



# **Version history**

## **Known issues & solutions**

June 2017

Steinberg Media Technologies GmbH

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# Dorico 1.1

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June 2017

This version contains the following improvements and issue resolutions.

## New features

### Chord symbols

*Creating chord symbols.* To create a chord symbol, select the note or rest where you want the first chord symbol to appear, and choose **Write** ► **Create Chord Symbol**, or use the key command **Shift+Q**, or click the  button in the right-hand toolbox in Write mode.

The chord symbol popover will appear, into which you can type the desired chord symbol using the computer keyboard, or play it using your MIDI keyboard.

*Inputting chord symbols using the computer keyboard.* Chord symbols consist of a root, quality, optional interval, optional alterations, and optional altered bass note. Each of these elements can be entered in the popover as follows:

- **Root:** English note names (e.g. C, Db, F#, B); German note names (e.g. C, Des, Fis, H); fixed-do *solfège* (e.g. do, reb, so#, ti); Nashville numbers representing scale degrees (e.g. assuming C major, 1, 2b, 4#, 7).
- **Quality:** major can be specified by typing nothing following the root, or by typing **maj**, **M**, or **ma**; minor can be typed as **m**, **min**, or **mi**; diminished can be typed as **dim**, **di**, or **o**; augmented can be typed as **aug**, **au**, **ag**, or **+**; half-diminished can be typed as **half-dim**, **halfdim**, or **hd**; 6/9 can be typed as **6/9**, **69**, or **%**.
- **Interval:** chords with extensions and major seventh can be typed as e.g. **^7**, **^9**, etc. (^ on its own is interpreted as major seventh). You can also type e.g. **maj9** or **9maj7** for chords with extensions beyond the major seventh.
- **Alterations:** alterations can be typed as e.g. **#5**, **b9**, etc.; added notes can be typed as e.g. **add#11** or **addF#**; suspensions can be typed as e.g. **sus4**; omissions can be typed as **omit3**, **no7**, etc.
- **Altered bass notes:** these can be specified in the same way as root notes, separated from the preceding main chord symbol by typing **/**, e.g. **Cm7b5/Eb**.

The specific shorthand you use in the popover to create the chord symbol does not directly influence the precise appearance of the resulting chord symbol: this is determined instead by the prevailing options set on the **Chord Symbols** page of **Engraving Options**. For example, you could choose to enter a C major chord as

either “C” or “Cmaj” or “CM”, but in each case the appearance of the resulting chord symbol will be the same, as specified in **Engraving Options**.

Dorico can handle polychords, where a single chord symbol describes two simultaneous chords: in the popover, simply separate the two chords using the pipe character |. For example, type **D|C7** for a D major chord over a C7 chord.

To input a “no chord” symbol, type **N.C.**, **NC**, **no chord**, or **none** into the popover. For a chord symbol that consists only of the root note, type e.g. **Cbass** or **Gonly** into the popover.

*Inputting chord symbols using your MIDI keyboard.* When the chord symbol popover is open, you can play a chord on your MIDI keyboard to input a chord symbol. Options for how Dorico interprets the notes you play on your keyboard are found on the **Chord Symbols** page of **Write > Note Input Options**, and include choices over things like whether Dorico should consider the inversion in which you play a given chord, or should always write the chord symbol as if it had been played in root position; whether Dorico should notate omissions (e.g. if you play C and E, should it be notated as **C** or **C(omit5)**); how it should notate added notes and suspensions; how it should handle complex enharmonic relationships between root and altered bass notes; and so on. You should examine these options carefully as the default settings will not suit every user.

To input a chord symbol with an altered bass note, simply play the chord with the altered bass note at the bottom. Alternatively, you can play the chord and its altered bass note separately: hold down the keys for the chord, then while the keys are depressed, play the altered bass note.

To tell Dorico the root of the chord to be input, either first play the root with one finger and then play the remaining notes of the chord while holding down the root, or play all the notes of the chord together, hold them down, then release and replay the root note.

To input a polychord, play one chord with one hand, then while those keys are depressed, play the second chord with the other hand.

To input a chord symbol that consists only of the root note, simply play only a single note.

*Navigation during chord symbol input.* When the chord symbol popover is open, hitting **Space** will advance the popover to the next beat. You can also move the popover using the following key commands:

- **Ctrl**+left/right arrow (Windows) or **Command**-left/right arrow (Mac): previous/next chord symbol.

- **Tab**: start of next bar.
- **Shift+Tab**: start of previous bar.
- **Space**: next beat.
- **Shift+Space**: previous beat.
- Left/right arrow: previous/next note/rest or rhythmic grid position, whichever is closer.
- **Backspace**: previous chord symbol.

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 change this behaviour using the **Advance during chord symbol input via MIDI input** option on the **MIDI Input** page of **Note Input Options**.

Furthermore, you can define specific keys or buttons on your MIDI keyboard to trigger different navigation behaviours, by using the **MIDI Learn** button on the **Key Commands** page of **Preferences** to assign specific keys to the **Note Input ▶ Advance Chord Symbol Input** commands.

*Editing an existing chord symbol.* To edit an existing chord symbol, simply select it and hit **Return** or double-click it in Write mode: the popover will open, with the shorthand for the chord symbol ready to be edited. You can either edit the existing chord symbol by editing the shorthand, clear the popover and type an entirely new chord symbol, or play a new chord symbol on your MIDI keyboard.

*Transposition of chord symbols.* One or more selected chord symbols can be transposed using **Write ▶ Transpose**. Chord symbols also appear at the appropriate transposed pitch when shown on transposing instruments and **Edit ▶ Transposed Pitch** is chosen.

*Changing the enharmonic spelling of chord symbols.* To respell a chord symbol for a transposing instrument in a transposing layout, simply edit the chord symbol as normal: if you change, for example, the root of **Dbmaj13** from **Db** to **C#** without changing the quality, interval or alterations, the spelling of the chord symbol will be altered for all instruments with the same transposition.

To remove an enharmonic spelling override for a chord symbol on the current instrument, edit the chord symbol as usual and type **Alt+S** into the chord symbol popover; to remove all enharmonic spelling overrides for a chord symbol, type **Shift+Alt+S** into the popover.

*Choosing above which staves chord symbols appear.* By default, chord symbols appear above the staves belonging to rhythm section instruments (e.g. keyboards, guitars, bass guitars, etc.), but you can control this from the Players panel in Setup mode. Select a player, then right-click to access the **Chord Symbols** context

menu, and choose **Show For All Instruments**, **Show For Rhythm Section Instruments**, or **Hide For All Instruments**.

Chord symbols may optionally be shown between the two staves of grand staff instruments, such as piano, by setting the **Position of chord symbols on grand staff instruments** option in the **Position** group on the **Chord Symbols** page of **Engraving Options**.

*Choosing in which layouts chord symbols appear.* By default, chord symbols appear both in full score and part layouts. To change this, switch to Setup mode, select the player in question in the Players panel, right-click to access the Chord Symbols context menu, and choose **Show in Full Score and Parts**, **Show in Full Score Only**, or **Show in Parts Only**.

*Hiding individual chord symbols.* To hide an individual chord symbol in the current layout, select the chord symbol and set the **Hidden** property in the **Chord Symbols** group in the Properties panel. A signpost is shown in place of the chord symbol. If you do not want to see these signposts, switch off **View > Signposts > Chord Symbols**.

*Positioning chord symbols.* 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. You can instead choose to left-align chord symbols with the left-hand side of the front notehead in the first voice column (or even right-align them, though this typically produces unclear results) by setting **Horizontal alignment of chord symbols** on the **Chord Symbols** page of **Engraving Options**. This can also be overridden for an individual selected chord symbol using the **Horizontal alignment** property in the **Chord Symbols** group of the Properties panel.

Chord symbols are aligned at the same vertical position across the width of the system by default, but you can switch off **Align chord symbols across width of system** on the **Chord Symbols** page of **Engraving Options** if you prefer each chord symbol to be positioned above the staff independently.

*Moving chord symbols.* In Write mode, dragging a chord symbol or moving it with **Alt+left/right** will attach it to a new rhythmic position; be aware that moving a chord symbol to the same position as an existing chord symbol will delete the existing chord symbol at that position.

In Engrave mode, dragging a chord symbol or nudging it with **Alt+arrow** keys will not change the rhythmic position to which the chord symbol is attached.

*Chord symbol appearance presets.* Because there are many conventions for the appearance of chord symbols, Dorico provides a choice of different preset conventions that you can use as-is or as the basis of your own preferred

appearance. The presets are found at the top of the **Chord Symbols** page of **Engraving Options**, and are as follows:

$$B^b \text{maj}7^{(\#11)}_{(\#9)}/F$$

Boston

$$B^b \text{MA}7^{(\#11)}_{(\#9)}/F$$

Brandt-Roemer

$$B^b \Delta^{+11}_{+9}/F$$

Indiana

$$B^b \text{M}7^{(\#11)}_{(\#9)} \text{ on } F$$

Japanese

$$B^b \text{MA}7^{(\#11)}_{(\#9)}/F$$

Jazz Standard

$$\frac{b7 \Delta^{+11}_{+9}}{4}$$

Nashville

$$B^b \text{Maj}7^{+11}_{+9}/F$$

New York

$$\frac{B^b \text{maj}7^{+11}_{+9}}{F}$$

Ross

A further preset, simply called **Default**, is also provided, which uses a set of symbols intended to be as unambiguous as possible, avoiding the use of symbols for major seventh, augmented, diminished, and half-diminished, using standard accidentals, and so on. This is the preset that is chosen by default in new projects.

The presets simply choose specific combinations of the options on the **Chord Symbols** page, and you can further adjust these options to suit your preferences.

*Changing the font used for chord symbols.* To change the text font used for chord symbols, choose **Engrave** > **Font Styles**, and edit **Chord symbols font**. It is not advised to edit the **Chord symbols music text font**, which is set to Bravura Text by default; this can only be set to a SMuFL-compliant font intended for use in text-based applications. When using the option to show the word *on* instead of a slash or line to separate a chord from its altered bass note, you can edit the font used for that word by editing the **Chord symbols altered bass separator font**.

*Playback of chord symbols.* To include chord symbols in playback, go to Play mode and expand the chord track at the top of the event display. Choose the playback device (VST instrument or MIDI device) that should be used, and switch on the speaker icon to enable playback. Chord symbols are played back as sustained chords, the duration being taken from the gap between one chord

symbol and the next. If the chord symbol was input using a MIDI keyboard, the chord will play back using the voicing that was used to input the chord symbol.

*MusicXML import.* Chord symbols are imported from MusicXML files, but chords that specify **Neapolitan**, **Italian**, **French**, **German**, **Pedal**, **Tristan** and **Other** values for the **kind** element are ignored during import, as there is no information to specify what notes these chord symbols are meant to describe.

### Enharmonic spelling during MIDI step input

Enharmonic spelling refers to the choice of note name and accidental to describe a note of a given pitch, normally according to the current key center or tonality – for example, whether a note should be spelled as F# or G $\flat$ . When inputting notes from a MIDI keyboard, there is no way to directly specify the desired spelling, so Dorico works out the optimal spelling using a sophisticated algorithm.

The algorithm takes into consideration the current key signature, the intervals between the next and previous notes or chords, and the intervals between the notes of chords. If you choose to respell a note (using **Write** ▶ **Respell** ▶ **Respell Using Note Name Above/Below**), Dorico will also take that choice into consideration, and will use that spelling for further notes of that pitch.

Broadly speaking, Dorico will prefer to notate notes outside the key signature using sharps if the figure is rising, and using flats if the figure is falling. When determining the spelling of a note, if one spelling will produce a simpler interval (for example, a major third rather than a diminished fourth), it will overall prefer the simpler interval.

When inputting onto a grand staff instrument such as piano, Dorico will also use the context provided by any music already entered on the other staff: by way of example, Dorico will normally prefer B $\flat$  over A#, but if this note is input into the right-hand staff of a piano, and the left-hand staff includes an F# at that rhythmic position, Dorico will spell the note on the right-hand staff as A# since this produces a simpler interval between the notes in the two staves.

As you input notes using your MIDI keyboard, you may notice that Dorico automatically respells previous notes or chords as you continue inputting: for example, if you input, in the key of C major, E followed by G#, Dorico will spell the second note as G#, but if you then input G $\flat$ , Dorico will respell the G# as A $\flat$ , because that spelling makes more sense in the context. If you want to prevent Dorico from making retrospective changes to notes you have already input, switch off **Allow spelling of notes to be adjusted retrospectively** on the **MIDI Input** page of **Note Input Options**. (STEAM-5203)

## Piano pedal lines (STEAM-5661)

Dorico now has the most comprehensive support for piano pedal lines of any scoring software. You can easily create pedaling for the sustain, *una corda* and *sostenuto* pedals, with support for modern sustain pedaling techniques, including changing the pedal level over the course of a single pedal instruction.

*Creating pedal lines with the mouse.* Pedal lines can be created from the **Keyboard** section of the **Playing Techniques** panel in Write mode.



The items on the first row create a new pedal line for the sustain, *sostenuto* or *una corda* pedals respectively. Either select the notes to which the pedal line should apply and click the relevant button, or, with nothing selected, click the relevant button and then click and drag in the score to create a pedal line and extend it to the desired duration.

The items on the second row can be used to add retakes and changes of pedal level (to one-quarter depressed, half-depressed, three-quarters depressed, and fully depressed, respectively) to an existing pedal line: ensure that nothing is selected, click the relevant button, then click on the pedal line at the rhythmic position at which you want the retake or change of pedal level to be created.

*Creating pedal lines with the keyboard.* You can also create pedal lines using the **Shift+P** popover, either based on the range of selected notes, or during step input.

To create a pedal line of a particular duration, first select the notes to which the pedal line should apply, then type **Shift+P** and enter **ped** for the sustain pedal, **sost** for the *sostenuto* pedal, or **unacorda** for the *una corda* pedal.

To create a pedal line during step input, position the caret at the rhythmic position where the line should begin, then type **Shift+P** and enter the appropriate shorthand for the desired pedal line. You can then extend the pedal line simply by advancing the caret with **Space**. When you want to stop the pedal line, type **Shift+P** again and enter **\*** to stop a sustain pedal line, **s\*** to stop a *sostenuto* pedal line, or **u\*** to stop an *una corda* pedal line.

You can also add retakes and changes of pedal level while inputting a pedal line in step input: when the caret is at the position at which you want it to appear, type **Shift+P** and enter **^** for a retake, **1/4** for a change of level to one-quarter

depressed, **1/2** for half-depressed, **3/4** for three-quarters depressed, or **1** for fully depressed.

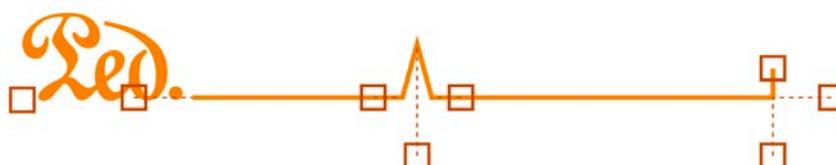
To edit the start position of a pedal line once it has been created, select the pedal line and type **Alt+left/right** to snap the whole line to the previous or next rhythmic position, or type **Shift+Alt+left/right** to snap the end of the line to the previous or next rhythmic position.

*Engraving Options.* A comprehensive set of options to determine the appearance and positioning of pedal lines can be found on the new **Pedal Lines** page of **Engraving Options**. This includes options for which symbol should be shown at the start of each kind of pedal line, what should be shown for continuing lines at the start of a new system, the height and width of the retake notch, whether gradual changes of pedal level should be shown using a dashed or solid line, and many other options besides.

*Properties.* The appearance of an individual pedal line can also be overridden by selecting it and adjusting the properties in the new **Pedal Lines** group in the Properties panel. Among other things, you can specify whether the start and end of a pedal line should be positioned before or after grace notes using the **Starts before grace notes** and **Ends before grace notes** properties.

In Engrave mode, you can select each segment of a sustain pedal independently, and thus set properties independently. Selecting a retake or change of pedal level in a sustain pedal line will show the **Pedal Line Retakes** group of properties, which allows you to specify the pedal depression level before the retake (**End level at retake**) and the pedal depression level following the retake (**Start level at retake**). If the pedal should not be released altogether between the old and new levels, change **Retake type** to **Change Level** instead of **Retake**.

*Editing pedal lines in Engrave mode.* When a pedal line is selected in Engrave mode, the following handles appear to allow fine graphical editing:



At the start of the pedal line, the leftmost handle can be dragged left and right to move the start of the line horizontally; and the handle to the left of the start of the continuation line can be dragged up and down to change the start pedal level.

At a retake, the handle to the left of the retake notch can be dragged up and down to change the pedal level before the retake, while the handle to the right of the

retake notch changes the pedal level after the retake; the handle below the center of the notch can be dragged left and right to move the whole retake horizontally.

At the end of the pedal line, the handle at the tip of the hook can be dragged up and down to change the hook length; the handle to the right can be dragged up and down to change the final pedal level; and the handle below the hook can be dragged left and right to move the end of the line horizontally.

*Overriding start and restorative text.* For pedal lines that use a text indication rather than a symbol, as *una corda* pedal lines do, for example, or as sustain pedal lines do if you choose to use plain **Ped.** text rather than the ornate symbol, you can override the text shown at the start of the pedal line by editing the **Text** property, the text shown at the start of the next system by editing the **Continuation text** property, and, for *una corda* pedal lines, the *tre corde* text shown at the end of the pedal line by editing the **Restorative text** property.

*Playback.* Pedal lines are automatically played back. Sustain pedal lines send MIDI controller 64 (Sustain), *sostenuto* pedal lines send MIDI controller 66 (Sostenuto), and *una corda* pedal lines send MIDI controller 67 (Soft Pedal). Some VST instruments (such as Pianoteq and Garritan CFX Concert Grand) support partial depression of the sustain pedal – consult the manufacturer’s documentation for more details.

Options for how Dorico plays pedaling are found on the new **Pedal Lines** page of **Playback Options**. You can control the speed of the initial pedal depression, the speed of a retake in the middle of a pedal line, and the speed of the final pedal release, and you can also specify whether the initial depression and the retake should be played before or after the onset of the notes or chords at that rhythmic position.

*MusicXML import.* Sustain pedal lines are imported from MusicXML files. MusicXML can only describe the sustain pedal, and it cannot describe changes in pedal depression level.

## Repeat endings

Dorico now supports the notation of repeat endings, sometimes known as *volta* lines, or as 1st and 2nd endings. Playback of repeat ending lines is not yet supported, but is planned for a future update.

*Creating repeat endings.* To create a repeat ending, select the bars that will form the first ending, then click the button to create a first ending from the **Repeat Endings** section of the **Repeat Structures** panel on the right-hand side in Write mode. The first ending segment will be created, covering the selected bars, with a second ending segment created in the bar immediately following the first ending; a

suitable end repeat barline will be created at the end of the first ending if one is not already present. To add a repeat to the second ending, select the bars that will form the second ending, and click the button to add an additional ending from the **Repeat Endings** section: the existing second ending segment will become a closed line, with an end repeat barline created if necessary, and a third ending segment will be added in the bar following the second ending. This process can be repeated as often as required.

*Changing the number of times played.* By default, each segment in the set of repeat endings is played once, and so will show a single digit corresponding to the time through the music on which each ending is played. To tell Dorico that an ending should be played more than once – for example, that the first ending should be played on the first three times through – set the **No. times played** property in the **Repeat Endings** group in the Properties panel to the number of repetitions to be played. The number shown under the relevant ending segment will automatically be updated, following the options defined in **Engraving Options**. It is not necessary to set this property on every segment, as Dorico will do its best to calculate how many times a segment should be played if the property is set inconsistently (it will prefer to add any unused repetitions to the final closed ending segment); it will enforce that the total number of times played must be greater than or equal to the number of segments.

*Changing the text shown in a segment.* If you need to override the text displayed in a specific ending segment, you can set the **Custom text** property in the **Repeat Endings** group in the Properties panel.

*Engraving Options.* Options controlling the design, default position, and display of number of times played can be found on the new **Repeat Endings** page of **Engraving Options**.

