument, for example, to make complex contrapuntal music easier to read because it is spread out across more staves than usual for that instrument.



The image shows a musical score for Debussy's piano prelude "Feuilles mortes". It features three staves. The top staff is marked "Plus lent" and "ppp". The middle staff is marked "p marqué" and contains triplets. The bottom staff is marked "ppp" and "mf". The score includes various musical notations such as dynamics, articulation, and fingerings.

An extract of Debussy's piano prelude "Feuilles mortes" with three staves

In Dorico Elements, you cannot add extra staves. However, extra staves are shown if you import a project that contains them.

### RELATED LINKS

[Ossia staves](#) on page 630

## 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.



The image shows a musical score for a piano piece. It features three staves. The top staff is marked "Piano" and "p". The middle staff is marked "Ad." and contains fingerings. The bottom staff is marked "Più facile" and contains a simplified version of the melody. The score includes various musical notations such as dynamics, articulation, and fingerings.

An ossia staff below the left-hand piano staff shows an easier alternative

In Dorico Elements, you cannot add ossia staves. However, ossia staves are shown if you import a project that contains them.

RELATED LINKS

[Extra staves](#) on page 630

## 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.

## 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 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, **Shift**-clicking adjacent layouts, and **Ctrl/Cmd**-clicking individual layouts.
3. Click **Staves and Systems** in the page list.
4. In the **System Dividers** section, choose one of the following options for **Show system dividers**:
  - **When number of staves differs**
  - **When minimum number of players present**
5. Optional: If you selected **When minimum number of players present**, change the value for **Minimum number of players**.
6. Click **Apply**, then **Close**.

---

### RESULT

System dividers are shown between systems in all flows in the selected layouts that either contain the minimum number of players you set or contain different numbers of staves.

RELATED LINKS

[Hiding/Showing empty staves](#) on page 284

## 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, **Shift**-clicking adjacent layouts, and **Ctrl/Cmd**-clicking individual layouts.
  3. Click **Staves and Systems** in the page list.
  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, but are not necessary to show on every staff. For example, tempo marks and rehearsal marks are important for all players to see, but would cause an orchestral full score to appear very cluttered and hard to read if they were shown on every staff.

In Dorico Elements, the following items are considered system objects:

- Rehearsal marks
- Repeat endings
- Repeat markers
- System text
- Tempo marks
- Time signatures shown above the staff

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.

NOTE

- System objects are only shown above instrument families that are bracketed or braced together.
  - 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

[Brackets according to project template categories](#) on page 57



[Brackets and braces](#) on page 435  
[Rehearsal marks](#) on page 562  
[Tempo marks](#) on page 641  
[Repeat endings](#) on page 575  
[Large time signatures](#) on page 668  
[Inputting text](#) on page 255

## Changing the positions of system objects

You can change the positions of system objects in each layout independently by changing the instrument families above which system objects are shown. Multiple items are categorized as system objects, including, 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, **Shift**-clicking adjacent layouts, and **Ctrl/Cmd**-clicking individual layouts.
3. Click **Staves and Systems** in the page list.
4. In the **System Objects** section, activate the checkboxes for the instrument families above which you want system objects to appear.
5. Optional: Activate **Additionally show repeat endings below bottom staff**.
6. Click **Apply**, then **Close**.

---

### RESULT

System objects appear above the top staff in each bracketed group you select if a bracketed group for that instrument family is included in the selected layouts. If you activate **Additionally show repeat endings below bottom staff**, repeat endings additionally appear below the bottom staff.

### NOTE

System objects are only shown above instrument families that are bracketed or braced together.

---

### RELATED LINKS

[System objects](#) on page 632  
[Brackets according to project template categories](#) on page 57

## 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.



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 621

## Changing the first system indent

By default in Dorico Elements, the first system in part layouts is indented. You can change the indent for the first system 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, **Shift**-clicking adjacent layouts, and **Ctrl/Cmd**-clicking individual layouts.
3. Click **Staves and Systems** in the page list.
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 is changed project-wide in the selected layouts. This applies to all flows.

### RELATED LINKS

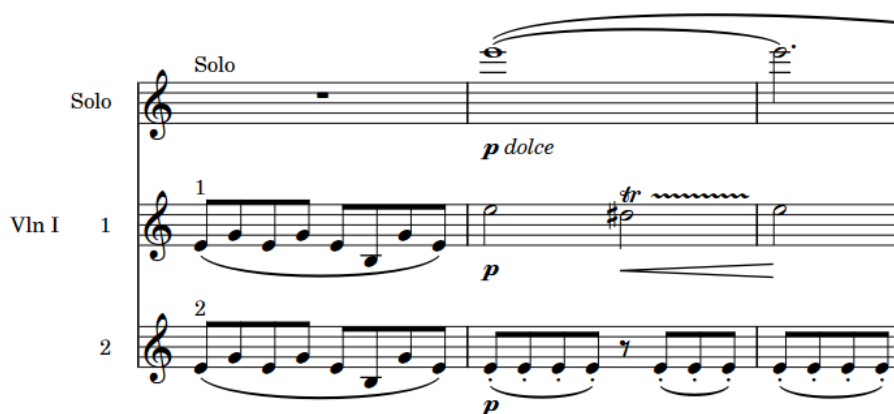
[System indents](#) on page 634

[Changing the minimum indent for systems with staff labels](#) on page 621

# 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.



The image shows a musical score for Violin I. It consists of three staves. The top staff is labeled 'Solo' and contains a single line of music with a long note and a fermata, marked 'p dolce'. The middle staff is labeled 'Vln I 1' and contains a rhythmic pattern of eighth notes, marked 'p'. The bottom staff is labeled 'Vln I 2' and contains a similar rhythmic pattern, also marked 'p'. The two Violin I staves are connected by a brace, indicating they are part of the same section. The Solo line is positioned above the Violin I staves.

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.

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 Elements, 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 a project that contains them.

## RELATED LINKS

[Extra staves](#) on page 630

# 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.



Notes with stems, ranging from a half note (minim) on the left to a 128th note on the right

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

[Stem length](#) on page 640

## 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. 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 purple. The stems point upwards despite being in a down-stem voice because there are no other voices.



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

[Voice column index](#) on page 710

[Implicit rests in multiple-voice contexts](#) on page 601

[Note positions in multiple-voice contexts](#) on page 707

[Changing the default stem direction of voices](#) on page 639

[Removing stem direction changes](#) on page 639

## Changing the stem direction of notes

You can manually change the stem direction of any note.

---

#### PROCEDURE

1. Select the notes whose stem direction you want to change.
2. Change the stem direction in one of the following ways:
  - Choose **Edit > Stem > Force Stem Up**.
  - Choose **Edit > 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.

#### NOTE

This does not change the voice to which notes belong.

---

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 272

## 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.
2. Change the default stem direction of the selected voice in one of the following ways:
  - Choose **Edit > Voices > Default Stems Down**.
  - Choose **Edit > Voices > Default Stems Up**.

TIP

You can also choose these options from the context menu.

---

RELATED LINKS

[Stem direction](#) on page 636

## 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.
  2. Choose **Edit > 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.

---

#### RELATED LINKS

[Changing the stem direction of notes](#) on page 638

## 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.

## Split stems for altered unisons

Split stems can be used in chords containing altered unisons. They show the main body of the chord as usual, but with a stem branch coming off the main stem that connects noteheads in altered unisons to the chord.



Split stem chord

Split stems are also known as “cherry stalks” or “trees”. This is the default presentation of altered unisons in Dorico Elements.

#### RELATED LINKS

[Altered unisons](#) on page 393

[Changing how altered unisons appear](#) on page 393



# 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 three examples of tempo marks in musical notation. The first example is a single staff with a treble clef and a 3/4 time signature, containing a whole rest. Above the staff is the text "Assez animé" followed by a quarter note symbol and "= 144". The second example is a single staff with a treble clef and a 3/4 time signature, containing a series of eighth notes. Above the staff is the text "Assez animé" followed by a quarter note symbol and "= 144". The third example is a single staff with a treble clef and a 3/4 time signature, containing a series of eighth notes. Below the staff is the text "pp très rythmé, léger".

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, which you can change on the **Staves and Systems** page in **Setup > Layout Options**.

If you do not input any tempo marks into your project, the default playback tempo is 120 bpm.

## RELATED LINKS

[Metronome marks](#) on page 648

[Gradual tempo changes](#) on page 650

[Tempo mark components](#) on page 646

[Input methods for tempo marks](#) on page 188

[Positions of tempo marks](#) on page 644

[System objects](#) on page 632

[Changing the positions of system objects on page 633](#)

## Types of tempo marks

Dorico Elements groups tempo marks into different types according to their function and effect on the music.

The following tempo changes are available in the Tempo panel in Write mode, but you can also input all types of tempo changes using the tempo popover.

### Absolute Tempo Change

Indicates a defined change in tempo, and is often shown with a metronome mark.

### 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.

### 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 ♩=♩ 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

[Tempo panel on page 190](#)

[Gradual tempo changes on page 650](#)

[Input methods for tempo marks on page 188](#)

[Tempo popover on page 188](#)

## Text in tempo marks

Tempo marks can have both full and abbreviated text, allowing you to show the one most appropriate in each layout.

This allows you to customize the same tempo mark depending on the requirements of the different types of layouts in your project. For example, if a tempo mark extends off the page in a part layout, you can show the abbreviated text for that tempo mark instead without affecting the length of the tempo mark in the full score layout.

## Changing tempo text

You can change the text of existing tempo marks individually.

---

### PROCEDURE

1. Select the tempo marks whose tempo text you want to change.
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

- [Tempo popover](#) on page 188
- [Changing existing items](#) on page 265

## Showing abbreviated tempo text

You can show individual tempo marks with custom abbreviated text, for example, if a long tempo mark extends beyond the page boundary in some part layouts but the abbreviated version fits within the boundary.

---

### PROCEDURE

1. In the music area, open the layout in which you want to show abbreviated tempo text.
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. This does not affect the appearance of the same tempo mark in layouts that show full tempo text as properties in Dorico Elements are layout-specific.

Abbreviated tempo text is shown 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

- [Tempo mark components](#) on page 646

## 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.

---

### PROCEDURE

1. Select the gradual tempo changes to which you want to add *poco a poco* text.
  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.

Tempo marks should be aligned 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. When horizontal space is tight, the metronome mark can be positioned below the tempo mark text.

You can move tempo marks to different rhythmic positions in Write mode. They are automatically positioned to avoid collisions.

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

[System objects](#) on page 632

[Changing the positions of system objects](#) on page 633

## Moving tempo marks rhythmically

You can move tempo marks to new rhythmic positions after they have been input.

---

### PROCEDURE

1. In Write mode, select the tempo marks you want to move.

#### NOTE

When using the mouse, you can only move one tempo mark at a time.

---

2. Move the tempo marks according to the current rhythmic grid value in any of the following ways:
    - Press **Alt-Right Arrow** to move them to the right.
    - Press **Alt-Left Arrow** to move them to the left.
    - Click and drag the tempo mark to the right/left.
- 

### RESULT

The selected tempo marks are moved according to the current rhythmic grid value.

#### NOTE

Only one tempo mark can exist at each rhythmic position. If a tempo mark in your selection passes over another tempo mark as part of its move, the existing tempo mark is deleted.

You can undo this action, but any tempo marks deleted in the process are only restored if you moved the tempo mark using the keyboard.

---

### RELATED LINKS

[Lengthening/Shortening gradual tempo changes](#) on page 645

## Lengthening/Shortening gradual tempo changes

You can lengthen/shorten gradual tempo changes rhythmically after they have been input.

---

### PROCEDURE

1. In Write mode, select the gradual tempo changes you want to lengthen/shorten.

#### NOTE

When using the mouse, you can only lengthen/shorten one gradual tempo change at a time.

---

2. Lengthen/Shorten the gradual tempo changes in any of the following ways:
  - To lengthen them by the current rhythmic grid value, press **Shift-Alt-Right Arrow**.
  - To shorten them by the current rhythmic grid value, press **Shift-Alt-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 selected gradual tempo changes are lengthened/shortened according to the current rhythmic grid value.

## 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.

---

### PROCEDURE

1. Select one of the following:
  - The tempo marks you want to hide
  - The signposts of tempo mark you want to show
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 their positions as they still affect the speed of playback.

### RELATED LINKS

[Tempo mark components](#) on page 646

[Changing the type and appearance of absolute tempo changes](#) on page 647

## Deleting tempo marks

You can delete tempo marks, which resets the tempo for playback to the previous tempo mark or the default tempo if there is no previous tempo mark.

---

### PROCEDURE

1. In Write mode, select the tempo marks or the signposts of tempo marks you want to delete.
2. Press **Backspace** or **Delete**.

---

### RESULT

The selected tempo marks are deleted and no longer appear in the music area or in the **Time** 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.

If you delete a tempo mark that truncated the line of a gradual tempo change, the line of the gradual tempo change automatically extends to its full length or until the next existing tempo mark.

## 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 change which components are shown in different types of tempo marks project-wide, and you can change which components are shown in individual tempo marks.

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 text when activated, and no 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

[Adding poco a poco text to gradual tempo changes](#) on page 644

## 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.

---

PROCEDURE

1. Select the absolute tempo marks whose components you want to change.
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 if **Is approximate** is activated)
  - **Show equals sign** (only available if **Is approximate** is activated)
- 

#### RESULT

The selected tempo marks are changed to include the corresponding components.

#### NOTE

If you have activated none of these properties, no tempo mark is shown in the music. Instead, a signpost indicates the position of the tempo mark.


---

#### RELATED LINKS



[Tempo mark components](#) on page 646

## 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  = 176, or can indicate an acceptable range, such as  = 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.

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 188

[Changing the type and appearance of absolute tempo changes](#) on page 647

## 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.

---

#### PROCEDURE

1. Select the absolute tempo marks whose metronome mark values you want to change.
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

- If you enter decimals, Dorico Elements automatically rounds them up/down to the nearest whole number for the metronome mark. However, your specified value still affects the tempo 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 188

[Changing existing items](#) on page 265

## 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.

---

#### PROCEDURE

1. Select the absolute tempo marks whose metronome mark values you want to show as a range.
  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.

---

#### RELATED LINKS

[Changing the metronome mark value](#) on page 648

## 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.

---

### PROCEDURE

1. Select the relative tempo marks whose value you want to change.
  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.

## 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.

---

### PROCEDURE

1. Select the gradual tempo changes whose final tempo you want to change.
  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.

## 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** .....

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.

- **rit.:** Shows gradual tempo changes with text only.
- **rit...:** Shows gradual tempo changes with text and a continuation line.
- **rit-e-nu-to:** Shows gradual tempo changes with the text hyphenated and separated into syllables.

You can also show gradual tempo changes with different line styles.

RELATED LINKS

[Input methods for tempo marks](#) on page 188

[Changing the line style of gradual tempo changes](#) on page 651

[Changing the final tempo at the end of gradual tempo changes](#) on page 650

## 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.

---

PROCEDURE

1. Select the gradual tempo changes whose style you want to change.
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.

## 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.

---

PROCEDURE

1. Select the gradual tempo changes whose line style you want to change.
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.

## 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 ♩=♩ 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.

♩. = ♩

The image shows a tempo equation  $\text{♩.} = \text{♩}$  centered above two musical staves. The top staff is in treble clef, starting with a 6/8 time signature and changing to 3/4. The bottom staff is in bass clef, also starting with a 6/8 time signature and changing to 3/4. The notation illustrates how a dotted quarter note in 6/8 is equivalent in duration to a quarter note in 3/4.

RELATED LINKS  
[Input methods for tempo marks on page 188](#)

# Ties

A tie is a curved line that joins two notes of the same pitch. When multiple, adjacent notes are joined with a sequence of ties, that is known as a tie chain.

Each sequence of tie chains, whether they join two notes together 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

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 separate tied notes.

## RELATED LINKS

- [Tie chains](#) on page 655
- [Inputting notes](#) on page 143
- [Forcing the duration of notes/rests](#) on page 152
- [Inputting ties](#) on page 159
- [Splitting tie chains](#) on page 659
- [Time signatures](#) on page 663
- [Input methods for time signatures](#) on page 183
- [Beams according to time signatures](#) on page 422

## General placement conventions for ties

Ties join two noteheads together, meaning the ends of ties are positioned close to the noteheads to which they are attached.

Ties are curved lines, and the direction of the curve usually follows the stem direction of the notes. If notes are stem-up, ties curve downwards, and if notes are stem-down, ties curve upwards.

### NOTE

If there are multiple voices on the staff, all ties in up-stem voices curve upwards and all ties in down-stem voices curve downwards.

There are two main conventions for the placement of the ends of ties relative to noteheads. One convention is to place the ends of ties outside noteheads, meaning above or below them, ideally

positioned at the horizontal center of noteheads. The other convention is to place the ends of ties between noteheads, ideally positioned at the vertical center of noteheads.



A tie outside noteheads

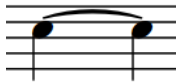


A tie between noteheads

For both conventions, Dorico Elements automatically positions the ends of ties as close as possible to the notes that they join while avoiding collisions with other notations.

The vertical placement of ties is also automatically adjusted in Dorico Elements so that neither of the end points of ties, nor the apex of tie curves, starts or ends on a staff line. If this happens, it can cause the shape of ties to appear distorted, which makes the music harder to read.

To avoid this, Dorico Elements changes the vertical position of ties slightly, and makes small changes to the curvature of ties. These changes are small, but the placement of ties is subtly different depending on the position of notes relative to staff lines.



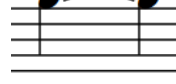
A tie outside noteheads



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.

Wherever possible, clef changes should not be positioned in the middle of tie chains. Changing the clef changes the position of the tied note on the staff, which could easily cause a performer to misread the tie as a slur and play two different notes.

Ties can look distorted when they are very short, and can be overlooked.

#### 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

[Ties vs. slurs](#) on page 655

[Inputting ties](#) on page 159

[General placement conventions for clefs](#) on page 445

## Tie chains

When notes are longer than the maximum duration of a bar in the prevailing time signature, ties can extend over multiple bars. In Dorico Elements, such ties are known as tie chains.

For example, if you input a note that is longer than a whole note in a 4/4 time signature, it becomes two or more notes tied together in a chain across multiple bars.

You can only select whole tie chains, and any changes to tie chains only affect the first tie in the chain.

### NOTE

Dorico Elements automatically adjusts tied notes in the following circumstances:

- If you change the pitch of a tied note, which includes adding or removing an accidental, the change is applied to all the notes that are tied together.
- If you add or remove an articulation, the articulation is added only to the start or the end of the tie chain as appropriate, for example, to the last note for an articulation of duration or to the first note for an articulation of force.

---

### Articulations relative to tie chains

The positions of articulations relative to tie chains depend on the type of articulation. You can change the positions of articulations relative to individual tie chains.

#### RELATED LINKS

[Positions of articulations](#) on page 398

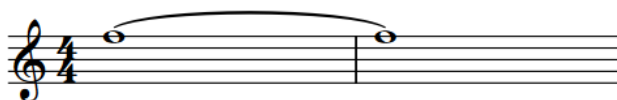
[Changing the positions of articulations on tied notes](#) on page 399

## 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.

Ties can be used in conjunction with articulation, but articulation on tied notes only affects the attack at the start of the tie chain and the release at the end of the tie chain.



Two long notes tied together

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.



A phrase with notes grouped together by slurs

## 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 breaks and page breaks

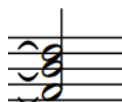
The ends of ties that cross system breaks are automatically positioned in Dorico Elements.

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 or 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 breaks and page breaks

The ends of ties for tied notes with accidentals across system breaks and page 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 time signature changes are 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. This can be useful when inputting ties between multiple notes before a chord, for example.



Notes leading into a chord notated as a series of tied chords



Notes leading into a chord notated as tied non-adjacent notes



Multiple grace notes before a chord with ties between non-adjacent notes

## Ties between different voices

You can input ties between notes of the same pitch in different voices.

## Ties between notes on different staves

You can input ties between notes of the same pitch in different staves.

## 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.

### RELATED LINKS

[Hiding/Showing \*laissez vibrer\* ties](#) on page 658

[Hiding/Showing or parenthesizing accidentals](#) on page 391

[Note spacing](#) on page 301

## Inputting ties between non-adjacent notes

You can manually input ties between notes of the same pitch that are not rhythmically adjacent. You can also input ties between notes of the same pitch in different voices and different staves.

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.

---

### PROCEDURE

1. In Write mode, select the two notes that you want to tie together.

**NOTE**

The second note must be the same pitch as the first note. If the second note is a different pitch to the first note, no tie is input.

---

2. Press T.
- 

**RESULT**

A tie is input between the two selected notes.

---

**EXAMPLE**



Spread chord with ties between all adjacent notes



Spread chord with ties between non-adjacent notes

---

**RELATED LINKS**

[Inputting ties](#) on page 159

## Hiding/Showing *laissez vibrer* ties

You can add *laissez vibrer* ties to any note.

---

**PROCEDURE**

1. Select the notes on which you want to add a *laissez vibrer* tie.
  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 assign a key command for **Toggle Laissez Vibrer Tie** on the **Key Commands** page in **Preferences**.

---

## 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. Press **U**.
- 

#### RESULT

All ties in the selected tie chains are deleted. Notes previously in the tie chain remain at their rhythmic positions.

#### RELATED LINKS

[Changing the duration of notes](#) on page 151

## 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.

---

#### PROCEDURE

1. In Write mode, select the tie chain you want to split.
  2. Press **Shift-N** or **Return** to start note input.
  3. Move the caret to where you want to split the tie chain.
    - Press **Right Arrow/Left Arrow** to move the caret to the right/left, according to the current rhythmic grid value.
    - Press **Space** to advance the caret to the next rhythmic position, according to the note value currently selected.
  4. Press **U** to split the tie chain.
  5. 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.
  6. Press **Esc** or **Return** to stop note input.
- 

#### RESULT

The tie chain is split at the caret position.

#### RELATED LINKS

[Moving the caret manually](#) on page 142

## 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.



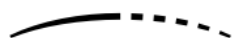
### Half-dashed start

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.



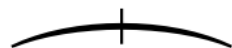
### Half-dashed end

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. By default, all ties are solid.

### NOTE

You can only select whole tie chains in Write mode. Any changes to tie chains in Write mode only affect the first tie in the tie chain.

---

### PROCEDURE

1. Select the ties whose style you want to change.

### NOTE

You can only select whole tie chains, and any changes to tie chains 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.

## Changing the size of dashes/dots in ties

You can change the size of the dashes/dots in dashed/dotted ties individually.

### NOTE

This only applies to dashed/dotted ties.

---

### PROCEDURE

1. Select the dashed/dotted ties whose dash/dot size you want to change.

### NOTE

You can only select whole tie chains, and any changes to tie chains 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.

## 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.

## Changing the curvature direction of ties

You can change the curvature direction of ties individually, including individual ties within tie chains.

---

### PROCEDURE

1. Select the ties whose curvature direction you want to change.

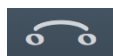
#### NOTE

You can only select whole tie chains, and any changes to tie chains 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.

---

# 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, and can be described using the same mathematical terms used for fractions: numerator on top, and denominator underneath.

The numerator specifies the number of multiples of the duration specified by the denominator. 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) and so on. Depending on your settings for time signature style, numerators and denominators can have different appearances.

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. Notes are beamed differently in different time signatures, again to make the meter clear and easily readable.

By default, time signatures apply to all staves. However, there are some situations, such as in polymetric music, that require some parts to have 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.

## NOTE

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.

## RELATED LINKS

[Time signature styles](#) on page 670

[Input methods for time signatures](#) on page 183

[Conventions for beam grouping according to meter](#) on page 433

[Time Signatures \(Meter\) panel](#) on page 185

[Creating custom beat groupings for meters](#) on page 434

## General conventions for time signatures

Over time, the placement and appearance of time signatures has developed conventions to ensure that their notation is always understood. Dorico Elements follows these conventions automatically.

### Appearance conventions

Time signatures should fill the height of the staff. There is a risk they may not be noticed if they are smaller. The size of time signatures on staves with fewer than five lines should be the same as that of a time signature on an equivalent five-line staff.



Time signature on a five-line staff



Time signature on a single-line staff

Time signatures use a unique, heavy font that ensures they stand out against staff lines, and are instantly recognizable.

For some types of music, particularly film music, it is typical to use large time signatures that span several staves.

### Placement conventions

Time signatures should be shown at the start of a piece and at the start of subsequent movements, if applicable, even if the music carries straight on. They should be placed after clefs and key signatures.

If time signature changes occur during a piece or movement, it should be placed immediately after a barline. Dorico Elements automatically inserts a barline before a time signature change if it occurs in the middle of an existing bar. However, Dorico Elements does not override your existing music by inserting extra beats, unless Insert mode is activated.



A 4/4 time signature interrupting a 5/8 time signature, input without Insert mode activated, leaving only three eighth note beats in the second 5/8 bar.

A time signature applies until the next time signature change, the end of the movement, or the end of a piece, whichever comes first.

#### RELATED LINKS

[Inputting notes in Insert mode](#) on page 147

[Large time signatures](#) on page 668

[Changing the size and position of time signatures](#) on page 669



## 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.



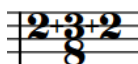
### Irregular

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.



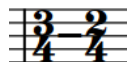
### Interchangeable

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 that are specified in the interchangeable time signature are hidden automatically.

They can have different separator styles in Dorico Elements, which you can set project-wide and also change individually.



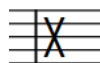
**Aggregate**

An aggregate time signature shows two or more meters within the same bar, such as 2/4+3/8+5/4. Dorico Elements automatically inputs dashed barlines to show the divisions between each meter.



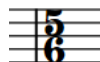
**Open**

An open time signature has no restrictions on meter, beaming, or beats. Any number of notes can be added, with any beaming. In Dorico Elements, an open time signature can be shown with an X or N, or without any signature.



**Non-power of two**

A non-power of two time signature is one such as 5/6, which indicates five sextuplet notes lasting for a whole note (semibreve). Examples of time signatures like this can be found in the music of Adès.



Some composers, such as Boulez, have written fractional time signatures. Dorico Elements does not currently support these.

RELATED LINKS

[Time signature styles](#) on page 670

[Large time signatures](#) on page 668

[Input methods for time signatures](#) on page 183

[Time signatures popover](#) on page 183

## Pick-up bars

Pick-up bars allow you to include music before the first full bar. They are also known as “upbeats” or “anacrusis”. Often, pick-up bars only comprise a few beats whose main purpose is to lead in to the start of the piece.

The image shows a musical score for Chopin's Mazurka Op. 30 No. 2. It is in 3/4 time and marked 'Vivace'. The score consists of two staves: a treble staff and a bass staff. The first bar is a pick-up bar containing a single quarter note in the treble staff and a quarter rest followed by a quarter note in the bass staff. The second bar is the first full bar, starting with a piano (p) dynamic and a triplet of eighth notes in the treble staff, and a triplet of eighth notes in the bass staff. The word 'Led.' is written below the bass line for the first two bars.

Pick-up bar of a single quarter note beat at the start of Chopin's Mazurka Op. 30 No. 2

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 and so you must input pick-up bars alongside a time signature. However, you can hide time signatures you do not want to show in the music.

### RELATED LINKS

[Input methods for time signatures](#) on page 183

[Hiding/Showing time signatures](#) on page 674

## 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.

### 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.
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, its 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

[Changing the design of time signatures](#) on page 675

[System objects](#) on page 632

[Changing the positions of system objects](#) on page 633

[Hiding bar numbers at time signatures shown at system object positions](#) on page 416

## 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, **Shift**-clicking adjacent layouts, and **Ctrl/Cmd**-clicking individual layouts.
3. Click **Time Signatures** in the page list.
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 668

[Positions of time signatures](#) on page 673

[Hiding bar numbers at time signatures shown at system object positions](#) on page 416

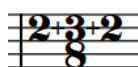
## Time signature styles

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.

The numerator is always one or more numbers, and can either show the total number of beats in the bar, or show how the total duration of the bar is subdivided.



Numerator in a 7/8 time signature shown as a single number



Numerator in a 7/8 time signature showing subdivisions

The denominator can appear as a number, as a note indicating the equivalent duration, or not appear at all.



Denominator shown as number



Denominator shown as notehead (beat length)



No denominator shown

If shown as a notehead, the denominator can either show the length of each beat in the bar, or the note duration for the bar. When showing the beat length, the numerator can also be changed. In the example, the numerator 6 in the 6/8 time signature becomes a 2 to reflect the two dotted quarter note beats that make up a 6/8 bar.



Denominator notehead showing the beat length of a 6/8 time signature



Denominator showing the note duration of a 6/8 time signature

#### RELATED LINKS

[Changing the design of time signatures](#) on page 675

[Changing the separator style of interchangeable time signatures](#) on page 672

[Changing the open meter style of time signatures](#) on page 671

## 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.

---

#### PROCEDURE

1. Select the time signatures whose numerator style you want to change.

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.

#### RELATED LINKS

[Time signature styles](#) on page 670

## Changing the denominator style of time signatures

You can change the denominator style of individual time signatures independently of your project-wide settings, for example, if you want to show the denominator as a note instead of a number.

---

#### PROCEDURE

1. Select the time signatures whose denominator style you want to change.
  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.

#### RELATED LINKS

[Time signature styles](#) on page 670

## Changing the open meter style of time signatures

You can change the open meter style of individual time signatures.

---



#### PROCEDURE

1. Select the open meter time signatures whose style you want to change.

#### NOTE

In the Properties panel, **Open style** in the **Time Signatures** group is automatically activated for open meter time signatures.

---

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.

RELATED LINKS

[Time signature styles](#) on page 670

## Changing the separator style of interchangeable time signatures

You can change the separator shown in interchangeable time signatures individually.

---

PROCEDURE

1. Select the interchangeable time signatures whose separator you want to change.

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.

NOTE

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.

---



RELATED LINKS

[Time signature styles](#) on page 670

## 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.

You can move time signatures to different rhythmic positions in Write mode. They move according to the current rhythmic grid value and 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 632

[Changing the positions of system objects](#) on page 633

[Changing the size and position of time signatures](#) on page 669

## Moving time signatures rhythmically

You can move time signatures to new rhythmic positions after they have been input.

### NOTE

- You can only move time signatures rhythmically using the keyboard.
- Time signatures can only be moved along staves. If you want to move a time signature across staves, you must delete the time signature and input a new time signature on the other staff.

---

### PROCEDURE

1. In Write mode, select the time signatures you want to move.
2. Move the time signatures according to the current rhythmic grid value in any of the following ways:
  - Press **Alt-Right Arrow** to move them to the right.
  - Press **Alt-Left Arrow** to move them to the left.

---

### RESULT

The time signature takes effect from its new position until the next existing time signature, or the end of the flow. Barlines are automatically updated either side of the time signature up to the previous/next existing time signature, or the start/end of the flow.

### NOTE

Only one time signature can exist at each rhythmic position, except for time signatures that only apply to single staves. If a time signature moves to the exact rhythmic position of another time signature as part of its move, the existing time signature is deleted.

You can undo this action which restores any time signatures deleted in the process.

---

## 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.

---

### PROCEDURE

1. Select the time signatures you want to hide/show.
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 positions of each time signature so you can always find them again. 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**. Time signature signposts are shown when a tick appears beside **Time Signatures** in the menu, and hidden when no tick appears.  
  
You can choose to print time signature signposts if you activate **View options** in the **Annotations** section of the Print Options panel on the right of the window in Print mode.
- You can assign a key command for **Hide/Show Item** on the **Key Commands** page in **Preferences**, which applies to chord symbols, playing techniques, and time signatures.

---

### RELATED LINKS

[Note spacing](#) on page 301

## Deleting time signatures

You can delete time signatures without affecting the relative rhythmic positions of notes.

---

### PROCEDURE

1. In Write mode, select one of the following:
  - The time signatures you want to delete.
  - The signposts of hidden time signatures you want to delete.
2. Press **Backspace** or **Delete**.

---

### RESULT

The time signatures are deleted from the score. Bars after their previous positions are re-barred according to the previous time signature in the score, up until the next time signature or the end of the flow.

If you delete the only time signature in the flow, your music appears in an open meter, but with all the same rhythmic values.

---

### RELATED LINKS

[Types of time signatures](#) on page 665

## 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.

---

### 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, **Shift**-clicking adjacent layouts, and **Ctrl/Cmd**-clicking individual layouts.
3. Click **Time Signatures** in the page list.
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

[Time signature styles](#) on page 670

# 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.



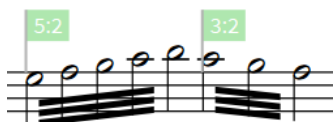
## Multi-note tremolos

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.



## Tuplet tremolos

Multiple notes in triplets are repeated in the notated sequence.



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 243

## Tremolos in tie chains

By default, all notes in tie chains are shown with tremolo strokes when single-note tremolos are added to tie chains. Deleting tremolo strokes from tied notes removes tremolo strokes from all notes in tie chains.

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.

## 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.

Tremolo strokes should not collide with ledger lines or stem flags. Dorico Elements automatically positions tremolo strokes to ensure such collisions are avoided.

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.

## Changing the speed of tremolos

You can change the speed of tremolos after they have been input by changing the number of strokes.

---

### 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.



**Two Strokes Single-note Tremolo**



**Three Strokes Multi-note Tremolo**

---

### RESULT

The number of tremolo strokes on the selected notes is changed, which changes the speed of the tremolos.

## 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. Click the appropriate buttons in the **Tremolos** section of the Repeat Structures panel for the types of tremolos selected:

- **Remove Single-note tremolo**



- **Remove Multi-note tremolo**



---

### RESULT

The corresponding types of tremolo strokes are deleted.

EXAMPLE



Notes with single-note tremolos and multi-note tremolo



Notes with multi-note tremolo deleted but single-note tremolos remain



Notes with both multi-note tremolo and single-note tremolos deleted

---

## 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.

### NOTE

You can undo moving tremolos immediately, which restores any multi-note tremolo strokes deleted in the process.

---

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.

---

### RELATED LINKS

[Moving notes rhythmically](#) on page 516

# 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.



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



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

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.

In the examples, the triplet quarter notes are shown under a bracket with the number 3. The duplet eighth notes do not need a bracket as they are joined by a beam, which has a number 2 above it.

Tuplets in Dorico Elements can be shown with just a tuplet bracket, with a tuplet bracket and a tuplet number/ratio, or with a tuplet bracket, a tuplet number/ratio, and a note indicating the note value of the tuplet.

## RELATED LINKS

[Inputting tuplets](#) on page 162

[Tuplet numbers/ratios](#) on page 687

## General placement conventions for tuplets

Tuplet brackets and tuplet numbers/ratios are generally placed on the stem side of notes. When tuplets are shown with a tuplet beam, a tuplet bracket is not always necessary but can be shown in addition to a tuplet number/ratio.

According to convention, tuplet brackets and tuplet numbers/ratios are always placed above the staff for vocal staves, so they do not come between notes and lyrics.

Tuplet brackets should be placed as close to notes as possible without colliding with other notation, such as slurs or articulation. Slurs are usually placed inside tuplet brackets if the slur is shorter than the tuplet bracket. If a slur is longer than a tuplet bracket, the slur can be placed outside the tuplet bracket.



The horizontal position of tuplet brackets should allow it to be immediately obvious which notes are included in the bracket. They should not extend so far that notes following the tuplet appear to be included.



A tuplet clearly showing the three quarter notes included in the triplet.



With an extended tuplet bracket, the duration of the triplet is now unclear.

## 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 in new, empty staves and you can select existing tuplets and input nested tuplets within them.

### PROCEDURE

1. In Write mode, start note input.
2. Press **;** to open the tuplets popover.
3. Optional: If inputting nested tuplets in an empty staff, enter the ratio for the outer tuplet into the popover. For example, enter 3:2.
4. Optional: Press **Return** to close the popover and enter the outer tuplet.

### NOTE

You can skip steps 3 and 4 if you are inputting nested tuplets into existing tuplets.

---

5. Press **;** to open the tuplets popover again.
  6. Enter the ratio for the inner tuplet into the popover. For example, enter 5:4.
  7. Press **Return** to close the popover and enter the inner tuplet.
  8. Enter or play in the pitches you want.
  9. Stop inputting nested tuplets in one of the following ways:
    - Press **Shift-;** once to stop the inner tuplet and continue inputting the outer tuplet.
    - Press **Shift-;** twice to stop both tuplets and return to inputting normal notes.
    - Press **Esc** to stop note input completely.
    - Move the caret with the arrow keys to return to inputting normal notes.
- 

### RESULT

The pitches you enter or play in 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 triplets by clicking **Tuplets** in the Notes toolbox when the caret is within an existing tuplet. However, you can only input one nested triplet at a time this way.

---

## Notations on tuplet notes

You can add notations such as accidentals, articulations, and slurs to tuplets in the same ways as they can be added to normal notes.

Articulations are positioned between noteheads or stems and tuplet brackets, so they are closer to the notes than tuplet brackets or tuplet numbers/ratios.

#### RELATED LINKS

[Inputting accidentals](#) on page 155

[Inputting articulations](#) on page 175

[Inputting slurs](#) on page 255

## 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 you want to turn into tuplets.
  2. Press **;** to open the tuplets popover.  
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.

#### RELATED LINKS

[Tuplets popover](#) on page 163

## Turning tuplets into normal notes

You can turn any existing tuplets 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 tuplet brackets or tuplet numbers/ratios of the tuplets you want to turn into normal notes.

#### NOTE

You must not select any of the noteheads in the tuplets.

2. Optional: If you want to retain all notes in the selected tuplets, press **I** to activate Insert mode.
3. Press **Backspace** or **Delete**.

---

### RESULT

All notes in the selected 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.

## Moving tuplets rhythmically

You can move tuplets to different rhythmic positions after they have been input.

---

### PROCEDURE

1. In Write mode, select the tuplets you want to move.

#### NOTE

A tuplet number/ratio or bracket must be included in the selection if you want the notes to stay a tuplet. If a tuplet number/ratio or tuplet bracket is not selected, the notes become normal notes of their rhythmic value when you move them beyond the position of the tuplet.

2. Move the selected tuplets in any of the following ways:
  - Press **Alt-Right Arrow** to move them to the right.
  - Press **Alt-Left Arrow** to move them to the left.

#### NOTE

You cannot move tuplets rhythmically using the mouse.

---

### RESULT

The selected tuplets move to the right/left along the staff according to the current rhythmic grid value.

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.

#### NOTE

- If any of your selected notes collide with other notes in the same staff and at the same rhythmic position that are in the same voice as your selected notes, the existing notes are deleted and replaced with your selected notes.

You can undo moving notes immediately afterward, which restores any notes deleted in the process.

- 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.
- 

#### EXAMPLE



## Deleting tuplets

You can delete tuplets, including all the tuplet notes, but you can also delete tuplet brackets and numbers/ratios without deleting the corresponding notes.

---

#### PROCEDURE

1. In Write mode, select the tuplets you want to delete.

#### TIP

To delete an entire tuplet and all the notes within it, select all the noteheads and the corresponding tuplet bracket or tuplet number/ratio.

---

2. Press **Backspace** or **Delete**.
- 

#### RESULT

The selected tuplets are deleted.

- Selecting just the notes deletes the notes, but does not delete the tuplet.
  - Selecting just the tuplet bracket or tuplet number/ratio deletes the tuplet, and the notes that were previously within the tuplet are retained with the same notated duration. For example, deleting the bracket from triplet quarter notes leaves the notes previously in the triplet as three quarter notes.
- 

#### NOTE

This overrides existing notes immediately after the tuplet. However, if Insert mode is activated, any subsequent existing notes are pushed to later rhythmic positions to accommodate the extra rhythmic durations required.

---

#### RELATED LINKS

[Turning tuplets into normal notes](#) on page 683

## 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.

### RELATED LINKS

[Beaming](#) on page 421

[Tuplets within beams](#) on page 431

[Beaming notes together manually](#) on page 421

[Unbeaming notes](#) on page 422

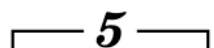
[Splitting beam groups](#) on page 423

[Changing the direction of partial beams](#) on page 422

[Changing beam slants](#) on page 425

## 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.



Tuplet bracket with tuplet number shown

## Hiding/Showing tuplet brackets

You can hide/show tuplet brackets independently of tuplet numbers/ratios.

---

### PROCEDURE

1. Select the tuplet brackets you want to hide/show.
2. In the Properties panel, activate **Bracket** in the **Tuplets** group.
3. Choose one of the following options:

- **Hidden**



- **Shown**



---

## Changing the placement of tuplet brackets relative to the staff

You can change the placement of individual tuplet brackets and tuplet numbers/ratios relative to the staff.




---

### PROCEDURE

1. Select the tuplet brackets and tuplet numbers/ratios whose staff-relative placement you want to change.
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.

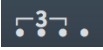
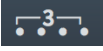

Deactivating **Placement** returns the selected tuplets to their default placement.

## Changing the rhythmic end positions of tuplet brackets

You can change the rhythmic end positions of tuplet brackets relative to individual notes individually.

---

#### PROCEDURE

1. Select the tuplet brackets whose end positions you want to change.
  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.

Deactivating the property returns the selected tuplets to your default settings.

## Forcing tuplet brackets to be horizontal

You can change the angle of individual tuplet brackets so that they appear horizontal.

---

#### PROCEDURE

1. Select the tuplet brackets whose angle you want to change.
  2. In the Properties panel, activate **Force horizontal** in the **Tuplets** group.
- 

#### RESULT

The selected tuplet brackets appear horizontal when the property is activated. When the property is deactivated, the selected tuplet brackets follow your project-wide setting for angled tuplet brackets.

## 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 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.

## Changing the tuplet number/ratio type

You can change which type of tuplet number/ratio is shown for individual tuplets.

---

### PROCEDURE

1. Select the tuplet brackets of the tuplets whose type of tuplet number/ratio you want to change.

#### NOTE

The **Tuplets** group of the Properties panel is only shown if you select tuplet brackets. It is not shown if you select notes within the tuplet, or notes within the tuplet and the tuplet bracket.

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.

Deactivating **Number** returns the selected tuplets to the default setting.

### RELATED LINKS

[Tuplet numbers/ratios](#) on page 687

## Changing the position of tuplet numbers/ratios

You can change the horizontal positions of tuplet numbers and ratios in individual tuplet brackets.

---

### PROCEDURE

1. Select the tuplet brackets whose tuplet number/ratio positions you want to change.
  2. In the Properties panel, activate **Center** in the **Tuplets** group.
  3. Choose one of the following options:
    - **Visual**  
Positions tuplet numbers/ratios at the visual center of the tuplet beam or tuplet bracket.
    - **Rhythmic**  
Positions tuplet numbers/ratios at the rhythmic center of the tuplet beam or tuplet bracket, which might be visually off-center.
- 

### RESULT

The position of the tuplet numbers/ratios for the selected tuplets is changed.

Deactivating the property returns tuplets to your project-wide setting.

### RELATED LINKS

[Tuplet brackets](#) on page 685



# 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.

The different percussion kit presentation types in Dorico Elements are layout-specific, meaning you can present percussion kits in different ways in different layouts. For example, you could present a percussion kit as a five-line staff in the full score layout but with single-line instruments in the percussion part layout.

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](#) on page 690

[Percussion kit presentation types](#) on page 694

[Staff labels for percussion kits](#) on page 623

[Defining percussion kits as drum sets](#) on page 108

[Inputting notes in percussion kits](#) on page 147

[Playing techniques for unpitched percussion instruments](#) on page 696

## 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 labelling of instruments.

If instrument changes are enabled on the **Players** page in **Setup > 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.

---

## Percussion kits

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.

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.

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

[Percussion kit presentation types](#) on page 694

[Staff labels for percussion kits](#) on page 623

[Edit Percussion Kit dialog](#) on page 105

[Combining individual percussion instruments into kits](#) on page 103

[Defining percussion kits as drum sets](#) on page 108

[Adding instruments to percussion kits](#) on page 107

[Removing individual instruments from percussion kits](#) on page 111

[Moving instruments between players](#) on page 104

## Exporting percussion kits

You can export percussion kits as library files. This allows you to use kits again without having to create them from scratch.

---

#### PROCEDURE

1. In the **Players** panel in Setup mode, expand the card of the player whose percussion kit you want to export.
2. Click the arrow that appears in the kit instrument label when you hover over it 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 library file.

#### NOTE

You can later import the library file into other projects to reuse the percussion kit.

---

## Importing percussion kits


You can import library files containing percussion kits, which allows you to use kits again without having to create them from scratch.

#### PREREQUISITE

You have added a new solo player in the **Players** panel in Setup mode.

---

#### PROCEDURE

1. In Setup mode, open the instrument picker for your empty solo player in any of the following ways:
    - Select the empty player and press **Shift-I**.
    - Click the plus symbol in the empty player card.  

    - Right-click the empty player and choose **Add Instrument to Player** from the context menu.
  2. Click **Import Kit** in the instrument picker to open the File Explorer/macOS Finder.
  3. In the File Explorer/macOS Finder, locate and select the percussion kit library file you want to import.
  4. Click **Open**.
- 

#### RESULT

The selected library file is imported as a percussion kit. It is assigned to the player from whose card you opened the instrument picker.

## Changing the playing techniques of notes on percussion kit staves

For notes on percussion kit staves that use playing technique-specific noteheads to indicate different playing techniques, you can change their playing techniques after they have been input by cycling through the available playing technique-specific noteheads.

#### NOTE

This only applies to changing playing technique-specific noteheads.

---

#### PREREQUISITE

The percussion kit 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.

#### NOTE

The current playing technique is shown above the rhythmic grid if you select a single note. It is not shown if you select multiple notes.

---

2. Cycle through the available playing techniques for the selected instruments in any of the following ways:
    - Press **Shift-Alt-Up Arrow** to cycle upwards.
    - Press **Shift-Alt-Down Arrow** to cycle downwards.
- 

#### RESULT

The playing techniques of the selected notes are changed. Their notehead design and/or position might be changed.

#### RELATED LINKS

[Percussion Instrument Playing Techniques dialog](#) on page 697

[Inputting notes in percussion kits](#) on page 147

[Defining how combinations of articulations and single-note tremolos sound in playback](#) on page 367

[Playing techniques](#) on page 557

## Showing notes in percussion instruments as ghost notes

You can show notes in percussion instruments as ghost notes. Ghost notes are shown in parentheses.

---

#### PROCEDURE

1. Select the unpitched percussion notes that you want to show as ghost notes.
  2. In the Properties panel, activate **Ghost note** in the **Notes and Rests** group.
- 

#### RESULT

The noteheads of the selected notes are shown in parentheses.

## 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, except in layouts using the single-line instruments kit presentation type.

In layouts using the single-line instruments kit presentation type, you can instead cross notes to other staves to create cross-staff beams.

---

#### 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:
    - Press **Alt-Up Arrow** to move them to the instrument above.
    - Press **Alt-Down Arrow** to move them to the instrument below.
-

#### 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 105

[Changing the positions of instruments within percussion kits](#) on page 110

[Percussion kit presentation types](#) on page 694

[Changing the presentation type of percussion kits](#) on page 695

[Creating cross-staff beams](#) on page 427

## 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 step input and add them later to existing notes in the same ways as for other instruments. You can use the

playing techniques popover or click any of the playing techniques in the Playing Techniques panel in Write mode.

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 175

[Inputting tuplets](#) on page 162

[Changing the pitch of individual notes](#) on page 167

[Input methods for playing techniques and pedal lines](#) on page 229

[Inputting lyrics](#) on page 236

## 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 200

## 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.

The image displays three musical notation examples for percussion kits:

- 5-line staff presentation:** A single five-line staff with a label 'Percussion' on the left. The staff contains notes for Triangle, Clash Cymbal, Snare Drum, and Bass Drum.
- Grid presentation:** A grid with four horizontal lines. The labels 'Triangle', 'Clash Cymbal', 'Snare Drum', and 'Bass Drum' are listed vertically on the left, each aligned with its respective line. Notes are placed on these lines.
- Single-line instruments presentation:** Four separate horizontal lines, each with a label on the left: 'Triangle', 'Clash Cymbal', 'Snare Drum', and 'Bass Drum'. Each line contains notes for that specific instrument.

Multiple instruments held by the same player are vertically spaced according to the ideal gaps defined on the **Vertical Spacing** page in **Setup > Layout Options**.

#### RELATED LINKS

[Edit Percussion Kit dialog](#) on page 105

[Changing the presentation type of percussion kits](#) on page 695

[Staff labels for percussion kits](#) on page 623

[Overriding the appearance of playing technique-specific noteheads](#) on page 700

[Override Percussion Noteheads dialog](#) on page 698

## Changing the presentation type of percussion kits

You can change the presentation type of percussion kits in each layout independently of other layouts 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, **Shift**-clicking adjacent layouts, and **Ctrl/Cmd**-clicking individual layouts.
  3. Click **Players** in the page list.
  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.

#### RELATED LINKS

[Percussion kit presentation types](#) on page 694

## Playing techniques for unpitched percussion instruments

As well as using normal playing techniques on notes in percussion kits, you can use the design and position of noteheads to indicate different playing techniques for unpitched percussion instruments and percussion kits.

You can indicate playing techniques for unpitched percussion instruments in any of the following ways:

- Use playing technique-specific noteheads
- Position notes in spaces directly above/below the line on which notes are normally written
- 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 using the playing techniques popover, or by clicking the playing techniques you want in the Playing Techniques panel.

You can edit the set of playing technique-specific noteheads defined for each percussion instrument in the **Percussion Instrument Playing Techniques** dialog.

#### RELATED LINKS

[Edit Percussion Kit dialog](#) on page 105

[Defining how combinations of articulations and single-note tremolos sound in playback](#) on page 367

[Exporting percussion kits](#) on page 690

[Importing percussion kits](#) on page 691

[Input methods for playing techniques and pedal lines](#) on page 229

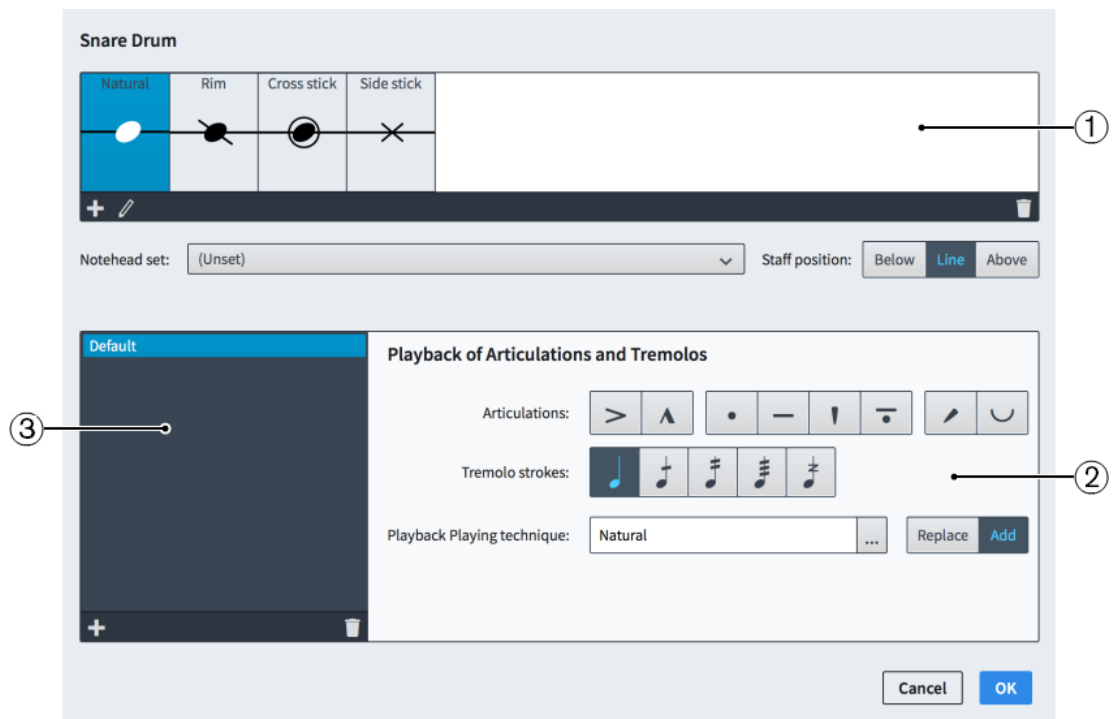


## Percussion Instrument Playing Techniques dialog

The **Percussion Instrument Playing Techniques** dialog allows you to edit the set of playing technique-specific noteheads defined for each 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, expand the card of the player holding the instrument, click the arrow 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 arrow in the kit instrument label, and choose **Edit Percussion Kit** to open the **Edit Percussion Kit** dialog, select the instrument whose playing techniques you want to edit in the main editing area, and click **Edit Percussion Playing Techniques**.



Percussion Instrument Playing Techniques dialog

### 1 List of playing technique-specific noteheads

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

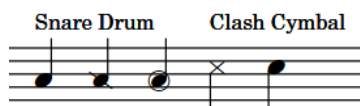
Allows you to define how combinations of articulations and tremolo strokes affect or override the playback of playing techniques.