*Choosing where repeat endings appear.* Repeat endings are system-attached items and appear above the instruments chosen in the **System Objects** section of the **Staves and Systems** page of **Layout Options**.

*Editing repeat endings in Write mode.* Repeat endings can be dragged from bar to bar in Write mode by selecting any segment and dragging left or right, or using **Alt+left/right arrow**. Each segment can be made to include more or fewer bars by selecting the handle at the start or end of each segment and dragging left or right.

*Editing repeat endings in Engrave mode.* In Engrave mode, the exact horizontal position of the hooks at the start and end of each segment of the repeat ending can be adjusted, the position of each segment relative to the staff, and the length of the hooks can all be edited both by nudging or dragging the appropriate handles, or using the properties in the **Repeat Endings** group.

*MusicXML import and export.* Repeat endings are imported from MusicXML files, with the limitation that the segments in the middle of a set of endings cannot have an open right-hand end, despite this being technically possible to represent in MusicXML. Repeat endings are also now included when exporting MusicXML files.

### **Editing in Write mode**

It is now possible to edit the rhythmic position and, where appropriate, the duration of items in Write mode, and it is also easier to create items with the mouse.

*Creating with the mouse.* You can now create and set the length of an item in a single operation with the mouse: with nothing in the score selected, click the item you want to create (such as an octave line) in the relevant panel, then click on the staff where you want the item to be created, and keep the mouse button held down while you drag the item to the desired duration.

*Editing with the mouse.* Selected items with duration (such as slurs, hairpins, pedal lines, octave lines, trills, and so on) now show circular handles at their starts and ends. Dragging the start handle snaps the rhythmic position of the start of the item, leaving the end position in the same place (i.e. it lengthens and shortens the duration of the item); dragging the end handle snaps the rhythmic position of the end of the item, leaving the start position in the same place. To snap the item to a new rhythmic position without editing its length, drag the main body of the item rather than either of its handles.

*Editing with key commands.* You can use the key commands **Alt**+left/right arrow to snap the selected item to the previous/next rhythmic position, and for items that have duration you can shorten or lengthen their duration with the key commands **Shift+Alt**+left/right arrow; add **Ctrl** to snap to or shorten or lengthen by the current rhythmic grid duration rather than the next logical position.

*Editing dynamics.* Grouped dynamics can now be edited with the mouse: where a group begins or ends with a hairpin, a circular handle appears corresponding that can be dragged to a new rhythmic position; a similar handle also appears at the point where the type of dynamic changes in a *messa di voce* hairpin, allowing you to snap that inflection point to a new rhythmic position. Dragging the dynamic at the start or end of the group will scale the positions of the other dynamics proportional to the overall length of the group. Immediate or combined dynamics in the middle of a group of gradual dynamics can also be dragged to new positions, which will automatically shorten or lengthen the surrounding gradual dynamics appropriately.

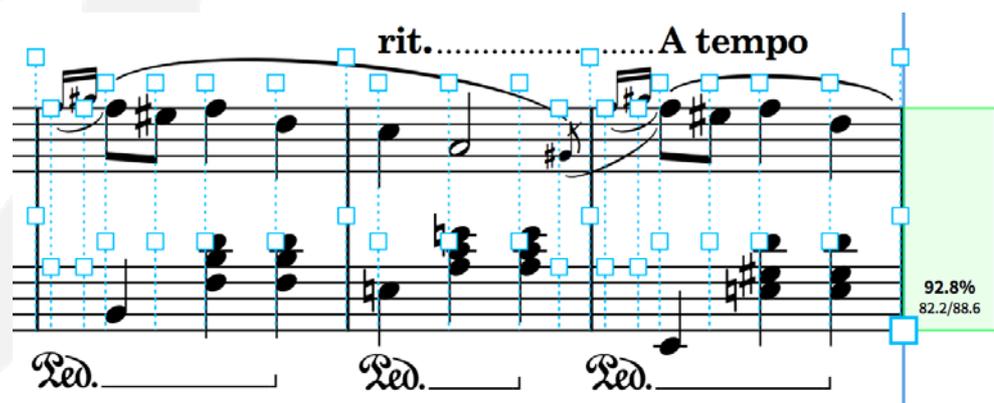
*Creating items with the mouse.* If you prefer using the mouse for input and editing to using the keyboard, new options in the **Editing** group of the **General** page of **Preferences** can make using Dorico more comfortable for you. When **Allow**

**multiple items to be created with the mouse** is set, you can create multiple items from any of the panels in Write mode without having to reselect the item each time. Under **Creating items with the mouse**, you can also choose whether Dorico should automatically create items at the position of the current selection (the default), or whether you want it to always load the cursor so that you can click to place the item. (STEAM-6102)

*Attachment lines.* To make it clear to which rhythmic positions items are attached, a dark red dotted line is drawn from the left-hand side of each selected item (and, for items that have duration, such as slurs, hairpins, octave lines, pedal lines, and so on, from the right-hand side too) to the middle of the staff at the attachment position. This can be disabled by switching off **View ▶ Attachment Lines**.

### Editing note spacing (STEAM-5983)

You can now edit the note or rhythmic spacing of your music in Engrave mode. To enable these spacing adjustments, activate the switch in the **Note Spacing** section of the left-hand panel in Engrave mode, and dashed lines representing spacing columns and handles for each spacing-significant item will appear. When the columns and handles are visible, you cannot make any selections or edits to items in the current layout: deactivate the switch on the **Note Spacing** section or switch to Write mode to resume normal selection and editing.



*Spacing adjustments and graphical adjustments.* You can make two kinds of adjustments to the horizontal position of notes and chords, grace notes, rests, clefs, key signatures, time signatures, barlines, and so on: spacing adjustments, which increase or decrease the amount of rhythmic space to the left and right of the item, and which affect the whole spacing column (i.e. all items that start at that rhythmic position across all staves); and graphical adjustments, which move a selected item on a single staff only, in a way that does not affect the spacing of other items. To make a spacing adjustment, select a square handle, hold **Alt** and use the left and right arrow keys to adjust in small increments, and add **Ctrl** (Windows) or **Command** (Mac) to adjust in larger increments. To make a graphical adjustment, first select the square handle above the staff, then select the circular

handle that appears on the middle staff line, and use the same key commands. You can switch between selecting related square and circular handles by hitting **Tab**.

When you make a spacing adjustment to a primary rhythmic position, both the square handle itself and the dashed line representing the spacing column are colored red.

When you make a graphical adjustment to an item, a horizontal red line is drawn joining the item's circular handle to its original position (i.e. the position at which it is still considered to be for the purposes of spacing).

*Adjusting secondary voice columns.* When multiple voices are active at the same rhythmic position, you can adjust the position of each voice column independently. A square handle appears for each voice column, allowing you to make spacing and graphical adjustments for the notes in that column independently of the first column. If you find that you need to make an adjustment to a voice that is currently sharing a voice column with another voice, you can move it into its own voice column using the **Voice column index** property, which will allow spacing and graphical adjustments independently of other columns.

*Navigating between handles.* You can navigate between handles using the arrow keys. Hold **Shift** to make a multiple selection of handles. Press **Tab** to switch between the square handles for adjusting spacing and the circular handles for adjusting graphical offsets.

*Adjusting multiple items at once.* Select multiple handles either via marquee selection or using **Shift**+arrow keys, and then use the key commands to make spacing or graphical adjustments to all the selected handles at the same time.

*Removing adjustments.* To remove a single spacing or graphical adjustment, select the handle and hit **Delete**; if the item has both a spacing and graphical adjustment, both adjustments will be removed. To remove only a graphical adjustment, select the item in Write mode and choose **Edit** > **Reset Position**. To remove spacing adjustments over a larger region, select one or more handles in the region you want to remove them, then choose **Engrave** > **Note Spacing** > **Reset Layout** (which removes all spacing adjustments in the current layout), **Reset Selected Frames** (which removes all spacing adjustments in the music frames in which one or more handles are currently selected), or **Reset Selected Systems** (which removes all spacing adjustments in the system or systems in which one or more handles are currently selected).

*Locking the system.* When you make any spacing or graphical adjustment to an item, the system on which you are making the adjustment is locked: Dorico will create a system break at the start of the adjusted system (if one does not exist

already) and at the start of the following system. This ensures that making spacing adjustments does not cause the casting-off of your layout to change.

*System fullness indicator.* When editing note spacing, a new indicator in the right-hand page margin shows you at a glance how full each system is, expressed both as a percentage, and as the number of spaces occupied out of the total number of available spaces (which is measured from the start of rhythmic space to the right of the initial clef and signatures to the final systemic barline). When a system is too empty, the indicator is colored purple; when it is more than 70% full it is colored green; and when a system is over-full (more than 100%), it is colored red.

*Indenting the system.* Two large square handles appear at either end of each system: on the left-hand side, aligned with the top staff line of the top staff, and at the right-hand side, aligned with the bottom staff line of the bottom staff. These handles allow you to indent either end of the system from the frame, using the same key commands for the other types of handles. Unlike editing the spacing within a system, indenting either end of the system does not lock the system, so the casting off can change.

*Properties.* It is also possible to specify spacing and graphical adjustments for items outside of the dedicated tool in Engrave mode using the Properties panel. You can make spacing adjustments for most non-note items using the **Spacing offset** property found in that item's property group, and graphical adjustments using the **Offset X** property found in the **Common** group. For notes, spacing adjustments are made using the **Voice column spacing** offset property, and graphical adjustments are made using the **Voice column X offset** property, both of which are found in the new **Note Spacing** group.

*Adjusting the position of a bar rest.* Unlike other rests and notes, bar rests do not show handles, but it is possible to adjust the horizontal position of a bar rest relative to its bar using the **Offset X** property in the **Common** group of the Properties panel.

### **Filters** (STEAM-5893)

Selection filters are used to narrow down a selection of notes and other items in your project, based on criteria that you specify. A new **Edit ▶ Filter** submenu has been added, containing filters that select or deselect items of different kinds. To use a filter, first select multiple items – for example, by clicking in a blank part of a bar to select all notes and other items in that bar, then extending the selection by holding **Shift** and clicking in another bar in the same or another staff – then choose the filter corresponding to the item you want to remain selected, or to the item you want to remove from the selection.

Whether a filter will leave only the chosen item selected or will deselect the chosen item is determined by whether **Select Only** or **Deselect Only** is chosen at the top of the **Edit ▶ Filter** submenu.

The following filters are available:

- **Notes and Chords:** selects or deselects notes, grace notes, and tuplets
- **Grace Notes:** selects or deselects only grace notes
- **Rests:** selects or deselects explicit rests, explicit bar rests, and implicit rests
- **Voices** submenu: allows you to select or deselect all items belonging to either **All Up-Stem Voices**, **All Down-stem Voices**, or if your selection encompasses only a single staff, material in any of the numbered voices on the staff.
- **All Dynamics:** selects or deselects immediate (including combined and force) dynamics and gradual dynamics (including hairpins, *mesa di voce*, *cresc./dim.* lines)
- **Immediate Dynamics:** selects or deselects immediate dynamics only
- **Gradual Dynamics:** selects or deselects gradual dynamics only
- **All Tempos:** selects or deselects all immediate, relative and gradual tempos
- **Immediate Tempos:** selects or deselects immediate tempos (e.g. **Andante**) only
- **Relative Tempos:** selects or deselects relative tempos (e.g. **a tempo**) only
- **Gradual Tempos:** selects or deselects gradual tempos (e.g. **rit./accel.**) only
- **Arpeggio Signs**
- **Chord Symbols**
- **Clefs**
- **Glissando Lines**
- **Holds and Pauses**
- **Key Signatures**
- **Lyrics**
- **Octave Lines**
- **Ornaments and Trills**
- **Pedal Lines**
- **Playing Techniques**
- **Rehearsal Marks**
- **Slurs**
- **Text:** i.e. **Shift+X** text events
- **Time Signatures**
- **Tuplets:** selects tuplet brackets/numbers (but not the notes within them)
- **All Breaks:** selects or deselects frame and system breaks
- **Frame Breaks:** selects or deselects frame breaks only
- **System Breaks:** selects or deselects system breaks only

## Play mode

*Editing played or notated durations.* The event display in Play mode now allows you to display and edit either the played durations or the notated durations of notes. A new pair of buttons (shown on the right) have been added to the Play mode toolbox to switch between these two modes.



When viewing played durations, the main body of each note in the piano roll display represents the played duration, including all intrinsic playback effects (such as shortening a note due to a staccato articulation, or lengthening it due to a slur), while the notated duration is shown as a thin line at the bottom of each note event. When viewing notated durations, this arrangement is reversed: the played duration is shown as a thin line at the bottom of each note event, whereas the main body of the note represents the notated duration.

*Editing played durations.* When editing the start position or duration of notes in the event display, the event display is now updated in real-time as you edit, rather than only after you release the mouse. Notes whose playback duration have been edited show up in a darker color in the piano roll display.

To remove any edits made to the played durations of notes back to their default start position and length, select the affected notes and choose **Play ▶ Reset Playback Overrides**.

*Editing notated durations.* When editing notated durations, you can move notes earlier and later in time by selecting them and dragging them left and right, which snaps them to positions described by the current rhythmic grid value.

Notes can also be dragged up and down to change their pitch (or you can use **Alt+up/down arrow**, or **Ctrl+Alt+up/down arrow**, as you would in Write mode).

You can also change the durations of notes by selecting them and dragging the right-hand end of any selected note. As with moving notes earlier later in time, note durations are snapped according to the current rhythmic grid value.

Finally, notes can be cut and pasted in the event display. When pasting, the destination rhythmic position will be determined by the position of the playhead.

*Voices in the event display.* All voices for each instrument are now shown in a single track. (STEAM-6202)

*Ruler.* The ruler at the top of the event display in Play mode now shows bar and beat divisions for the prevailing time signature.

*Scrolling, zooming and navigating.* There have been significant improvements to the user experience of working with the event display in Play mode:

- The disclosure state of each track in the event display is now persistent when switching away from and back to Play mode during a single editing session (it is not yet persisted when saving and reopening the project, but this is planned).
- You can now scroll and zoom the event display with two-finger gestures if you have a multi-touch trackpad.
- Horizontal scroll and zoom of the event display is constrained, so that you cannot scroll off the start or end of the flow, or zoom out such that the flow does not occupy the whole width of the window.
- When expanding a track in the event display, the piano roll view is now centered on the range of notes played by that instrument.
- When the pointer is over the vertical piano keyboard display at the left of the event display for a track, **Shift+** mouse wheel scrolls the piano roll vertically.
- The thresholds for clicking either end of or the body of a note in the event display have been adjusted, so it's easier to select the note by clicking on it, and the mouse pointer updates as it hovers over the parts of a note to show what will happen when you click there.

*Playing technique display.* To visualize how Dorico maps playing techniques onto the various keyswitches and articulations provided by the VST Expression Map in use for an instrument, when you expand an instrument's track in Play mode you will now see an additional informational lane, which shows which regions will be played by different switches within the current VST Expression Map. Hover over a region of the lane for a tool tip containing more detailed information.

### **Support for MIDI output devices**

Dorico can now play back through any connected MIDI output devices. A new **MIDI Instruments** section has been added to the right-hand panel in Play mode, allowing you to add any of your MIDI devices in a similar manner to adding a new VST instrument. Once a MIDI device has been added, you can choose to route playback from any instrument in your project to the MIDI device by editing the settings in the relevant track header on the left-hand side of the event display in Play mode.

A new **MIDI** button has been added to the toolbar in the Mixer, allowing you to show a MIDI fader for each instrument. Each MIDI fader sends MIDI controller 7 (Volume), and the pan slider above the fader sends MIDI controller 10 (Pan). You cannot solo or mute MIDI faders. (STEAM-5920)

## Flows

*Duplicate an existing flow.* You can make a copy of a flow in your project – for example, to revise the music while maintaining the current state as a separate flow – by selecting the flow in the **Flows** panel in Setup mode, then choosing **Duplicate Flow** from the context menu.

*Splitting an existing flow.* You can split an existing flow into two by selecting a note or other item at the point at which you want the flow to be split, and choosing **Write** ▶ **Split Flow**.

*Importing flows from another Dorico project.* You can now import one or more flows from another Dorico project into the active project by choosing **File** ▶ **Import** ▶ **Flows**. You will be prompted to choose the source Dorico project that contains the flow or flows you want to import. A dialog appears in which you can choose which flow or flows to import from the source project, and you can also choose how Dorico should handle assigning the music in the imported flow or flows to players in the destination project:

- **Create All New Players** will create a new player in the destination project for every player assigned to the flow or flows in the source project, and will also create new part layouts as needed for those players.
- **Merge with Existing Players Where Possible** will attempt to assign the music in the imported flows to existing players. It will use an existing player provided it has the same instruments or a superset of the instruments of the player in the imported flow.

*Importing a flow from a MusicXML file.* When a Dorico project is open, choosing **File** ▶ **Import** ▶ **MusicXML** will import the music from that MusicXML file as a new flow in the active project. If you want to open the MusicXML file as a new project instead, choose **File** ▶ **Open** and open the MusicXML file that way instead. As with importing one or more flows from another Dorico project, after you choose the source MusicXML file to import, a dialog appears in which you can choose how Dorico should handle assigning the music in the imported file to players in the destination project.

## Improvements

### Accidentals

It is now possible to make fine adjustments to the horizontal position of an individual accidental using the new **Accidental X offset** property, which appears in the **Notes and Rests** group of the Properties panel in Engrave mode. (STEAM-6105)

### Arpeggio signs

*Playback.* Arpeggio signs now play back, and options to control this playback are found in the new **Arpeggio Signs** group on the **Timing** page of **Playback Options**. You can control whether the arpeggiation should start or end on the beat, the speed of arpeggiation, and the maximum percentage of the written duration of the chord that can be used to accommodate the arpeggio. The new **Arpeggios Playback** group in the Properties panel also allows you to override the default playback options for an individual arpeggio sign. (STEAM-3909)

*Engrave mode.* It is now possible to move an arpeggio sign left or right relative to the chord to which it belongs, either by nudging it with **Alt**+left/right, dragging it with the mouse, or adjusting the **X offset** property in Engrave mode. (STEAM-5775)

### Barlines

Two new options have been added to the **Barlines** page of **Engraving Options**:

- **Barline length for single-line instruments** allows you to specify by how many spaces the barline should extend above and below the single staff line, assuming it does not join with another staff above or below. (STEAM-5730)
- **Barline at end of system coinciding with start repeat** allows you to choose between showing a single or double barline at the end of one system when a start repeat barline appears at the start of the next. (STEAM-5195)

### Beams

*Splitting a beamed group.* A new **Edit** ▸ **Beaming** ▸ **Split Beam** command has been added, which splits an existing beam group into separate groups at the positions of the selected notes. The command formerly called **Break Beam** is now called **Make Unbeamed**, to make clear what it actually does. (STEAM-5792)

*Beam slants for concave shapes.* New options for determining when beams should be horizontal, rather than slanting up or down, have been added to the **Advanced Options** section within the **Slants** group on the **Beams** page of **Engraving Options**.

When determining whether a beamed group of three or more different pitches should be considered concave (i.e. that the notes in the middle of the beamed group are closer to the beam than the notes at the ends of the beamed group), you can now determine whether a group should be considered concave when the inner note closest to the beam is strictly closer than the notes at the ends of the beamed group, or whether it can be at the same staff position as the notes at the ends of the beamed group. By default, inner notes at the same staff position as the notes at the ends of the beamed group will cause the beam to be horizontal, which was not the case previously; to restore the previous behavior, set **Inner note at same position as outer note** to **Do not treat as concave**.

By default, for a beamed group to be considered to have a concave shape, the inner note closest to the beam must be closer than the note at each end of the beam, i.e. closer (or at the same position as) both outer notes. If you would prefer the group to be treated as a concave shape if the inner note is closer than only one of the outer notes, set **Inner note closer to the beam than one but not both outer notes** to **Treat as concave**. (STEAM-5636)

*Stem shortening.* When note stems point outside the staff, which happens especially when multiple voices are active, stems are shortened as notes approach the outer lines and spaces. It is now possible to control the positions on the staff at which the shortening starts and stops, using the new options below the Stem Shortening heading in the Stems group on the Notes page of Engraving Options.