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

[Creating new playing technique-specific noteheads for unpitched percussion instruments](#) on page 699

[Overriding the appearance of playing technique-specific noteheads](#) on page 700

[Defining how combinations of articulations and single-note tremolos sound in playback](#) on page 367

[Exporting percussion kits](#) on page 690

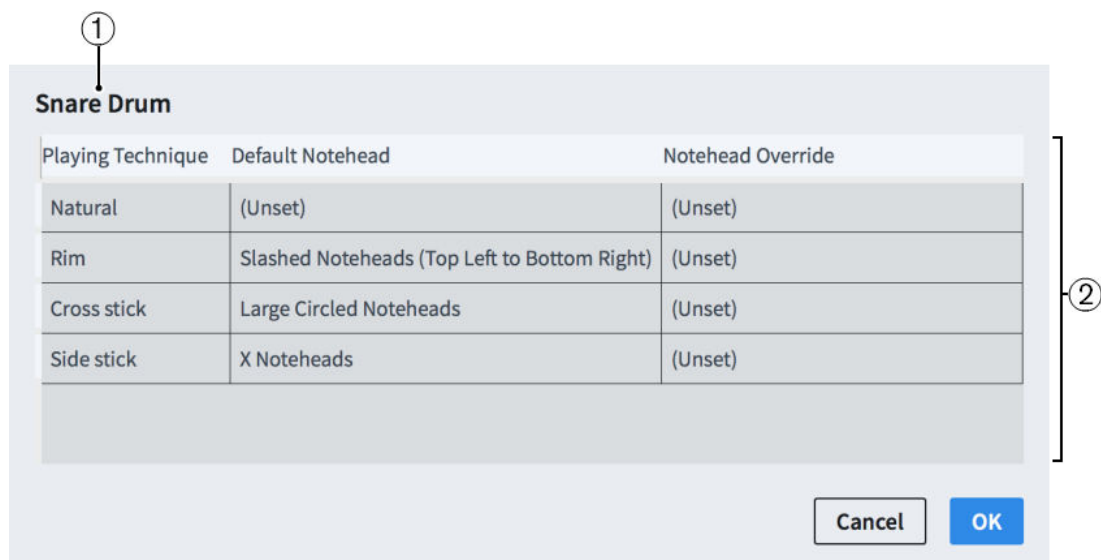
[Importing percussion kits](#) on page 691

## 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**.



**Override Percussion Noteheads** dialog for a snare drum

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 700

[Percussion kit presentation types](#) on page 694


## Creating new playing technique-specific noteheads for unpitched percussion instruments

You can define new playing technique-specific noteheads for unpitched percussion instruments individually, 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, expand the card of the player holding the instrument, click the arrow 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 arrow in the kit instrument label, and choose **Edit Percussion Kit** to open the **Edit Percussion Kit** dialog, select the instrument whose playing techniques you want to edit in the main editing area, and click **Edit Percussion Playing Techniques**.
2. Click **Add Playing Technique**.  

  3. Select the playing technique you want to create in the dialog that opens.
  4. Click **OK** to add the selected playing technique to the list of playing technique-specific noteheads.
  5. Select the notehead you want for the playing technique from the **Notehead set** menu.
- NOTE**
- Leave **Notehead set** as **(Unset)** to use the default notehead set.
- 
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

[Input methods for playing techniques and pedal lines](#) on page 229

[Defining how combinations of articulations and single-note tremolos sound in playback](#) on page 367

## 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 the **Players** panel in Setup mode, expand the card of the player holding the kit whose playing technique-specific noteheads you want to override.
  2. Click the arrow that appears in the kit instrument label when you hover over it 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

[Override Percussion Noteheads dialog](#) on page 698

[Defining how combinations of articulations and single-note tremolos sound in playback](#) on page 367

## 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.

You can change the placement and appearance of percussion legends individually using properties in the **Percussion Legends** group of the Properties panel.

Percussion legends appear as signposts if there are no instruments sounding at their position, or in layouts using the grid presentation type. Percussion legends do not appear at all in layouts using the single-line instrument presentation type.

#### TIP

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

[Staff labels for percussion kits](#) on page 623

## 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.

---

#### 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 > Percussion > Legend for All Instruments**.
  - Choose **Edit > Percussion > Legend for Sounding Instruments**.

**TIP**

You can also choose these options from the context menu.

---

**RESULT**

A percussion legend is added above the staff. 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.

## 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 value:
  - To move the whole range to the right, press **Alt-Right Arrow**.
  - To move the whole range to the left, press **Alt-Left Arrow**.
  - To lengthen the range, press **Shift-Alt-Right Arrow**.
  - To shorten the range, press **Shift-Alt-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 value.

The instruments included in the percussion legend are automatically updated to reflect the instruments playing within the range.

## 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.

---

**PROCEDURE**

1. Select the percussion legends whose type you want to change.
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.

## 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.

---

PROCEDURE

1. Select the percussion legends whose instrument name lengths you want to change.
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 623

## Changing the placement of percussion legends relative to the staff

By default, percussion legends are shown above the staff but you can change their placement so they are shown below the staff.

---

PROCEDURE

1. Select the percussion legends whose staff-relative placement you want to change.
2. In the Properties panel, activate **Placement** in the **Percussion Legends** group.
3. Choose one of the following options:
  - **Above**
  - **Below**

---

RESULT

The selected percussion legends appear above/below the staff.

Deactivating **Placement** returns the selected percussion legends to their default staff-relative placement.

## 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.

You can override this option for individual percussion kits, and for individual notes in percussion kits.

Notes in the same voice cannot be notated using different durations and are notated using ties by default instead.

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

[Notations on notes in percussion kits](#) on page 693

[Defining percussion kits as drum sets](#) on page 108

[Adding slash voices to percussion kits](#) on page 712

## 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.
2. Choose **Edit > Percussion > Change Voice > [Voice]**.  
For example, to change notes to the second down-stem voice, choose **Edit > 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 > Percussion > Change Voice > Reset Note Destination Voice**. You can also choose this option from the context menu.



---

## 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 the **Players** panel in Setup mode, expand the card of the player holding the kit whose instrument stem directions and voices you want to specify.
2. Click the arrow that appears in the kit instrument label when you hover over it 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.

## Unpitched percussion in Play mode

Unpitched percussion instruments are handled differently in Play mode than pitched instruments. Instead of showing the usual piano roll view, the onset of each note on each percussion instrument is shown in the drum editor.

You can expand each instrument in a kit at the left end of the track header in order to assign that particular instrument to another playback endpoint. For example, you can assign instruments to another channel on the same VST instrument or MIDI output device, or to a different device.

**NOTE**

The endpoint must have an appropriate selected percussion map.

---

Notes can be moved in Play mode by dragging them to the rhythmic position you want. However, like other instruments, you cannot move notes between percussion instruments, even if they are in the same percussion kit.

**NOTE**

You cannot change the duration of unpitched percussion notes within Play mode. This is planned for future versions.

---

**RELATED LINKS**

[Percussion maps](#) on page 362

[Drum editor](#) on page 314

[Inputting notes in the event display](#) on page 315

[Moving notes in the event display](#) on page 316

## Unpitched percussion imported from MIDI files

When importing MIDI files, Dorico Elements optionally interprets music for tracks set to use channel 10 as drum sets if **Interpret channel 10 as General MIDI percussion** is activated in the **MIDI Import Options** dialog.

**NOTE**

The **MIDI Import Options** dialog opens automatically when you open MIDI files in Dorico Elements.

---

This is the only condition under which Dorico Elements interprets any music in MIDI files as percussion.

## 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 correctly 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 105

[Changing instruments in percussion kits](#) on page 107

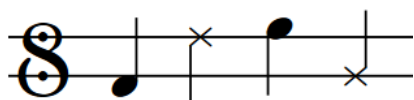
[Adding instruments to percussion kits](#) on page 107

## 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.

An Indian drum clef is automatically added to the staff when you add tabla instruments to players.



You can input Indian drum clefs by clicking **Indian drum clef** in the **Uncommon Clefs** section of the Clefs panel.

### RELATED LINKS

[Adding instruments to players](#) on page 101

[Input methods for clefs and octave lines](#) on page 211

# 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.

The most 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, you can create as many voices as you like on each 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: instead of showing two identical rests, only one is shown.

## RELATED LINKS

[Inputting notes into multiple voices](#) on page 153

[Showing voice colors](#) on page 708

[Adding notes above/below existing notes](#) on page 165

[Stem direction](#) on page 636

[Implicit rests in multiple-voice contexts](#) on page 601

[Moving rests vertically](#) on page 605

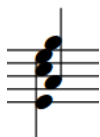
## Note positions in multiple-voice contexts

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.

When there are three or more voices in a single staff, 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.

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.

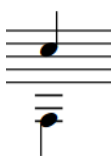


Dorico Elements positions notes by default with the noteheads partially overlapping, in order to minimize the horizontal space they occupy and to maintain the clarity of the rhythm.

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. The voice column for some voices automatically changes as more voices are added, as 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.



One voice



Two voices vertically aligned



Three voices all still vertically aligned



Four voices with two voice columns



Five voices with two voice columns

#### RELATED LINKS

[Slashes in multiple-voice contexts](#) on page 592

[Stem direction](#) on page 636

[Implicit rests in multiple-voice contexts](#) on page 601

## Showing voice colors

You can show notes in different colors according to their voice, for example, to check which notes are in which voice.

---

#### PROCEDURE

- Choose **View > Note and Rest Colors > Voice Colors**.

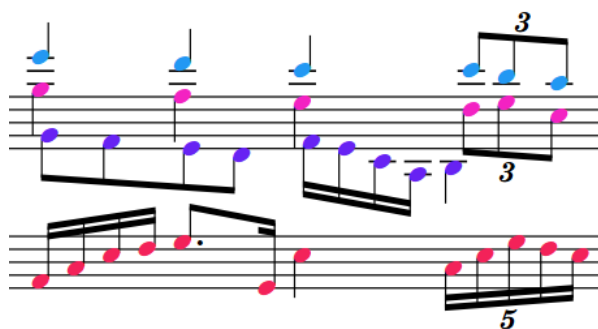
---

#### RESULT

Voice colors are shown when a tick appears beside **Voice Colors** in the menu, and hidden when no tick appears.

When voice colors are shown, noteheads appear with colors according to their voice. Colors are randomly assigned, meaning colors do not refer to specific voices.

EXAMPLE



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

[Changing the voice of existing notes](#) on page 272

[Swapping the contents of voices](#) on page 272

[Stem direction](#) on page 636

## 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.

RELATED LINKS

[Inputting notes into multiple voices](#) on page 153

## 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.

---

PROCEDURE

1. Select the notes whose order you want to change.
  2. Choose **Edit > Voices > Swap Voice Order**. You can also choose this option from the context menu.
- 

RESULT

The voice order of the selected notes is changed.

## NOTE

If you swap the contents of these notes again, their positions might not appear as expected as this does not revert their voice order.

## 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 636

[Implicit rests in multiple-voice contexts](#) on page 601

## Voice column index

The voice column index is used to determine the positions of notes when multiple columns are needed, for example, when notes are in multiple voices and cannot be placed directly above each other vertically, and instead must partially overlap.

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.

## NOTE

This property is available in Engrave mode in Dorico Pro only.

## 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

[Moving notes to other staves](#) on page 271

[Changing the voice of existing notes](#) on page 272

[Creating cross-staff beams](#) on page 427

[Changing the stem direction of notes](#) on page 638

[Stem direction](#) on page 636

## 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 591

[Slash regions](#) on page 591

[Slashes in multiple-voice contexts](#) on page 592

[Changing the voice of existing notes](#) on page 272

[Changing the default stem direction of voices](#) on page 639

[Changing the staff position of rhythm slashes](#) on page 593

## 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.
2. Choose **Edit > Voices > Rhythmic Slashes > [Voice type]**.  
For example, to change a whole normal voice to a stemless slash voice, choose **Edit > 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

[Changing the voice of existing notes](#) on page 272

## 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 the **Players** panel in Setup mode, expand the card of the player holding the percussion kit to which you want to add slash voices.
2. Click the arrow that appears in the kit instrument label when you hover over it 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





4. Optional: Repeat step 3 as many times as required for the number of slash voices you want to add.
- 

#### RESULT

The slash voices are added to the kit. They are positioned on the middle line of the staff by default.

In 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 the slash voices you added to the kit.

#### RELATED LINKS

[Percussion kits](#) on page 690

[Percussion kit presentation types](#) on page 694

[Voices in percussion kits](#) on page 703

[Edit Percussion Kit dialog](#) on page 105

[Inputting notes in percussion kits](#) on page 147

[Changing the positions of instruments within percussion kits](#) on page 110

# Glossary

## A

### **action**

The mechanism inside pianos that allows the 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”.

### **anacrusis**

See [pick-up bar](#).

### **articulation**

(1) In music notation, symbols that indicate how a note should be played, typically affecting their onset (attack), release, or duration. (2) In sample 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 pointer are related but serve different purposes. See also [rhythmic grid](#), [note input](#).

### **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 “courtesy accidentals”.

**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](#).

**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](#).

**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 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](#).

**D****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](#).

**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 semitones or half-steps. Music that uses equal quarter tones uses 24-EDO.

**endpoint**

The unique combination of inputs and outputs that together allow the correct sounds to be played for each instrument.

**Engrave mode**

A workspace in Dorico Pro that allows you to make fine graphical adjustments and to adjust the page layout and the format of the system. 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.

**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 [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](#).

**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](#).

**frame**

A rectangular container for music, text, or graphics on a page.

**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, for example, piccolo, to the lowest string instrument at the

bottom of the page, for example, 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 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.

### **group**

A collection of players that comprises either a subset of the main ensemble, for example, a choir within an orchestra, or a separate group, for example, 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](#).

## 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.

### **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 [explicit rest](#).

**Insert mode**

A way of changing how notes are input. When Insert mode is activated, new notes push all the music that follows after the caret 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.

**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](#).

**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”.

**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](#).

**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](#).

**minor key**

A key signatures based on a minor scale, which have a different pattern of intervals to major scales. 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# 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.

**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.

**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****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. See also [caret](#), [chord input](#), [Insert mode](#).

**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 current time signature and how it relates to the player's existing material.

**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.

**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](#).

**patch**

An older term for a discrete sound on a MIDI device or virtual instrument. See also [channel](#), [MIDI](#).

**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.

**player**

A musician who plays one or more instruments. Players are defined as either solo players or section players and are assigned to flows and layouts. See also [solo player](#), [section player](#), [flow](#), [layout](#).

**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 workspace that allows you to assign VST instruments, to adjust the mix, to apply automation, and to tweak note data. 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.

**pointer**

The symbol on the computer screen that follows movements made by the user with a mouse or on a touchpad. It is most commonly an arrow pointing towards the top left corner of the screen.

**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 and so you cannot select any items included in it.

**Print mode**

A workspace that allows you to print to your printer, export to PDF, and export to other graphics files. 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. Many properties are layout-specific, meaning changing the properties of an item in one layout does not affect the same item in other layouts.

**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](#).

**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](#), [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](#).

**Setup mode**

A workspace that allows you to add players, to assign instruments to those players, to create flows, and to assign players and flows to layouts. See also [modes](#).

**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.

**solo player**

An individual musician who can play one or more instruments, for example, a flute doubling piccolo. See also [player](#).

**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 $\sharp$ . 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 break**

The forced termination of a system of music at a particular rhythmic position, typically at a barline. Indicated in Dorico Elements with signposts.

**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****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](#).

**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.

**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 workspace that allows you to input music and other notations. See also [modes](#).

# Index

## A

- abbreviated tempo text [643](#)
- absolute tempo changes [642](#)
  - components [646](#)
- Academico font [294](#)
- accelerando [650](#)
  - inputting [188](#), [192](#)
  - trills [529](#)
- accents [396](#)
  - inputting [175](#)
- acciaccaturas [479](#)
  - inputting [160](#)
- accidental duration rules [394](#)
  - common practice [394](#)
- accidental spelling [157](#)
  - changing [156](#)
- accidentals [390](#)
  - altered unisons, *See* altered unisons
  - appearance [391](#)
  - cancellation [394](#)
  - cautionary [394](#)
  - changing [157](#)
  - chord symbols [442](#)
  - chords [392](#)
  - collision avoidance [391](#), [392](#)
  - deleting [390](#)
  - duration rules, *See* accidental duration rules
  - enharmonic equivalents [156](#)
  - hiding [391](#), [526](#)
  - inputting [155](#)
  - kerning [392](#)
  - key signatures [489](#), [495](#)
  - microtonal [393](#)
  - MIDI input [157](#)
  - octave divisions [491](#)
  - ornaments [519](#), [529](#)
  - panel [131](#), [182](#)
  - parentheses [391](#), [394](#)
  - respelling [156](#)
  - showing [391](#), [526](#)
  - signposts [267](#)
  - spacing [392](#)
  - stacking order [391](#), [392](#)
  - ties across breaks [391](#), [656](#)
  - tonality systems [492](#)
  - trills [525-527](#), [529](#)
- action
  - expression maps [354](#)
- activating
  - caret [142](#)
  - chord input [129](#), [161](#)
  - dotted notes [129](#)
  - force duration [129](#)
  - grace note input [129](#)
  - Insert mode [129](#), [147](#)
  - lock to duration [129](#)
  - mouse input [129](#), [145](#)
  - note input [142](#), [143](#)
  - rest input [129](#)
  - scissors [129](#)
  - tuplet input [129](#)
- adagio [641](#)
  - inputting [188](#), [190](#), [192](#)
- add intervals popover [165](#)
  - adding notes [165](#)
  - transposing notes [167](#)
- added notes
  - chord symbols [206](#)
- adding, *See* inputting
- additional
  - endings [247](#), [249](#), [575](#)
  - voices [153](#), [707](#)
- additive time signatures [665](#)
- advanced options
  - hiding [38](#)
  - showing [38](#)
- advancing
  - caret [142](#)
  - chord symbols popover [208](#)
  - lyrics popover [238](#)
- aeolian chord symbols [207](#), [442](#)
- aggregate time signatures [665](#)
- aikin noteheads [514](#)
- alignment
  - arpeggio signs [534](#)
  - chord symbols [440](#)
  - dynamics [456](#), [466](#), [467](#)
  - gradual dynamics [457](#)
  - instrument names [94](#)
  - lyrics [497](#), [504](#)
  - octave line numerals [450](#), [451](#)
  - ornaments [520](#)
  - pedal lines [550](#)
  - repeat endings [577](#)
  - rests [599](#)
  - staff labels [94](#)
  - tempo marks [644](#)
  - text [256](#)

- alignment (*continued*)
  - trills 521
  - voices 707, 710
- allegretto 641
- alterations
  - chord symbols 206, 438
  - jazz ornaments 222
- altered bass notes 207, 210, 438
  - inputting 207, 210
- altered unisons 393
  - appearance 393
  - formatting 393
  - split stem 640
- alternating time signatures 665
- anacrusis 667
- angles
  - beams 425, 432
  - fanned beams 432
  - glissando lines 537
  - string shift indicators 475
  - tremolos 677
- annotations 387
- appearance
  - default settings 87
  - resetting 266
- appoggiaturas 479
  - inputting 160
- Arabic numerals
  - page numbers 545
- arco 557
  - hiding 560
  - inputting 229, 232, 233
- areas
  - editing 105, 694
  - music 35
  - print preview 36
  - project start 34
- arpeggio signs 532
  - alignment 534
  - appearance 532, 533
  - beat-relative playback 535
  - changing 265
  - deleting 269
  - direction 532
  - duration 536
  - ends 533
  - filter 263
  - formatting 533
  - grace notes 535
  - inputting 220, 221, 224, 225
  - length 224, 225, 534
  - moving 534
  - muting in playback 340
  - panel 225
  - playback 535, 536
  - popover 221, 224
  - position 534, 535
  - spacing 534
  - types 221, 533
- arrangements
  - accidentals in key signatures 489
  - flows 114
  - movements 114
- arranging 269
  - changing instruments 103
  - copying 269, 270
  - pasting 270
  - swapping staves 271
  - voices 272
- arrows
  - disclosure 38
  - noteheads 512
- articulations 396
  - changing 397
  - collision avoidance 399
  - copying 397
  - deleting 397
  - duration 396, 400
  - inputting 175, 176
  - inverting 399
  - jazz, *See* jazz articulations
  - key commands 176
  - kits 693
  - notes 398
  - order 398
  - overlapping 399
  - panel 131
  - percussion 367, 693, 696
  - placement 398, 399
  - playback 367, 400
  - playing technique-specific noteheads 367
  - position 398, 399
  - slur endpoints 609
  - slurs 398
  - stems 398
  - ties 399, 655
  - tremolos 367
  - tuplets 682
  - types 396
- assigning
  - expression maps to endpoints 353
  - flows to layouts 90, 119
  - instruments to endpoints 352
  - key commands 52
  - MIDI commands 53
  - percussion maps to endpoints 353
  - players to flows 90, 115
  - players to layouts 90, 118
- atonal key signatures 490
- attachment lines
  - caesuras 219
  - dynamics 465
- attack
  - articulations 396
  - dynamics 454
  - playback 353
- audio
  - buffer size 173, 174
  - device setup 48
  - dialog 73
  - exporting 73
  - mixer 346
  - outputs in mixer 350
  - repeats 341
  - videos 126
  - volume 126, 346

- auditioning
  - chords 265
  - MIDI devices 170
  - notes 170, 264, 265
- augmented
  - chord symbols 206
- auto-save 75
  - deleting projects 75
  - disabling 77
  - interval 76
  - location 76
- automation lanes 324
  - deleting events 327
  - editing 326
  - hiding 325
  - inputting events 325
  - moving events 326
  - showing 325
  - tempo 327, 329
- auxiliary notes 527
  - notehead design 515
  - position 529
  - showing 528
- B**
- backups 77
  - auto-save, *See* auto-save
  - location 77
  - number 77
- bands
  - staff grouping 57, 437
  - templates 56, 57
- bar numbers 410
  - alternative 420
  - appearance 410
  - changing 417
  - default settings 410
  - deleting 418
  - enclosures 410, 412
  - font 410, 411
  - frequency 411
  - galley view 40
  - guide 414
  - hiding 414, 416
  - layout options 410
  - moving 414, 415
  - paragraph styles 411
  - part layouts 413
  - pick-up bars 667
  - position 414, 415
  - ranges 413
  - repeat sections 420
  - returning to primary sequence 419
  - sequence changes 417
  - showing 414
  - signposts 267
  - staff-relative placement 416
  - subordinate 418, 419
  - subsequent repeats 420
  - time signatures 416
- bar repeats 584
  - bar numbers 413
  - casting off 287
  - changing 265, 585
  - changing number 588
  - consolidating 604
  - counts 587, 588
  - deleting 269
  - dynamics 585
  - filter 263
  - font style 587
  - frame breaks 289
  - frequency 588
  - grouping 589, 590
  - handles 586
  - hiding counts 589
  - highlights 584, 587
  - inputting 245, 246, 254
  - length 586
  - moving 585
  - multi-bar rests 604
  - panel 246
  - parentheses 589
  - phrase length 265, 585
  - playback 265, 585
  - popover 245
  - regions 584
  - symbols 589
  - system breaks 290
  - types 245
  - viewing options 587
- bar rests 603
  - hiding 603
  - inputting 158, 194
  - moving 605
  - multi-bar rests 604
  - showing 603
- barline joins 408
- barlines 406
  - across staves 408, 409
  - caesuras 219
  - custom joins, *See* barline joins
  - dashed 406
  - deleting 407
  - double 406
  - dynamics 457
  - fermatas 488
  - final 406
  - grace notes 481
  - inputting 193, 195, 198, 199, 403
  - joins 408, 437
  - key signatures 493
  - moving 407
  - panel 195, 199
  - popover 194, 195, 198
  - repeat 406, 582
  - scale size 406
  - short 406
  - signposts 267
  - single 406
  - staff grouping 408, 437
  - staves 408, 409
  - thickness 406

- barlines (*continued*)
  - tick 406
  - time signatures 409
  - triple 195
  - types 195, 406
- Baroque
  - appoggiaturas 479
  - ornaments 222, 519
  - trills 529, 531
- barré 557
  - inputting 229, 232, 233
- bars 7, 401
  - bar rests 158, 603, 605
  - combining 404
  - deleting 194, 401, 402
  - deleting contents 403
  - display 348, 349
  - divisions 403
  - duration 403
  - fixing number per system 287
  - glissando lines 538
  - grouping 589, 590
  - inputting 193–197
  - multi-bar rests 604
  - numbers 411
  - panel 195, 196
  - pick-up bars 667
  - popover 194, 196
  - repeat symbols 584
  - selecting 262
  - splitting 403
  - timecodes 573
- Bars and Barlines panel 195, 196, 199
- bass notes
  - altered 210
- beam corners 430
- beam groups 422
  - creating 421
  - pick-up bars 667
  - resetting 423
  - stem directions 638
- beam lines
  - number 430
- beam slants 424
  - changing 425
  - grace notes 482
- beaming 421, 422, 432
  - centered beams 426
  - corners 430
  - cross-staff 427, 429
  - direction 422, 425
  - fanned 432
  - grace notes 482
  - grouping 421, 422, 433
  - handles 425
  - inverting 424
  - large pitch ranges 482
  - meter 434
  - multiple staves 429
  - notes 421
  - optical cross-staff spacing 428
  - partial 422
  - primary beams 430
- beaming (*continued*)
  - resetting 423, 424, 427
  - secondary beams 430, 431
  - slants 424, 425, 482
  - spacing 428
  - splitting 423
  - staff-relative placement 424
  - stem direction 424, 429
  - stemlets, *See* stemlets
  - ties 159
  - time signatures 422, 434
  - tuplets 431
  - unbeaming 422
- beat groups
  - numerators 670
  - specifying 183
  - ties 653
  - time signatures 670
- beat units 648
  - metronome marks 265, 648
  - setting 190
  - tuplets 163
- beats
  - deleting 194, 401
  - display 348, 349
  - inputting 194, 196, 197
  - per minute 648
  - popover 194
  - recording latency 173
  - relative position 267
  - selecting 263
- bends 541, 542
  - inputting 221, 223, 224, 228
- birds eyes, *See* fermatas
- black noteheads 510, 511
- blue selections 467, 613
- booklets 383
  - duplex printing 383
  - printing 382, 383
- borders 387
  - text 300
- bottom panel 37
- bowing 557
  - inputting 229, 232, 233
- boxes
  - text 300
- bpm 648
- braces 435
  - signposts 267
  - staff spacing 283, 304
- brackets 435
  - barlines 408
  - ensemble types 57, 437
  - player groups 408
  - project templates 57
  - secondary 436
  - signposts 267
  - staff spacing 304
  - sub-brackets 436
  - sub-sub-brackets 436
  - templates 57
  - time signatures 668, 669
  - tuplets 685



- brass instruments
  - fingerings 470, 474
  - horn branch indicators 474
  - playing techniques 231
- Bravura music font 294
- breaking
  - multi-bar rests 604
  - tie chains 659
- breaks
  - frame 288
  - page 288
  - system 289
- breath marks 483, 485
  - appearance 265
  - deleting 269
  - inputting 215, 217, 218
  - moving 487
  - multiple at same position 486
  - placement 485
  - position 485
  - types 265, 485
- breves 7, 131
- Britten fermata 483
- buffer
  - audio 173, 174
- C**
- caesuras 483, 485
  - appearance 265
  - deleting 269
  - inputting 215, 217–219
  - moving 487
  - multiple at same position 486
  - placement 486
  - position 219, 486
  - types 265, 485
- cancellation
  - accidentals 394
  - double accidentals 394
- candidate menus
  - playing techniques popover 229
  - tempo popover 188
- cards
  - disclosure arrows 38
  - flows 86
  - layouts 83
  - players 80
  - timecodes 86
- caret 139
  - activating 142
  - advancing 142
  - chords 25, 139, 161
  - deactivating 142
  - grace notes 139, 160
  - inputting vs. editing 136
  - Insert mode 139, 147
  - lock to duration 139
  - moving 137, 142, 681
  - percussion kits 147
  - rhythmic grid 137, 138
  - slash voices 139
  - slashes 154
  - caret (*continued*)
    - types 139
    - voice indicator 139, 153, 459
- casting off 287
  - bars per system 287
  - copying to other layouts 291, 293
  - systems per frame 288
- categories
  - templates 56, 57, 437
- cautionary accidentals 394
  - hiding 391
  - parentheses 394
  - showing 391
  - tie chains 391
- cautionary fingering 473
- CC64
  - pedal lines 67, 174
- centered beams 426
  - creating 426
  - removing 427
- centimeters
  - unit of measurement 54
- chains
  - ties 655
- channels 346
  - changing 352
  - controls 346, 347
  - endpoints 350
  - expression maps 350, 353
  - instruments 352
  - meter 346
  - MIDI 346
  - mixer 346, 347
  - percussion maps 350, 353
  - playback 350
  - plug-ins 350
  - setup 350
  - strips 347
- cherry stalks 393, 640
- choir templates 56
  - staff grouping 57, 437
- choral
  - lyrics 497
  - playing techniques 231
  - verse numbers 508
- chord input
  - activating 129, 161
  - arpeggio signs 224
  - caret 139
  - register selection 145
- chord symbol components 438
  - inputting 205
  - popover 205
  - types 438
- chord symbols 438
  - added notes 206
  - alignment 440
  - altered bass notes 210
  - changing 265
  - components, *See* chord symbol components
  - deleting 269
  - enharmonic spelling 442
  - filter 263

- chord symbols (*continued*)
  - hiding 439, 441
  - inputting 205, 208–210
  - intervals 206
  - MIDI input 205
  - MIDI navigation 53
  - modal 207, 442
  - moving 440
  - MusicXML import 443
  - navigation during input 208
  - no chord 207
  - omissions 206
  - pitch 120
  - playback 331, 333
  - polychords 207, 210
  - popover 205
  - position 440
  - quality 210, 439
  - root 210, 439
  - roots 206
  - showing 439, 441
  - signposts 267
  - staves 441
  - suspensions 206
  - track 331
  - transposing 120, 438
  - transposing instruments 120, 442
  - types 205, 438
- chords
  - accidentals 391, 392
  - arpeggio signs 534
  - auditioning 265
  - caret 25, 139, 142, 161
  - collision avoidance 391
  - dense 392
  - inputting 25, 129, 161
  - register selection 145
  - stacking accidentals 392
  - stem directions 637
  - ties 661
  - track 331
- chords track 331
- chorus lyrics 499
  - changing lines to 505
  - popover 237
- chromatic glissando 537
- circle
  - bar number enclosures 412
  - noteheads 511
- Classical
  - ornaments 222
  - trills 529, 531
- clefs 444
  - deleting 446
  - filter 263
  - grace notes 446
  - hiding 213
  - inputting 211–213
  - key signatures 493
  - moving 445
  - panel 213
  - placement 445
  - popover 211, 213
- clefs (*continued*)
  - position 445, 446
  - signposts 267
  - tie chains 445
  - ties 657
  - transposing instruments 446, 447
  - types 211
- Clefs panel 212, 213
- click 348
  - count-in 170
  - MIDI recording 170
  - mixer 346
- closing tabs 44
- coda 579
  - inputting 250, 251
  - mid-system gap 579
  - mid-system gaps 581
  - multiple 580
  - sections 579
- codec 122
- codes 295
  - time 571
- col legno 557
  - inputting 232, 233
- collapsing, *See* expanding
- collision avoidance
  - articulations 399
  - galley view 304
  - slurs 610, 616
  - ties 653
- colored regions 320
- colors
  - bar repeats 587
  - graphics 380
  - monochrome 380
  - rests 602
  - slash regions 592
  - voices 707, 708
- columns
  - accidentals 391, 392
  - voices 707, 710
- combined dynamics, *See* dynamics
- combining, *See* consolidation
- comma breath marks 485
- commands
  - key commands 49, 52
  - MIDI 49, 53
- common practice accidental duration rule 394
- common time 489, 665
  - inputting 183
- components
  - articulations 398
  - chord symbols 205, 438
  - tempo marks 646
- composer 87
  - default master pages 477
  - text tokens 295
- compound time signatures 665
- compressed MusicXML 64
- con sordino 557
  - hiding 560
  - inputting 229, 232, 233

- concert pitch 120
  - clefs 446, 447
  - input pitch 142
  - instrument transpositions 622
  - layouts 117, 120
  - staff labels 618, 622
  - status display 39
  - viewing 120
- consolidation 404
  - bar repeats 604
  - bars 404
  - rests 601, 604
  - rhythm dots 517
- contents
  - bars 403
  - front matter 477
  - table 477
- continuation lines
  - dynamics 454, 462
  - pedal lines 548, 553, 554
  - slurs across breaks 617
  - tempo marks 650, 651
- continuation signs 554
  - parentheses 554
  - text 555
- control changes
  - expression maps 354
- controllers
  - automation 324
  - expression maps 353
  - MIDI 324
- conventions
  - arpeggio signs 534
  - breath marks 485
  - caesuras 486
  - dynamics 455
  - fermatas 485
  - fingerings 470
  - glissando lines 537
  - grace notes 480
  - key signatures 489, 493
  - lyrics 497
  - ornaments 520
  - pauses 485
  - pedal lines 550
  - playing techniques 557
  - rehearsal marks 562
  - rests 599
  - tempo marks 644
  - ties 653
  - time signatures 664
  - tremolos 677
  - trills 520
  - tuplets 680
  - voices 707
- converting
  - layouts to graphic files 377
  - notes into tuplets 682
  - PDF 377
  - tuplets into normal notes 683
- copies
  - printing multiple 374
- copying 269, 270
  - articulations 397
  - dynamics 265
  - notes 397
  - page layouts 291
  - part formatting 293
  - players 93
  - properties 293
  - slurs 265
- corners
  - beaming 430
  - crop marks 387
- count-in
  - duration 170
  - metronome click 170
- counts
  - bar numbers 420, 667
  - bar repeats 587–589
  - frames 571
  - page numbers 297
  - pick-up bars 667
  - placement 598
  - repeat endings 575
  - repeat sections 420
  - rhythm slashes 597, 598
  - staff-relative placement 598
  - timecodes 571
- courtesy accidentals, *See* cautionary accidentals
- creating, *See* inputting
- crescendo 454, 462
  - flared ends 463
  - inputting 200, 202, 204
- crop marks 387
- cross noteheads 512
- cross-staff beams 427
  - placement 429
  - spacing 428
- cross-staff slurs 609
  - inputting 610
  - length 609, 612
  - moving 609, 611
- cross-staff ties 657
- cross-voice slurs 609
  - inputting 610
  - length 609, 612
  - moving 609, 611
- cross-voice ties 657
- crotchets 7, 131
- Cubase
  - instrument names 619
  - staff labels 619
- cues 453
  - signposts 267
- curlew fermata 483
- curvature direction
  - grace notes 608
  - slurs 606, 608, 614
  - ties 653, 661, 662
- custom
  - barline joins 408
  - layouts 90
  - markers 568
  - note sizes 516

- custom (*continued*)
  - page size 384
  - paper size 384
  - repeat markers 580
  - score layouts, *See* custom score layouts
  - staff size 628
  - tonality systems, *See* custom tonality systems
  - trill speeds 530
- custom playing techniques
  - playback 560
- custom score layouts 29, 117
  - creating 117
  - empty staves 284
  - flows on pages 278
  - margins 276, 282
  - master pages 275
  - orientation 277
  - printing 374
  - renumbering 121
- Custom Staff Size dialog 628
- custom tonality systems 492
  - creating 492
  - editing 492
- cut common time 489, 665
  - inputting 183
- cutting
  - slash regions 595
  - tie chains 659
- D**
- da capo
  - al coda 579
  - al fine 579
  - al segno 579
  - inputting 250, 251
- dal segno 579
- damping 557
  - inputting 232, 233
- dashed
  - jazz articulations 543
  - octave lines 448
  - slurs 615
  - tempo marks 651
  - ties 659, 661
- date and time
  - annotations 387
  - tokens 298
- deactivating
  - caret 142
  - chord input 161
  - Insert mode 147
  - mouse input 145
  - mute states 340
  - muted tracks 346
  - note input 143
  - solo states 340
  - soloed tracks 346
- decorations
  - ornaments 519
- decrescendo, *See* diminuendo
- dedications 477
  - text tokens 295
- default flow headings 275
- default master pages
  - composer 477
  - lyricist 477
  - title 477
  - tokens 477
- default settings
  - beam grouping 423
  - dynamics 265
  - flow headings 275
  - key commands 9, 49, 52
  - layouts 121
  - note spacing 301
  - playback template 342
  - slurs 265
  - staff grouping 437
  - staff spacing 303
- deleting 269, 274
  - accidentals 390
  - arpeggio signs 269
  - articulations 397
  - auto-save projects 75
  - automation 327
  - bar number changes 418
  - bar repeats 269
  - barlines 407
  - bars 194, 401–403
  - beams 422
  - beats 194, 401
  - breath marks 269
  - caesuras 269
  - centered beams 427
  - clefs 446
  - dynamics 459
  - fermatas 269
  - fingerings 473
  - flows 117
  - flows from layouts 119
  - frame breaks 289
  - glissando lines 269
  - grace notes 269
  - groups from percussion kits 110
  - instruments 104
  - instruments from kits 111
  - jazz articulations 544
  - key commands 53, 54
  - key signatures 492
  - layouts 121
  - lyrics 504, 505
  - markers 269
  - notes 269, 318
  - octave lines 451
  - ornaments 269
  - pauses 269
  - pedal lines 269
  - player groups 113
  - players 99
  - players from flows 115
  - players from layouts 118
  - playing techniques 269
  - rehearsal marks 564
  - repeat endings 269
  - repeat markers 269

- deleting (*continued*)
  - rests 602
  - rhythm slashes 269
  - rhythmic feel change 345
  - slurs 269
  - stem direction changes 639
  - system breaks 290
  - tempo changes 331
  - tempo marks 646
  - ties 658, 659
  - time signatures 674
  - tremolos 678
  - trills 269
  - tuplets 683, 684
  - videos 126
  - voices 709
- denominators
  - styles 670, 671
  - time signatures 663
- dense chords 392
  - accidental stacking 392
- depth
  - nested tuplets 681
- deselecting 258
- design
  - grace note slashes 481
  - noteheads 511, 514, 515
  - slurs 615, 616
  - time signatures 675
- destination
  - exporting files 378
  - instruments 453
- devices
  - audio 48
- diagonal
  - accidental stacking 391
- diamond noteheads 512, 513
- dimensions
  - page size 384
  - paper size 384
- diminished
  - chord symbols 206
- diminuendo 454, 462
  - flared ends 463
  - inputting 200, 202, 204
- direction
  - arpeggio signs 532, 533
  - fanned beams 432
  - glissando lines 517
  - gradual dynamics 462
  - hairpins 462
  - paper orientation 385
  - partial beams 422
  - rhythm slashes 593
  - slur curvature 606, 614
  - stems 636, 638, 639
  - string shift indicators 475, 517
  - tie curvature 653, 661, 662
- disabling
  - auto-save 77
  - dynamics linking 265
  - MIDI devices 175
- disabling (*continued*)
  - slurs linking 265
  - swing playback 345
- disclosure arrows 38
  - Properties panel 39
  - tracks 320
- display options 30, 40
  - drum editor 314
  - frames 275
  - image resolution 387
  - layouts 34
  - music area 35, 41
  - pages 275
  - panels 16, 37
  - piano roll editor 314
  - print preview 36
  - project window 34
  - tabs 43
  - time 32
  - transport 32
- distance
  - bar numbers 415
  - brackets 436
  - noteheads 428
  - stems 428
  - system indents 634
- distribution
  - bars per system 287
  - staves per frame 283
  - systems per frame 288
- dividers, *See* system dividers
- divisi 635
  - staff spacing 283
- doits 541
  - inputting 222, 228
- dorian chord symbols 207, 442
- dotted
  - beat units 190
  - dynamics 454
  - noteheads 514
  - notes, *See* dotted notes
  - octave lines 448
  - rests 129
  - slurs 615
  - tempo marks 651
  - ties 659, 661
- dotted notes 433
  - consolidation 517
  - double 146
  - forcing 152
  - inputting 129, 146
  - note grouping 433
  - swing playback 343
  - tempo equations 651
  - triple 146
- double
  - accidentals 156, 394
  - barlines 195, 198, 406
  - dotted notes 146
  - whole notes 7, 131

doubling instruments 91  
  adding 101  
  labels 621  
  showing staves 47  
down-stem voices 707  
  adding 153  
  stem direction 636  
downloads  
  accessing 55  
dpi 387  
drawing  
  automation 325  
  notes 315  
  tempo 327  
drop frame timecodes 571  
drops 541  
  inputting 222, 228  
drum editor 314, 705  
  deleting notes 318  
  event display, *See* event display  
  inputting notes 315  
  moving notes 316  
  tracks 319  
  zoom 319  
drum kits, *See* percussion kits  
drum sets 105, 689, 690  
  defining kits as 108  
  exporting 690  
  importing 691  
  naming 105  
  voices 703  
duplets 680  
duplex printing 374, 383  
  booklets 383  
duplicating  
  expression maps 360  
  items 269, 270  
  notes 270  
  percussion maps 365  
  players 93  
duration  
  accidentals 394  
  arpeggio signs 536  
  articulations 396, 400  
  bars 403  
  fermatas 265  
  flows 297  
  forcing 152  
  jazz articulations 543  
  locking 168  
  notated 368  
  notes 131, 151, 317, 368  
  pedal lines 556  
  played 368  
  rests 151  
  slurs 617  
  terminology 7  
dynamic glyphs 454  
dynamic modifiers 454  
dynamics 454  
  alignment 456, 457, 466, 467  
  bar repeats 585  
  barlines 457

dynamics (*continued*)  
  changing 265  
  combined 455  
  continuation lines 454, 462  
  conventions 455  
  copying 458  
  crescendo, *See* gradual dynamics  
  deleting 459  
  diminuendo, *See* gradual dynamics  
  endpoint positions 457  
  expressive text 200, 202, 460, 461  
  filters 263, 458  
  flared hairpins 463  
  force 454  
  gradual, *See* gradual dynamics  
  grouping 466, 467  
  hairpins, *See* hairpins  
  handles 462  
  hiding 461  
  immediate 454  
  inputting 200, 202, 204  
  length 462  
  linking 265, 467, 469  
  moving 457  
  muting in playback 340  
  niente hairpins 459, 460  
  non-sustaining instruments 465  
  panel 204  
  parentheses 458  
  percussion kits 694  
  placement 455  
  playback 341  
  poco a poco 464  
  popover 200, 202  
  position 455, 456  
  repeats 341  
  selecting 259  
  signposts 267, 461  
  spacing 464  
  staff-relative placement 455  
  sustaining instruments 465  
  types 200, 454  
  ungrouping 467  
  unlinking 265, 469  
  voice-specific 202, 204, 459  
Dynamics panel 202, 204

## E

East Asian elision slurs 509  
  hiding 509  
  showing 509  
Edit Instrument Names dialog 94  
Edit Percussion Kit dialog 105  
editing 136, 265  
  area 105, 694  
  inputting vs. editing 136  
  items 133, 265  
  methods 258  
  mouse input 137  
  notes 129  
  tools 258

- editorial
  - slurs 615
  - ties 659
- editors
  - drum 314
  - piano roll 314
  - text 256
- EDO 491
- effects channels 347
  - mixer 346
- eighth notes 7, 131
  - swing playback 343
  - tempo equations 651
- elbowed beams, *See* centered beams
- empty bars
  - deleting 402
  - inputting 196
  - multi-bar rests 604
  - rests 603
- empty staves
  - hiding 284, 304
  - showing 284, 304
  - tacets 285
- empty voices 709
- enabling
  - chord symbol playback 333
  - chords playback 331
  - MIDI devices 175
  - mouse input 145
  - swing playback 344
- enclosures
  - bar numbers 412
  - rehearsal marks 562
  - text 300
- end repeat barlines 195, 406
  - inputting 198
  - playthroughs 582
- endings
  - additional 247, 249
  - playthroughs 575
  - repeat 247, 248
- endpoint positions
  - arpeggio signs 534
  - dynamics 457
  - octave lines 450, 451
  - pedal lines 551
  - repeat endings 577
  - slurs 607–609
  - staff lines 608
  - ties 653
  - trills 521
  - tuplet brackets 686
- Endpoint Setup dialog 350
- endpoints 350
  - changing 352, 353
  - expression maps 350, 353
  - instruments 352
  - percussion maps 350, 353
  - setup 350
- Engrave mode 15, 274
- enharmonic spelling
  - accidentals 156, 157
  - chord symbols 442
- enharmonic spelling (*continued*)
  - key signatures 495
  - MIDI 66, 170
  - modes 442
  - notes 156, 157
  - respelling 156
- ensembles 80, 99
  - adding 82, 99, 113
  - brackets 57, 437
  - divisi 635
  - groups 112, 113
  - staff grouping 57, 437
  - templates 56
- equal division of the octave 491
- equalization 347
- equations
  - tempo marks 190, 651
- espressivo 454
- event display 312
  - automation lanes 324
  - chords track 331
  - inputting notes 315
  - instrument tracks 321
  - markers track 333
  - player tracks 320
  - playing techniques lanes 323
  - time track 327
  - video track 335
  - zoom 319
- events
  - automation 324–326
  - markers 333, 334
  - notes 315
  - tempo changes 327, 329
- excluding
  - flows from layouts 90, 119
  - players from flows 90, 115
  - players from layouts 90, 118
- exclusion groups
  - expression maps 354
- expanding 259, 335
  - menus 38
  - options 38
  - selections 259
  - tracks 335
- explicit rests 599, 600
  - colors 602
  - deleting 602
  - hiding 602
  - implicit rests 601
  - showing 602
- exponential hairpins, *See* flared hairpins
- Export Audio dialog 73
- Export File Names dialog 379
- Export Flows dialog 62
- Export MIDI dialog 69
- Export MusicXML dialog 64
- Export Tempo Track dialog 72
- exporting
  - annotations 387
  - arrangements 382
  - audio 73
  - borders 387

- 
- exporting (*continued*)
    - color graphics 380
    - crop marks 387
    - date 387
    - expression maps 361
    - file names 379
    - flows 61, 62
    - layouts 377
    - MIDI 69
    - MIDI files 69
    - monochrome graphics 380
    - MP3 files 73
    - MusicXML files 64, 578
    - output format 377
    - page ranges 376, 382
    - path 378
    - PDF 377
    - percussion kits 690
    - percussion maps 366
    - PNG 377
    - repeats 341
    - signposts 387
    - stems 73
    - SVG 377
    - tempo tracks 72
    - TIFF 377
    - time 387
    - watermarks 387
    - WAV files 73
  - expression maps 353
    - creating 360
    - dialog 354, 359
    - endpoints 350, 353
    - exporting 361
    - hiding playing techniques 560
    - importing 361
    - MIDI 469
    - playing techniques 560
    - technique combinations 359, 361
    - trills 529
    - volume 469
  - Expression Maps dialog 354
  - expressive text 454, 460
    - inputting 200, 202, 461
    - poco a poco 464
  - extending, *See* expanding
  - extension lines
    - lyrics 238, 500, 504
    - trills 522–524
  - extra staves 630
    - divisi, *See* divisi
    - hiding 284
    - ossia staves, *See* ossia staves
    - showing 284
    - signposts 630
- F**
- fader 346
  - falls 541
    - inputting 222, 228
  - fanned beams 432
    - direction 432
  - fast-forwarding 337
  - feathered beams, *See* fanned beams
  - fermatas 483
    - appearance 265
    - barlines 488
    - changing 486
    - deleting 269
    - duration 265
    - inputting 215, 217, 218
    - moving 487
    - multiple at same position 486
    - number per staff 487
    - placement 485
    - position 485
    - single staves 486
    - types 265, 483, 486
    - voices 487
  - file formats 386
    - audio 73
    - backups 77
    - graphics files 386
    - MIDI 66
    - MusicXML 63
    - videos 122
  - file names 379
    - ingredients 379
    - recipes 379
    - setting 379
  - files 60
    - different Dorico versions 59
    - exporting 60, 377, 378
    - importing 60
    - opening 58
    - videos 124
  - filled noteheads 511
  - films, *See* videos
  - filters 263
    - dynamics 263, 458
    - ensembles 82
    - instruments 82
    - lyrics 263, 498, 499
    - notes 263
    - stem direction 263
    - tempo marks 263
    - voices 263
  - final barlines 195, 406
    - inputting 198
    - number of times played 582
  - final tempo 650
    - gradual tempo changes 650
  - Find Tempo dialog 241
    - important markers 570
  - fine
    - d.c. al 579
    - inputting 250, 251
    - sections 579
  - fingering 470
    - appearance 473
    - cautionary 473
    - changing 472
    - deleting 473
    - font styles 473
    - handles 471



- fingerings (*continued*)
  - hiding 473
  - horn branch indicators 474
  - inputting 176, 177
  - inverting 472
  - MusicXML import 476
  - parentheses 176, 177, 473
  - placement 470
  - popover 176, 177
  - position 470
  - separators 474
  - showing 473
  - staff-relative placement 472
  - string shift indicators 475
  - substitution 471
  - types 177, 474
  - valved brass instruments 474
- first and second endings, *See* repeat endings
- first pages
  - formatting 279
  - master pages 279
  - page numbers 546
- first steps
  - starting new projects 56
- first systems
  - indents 634
- fit to paper 385
- five-line staff 625
  - noteheads 698, 700
  - percussion kits 694, 695
  - percussion legends 701
- fixed tempo mode 341
- fixing
  - bars per system 287
  - note durations 152, 159
  - systems per page 288
- flags
  - notes 636
  - stems 636
- flared hairpins 463
- flat slurs 616
- flats 390
  - hiding 391
  - inputting 155
  - parentheses 391
  - quarter tones 393
  - respelling 156
  - showing 391
- flipping 266, 614
- flips 542
  - inputting 221, 223, 224
- floating windows 31
- flow headings 275
  - default 275
  - flow titles 281
  - frames 275
  - hiding 280
  - margins 280
  - master pages 279
  - moving 280
  - page numbers 281, 546
  - showing 280
  - titles 281
- Flow Import Options dialog 61
- flows 28, 90, 114
  - accidental duration rules 394
  - adding 20, 115
  - adding players 115
  - adding to layouts 119
  - audio 73
  - cards 86
  - deleting 117
  - deleting empty bars 402
  - duration 297
  - exporting 61, 62
  - hiding 119
  - importing 60, 61, 63, 66
  - instrument change labels 621
  - justification 282
  - layouts 90
  - master pages 279
  - multiple on pages 278
  - MusicXML files 64
  - naming 116
  - numbers 297
  - page numbers 281, 297
  - panel 86
  - players 90, 115
  - removing from layouts 119
  - removing players 115
  - selecting 259
  - showing 119
  - splitting 273
  - systems 282
  - tacets 285, 286
  - timecodes 86
  - titles 116, 281
  - tokens 296, 297
  - trimming 194, 402
  - videos 86, 122, 124
- Flows panel 79, 86
  - hiding 86
  - showing 86
- folders
  - auto-save 76
  - backups 77
  - export path 378
- follow tempo mode 341
- font styles
  - bar numbers, *See* paragraph styles
  - bar repeats 587, 589
  - glyphs 294
  - lyrics 499, 502
  - music 294
  - notations 294
  - notes 294
  - PDF files 381
  - playing techniques 557
  - rhythm slashes 597, 598
  - SVG files 381
  - tempo marks 642
  - time signatures 664, 675
- force
  - articulations 396
  - dynamics 454

- force duration 129, 152
  - activating 129
  - inputting notes with 152
  - inputting rests with 152
- formats, *See* file formats
- formatting 274
  - altered unisons 393
  - arpeggio signs 533
  - bar numbers 410
  - file names 379
  - frames 291
  - front matter 477
  - glissando lines 538
  - layouts 291, 293
  - markers 568
  - master pages 275
  - noteheads 515
  - page layouts 287
  - pages 275, 291, 293, 477
  - pedal lines 553, 554
  - slurs 616
  - systems 291
  - tacets 285, 286
  - tempo marks 651
  - text 256, 257
  - ties 660, 661
  - tuplets 683, 687
- forte 454
  - inputting 200, 202, 204
- forum
  - accessing 55
- fps 126
- frame breaks 275, 288
  - bar repeats 289
  - copying to other layouts 291, 293
  - deleting 289
  - divisi 635
  - inserting 289
  - signposts 267, 289
  - slurs 617
  - staff spacing 303
  - ties 656
- frame rates 126
  - changing 122, 127
  - dialog 122
  - drop frame timecodes 571
  - non-drop frame timecodes 571
  - transport window 348, 349
- frames 274
  - breaks 275, 288
  - dashed 275
  - flow headings 275, 280, 281
  - music 282
  - padding 275
  - running headers 281
  - systems 288
  - text 295
  - tokens 295
- frequency
  - auto-save 76
  - bar numbers 411
  - bar repeat counts 588
  - slash region counts 597
- frequency (*continued*)
  - timecodes 573
  - trills 523
- front matter 477
  - player list 295
  - project information 477
- full score layouts 29, 83, 117
  - accidentals 156
  - adding flows 119
  - adding players 118
  - bar numbers 410, 411
  - clefs 446
  - concert pitch 120
  - copying formatting 291, 293
  - copying properties 293
  - creating 117
  - deleting 121
  - divisi 635
  - empty staves 284
  - enharmonic spelling 156
  - exporting 377
  - file names 379
  - flow headings 280
  - flows 119
  - flows on pages 278
  - front matter 477
  - instrumental order 112
  - justification 282, 283, 303, 304
  - large time signatures 668, 669
  - layouts panel 83
  - left pages 278
  - margins 276, 282
  - markers 570
  - master pages 275, 279
  - multi-bar rests 604
  - note spacing 301
  - orchestral order 98
  - orientation 277
  - players 118
  - printing 374
  - removing flows 119
  - removing players 118
  - renumbering 121
  - staff labels 620
  - staff size 626
  - staff spacing 283, 303, 304
  - system dividers 631
  - system formatting 291
  - system justification 282
  - system object positions 633
  - system spacing 303, 304
  - time signatures 668, 669, 675
  - transposing 120
- full screen mode 47
- functions
  - key commands 52
  - removing key commands 53
- funk noteheads 514
- FX channels 347

**G**

- galley view 40, 47
  - bar numbers 40
  - changing to 47
  - flows 273
  - staff labels 40
  - staff spacing 304
- gaps
  - codas 581
  - flow headings 280
  - galley view 304
  - ossia staves 304
  - quantization 68
  - staves 303, 304, 579
  - system indents 634
  - systems 579
  - tacets 287
- General MIDI 67
- generated trills 529, 530
- ghost notes 692
- gli altri 635
- glissando lines 537
  - changing 265
  - deleting 269
  - direction 517
  - filter 263
  - formatting 538
  - hiding 539
  - inputting 220, 221, 226, 227, 538
  - line styles 538
  - panel 227
  - placement 537
  - popover 221, 226
  - position 537
  - showing 539
  - styles 538
  - text 539
  - types 221
- glyphs
  - accidentals 156
  - fonts 294
  - pedal lines 553
  - trills 519, 520
- grace notes 479
  - appearance 482
  - arpeggio signs 535
  - barlines 481
  - beams 482
  - caret 139, 160
  - clefs 446
  - default settings 480
  - deleting 269
  - inputting 129, 160
  - inverting 480
  - moving 516
  - pedal lines 551
  - pitch 167
  - placement 480
  - position 480, 481
  - register 167
  - size 481, 516
  - slashes 480, 481
- grace notes (*continued*)
  - slurs 480, 607, 608
  - stems 480–482
  - transposing 170
  - trills 529
  - types 481
  - voices 480
- gradual dynamics 454, 462
  - alignment 457
  - barlines 457
  - end position 457, 464
  - flared hairpins 463
  - handles 462
  - length 462
  - moving 464
  - poco a poco 464
  - position 465
  - spacing 464
  - start position 464
  - truncated 465
- gradual tempo changes 642, 650
  - components 647
  - continuation lines 650, 651
  - final tempo 650
  - formatting 651
  - length 645
  - style 651
- grand staff instruments
  - brackets 57
  - centered beams 426
  - cross-staff beams 427
  - cross-staff slurs 610
  - dynamics 455
  - hiding staves 284, 304
  - MIDI recording 170
  - staff grouping 57
  - vertical justification 304
- grand-staff instruments
  - multi-bar rests 604
- graphics
  - files, *See* graphics files
- graphics files 377, 386
  - colors 380
  - exporting 377, 378
  - file names 379
  - fonts 381
  - formats 386
  - image resolution 387
  - monochrome 380
- grids
  - gaps 111
  - instrument groups 108
  - naming groups 109
  - percussion kits 694, 695
  - rhythmic 137, 138
  - staves 623, 694
- groups
  - bar repeats 589, 590
  - beams 422, 433, 434
  - braces 435
  - brackets 435
  - dynamics 466, 467
  - instruments, *See* groups of instruments