In *The Art and Practice of Music Engraving*, Ted Ross recommends that the stem length of beamed eighth notes (quavers) should be shortened by a quarter of a space for a horizontal beam, and by half a space for a slanted beam. Dorico no longer does this by default in new projects, as it makes the default stem lengths for beamed eighths shorter in comparison to unbeamed notes, but if you want to restore this behavior, set **Stem shortening for beamed groups** to **Shorten beamed stems**.

Finally, it is now possible to specify the minimum stem length separately for notes of different durations: quarter notes (crotchets) and longer; eighth notes (quavers); and 16th notes (semiquavers) and shorter. The interaction of the desired minimum stem length, shortening according to staff position, and the snapping of beam lines to valid sit/straddle/hang positions according to their ideal slants is complex.

### **Brackets and braces**

A new option **When only one staff of braced group is shown** has been added to the **Design** group of the **Brackets and Braces** page of **Engraving Options**. When set to **Draw brace**, a brace will be drawn spanning a single staff if only one staff of a grand staff instrument such as a piano is shown on that system; when set to **Do**

**not draw brace**, a brace will only be drawn if both staves of the grand staff instrument are shown on that system. (STEAM-5580)

### **Casting off** (STEAM-6139, STEAM-6140)

A new **Casting Off** section has been added to the **Staves and Systems** page of **Layout Options**, providing options to influence how Dorico casts off your music. *Casting off* is the process of determining how many and which bars appear on each system, and how many systems appear on each page. The new options in this section are as follows:

- **Fixed number of bars per system:** fixes the number of bars on the system, regardless of their width. Multi-bar rests and complete bars with open meter are counted as a single bar; if a bar with open meter is split across a system break, each portion either side of the system break is counted as a single bar. Fixing the number of bars per system is not appropriate for all kinds of music, but it is often done in music for session recording, as fixing (say) four bars per system typically allows enough room for annotations, cues, and other material to be written in by the player in the session.
- **Fixed number of systems per frame:** fixes the number of systems in each music frame; since a music frame normally occupies almost the full height of the page, this option therefore normally determines the number of systems on each page. Fixing the number of systems per frame is most often done in instrumental parts, where it is typical for there to be 10 or 11 systems per page.
- **Scale number of systems by frame height:** allows Dorico to reduce the fixed number of systems in the frame proportionally with the height of the music frame. This is useful if you generally want to have, say, 10 systems per page, but because the first page of your part includes material such as the title, composer, instrument name, etc., the height available for music is reduced compared to subsequent pages, and when using this option, Dorico can put eight or nine systems in this first frame instead.

In addition, the existing option **Allow open bars to be split across system breaks** has been moved from the **Note Spacing** page of **Layout Options**.

### **Clefs**

*French violin clef.* The French violin clef (a G clef positioned on the bottom line of the staff, and where that bottom line represents G4, i.e. the G above middle C) has been added to the **Uncommon Clefs** section of the **Clefs and Octave Lines** panel.

*Coloring clefs.* It is now possible to change the color of clef changes using the **Color** property in the **Common** group of the Properties panel.

## Copy and paste

A new **Edit** ▸ **Paste Into Voice** submenu has been added, making it possible to paste a selection consisting of notes and other items all belonging to a single voice into another voice, either one of the existing voices on the destination staff (in which case the pasted material will be merged with any existing material in the existing voice), or a new up-stem or down-stem voice. (STEAM-5420)

## Dynamics

Dorico automatically groups abutting dynamics together when you create them, and grouped dynamics are aligned at the same vertical position below or above the staff, moving together if a note or other item protruding from the staff requires them to be moved from their default position to avoid a collision.

When you paste an individual dynamic or a group of dynamics from one staff to another, at the same rhythmic position, the dynamics are linked between those staves, which means that if you edit one of the dynamics on one staff, the other instances of that dynamic on the other staves with which it is linked will automatically update.

It is now possible to control both how dynamics are grouped and how dynamics are linked between staves. Select one or more dynamics, and use the appropriate item from the **Edit** ▸ **Dynamics** submenu, which can also be found in the context menu:

- **Group Dynamics:** groups the selected dynamics together; if any of the selected dynamics are already part of a group, then the groups are combined into a single larger group.
- **Ungroup Dynamics:** breaks the group of any selected dynamics; the group will be removed altogether.
- **Remove From Group:** removes only the selected dynamic or dynamics from the group, leaving the rest of the group intact.
- **Link:** links selected dynamics on multiple staves together, provided they are compatible, i.e. that they are at the same rhythmic position, and they are the same kind of dynamic (you cannot link, for example, *p* and *f*).
- **Unlink:** unlinks the selected dynamics such that they are no longer linked to dynamics on other staves. If the selected dynamic is part of a group, the group itself is unlinked from the other staves, and can then be further edited independently.

To show which dynamics are grouped and linked, when you select a dynamic, any other dynamics that are part of the same group or are linked to dynamics on another staff are drawn in blue, while the selected dynamic is drawn in the normal orange selection color. (STEAM-3528)

## Engrave mode

When editing frames, it is no longer possible to select any of the items within a music frame, for consistency with the other special editing tools in Engrave mode.

It is now possible to use marquee selection for each of the special editing tools in Engrave mode, which makes it easier to select multiple frames, or multiple staff spacing handles, or multiple note spacing handles. (STEAM-5953)

It is also now possible to navigate between frame handles using the arrow keys when editing frames in Engrave mode. Press **Tab** to switch between selecting either the whole frame, whose outline is now shown using a bolder line when selected, and selecting individual handles, which are shown as filled in when selected. (STEAM-5769)

## Fonts

The Noto Sans JP font family is now installed along with Dorico, and is used as the default font family for text in new projects created in the Japanese language version of Dorico. (STEAM-5865)

A new **Default text font family** option has been added to the **General** page of **Preferences**, which is set to Academico for all languages except Japanese, for which it is set to Noto Sans JP. Changing this option will change the font used by the **Default text font** font style and the **Default text** paragraph style, from which all of the other font, paragraph and character styles in your project inherit the font. (STEAM-5873)

## Font styles

Font styles are used to define the appearance of various notations within Dorico: they are distinct from paragraph and character styles, which are used for text that you type into text frames or directly into the music using the **Shift+X** text tool. Font styles are used for things like lyrics, tempo marks, the text drawn in the middle of a glissando line, playing techniques, and so on.

For font families that include extended styles or weights (such as condensed, light, semibold, etc.) can now be chosen in the **Engrave > Font Styles** dialog, enabling the use of any weight or style of any font on your computer for items like lyrics.

When opening projects created in earlier versions, Dorico will attempt to map the bold and italic flags that were used to choose bold, italic, or bold italic styles of the chosen font onto the most appropriate weight and style of the font. Note that in previous versions it was possible to choose a weight of a font that was not actually available, in which case the operating system would have synthesized a font style (e.g. if a bold weight was not available, choosing the bold option would cause a bold font to be generated on demand), which often looks poor. If a font style in an

older project requests a font weight that is not available, that font style will now be set to use the regular or normal weight of that font instead.

Beware that Windows and macOS approach font naming in very different, and largely incompatible, ways. On Windows, the list of accessible styles is hardcoded to regular, italic, bold, and bold italic, which means that fonts with extended styles instead appear in the font menu as separate fonts – for example, Adobe's Minion Pro font has regular and condensed widths, and on Windows these will appear as separate families, **Minion Pro** and **Minion Pro Cond**. On macOS, by contrast, a font like Minion Pro will appear as a single font family, with all the extended styles listed in the **Style** menu alongside regular, italic, bold, and bold italic. When moving projects between Windows and macOS computers, be aware that if you use one of the extended styles of a given font, you may need to edit the font style on the destination platform to ensure the expected style is used. (STEAM-5846)

### Instrument changes

*Multi-staff instruments.* When a player has a combination of instruments assigned that includes both single- and multi-staff instruments, the option **Allow individual staves of multi-staff instruments to be hidden** (on the **Vertical Spacing** page of **Layout Options**) is now better integrated with hiding empty staves. When one or more staves of a multi-staff instrument are hidden, Dorico now correctly determines which staff or staves should be shown based on which staff next has any music written, to try to reduce the number of redundant changes from one staff to another on different systems. (STEAM-5688)

*Vertical position of labels.* A new option **Minimum distance above items outside staff for instrument change labels** has been added to the **Instrument Changes** page of **Engraving Options**, controlling the vertical gap that Dorico should leave when an instrument change label is pushed away from the staff by an item protruding above the staff. (STEAM-5927)

### Key commands (STEAM-5977)

You can now use your MIDI keyboard to trigger commands within Dorico. Ensure that you have a project open, then open the **Preferences** dialog and go to the **Key Commands** page. For the command to which you want to assign a MIDI trigger, click **MIDI Learn**, then play the note or chord or hit the button or pad that you want to be mapped to this command, and click **Add MIDI Command** to save the new trigger. Rotary controls and faders are not currently supported.

### Key signatures

*Signposts for key signatures.* Key signatures that show no accidentals, such as a key signature of C major or A minor, or a change to such a key in a project in which cancellation naturals at key changes are not shown, now appear as signposts. To

hide these signposts, switch off **View** ▶ **Signposts** ▶ **Key Signatures**. Note that to copy and paste a key signature, or a passage of music including a key signature, the signpost must be visible and selected to be included in the copy and paste operations. (STEAM-5342)

*Naturals in custom key signatures.* Custom key signatures can now include natural accidentals if needed. (STEAM-5645)

## Lyrics

A new option **Systems on which verse numbers appear** has been added to the **Verse Numbers** group on the **Lyrics** page of **Engraving Options**, allowing you to specify whether verse numbers should be shown at the start of each line of lyrics only on the first system, or on all systems, as sometimes done in hymnals. (STEAM-5735)

## MIDI import

*Instrument detection.* The mapping of tracks in imported MIDI files onto instruments has now been significantly improved. (STEAM-6271)

*Clean lengths.* The import of note durations has been significantly improved: notes that overlap or are separated by a small amount are now notated as abutting, rather than overlapping or separated by rests of very short durations. The detection and quantization of tuplet rhythms has also been significantly improved.

## MusicXML import

A new **MusicXML Import** page has been added to the **Preferences** dialog, allowing you to choose what information should be retained when opening a MusicXML file as a new project or when importing it as a new flow into an existing project.

Now that it is possible for you to choose what information is retained, Dorico now retains less information by default: explicit rests are not imported, meaning that rest grouping will use Dorico's defaults; explicit accidentals are not imported, meaning that which notes show accidentals will be determined by the prevailing notation options; forced durations are not imported, meaning that how notes are broken up into tie chains will be determined by the prevailing notation options; and rest positioning is not imported, meaning that rests will be vertically positioned relative to the staff according to the prevailing notation options.

## Navigation

A new **Edit** ▶ **Go To** submenu has been added, containing some basic commands for navigating around your project. **Go To Bar**, with the default key command **Ctrl+G** (Windows) or **Command-G** (Mac), allows you to navigate to a bar within

one of the flows in your project. **Go To Previous Flow** and **Go To Next Flow** navigate to the start of the previous or next flow. (STEAM-6115, STEAM-6116)

### Note input

The perceived latency of input via MIDI keyboard is now much lower: the notes that you play on your keyboard are now echoed back to you immediately, rather than being played back at a fixed length after the note has been input. The echoed note may be transposed depending on the transposition of the instrument onto whose staff you are inputting, and the current state of the **Write ▶ Input Pitch** options. (STEAM-5290)

### Note spacing

The option **Minimum distance between adjacent rhythmic items** on the **Spacing Gaps** page of **Engraving Options** now has a different effect than in previous versions.

Previously the value specified by this option was almost never used in practice, because it was applied from the left-hand side of one spacing column and the left-hand side of the next: because almost all spacing columns contain an item wider than this minimum (e.g. a notehead), in fact the distance between two items at adjacent rhythmic positions was a tiny value, around 1/20 of a space. This meant that, for all intents and purposes, that successive columns could practically touch. This was particularly noticeable, for example, with tightly-spaced notes on ledger lines, as the ledger lines would appear to touch.

Now, the value is applied from the right-hand extent of one spacing column to the left-hand extent of the next, which ensures that successive rhythmic items – such as tightly-spaced notes on ledger lines – no longer appear to touch. (STEAM-3803)

### Options

Dorico's five options dialogs – **Layout Options**, **Notation Options**, **Note Input Options**, **Engraving Options**, and **Playback Options** – all provide buttons to save the current set of options as the defaults for new projects.

A suite of improvements in this update allow you to reset back to your saved defaults if you have made changes in the dialog that you later decide you want to discard; reset back to the factory defaults (i.e. ignoring your saved defaults); and remove your saved defaults so that new projects created thereafter will use the factory defaults.

A new button **Reset to Saved Defaults** appears in the button bar at the bottom of each dialog; this button will read **Reset to Factory** if you have not yet saved any default settings for that dialog. If you have saved user defaults but want to reset to

the factory defaults instead, you can hold **Ctrl** (Windows) or **Command** (Mac) and click the button (which will instead say **Reset to Factory** while the **Ctrl/Command** key is held down).

To remove saved defaults, if saved user defaults are found, holding **Ctrl/Command** will cause the **Save as Default** button to read **Remove Saved Defaults** instead, and clicking that button will delete the saved user defaults. (STEAM-5883)

## Ornaments

The naming of the default ornaments shown in the **Baroque and Classical** section of the **Ornaments** panel has been corrected. , which was previously named “mordent”, is now named “short trill”; , which was previously named “inverted mordent”, is now named “mordent”. (STEAM-5849)

The ornaments shown in *Clavier-Büchlein vor Wilhelm Friedemann Bach* by J.S. Bach have also been added to the **Baroque and Classical** section of the **Ornaments** panel, together with the Haydn ornament, the long *schleifer* ornament, and a few of the more common ornaments used by Couperin.

## Page layout

*Copying frames between pages.* When editing a pair of master pages, you can now copy the layout from the left-hand page to the right-hand page or vice versa by clicking the appropriate **L→R** or **R←L** button in the toolbar at the top of the master page editor.

Furthermore, you can also copy any selected frame or frames to other pages in your layout as follows:

- Enable the frame editing tool by clicking the switch at the top of the **Frames** section of the left-hand panel in Engrave mode.
- Select the frame or frames you want to copy to another page.
- Select the page or pages to which you want the selected frames to be copied in the **Pages** panel on the right-hand side. Select multiple pages using **Ctrl**+click.
- Right-click in the **Pages** panel to show the context menu, and choose **Copy Selected Frames to Selected Pages**. (STEAM-5813)

*Moving page overrides.* It is now possible to move multiple selected overridden pages in the **Pages** panel in Engrave mode and move them earlier or later, which swaps the selected range of overridden pages with the pages immediately to their left or right. To move a range of pages by a larger distance, right-click the **Pages** panel and choose **Move Pages** from the context menu to open a simple dialog from which you can choose the page before or after which the selection of pages should be moved to. (STEAM-6196)

*Disabling automatic adjustment of staff spacing.* If you would prefer Dorico never to adjust the distances between staves and systems from the ideal values specified in **Layout Options**, switch off the new **Automatically resolve collisions between adjacent staves and systems** option in the **Minimum Gaps** section of the **Vertical Spacing** page. (STEAM-6229)

*Improved vertical justification.* When justifying the gaps between systems, Dorico now considers whether the distance between successive systems is already larger than the ideal distance specified on the **Vertical Spacing** page of **Layout Options**, and if so, it prefers to add the remaining unjustified space between systems that currently have smaller gaps, to produce an overall more even result. (STEAM-6197)

## Playback

*Score following during playback.* Dorico now automatically moves the music to keep the playhead in view during playback in Setup, Write and Engrave modes. (STEAM-3943)

*VST 2.x plug-ins.* The process of whitelisting VST 2.x plug-ins so that they can be used with Dorico has been simplified. Firstly, in addition to the default **vst2whitelist.txt** file that is included with your Dorico installation, listing those VST 2.x plug-ins that Steinberg have qualified for use with Dorico, a second **vst2whitelist.txt** file can now be loaded from a user-specific location that will not be overwritten if you subsequently update or reinstall Dorico. When Dorico starts up, it reads both the default whitelist file and your user-specific whitelist file to build up the list of whitelisted plug-ins.

If you want to whitelist any VST 2.x plug-ins that are not included on the default whitelist, you should place your own **vst2whitelist.txt** file here:

- Win: C:\Users\username\AppData\Roaming\Steinberg\VSTAudioEngine\_64
- Mac: /Users/username/Library/Preferences/VSTAudioEngine

Secondly, the **vst2whitelist.txt** file now need contain only the filename of the VST plug-in to be whitelisted, minus its file extension (**.dll** on Windows and **.vst** on Mac), with the name of each plug-in on its own line in the text file. (AD-293)

*Dynamics playback.* Playback sounds in the HALion Sonic SE library provided with Dorico that use VST Note Expression for dynamics (including saxophone, choir, and others) now use MIDI controller 11 (Expression) by default, which allows them to play dynamics until Dorico supports VST Note Expression, which is planned for a future update. (STEAM-5933)

## Playing techniques

*Creating playing techniques.* It is now possible to input a playing technique either via the **Shift+P** popover or the **Playing Techniques** panel while the caret is visible: the chosen playing technique will appear immediately after it is input, rather than only appearing once a note or chord has been input at that rhythmic position.

(STEAM-4943)

*Additional playing techniques.* Some new playing techniques are available in new projects, including m.d./m.s. (*mano destra/mano sinistra*) in the **Keyboard** section, text versions of the common mutes in the **Brass** section, *con bocca chiusa* in the **Vocal** section, and air/Aeolian/key clicks in the **Wind** section.

## Rests

It is now possible to nudge a selected rest up or down by a small amount using the **Offset Y** property in the **Common** group of Properties, which appears only in Engrave mode. For dotted rests, only the main rest shape will be affected by the offset, so the rhythm dot or dots will remain in the space in which they are currently positioned. If you need to move a rest by one or more whole spaces, use the **Rest pos.** property in the **Notes and Rests** group instead: when using this property, rhythm dots will snap to the space closest to the rest. (STEAM-6350)

## Selections

Where two or more items overlap, or are superimposed, it is now possible to select each item in turn by hold **Alt+Shift** and clicking. (STEAM-3816)

## Slurs

- A new **Tied Notes** group has been added to the **Slurs** page of **Engraving Options**, with options to determine whether slurs should start or end on the first or last note in the tie chain. These options can also be overridden for an individual slur by setting the **Start pos. on tie chain** or **End pos. on tie chain** properties as appropriate. (STEAM-5144, STEAM-6024)
- A new option **Slurs starting on the last note or ending on the first note of a beamed group** has been added to the **Endpoint Positioning** group of the **Slurs** page of **Engraving Options**, allowing you to specify whether slur endpoints should be positioned as if the notes are unbeamed (in which case the slur endpoint will be positioned closer to the notehead) or as if they are beamed (in which case it will be positioned closer to the stem tip). (STEAM-5772)
- When adjusting the position of either end of a slur in Engrave mode with the mouse, you can hold **Alt** to rotate the slur instead of moving only the selected endpoint, which maintains the slur's shape. (STEAM-5770)
- The calculation used for **Maximum angle for slurs** is now relative to a horizontal slur, rather than relative to the angle between the first and last note

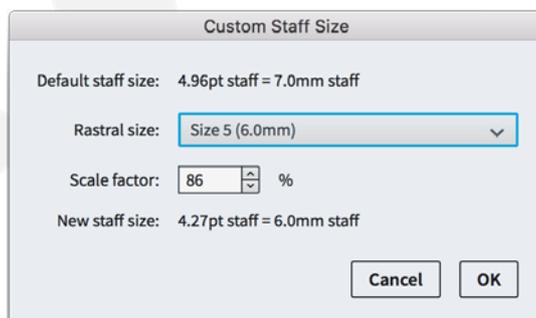
under the slur. A new option **Maximum angle for cross-staff slurs** has also been added, set to a larger angle by default. (STEAM-5771)

### Staff labels

A new option **Minimum indent for systems with staff labels** has been added to the **Staves and Systems** page of **Layout Options**. When a system is set to show staff labels, now the indent of the system is determined by the width of the widest staff label or the value of this option, whichever is the wider; if this is the first system, then the value of **Indent first system of flow** is then added on top. In this way, it is possible to obtain a uniform indent for each system even when the staff labels change. (STEAM-6026)

### Staves

A new **Custom Staff Size** dialog has been added to the **Edit ▶ Staff Size** submenu, allowing you to change the size of the staves belonging to a player to any percentage scale factor. Select any note or chord in any of the staves belonging to the player whose staves you want to resize, then open this dialog.