- groups (*continued*)
    - notes [433](#)
    - players, *See* groups of players
    - rests [433](#)
    - staff spacing [304](#)
    - staves [408](#)
    - tabs [45](#), [46](#)
  - groups of instruments [108](#)
    - deleting [110](#)
    - naming [109](#)
    - percussion kits [108](#)
  - groups of players [28](#), [80](#), [112](#)
    - adding players [113](#)
    - bracket grouping [408](#)
    - creating [112](#)
    - moving players [113](#)
    - removing players [114](#)
  - guide bar numbers [414](#)
- ## H
- H-bar rests [604](#)
    - width [604](#)
  - hairpins [454](#), [457](#), [462](#)
    - alignment [457](#)
    - barlines [457](#)
    - end position [457](#), [464](#)
    - flared [463](#)
    - handles [462](#)
    - inputting [200](#), [202](#)
    - length [462](#)
    - moving [464](#)
    - niente [459](#), [460](#)
    - poco a poco [464](#)
    - position [465](#)
    - start position [464](#)
    - truncated [465](#)
  - half notes [7](#), [131](#)
    - tempo equations [651](#)
  - half-step trills [525](#), [529](#)
    - appearance [527](#)
    - hiding [522](#), [526](#)
    - position [529](#)
    - showing [522](#), [526](#)
  - HALion Sonic SE
    - playback template [341](#)
  - HALion Symphonic Orchestra
    - playback template [341](#)
  - hand tool [39](#)
    - moving the view [40](#)
  - handles [543](#)
    - bar repeats [586](#)
    - beams [425](#)
    - dynamics [462](#)
    - fingerings [471](#)
    - lyrics [504](#)
    - octave lines [449](#)
    - percussion legends [702](#)
    - repeat endings [576](#)
    - slash regions [596](#)
    - tempo marks [645](#)
    - trills [524](#)
    - tuplet brackets [685](#)
  - harmonics
    - noteheads [515](#)
  - headers
    - chords track [331](#)
    - flows [275](#)
    - instrument tracks [321](#)
  - heavy swing [343](#)
  - height
    - staves [283](#), [303](#), [304](#)
    - systems [283](#), [303](#), [304](#)
    - time signatures [664](#)
    - tracks [335](#)
  - hemiola
    - forcing note durations [152](#)
  - Henze fermatas [483](#)
    - inputting [215](#), [217](#), [218](#)
  - hiding [32](#)
    - accidentals [391](#), [526](#)
    - audio outputs in mixer [350](#)
    - automation lanes [325](#)
    - bar numbers [413](#), [414](#), [416](#)
    - bar repeat counts [589](#)
    - bar rests [603](#)
    - borders [300](#)
    - chord symbols [439](#), [441](#)
    - clefs [213](#)
    - dynamics [461](#)
    - East Asian elision slurs [509](#)
    - empty staves [284](#)
    - fingerings [473](#)
    - flared hairpins [463](#)
    - flow headings [280](#)
    - flow page numbers [281](#)
    - flow titles [281](#)
    - flows [119](#), [285](#)
    - Flows panel [86](#)
    - glissando line text [539](#)
    - initial page numbers [546](#)
    - instrument change labels [621](#)
    - instrument transpositions [622](#)
    - interchangeable time signatures [665](#)
    - key signatures [492](#)
    - laissez vibrer ties [658](#)
    - Layouts panel [83](#)
    - markers [570](#)
    - mixer [348](#)
    - multi-bar rests [604](#)
    - notes [594](#)
    - padding rests [594](#)
    - page numbers [281](#), [546](#)
    - panels [16](#), [32](#), [38](#), [39](#)
    - percussion legend signposts [701](#)
    - players [115](#), [118](#)
    - Players panel [80](#)
    - playing techniques [560](#)
    - playing techniques lanes [324](#)
    - quality in chord symbols [439](#)
    - rests [602](#)–[604](#)
    - root in chord symbols [439](#)
    - running headers [281](#)
    - signposts [268](#), [289](#), [290](#)
    - slash region counts [598](#)
    - staff labels [620](#)

hiding (*continued*)

- staves 90, 115, 118, 119, 284
  - stems 596
  - system dividers 631
  - system track 262
  - tabs 32
  - tacets 286
  - tempo marks 646
  - text borders 300
  - time signatures 674
  - toolbar 31
  - tracks 335, 336
  - transport window 348
  - trill extension lines 523, 524
  - trill intervals 526
  - trill marks 522
  - tuplets 685, 687
  - verse numbers 508
  - video window 125
- highlights
- bar repeats 584, 587
  - slash regions 591, 592
- holds, *See* pauses
- Holds and Pauses panel 218
- Hollywood-style trills 527
- intervals 529
  - position 529
  - showing 528
- hooks
- pedal lines 549, 553
  - tuplets 685
- horizontal alignment
- ornaments 520
- horizontal position
- arpeggio signs 534
  - bar numbers 414
  - chord symbols 440
  - dynamics 455, 456
  - lyrics 497
  - notes 301, 707, 709
  - ornaments 520
  - rehearsal marks 562
  - rests 599
  - tempo marks 644
  - ties 653
  - time signatures 664
  - trills 520
  - tuplet numbers 688
  - tuplet ratios 688
  - tuplets 680
- horns
- branch indicators 474
  - fingerings 474
- hotkeys, *See* key commands
- Hub 55
- opening projects 58, 59
- hyphens
- lyrics 238, 500, 504
  - time signatures 672

**I**

- illustrations
- exporting 377
- image resolution 387
- images
- exporting 377
  - videos 122
- immediate dynamics, *See* dynamics
- implicit rests 599, 600
- colors 602
  - deleting 602
  - explicit rests 601
  - hiding 601, 602
  - showing 602
  - voices 601
- Import Tempo Track dialog 70
- important markers 241, 570
- importing
- expression maps 361
  - flows 60, 61
  - MIDI files 66, 67, 705
  - MusicXML files 63, 578, 706
  - percussion kits 691
  - percussion maps 366
  - tempo tracks 70
  - unpitched percussion 705, 706
- inches
- unit of measurement 54
- indents 634
- changing 634
  - first systems 634
  - staff labels 621
- Indian drum notation 706
- indicators
- caret 459
  - fingerings 177, 474
  - horn branches 474
  - string fingerings 475, 517
  - thumbs 177
  - trill intervals 525, 529
  - voices 459
- ingredients 379
- initial pages
- left-hand page 278
  - page numbers 278, 546
- initial trill notes 529
- input pitch
- changing 142
- inputting 136
- accidentals 155
  - additional repeat endings 247, 249
  - altered bass note chord symbols 210
  - arpeggio signs 220, 221, 224
  - articulations 175, 176
  - automation 325
  - bar number changes 417
  - bar repeats 245, 246, 254
  - bar rests 158, 194
  - barlines 193, 195, 198, 199
  - bars 193–197
  - beats 194, 196, 197
  - breath marks 215, 217, 218

- inputting (*continued*)
- caesuras 215, 217, 218
  - caret 139, 142
  - centered beams 426
  - chord symbols 205, 208, 209
  - chords 129, 161
  - clefs 211–213
  - dynamics 200, 202, 204
  - ensembles 82, 99
  - expressive text 200
  - fermatas 215, 217, 218
  - fingerings 176
  - frame breaks 289
  - glissando lines 220, 221, 226, 227, 538
  - grace notes 160
  - inputting vs. editing 136
  - Insert mode 147
  - instruments 82, 92, 101
  - instruments in percussion kits 107
  - jazz articulations 220, 222, 228
  - jazz ornaments 221, 223, 224
  - key signatures 179–182
  - lyrics 236, 238
  - markers 239, 241, 334
  - metronome marks 188, 192
  - MIDI 170, 175, 325
  - mouse input 137, 145
  - nested slurs 611
  - nested tuplets 681
  - notes 139, 143, 147, 152, 170, 315
  - notes in multiple voices 153
  - notes in percussion kits 147, 149
  - octave lines 211, 212, 214, 215
  - ornaments 220, 223, 224
  - pauses 215, 217, 218
  - pedal lines 229, 231, 234, 235
  - percussion kits 102, 103
  - pick-up bars 183, 186, 187
  - players 92
  - playing techniques 229, 232, 233
  - position 136
  - register selection 144
  - rehearsal marks 239
  - repeat endings 244, 246–249
  - repeat markers 244, 246, 250, 251
  - rests 129, 152, 158
  - rhythm dots 143, 146
  - rhythm slashes 245, 246, 253
  - rhythmic feel changes 188, 344
  - rhythmic grid 137, 138
  - slash regions 245, 253
  - slash voices 154, 712
  - slurs 255, 610, 611
  - stem direction 150
  - system breaks 290
  - tempo equations 188
  - tempo marks 188, 190, 192, 329
  - text 255
  - ties 129, 159, 657
  - time signatures 183, 186, 187
  - timecodes 239
  - tremolos 245, 246, 251, 252
  - trills 221, 223
- inputting (*continued*)
- tuplets 162, 681, 682
  - unpitched percussion 315
  - upbeats 183
  - videos 124
  - voices 153, 154
- Insert mode 129, 147
- activating 129
  - caret 139, 147
  - inputting notes 147
  - time signatures 403, 664
  - tuplets 684
- insertion point 139
- inserts 347
- instrument change labels 621
- hiding 621
  - showing 621
- instrument groups 108
- deleting 110
  - naming 109
  - percussion kits 108
- instrument labels
- percussion kits 109
- instrument names 93, 618
- alignment 94
  - changing 98
  - numbering 100, 619
  - saving as default 94
  - staff labels 94, 619
- instrument picker 82
- instrument pitches, *See* instrument transpositions
- instrument tracks 321
- automation 324–327
  - collapsed 320
  - colored regions 320
  - controls 321
  - headers 321
  - piano roll editor 314
  - playing techniques 324
- instrument transpositions 622
- hiding 622
  - showing 622
  - staff labels 94, 623
- instrumental parts, *See* part layouts
- instrumentation list 477
- instrumentation lists 295
- instruments 28, 100
- adding 82, 99, 101
  - adding to flows 115
  - adding to parts 118
  - adding to percussion kits 107
  - arranging tools 269
  - assigning to endpoints 352
  - automatic numbering 100
  - brackets 57, 437
  - changing existing 103, 107
  - chord symbols 441
  - clefs 446
  - combining into kits 103
  - deleting 104
  - divisi 635
  - doubling 47, 101
  - dynamics 465

- 
- instruments (*continued*)
    - empty staves 284
    - endpoints 350, 352
    - ensembles 99
    - expression maps 350
    - groups 28, 112
    - hiding 115, 118
    - inputting notes 143
    - key signatures 490, 491, 495
    - loading 311
    - MIDI 310, 311
    - MIDI recording 170
    - moving between players 104
    - muting 339, 340
    - names, *See* instrument names
    - non-sustaining 465
    - numbering 100
    - order 98, 112
    - order in percussion kits 110
    - part layouts, *See* part layouts
    - percussion 362, 694
    - percussion legends 701, 702
    - percussion maps 350
    - Play mode 320, 321
    - playback 350, 353, 362
    - players 91
    - Players panel 80
    - removing from kits 111
    - removing from parts 115, 118
    - searching 82
    - showing 115, 118
    - showing staves 47
    - soloing 339, 340
    - staff grouping 57, 437
    - staff labels 94, 619, 623
    - staff size 627
    - staves 47, 694
    - sustaining 465
    - templates 56
    - tracks 319, 321
    - transposing 101, 120, 447, 492, 495, 623
    - VST 310, 311
  - interactive key commands map 51
  - interchangeable time signatures 665
    - specifying for individual bars 665
  - interface 30
  - interspersion
    - accidentals 391
  - intervals
    - add intervals popover 165
    - auto-save 76
    - chord symbols 206, 438
    - octave divisions 491
    - ornaments 519
    - transposing 165
    - trills 221, 525–527, 529
  - inverting 614
    - articulations 399
    - beaming 424
    - fingerings 472
    - grace note stems 480
    - slurs 606, 608, 614
  - inverting (*continued*)
    - ties 662
    - tuplets 685
  - ionian chord symbols 207, 442
  - irregular
    - bars as pick-up bars 667
    - time signatures 665
  - italics
    - dynamics 454
    - lyrics 502
  - items 136, 258
    - changing 265
    - copying 269
    - editing 132
    - resetting 266, 267
    - selecting 40, 136, 258, 259
- ## J
- jazz
    - articulations, *See* jazz articulations
    - band templates 56, 57
    - glyphs 294
    - music font 294
    - staff grouping 57, 437
  - jazz articulations 541, 542
    - appearance 543
    - bend 541
    - changing 543
    - deleting 544
    - duration 543
    - inputting 220, 222, 228
    - length 543
    - line styles 543
    - moving 543
    - ornaments, *See* jazz ornaments
    - panel 228
    - playback 541
    - popover 222, 228
    - position 543
    - smooth 541
    - types 222, 541, 543
  - jazz ornaments 542
    - inputting 221, 223, 224
    - popover 221
    - types 221
  - job types 372, 382
    - page ranges 376
    - printing 382
    - selecting 382
  - joins
    - barlines 408, 437
    - staves with barlines 409
  - jumps
    - inputting 250, 251
    - playback 582
    - repeat 579
  - justification
    - staves 282, 283, 303, 304
    - systems 282, 283, 303, 304
    - vertical 283, 303, 304

**K**

kerning [392](#)  
 key clicks [557](#)  
   inputting [229](#), [232](#), [233](#)  
 key commands [9](#), [49](#)  
   articulations [176](#)  
   assigning [52](#)  
   defining [48](#)  
   finding [52](#)  
   galley view [47](#)  
   keyboard layouts [53](#)  
   languages [53](#)  
   maps [51](#)  
   MIDI [53](#)  
   muting [339](#), [340](#)  
   page view [47](#)  
   playback [337](#)  
   removing [53](#)  
   resetting [54](#)  
   searching [51](#), [52](#)  
   soloing [339](#), [340](#)  
 key signatures [489](#), [663](#)  
   accidentals [489](#)  
   atonal [490](#)  
   barlines [493](#)  
   cautionary [496](#)  
   changes [489](#), [493](#)  
   changing [265](#)  
   clefs [493](#)  
   custom [492](#)  
   deleting [492](#)  
   enharmonic equivalent [495](#)  
   filter [263](#)  
   hiding [492](#)  
   inputting [24](#), [179–182](#)  
   instruments without [492](#), [495](#)  
   major [490](#)  
   minor [490](#)  
   moving [493](#)  
   multiple [492](#)  
   none [491](#)  
   octave divisions [491](#)  
   open [490](#)  
   panel [180](#), [182](#)  
   placement [493](#)  
   polytonality [181](#), [182](#)  
   popover [179](#), [181](#)  
   position [493](#)  
   scales [490](#)  
   signposts [267](#), [492](#)  
   tonality systems [491](#), [492](#)  
   transposing [170](#), [494](#)  
   transposing instruments [120](#), [495](#)  
   types [179](#), [490](#)  
 Key Signatures, Tonality Systems, and Accidentals panel [180](#), [182](#)  
 key switches  
   expression maps [353](#), [354](#)  
   percussion maps [362](#)  
 keyboard shortcuts, *See* key commands

keyboards  
   inputting notes [139](#)  
   key command maps [51](#)  
   layouts [53](#)  
 keys  
   major [490](#)  
   minor [490](#)  
   signatures, *See* key signatures  
 kits, *See* percussion kits  
 kneed beams, *See* centered beams

**L**

l.v. ties [657](#), [658](#)  
 labels  
   instruments [94](#), [618](#), [619](#), [621](#)  
   markers [567](#)  
   percussion kits [623](#), [694](#)  
   staves [618](#)  
 laissez vibrer ties [657](#), [658](#)  
 landscape orientation [385](#)  
 lanes  
   automation [324](#), [325](#)  
   playing techniques [323](#), [324](#)  
 languages  
   key commands [51](#), [53](#)  
 large  
   noteheads [513](#)  
   selections [259](#)  
   time signatures, *See* large time signatures  
 large time signatures [668](#), [669](#)  
   bar numbers [416](#)  
 largo [641](#)  
   inputting [188](#), [190](#), [192](#)  
 latency  
   changing value [173](#)  
   MIDI recording [170](#), [173](#)  
 lattice arrangement  
   accidentals [391](#), [392](#)  
 layout cards [83](#)  
 layout names [93](#)  
   changing [97](#)  
   text tokens [295](#)  
 layout numbers [83](#)  
   order [121](#)  
   renumbering [121](#)  
 layout options [87](#)  
   bar numbers [410](#)  
   changing [89](#)  
   copying to other layouts [291](#), [293](#)  
   dialog [87](#)  
   saving as default [87](#)  
 Layout Options dialog [87](#)  
 layout selector [32](#)  
   order of layouts [121](#)  
   switching layouts [43](#)  
 layouts [29](#), [90](#), [117](#)  
   accidentals [156](#)  
   adding flows [119](#)  
   adding players [118](#)  
   bar numbers [413](#)  
   cards [83](#)  
   casting off [287](#)



layouts (*continued*)

- chord symbols 441
- clefs 446
- comparing 45
- concert pitch 120
- copies 374
- copying formatting 291, 293
- copying properties 293
- creating 21, 117
- deleting 121
- empty staves 284
- enharmonic spelling 156
- exporting 377, 382
- file names 379
- fit to paper 385
- flow headings 275, 281
- flows 90, 119, 278
- formatting 274
- full scores 117
- graphics files 377, 386
- indents 634
- justification 282, 283, 303, 304
- keyboard 51, 53
- margins 276, 282
- markers 567, 570
- master pages 275
- multi-bar rests 604
- multiple windows 18, 46
- MusicXML files 64
- naming 119
- note spacing 301
- numbers, *See* layout numbers
- opening 17, 34, 43
- opening multiple 43, 45
- order 121
- orientation 277, 385
- page numbers 545
- page ranges 374, 382
- page size 384
- panel in Print mode 371
- panel in Setup mode 83, 117
- paper sizes 384
- parts 117
- percussion kit presentation 695
- players 90, 118
- printing 374, 382, 385
- removing flows 119
- removing players 118
- renumbering 121
- restoring 121
- running headers 281
- scale size 385
- selecting 32
- settings 87
- sorting 121
- staff labels 620
- staff size 626
- staff spacing 303, 304
- switching 43
- system dividers 631
- system formatting 291
- system justification 282
- system objects 633

layouts (*continued*)

- system spacing 303, 304
- tabs 34, 43
- time signatures 669, 675
- timecodes 572, 573
- transposing 101, 117, 120
- vertical justification 283
- view types 40

layouts card

- disclosure arrows 38

Layouts panel 37

- hiding 83
- Print mode 370, 371
- Setup mode 79, 83
- showing 83

left pages

- starting from 278

left panel 37

legends

- percussion 701

length

- arpeggio signs 224, 225, 534
- bar repeat phrases 265, 585
- bar repeats 586
- dynamics 462
- jazz articulations 543
- notated duration of notes 368
- notes 151, 317, 368
- octave lines 449
- pedal lines 552
- percussion legend names 703
- percussion legend ranges 702
- played duration of notes 368
- repeat endings 576
- slash regions 596
- slurs 609, 612
- staff labels 620
- stems 640
- system dividers 632
- tempo marks 645
- trills 524

lento 641

- inputting 188, 190, 192

letter paper sizes 384

level changes for pedal lines 549

levels

- channels 346
- nested tuplets 681

lifts

- jazz articulations 222, 228, 541
- pedal lines, *See* pedal retakes

light swing 343

line numbers 505

- changing 505, 506

lines

- arpeggio signs 532
- barlines 406
- drawing 329
- fingerings 475
- glissando 537, 538
- grace note slashes 481
- jazz articulations 541, 543
- lyric extender 504

lines (*continued*)  
  lyrics 497, 505  
  octave lines 448  
  pedal 548  
  playback 336  
  secondary beams 430  
  staves 625  
  string shift indicators 475  
  system dividers, *See* system dividers  
  tempo marks 327, 651  
  text 300  
  ties 659, 661  
  trills 523, 524  
  wiggly 523, 532

linking  
  dynamics 265, 467, 469  
  flow names 116  
  flow titles 116  
  groups of dynamics 466  
  percussion maps to VST/MIDI 353  
  slurs 265, 613, 614

lists  
  players 295

loading  
  video files 124

locations  
  auto-save folder 76  
  backups folder 77

lock  
  duration, *See* lock to duration

lock to duration 129, 168  
  activating 129

loco 212  
  inputting 214, 215

locrian chord symbols 207, 442

lower case  
  flow titles 297  
  Roman numerals 297

lower notes  
  trills 531

lydian chord symbols 207, 442

lyric extender lines 500, 504  
  handles 504

lyric hyphens 500, 504  
  handles 504

lyric lines  
  changing 505, 506  
  deleting 504  
  numbers 505  
  placement 503  
  position 503

lyricist 87  
  default master pages 477  
  text tokens 295

lyrics 497  
  alignment 497, 504  
  changing 500, 501, 505  
  chorus 237, 499, 500, 505  
  deleting 504, 505  
  East Asian elision slurs 509  
  extender lines 238, 500, 504  
  filters 263, 498, 499  
  handles 504

lyrics (*continued*)  
  hyphens 238, 500, 504  
  inputting 236, 238  
  italics 502  
  line numbers 505, 506  
  lines 237, 497, 499, 505  
  melismatic 236, 238, 503, 504  
  moving 503  
  note spacing 497  
  placement 497, 503  
  popover 236–238  
  position 497, 503  
  selecting 259, 499  
  spacing 504  
  staff-relative placement 507  
  syllable types 238, 500, 501  
  translations 237, 499, 500, 505  
  types 237, 499, 500  
  verse numbers 508

## M

macOS  
  printing 376

major  
  chord symbols 206  
  keys 490  
  scales 490

maps  
  expression 353  
  key commands 51  
  percussion 362

marcato 396  
  inputting 175

margins  
  changing 276  
  flow headings 280  
  music frames 282  
  MusicXML files 63  
  pages 275, 276  
  tacets 287

markers 567  
  deleting 269  
  dialog 241  
  filter 263  
  hiding 570  
  important 241, 570  
  inputting 239, 241, 334  
  moving 569  
  panel 240  
  repeats 244, 579  
  showing 570  
  staff 567  
  staff spacing 304  
  text 240, 568  
  timecodes 241, 569  
  track 333  
  vertical position 304, 567, 572

marks  
  rehearsal, *See* rehearsal marks  
  tempo, *See* tempo marks  
  trills 519, 520, 522

- marquee tool [39](#)
  - using [40](#)
- master output volume [346](#)
- master page sets
  - flow headings [275](#)
- master pages [275](#)
  - assigning to pages [279](#)
  - page numbers [545](#)
- measured tremolos [676](#)
- measurement
  - units [54](#)
- measures, *See* bars
- medium swing [343](#)
- melismatic lyrics [238](#), [503](#), [504](#)
- merging
  - players [60](#), [61](#), [63](#), [66](#)
- messa di voce [462](#)
  - moving [464](#)
- meter [663](#)
  - beam grouping [422](#), [433](#), [434](#)
  - changing [265](#)
  - channel levels [346](#)
  - irregular [403](#)
  - note grouping [433](#)
  - open [665](#), [671](#)
  - rest grouping [433](#)
  - time signatures [665](#)
  - tremolos [676](#)
  - tuplets [680](#)
- metric modulation
  - tuplets [683](#)
- metronome marks [648](#)
  - appearance [646](#), [647](#)
  - beat units [265](#), [648](#)
  - changing [265](#), [648](#)
  - components [646](#), [647](#)
  - equations [190](#), [651](#)
  - fonts [642](#)
  - hiding [646](#)
  - inputting [188](#), [192](#)
  - multiple positions [632](#)
  - parentheses [646](#)
  - playback [348](#), [649](#)
  - popover [188](#)
  - range [649](#)
  - selecting [259](#)
  - showing [646](#)
  - size [642](#)
  - values [265](#), [648](#)
  - vertical positions [632](#)
- microtones [393](#), [492](#)
  - custom tonality systems [492](#)
  - EDO [491](#)
  - transposing [165](#)
  - trills [525](#)
- mid-system gaps
  - codas [579](#), [581](#)
- middle line
  - stem direction [636](#)
- MIDI
  - accidental spelling [157](#)
  - automation [324–326](#)
  - channels [346](#), [350](#)
  - MIDI (*continued*)
    - commands [49](#), [53](#)
    - controllers, *See* MIDI controllers
    - deleting [327](#)
    - devices, *See* MIDI devices
    - dialog [67–69](#)
    - editing [326](#)
    - endpoints [350](#), [352](#)
    - exporting [72](#)
    - expression maps [353](#), [354](#), [360](#)
    - fader [346](#)
    - files, *See* MIDI files
    - inputting [325](#)
    - instruments [310](#), [321](#)
    - See also* MIDI instruments
    - lanes [324](#)
    - loading instruments [311](#)
    - markers [333](#)
    - navigation [53](#)
    - note input [139](#), [157](#)
    - note range [100](#)
    - pan [346](#)
    - percussion maps [353](#), [362](#), [365](#)
    - piano roll editor [314](#)
    - playback [321](#), [350](#), [362](#)
    - ports [350](#)
    - quantization [68](#)
    - range [100](#)
    - recording, *See* MIDI recording
    - slurs [617](#)
    - tempo [327](#), [341](#)
    - tempo tracks [70](#), [72](#)
    - thru [170](#)
    - time track [327](#)
    - volume [469](#)
  - MIDI controllers [469](#)
    - automation [324](#), [325](#)
    - dynamics [469](#)
    - pedal lines [556](#)
  - MIDI devices [175](#)
    - chord symbols [205](#), [209](#), [210](#), [331](#)
    - disabling [175](#)
    - enabling [175](#)
    - expression maps [353](#), [360](#)
    - percussion kits [149](#)
    - percussion maps [362](#), [365](#)
    - playback templates [341](#)
    - polychords [210](#)
  - MIDI files [66](#)
    - dialog [67](#), [69](#)
    - exporting [69](#)
    - importing [66](#), [67](#), [705](#)
    - opening [58](#)
    - pedal lines [174](#)
    - playback overrides [369](#)
    - quantization [66](#), [68](#)
    - repeats [341](#)
    - requantizing [172](#)
    - sustain pedal controllers [174](#)
    - unpitched percussion [705](#)
  - MIDI Import Options dialog [67](#)
  - MIDI Input Devices dialog [175](#)

- MIDI instruments 310
  - loading 311
- MIDI Quantize Options dialog 68
- MIDI recording 170
  - audio buffer size 173, 174
  - devices 175
    - See also* MIDI devices
  - dialog 68
  - input pitch 142
  - latency 173
  - optimization 173
  - pedal lines 174
  - pitch 142
  - quantization 68, 170
  - repeats 172
  - requantizing 172
  - retrospective recording 172
  - setup 173
  - starting 170
  - stopping 170
  - sustain pedal controllers 174
  - tempo mode 341
  - time signatures 170
  - transport window 348
- MIDI thru 170
- millimeters
  - unit of measurement 54
- mini transport 31, 32
- minims 7, 131
- minor
  - chord symbols 206
  - keys 490
  - scales 490
- mixer 346
  - channel strips 347
  - hiding 348
  - hiding audio outputs 350
  - mute states 340, 346
  - muting tracks 338
  - ports 346
  - resetting 340
  - showing 348
  - solo states 340, 346
  - soloing tracks 338
  - soundtracks 126
  - videos 126
  - volume 340
  - window 30
- mixolydian chord symbols 207, 442
- mock-ups
  - exporting 73
- modal chord symbols 207, 442
- moderato 641
  - inputting 188, 190, 192
- modes 15, 27
  - chords 139, 442
  - Engrave 274
  - full screen 47
  - functions 15
  - Insert 139, 147
  - Play 307
  - Print 370
  - Setup 79
- modes (*continued*)
  - switching 15
  - tempo 341
  - toolbar 12
  - Write 128
- modifier keys
  - key commands 51
  - searching 51
- modulation wheel dynamics 469
- molto
  - dynamics 200, 202
  - tempo marks 188, 190
- monochrome graphics 380
- moon noteheads 514
- mordents 519
  - intervals 519
- motors 229, 557
  - inputting 232, 233
- mouse input 136
  - activating 129, 145
  - deactivating 129, 145
  - settings 137
- movements 28, 114
  - adding 20, 115
  - exporting 61, 62
  - flow headings 275
  - importing 60, 61
  - multiple on pages 278
  - splitting 273
  - tacets 285
- movies, *See* videos
- moving
  - arpeggio signs 534
  - automation events 326
  - bar numbers 414, 415
  - bar repeats 585
  - bar rests 605
  - barlines 407
  - caret 142, 162
  - chord symbols 440
  - clefs 445
  - dynamics 457, 464
  - flow headings 280
  - grace notes 516
  - instruments between players 104
  - jazz articulations 543
  - key signatures 493
  - lyrics 503
  - markers 569
  - MIDI data 326
  - notes 271, 301, 316, 427, 516, 692
  - octave lines 450
  - ornaments 520, 521
  - pauses 487
  - pedal lines 551
  - playhead 337
  - playing techniques 558
  - rehearsal marks 563
  - repeat endings 577
  - repeat markers 581
  - rests 301, 605
  - rhythm slashes 593
  - slash regions 595

- moving (*continued*)
    - slurs 609, 611
    - tabs 46
    - tempo marks 330, 645
    - time signatures 673
    - tremolos 679
    - tuplets 683
    - view 40
  - MP3 files
    - exporting 73
  - multi-bar rests 604
    - bar numbers 413
    - hiding 604
    - showing 604
    - tacets 285, 286
  - multi-note tremolos 676
    - deleting 678
    - inputting 251, 252
    - moving 679
    - popover 245
    - speed 678
    - types 245
  - multi-pasting 270
  - multi-rests, *See* multi-bar rests
  - multi-staff instruments 630
    - cross-staff beams 427
    - cross-staff slurs 610
    - hiding staves 284, 304
  - multiple
    - codas 580
    - flows on pages 278
    - movements 114
    - segno 580
  - multiple-voice contexts 707
    - articulations 398
    - dynamics 459
    - fermatas 485, 487
    - grace notes 480, 608
    - inputting notes 153
    - note alignment 707
    - notes 710
    - ornaments 520, 521
    - rests 599, 601
    - rhythm dot consolidation 517
    - slashes 592, 594
    - slurs 608
    - stem direction 480, 637, 710
    - ties 661
    - voice column index 710
  - music
    - arranging 269
    - editing 136
  - music area 13, 35
    - event display, *See* event display
    - making selections 259
    - moving music 40
    - multiple windows 46
    - opening layouts 34, 43
    - page arrangements 41
    - panels 16
    - selecting views 47
    - zoom options 42
  - Music Fonts dialog 294
  - music frame chains
    - propagating part formatting 291, 293
  - music frames
    - margins 282
    - padding 282
  - MusicXML
    - chord symbols 443
    - dialog 64
    - exporting 64
    - importing 63
    - opening 58
    - pedal lines 556
    - percussion 706
    - repeat endings 578
    - resetting beaming 423
    - staff labels 619
  - muted noteheads 513
  - muters 557
    - hiding 560
    - inputting 232, 233
    - techniques 229
  - muting
    - deactivating 340, 346
    - instruments 339
    - items 340
    - notes 264, 340
    - tracks 338, 346
- ## N
- names
    - drum sets 105
    - flows 116
    - instruments 93, 94, 98
    - layouts 93, 97, 119
    - percussion kits 105
    - player groups 112, 113
    - players 93, 97
    - staff labels 93, 98
  - naming schemes
    - file names 379
  - Nashville
    - chord symbols 206
    - numbers 205
  - naturale 557
    - hiding 560
    - inputting 229, 232, 233
  - naturals
    - hiding 391
    - inputting 155
    - parentheses 391
    - showing 391
  - navigation
    - caret 142
    - chord symbols popover 208
    - fingerings popover 176
    - lyrics popover 238
    - note input 143, 144
    - print preview area 36
    - rhythmic grid 137
  - nested
    - slurs 610, 611
    - tuplets 681

- nested slurs
  - endpoints 609
- new projects
  - starting 56
  - templates 55, 56
- niente hairpins 459
  - changing 460
  - circle 459
  - inputting 200, 202, 204
  - styles 460
  - text 459
- no chord symbols 207
- non-drop frame timecodes 571
- non-power of two time signatures 665
- non-sustaining instruments 466
- non-transposing layouts 120
- nontuplets 680
- notated duration 368
  - played duration 368
  - requantizing 172
- notation reference 389
- notations
  - appearance 132
  - changing 265
  - copying 269, 270
  - inputting 175
  - percussion kits 693
  - properties 132, 133
  - selecting 40, 259
  - settings 87, 89
  - zoom options 42
- Notations panel 128, 136
- Notations toolbox 134
- note durations 131, 368
  - changing 151
  - forcing 152
  - hiding 131
  - quantization 68
  - selecting 151
  - showing 131
  - tempo equations 189
- note grouping 433
  - changing 152
  - hemiola 152
  - meter 433, 434
  - pick-up bars 667
  - ties 159
- note input 139, 143, 315
  - adding notes 165
  - caret 139, 142
  - chord input 139
  - chords 161
  - grace notes 160
  - input pitch 142
  - inputting vs. editing 136
  - Insert mode 139
  - lock to duration 168
  - MIDI 170, 172, 173
  - mouse input 145
  - muting notes 264
  - percussion kits 147, 149, 150
  - pitch 142
  - playing notes back 264
- note input (*continued*)
  - register selection 144
  - repitching notes 168
  - rests 600
  - retrospective recording 172
  - rhythmic grid 138
  - starting 142
  - stem direction 150
  - ties 159
  - tuplets 162
  - voices 153
- note spacing 301
  - changing 301
  - copying to other layouts 293
  - default 301
  - galley view 40
  - grace notes 480
  - layout options 87, 301
  - lyrics 497
  - signposts 267
- note values, *See* note durations
- note velocities
  - MIDI import 67
- notehead sets 510, 511
  - designs 511, 514
  - pitch-dependent 514
  - scale degree 514
  - types 510
- noteheads 511
  - aikin 514
  - arrows 512
  - articulations 399
  - changing 515
  - circular 511
  - crosses 512
  - designs 511, 514, 515
  - See also* notehead sets
  - diamond 512, 513
  - dotted 514
  - five-line staff 698
  - funk 514
  - large 513
  - moon 514
  - muted 513
  - percussion 696–698, 700
  - pitch-dependent 514
  - playing technique-specific 696, 699
  - playing techniques 697, 698
  - rectangular 514
  - sets, *See* notehead sets
  - shapes 511, 514
  - See also* notehead sets
  - slashes 591, 711
  - square 514
  - time signatures 671
  - triangular 512
  - types 511
  - unpitched percussion 697, 698
  - walker 514
  - wedges 512
- notes 510
  - accidentals 131, 155, 157
  - add intervals popover 165

notes (*continued*)

- adding to existing notes 165
- alignment 456
- appearance 132
- arpeggio signs 534
- articulations 131, 397–399
- auditioning 264, 265
- auxiliary 527
- beaming 421
- brass fingerings 474
- changing 168
- chords 161
- colors 708
- copying 269, 270, 397
- crossing to other staves 271, 427
- custom scale size 516
- deleting 269, 318, 678
- dotted 146, 433
- drum editor 316
- durations 131, 151, 317, 368
- dynamics alignment 456
- editing 129, 132
- enharmonic spelling 156
- filters 263
- fixing duration 152
- fonts 294
- ghost 692
- grace notes 160, 479
- grouping 433
- hiding 594
- horn branch indicators 474
- inputting 22, 139, 143, 146, 147, 152, 161, 315
- Insert mode 147
- jazz articulations, *See* jazz articulations
- length 151, 317
- lock to duration 168
- lyric alignment 504
- moving 271, 301, 316, 427, 516, 683, 692
- moving to other instruments 692
- multiple-voice contexts 710
- muting 340
- notated duration 368
- note spacing 301
- notehead designs 511
- notehead sets 510
- order 709
- overrides 368, 369
- parentheses 692
- percussion kits 147, 704
- piano roll editor 314–317
- pitch 167, 168
- pitch-dependent noteheads 514
- Play mode 315
- playback 353
- played duration 368, 369
- properties 133
- register 144, 167, 168
- removing stem direction changes 639
- repitching 168
- requantizing 172
- rests 600
- rhythm dots 146, 517
- rhythm slashes 712

notes (*continued*)

- rhythmic grid 137
- scale size 516
- secondary beams 430
- selecting 40, 258, 259
- showing 594
- size 516
- slash regions 594
- slashes 591, 711
- slurs 131, 609
- spacing 301
- spelling 156
- staff spacing 303
- stem direction 272, 636, 638, 639, 704
- stem length 640
- stemlets 432
- string fingerings 475, 517
- swapping 271
- terminology 7
- ties 159, 399, 657
- time signatures 671
- transposing 165, 167, 170, 317, 494
- tremolos 678, 679
- trill intervals 526, 527
- trills 522
- tuplets 680, 682
- types 131
- unbeaming 422
- unscaling 683
- voices 153, 272
- Notes panel 128, 131
  - showing more note durations 131
- Notes toolbox 129
  - scissors 659
- November music font 294
- numbers
  - backups 77
  - bar repeats 587, 588
  - bars 410, 417
  - beam lines 430
  - instruments 100
  - layouts 121
  - pages 545
  - rhythm slashes 597
  - slash region counts 597
  - time signatures 670
  - tuplets 687
  - verses 508
- numerators
  - styles 670
  - time signatures 663

**O**

- octatonic chord symbols 207
- octave divisions 491
  - EDO 491
  - tonality systems 492
- octave lines 448
  - alignment 450, 451
  - deleting 451
  - filter 263
  - handles 449

- 
- octave lines (*continued*)
    - inputting 211, 212, 214, 215
    - length 449
    - moving 450
    - panel 215
    - popover 211, 212, 214
    - position 450, 451
    - selecting 259
    - staff-relative placement 451
    - types 212, 448
  - octave transpositions 167
    - clefs 211, 444
    - octave lines 212, 448
  - octuplets 680
  - odd-numbered layouts
    - booklets 383
    - printing 374, 383
  - offsets
    - resetting 267
    - timecodes 122, 572
    - videos 122
    - voice columns 709, 710
  - omissions
    - chord symbols 206
  - open
    - key signatures 490
    - meter 671
    - style 671
    - time signatures 183, 665
  - opening
    - auto-saved files 75
    - files 58, 75
    - layouts 17, 43
    - MIDI files 58
    - mixer 348
    - MusicXML files 58
    - projects 56, 58, 59, 75
    - tabs 17, 43
    - templates 11, 56
    - video window 125
    - windows 18, 46
  - optical spacing
    - cross-staff beams 428
  - options
    - layout 87
    - page sizes 385
    - preferences 48
    - text formatting 256
    - toolbar 31
    - transport 31, 32
    - workspaces 31, 32
    - zoom 39, 42
  - orchestral
    - order 98, 112, 121
    - staff grouping 57, 437
    - templates 56, 57
  - orchestrating, *See* arranging
  - order
    - accidentals 391, 392, 489
    - articulations 398
    - instrument numbering 100
    - instruments in percussion kits 110
    - key signatures 489
  - order (*continued*)
    - layouts 121
    - notes 709
    - orchestral 112
    - players 98
    - rehearsal marks 564
    - repeat markers 580
    - score 98
    - tabs 45
    - voices 710
  - orientation
    - changing 277
    - exporting 385
    - landscape 385
    - portrait 385
    - printing 374, 385
  - ornaments 519
    - acciaccaturas 479
    - accidentals 519, 529
    - alignment 520
    - appoggiaturas 479
    - changing 265
    - deleting 269
    - filter 263
    - inputting 220, 223, 224
    - interval 519
    - jazz 542
    - See also* jazz articulations
    - length 524
    - moving 520, 521
    - panel 222, 224
    - placement 520
    - popover 220, 223
    - position 520
    - selecting 259
    - staff-relative placement 521
    - trills, *See* trills
    - types 220
  - Ornaments panel 224, 225, 227
  - ossia staves 630
    - playback 630
    - signposts 630
    - staff spacing 304
    - vertical spacing 303, 304
  - output
    - audio 48
  - output channel
    - mixer 346
  - outputs
    - mixer 350
    - plug-ins 350
  - overdubbing
    - MIDI recording 172
  - overlapping
    - accidentals 391, 392
    - articulations 399
    - slash regions 592
    - slurs 616
    - ties 653
  - Override Percussion Noteheads dialog 698
  - overrides
    - flow headings 275
    - note duration 368, 369



overrides (*continued*)  
  playback templates 341, 342  
  removing 369

## P

padding  
  frames 275  
  music frames 282  
  rests, *See* padding rests

padding rests 599  
  hiding 594  
  slash regions 594

page arrangements 40, 41  
page breaks, *See* frame breaks

page layouts 275  
  bars per system 287  
  casting off 287  
  divisi 635  
  empty staves 284  
  fixing 287, 288  
  left pages 278  
  multiple flows 278  
  page size 277  
  staff spacing 303  
  system spacing 303  
  systems 288  
  tacets 286

page margins 275  
  changing 276, 282

page numbers 545  
  count 297  
  flow headings 281, 546  
  flows 297  
  hiding 281, 546  
  initial 278, 546  
  numeral style 545  
  showing 281  
  tokens 297  
  total 297

page ranges  
  exporting 376  
  printing 376  
  selecting 382

page size 384, 385  
  changing 277  
  layout options 87  
  MusicXML files 63

page turns 288  
  first page on the left 278

page view 40  
  arrangements 41  
  changing to 47  
  flows 273

pages  
  arrangements 41  
  changing view 47  
  exporting 382  
  formatting 477  
  layouts 275, 287, 288  
  margins 275, 276, 282  
  master pages 275  
  multiple flows 278

pages (*continued*)  
  numbers, *See* page numbers  
  orientation 277  
  printing 382, 385  
  ranges 382  
  setup 385  
  size, *See* page size  
  templates 275  
  text tokens 295  
  total number 297  
  view options 39

pan 346

panels 14, 37  
  accidentals 182  
  arpeggio signs 225  
  bar repeats 246  
  barlines 195, 199  
  bars 195, 196  
  clefs 212, 213, 215  
  dynamics 202, 204  
  flows 79, 86  
  glissando lines 227  
  hiding 16, 32, 38  
  holds 218  
  jazz articulations 228  
  key signatures 180, 182  
  layouts 79, 83, 371  
  MIDI instruments 310  
  notations 136  
  notes 131  
  octave lines 215  
  ornaments 222, 224, 225, 227, 228  
  pauses 218  
  pedal lines 231, 235  
  Play mode 307  
  players 79, 80  
  playing techniques 231, 233, 235  
  Print mode 370  
  print options 372  
  properties 132  
  repeat endings 246  
  repeat markers 246  
  rhythm slashes 246  
  Setup mode 79  
  showing 16, 32, 38  
  tempo 190, 192  
  time signatures 185, 187  
  tonality systems 182  
  tremolos 246, 252  
  VST and MIDI Instruments 309  
  VST instruments 310  
  Write mode 128, 131, 132, 136

paper  
  duplex printing 383  
  orientation 385  
  size 277, 384, 385

paragraph styles 410  
  bar numbers 410, 411, 413  
  inputting text 255  
  tacets 285

parentheses  
  accidentals 391, 394  
  bar repeat counts 589

- parentheses (*continued*)
  - dynamics 458
  - fingerings 176, 177, 473
  - ghost notes 692
  - metronome marks 646, 647
  - octave line numerals 448
  - pedal continuation signs 554
  - percussion notes 692
  - slash region counts 598
  - string shift indicators 517
  - tempo marks 646, 647
  - time signatures 183, 186, 672
- part formatting 291, 293
  - system formatting 291
- part layouts 29, 83, 117
  - accidentals 156
  - adding flows 119
  - adding players 118
  - bar numbers 410, 411, 413
  - clefs 446
  - concert pitch 120
  - copying formatting 291, 293
  - copying properties 293
  - creating 117
  - deleting 121
  - divisi 635
  - enharmonic spelling 156
  - exporting 377
  - file names 379
  - flow headings 275, 280
  - flows 119, 279
  - flows on pages 278
  - formatting 291, 293
  - indents 634
  - instrument change labels 621
  - justification 282, 283, 303, 304
  - Layouts panel 83
  - left pages 278
  - margins 276, 282
  - markers 570
  - master pages 275, 279
  - multi-bar rests 413, 604
  - names 93
  - note spacing 301
  - opening 43
  - orientation 277
  - players 118
  - printing 374
  - propagating layouts 291, 293
  - removing flows 119
  - renumbering 121
  - restoring 121
  - staff labels 620
  - staff size 626
  - staff spacing 283, 303, 304
  - switching 43
  - system dividers 631
  - system formatting 291
  - system justification 282
  - system spacing 303, 304
  - tacets 285–287
  - time signatures 675
  - transposing 120
- part names 93
  - changing 97
- partial beams 422
- parts, *See* part layouts
- pasting, *See* copying
- patches
  - endpoints 350
  - playback 350, 353, 362
- pauses 483
  - appearance 265
  - barlines 488
  - breath marks, *See* breath marks
  - caesuras, *See* caesuras
  - changing 486
  - default settings 485
  - deleting 269
  - duration 265
  - fermatas 483, 487
  - filter 263
  - inputting 215, 217, 218
  - linked 486
  - moving 487
  - multiple at same position 486
  - panel 218
  - playback 483
  - popover 215, 218
  - position 485
  - selecting 259
  - single staves 486
  - staff-relative placement 485
  - types 215, 483
- PDF files 386
  - color 380
  - exporting 377
  - fonts 381
  - layout numbers 121
- pedal level changes 549
  - removing 549
- pedal lines 548
  - alignment 550
  - appearance 553–556
  - changing 265
  - continuation lines 548, 553, 554
  - deleting 269
  - duration 556
  - filter 263
  - formatting 553, 554
  - grace notes 551
  - hooks 553
  - inputting 229, 231, 234, 235
  - length 552
  - levels, *See* pedal level changes
  - lifts 549
  - MIDI import 67, 174
  - MIDI recording 174
  - moving 551
  - MusicXML import 556
  - muting in playback 340
  - order 550
  - panel 231, 235
  - parentheses 554
  - percussion 557
  - playback 556

- pedal lines (*continued*)
  - popover 231, 234
  - position 550, 551
  - releases 553
  - removing retakes 549
  - retakes, *See* pedal retakes
  - signposts 267
  - staff-relative placement 550
  - start signs 553, 554
  - text 554–556
  - types 231, 548
- pedal retakes 549
  - adding 231, 234, 235
  - removing 549
- percussion 689
  - drum sets 690
  - kits, *See* percussion kits
  - legends 701
  - note input 315
  - noteheads 696
  - playing techniques 367
  - tremolos 367
- Percussion Instrument Playing Techniques dialog 697
- percussion kits 689, 690
  - adding instruments 107
  - caret 147
  - changing instruments 107
  - creating 102, 103, 107
  - drum sets 105, 108, 690, 703
  - dynamics 694
  - editing area 105, 694
  - exporting 690
  - five-line staff 625, 694
  - gap sizes 111
  - grids 108–111, 694
  - groups 108–110
  - importing 691
  - individual instruments vs. kits 689
  - instrument order 110
  - legends 701
  - moving notes 692
  - naming 105, 109
  - notations 693
  - note input 150, 315
  - playing techniques 691
  - presentation types 105, 689, 694, 695
  - removing instruments 111
  - rhythm slashes 712
  - single-line instruments 694
  - spacing 111
  - staff labels 105, 623, 694
  - staff-relative legend placement 703
  - staves 105, 689, 694, 695
  - stem direction 105, 150, 703, 704
  - stickings 694
  - voices 703, 704
- percussion legends 701
  - adding 701
  - changing 702
  - handles 702
  - instrument names 703
  - length 702, 703
  - ranges 701, 702
- percussion legends (*continued*)
  - signposts 267, 701
  - sounding instruments 702
  - staff-relative placement 703
  - types 701, 702
- percussion maps 362
  - creating 365
  - custom 365
  - dialog 362
  - endpoints 350, 353
  - exporting 366
  - importing 366
  - linking 353
- Percussion Maps dialog 362
- percussion stickings 694
- performance instructions 477
- Petaluma music font 294
- phrases
  - bar repeats 265, 585
- phrygian chord symbols 207, 442
- piano
  - dynamics 200, 202, 204, 454
  - level changes 549
  - pedal lines 548, 549
  - playback 556
  - retakes 549
  - substitution fingering 471
- piano roll editor 314
  - changing note durations 368
  - deleting notes 318
  - event display, *See* event display
  - inputting notes 315
  - instrument tracks 321
  - moving notes 316
  - note length 317
  - played vs. notated durations 368
  - slurred notes 617
  - tracks 319
  - transposing notes 317
  - zoom 319
- pick-up bars 665, 667
  - deleting beats 194, 401, 402
  - inputting 183, 186, 187
  - turning bars into 667
- pictures
  - videos 122
- pitch
  - accidentals 157, 390
  - add intervals popover 165
  - changing 167, 168
  - clefs 213, 444
  - concert 120
  - input 142
  - jazz articulations 541
  - key signatures 489
  - microtonal 393, 491
  - note input 144
  - noteheads 510, 514
  - notes 167
  - octave lines 214, 215, 448
  - transposed 120
  - trills 526–529, 531

- pizzicato 557
  - hiding 560
  - inputting 229, 232, 233
- placement
  - articulations 399
  - breath marks 485
  - caesuras 486
  - changing 266
  - clefs 445
  - dynamics 455
  - fermatas 485
  - fingerings 470
  - glissando lines 537
  - grace notes 480
  - lyrics 497, 503
  - ornaments 520
  - pauses 485
  - pedal lines 550
  - playing techniques 557, 558
  - rehearsal marks 562
  - rests 599
  - slurs 606, 609
  - tempo marks 644
  - ties 653
  - time signatures 664
  - tremolos 677
  - tuplets 680
  - voices 707
- Play mode 15, 307
  - channel strips 347
  - deleting notes 318
  - drum editor 314
  - Endpoint Setup dialog 350
  - event display 312
  - exporting expression maps 361
  - expression maps 353, 359
  - inputting notes 315
  - loading instruments 311
  - mixer 346, 347
  - moving notes 316
  - note durations 317, 368
  - overrides 369
  - panels 37, 307, 309
  - percussion maps 362
  - piano roll editor 314
  - playback 337
  - playhead 336
  - switching 307
  - toolboxes 307, 308
  - tracks 319, 335
  - transport 32, 348
  - unpitched percussion 705
  - whitelisting VST 2 plug-ins 311
  - window elements 307
  - zooming 319
- Play toolbox 308
- playback 337, 560
  - arpeggio signs 535, 536
  - articulations 400
  - audio buffer size 173, 174
  - bar repeats 585
  - channel strips 347
  - chord symbols 331, 333
  - playback (*continued*)
    - chords 265
    - click 348
    - default settings 342
    - default tempo 641, 646
    - endpoints 350, 352, 353
    - exporting audio 73
    - expression maps 353, 354
    - fader 346
    - fast-forwarding 337
    - fixed tempo 341
    - follow tempo 341
    - hiding notes 594
    - instruments 353, 362
    - jazz articulations 541
    - line 336
    - metronome 348
    - mixer 346, 347
    - multiple windows 46
    - muting 338–340
    - note durations 368
    - notes 264, 265
    - number of times played 582
    - ossia staves 630
    - overrides 369
    - patches 350
    - pauses 483
    - pedal lines 556
    - percussion 353, 362, 697, 698
    - playhead 336
    - playing techniques 359, 361, 560
    - playthroughs 582
    - plug-ins 346
    - preferences 48
    - recording notes 172
    - repeats 341, 582
    - resetting volume 340
    - rewinding 337
    - selections 337
    - silence playback template 341
    - slash regions 594
    - slurs 617
    - soloing 338–340
    - starting 337
    - swing 343–345
    - templates 310, 342, 350
    - tempo 348, 648–650
    - tempo equations 651
    - trills 529, 530
    - volume 340, 346
  - playback templates 341
    - changing 342
    - overriding 341
    - resetting 342
  - played duration 368
    - changing 368, 369
    - notated duration 368
    - overrides 368, 369
  - player cards 80
    - disclosure arrows 38
  - player groups 28, 80, 112
    - adding players 113
    - creating 112