Choose one of the preset sizes from the **Rastral size** menu, or specify a custom scale percentage. The resulting staff size is shown in the preferred unit of measurement (as specified in Preferences). Click **OK** and the sizes of all the staves belonging to the instruments held by that player are updated. (STEAM-5659)

### Text

*System text.* It is now possible to create text items that will appear at the system object positions defined on the **Players** page of **Layout Options**, and in all layouts, by choosing **Write ▶ Create System Text**, which has the default key command **Shift+Alt+X**. System-attached text also splits multi-bar rests. (STEAM-5583)

*Font size in part layouts.* Each paragraph style can now optionally define a separate size for part layouts. (STEAM-5582)

### Time signatures

*Inserting time signatures.* When adding a time signature with Insert mode switched on, time is inserted before any later time signature to ensure that the bar prior to the later time signature is always the correct length. (STEAM-6279)

*Dashed barlines in aggregate time signatures.* When creating an aggregate time signature, where a sequence of time signatures exists within a single bar, you can choose whether the subdivisions within the bar should be separated with a dashed barline when creating the time signature in the **Shift+M** popover. To show the dashed barline, separate each time signature with | (pipe); to hide the dashed barline, instead use : (colon). By way of example, **4/4|3/4** will show a dashed barline, while **2/4:3/4** will not. (STEAM-5633)

## Tokens

It is now possible to use tokens that correspond to specific flows inside text frames. For example, to show the title of the third flow, use the token **{@flow3title@}**. To find out what number to insert in the token, look at the **Flows** panel in Setup mode, which shows the flow number in the bottom right-hand corner of the block corresponding to each flow. (STEAM-5818)

## Tuplets

A new **Repeated Tuplets** group has been added to the **Tuplets** page of **Engraving Options**, containing new options that allow the tuplet ratio and bracket for successive identical tuplets to be hidden automatically. To hide such tuplets, set **Successive tuplets of the same unit and ratio** to **Hide ratio and bracket**; the tuplet ratio and bracket of repeated tuplets will then be hidden after the number of tuplets specified in **Number of repeated tuplets before ratio and bracket can be hidden** have been encountered. The final option in this group allows you to specify whether tuplets should continue to be hidden if the pattern of repeated tuplets is broken, for example by a rest or notes not part of the tuplet pattern. (STEAM-5734)

## User interface

- A new **View ▸ Zoom ▸ Custom Zoom** dialog has been added, with key command **Alt+Z** (also accessible by clicking the little magnifying glass icon in the status bar, next to the button showing the current zoom level), allowing you to quickly zoom to any magnification. Type **Alt+Z** to open the dialog, type the desired zoom level (or use the up and down arrows to increase or decrease the current zoom level in increments of 25%), and hit **Return** to confirm the change. (STEAM-5783)
- The operation of the hand tool has been improved: when using the hand tool to move the music around on the screen, the selection is not changed, which makes it practical to use the hand tool to make a selection that ends outside the current view. (STEAM-5918)
- When attempting to open a project that is already open, a window belonging to that project is now brought to the front. (STEAM-5709)

- An extra page has been added to the end of the guided tour for each mode, telling you how to view it again. If you would like to review the guided tour for any of Dorico's five modes, simply choose **Help ▶ Guided Tour**. (STEAM-5509)
- **Window ▶ Previous Mode** is now implemented, allowing you to quickly toggle between the current mode and the previously chosen mode. You can also assign a key command to this function in **Preferences** for quicker access. (STEAM-5981)
- A new option **Double-click in Setup or Engrave mode switches to Write mode** has been added to the **General** page of **Preferences**. Switch this option off if you would prefer that double-clicking within a music frame in Setup or Engrave mode should not switch to Write mode and start note input. (STEAM-4529)
- It is now possible to assign key commands to the three special editing modes in Engrave mode, i.e. frame editing (**Edit, Edit Frames**), staff spacing (**Engrave, Edit Staff Spacing**), and note spacing (**Edit, Edit Note Spacing**). (STEAM-5815)
- Properties that properly apply only to music in a specific frame chain are no longer misleadingly shown as if they apply when viewing music in galley view. (STEAM-6261)
- It is now possible to use comma (,) as a decimal separator in the spin controls that display spaces in fractional values in the Properties panel and the options dialogs. (STEAM-6251)

### **Voices** (STEAM-5201)

New options have been added to the **Edit ▶ Voice** submenu:

- **Swap Voice Contents** swaps the voices used by the notes and chords in the selection.
- **Change Voice** allows you to change the voice used by the notes and chords in the selection, listing the voices already in use on the staff (in which case the selected notes and chords will be merged into the existing notes and chords of that voice), and allowing you to change notes into a new up-stem or down-stem voice as needed.

Both editing operations affect only the first selected instrument: if you select music from multiple instruments, the remaining instruments' music will be unaffected.

Furthermore, **Swap Voice Order** (which changes the graphical order of opposing two voices, allowing you to position them either head-to-head or stem-to-stem as you wish) has been moved from the **Edit ▶ Stem** submenu to the **Edit ▶ Voice** submenu.

## Performance

Deleting and reordering flows in Setup mode is now significantly faster. (STEAM-5643)

## Installation

When downloading Dorico via the Steinberg Download Assistant, Dorico is now delivered as three separate packages for your convenience: the main application installer, the HALion Sonic SE plug-in and its content, and the HALion Symphonic Orchestra content. It is still strongly recommended that all three packages should be installed on your computer for correct operation of Dorico. Even if you already have HALion Sonic SE or HALion Symphonic Orchestra installed, it is recommended that you run the installers provided with Dorico, as they may include required updates to the plug-ins or content. Your existing installation will be detected and updated to avoid duplicating the content on your system.

## Troubleshooting

A new option **Help > Create Diagnostic Report** has been added, which creates an archive called **Dorico Diagnostics.zip** and saves it to your desktop. If you are encountering any technical problems when using Dorico relating to the application crashing, or problems with audio and playback devices, please consider including the **Dorico Diagnostics.zip** file when you contact support or when you post your query to the user forum, as this archive contains useful information that may allow Steinberg staff to diagnose and resolve your problem more quickly.

## Issues resolved

ID #	Component	Issue
STEAM-5488	<i>Arpeggio signs</i>	Copying and pasting music with arpeggio signs now correctly retains the arpeggio signs in the pasted material.
STEAM-5549	<i>Arpeggio signs</i>	Arpeggio signs are no longer incorrectly removed when using the <b>Change Instrument</b> feature to change one instrument held by a player into another.
STEAM-5800	<i>Arpeggio signs</i>	Adding a cross-staff arpeggio sign in situations where either or both staves include notes in multiple voices now correctly creates the arpeggio across all voices.
STEAM-5896	<i>Articulations</i>	Articulations no longer incorrectly avoid ties that are on the opposite side of the notehead to the articulations themselves.
STEAM-5118	<i>Bar numbers</i>	Bar numbers drawn at the start of the system no longer incorrectly move horizontally when a start repeat barline appears at the start of the system.
STEAM-5332	<i>Barlines</i>	Special barlines no longer show a redundant time signature signpost if they do not also coincide with a change of time signature.
STEAM-6172	<i>Barlines</i>	Start repeat barlines at the start of the flow now draw as expected in galley view.
STEAM-6224	<i>Barlines</i>	Adding a barline (e.g. a double or start repeat barline) with an existing barline selected no longer causes the new barline to be added one bar later than expected.
STEAM-4768	<i>Bars</i>	Adding bars via the <b>Shift+B</b> popover now correctly considers the prevailing alternating time signature, if any.
STEAM-5705	<i>Bars</i>	Deleting bars via the <b>Shift+B</b> popover now correctly considers any ongoing octave lines, lyrics, and grouped dynamics.
STEAM-6163	<i>Bars</i>	When deleting bars via the <b>Shift+B</b> popover, a time or key signature at the beginning of the first bar to be deleted, that time or key signature is no longer deleted.
STEAM-6267	<i>Bars</i>	If the caret is positioned in the middle of a bar when deleting bars via the <b>Shift+B</b> popover, the bar in which the caret is positioned is now completely deleted.
STEAM-5592	<i>Brackets and braces</i>	Creating, deleting or otherwise editing a player group in Setup mode now correctly updates the brackets and braces in the score immediately.
STEAM-4751	<i>Dynamics</i>	The handles that appear in Engrave mode for hairpins have been improved, such that they follow the mouse more closely during drag operations.
STEAM-5295	<i>Dynamics</i>	Cutting and pasting dynamics that are part of a group now works more reliably, with the dynamics offset correctly when pasted.
STEAM-5295	<i>Dynamics</i>	Cutting and pasting dynamics that are linked together now works more reliably.
STEAM-5761	<i>Dynamics</i>	Using <b>Alt</b> +click to repeatedly copy dynamics no longer results in duplicate dynamics being created.
STEAM-5971	<i>Dynamics</i>	Dynamics at grace note rhythmic positions now track the mouse pointer correctly when dragging them in Engrave mode.

ID #	Component	Issue
STEAM-6123	<i>Dynamics</i>	When entering dynamics into the <b>Shift+D</b> popover while the caret is visible, advancing the popover with <b>Space</b> will now correctly only extend a hairpin if it was the final dynamic entered into the popover.
STEAM-4813	<i>Flows</i>	Adding more than 79 flows to a single project no longer causes a crash (Windows only).
STEAM-6169	<i>Grace notes</i>	Attempting to set the <b>Grace note before barline</b> property on a grace note at the very start of the flow no longer causes Dorico to crash.
STEAM-5731	<i>Holds and pauses</i>	Fermatas on barlines now draw in the correct position relative to barlines on single-line percussion instruments.
STEAM-5732	<i>Holds and pauses</i>	Fermatas on barlines are now positioned correctly if the barline results from a local time signature (i.e. one specific to a single staff).
STEAM-5733	<i>Holds and pauses</i>	The option <b>Gap to right of caesura</b> in the <b>Horizontal Position</b> group of the <b>Holds and Pauses</b> page of <b>Engraving Options</b> now works as expected.
STEAM-6104	<i>Holds and pauses</i>	<b>Reset Position</b> now takes effect immediately for a selected fermata, caesura or breath mark, rather than only appearing to take effect after another nearby edit.
STEAM-6117	<i>Holds and pauses</i>	A problem whereby a fermata over a barline could drift further and further away from the staff during editing in galley view has been resolved.
STEAM-6147	<i>Holds and pauses</i>	Fermatas positioned on barlines now break multi-bar rests in the correct position.
STEAM-5644	<i>Instrument changes</i>	A redundant key signature no longer appears if the point at which an instrument change occurs coincides with a key change.
STEAM-5686	<i>Instrument changes</i>	Changing between a multi-staff instrument and a single-staff instrument no longer unnecessarily shows a clef if one of the staves is hidden because it is empty, and it shows the same clef as the existing staff.
STEAM-5757	<i>Instrument changes</i>	When an instrument change occurs at the end of a system, the required clef change and, if the transposition of the new instrument is different, the required key signature now correctly appear.
STEAM-5758	<i>Instrument changes</i>	If all the notes belonging to an instrument in a given system have been crossed to another staff, and the option to allow some staves belonging to an instrument to be hidden is enabled, the destination staff is now shown correctly, so that the notes appear.
STEAM-5765	<i>Instrument changes</i>	A problem whereby redundant instrument change labels would appear during note input close to the point at which the instrument transition occurs has been resolved.
STEAM-5777	<i>Instrument changes</i>	When one staff of a grand staff instrument is hidden and the single staff shown changes from one system to the next, Dorico no longer shows redundant clef changes.
STEAM-4787	<i>Key signatures</i>	It is now possible to add microtonal accidentals when using a traditional Western key signature, provided the current tonality system's EDO value is divisible by 12.
STEAM-6301	<i>Key signatures</i>	Under rare circumstances, deleting a key signature on a single staff could cause a crash. This problem has now been resolved.
STEAM-5859	<i>Layouts</i>	Layouts whose names have not been explicitly overridden will now correctly update when the instruments attached to their associated players are changed after a project has been saved and reopened.

ID #	Component	Issue
STEAM-5928	<i>Localization</i>	Some key commands that were defined in the English version of Dorico but were missing from the localized versions have now been restored.
STEAM-6221	<i>Localization</i>	The names of font, paragraph and character styles are now correctly translated in the relevant editing dialogs.
STEAM-6289	<i>Localization</i>	When running in a language other than English, OS-provided dialogs such as <b>Open</b> and <b>Save</b> are now fully translated (Mac only).
STEAM-6268	<i>Lyrics</i>	In rare circumstances, dragging a lyric hyphen could cause Dorico to crash. This problem has now been resolved.
STEAM-6269	<i>Lyrics</i>	Lyric extender lines and hyphens now draw in the correct positions if they cross a system break in the middle of a bar, or in open meter.
STEAM-4171	<i>MIDI import</i>	The detection and quantization of tuplets in MIDI files has been significantly improved.
STEAM-5285	<i>Mixer</i>	The Mixer window now correctly updates immediately in response to changes to players and instruments made in Setup mode.
STEAM-6217	<i>Multi-bar rests</i>	Multi-bar rests will no longer collide with key signatures or time signatures at either end of the bar when spacing is tight.
STEAM-6347	<i>Multi-bar rests</i>	Multi-bar rests are now positioned correctly above single-line percussion instruments.
STEAM-6369	<i>Multi-bar rests</i>	A double or other special barline in the middle of a bar now correctly causes a multi-bar rest to be split.
STEAM-4892 STEAM-5807	<i>MusicXML import</i>	Numbered instruments are now imported more intelligently from MusicXML files.
STEAM-6089	<i>MusicXML import</i>	The <b>Ends voice</b> property is no longer set on the final note in each voice in an imported MusicXML file, which could cause rests not to appear when adding more music at the end.
STEAM-5706	<i>Navigation</i>	Navigating with the right arrow in galley view no longer sometimes fails to navigate onto a rest.
STEAM-5710	<i>Navigation</i>	Navigating with the up and down arrows in a single-staff layout in galley view will no longer sometimes incorrectly navigate horizontally.
STEAM-1995	<i>Note input</i>	Using chord mode to add notes to existing notes and chords no longer incorrectly removes articulations that were originally present.
STEAM-4869	<i>Note input</i>	Using <b>Alt</b> +left/right to move notes by the current rhythmic grid resolution now handles tuplets correctly.
STEAM-5234	<i>Note input</i>	Inputting a rest by playing a note or chord on a MIDI keyboard with rest input engaged after having previously input a chord now correctly inputs a rest, rather than the note or chord played.
STEAM-5571	<i>Note input</i>	Creating octave lines, gradual tempos, and gradual dynamics based on the selection now always produces a line of the expected duration at the rhythmic start of the selection.
STEAM-5678	<i>Note input</i>	Step input from a MIDI keyboard no longer causes a crash when inputting into a score using a tonality system other than 12-EDO.

ID #	Component	Issue
STEAM-5805	<i>Note input</i>	Changing the order of players in Setup mode is now correctly reflected in the order in which staves are visited when you move the caret up and down between staves in galley view.
STEAM-5805	<i>Note input</i>	Changes made to the order of players and instruments in Setup mode are now correctly reflected in the order in which staves are navigated by the caret during note input in galley view.
STEAM-5950	<i>Note input</i>	Double-clicking a note above the top of the top staff or below the bottom staff in the system now shows the caret correctly.
STEAM-5952	<i>Note input</i>	Deleting a tuplet with an expanding ratio (e.g. 2:3 rather than 3:2) no longer incorrectly deletes any adjacent tuplets.
STEAM-6041	<i>Note input</i>	Moving the caret left now always correctly navigates to the nearest rhythmic grid position, rather than to the last note in the voice.
STEAM-6234	<i>Note input</i>	Copying and pasting system and frame breaks, and note spacing changes, from one layout to another now retains the relevant properties in the new copies.
STEAM-6246	<i>Note input</i>	Using a MIDI keyboard to input notes in a layout-specific music frame would previously ignore the accidentals played on the keyboard. This problem has now been resolved.
STEAM-6246	<i>Note input</i>	Using a MIDI keyboard to input into a layout-specific frame chain (rather than the main music frame chain from the master page) now inputs notes with accidentals correctly.
STEAM-6319	<i>Note input</i>	Using <b>Alt</b> +up/down arrow to change the pitch of notes in a frame chain with a player filter applied now works correctly.
STEAM-5812	<i>Noteheads</i>	When copying and pasting notes that use a different notehead type, the changed notehead type is now correctly retained in the pasted material.
STEAM-5843	<i>Notes</i>	It is now possible to set the stem direction of a note in a project created by importing a MusicXML file directly, without first removing its forced stem direction.
STEAM-5720	<i>Octave lines</i>	It is now possible to nudge octave lines using <b>Alt</b> and the arrow keys (or use <b>Ctrl+Alt</b> for larger steps) in Engrave mode.
STEAM-6078	<i>Octave lines</i>	Under rare circumstances it was possible for dotted octave lines of a certain length to draw as solid lines. This problem has been resolved.
STEAM-5878	<i>Ornaments</i>	Changing an existing glissando line from drawing with a straight line to drawing with a wiggly line now correctly immediately updates the appearance of the line.
STEAM-4497	<i>Page layout</i>	Setting the <b>Space size</b> property on a system or frame break now results in the initial value (of 4.96pt, equivalent to a 7mm/0.28" staff) taking effect immediately.
STEAM-5535 STEAM-5911	<i>Page layout</i>	Editing the <b>Wait for next frame/system break</b> properties for a selected frame or system break now causes the casting-off of the layout to be updated immediately.
STEAM-5624 STEAM-5826	<i>Page layout</i>	Changing the order of frames within a chain of music frames now works reliably.
STEAM-5669	<i>Page layout</i>	Deleting a flow in a project with multiple flows no longer sometimes causes all music in a layout to stop drawing, if one of the music frame chains in the layout was set to show only the flow that has subsequently been deleted.

ID #	Component	Issue
STEAM-5755	<i>Page layout</i>	Under some circumstances, changing the vertical position of a rest could incorrectly cause the staff spacing to widen, or dynamics to move unnecessarily. These problems have been resolved.
STEAM-5819	<i>Page layout</i>	Under rare circumstances, it was possible for Dorico to crash when changing the frame chain to which a music frame belongs. This problem has been resolved.
STEAM-5910	<i>Page layout</i>	Inserting blank pages before the page containing the first page of a flow no longer sometimes causes the start of the flow to be missing from the music frame chain.
STEAM-5923	<i>Page layout</i>	Locking the contents of a single music frame containing music from multiple flows now works correctly.
STEAM-5930	<i>Page layout</i>	Attempting to lock a system or frame with a system or frame break signpost selected will no longer cause a crash.
STEAM-6151	<i>Page layout</i>	Lock System will no longer lock the wrong system if you select a clef, key signature, or time signature at the end of the system to specify the end of the system to be locked.
STEAM-6311	<i>Page layout</i>	After adjusting staff spacing, undo now correctly only undoes the last spacing adjustment, rather than clearing spacing adjustments.
STEAM-6317	<i>Page layout</i>	Under some circumstances, deleting an item that causes the casting-off of the music to change, then undoing that deletion, would not return to the original casting off. This is fixed.
STEAM-5760	<i>Performance</i>	When your computer is connected to wifi, Dorico no longer polls the available networks every 10 seconds, which can in some circumstances result in high network latency.
STEAM-5963	<i>Play mode</i>	When a note is partially scrolled out of view in the event display in Play mode, it no longer incorrectly shows a border at its left-hand side, making it appear it starts at that position.
STEAM-6063	<i>Play mode</i>	Changing the settings in an instrument's track header no longer incorrectly causes the event display to scroll back to the beginning.
AD-244	<i>Playback</i>	A problem whereby the ports in the chosen audio device could become disconnected, causing no sound to be heard on playback, has been fixed.
STEAM-4803	<i>Playback</i>	When choosing a different audio device in the <b>Device Setup</b> dialog, the list of sample rates is now correctly updated to show the sample rates supported by the active device.
STEAM-4806	<i>Playback</i>	If you attempt to choose an audio device that is currently unavailable in <b>Device Setup</b> , Dorico will no longer incorrectly show you that this device is chosen, instead showing you the device that is actually in use.
STEAM-5553	<i>Playback</i>	Articulations such as staccato, accent etc. now only affect notes in the voice to which they belong.
STEAM-5718	<i>Playback</i>	Short appoggiaturas before dotted notes now play back with the correct length.
STEAM-5719	<i>Playback</i>	Grace notes before the beat now always correctly truncate the preceding rhythmic note in playback.
STEAM-5727	<i>Playback</i>	Short (unmeasured) grace notes that coincide with a change of tempo now play back with the correct length.
STEAM-5748	<i>Playback</i>	Notes played as keyswitches defined in expression maps for octave-transposing instruments are no longer themselves incorrectly transposed by one or more octaves.