- player groups (*continued*)
  - deleting 113
  - moving players 113
  - naming 113
  - removing players 114
- player names 93
  - changing 97
  - Play mode 320
  - player tracks 320
  - text tokens 295
- player tracks 320
  - colored regions 320
- players 28, 90, 91
  - adding 20, 99, 101, 113
  - adding to flows 115
  - cards 80
  - clefs 446
  - copying 93
  - deleting 99, 104, 113
  - divisi 635
  - duplicating 93
  - empty staves 284
  - ensembles 80, 99
  - extra staves 630
  - flows 90, 115
  - groups 28, 79, 80, 112, 113
  - hiding 115, 118
  - importing 60, 61
  - instrument change labels 621
  - instrument names 98
  - instruments 28, 47, 100, 101, 103
  - layout names 97
  - layouts 90, 118
  - lists 295
  - maximum number 91
  - merging 60, 61, 63, 66
  - moving between groups 113
  - moving instruments between 104
  - multiple instruments 47, 101
  - muting 339, 340
  - naming 93, 97, 98
  - numbering instruments 100
  - ossia staves 630
  - panel 79, 80
  - part layouts 117
  - percussion kits 102, 103
  - player names 97
  - position in score 98
  - removing from flows 115
  - removing from groups 114
  - section players 80, 91, 92
  - showing 115, 118
  - solo players 80, 91, 92
  - soloing 339, 340
  - staff labels 619
  - staff size 627
  - swing playback 344, 345
  - text tokens 295
- Players panel 79, 80
  - hiding 80
  - showing 80
- playhead 336
  - fast-forwarding 337
  - moving 337
  - playback 337
  - position 337
  - repeats 341
  - rewinding 337
  - transport 348, 349
  - zooming 319
- playing technique-specific noteheads 696–698
  - appearance 700
  - articulations 367
  - creating 699
  - playback 367
- playing techniques 557
  - adding text 559
  - changing 265, 691
  - combinations 359, 361, 367
  - creating 699
  - deleting 269
  - divisi 635
  - expression maps 353, 560
  - filter 263
  - hiding 560
  - inputting 229, 232, 233
  - lanes, *See* playing techniques lanes
  - moving 558
  - muting 340
  - noteheads 367, 696–700
  - panel 231, 233
  - percussion 367, 693, 696–698
  - placement 557
  - playback 353, 560
  - popover 229, 232
  - position 557
  - selecting 259
  - showing 560
  - signposts 560
  - staff-relative placement 558
  - tracks, *See* playing techniques lanes
  - types 229, 557
- playing techniques lanes 323
  - hiding 324
  - showing 324
- Playing Techniques panel 233, 235
- playthroughs 575
  - bar numbers 420
  - changing 582
  - MIDI recording 172
  - repeat barlines 582
  - repeats 582
  - total number 575
- plops 541
  - inputting 222, 228
- plug-ins
  - expression maps 354
  - mixer 350
  - playback 346
  - whitelisting 311
- PNG files 386
  - color 380
  - exporting 377

- 
- PNG files (*continued*)
    - layout numbers 121
    - resolution 387
  - poco a poco
    - dynamics 200, 202, 464
    - tempo marks 644
  - points
    - unit of measurement 54
  - polychord chord symbols 207
    - inputting 210
  - polymeter
    - time signatures 186, 187
  - polytonality
    - key signatures 181, 182
  - popovers
    - add intervals 165, 167
    - arpeggio signs 221, 224
    - bar repeats 245, 254
    - barlines 194–196, 198
    - bars 194, 196
    - beats 194
    - changing items 265
    - chord symbols 205, 208
    - clefs 211, 213
    - dynamics 200, 202
    - fingerings 176, 177
    - glissando lines 221, 226
    - holds 215, 218
    - instruments, *See* instrument picker
    - jazz articulations 222, 228
    - key signatures 179, 181
    - lyrics 236–238
    - metronome marks 188
    - octave lines 211, 212, 214
    - ornaments 220, 223, 224, 226, 228
    - pauses 215, 218
    - pedal lines 231, 234
    - playing techniques 229, 232, 234
    - repeat endings 244
    - repeat markers 244
    - repeats 244, 251, 254
    - rhythm slashes 245
    - tempo 188, 192
    - time signatures 183, 186
    - tremolos 245, 251
    - trills 221, 527
    - tuplets 162, 163
  - portamento 537
  - portrait orientation 385
  - ports 321, 327, 331, 350
    - changing 352
    - chords track 331
    - expression maps 350, 353
    - instrument tracks 321
    - instruments 352
    - mixer 346
    - percussion maps 350, 353
    - setup 350
    - time track 327
  - position
    - arpeggio signs 534, 535
    - articulations 399
    - dynamics 455
  - position (*continued*)
    - fingerings 470
    - glissando lines 537
    - grace notes 480
    - gradual dynamics 465
    - hairpins 465
    - inputting 136
    - instruments in percussion kits 110
    - items 267
    - jazz articulations 543
    - key signatures 493
    - new items 136
    - notes in multiple-voice contexts 707
    - octave lines 450, 451
    - pauses 485
    - pedal lines 551
    - resetting 267
    - slurs 606, 609
    - time signatures 664
    - trill intervals 529
    - videos 124
  - possibile
    - dynamics 202
  - preamble 477
  - preferences
    - key commands 49, 52
    - MIDI 174
    - mouse input 137
    - pedal lines 174
    - sustain pedal controllers 174
  - Preferences dialog 48
  - prefixes
    - dynamics 460, 461
    - fingerings 474
    - rehearsal marks 566
  - presentation types 105
    - changing 695
    - dynamics 694
    - editing area 105, 694
    - percussion kits 689, 694
  - presto 641
    - inputting 188, 190, 192
  - previous versions 59
  - primary bar number sequence
    - changing 417
    - returning to 419
  - primary beams 430
  - Print mode 15, 370
    - landscape orientation 382
    - page setup 385
    - panels 37, 370–372
    - portrait orientation 382
    - printers 381
    - switching 370
    - toolboxes 370
  - Print Options panel 370, 372
  - print preview area 36
    - navigation 36
  - printers 381
    - selecting 374
  - printing 370, 374
    - annotations 387
    - arrangements 382

- 
- printing (*continued*)
- booklets 383
  - borders 387
  - copies 374
  - crop marks 387
  - date 387
  - duplex 374, 383
  - job types 382
  - landscape 382, 385
  - layouts 374
  - macOS options 376
  - options 372
  - orientation 385
  - page sizes 384, 385
  - paper sizes 384
  - portrait 382, 385
  - preview 36
  - ranges 374, 376
  - scale size 374
  - signposts 387
  - spreads 382
  - time 387
  - watermarks 387
- program changes
- expression maps 353, 354
- Project Info dialog 87
- flow titles 116
- project information 87
- master pages 477
  - text tokens 87
  - tokens 116, 296
- project window 30
- opening multiple 46
  - Play mode 307
  - Print mode 370
  - Setup mode 79
  - splitting 45
  - Write mode 128
- projects 27, 60
- auto-save 75
  - auto-save location 76
  - backup location 77
  - backups 77
  - different Dorico versions 59
  - exporting 64, 69, 72
  - exporting flows 61, 62
  - flows 60–62, 114–116, 273
  - frame rates 127
  - full screen mode 47
  - importing flows 60, 61, 63
  - layouts 117
  - MIDI files 69
  - movements 114
  - multiple windows 18, 46
  - MusicXML files 64
  - opening 46, 58, 59, 75
  - recent 59
  - recovering 75
  - splitting flows 273
  - start area 34
  - starting 19, 56
  - Steinberg Hub 55
  - tabs 45
- projects (*continued*)
- templates 55–57
  - titles 116
  - tokens 296
  - videos 122, 124
  - window 30
  - workspaces 42
- Propagate Part Formatting dialog 291
- propagating
- part formatting 291, 293
  - properties 293
- properties 132
- copying to other layouts 293
  - notations 133
  - notes 133
  - selected items 132
  - videos 122
- Properties panel 37, 132
- disclosure arrow 39
  - hiding 39
  - showing 39
  - Write mode 128
- punctuation
- timecodes 571
- ## Q
- qualifiers
- dynamics 200, 202
- quality
- chord symbols 206, 210, 438, 439
- quantization
- changing 172
  - dialog 68
  - importing MIDI 66
  - MIDI recording 170
  - requantizing 172
  - tuplets 68
- quarter notes 7, 131
- swing playback 343
  - tempo equations 651
- quarter tones 393, 492
- accidentals 393
  - transposing 165
- quartet templates 56
- staff grouping 57, 437
- quavers 7, 131
- quintet templates 56
- staff grouping 57, 437
- quintuplets 680
- ## R
- rallentando 650
- inputting 188, 190, 192
- ranges
- arpeggio signs 534
  - bar numbers 413
  - copying notes 270
  - instruments 100
  - metronome marks 648, 649
  - pages 374, 376
  - percussion legends 702

- ranges (*continued*)
  - selecting 259
  - swapping 271
- rastral size 626
- rates
  - frames 126
- ratios
  - grace notes 481
  - note spacing 301
  - swing playback 343
  - tuplets 687
- read-only mode 58, 91
- recent projects 59
- recipes 379
- recording
  - input pitch 142
  - MIDI 170, 173, 341, 348
  - retrospective recording 172, 348
  - tempo 341
- Recover Auto-saved Projects dialog 75
- recovering 172
  - backups 77
  - files 75, 77
  - notes 172
- rectangle
  - bar number enclosures 412
  - noteheads 514
  - text enclosures 300
- regions
  - bar repeats 584
  - counts 597
  - Play mode, *See* colored regions
  - slashes 591, 595
- register
  - changing 167, 168
  - clefs 213, 444, 447
  - note input 144
  - octave lines 214, 215, 448
  - plug-ins 311
  - transposing 167, 447
- rehearsal marks 562
  - deleting 564
  - filter 263
  - inputting 239
  - moving 563
  - multiple positions 563, 632, 633
  - order 564
  - placement 562
  - position 562, 563
  - prefixes 566
  - sequences 564, 565
  - staff-relative placement 562
  - suffixes 566
  - types 565
  - vertical positions 632
- relative tempo changes 642
  - values 650
- reloading
  - video files 124
- removing, *See* deleting
- renaming
  - drum sets 105
  - flows 116
- renaming (*continued*)
  - instruments 98
  - layout names 97
  - layouts 119
  - percussion kits 105
  - player groups 113
  - players 97
- renumbering
  - layouts 121
- repeat barlines 406
  - exporting 341
  - inputting 195, 198
  - MIDI recording 172
  - number of times played 582
  - playback 341
  - playthroughs 582
  - popover 195, 198
- repeat endings 575
  - additional endings 247, 249
  - alignment 577
  - appearance 577
  - bar numbers 420
  - deleting 269
  - exporting 341
  - final segments 577
  - handles 576
  - inputting 244, 246–249
  - length 576
  - MIDI recording 172
  - moving 577
  - multiple positions 577, 632, 633
  - MusicXML files 578
  - number of playthroughs 575
  - panel 246, 248, 249
  - playback 341
  - playthroughs 575
  - popover 244, 247
  - position 577
  - segments 575, 577
  - types 244
  - vertical positions 632
- repeat jumps, *See* repeat markers
- repeat markers 579
  - bar numbers 420
  - changing 265
  - deleting 269
  - exporting 341
  - index 580
  - inputting 244, 246, 250, 251
  - MIDI recording 172
  - moving 581
  - multiple 580
  - multiple positions 581, 632, 633
  - number of times played 582
  - order 580
  - panel 246, 251
  - playback 341, 582
  - popover 244, 250
  - position 581
  - staff-relative placement 581
  - text 580
  - types 244
  - vertical positions 632



- repeat sections, *See* repeat markers
- Repeat Structures panel 246
- repeats
  - barlines, *See* repeat barlines
  - bars 584
  - counts 587
  - endings, *See* repeat endings
  - frequency 588
  - grouping 589, 590
  - length 265, 585
  - markers, *See* repeat markers
  - playback 582
- repeats popover 244
- repitching notes 168
- requantizing notes 172
- resetting
  - appearance 266
  - bar numbers 418
  - beaming 423, 424, 427
  - beams 431
  - expression maps 354
  - items 266, 267
  - key commands 54
  - layouts 121
  - part layouts 121
  - percussion maps 362
  - playback templates 342
  - position 267
  - secondary beams 431
  - tempo 642
  - volume 340
- resolution
  - images 387
  - rhythmic grid 39
- respelling
  - accidentals 156
  - chord symbols 442
  - notes 156
- rest grouping, *See* note grouping
- restorative text 556
- rests 599
  - alignment 599
  - bar rests, *See* bar rests
  - changing type 601
  - colors 602
  - consolidation 601, 604
  - deleting 602
  - durations 151
  - empty bars 603
  - explicit 599–601
  - forcing duration 152
  - grouping 433
  - hiding 594, 602–604
  - implicit 599–601
  - inputting 129, 152, 158
  - moving 301, 605
  - multi-bar rests 604
  - padding 594
  - placement 599
  - position 599
  - restoring 602
  - showing 602–604
  - voices 599, 601, 605
- retakes, *See* pedal retakes
- retrieving, *See* recovering
  - See also* retrospective recording
- retrospective recording 172, 348
- reverb channels 347
  - mixer 346
- rewinding 337
- rhythm
  - locking 168
  - requantizing 172
- rhythm dots 146
  - consolidation 517
  - inputting 143, 146
  - number 146
  - voices 517
- rhythm section
  - brackets 437
  - chord symbols 441
  - staff grouping 437
- rhythm slashes 479, 591, 711
  - appearance 592
  - caret 139, 154
  - changing number 597
  - counts 597, 598
  - deleting 269
  - filter 263
  - font style 587
  - frequency 597
  - hiding counts 598
  - hiding rests 594
  - highlights 592
  - inputting 154, 246, 253
  - moving 593, 595
  - panel 246
  - parentheses 598
  - percussion kits 105, 110, 147, 712
  - placement 598
  - popover 245, 253
  - regions 591, 597
  - rests 594
  - splitting 595
  - staff position 110, 593
  - staff-relative placement 598
  - stem direction 593, 639
  - stems 596
  - type 712
  - vertical position 593
  - viewing options 592
  - voices 154, 272, 593, 711, 712
- rhythmic feel
  - changing 344
  - default settings 343
  - deleting changes 345
  - popover 190
  - signposts 267, 344, 345
- rhythmic grid 39, 137
  - changing 138
  - key commands 49, 52
  - resolution 39
  - selecting music 263
  - values 138
- rhythmic notation 591

- rhythmic slashes
  - font style 597
- right panel 37
- rim shots 557
  - inputting 232, 233
- rips 541
  - inputting 222, 228
- ritardando 650
  - inputting 188, 192
- ritenuto 650
  - inputting 188, 190, 192
- Roman numerals
  - flow numbers 297
  - page numbers 545
  - tokens 297
- roots
  - chord symbols 206, 210, 438, 439
- rulers
  - Play mode 312
  - rhythmic grid 137
- running headers
  - flow headings 281
  - hiding 281
- S**
- salzedo breath marks 485
- sample libraries 362
  - percussion maps 365
  - playback 353, 362
  - trills 529
- sampled trills 529, 530
- saving 55, 75
  - audio 69, 73
  - auto-save, *See* auto-save
  - backups 77
  - expression maps 361
  - folder location 76, 77
  - graphics files 377, 378
  - instrument names as default 94
  - layout options as default 87
  - MIDI files 69
  - MusicXML files 64
  - percussion kits 690
  - percussion maps 366
  - played notes 172
- scale degrees
  - chord symbols 205
  - Nashville numbers 206
  - noteheads 514
- scale size
  - barlines 406
  - cues 301
  - grace notes 301, 479, 481
  - note spacing 301
  - notes 516
  - printing 374, 384, 385
  - staves 626–628
- scales 491
  - degrees 438, 514
  - EDO 491
  - key signatures 489, 490
  - major 490
  - scales (*continued*)
    - minor 490
    - octave divisions 491
- scissors 129
  - activating 129
  - slashes 595
  - ties 659
- scoops 541
  - inputting 222, 228
- scores, *See* full score layouts
- scrapes 557
  - inputting 232, 233
- searching
  - ensembles 82
  - instruments 82
  - key commands 51, 52
- second voices
  - adding 153
  - bar rests 158
- secondary beams 430
  - changing 430
  - lines 430
  - resetting 431
- secondary brackets 436
  - sub-sub-brackets 436
- section players 91
  - adding 92
  - divisi 635
  - empty staves 284
  - ossia staves 630
  - staff labels 618
- sections
  - coda 579
  - fine 579
  - hiding 38
  - repeat 579
  - showing 38
- segments
  - final 577
  - repeat endings 576
- segno 579
  - inputting 250, 251
  - multiple 580
  - sections 579
- selecting 39, 258, 259
  - bars 262
  - beats 263
  - blue 467, 613
  - chords 265
  - everything 40, 259, 262, 263
  - extending selection 259
  - filters 263
  - flows 259
  - items 136, 258, 259
  - lyrics 499
  - marquee 39, 40
  - more 259
  - notations 39, 40
  - notes 39, 40, 258, 264, 265
  - status display 39
  - staves 259
  - system track 261

- selecting (*continued*)
  - tools [39](#)
  - transposing selections [170](#), [494](#)
- semibreves [7](#), [131](#)
- semiquavers [7](#), [131](#)
- sends [347](#)
  - mixer [346](#)
- separators
  - fingerings [474](#)
  - systems, *See* system dividers
  - time signatures [672](#)
  - timecodes [571](#)
- septuplets [680](#)
- sequences
  - bar numbers [417](#), [418](#)
  - page numbers [278](#)
  - rehearsal marks [564](#)
  - subordinate [418](#)
  - types [565](#)
- sets
  - drum sets [105](#), [108](#), [690](#)
- setting up
  - audio devices [48](#), [173](#), [174](#)
  - duplex printing [374](#)
  - key commands [52](#)
  - MIDI recording [173](#)
  - percussion kit note input [149](#)
  - windows [42](#)
  - workspaces [42](#)
- settings
  - audio [48](#)
  - copying properties [293](#)
  - layout-specific [87](#), [89](#)
  - MIDI import [67](#)
  - mouse input [137](#)
  - preferences [48](#)
  - videos [122](#)
- Setup mode [15](#), [79](#)
  - adding players [99](#)
  - ensembles [99](#)
  - flows [90](#), [114](#), [115](#)
  - instruments [100](#)
  - layouts [90](#), [117](#)
  - panels [37](#), [79](#), [80](#), [83](#), [86](#)
  - percussion [105](#)
  - player groups [112](#)
  - players [90–93](#)
  - signposts [267](#)
  - switching [79](#)
- sextuplets [680](#)
- shakes [542](#)
  - inputting [221](#), [223](#), [224](#)
- shape
  - bar number enclosures [412](#)
  - beaming [426](#), [430](#), [432](#)
  - noteheads [511](#), [514](#)
  - tuplet brackets [685](#), [686](#)
- sharps [390](#)
  - hiding [391](#)
  - inputting [155](#)
  - parentheses [391](#)
  - quarter tones [393](#)
- sharps (*continued*)
  - respelling [156](#)
  - showing [391](#)
- short
  - stemlets [432](#)
- shortcuts, *See* key commands
- showing, *See* hiding
- signatures
  - annotations [387](#)
  - key signatures, *See* key signatures
  - printing [387](#)
- signposts [267](#)
  - barlines [403](#)
  - bars [403](#)
  - chord symbols [439](#)
  - dynamics [461](#)
  - exporting [387](#)
  - extra staves [630](#)
  - frame breaks [289](#)
  - hiding [268](#)
  - key signatures [492](#)
  - ossia staves [630](#)
  - percussion legends [701](#)
  - playing techniques [560](#)
  - printing [387](#)
  - showing [268](#)
  - staff changes [630](#)
  - system breaks [289](#), [290](#)
  - tempo marks [646](#), [647](#)
  - time signatures [674](#)
- silence
  - hairpins [459](#)
  - muting items [340](#)
  - playback template [341](#), [342](#)
- simile
  - dynamics [200](#), [202](#), [460](#)
- simple time signatures [665](#)
- single barlines [406](#)
- single-line
  - percussion kits [694](#), [695](#)
  - staves [625](#)
- single-note tremolos [676](#)
  - deleting [678](#)
  - inputting [251](#), [252](#)
  - moving [679](#)
  - playback [367](#)
  - popover [245](#)
  - speed [678](#)
  - types [245](#)
- single-voice contexts [707](#)
  - articulations [398](#)
  - grace notes [480](#)
  - stem direction [480](#), [636](#)
  - tie curvature direction [661](#)
- sixteenth notes [7](#), [131](#)
- size
  - audio buffer [173](#), [174](#)
  - gaps [111](#)
  - grace notes [479](#), [481](#), [516](#)
  - metronome marks [642](#)
  - noteheads [511](#)
  - notes [516](#)
  - pages [87](#), [277](#), [384](#)

- size (*continued*)
  - paper 384, 385
  - staves 87, 626, 627
  - system objects 626, 627
  - tempo marks 642
  - time signatures 668, 669
  - tracks 319, 335
  - unit of measurement 54
  - video window 125
- slants
  - beams 424, 482
  - pedal line hooks 553
- slash notation 591
- slash regions 591
  - counts 597, 598
  - deleting 269
  - filter 263
  - font style 587
  - handles 596
  - hiding other notes 594
  - hiding rests 594
  - highlights 591, 592
  - inputting 253
  - length 596
  - moving 593, 595
  - multiple 592
  - overlapping 592
  - parentheses 598
  - placement 598
  - popover 245
  - rests 594
  - showing other notes 594
  - staff position 593
  - staff-relative placement 598
  - stem direction 593
  - stems 596
  - vertical position 593
  - viewing options 592
  - voices 593, 711
- slash voices 711
  - caret 139, 154
  - inputting 154
  - moving 593
  - multiple-voice contexts 592
  - percussion kits 105, 147, 712
  - popover 245
  - regions 245, 591
  - staff position 593
  - stem direction 639
  - vertical position 593
- slashes 479, 591
  - grace notes 479–481
  - noteheads 511
  - notes, *See* tremolo strokes
  - regions, *See* slash regions
  - stemless 712
  - stems, *See* tremolo strokes
  - time signatures 672
  - tremolos, *See* tremolo strokes
  - voices, *See* slash voices
- slurs 606, 655
  - articulations 398, 609
  - collision avoidance 610, 616
- slurs (*continued*)
  - cross-staff 609, 610
  - cross-voice 609, 610
  - curvature 606, 608, 614, 616
  - dashed 615
  - deleting 269
  - dotted 615
  - duration 617
  - East Asian elision 509
  - editorial 615
  - endpoints 609
  - filter 263
  - flat slurs 616
  - formatting 616
  - frame breaks 617
  - grace notes 480, 607, 608
  - inputting 255, 610, 611
  - inverting 606, 608, 614
  - length 612
  - linking 265, 613
  - moving 611
  - muting 340
  - nested 609
  - nested slurs 610, 611
  - overlapping 616
  - panel 131
  - placement 606, 608, 614
  - playback 617
  - position 606, 608
  - selecting 259
  - staff lines 608
  - styles 615, 616
  - system breaks 617
  - ties 607, 609
  - ties vs. slurs 655
  - unlinking 265, 614
  - within slurs 610, 611
- smears 542
  - inputting 221, 223, 224
- smooth
  - jazz articulations 541
- SMuFL 294
- solfège chord symbols 206
- solid
  - slurs 615
  - tempo marks 651
  - ties 659
- solo players 91
  - adding 20, 92
  - empty staves 284
  - extra staves 630
  - ossia staves 630
  - staff labels 618
  - staff size 627
- soloing 346
  - deactivating 340, 346
  - instruments 339
  - tracks 338
- sordino 557
  - hiding 560
  - inputting 232, 233
- sorting
  - layouts 121

- sostenuto pedal 548
  - MIDI controller 556
- sound libraries, *See* sample libraries
- sounding
  - percussion legend ranges 701, 702
  - pitch, *See* concert pitch
- sounding pitch
  - input pitch 142
  - layouts 120
- sounds, *See* playback
- soundtracks
  - audio 126
  - volume 126
- source instruments 453
- space size 626
- spacing
  - accidentals 392
  - arpeggio signs 534
  - caesuras 219
  - cross-staff beams 428
  - galley view 40
  - gradual dynamics 464
  - layout options 87
  - lyrics 503, 504
  - notes 301
  - percussion kits 111
  - rehearsal marks 562
  - staves 303
  - tacets 287
  - voice columns 709, 710
- speed
  - arpeggio signs 536
  - bpm 648
  - changing 330, 648, 650
  - frame rates 126
  - tempo marks 641, 648, 650
  - tremolos 678
  - trills 523, 529, 530
  - videos 126
- spelling
  - accidentals 156, 157
  - notes 156, 157
- split point
  - MIDI import 67
- split stems 393, 640
- splitting
  - bars 403
  - beams 423
  - flows 273
  - multi-bar rests 604
  - project window 45
  - slash regions 595
  - ties 659
- spreads page arrangement 41, 382
- square noteheads 514
- squeezes 542
  - inputting 222–224
- staccato 396
  - inputting 175
- stacking order
  - accidentals 391, 392
- staff grouping
  - barline joins 408
  - default settings 57, 437
  - ensemble types 437
- staff labels 618
  - alignment 94
  - changing first system indent 634
  - Cubase 619
  - galley view 40
  - hiding 620
  - indents 621
  - instrument change labels 621
  - instrument names 93, 94, 98, 619
  - length 620
  - MusicXML import 619
  - numbering 100, 619
  - percussion kits 105, 623, 694
  - percussion legends 703
  - showing 620
  - transposing instruments 618, 622, 623
- staff lines
  - slurs 608
  - ties 653
- staff position
  - percussion kits 110
- staff size 626
  - changing 626–628
  - custom 628
  - dialog 628
  - individual staves 627
  - layouts 625
  - MusicXML files 63
  - rastral size 626
  - space size 626
- staff spacing 303
  - changing 303
  - default settings 303, 304
  - divisi 283
  - galley view 304
  - justification 283, 303, 304
  - layout options 87
  - rehearsal marks 562
- staff-relative placement
  - articulations 399
  - bar numbers 416
  - beaming 424
  - changing 266
  - dynamics 455
  - fingerings 472
  - lyrics 507
  - octave lines 451
  - ornaments 521
  - pedal lines 550
  - percussion legends 703
  - playing techniques 558
  - rehearsal marks 562
  - repeat markers 581
  - resetting 267
  - slash region counts 598
  - slurs 614
  - text 300
  - trills 521
  - tuplet brackets 685

- start area 34
- start position
  - videos 124
- start repeat barlines 195, 406
  - inputting 198
- start signs
  - appearance 553
  - pedal lines 553–555
  - text 555
- starting 142
  - area 34
  - Hub 55
  - MIDI recording 170
  - note input 142, 143
  - playback 337
  - players 34
  - projects 19, 34, 56
  - timecode values 572
  - workspaces 42
- status bar 15, 39
  - selection tools 39
  - view types 40
- status display 39
- staves 7, 625
  - adding 630
  - arranging tools 269
  - bar numbers 414
  - bar rests 603
  - barlines 408, 409
  - beaming 427–429
  - brackets 57, 437
  - chord symbols 120, 440, 441
  - clef for transposing instruments 447
  - copying items 269, 270
  - crossing notes 427
  - dialog 628
  - dividers, *See* system dividers
  - divisi 635
  - dynamics 455
  - dynamics linking 265, 467
  - extra 630
  - fermatas 487
  - five-line 623, 625, 694
  - galley view 47
  - gaps 579
  - grids 623, 694
  - groups 408, 437
  - hiding 90, 115, 118, 119, 284
  - indents 621, 625, 634
  - instrument change labels 621
  - large time signatures 669
  - layout options 625
  - markers 567, 572
  - multiple voices 153
  - notes 271
  - ossia staves 630
  - page view 47
  - pauses 485
  - percussion 694, 695
  - playback 337
  - rehearsal marks 632
  - repeat endings 632
  - repeat markers 581
- staves (*continued*)
  - selecting 259
  - showing 47, 115, 118, 284
  - single-line 567, 572, 573, 623, 625, 694
  - size, *See* staff size
  - slurs 609, 613
  - slurs linking 265
  - spacing, *See* staff spacing
  - stem length 640
  - swapping contents 271
  - system breaks 289
  - system dividers 631
  - system objects 632, 633
  - tacets 285
  - tempo marks 632
  - text 255, 632
  - ties 653, 657
  - time signatures 632, 669
  - timecodes 567, 572, 573
  - vertical spacing, *See* staff spacing
  - voices 153
  - width 282
- Steinberg Hub 55
  - opening projects 58, 59
- stem direction 636
  - beam groups 638
  - beam placement 424, 429
  - centered beams 426
  - changing 272, 593, 638, 639
  - chords 637
  - filters 263
  - grace notes 480, 482
  - middle line 636
  - multiple-voice contexts 637
  - notes crossed to other staves 427, 710
  - notes on middle line of staff 636
  - percussion kits 105, 150, 703, 704
  - resetting 424, 639
  - rhythm slashes 593, 639
  - single-voice contexts 636, 639
  - slur curvature 606
  - staff-relative placement 424
  - tie curvature 653
  - voices 272, 636, 639, 707
- stemless
  - rhythm slashes 712
- stemlets 432
- stems 636
  - altered unisons 640
  - articulations 399
  - audio 73
  - beam placement 429
  - beaming 422
  - deleting tremolos 678
  - direction, *See* stem direction
  - flags 636
  - grace notes 481, 482
  - length 482, 640
  - removing direction changes 639
  - rhythm slashes 593, 596, 712
  - slur endpoints 609
  - split stems 393, 640
  - stemlets, *See* stemlets