ID #	Component	Issue
STEAM-5749	<i>Playback</i>	Measured two-note tremolos now play back with the correct duration for notes of an eighth (quaver) and shorter in duration.
STEAM-5756	<i>Playback</i>	When multiple projects are open, the playhead now only moves in the project that is playing back.
STEAM-5837	<i>Playback</i>	The playhead no longer incorrectly jumps back to the start of the system it has just finished playing before proceeding to the next system.
STEAM-5407	<i>Playback</i>	Hitting the button to rewind to the beginning in the Transport during playback now correctly restarts playback from the start of the flow.
STEAM-5851 STEAM-5802	<i>Playback</i>	Notes with tremolos or arpeggio signs within slurs no longer sometimes fail to play back correctly because of the Playback Options to humanize the start positions of notes.
STEAM-5982	<i>Playback</i>	After changing the endpoint for an instrument in Play mode, manually assigning an endpoint for a newly-created instrument would result in no playback. This problem has now been fixed.
STEAM-5982	<i>Playback</i>	Players and instruments added to your project after you have overridden the VST instrument or MIDI output used by an existing instrument in your project will now be played back correctly.
STEAM-6072	<i>Playback</i>	MIDI program changes defined as actions in VST Expression Maps are now output correctly during playback.
STEAM-6128	<i>Playback</i>	Program changes arising from switches in VST Expression Maps are now output before all notes at that rhythmic position.
STEAM-6290	<i>Playback</i>	If you start playback immediately after selecting a note, that note no longer sometimes incorrectly holds on after playback has started.
STEAM-5747	<i>Players</i>	Single letters such as I or A at the end of an instrument's name will no longer incorrectly be interpreted as a Roman numeral and converted into a number.
STEAM-4942	<i>Playing techniques</i>	Changing the properties of one or more selected playing techniques now correctly updates the appearance of the playing technique across its whole range.
STEAM-4943	<i>Playing techniques</i>	When entering playing techniques using the <b>Shift+P</b> popover during note input (i.e. when the caret is visible), the chosen playing technique now appears immediately after confirming the popover, rather than after a note has been input at that rhythmic position.
STEAM-5768	<i>Playing techniques</i>	Text playing techniques are no longer incorrectly scaled to a smaller size when attached to grace note positions.
STEAM-5389	<i>Printing</i>	When selecting multiple layouts to be printed or to be exported as graphics, all pages of all selected layouts are now correctly printed or exported under all circumstances.
STEAM-5791	<i>Printing</i>	Rests are no longer incorrectly printed in color when the <b>View</b> options to show <b>Voice colors</b> or <b>Implicit rests</b> are switched on.
STEAM-5561	<i>Rests</i>	Setting the color of a bar rest via Properties now correctly updates the score immediately.
STEAM-5701	<i>Rests</i>	Changing the number of empty bars at the end of a flow no longer incorrectly causes the <i>tacet al fine</i> multi-bar rest to disappear if shown.

ID #	Component	Issue
STEAM-5680	<i>Selections</i>	Using <b>Shift</b> +left/right arrow to extend block selections now works in any music frame chain, not only the main music frame chain from the master page.
STEAM-6320	<i>Selections</i>	<b>Select All</b> now works correctly in any music frame chain, not only the main music frame chain from the master page.
STEAM-5746	<i>Slurs</i>	Setting the <b>End offset</b> property for a single-segment slur no longer incorrectly also sets the <b>End handle offset</b> property.
STEAM-5832	<i>Slurs</i>	It is no longer possible to create zero-length slurs (for example, by selecting multiple notes of the same chord and hitting <b>S</b> ), which can cause the placement of other items, like articulations, to be incorrect.
STEAM-6134	<i>Slurs</i>	It is no longer possible to create linked slurs across multiple staves that do not start and end at the same rhythmic position.
STEAM-5101	<i>Staff labels</i>	Changing the <b>Staff labels</b> paragraph style now correctly updates the appearance of the staff labels in the score.
STEAM-4614	<i>Tempo</i>	Tempo marks are now correctly aligned at the start of a bar with a special barline but no time signature.
STEAM-5693	<i>Tempo</i>	If a tempo item's properties are set such that no printable text will appear (e.g. the text is empty, and the metronome mark is hidden), a signpost will now always appear.
STEAM-6113	<i>Tempo</i>	Tempo marks are no longer sometimes incorrectly offset to the right in galley view.
STEAM-5552	<i>Text</i>	Double-clicking a text item in Setup or Engrave mode now switches to Write mode before opening the editing popover.
STEAM-5856	<i>Text</i>	Changing the name of a player in Setup mode now correctly immediately updates any text items in the score that are using the <b>{@playerName@}</b> token.
STEAM-5875	<i>Text</i>	Changing a font style now correctly shows the effect on any styles that inherit from it without having to confirm and reopen the <b>Font Styles</b> dialog.
STEAM-5786	<i>Time signatures</i>	If a bar is split either side of a system break, the time signature no longer incorrectly draws at the start of the second system.
STEAM-5890	<i>Time signatures</i>	The signpost text that appears for an aggregate time signature now correctly shows the broken pipe character that indicates the dashed barline subdivisions between the different time signatures.
STEAM-6020	<i>Time signatures</i>	The <b>Pick-up bar of</b> control in the <b>Create Time Signature</b> section of the <b>Time Signatures</b> panel now correctly creates a pick-up bar using the beat length of the time signature to be created, not a fixed quarter note (crotchet) beat length.
STEAM-5745	<i>Tremolos</i>	Strokes on one-note tremolos no longer sometimes draw too close to the notehead.
STEAM-5696	<i>Tuplets</i>	The ratio for a hidden tuplet number shown in the signpost now matches the ratio that will be shown when the tuplet number is shown, rather than its lowest common denominator.
STEAM-5704	<i>Tuplets</i>	If tuplets are hidden by way of the options in <b>Engraving Options</b> , an appropriate signpost will now always appear.

ID #	Component	Issue
STEAM-2201 STEAM-1786	<i>User interface</i>	All items in Dorico's panels now draw at the correct high-resolution pixel density on high-DPI or Retina displays. Previously some panel items were still drawing in low resolution.
STEAM-5299	<i>User interface</i>	The Expression Maps dialog now correctly shows which expression map is loaded when the dialog opens by selecting it in the left-hand list.
STEAM-5517	<i>User interface</i>	To make it clear that you cannot transpose up or down when transposing by a unison, but rather can only transpose by a quality, e.g. augmented or diminished, the <b>Up</b> and <b>Down</b> buttons are now disabled in <b>Write &gt; Transpose</b> when transposing by a unison.
STEAM-5604	<i>User interface</i>	Entering or exiting full screen mode by clicking the green traffic light button in the window title bar now correctly updates the checked state of the <b>View &gt; Full Screen</b> menu item.
STEAM-5614	<i>User interface</i>	Key commands edited in the Preferences dialog when only the Hub window is open rather than a project window now correctly take effect immediately, rather than only taking effect when a project window is opened.
STEAM-5715 STEAM-6095	<i>User interface</i>	The <b>Expression Maps</b> dialog now shows the correct information for the initially selected expression map when the dialog opens.
STEAM-5717	<i>User interface</i>	The guided tour is now correctly triggered for the mode a project opens in, rather than waiting until the user changes mode to trigger the tour.
STEAM-5793	<i>User interface</i>	The spin box showing the chosen channel in the track header in Play mode is now wide enough to show channel numbers higher than 9.
STEAM-5891	<i>User interface</i>	Under some circumstances it was possible for changes made in one options dialog to be incorrectly applied to another open project, if the corresponding options dialog was also open for that project. This problem has been resolved.
STEAM-5892	<i>User interface</i>	It is now possible to use undo and redo (and other key commands) while a modeless options dialog is in focus.
STEAM-5898	<i>User interface</i>	Moving the focus between the two panes of a horizontally or vertically split view now correctly updates the state of Dorico's menus immediately.
STEAM-5901	<i>User interface</i>	Changing the selected layouts and flows in <b>Layout Options</b> and <b>Notation Options</b> respectively now always ensures that the option values shown in the dialog reflect the current selection of layouts or flows.
STEAM-5984	<i>User interface</i>	When you remove a player from a flow in Setup mode, you will now be prompted that completing this operation will delete the player's music, and ask you to confirm the action.
STEAM-6135	<i>User interface</i>	Some minor problems with assigning playing techniques in the <b>Expression Maps</b> dialog have been resolved.
STEAM-6166	<i>User interface</i>	Repeated key commands that include a modifier (e.g. holding down <b>Alt</b> +left arrow) are no longer sometimes interpreted as if the modifier is not held down (Mac only).
STEAM-6191	<i>User interface</i>	Dragging a tab from one group to another within the project window (i.e. with a horizontal or vertical split) now correctly activates the tab immediately after the drag is completed.
STEAM-6206	<i>User interface</i>	Dorico will no longer crash if you attempt to undo with the Steinberg Hub window in focus, or if the current tab in the project window does not contain a layout.
STEAM-6250	<i>User interface</i>	Attempting to save default options from one of Dorico's options dialogs will no longer crash if the user application data folder is non-writable.

ID #	Component	Issue
STEAM-6281	<i>User interface</i>	Enabling editing of frames, staff spacing, or note spacing, or switching back into Engrave mode with one of these tools active, now correctly clears any selection from Write mode.
STEAM-6283	<i>User interface</i>	When deleting a flow from the <b>Flows</b> panel in Setup mode, Dorico no longer incorrectly changes the selection in the panel, making it appear as if the wrong flow will be deleted.
STEAM-6349	<i>User interface</i>	Moving one or more players up or down in the custom player order list on the <b>Players</b> page of <b>Layout Options</b> now always keeps the selected players in view.
STEAM-5795	<i>Views</i>	A problem whereby some items could move further and further away from the staff while the music is being edited in galley view has been resolved.
STEAM-5926	<i>Views</i>	It is no longer possible to set a non-percentage zoom level (such as zooming to page width or height) in galley view.

# Dorico 1.0.30

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*February 2017*

This version contains the following improvements and issue resolutions.

## Improvements

### Accidentals

Accidentals are now listed in the **Accidentals** section of the **Key Signatures and Accidentals** panel in Write mode in order of ascending pitch delta (i.e. accidentals that lower the pitch are listed before those that raise the pitch). (STEAM-5545)

### Auto-backup

Dorico now makes a backup copy of your project each time you save it. By default, backups are stored in a folder called **Backup Projects** inside your chosen save location (which is, by default, a folder called **Dorico Projects** in your user account's documents folder). A subfolder inside the backup location is created for each project, and each time you save, that version is timestamped and placed in that location. To conserve disk space, Dorico will keep only five backups of each project by default, with the oldest backup being deleted as each new backup is created. You can change the number of backup projects saved by setting **Number of backups per project** in the **Files** group of the **General** page of **Preferences**.

To open a backup project, simply open it in the usual way, either by choosing it from the **File** ► **Open** dialog or by double-clicking it in Windows Explorer or the Finder. Dorico will open the backup project as if it were a new, untitled project, so that you can choose where to save it and what to call it. (STEAM-5639)

### Bar numbers

A new option **Position bar numbers at start of system after clef and key signature** has been added to the **Bar Numbers** page of **Layout Options**, switched off by default. When switched on, if a bar number would appear at the start of the system, it will be positioned immediately to the right of the preamble at the start of the system, rather than aligned with the initial systemic barline. (STEAM-5513)

### Barlines

A new thick barline type has been added. It can be created from the **Barlines** section of the **Bars and Barlines** panel in Write mode, or by typing **thick** into the **Shift+B** popover. (STEAM-5493)

## Brackets and braces

Two new options have been added to the **Brackets and Braces** page of **Engraving Options**: (STEAM-5504)

- **Brace distance from systemic barline** allows you to control the default distance of the brace from the initial systemic barline.
- **Brace distance from bracket** allows you to control the default distance of the brace from the thick bracket line, if the **Secondary bracket appearance** option is set to **Brace**.

## Clefs

The **Shift+C** popover for adding clefs now accepts French names for common clefs: **sol** for treble G clef, **fa** for bass F clef, **ut5** for baritone clef, **ut4** for tenor clef, **ut3** for alto clef, **ut2** for mezzo soprano clef, and **ut1** for soprano clef. (STEAM-4582)

## Color

More items in the score can now have their colors changed via the Properties panel: slurs, tuplet brackets, ornaments, arpeggios, playing techniques, and holds and pauses. (STEAM-5477)

## Dynamics

It is now possible to create *forzando* dynamics with higher intensities than *ffz* by typing e.g. **fffz** into the **Shift+D** popover.

## Grace notes

- The interpretation of grace notes during playback has been improved. An unslashed grace note of an eighth (quaver) or longer in duration will by default be interpreted as a so-called long appoggiatura (as described in Robert Donington's *The Interpretation of Early Music*), being played on the beat of the rhythmic note it precedes, and taking half of its duration (or half of its undotted duration, if the rhythmic note is dotted). An unslashed grace note of a 16th (semiquaver) or shorter in duration will be interpreted as a so-called short appoggiatura, being played on the beat of the rhythmic note it precedes, but being played as short as possible. (STEAM-5448)
- A new group of options has been added to the **Timing** page of **Playback Options**, allowing you to specify whether single unslashed grace notes should be played back as a long appoggiatura, and the threshold for the written duration of the grace note below which it should be played back as a short appoggiatura. You can also specify the exact duration of a short appoggiatura, expressed as a fraction of the duration of a quarter note (crotchet) played at 120 quarters per minute, i.e. 0.5 seconds. (STEAM-5451)

- A new option **Horizontal offset from stem** has been added to the **Grace notes** section of the **Notes** page of **Engraving Options**, allowing you to specify the default horizontal offset of the grace note slash relative to the note stem.

(STEAM-5534)

### Hub window

A new **Tutorials** tab has been added to the left-hand pane in the Hub window, which provides a list of the latest videos added to the Dorico YouTube channel. There are now many useful tutorial videos available to help you learn how to use the software.

A new **Videos** button has also been added at the top of the Hub window, which links directly to the Dorico YouTube channel.

### Instruments

The following changes have been made to transposing woodwind and brass instruments:

- All common (and some uncommon) horn transpositions are now provided, with variants both with and without key signatures.
- Bass in  $B\flat$  and  $E\flat$  now have variants that show a bass clef either at transposed pitch or at concert pitch.
- Sousaphone in  $B\flat$  and  $E\flat$  now have variants that show a treble clef at transposed pitch.
- Variants of euphonium in  $B\flat$ , baritone horn in  $B\flat$  and tenor trombone in  $B\flat$  that show bass clef at concert pitch without an octave transposition have been added.
- Piccolo in  $D\flat$ , soprano flute, contrabass flute, tenor trumpet in  $E\flat$ , bass trumpet in C (also known as valve trombone), alphorn in  $F\sharp$ , cornett (or zink) in C and D have all been added.

An organ instrument that uses only two staves (manuals only) and an SATB choir set up for two staves have also been added. (STEAM-5702)

### Lyrics

A new option **Punctuation for verse numbers** has been added to the **Lyrics** page of **Engraving Options**, allowing you to specify whether verse numbers should be appended with a period (full stop). (STEAM-5492)

### Players

The option **Uses custom player order** on the **Players** page of **Layout Options** is now fully functional, and allows you to change the order of players in one layout from the order specified in the **Players** panel in Setup mode. (STEAM-3686)

## Popovers

Except for the **Shift+K** key signatures and **Shift+T** tempo popovers, all the popovers in Write mode are now case insensitive. (STEAM-5532)

## Printing

A new option **Collate copies** has been added to the right-hand panel in Print mode, switched on by default. When switched on, Dorico will print all pages of each copy of each layout to be printed in sequence; when switched off, Dorico will print the desired number of copies of the first page, then the desired number of copies of the second page, and so on. (STEAM-5491)

## Project Info

The **File** > **Project Info** dialog now defaults to showing you the information for the current flow, rather than the entire project. If you select a flow in the **Flows** panel in Setup mode, if you invoke the dialog either from the **File** menu or from the right-click context menu, the dialog will open to the page for the first selected flow. If no flows are selected in Setup mode, the dialog will instead open to the page for the current flow you are editing, which is denoted by the flow whose name is shown in the document title bar. (STEAM-5530)

## Rests

Dorico automatically fills the gaps between notes with rests of the appropriate duration. These are known as *implicit rests*, because they are implied by the gaps between the notes. Rests that are explicitly entered during note input using Force Duration, or rests that were explicitly created by way of importing a MusicXML file, are known as *explicit rests*. Explicit rests cannot be suppressed using the **Starts voice** and **Ends voice** properties. Dorico 1.0.30 introduces new tools for working with rests.

First, a new command **Edit** > **Remove Rests** has been added, which will set the **Starts voice** and **Ends voice** properties appropriately such that any rests in the selection are removed. If you see extra rests arising from secondary voices that you would prefer did not appear, simply select them individually, or select a range of bars containing rests that you would prefer did not appear, and choose **Edit** > **Remove Rests**. (STEAM-5213)

Second, a new option **View** > **Note and Rest Colors** > **Implicit Rests** has been added. When switched on, implicit rests will be colored gray in the score. Explicit rests will continue to be shown in black when this option is switched on.

This option can be useful in diagnosing why, for example, a rest does not disappear when you set the **Starts voice** or **Ends voice** property on a nearby note: once you

identify a rest as an explicit rest, you can delete it, and the implicit rest that replaces it will respect the **Starts voice** or **Ends voice** property. (STEAM-5525)

It is also now possible to suppress implicit rests before the first note in a voice by setting **Starts voice** on the first note in that voice, which will suppress all rests before that note to the start of the flow. You can also suppress implicit rests after the last note in a voice by setting **Ends voice** on the last note in that voice, which will suppress all rests after that voice. It is also possible to suppress implicit rests in any gaps between different voices that might occur in the middle of a flow, though this will require you to set **Ends voice** on the last note of the first voice, and **Starts voice** on the first note of the second voice, if the gap between those notes spans multiple barlines. (STEAM-5565)

### Tempo

A new **Circa appearance** option has been added to the **Absolute Changes** group on the **Tempo** page of **Engraving Options**, allowing you to choose whether a metronome mark that shows an approximate tempo should show the equals sign between the note value and the approximate indication. (STEAM-5495)

### Text

A new option **Position of text relative to other items** has been added to the **Text** page of **Engraving Options**, which is set to **Avoid collisions** in new projects. This option allows Dorico to move text items vertically to avoid collisions with other items. This will not be enabled by default in existing projects, since you may have already moved text items to avoid collisions, but you can enable it if you want to. (STEAM-5014)

### Tremolos

A new group of options has been added to the **Timing** page of **Playback Options** to control the playback of unmeasured tremolos. You can specify the minimum number of tremolo strokes that will be interpreted as unmeasured in playback. This considers both the number of tremolo strokes and the number of beam lines that would be used for the note; for example, if the option is set to require three tremolo strokes, an eighth note (quaver) with two tremolo strokes will be played as unmeasured, because the eighth note's single beam is included in the calculation.

You can also specify the default length of the notes in an unmeasured tremolo, expressed as a fraction of the length of a quarter note (crotchet) played at 120 quarters per minute, i.e. 0.5 seconds in length. (STEAM-5435)

## Issues resolved

ID #	Issue
STEAM-5226	<i>Audio export:</i> A problem that would result in exported audio files being exported to the correct length but ending up either mostly or completely silent if the project had been played back completely before exporting audio has been resolved.
STEAM-5537	<i>Accidentals:</i> Attempting to add a new glyph to an accidental definition without a glyph selected in the list of glyphs no longer causes a crash.
STEAM-5413	<i>Accidentals:</i> The accidentals in the <b>Accidentals</b> section of the <b>Key Signatures and Accidentals</b> panel now stick on during note input in the same way as the accidentals in the notes panel on the left-hand side of the window.
STEAM-5496 & STEAM-5457	<i>Arpeggio signs:</i> The spacing of arpeggio signs relative to cross-staff notes has been improved. In particular, if two cross-staff arpeggio signs exist at the same rhythmic position on different instruments, each arpeggio sign will now be offset only by the width of the accidentals etc. on the instrument to which the arpeggio sign applies, rather than the width of accidentals on all instruments that have arpeggio signs at that rhythmic position.
STEAM-5490	<i>Arpeggio signs:</i> Arpeggio signs no longer move slightly to the left or right while dragging them in Engrave mode.
STEAM-5485	<i>Arpeggio signs:</i> The length of cross-voice arpeggio signs is now correctly updated when the pitches of the notes changes sufficiently that the highest or lowest note is now in a different voice.
STEAM-5475	<i>Arpeggio signs:</i> The length of cross-staff arpeggio signs now updates correctly after the distance between staves changes.
STEAM-5112	<i>Articulations:</i> The appropriate properties are now displayed in the <b>Articulations of duration</b> group of the Properties panel depending on whether a tenuto is present.
STEAM-5617	<i>Audio export:</i> Exporting to WAV will now always use the sample rate used by the current audio device; exporting to MP3 will always export at 44.1kHz.
STEAM-5695	<i>Bars:</i> In rare circumstances, it was possible for deleting bars using the <b>Shift+B</b> popover to cause Dorico to crash. This problem has been resolved.
STEAM-5573	<i>Beams:</i> Beam direction is no longer affected by the staff positions of rests within the beamed group, unless stemlets are in use.
STEAM-5518	<i>Dynamics:</i> A problem that prevented immediate dynamics immediately following a gradual dynamic (a <i>crescendo</i> or <i>diminuendo</i> ) from playing back correctly has been resolved.
STEAM-5503	<i>Dynamics:</i> Typing e.g. <b>f cresc.</b> into the <b>Shift+D</b> dynamics popover will no longer discard the specified gradual dynamic when popover is closed.
STEAM-5685	<i>Dynamics:</i> Typing <b>sf</b> or <b>sfz</b> into the popover will now set the <b>rfz/sfz style</b> property as appropriate, so the dynamic will match the popover input.
STEAM-5494	<i>Exporting graphics:</i> A problem whereby graphics would not be correctly exported if the name of the layout to be exported contained one or more characters that are illegal in filenames has been resolved.
STEAM-5567	<i>Exporting graphics:</i> PDFs exported with the <b>Mono</b> option set are now always correctly exported in a true monochrome color space.
STEAM-5500	<i>Layouts:</i> Empty part layouts numbered higher than 10 are now correctly renamed when assigning players to them.

ID #	Issue
STEAM-5476	<i>Layouts:</i> Changes made to player groups in the Players panel are now reflected immediately in the open layout, instead of incorrectly requiring the layout to be closed and opened again.
STEAM-5464	<i>Lyrics:</i> Attempting to start lyric input with the final barline selected will no longer cause a crash.
STEAM-5619	<i>Lyrics:</i> A problem whereby lyrics could sometimes be pasted out of order when copying and pasting between flows or projects has been resolved.
STEAM-4954 STEAM-4994	<i>Mixer:</i> Mute/Solo buttons now work correctly in the Mixer, and new buttons have been added to clear all Mute and Solo states.
STEAM-4993	<i>Mixer:</i> The state of the insert and send slots in the Mixer, including whether each is enabled or disabled, is now correctly saved and restored when saving and reopening a project.
STEAM-5285	<i>Mixer:</i> The Mixer now correctly updates in response to changes in the project, for example adding or removing players and instruments, without requiring that the window be closed and reopened.
STEAM-5621	<i>Mixer:</i> The responsiveness of the faders in the Mixer has been improved. It is no longer possible to move the faders with a two-fingered swipe gesture, but it is still possible to use a sideways swipe gesture to scroll the Mixer window.
STEAM-5610	<i>Mixer:</i> The Mixer is no longer forced to be on top of all other windows (Windows only).
STEAM-5482	<i>Mixer:</i> It is now possible to route signal from any instrument output to the global effects channel; previously, this routing would only work for the default HALion Sonic SE 2 plug-in.
STEAM-5635	<i>Multi-bar rests:</i> Gradual tempo changes (such as <i>rit./accel.</i> ) no longer cause multi-bar rests to break incorrectly.
STEAM-5602	<i>Multi-bar rests:</i> Deleting music from a part layout in which two or more instruments are included and multi-bar rests are enabled no longer causes a crash under certain circumstances.
STEAM-5728	<i>Note input:</i> When selecting notes in instruments whose sounds require a transposition of one or more octaves in playback (e.g. double bass, bass guitar), the correct octave transposition is now applied.
STEAM-5481	<i>Note input:</i> You can now correctly override the choice of octave for the first note of a chord when inputting a chord using the computer keyboard in step input.
STEAM-5577	<i>Note input:</i> It is now possible to set key commands for double sharp and double flat accidentals that can be used to specify those accidentals during note input.
STEAM-5600	<i>Note input:</i> The initial duration chosen when note input starts will only be taken from the selected note if a single note is selected; if there are multiple notes and rests selected, or if the selected rest is longer than a quarter note (crotchet) in duration, the initial duration chosen will be a quarter note (crotchet).
STEAM-5487	<i>Note input:</i> Switching on Lock Durations during note input now correctly switches off rests, tuplets, or grace notes, if any of those tools were engaged.
STEAM-5543	<i>Notation options:</i> Some options from the <b>Notation Options</b> dialog were not correctly applied to new flows or new projects after having been saved as defaults; this problem has now been resolved.
STEAM-5526	<i>Ornaments:</i> When selecting a mordent or turn and editing it by clicking another ornament type in the <b>Ornaments</b> panel in Write mode, the correct button now shows as selected in the panel after the edit.
STEAM-5460	<i>Playback:</i> Dorico no longer crashes if it attempts to play notes lower than MIDI note 0.

ID #	Issue
STEAM-5522	<i>Playback:</i> Starting playback in a large project is now considerably faster. This also reduces the time it takes to open larger projects.
STEAM-5456	<i>Playback:</i> A problem that would cause the playback of legato (either triggered by slurs or the legato playing technique) to be overridden, so that there is no audible legato effect, has been resolved.
STEAM-5367	<i>Playback:</i> The <b>nat.</b> playing technique now correctly resets all other active playing techniques.
STEAM-5498	<i>Playback:</i> Grace notes at the same position in multiple voices or instruments are now correctly played at the same time.
STEAM-5533	<i>Playback:</i> Only those flows assigned to the current layout are played back, in the order in which they are listed in the <b>Flows</b> panel in Setup mode, rather than relying on the presence of a full score layout (the absence of which would previously have caused there to be no playback at all).
STEAM-5638	<i>Playback:</i> Audio devices with ampersand characters in their names can now be chosen correctly in the <b>Device Setup</b> dialog.
STEAM-5396	<i>Playback:</i> Keyswitch notes are now correctly cleared when playback stops, so that starting playback again does not sometimes result in Dorico playing the wrong technique.
STEAM-5721	<i>Playback:</i> Keyswitch notes and MIDI controllers are now correctly chased when starting playback from the middle of a flow.
STEAM-5595	<i>Playback:</i> When opening an existing project, the correct playback data for the current layout is now set up immediately, and switching the <b>Flow</b> drop-down in Play mode correctly updates the event display.
AD-281	<i>Playback:</i> A problem whereby Waves NX plug-ins would not load or correctly display their user interface has been resolved.
STEAM-5750	<i>Playback:</i> Reverb send level is now correctly set post-fader rather than pre-fader.
STEAM-5647	<i>Players:</i> When changing between two instruments with different numbers of staves held by the same player, if the option to allow one staff of a multi-staff instrument to be hidden if empty is enabled, Dorico no longer shows both staves of the two-staff instrument unless both contain music.
STEAM-5616	<i>Players:</i> Certain edits to music at or near a transition between different instruments held by the same player can no longer cause the following system to disappear temporarily.
STEAM-5549	<i>Players:</i> Changing the instrument held by a player no longer causes any arpeggio signs written for the original instrument to be lost.
STEAM-5711	<i>Players:</i> Under rare circumstances it was possible for Dorico to crash when moving a player from one group to another in Setup mode. This has now been resolved.
STEAM-5640	<i>Printing:</i> It is no longer necessary to switch on the <b>View options</b> checkbox in the <b>Annotations</b> section of the print options panel to print colored objects in color.
STEAM-5615	<i>Printing:</i> Typing a page number into the <b>To</b> spin control to determine the page range and then hitting <b>Tab</b> to move the focus to another control no longer causes a crash under some circumstances (Mac only).
STEAM-5716	<i>Printing:</i> Reopening a project that was last saved with Print mode active will now correctly show the print preview immediately, without requiring you to switch to a different mode and back again.
STEAM-5656	<i>Properties:</i> A problem whereby selecting a bar containing a playing technique that is otherwise empty could cause Dorico to crash has been resolved.

ID #	Issue
STEAM-5563	<i>Rests:</i> Under some circumstances, bar rests that appear when notes that had been crossed to an otherwise empty staff from the staff above or below could appear at the wrong vertical position. This has now been resolved.
STEAM-5478	<i>Rests:</i> Deleting a tuplet containing rests now always correctly renotates the rests that remain.
STEAM-4875	<i>Rests:</i> Under some circumstances, removing the <b>Starts voice</b> property from the first note in a tuplet would not cause any suppressed rests earlier in the tuplet to reappear right away. This has now been resolved.
STEAM-5538	<i>Staff spacing:</i> Edits to staff spacing are no longer incorrectly removed if the layout whose staff has been edited has been viewed in galley view during the current editing session.
	<i>Text:</i> A problem whereby double-clicking a text item to edit it would not work in certain circumstances involving music in multiple frame chains has been resolved.
STEAM-5323	<i>Time signatures:</i> A problem whereby setting the <b>Ends interchangeable</b> property on a time signature would not immediately cause the following bars to be redrawn correctly has been resolved.
STEAM-5090	<i>Time signatures:</i> Deleting and recreating a time signature change within an interchangeable range will now have the correct effect on the time signatures that come after it.
STEAM-5470	<i>Time signatures:</i> Rests are now correctly grouped according to the instrument-specific time signature, if one is present.
STEAM-5609	<i>Transposing:</i> Making a selection of music at the beginning of a flow that starts with a C major or A minor key signature will now correctly allow that key signature to be transposed.
STEAM-5527	<i>Tremolos:</i> When selecting a tremolo with four strokes, the correct button now shows as selected in the <b>Tremolos</b> panel in Write mode.
STEAM-5564	<i>Tremolos:</i> The playback of measured tremolos has been improved, such that the number of tremolo strokes now determines the note value of the repeated notes (one stroke = eighth note, two strokes = 16th note, etc.), instead of simply dividing the written note value by two, four, etc.
STEAM-5510	<i>Voices:</i> When you use <b>Edit &gt; Stem &gt; Swap Voice Order</b> to swap the order of two voices, the resultant <b>Voice column index</b> values now appear correctly in the Properties panel.
STEAM-5474	<i>User interface:</i> The keyboard focus is now always returned to the main document area after clicking any of the buttons in the right-hand panels in Write mode, so that all key commands operate on the music as expected without having to click into the music area again.
STEAM-5471	<i>User interface:</i> A problem whereby the scrollbars in the right-hand panels in Write mode could either appear the wrong height (Mac and Windows), or too wide (Windows only), has been resolved.
STEAM-3033	<i>User interface:</i> It is now possible to assign key commands to key combinations that normally act as dead keys producing combining diacritics, such as <b>Alt+E</b> (Mac only).
STEAM-4934	<i>User interface:</i> The way scroll bars appear in Dorico's panels has been revamped to ensure that they only appear when necessary.
STEAM-5614	<i>User interface:</i> Changes to key commands now take effect immediately, even if no project window is open.
STEAM-5692	<i>User interface:</i> Changing the selection of layouts in Layout Options without having made any changes to any of the options no longer incorrectly prompts that there are unsaved changes.

ID #	Issue
STEAM-5605	<i>User interface:</i> When running in full screen, menus that pop up from buttons (e.g. in the status bar at the bottom of the window) no longer appear too high, as if the Dock were visible (Mac only).
STEAM-5620	<i>User interface:</i> When attempting to open many projects at the same time, Dorico no longer sometimes crashes.
STEAM-5638	<i>User interface:</i> Audio devices with an ampersand (&) in their name now appear correctly in the <b>Device Setup</b> dialog.
STEAM-5574	<i>Localisation:</i> Dorico will now start correctly if your user account name uses Japanese or other CJK Unicode characters (Windows only).
STEAM-5471 STEAM-5321 STEAM-5590	<i>Localisation:</i> Several issues related to assigning key commands using specific key combinations on French, German, Italian, Japanese and Russian keyboards have been resolved.
	<i>Localisation:</i> The key command <b>Ctrl+A</b> (Windows) or <b>Command-A</b> (Mac) was missing from the default sets of key commands in languages other than English; this has now been resolved.
STEAM-5585	<i>Performance:</i> A problem whereby commands (e.g. notes input in quick succession) could be executed in the wrong order or skipped has been resolved.
STEAM-5629	<i>Performance:</i> The speed of note input and editing in projects containing multiple flows has been significantly increased.
STEAM-5579	<i>Performance:</i> The speed of note input and editing in flows that have a lot of trailing empty bars has been significantly increased.

# Dorico 1.0.20

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December 2016

This version contains the following improvements and issue resolutions.

## Improvements

### Performance improvements

Building on the improvements in Dorico 1.0.10, this update includes further significant improvements to the performance and reliability of Print mode. For example, selecting multiple layouts in Print mode is now considerably faster.

(STEAM-5386)

### Arpeggio signs

A new **Arpeggiation** section has been added to the **Ornaments** panel in Write mode, allowing the creation of arpeggio signs indicating upwards and downwards arpeggiation, as well as a *non arpeggio* bracket line indicating that a chord should not be arpeggiated.

To create an arpeggio sign on a chord in a single voice, select any notehead in the chord, and either select the desired arpeggio sign from the **Ornaments** panel, or type **Shift+O** to open the ornaments popover, in which you can type **arp** (or **arpeggio**) for an upwards arpeggio, **arpdown** (or **arpeggiodown**) for a downwards arpeggio, or **nonarp** (or **nonarpeggio**) for a *non arpeggio* sign. Dorico will create the arpeggio line spanning all of the notes in the chord. Dorico will not create an arpeggio sign if only a single note exists in the selected voice. Arpeggio signs can also be created during note input in chord mode using the ornaments popover.

To create an arpeggio sign that spans chords in multiple voices (e.g. across both staves of a piano or harp instrument), select any notehead in the first voice, then hold **Ctrl** (Windows) or **Command** (Mac) and select any notehead in the second voice, then create the arpeggio sign either using the panel or the popover, as described above.

Dorico will automatically adjust the length of the arpeggio sign as the pitches of the notes in the voices to which the sign belongs change, or as notes are added to or deleted from the chords, and will automatically delete the arpeggio sign when only a single note remains at that rhythmic position in that voice.

By default, any grace notes at the same rhythmic position as an arpeggio sign will be positioned to the left of the arpeggio sign. To make the arpeggio sign appear to

the left of the grace notes, select the arpeggio sign and set the **Arpeggio before grace notes** property in the Properties panel.

Downwards arpeggio signs have an arrowhead at the bottom of the line by default, but upwards arpeggio signs have no arrowhead by default. Arpeggio signs can alternatively show a Couperin-style swash at their top or bottom. To override an individual arpeggio sign, select it and open the Properties panel, then set the **Sign end** property. The length of arpeggio signs can also be adjusted on a case-by-case basis in Engrave mode.

Options controlling the default appearance of arpeggio signs have been added to the new **Arpeggio Signs** page of **Engraving Options**.

Arpeggio signs do not yet have any effect in playback, but this is planned for a future update.

### Brackets and braces

A new option **Additional vertical protrusion beyond top or bottom of staff** has been added to the **Design** group on the **Brackets and Braces** page of **Engraving Options**, allowing the thick vertical line of the bracket to be lengthened slightly if needed to ensure a good join with the chosen bracket tip glyphs in the current music font. (STEAM-5408)

### Instruments

A keyless timpani instrument type, i.e. a timpani that does not use a key signature and instead shows accidentals for each note as required, has been added and can be chosen from the instrument picker. (STEAM-5339)

### Key commands

- It is now possible to change the default key commands for changing the pitch of notes (**Alt**+up/down arrow to move by step, **Shift+Alt**+up/down arrow to move by chromatic step, and **Ctrl+Alt**+up/down arrow to move by octave). These commands can now be found in the **NoteEdit** category. (STEAM-5453)
- It is also now possible to assign key commands for **Edit** ▶ **Stem** ▶ **Force Stem Up**, **Force Stem Down** and **Remove Forced Stem**. These commands can now be found in the **Edit** category. (STEAM-5454)

### Lyrics

A new **Italic** property has been added to the **Lyrics** group in the Properties panel, allowing any non-italic lyric to be made italic if necessary, for example for occasional words in a different language, or vocalizations interspersed within the text. (STEAM-5404)

## Music fonts

Dorico now reads the JSON metadata files for SMuFL-compliant fonts from the locations recommended by the SMuFL specification:

- Windows: **C:\Program Files\Common Files\SMuFL\Fonts\**
- Mac: **/Library/Application Support/SMuFL/Fonts/**

Dorico will load the JSON file if it is named *fontname.json* (e.g. **Bravura.json**) and located inside a folder called *fontname* (e.g. **Bravura**) in the appropriate path for the operating system.

If Dorico can load the JSON metadata file correctly, then the font will appear in the list of available music fonts in **Engrave** ▶ **Music Fonts**. (STEAM-2290)

## Note input

To create a time signature or key signature that applies only to the staff on which the caret is currently located, enter the time signature or key signature into the **Shift+M** or **Shift+K** popover as usual, and type **Alt+Return** (instead of **Return** alone) to confirm the item to be created. (STEAM-5422)

## Notes

A new option **Stem direction for notes on the middle line of the staff** has been added to the **Stems** group on the **Notes** page of **Engraving Options**, allowing you to choose whether Dorico should use musical context (i.e. the staff positions of notes preceding and following the notes on the middle line of the staff) or a fixed default to determine the stem direction of notes on the middle line of the staff. (STEAM-5348)

## Ornaments

A new option **Horizontal gap between trill marking and trill extension line** has been added to the **Trills** group on the **Ornaments** page of **Engraving Options**, allowing you to determine the distance between the *tr* sign and the extension line to its right.