- stems (*continued*)
  - tremolos 679
  - tuplet placement 680
  - voices 636, 639
- step input, *See* note input
- stickings 694
- stopping, *See* starting
- straight lines
  - glissando lines 537
  - jazz articulations 543
- straight playback 343
- stress marks 396
  - inputting 175
- string instruments
  - fingering shifts 475
  - playing techniques 231–233, 557
  - specifying string 517
  - substitution fingering 471
  - techniques 229
- string shift indicators 475
  - angles 475
  - direction 475, 517
  - thickness 475
- strokes
  - slurs 615
  - ties 659
  - tremolos 676–678
- styles
  - appearance 266
  - breath marks 485
  - caesuras 485
  - fermatas 483
  - glissando lines 537, 538
  - jazz articulations 543
  - margins 275
  - niente hairpins 460
  - resetting 266
  - slurs 615, 616
  - tempo marks 642, 650
  - ties 659, 660
  - time signatures 670, 671
- sub-sub-brackets 436
- subito
  - dynamics 200, 202
- subordinate bar numbers 418
  - adding 419
- subsequent repeats
  - bar numbers 420
- substitution fingering 471
  - handles 471
  - position 471
- suffixes
  - dynamics 460, 461
  - rehearsal marks 566
  - timecodes 571
- sul ponticello 557
  - inputting 229, 232, 233
- sul tasto 557
  - inputting 229, 232, 233
- suspensions
  - chord symbols 206
- sustain pedal 548
  - continuation lines 554
  - inputting 231, 234, 235
  - level changes 234, 235, 549
  - MIDI controller 174, 556
  - MusicXML import 556
  - popover 231, 234
  - removing retakes/level changes 549
  - retakes 234, 235, 549
- sustaining instruments 465
- SVG files 386
  - color 380
  - exporting 377
  - fonts 381
  - layout numbers 121
- swapping
  - note order 709
  - notes 271
  - staves 271
  - voices 272
- swing playback 343
  - disabling 345
  - enabling 190, 344
  - popover 190
  - ratios 343
  - triplets 343
- switching
  - layouts 12, 31, 43
  - modes 15
  - tabs 45
- syllables
  - position 503
  - types 500, 501
- symbols
  - bar repeats 584, 589, 590
  - bar rests 605
  - caret 139
  - chords 438
  - ornaments 519
  - pedal lines 553
  - playing techniques 557
- syncing
  - videos to music 124
- syncopation
  - stemlets 432
- system breaks 275, 289
  - automatic 287
  - bar repeats 287, 290
  - copying to other layouts 291, 293
  - deleting 290
  - divisi 635
  - inserting 290
  - signposts 267, 289, 290
  - slurs 617
  - staff spacing 303
  - ties 656
- system dividers 631
  - hiding 631
  - showing 631
  - width 632
- system formatting 291
  - copying to other layouts 293

system objects 632  
 positions 633  
 rehearsal marks 562, 563  
 repeat endings 575, 577  
 repeat markers 581  
 size 625–627  
 tempo marks 641, 644  
 text 255  
 time signatures 669  
 system spacing 303  
 changing 303  
 default settings 303, 304  
 justification 283, 303, 304  
 system text 632  
 borders 300  
 inputting 255  
 multiple positions 633  
 staff-relative placement 300  
 stave positions 632  
 system track 261  
 deleting music 402  
 hiding 262  
 inputting bars 197  
 inputting beats 197  
 selecting music 262, 263  
 systems  
 bar numbers 411  
 breaks, *See* system breaks  
 casting off 287  
 changing indents 634  
 coda gap 581  
 dividers, *See* system dividers  
 divisi 635  
 fixing bars 287  
 fixing per page 288  
 gaps 579  
 indents 621, 625, 634  
 sections 579  
 selecting 259  
 spacing, *See* system spacing  
 splitting 579  
 staff labels 634  
 text, *See* system text  
 timecodes 573  
 tonality 491  
 track, *See* system track  
 trill marks 522  
 vertical position, *See* system spacing  
 width 282

## T

tabla notation 706

tabs

bar 34  
 closing 44  
 groups 45, 46  
 hiding 32  
 layouts 43  
 moving 46  
 opening 17, 43  
 order 45  
 showing 32

tabs (*continued*)

showing multiple 45  
 switching 45  
 view options 43

tacets 28, 285

formatting 285  
 hiding 286  
 margins 287  
 paragraph style 285  
 removing players from flows 115  
 showing 286  
 text 286

tap tempo 190

technique combinations

creating 361

Technique Combinations dialog 359

techniques 557

percussion 362, 367, 697, 698  
 playback 560

templates 56, 57

brackets 57  
 categories 56, 57  
 ensembles 82, 99  
 flow headings 275  
 master pages 275  
 new projects 55  
 opening 11  
 pages 275  
 playback 310, 341, 342, 350  
 players 82, 99  
 staff grouping 57, 437  
 staves 57, 437  
 titles 275

tempo 641

bpm 648  
 changing 330  
 default 641, 646  
 deleting changes 331  
 drawing 327  
 editing 327  
 finding 241, 570  
 fixed tempo 341, 348  
 follow tempo 341, 348  
 inputting 329  
 metronome marks 648  
 MIDI recording 341  
 Play mode 327  
 range 649  
 recording 341  
 tracks, *See* tempo tracks

tempo equations 651

inputting 189, 190  
 panel 190  
 popover 189

tempo marks 641

abbreviated 643  
 absolute tempo changes 190, 642  
 alignment 644  
 appearance 647  
 beat units 265, 648  
 changing 265, 643, 647, 648  
 components 646, 647  
 continuation lines 641, 650, 651



- tempo marks (*continued*)
- deleting 646
  - equations, *See* tempo equations
  - filters 263
  - finding 241, 570
  - fonts 642
  - formatting 651
  - gradual tempo changes 190, 642, 650
  - handles 645
  - hiding 646
  - inputting 188, 190, 192
  - length 645
  - metronome marks 265, 641, 648, 649
  - moving 330, 645
  - multiple positions 632, 633, 644
  - panel 190
  - parentheses 646, 647
  - placement 644
  - playback 341, 641, 646, 649, 650
  - poco a poco 644
  - popover 188
  - position 644
  - relative tempo changes 190, 642, 650
  - repeats 341
  - reset tempo 190, 642
  - selecting 259
  - showing 646
  - signposts 267, 646, 647
  - size 642
  - style 651
  - text 265, 642, 643
  - types 188, 190, 642
  - vertical positions 632
- Tempo panel 190
- tempo tracks 70, 327
- dialog 70, 72
  - exporting 72
  - importing 70
- tenuto 396
- inputting 175
- terminology
- British vs. American English 7
  - note durations 7
- text
- abbreviated tempo text 643
  - alignment 256
  - borders 300
  - default settings 255
  - dynamics 460, 461
  - editing 257
  - editor, *See* text editor
  - expressive 454, 460
  - filter 263
  - flow titles 116
  - formatting 256
  - glissando lines 539
  - inputting 255
  - lyrics 500, 501
  - markers 240, 567, 568
  - multiple positions 632, 633
  - music fonts 294
  - pedal lines 554–556
  - playing techniques 557, 559
- text (*continued*)
- rehearsal marks 562
  - repeat markers 580
  - staff-relative placement 300
  - system text 255, 632
  - tacets 286
  - tempo marks 265, 643
  - tokens, *See* tokens
  - types 295
- text editor 256, 257
- Write mode 256
- text frames
- flow headings 281
  - identifying 295
  - running headers 281
- text objects 295
- editing 257
  - identifying 295
- thickness
- grace note slashes 481
  - string shift indicators 475
  - ties 661
- thru
- MIDI 170
- thumbs
- fingerings 177
- tick
- breath marks 485
- tie chains 653, 655
- articulations 399, 655
  - clefs 445
  - deleting 658
  - selecting 655
  - slurs 607
  - splitting 659
  - tremolos 677
- ties 653, 655, 656
- accidentals 656
  - appearance 659
  - articulations 399, 655
  - breaking 659
  - cautionary accidentals 391
  - chains, *See* tie chains
  - chords 661
  - clef changes 657
  - clefs 445
  - collision avoidance 653
  - cross-staff 657
  - cross-voice 657
  - curvature direction 661, 662
  - dashed 659, 661
  - deleting 658, 659
  - dotted 659, 661
  - editorial 659
  - forcing 152
  - formatting 660, 661
  - frame breaks 656
  - half-dashed 659
  - inputting 129, 159, 657
  - inverting 662
  - laissez vibrer 657, 658
  - non-adjacent notes 657
  - non-standard types 656

- ties (*continued*)
  - note grouping 152
  - placement 653
  - position 607, 653
  - slurs 607, 609
  - slurs vs. ties 655
  - solid 659
  - splitting 152, 659
  - staff lines 653
  - style 659, 660
  - system breaks 656
  - tie chains, *See* tie chains
  - time signature changes 656
  - tremolos 677
  - voices 653, 661
- TIFF files 386
  - color 380
  - exporting 377
  - layout numbers 121
  - resolution 387
- time
  - display 348, 349
  - latency 170, 173
  - markers 567
  - signatures, *See* time signatures
  - track, *See* time track
  - transport window 348, 349
  - videos 124
- time and date
  - annotations 387
  - tokens 298
- time bars, *See* repeat endings
- time signatures 663
  - above staff 669
  - additive 665
  - aggregate 665
  - alternating 665
  - appearance 664, 675
  - bar numbers 416
  - barlines 409
  - beam grouping 422, 433, 434
  - beat groups 670
  - bracketed groups 668
  - changing 265, 403
  - click 170
  - compound 665
  - custom 665
  - deleting 674
  - denominators 671
  - design 675
  - filter 263
  - font 664
  - font styles 675
  - height 664
  - hiding 674
  - inputting 23, 183, 186, 187, 403
  - Insert mode 403
  - interchangeable 665
  - irregular 665
  - large 668
  - MIDI recording 170
  - moving 673
  - multiple positions 632, 633
- time signatures (*continued*)
  - non-power of two 665
  - note grouping 433
  - noteheads 671
  - numerators 670
  - open 665, 671
  - panel 185
  - parentheses 183, 186, 672
  - pick-up bars 183, 186, 187, 665, 667
  - placement 664
  - polymeter 186, 187
  - popover 183
  - position 669, 673
  - rest grouping 433
  - separators 672
  - showing 674
  - signposts 267, 674
  - simple 665
  - size 669
  - styles 670, 672
  - system objects 669
  - ties 656
  - types 183, 665
  - upbeats 667
  - vertical position 668, 669
  - vertical positions 632, 633
- Time Signatures (Meter) panel 185
- time track 327
  - changing tempo 330
  - collapsing 335
  - deleting tempo changes 331
  - expanding 335
  - inputting tempo changes 329
  - moving tempo changes 330
- timecodes 571
  - changing 122, 569, 572
  - dialog 122
  - drop frame 571
  - flows 86
  - frequency 573
  - inputting 239
  - markers 240, 241
  - non-drop frame 571
  - offset 572
  - panel 240
  - staff 572
  - staff spacing 304
  - start values 572
  - tempo 241
  - transport window 348, 349
- times played
  - changing 582
- title pages
  - text tokens 295
- titles
  - adding 87
  - changing 87, 116
  - default master pages 477
  - flow headings 281
  - flows 116, 275
  - hiding 280, 281
  - movements 275
  - projects 116

- titles (*continued*)
  - running headers 281
  - showing 280, 281
  - templates 275
  - text tokens 295
- tokens 295
  - date 298
  - file names, *See* ingredients
  - flow headings 275
  - flows 116, 296, 297
  - master pages 477
  - page numbers 297
  - project information 87, 116, 296
  - Roman numerals 297
  - time 298
  - titles 116
- tonality systems 491
  - custom 492
  - octave divisions 491
  - panel 182
- tongue clicks 557
  - inputting 229, 232, 233
- toolbar 12, 31
  - hiding 31
  - transport options 31, 32
  - workspace options 31, 32
- toolboxes 13, 38
  - Notations 128, 134
  - Notes 128, 129
  - Play 307, 308
- tools
  - arranging 269
  - selecting 39
  - timecodes 571
- track names
  - MIDI import 67
- tracks 319
  - automation 324
  - chords, *See* chords track
  - collapsing 335
  - expanding 335
  - height 335
  - hiding 336
  - instruments, *See* instrument tracks
  - markers 333, 334
  - muting 338
  - piano roll editor 314
  - players, *See* player tracks
  - playing techniques 323
  - soloing 338
  - system 261
  - tempo 70, 327
  - time, *See* time track
  - types 319
  - video 335
- translation lyrics 499
  - changing lines to 505
  - popover 237
- transport 348
  - basic options 31, 32
  - playhead 337
  - playhead position 348, 349
- transport (*continued*)
  - repeats 341
  - window 30, 348
- Transpose dialog 168, 170, 494
- transposed pitch 120
  - chord symbols 120, 442
  - clefs 446, 447
  - instrument transpositions 622
  - layouts 120
  - note input 142
  - part layouts 117, 120
  - showing 120
  - staff labels 618, 622
  - status display 39
  - viewing 120
- transposing 168
  - chord symbols 120, 438
  - clefs 447
  - dialog 168
  - expression maps 353
  - instruments, *See* transposing instruments
  - key signatures 170, 492, 494
  - layouts 117, 120
  - notes 165, 167, 168, 170, 317
  - octaves 167
  - pitch, *See* transposed pitch
  - popover 165
  - selections 170
  - staff labels 622
- transposing instruments 101, 120, 447, 618
  - chord symbols 442
  - clefs 446, 447
  - instrument transpositions 622, 623
  - key signatures 120, 490, 492, 495
  - staff labels 618, 622, 623
- transposing layouts
  - input pitch 142
- tre corde 548
- trees
  - altered unisons 393
  - stems 640
- tremblements 519
- tremolo strokes 676, 678
  - changing number 678
- tremolos 676
  - angles 677
  - articulations 367
  - deleting 678
  - inputting 245, 246, 251, 252
  - measured 676
  - multi-note, *See* multi-note tremolos
  - panel 246, 252
  - placement 677
  - playback 367
  - popover 245, 251
  - position 677, 679
  - single-note, *See* single-note tremolos
  - speed 678
  - strokes, *See* tremolo strokes
  - tie chains 677
  - tuplets 676
  - types 245, 676
  - unmeasured 676

- triangle noteheads 512
- trill intervals 525, 526, 529
  - accidentals 527
  - appearance 527, 528
  - auxiliary notes 527
  - changing 526, 527
  - hiding 526
  - Hollywood-style 527
  - indicators 525
  - microtonal 525
  - position 529
  - showing 526
- trill lines 523, 524
  - hiding 524
  - length 524
  - showing 524
  - speed 523
- trills 519, 522
  - accidentals 527, 529
  - alignment 521
  - appearance 527, 528
  - auxiliary notes 527
  - deleting 269
  - extension lines, *See* trill lines
  - filter 263
  - generated 530
  - grace notes 529
  - handles 524
  - hiding marks 522
  - Hollywood-style 527
  - inputting 221, 223
  - intervals 221, 525–527, 529
  - length 524
  - lines, *See* trill lines
  - moving 520, 521
  - pitch 531
  - placement 520
  - playback 529, 530
  - popover 221
  - position 520, 521
  - sampled 530
  - speed 523, 529, 530
  - staff-relative placement 521
  - start position 521
  - starting pitch 531
- trimming flows 194, 402
- triple accidentals
  - respelling 156
- triple-dotted notes 146
- triplets 680
  - inputting 129, 162, 163
  - swing playback 343
- tuning systems, *See* tonality systems
- tuplet brackets 685
  - end position 686
  - handles 685
  - hiding 685
  - hooks 685
  - horizontal 686
  - position 680
  - showing 685
- tuplet numbers 687
  - appearance 687
  - hiding 687
  - horizontal position 688
- tuplet ratios, *See* tuplet numbers
- tuplets 680
  - accidentals 682
  - appearance 685, 687
  - articulations 398, 682
  - beams 431, 685
  - beat units 163
  - brackets, *See* tuplet brackets
  - deleting 683, 684
  - end position 686
  - filter 263
  - formatting 687
  - handles 685
  - hiding 687
  - hooks 685
  - horizontal brackets 686
  - inputting 162, 681, 682
  - inverting 685
  - moving 683, 688
  - nested tuplets 681
  - notes 682
  - numbers 687, 688
  - percussion kits 693
  - placement 680
  - popover 162, 163
  - position 680
  - quantization 68
  - ratios 687, 688
  - showing 687
  - signposts 267
  - slurs 682
  - staff-relative placement 685
  - swing playback 343
  - tremolos 676
  - turning into normal notes 683
  - turning notes into 682
  - types 163, 680
  - unscaling 683
- Turkish music
  - octave divisions 491
- turns 519
  - intervals 519
  - jazz 221, 223, 224, 542
- tutti 635
- two-up page arrangement 382
- types
  - appearance 266
  - arpeggio signs 221
  - articulations 542
  - bar repeats 245
  - barlines 406
  - breath marks 215, 485
  - caesuras 215, 485
  - caret 139
  - chord symbols 205, 438
  - clefs 211
  - dynamics 200, 454
  - enclosures 412
  - fermatas 215, 483

types (*continued*)

- fingerings 177, 474
- glissando lines 221
- grace notes 481
- holds 215, 483
- jazz articulations 221, 222, 541–543
- key signatures 179
- lyrics 237, 499, 500
- notehead sets 510
- noteheads 511, 514
- notes 131
- octave lines 212, 448
- ornaments 220, 542
- pauses 215, 483
- pedal lines 231, 548
- percussion legends 702
- playing techniques 229, 557
- rehearsal marks 565
- repeat endings 244
- repeat markers 244
- resetting 266
- rhythm slashes 712
- syllables 500, 501
- templates 57
- tempo marks 188, 190, 642
- text 295
- ties 659
- time signatures 183, 665, 672
- tracks 319
- tremolos 245, 676
- tuplets 163, 680

**U**

- una corda pedal 548
  - MIDI controller 556
- uncompressed MusicXML 64
- unisons 635
  - altered 640
- units
  - beats 122, 190, 241, 265, 648
  - measurement 54
  - metronome marks 265, 648
  - quantization 68
  - rhythmic grid 137
  - swing playback 343
  - system track 261
  - tempo 190, 241
  - time 122, 348
  - tuplets 163
  - video 122
- Universal Indian Drum Notation 706
- unlinking
  - dynamics 469
  - slurs 614
- unmeasured tremolos 676
- unpitched percussion 689
  - articulations 367, 693
  - drum sets 108, 690
  - dynamics in kits 694
  - exporting kits 690
  - ghost notes 692
  - grid kit presentation 108–111

unpitched percussion (*continued*)

- groups 108
- importing kits 691
- Indian drum notation 706
- individual instruments 689
- instrument order 110
- kits 103, 105, 689, 690
- legends 701, 702
- MIDI files 705
- moving notes 692
- MusicXML files 706
- naming groups 109
- notations 693
- note input 147, 149, 150, 315
- noteheads 696, 699
- parentheses 692
- percussion maps 353, 362
- Play mode 314, 705
- playback 353, 362, 367, 696
- playing techniques 367, 691, 693, 696–698
- presentation types 105, 689, 694, 695
- rhythm slashes 105, 712
- scrapes 557
- staff labels 623
- staves 105, 694, 695
- stem direction 105, 150, 703, 704
- stickings 694
- techniques 557
- tremolos 367
- tuplets 693
  - voices in kits 703, 704
- unscaling tuplets 683
- up-bow breath marks 485
- up-stem voices 707
  - adding 153
  - stem direction 636
- upbeats 665, 667
  - inputting 183
- upper case
  - flow numbers 297
  - Roman numerals 297
- upper notes
  - trills 531
- user interface 12, 30
  - music area 13
  - panels 14
  - status bar 15
  - toolbar 12
  - toolboxes 13
  - transport options 32
  - windows 30

**V**

- values
  - frame rates 122
  - latency compensation 173
  - metronome marks 265, 648
  - rhythmic grid 39, 138
  - timecodes 122, 572
- valves
  - fingerings 474

- velocity
  - expression maps 354
  - MIDI import 67
- verse numbers 508
  - hiding 508
  - showing 508
- versions
  - files 59
- vertical justification
  - staves 283, 303, 304
  - systems 283, 303, 304
- vertical position
  - articulations 398, 399
  - bar numbers 415, 416
  - breath marks 485
  - caesuras 486
  - changing 266
  - chord symbols 440
  - dynamics 455
  - fermatas 485
  - fingerings 470
  - flipping items 266
  - flow headings 275, 280, 281
  - instruments 98
  - layouts 121
  - lyrics 497, 499, 503
  - markers 567, 572
  - ornaments 520
  - pauses 485
  - pedal lines 550
  - players 98
  - playing techniques 557, 558
  - rehearsal marks 562, 563, 632, 633
  - repeat endings 577, 632, 633
  - repeat markers 581, 633
  - rests 599
  - rhythm slashes 593
  - slurs 606
  - staves 283, 303, 304
  - system objects 633
  - system text 633
  - systems 283, 303, 304
  - tacets 287
  - tempo marks 632, 633, 644
  - text 300, 632
  - ties 653
  - time signatures 632, 668, 669, 673
  - timecodes 572
  - tremolos 677
  - trills 520
  - tuplets 680
- vertical spacing
  - ossia staves 630
  - percussion kits 111
  - staves, *See* staff spacing
  - systems, *See* system spacing
  - tacets 287
- vertical stacking order
  - accidentals 391, 392
- vibrato 557
  - inputting 229, 232, 233
- Video Properties dialog 122
- videos 122
  - adding 124
  - audio 126, 346
  - dialog 122
  - flows 86
  - formats 122
  - frame rates 126, 127
  - hiding 125
  - locating 124
  - markers 333, 567
  - mixer 346
  - panel 240
  - reloading 124
  - removing 126
  - size 125
  - start position 124
  - syncing 124
  - timecodes 571, 572
  - track 335
  - volume 126
  - window 125
- view options 40
  - bar numbers 414
  - bar repeats 587
  - changing 39
  - chord symbol signposts 439
  - frame break signposts 289
  - full screen mode 47
  - galley view 40, 47
  - layouts 34, 43
  - mixer 348
  - moving music 40
  - music area 35, 41, 47
  - notes 708
  - page arrangements 39, 41, 47
  - page view 40, 47
  - panels 16, 37
  - part layouts 43
  - percussion legends 701
  - playhead 336, 349
  - rests 602
  - signposts 268
  - slash regions 592
  - system break signposts 290
  - system track 262
  - tabs 34, 43
  - time signature signposts 674
  - timecode 349
  - tracks 319, 335
  - transport 349
  - types 40
  - video window 125
  - voices 707, 708
  - windows 46
  - zoom 42, 319
- vivace 641
  - inputting 188, 190, 192
- vocal staves
  - staff grouping 57, 437
- voice column index 707, 710
  - swapping order 709

## voices 707

- accidental stacking order 391
- adding 153
- alignment 707
- articulations 398
- bar rests 158
- beaming 638
- caret 139, 153
- changing 272, 712
- colors 707, 708
- column index 710
- creating new 153
- deleting 709
- direction 593
- drum sets 108
- dynamics 202, 204, 459
- fermatas 485, 487
- filters 263
- grace notes 480
- hiding 594
- inputting 153
- MIDI recording 172
- moving notes 271
- order 710
- percussion kits 703, 704
- placement 707
- position 707
- rests 599, 601, 605
- rhythm dots 517
- rhythm slashes 154, 593
- selecting 259
- showing 594
- slash regions 594
- slashes 154, 272, 592, 711, 712
- slurs 609
- stem direction 636, 639, 703, 704, 707, 710
- swapping contents 272
- swapping order 709
- switching between 153
- ties 657, 661

volta lines, *See* repeat endings

## volume

- channel meters 346
- dynamics 454
- MIDI 469
- mixer 346
- playback 354
- resetting 340
- silence playback template 341
- velocity 354
- video audio 126

VST and MIDI Instruments panel 307, 309

## VST instruments 310

- endpoints 350
- loading 311
- percussion maps 353
- playback 350, 353, 362
- playback templates 341
- ports 350
- whitelisting VST 2 plug-ins 311

**W**

walker noteheads 514

## warnings

- different Dorico versions 59

watermarks 387

## WAV files

- exporting 73

wavy lines, *See* wiggly lines

wedge noteheads 512

## Western tonality

- key signatures 489
- octave divisions 491

white noteheads 510, 511

whitelisting plug-ins 311

whole notes 7, 131

whole step trills 525, 529

- appearance 527
- hiding 522, 526
- position 529
- showing 522, 526

whole tone chord symbols 207

## width

- accidentals 392
- barlines 406
- brackets 436
- H-bar rests 604
- note durations 368
- noteheads 513
- system dividers 632
- systems 282

wiggly lines 537

- glissando lines 537, 538
- jazz articulations 543
- trills 523, 524

wildcards 295

## wind instruments

- playing techniques 231

## windows

- floating 31
- mixer 346, 348
- moving tabs 46
- multiple 43, 45, 46
- opening 18, 46
- playback 46
- project 30
- splitting 45
- tabs 45
- transport 348
- video 125
- workspaces 42

workspaces 27

- key commands 9, 52
- options 31, 32
- preferences 48
- setting up 42

Write mode 15, 128

- caret 142
- inputting notations 175
- inputting notes 139
- inputting vs. editing 136
- panels 37, 128, 131, 132, 136
- signposts 267

Write mode (*continued*)

- switching [128](#)
- system track [261](#)
- text editor [256](#)
- toolboxes [38](#), [128](#), [129](#), [134](#)
- Transpose dialog [168](#)

## Z

- zig-zag arrangement
  - accidentals [392](#)
- zoom [39](#)
  - bar repeats [587](#)
  - changing [42](#)
  - drum editor [319](#)
  - event display [319](#)
  - options [39](#), [42](#)
  - piano roll editor [319](#)
  - slash regions [592](#)