## Page layout

A new **Rastral size** menu has been added to the **Space Size** group on the **Page Setup** page of **Layout Options**, allowing the specification of staff size according to the rastral sizes used in traditional music engraving. The largest size is Size 0 (9.2mm or 0.36"), and the smallest size is Size 8 (3.7mm or 0.15"), and the default staff size in a new project is now Size 3 (7mm or 0.28"). It is naturally still possible to choose any custom size, as before, by editing the **Space size** value directly. (STEAM-5353)

Two new options have been added to the **Hide Empty Staves** group on the **Vertical Spacing** page of **Layout Options**:

- **Allow individual staves of multi-staff instruments to be hidden:** When switched on, Dorico will allow (say) the left-hand staff of a piano instrument to be hidden on a system on which it has no music; when switched off, the piano will only be hidden on a system if both staves can be hidden. (STEAM-5382)
- **Players excluded from hide empty staves:** This provides a list of all of the players in the current layout, and allows you to specify a list of players that should never be hidden, even if their staves are empty throughout a system. (STEAM-4755)

### Playback

- A new **Playback Options** dialog has been added to the **Play** menu. This dialog contains options to determine how Dorico should interpret specific markings during playback, such as the percentage by which the written duration of notes should be extended under a slur or when encountering a *legato* playing technique, by how much the dynamic should be increased when playing an accent or marcato articulation, and so on. The dialog also includes an initial set of options for beat stress (the amount by which the dynamic should be increased on primary and secondary beats in the current meter) and for humanization of dynamic level and note start position.
- Single- and multiple-note tremolos now play back. Measured single-note and all multiple-note tremolos are played back directly by rendering additional note events, while unmeasured single-note tremolos can be played back using unmeasured tremolo samples if they are provided by the VST Expression Map in use for the instrument. (STEAM-3904)
- Slurs and the *legato* playing technique are now played back by extending the duration of all but the last note under a slur. (STEAM-5148)
- Grace notes now play back. Any number of slashed and unslashed grace notes at present all play back immediately before the rhythmic note they precede, stealing time from the preceding rhythmic note. Playback of a single unslashed grace note, taking half the written duration of the rhythmic note that follows, and stealing time from that following rhythmic note, will be added in a future update.
- A new option **Show playhead when stopped** has been added to the **Play** group on the **General** page of **Preferences**. When switched on, the playhead (vertical green line) will appear both during playback and when stopped; when switched off, the playhead will appear only during playback. (STEAM-4718)

### Preferences

The **General** page of **Preferences** has been organized into groups of related options.

## Rests

A new option **Bar rests in additional voices** has been added to the new **Rests in additional voices** group on the **Rests** page of **Notation Options**. In new projects, this option is set to **Omit bar rests**, which means that when an additional voice (typically a down-stem voice) stops, any subsequent bars in which that voice has no notes or chords prior to its reappearance will not be padded with bar rests. This reduces the number of occasions you would have to search backwards through the music to set the **Ends voice** property on the last note in the voice, which might be dozens or even hundreds of bars earlier.

If you would prefer that Dorico continue to pad all intervening bars with bar rests, set the new option to **Show bar rests**, which will also be the value chosen in any projects created in versions of Dorico earlier than 1.0.20.

Furthermore, when this new option is set to **Omit bar rests**, bar rests no longer appear in bars where the only notes and chords present have been crossed from another staff. (STEAM-5212, STEAM-4831)

In addition, a new option **Allow dotted rests equal to the length of a compound beat** has been added to the **Compound Time Signatures** group on the **Rests** page of **Notation Options**. When set to **Allow dotted rests**, a rest of a dotted quarter (dotted crotchet) in 6/8 will be rendered as a single dotted quarter rest; if it is set to **Split at beat subdivisions**, it will be rendered as a quarter (crotchet) rest followed by an eighth (quaver) rest. (STEAM-5109)

Finally, it is now possible to create explicit bar rests during note input. Either click the new **Insert Bar Rest** button in the **Bars and Barlines** panel in Write mode, or type **rest** into the **Shift+B** popover. (STEAM-5036)

## Templates

The **Brass band** template has been improved, with corrected staff labels for the cornet and horn instruments, and appropriate clefs for the trombones. (STEAM-5334)

## Tempo

It is now possible to control the appearance of absolute and gradual tempo changes independently in **Engrave > Font Styles**. Absolute, relative and reset tempo markings use the **Immediate tempo text font** style, while gradual tempo changes used the **Gradual tempo text font** style. (STEAM-5387)

## Views

When changing view type from galley view to page view, or vice versa, if there is a selection, Dorico now attempts to center the selected item or items in the new view. (STEAM-5025)

## Issues resolved

The following table lists all issues that have been resolved in this version:

ID #	Issue
STEAM-5344	<i>Copy and paste:</i> Notes within tuplets that have been created with Force Durations set now retain their forced duration when pasted.
STEAM-5269	<i>Copy and paste:</i> Using <b>R</b> to repeat a selection no longer sometimes pastes items (such as dynamics) in the wrong location.
STEAM-5414	<i>Dynamics:</i> Dynamics between the two staves of a keyboard instrument are now correctly centered. The option <b>Allow dynamics between braced staves to violate minimum distance by <math>n</math> spaces</b> has been removed from the <b>Dynamics</b> page of <b>Engraving Options</b> .
STEAM-5403	<i>Holds and pauses:</i> Caesuras at the end of a bar now cause multi-bar rests to break at the bar in which they appear, rather than at the following bar.
STEAM-5391	<i>Holds and pauses:</i> Caesuras that precede a change of time signature or key signature no longer cause the time or key signature to be spaced incorrectly relative to the barline.
STEAM-5380	<i>Instrument changes:</i> Items that apply to the whole system, such as tempo markings, rehearsal marks, etc., now appear correctly above the top staff when the top staff uses instrument changes.
STEAM-5352	<i>Key signatures and accidentals:</i> Setting a non-Western accidental on a note no longer incorrectly also sets the same accidental on the note in transposing layouts; now, the accidental is only set in transposing layouts if the relative offset between the concert and transposed pitch notes are identical.
STEAM-5341	<i>Key signatures and accidentals:</i> Notes with non-Western accidentals now behave correctly when repitched, and do not continue to show the same accidental even if the offset of the pitch changes.
STEAM-5162	<i>Key signatures and accidentals:</i> The rule that every tonality system must have an accidental type that fulfils the role of the natural (i.e. does not change the pitch) is now enforced, and it is no longer possible to delete any built-in accidental type, or any accidental type that is in use in the project.
STEAM-5383	<i>Key signatures and accidentals:</i> Accidentals types that contain graphics now display correctly in the <b>Accidentals</b> section of the <b>Key signatures and accidentals</b> panel in Write mode.
STEAM-5347	<i>Key signatures and accidentals:</i> The option <b>Notes following a change of key signature that shows cancellation naturals</b> on the <b>Accidentals</b> page of <b>Notation Options</b> now works as expected. This option only takes effect if Dorico will show cancellation naturals at a change of key, as determined by the two options immediately above this one in the dialog.
STEAM-5338	<i>Key signatures and accidentals:</i> A problem whereby instruments that don't show a key signature (e.g. Horn in F) would under some circumstances not show the required accidentals on some notes in extreme keys (i.e. key signatures of 7 sharps or flats) has been fixed.
STEAM-5264	<i>Key signatures and accidentals:</i> Cancellation naturals now appear if necessary at changes of key arising from changing between instruments with different transpositions.
STEAM-5192	<i>Key signatures and accidentals:</i> Changes of key that occur in the middle of a bar now correctly take effect on the notes that follow the key signature before the end of the bar.
STEAM-5274	<i>Key signatures and accidentals:</i> When importing MusicXML files that use other accidentals than the standard 12-EDO or 24-EDO accidentals, Dorico now automatically creates an appropriate tonality system in the resulting project.
STEAM-5426	<i>Layouts:</i> Custom layout names are now correctly preserved when re-opening saved projects.

ID #	Issue
STEAM-5255	<i>MusicXML import:</i> Dorico no longer crashes when encountering a MusicXML file that specifies an invalid number for slur elements.
STEAM-5074	<i>MusicXML import:</i> Dorico no longer fails to open compressed MusicXML (.mxl) files that contain internal filenames that use extended Unicode characters.
STEAM-5354	<i>Navigation:</i> Using up/down arrow to navigate to the staff above/below from a selected bar rest no longer sometimes skips over the next staff.
STEAM-5318	<i>Navigation:</i> Using <b>Ctrl</b> +up/down arrow to navigate to the system above/below now works correctly, for any number of staves in the system.
STEAM-3035	<i>Note input:</i> Specifying that the next note to be input should explicitly be above or below the previous note now works more reliably.
STEAM-5351	<i>Note input:</i> Moving the caret to the staff above/below with up/down arrow now correctly takes into account whether the caret is at a tuplet position on the original staff, and moves to an appropriate position on the destination staff.
STEAM-5430	<i>Note input:</i> When inputting notes into transposing instruments in a transposing layout, notes are no longer sometimes input in successively higher octaves for no discernible reason.
STEAM-5359	<i>Note spacing:</i> Tempo markings are no longer considered when determining the width of multi-bar rests, unless another tempo marking in a later bar would collide with a previous tempo marking, preventing some multi-bar rests from being made much wider than necessary.
STEAM-5402	<i>Notes:</i> Augmentation dots are no longer hardwired to be drawn using Bravura, so if you choose to use another music font via <b>Engrave</b> > <b>Music Fonts</b> , you will see the appropriate glyph from the new font.
STEAM-5163	<i>Notes:</i> Pairs of opposing voices where notes in both the left- and right-hand columns show an accidental on the same staff position, and where the note in the right-hand column closest to a note in the left-hand column is at an adjacent staff position, are no longer offset by an unexpectedly large distance.
STEAM-4989	<i>Notes:</i> Syncopated patterns of the form short-dotted long (e.g. quarter-dotted half in 4/4) are now notated according to the options set in <b>Notation Options</b> regardless of whether or not the dotted long note is also tied out of the bar.
STEAM-5357	<i>Page layout:</i> Changing the master page set of a layout on the <b>Page Setup</b> page of <b>Layout Options</b> is now reflected immediately in the display in the <b>Master Pages</b> section of the right-hand panel in Engrave mode.
STEAM-5187	<i>Page layout:</i> Under rare circumstances, staff labels would sometimes fail to update after undoing an edit that results in the point at which an instrument change occurs changing. This has now been resolved.
STEAM-5287	<i>Playback:</i> Dynamics are no longer ignored during playback if the flow begins with a rest.
STEAM-5394	<i>Playback:</i> Multiple dynamics on the same note are now played back more sensibly.
STEAM-5369	<i>Playback:</i> Accents now play back correctly when notes with accents alternate with notes without accents.
STEAM-5371	<i>Playback:</i> Playing techniques on the very first note of the flow now play back correctly.
AD-269	<i>Playback:</i> Typing <b>Command-Q</b> while a VST plug-in window is in focus no longer incorrectly quits the VST audio engine, resulting in Dorico itself hanging upon exit.

ID #	Issue
AD-253	<i>Playback:</i> A problem whereby the VST audio engine could crash when used on a computer with on-board Realtek sound hardware has been fixed (Windows only).
AD-260	<i>Playback:</i> When reopening a saved project that uses Kontakt, a burst of static is no longer sometimes emitted as the project loads (Mac only).
STEAM-5401	<i>Rests:</i> It is now possible to set properties, including the staff position, of bar rests correctly once more.
STEAM-5356	<i>Selections:</i> <b>Edit ▶ Select All</b> now selects only the music in the current flow, not across all flows in the project.
STEAM-5385	<i>Slurs:</i> Slurs are no longer temporarily incorrectly positioned if <b>Edit ▶ Reset Appearance</b> is invoked when both the slur itself and the notes at either end of the slur are selected.
STEAM-5399	<i>Staff spacing:</i> Using <b>Alt</b> +click-drag to drag a staff containing one or more instrument changes now works correctly.
STEAM-5370	<i>Staff spacing:</i> <b>Copy Staff Spacing</b> will now work even if the user has not made any adjustments to the staff spacing on the source page.
STEAM-5406	<i>Text:</i> Pasting text terminated by a null character (e.g. from a text block in Finale) into Dorico will no longer cause the project to become corrupted when saving.
STEAM-4963	<i>Text:</i> Changing the stretch for text in a text item or text frame now correctly changes the shape of the characters themselves, rather than merely the distance between characters (Mac only).
STEAM-4971	<i>Text:</i> Changing the stretch for text in a text item or text frame now displays correctly on screen and is reproduced correctly both when printing and when exporting PDF graphics (Windows only).
STEAM-5358	<i>Text:</i> Changing the point size of multiple selected paragraphs using the controls in the text editing popover now works correctly, rather than changing the size of only the first selected paragraph.
STEAM-5434	<i>Text:</i> The size of the text editor is no longer incorrect when editing a text item belonging to a staff that uses a non-default staff size.
STEAM-5177	<i>Ties:</i> When <b>Tie endpoint positioning in chords</b> is set to <b>Outermost ties above/below noteheads, others between</b> , Dorico no longer sometimes incorrectly offsets the wrong tie in multi-voice contexts.
STEAM-5395	<i>User interface:</i> Message boxes spawned from one of Dorico's options dialogs no longer cause the options dialog itself to disappear behind the main project window (Windows only).
STEAM-5381	<i>User interface:</i> It is no longer possible under some circumstances to show more than one instance of the <b>Layout Options</b> or <b>Notation Options</b> dialog for a given score simultaneously.
STEAM-5263	<i>User interface:</i> The color picker dialog no longer increases in height slightly with each invocation within a session (Mac only).
STEAM-5392	<i>User interface:</i> It is no longer possible to click the various <b>Save as Default</b> buttons in the <b>Layout Options</b> and <b>Notation Options</b> dialogs when more than one layout or flow respectively is selected; being able to do this in earlier versions could result in the saved options data being incomplete or inconsistent.
STEAM-4527	<i>User interface:</i> Menu items that can be checked to show their state now correctly show the assigned key command, if any.
STEAM-5393	Dorico will no longer fail to start if the user's saved layout options data is incomplete or inconsistent; instead, the data will simply be ignored.

ID #	Issue
STEAM-5360	Dorico will no longer crash on start-up if it is unable to create the user's chosen default project save folder.



# Dorico 1.0.10

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*November 2016*

This version contains the following improvements and issue resolutions.

## Improvements

This maintenance update introduces the following improvements:

### Performance improvements

- The speed of note input, and undoing note input, has been substantially increased.
- The speed of changing the pitch of a selection of notes using Alt+up/down arrow has been substantially increased.
- The speed of adding and removing players in Setup mode has been substantially increased.
- Unnecessary screen redraws during editing operations have been eliminated, providing a substantial improvement in the speed of redraw during editing operations.
- The speed of creating a new project from a template has been substantially increased.
- The speed of entering and working within Print mode has been substantially increased.

### Articulations

A new group of options **Slurs** on the **Articulations** page of **Engraving Options** allow you to determine whether articulations of force (accent, marcato) or articulations of stress (stress, unstress) should be positioned inside or outside slur endpoints.

A new option **Position of tenuto relative to tied notes** has been added to the **Ties** group on the **Articulations** page of **Engraving Options**, allowing you to choose whether tenuto articulations should be positioned on the first or last note of a chain of tied notes by default. An additional property has also been added to allow this default to be overridden for an individual tenuto.

### Beams

A new option has been added to the **Advanced Options** section of the **Slants** group on the **Beams** page of **Engraving Options**, allowing you to specify whether beams containing repeated patterns of pitches should be allowed to have slants, or should always be horizontal.

## Brackets and braces

A new option has been added to the **Approach** group on the **Brackets and Braces** page of **Engraving Options**, allowing you to specify whether groups consisting of a single staff should show a bracket.

Two new choices have been added to the **Ensemble type** option in the same group: **British brass band** (which provides separate bracketing groups for cornets; flugelhorn; tenor horns; baritone horns; trombone and bass trombone; euphonium; and percussion), and **Big band** (which provides separate bracketing groups for saxophones; trumpets; trombone and bass trombone; and rhythm section).

## Key signatures and accidentals

- Instruments with **(no key)** in their names (e.g. French horn, timpani, etc.) are now correctly created with no key signatures, and instead show accidentals on every note as necessary.
- An open or atonal key signature can now be created via the **Shift+K** popover by typing **open** or **atonal**.
- It is now possible to change the enharmonic spelling of notes in part layouts independently of the full score layout.

## Licensing

When using a time-limited or trial license, Dorico will now report the time remaining in the license at start-up, every 10 days, and every day during the final five days of the license period.

## Lyrics

New **Minimum distance from other items** option in the **Vertical Position** section of the **Lyrics** page in **Engraving Options** provides a small amount of padding between items protruding outside the staff and the closest edge of the innermost line of lyrics.

New option to show or hide elision slurs on lyrics in Japanese and other East Asian languages by default, in the **East Asian Lyrics** section of the **Lyrics** page in **Engraving Options**. In addition, there is a new property to override this default setting for an individual lyric.

## Note input and editing

- A new scissors tool (shortcut **U**) has been added. Outside of note input, the scissors tool will remove any ties in the selected notes and chords. Inside note input, the scissors tool will cut any sounding notes in the voice indicated on the caret that are sounding at the current caret position.

- A new option **Play notes during note input and selection** has been added to the **General** page of **Preferences**.
- New **Write** ▶ **Input Pitch** submenu allows you to choose between inputting in **Written Pitch** or **Sounding Pitch**, which is useful when inputting into transposing instruments or when copying instrumental parts.

### Page layout

- The **Edit** ▶ **Breaks** and **Edit** ▶ **Note Spacing** menus have been removed, with their functions moved to the **Engrave** menu, in recognition of the fact that system and frame breaks can only be created in Engrave mode. New **Edit** ▶ **Format Systems** and **Edit** ▶ **Format Music Frames** submenus have been added, containing not only **System Break** and **Frame Break**, but also **Lock Frame**, **Lock System**, **Make Into System**, and **Make Into Frame**.
- The default key command for system break is now **Shift+S**, and for frame break it is now **Shift+F**.

### Playback

- A new option **Suspend audio device in background** has been added to the **General** page of **Preferences**, switched off by default. When switched on, this option releases the audio device when Dorico loses focus, unless it is playing back at the time, in which case Dorico retains ownership of the audio devices so that playback can continue.
- Basic playback of changes in playing techniques has now been implemented for HALion Symphonic Orchestra, allowing playback of e.g. pizz. and arco instructions.
- The Mixer window now labels each fader with the plug-in output channel and the short instrument name, and each fader is also color-coded using the same colors used in the track header for each instrument in Play mode.
- The playhead is now shown in Play mode, and it moves through the music during playback.

### Selections

- Navigating around the music with the arrow keys in Write mode has now been substantially improved.
- Use **Tab** and **Shift-Tab** to select the next/previous barline in Write mode.
- It is possible to start navigation in Write mode without the mouse: simply press any arrow key, which will select the first item closest to the top left corner of the view.
- Extending the selection by holding **Shift** and using the arrow keys now works more reliably; hold **Ctrl** (Windows) or **Command** (Mac) to extend the selection by a bar at a time.

- Clicking within the staff but not on a note or other item now selects all of the music in that bar on that staff; hold **Shift** and click on another item or a blank part of the same or another to extend the selection.
- New **Edit ▶ Select to End of System** and **Edit ▶ Select to End of Flow** menu items, to quickly extend the selection on the selected staff or staves to the end of the system or the end of the flow, respectively. In addition, **Edit ▶ Select All** now works as expected.
- Holding **Ctrl** (Windows) or **Command** (Mac) while making a marquee selection now adds to an existing selection; holding **Ctrl+Alt** (Windows) or **Command+Opt** (Mac) while making a marquee selection now subtracts from an existing selection.
- The middle mouse button can now be used instead of **Shift** to toggle between the default action when clicking and dragging, i.e. between moving the view or making a marquee selection.
- Dragging a marquee selection over a barline will no longer select the barline.

### Time signatures

Hidden time signatures are now shown using signposts, which allows them to be selected for copying and pasting, or for deletion. A new **View ▶ Signposts ▶ Time Signatures** menu item allows you to choose whether or not signposts for hidden time signatures should be displayed.

### Transposing

A new **Write ▶ Transpose** dialog has been added, allowing the selected music or, if there is no selection, the entire flow to be transposed. Transposition can be specified either by quality of interval (e.g. major, minor, perfect, augmented, diminished) or by number of divisions of the octave. The dialog will not allow illegal transpositions that would result in notes that cannot be notated (e.g. sharper than a triple sharp, or flatter than a triple sharp, or using a microtonal accidental that does not exist in the current tonality system).

In addition, a new **Write ▶ Add Notes Above or Below** dialog has been added, allowing the addition of notes of a given interval above or below the selected notes, providing a quick way of building chords over an extended passage of music.

### Tuplets

Tuplets now show signposts if the tuplet ratio number/string is hidden, which allows them to be selected for copying and pasting, or for deletion. A new **View ▶ Signposts ▶ Tuplets** menu item allows you to choose whether or not signposts for hidden tuplets should be displayed.

## Vertical spacing

A new **Staff Spacing** section has been added to the left-hand panel in Engrave mode, allowing you to edit the vertical spacing of the music when switched on. Staves can be dragged with the mouse by clicking anywhere in the staff itself, or in the handle at the left-hand side of the system. The whole system can be dragged by clicking in the colored stripe immediately above the top staff in the system.

Hold **Alt** while dragging a staff or system to also adjust the distance between all of the staves and systems below the staff or system being dragged, when there is no further room at the bottom of the music frame.

Use the up/down arrow keys to select the handles at the left-hand side of the system; use **Tab** to cycle between selecting handles for systems and handles for staves. Hold **Shift** and use up/down arrow to extend the selection to the handle above/below.

Nudge the selected staff, staves and/or systems using **Alt**+up/down arrow, and add **Ctrl** (Windows) or **Command** (Mac) to nudge in larger steps.

Use **Alt+J/K** to nudge the selected staff, staves and/or system such that the distance between all of the staves and systems below the staves being nudged will also change, once there is no further room at the bottom of the music frame.

When a staff or system has an overridden position, its handle or the colored stripe will be colored red. To remove a specific override, select the relevant handle and click **Delete**.

To specify an exact distance, click on the numeric read-out in the left-hand margin, which allows the entry of a specific measurement, using the preferred units of measurement as determined in Preferences.

To clear all overrides in the selected frame, choose **Engrave ▶ Reset Staff Spacing**.

To copy the staff spacing from one page to other pages within the layout, click **Copy Staff Spacing** in the **Staff Spacing** section of the left-hand panel. A dialog appears in which you can choose the source page and range of destination pages. The staff spacing will be copied if the destination page has the same number of systems each containing the same number of staves as the source page.

If the layout of music within the music frame changes because the music is cast off again, any staff spacing overrides for that passage of music will be removed.

## Voices

- The option **Gap between adjacent noteheads in different voices** in the **Voices** section of the **Notes** page of the **Engraving Options** dialog now

respects negative values, allowing notes a second apart in opposing voices to be positioned more closely together.

- New **Edit ▶ Voice** submenu, containing options to change the default stem direction of the voice of the selected note, or if note input is active, to change the default stem direction of the voice indicated on the caret.

### VST Expression Maps

- A new dialog **Play ▶ VST Expression Maps** has been added, allowing you to create and edit expression maps to determine how changes in playing technique should be handled by the chosen virtual instrument.
- VST Expression Maps for Cubase can be imported into your project via **Play ▶ VST Expression Maps**.
- A new **Endpoint Setup** dialog has been added, accessed via each entry in the **VST Instruments** panel in Play mode, allowing you to specify which expression map is used by each channel on the chosen VST instrument.

## Issues resolved

The following table lists all issues that have been resolved in this version:

ID #	Issue
STEAM-4712	<i>Bars:</i> Using the <b>Shift+B</b> popover to delete bars now also adjusts the position of any time signatures and key signatures that are affected by the deletion of bars preceding them.
STEAM-5129	<i>Beaming:</i> The behaviour of <b>Edit ▶ Beaming ▶ Beam Together</b> has been improved such that any selection that includes a tied note at its start or end will produce the expected beaming.
STEAM-5040	<i>Beaming:</i> A problem whereby rests under beams could be positioned incorrectly under some circumstances has been fixed.
STEAM-5003	<i>Brackets and braces:</i> The options to show sub-brackets and to draw sub-brackets using braces on the <b>Brackets and Braces</b> page of <b>Engraving Options</b> now work as expected.
STEAM-5094	<i>Brackets and braces:</i> Organ instruments with three staves now correctly show a brace spanning the upper two manual staves, leaving the pedal staff unbracketed.
STEAM-4997	<i>Brackets and braces:</i> Groups of players created in the Players panel in Setup mode now have separate brackets.
STEAM-4981	<i>Brackets and braces:</i> Staff labels now draw correctly even when partially out of the viewport.
STEAM-5050	<i>Brackets and braces:</i> Long staff labels are now automatically wrapped if they exceed half the width of the music frame.
STEAM-5099	<i>Brackets and braces:</i> Instruments whose names have been overridden are no longer automatically numbered.
STEAM-5119	<i>Brackets and braces:</i> Saving and reloading a project in which there are multiple groups of players no longer incorrectly changes the order of players on reloading.

ID #	Issue
STEAM-4944	<i>Copy and paste:</i> Copying and pasting individual dynamics from within a larger group of dynamics will now create new groups containing only the selected dynamics, rather than all of the dynamics from the original groups.
STEAM-4948	<i>Copy and paste:</i> Items of different types that are either specific to staves or voices are now mapped consistently when pasting, so that they don't end up on different staves than expected.
STEAM-5085	<i>Copy and paste:</i> Attempting to paste an implicit rest followed by an explicit rest no longer causes a crash.
STEAM-5007	<i>Copy and paste:</i> When copying and pasting a selection that includes one or more empty instruments, the destination passage will also offset the appropriate number of empty instruments.
STEAM-5027, STEAM-5041	<i>Copy and paste:</i> It is now possible to copy from e.g. the right-hand staff of a piano instrument to the left-hand staff, provided the source selection contains only material from a single staff.
STEAM-5030	<i>Copy and paste:</i> When copying and pasting dynamics, the pasted dynamics are now correctly left selected.
STEAM-4837, STEAM-4839	<i>Copy and paste:</i> Pasting material that includes dynamics or slurs into other staves at the same rhythmic position now result in the pasted dynamics and slurs becoming linked to the dynamics and slurs on the source staves.
STEAM-5086	<i>Dynamics:</i> Attempting to set the color of a selected hairpin in Engrave mode no longer causes a crash.
STEAM-4911	<i>Holds and pauses:</i> It is now possible to add a fermata to the final barline of a flow written in open meter.
STEAM-5181	<i>Holds and pauses:</i> A transitory spacing problem that could result in adding a caesura not resulting in space being added immediately has been fixed.
STEAM-5145	<i>Holds and pauses:</i> Fermatas attached to barlines now always draw correctly in galley view.
STEAM-5116	<i>Holds and pauses:</i> Fermatas attached to barlines no longer sometimes cause a bar number at the start of the system to move incorrectly.
STEAM-5171	<i>Instrument changes:</i> Instrument change warning labels now appear correctly when the new instrument starts playing on the following system
STEAM-5167	<i>Instrument changes:</i> Instrument changes that occur near the start of the flow are now snapped to the start of the flow if the first instrument held by the player doesn't play at all before the new instrument starts playing.
STEAM-5160	<i>Instrument changes:</i> The light blue staff labels in galley view are now shown on each instrument, rather than for each player, making it easier to identify which staff is for which instrument held by each player.
STEAM-5131	<i>Key commands:</i> Key commands shown in tool tips are now correctly updated when key commands are edited.
STEAM-4672	<i>Key commands:</i> Setting a key command in the global context now correctly reports if there is a conflict with the same key combination in another context.
STEAM-4985	<i>Key signatures and accidentals:</i> Attempting to create a new accidental type in the <b>Edit Tonality System</b> dialog no longer causes a crash if an existing accidental is not already selected.

ID #	Issue
STEAM-5095	<i>Key signatures and accidentals:</i> The <b>Edit Key Signature</b> dialog now correctly uses the bass F clef rather than the baritone F clef.
STEAM-5057	<i>Key signatures and accidentals:</i> Custom key signatures that use a newly-created accidental type are now shown correctly in the <b>Custom Key Signatures</b> section of the <b>Key Signatures</b> panel in Write mode.
STEAM-5194	<i>Key signatures and accidentals:</i> Custom key signatures now show the name supplied by the user as a tool tip when hovering over their button in the <b>Key Signatures</b> panel.
STEAM-5136	<i>Key signatures and accidentals:</i> Custom key signatures now transpose correctly in layouts set to transposing pitch rather than concert pitch.
STEAM-5028	<i>Key signatures and accidentals:</i> Repitching notes now works correctly in key signatures that have been chosen because they show one fewer sharp or flat than the enharmonic equivalent for transposing instruments.
STEAM-5070	<i>Layout Options:</i> Saving layout options as the defaults for future projects no longer causes new layouts to have either the wrong players and flows or no players and flows at all to be attached to them by default.
STEAM-4986	<i>Layout Options:</i> The option <b>Use optical spacing for beams between staves</b> on the <b>Note Spacing</b> page of <b>Layout Options</b> is now switched on by default in part layouts in new projects.
STEAM-5130	<i>Layout Options:</i> If the saved layout options refer to a non-default set of master pages that is not available in the new project, Dorico no longer crashes when creating the project.
STEAM-5001	<i>Lyrics:</i> Lyrics assigned to different voices but with the same line number now have the same vertical position.
STEAM-5107	<i>Lyrics:</i> Lyric extender lines and hyphens now stop correctly before the systemic barline at the end of the system.
STEAM-5065	<i>Multi-bar rests:</i> Grace notes positioned before a barline now draw correctly if the bar to which they are attached becomes consolidated into a multi-bar rest.
STEAM-5093	<i>Multi-bar rests:</i> Fermatas now correctly cause multi-bar rests to break.
STEAM-5237	<i>MusicXML import:</i> Key signatures in MusicXML files that specify a number of fifths but no mode now import correctly.
STEAM-4812	<i>Note input and editing:</i> Using Space to advance a hairpin past a tuplet no longer engages sticky tuplet input, causing subsequent music to be overwritten unexpectedly.
STEAM-5138	<i>Note input and editing:</i> It is now possible to create a tied note longer in duration than a maxima, or 64 quarter notes (crotchets).
STEAM-5002	<i>Note input and editing:</i> When using Lock to Duration, the caret now correctly advances to the end of the last note in the voice whose notes are being repitched.
STEAM-4760	<i>Note input and editing:</i> It is now possible to play chords on your MIDI keyboard when inputting ties with T or when Lock to Duration is active.
STEAM-5072	<i>Note input and editing:</i> The first note input via the mouse can now have an accidental and a rhythm dot if chosen from the panel.
STEAM-5078	<i>Note input and editing:</i> Double-clicking to start note input in galley view now always shows the caret at the correct location.

ID #	Issue
STEAM-5172	<i>Note input and editing:</i> MIDI step-time input now correctly compensates for the octave transposition of the instrument (e.g. piccolo, double bass, guitar, tenor voice), if any.
STEAM-5188	<i>Page layout:</i> Graphics placed in graphics frames on master pages are now correctly saved and loaded with the project.
STEAM-5083	<i>Page layout:</i> A problem that prevented text frames from being deleted in some circumstances has been fixed.
STEAM-5092	<i>Page layout:</i> Using the formatting commands (e.g. make into system/frame, lock system/frame) in one layout no longer incorrectly removes formatting from other layouts.
STEAM-4984	<i>Page layout:</i> You can now remove overrides from all pages in the layout by clicking the <b>Remove Overrides</b> button in the <b>Pages</b> section of the right-hand panel in Engrave mode with no pages selected.
STEAM-4886	<i>Playback:</i> Dorico will now load sounds into all 16 channels of each instance of HALion Sonic SE, rather than leaving the final channel in each instance empty.
STEAM-4496	<i>Playback:</i> Dorico now compensates correctly for HALion patches that are transposed by one or more octaves (e.g. double bass, bass guitar).
STEAM-4792	<i>Playback:</i> The playback of hairpins has been improved such that immediate dynamics at either or both ends of the hairpin are now properly respected.
STEAM-4988	<i>Playback:</i> Attempting to open another project when the Mixer window is already open for the current project no longer causes Dorico to hang.
STEAM-4955	<i>Playback:</i> The default voice count for HALion Sonic SE in new projects has been increased from 128 to 512.
STEAM-4998	<i>Print mode:</i> A problem whereby staff lines or other lines could appear the wrong thickness on the second and subsequent pages of exported PDFs has been fixed.
STEAM-5098	<i>Print mode:</i> Exporting graphics files from multiple layouts in a single operation no longer causes a crash.
STEAM-5042	<i>Print mode:</i> The default dots per inch (dpi) value for exported graphics is now 150dpi instead of 72dpi.
STEAM-5097	<i>Print mode:</i> Exporting multiple graphics no longer prompts separately to overwrite any found files: you can simply confirm that you want to overwrite all existing files at once.
STEAM-5125	<i>Print mode:</i> The <b>Watermark</b> text in the <b>Annotations</b> section of the print options panel will no longer be cleared incorrectly in the event that multiple selected layouts have conflicting values.
STEAM-5219	<i>Print mode:</i> Attempting to overwrite a graphics file that is locked by the filesystem (e.g. because it is open in another application) will no longer cause a crash.
STEAM-4834	<i>Properties:</i> It is no longer possible to set the values for dot diameter, dash length, and gaps between dots and dashes for ties and slurs to zero.
STEAM-5063	<i>Properties:</i> Properties for X and Y offset for force and combined dynamics now appear correctly.
STEAM-4570	<i>Rehearsal marks:</i> Rehearsal marks are now correctly centered above double and repeat barlines.

ID #	Issue
STEAM-4570	<i>Rehearsal marks:</i> If the option to position rehearsal marks at the start of the system is chosen, the rehearsal marks are now correctly left-aligned with the systemic barline.
STEAM-5035	<i>Rests:</i> Rests that have properties set on them, e.g. to force a specific duration or to set a particular staff position, are now positioned in a manner consistent with other rests that don't have properties set.
STEAM-5204, STEAM-4848	<i>Rests:</i> It is now possible to select all individual rests in Engrave mode.
STEAM-4979	<i>Selection:</i> A problem whereby the marquee rectangle could be left behind if you hit Esc during a marquee selection has been fixed.
STEAM-5143	<i>Slurs:</i> A problem that prevented slurs starting in one voice and ending in another from being created correctly has been fixed.
STEAM-4953	<i>Tempo:</i> The <b>Shift+T</b> popover for tempo input is now much more flexible and will allow a much wider set of terms to be input.
STEAM-5015	<i>Text:</i> <b>Edit ▶ Reset Appearance</b> now clears any changes of font, size, and other typographical control in a selected text item.
STEAM-5142	<i>Text:</i> A problem whereby some Japanese fonts were truncated during text editing has been fixed (Mac only).
STEAM-5061	<i>Text:</i> Creating a new text frame on a master page now sets the default paragraph style correctly.
STEAM-4975	<i>Text:</i> It is now possible to jump to the name of a specific font in the list of fonts in the text editor popover by typing the first letter or two of its name.
STEAM-5055	<i>Text:</i> Text frames that are too full now correctly truncate the text within the frame, rather than allowing the text to flow outside the frame.
STEAM-5043	<i>Text:</i> Copying and pasting text into Dorico from another application no longer causes the formatting of the text in the frame to be messed up.
STEAM-5044	<i>Text:</i> It is now possible to use the Unicode Hex Input input method to input extended Unicode characters into the text editor within Dorico (Mac only).
	<i>Text:</i> Paragraph styles in newly-created projects now inherit many of their settings from the Default Text paragraph style, making it possible to quickly change the main text font in use in your project by editing the Default Text paragraph style.
STEAM-5154	<i>Time signatures:</i> Newly-created time signatures now correctly show that they are selected after creation.
STEAM-5207	<i>User interface:</i> The <b>Layout Options</b> , <b>Notation Options</b> , and <b>Engraving Options</b> dialogs now remember which page you were last looking at when you opened the dialog, and show that page when the dialog is reopened.
STEAM-5208	<i>User interface:</i> A read-out of the current page size using the user's preferred measurement unit has been added to the <b>Page Setup</b> page of <b>Layout Options</b> .
STEAM-5182	<i>User interface:</i> The view type selector in the status bar no longer gets out of sync with the actual view used when switching layout.
STEAM-4656	<i>User interface:</i> When switching between modes, the state of the <b>Hide/Restore Panels</b> button on the toolbar correctly reflects which panels will be shown or hidden when clicked for that mode.

ID #	Issue
STEAM-5081	<i>User interface:</i> Dorico no longer crashes when you right-click on a tab and choose to create either a vertical or horizontal split.
STEAM-4978	<i>User interface:</i> Dorico no longer allows the Mixer or Transport windows to be shown as full screen windows (Mac only).
STEAM-4956	<i>User interface:</i> The buttons on the toolbar to hide or show the Mixer and Transport windows now correctly reflect whether or not the Mixer and Transport windows are actually shown.
STEAM-4908	<i>User interface:</i> When closing the final project window and the Steinberg Hub is set not to reappear, the menus no longer disappear (Mac only).
STEAM-4528	<i>User interface:</i> New <b>Write ▶ Create Voice</b> and <b>Next Voice</b> menu items, intended to make the <b>Shift+V</b> and <b>V</b> key commands for use in note input more discoverable.
STEAM-4039	<i>Zoom:</i> The behaviour of zooming in when the selected item is close to the edge of the viewport has been improved.
STEAM-5166	<i>Zoom:</i> A problem whereby Dorico could crash when switching window mode when the zoom level is set to <b>Whole page</b> has been fixed.
STEAM-5089	<i>Platform support:</i> Dorico now uses DirectWrite to render all text and glyphs in its user interface, which should resolve the problem with icons appearing stretched or out of proportion until Dorico is restarted (Windows only).
STEAM-4992	<i>Localization:</i> The names of templates that appear in the Steinberg Hub are now localised.
STEAM-5305	<i>Localization:</i> Typing characters that require the use of the <b>Alt</b> modifier (e.g. [, ] and  ) into popovers now works correctly on non-English keyboards.
STEAM-5312	<i>Localization:</i> A number of problems with keys that produced accented characters when specifying key commands in the <b>Key Commands</b> page of <b>Preferences</b> have been fixed.
STEAM-4893	<i>Localization:</i> The handling of key commands in the Japanese language version of Dorico has been overhauled.
STEAM-5310	<i>Localization:</i> Changing the keyboard language on the <b>Key Commands</b> page of <b>Preferences</b> now takes effect immediately, rather than requiring a restart of Dorico.
STEAM-5313, STEAM-5314	<i>Localization:</i> The default key commands for French, Spanish, Italian, and Portuguese have been revised in relation to the various keyboard handling fixes.

## Dorico 1.0.0

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*October 2016*

Initial release version.



# Known issues and solutions

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## Frequently asked questions

Answers to frequently asked questions about Dorico can be found online in the [Dorico forum](#).

## Knowledge base

For the latest information about issues and solutions you may encounter when running Dorico, please [consult the Knowledge Base](#).

## Entering the eLicenser Activation Code (Mac only)

When you first run Dorico and are prompted to enter your Activation Code, you may find that after you have successfully activated your Soft-eLicenser, you must quit and restart Dorico for the application to detect that it is fully licensed.

## Key commands to transpose notes by an octave (Windows only)

The Intel Graphics Adaptor drivers used by many Windows computers define a default key command to flip the screen by 90, 180 and 270 degrees via a shortcut **Ctrl+Alt+up/down/left/right** arrows.

**Ctrl+Alt+up/down** option conflicts with the key commands in Dorico note input for transposing notes by an octave.

For information about how to disable the default Intel Graphics Adaptor key command, [consult the Knowledge Base](#).

## Audio export

No progress dialog appears on Mac during audio export. A busy cursor will appear for the duration of the export operation. Check that the operation has completed successfully before you try to play back the exported audio file. You can verify that the export has completed successfully by checking the file size of the exported file: if it is reported as 0 bytes, the file is still locked for writing.