

Dorico features in depth

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Introduction

Additional features coming soon

Dorico is a brand new application written from the ground up by the most experienced team of scoring software developers in the world. Dorico has many unique and innovative features not found in any other software, and presents a whole new way of working with music notation, but because it is brand new, it does not yet have every feature necessary for every kind of score.

Dorico will receive a number of updates in the coming months that will be free to existing users, adding new functionality. Some of the functionality that is planned to be added in these updates includes*:

- Chord symbols
- Repeat ending (1st, 2nd time or *volta*) lines
- Fingerings
- Jazz articulations
- Rhythm slashes
- More flexible unpitched percussion notation
- Improvements to playback and support for third-party virtual instruments

You can shape the future development of Dorico by engaging with the development team either through the Making Notes blog or the Dorico user forum.

*Please note that the list of features that will be added in free updates to Dorico is subject to change

Input and editing

Note input tools

- Caret for note input, allowing you to freely move the input position between bars and staves with the arrow keys
- Rhythmic grid ruler to determine the distance by which the caret moves with the arrow keys
- Chord input mode, allowing quick building of chords from the bottom up (shortcut **Q**)
- Grace note input mode, allowing quick input of grace notes (shortcut **I**)
- Copy music to another instrument, then quickly change the pitches of those notes while retaining the rhythms with lock durations mode (shortcut **L**)
- Override Dorico's automatic notation of rhythms according to the prevailing meter using the force durations mode (shortcut **O**)[†]
- Quickly repeat the last note or chord during input (shortcut **R**)
- Cut or split existing notes to remove ties using scissors tool (shortcut **U**)[‡]
- No need to input rests – Dorico automatically creates appropriate rests based on the meter and rhythmic position of notes[†]
- Unlimited voices (or layers) for each instrument, with comprehensive automatic collision avoidance for notes and rests[†]

Alphabetic input

- Single-key shortcuts for note pitches, durations, accidentals, and articulations
- No need for a numeric keypad for core note input/editing shortcuts
- Create all notations using only the computer keyboard, using a unique system of popovers: simply type the name of the item you want to create

Step input using a MIDI keyboard

- Use any keyboard connected to your computer via USB or MIDI interface
- Use the computer keyboard to choose note durations, add rhythm dots, articulations, etc., and simply play notes or chords on your MIDI keyboard to input them

Features marked with [†] are unique to Dorico and not found in any other commercial desktop scoring software. Those marked with [‡] have been added since Dorico 1.0.

Mouse input

- Use your mouse pointer to click notes into the score
- Shadow note shows the pitch that will be produced when you click
- Rhythmic grid display shows the rhythmic position at which the note will be inserted when you click
- Create all notations using the mouse using the right-hand panels in Write mode
- Use selection tool to disable mouse input if you would prefer to use your computer keyboard for input and your mouse only for making selections

Unprecedented freedom

- Input in open meter: add barlines only where you want them, change the time signature at any point, and Dorico will renotate your music
- Engage insert mode (shortcut **I**) to automatically shuffle music left and right as you insert or delete notes from a voice, or change durations[†]
- Changing the duration of a selected note either shuffles all subsequent notes along (in insert mode) or overwrites only the portion of the subsequent notes affected by the edit[†]
- Write any tuplet at any rhythmic position, with any level of nesting, even if that position crosses a barline[†]
- Delete tuplets and the notes and rests within the tuplet are automatically unscaled to their rational durations

Copy and paste

- Select any item or combination of items and copy them to the clipboard, then paste them elsewhere
- Quickly copy selected items simply by holding **Alt** and clicking where you want them to be pasted
- Use **R** to repeat the selected items immediately after their current position

Transposition

- Sophisticated options for transposition, including handy interval calculator to make tricky transpositions (e.g. augmented unison) easier to reason about[†]

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- Transpose by a Western interval and quality (e.g. minor third, perfect fifth) or by a fixed number of divisions of the octave[†]
- Transpositions that would result in music that cannot be notated (e.g. invalid accidentals sharper than a triple sharp or flatter than a triple flat) are automatically disallowed[‡]

Navigation

- Clicking and dragging on the score can either scroll the music or make a marquee selection, toggled with a single keypress (shortcut **H**)
- Gesture support for trackpads: two-finger scrolling, and pinch gestures to zoom
- Use the mouse wheel to scroll up and down; add **Shift** to scroll left and right; add **Ctrl** to zoom in and out

Options and Properties

- Four sets of options (Layout Options, Notation Options, Engraving Options, Playback Options) with hundreds of options controlling the appearance and playback of your music, with rich graphical interfaces showing the effect of almost every option directly within the dialog
- Options dialogs are non-modal, and can be left open while you work
- Context-sensitive Properties panel to edit individual items

Notation

Accidentals and key signatures

- Automatic cautionary or courtesy accidentals (including between voices, between piano staves etc.)
- Comprehensive choice of accidental duration rules (e.g. common practice, Second Viennese School, Modernist etc.)[†]
- Support for arbitrary numbers of Equal Divisions of the Octave (EDOs)[†]
- Support for accidentals from triple flat to triple sharp in 12-EDO[†]
- Support for quarter-tone accidentals in 24-EDO
- Optionally display cautionary accidentals in parentheses
- Key signatures up to seven sharps or seven flats
- Custom key signatures, including mixing sharps and flats

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- Support for custom accidental systems, using custom symbols and any number of EDOs as pitch delta[†]
- Key signatures can apply to all instruments, or only one instrument as needed

Articulations

- Eight standard articulations, grouped according to type: force (accent, marcato), duration (staccatissimo, staccato, staccato-tenuto, tenuto), and stress (stress, unstress)
- Articulations are automatically positioned, including appearing only at the start or end of a tie chain as appropriate for articulations affecting the attack or release portion of a note
- Articulations cannot be applied in invalid combinations on the same note or chord (e.g. staccato and staccatissimo)
- Automatic placement of articulations (on the notehead or stem side), with options to specify which articulations should always be positioned above the staff
- Automatic placement of articulations relative to slurs, ties, and tuplets

Barlines, brackets and braces

- Insert and delete barlines at any rhythmic position, giving unprecedented freedom to create music in free or irregular meter
- Normal, double, final, start/end repeat, dashed, short and tick barlines, including automatic final barline at end of flow and automatic double barline at changes of key
- Choice of thin-thick-thin or thick-thick designs for coincident end and start repeat barlines
- Comprehensive options for the design and spacing of barlines
- Automatic instrument bracketing and bracing, according to four different conventions (none, small ensemble, orchestral, wind/brass band)
- Optical adjustment of brace shape based on distance between braced staves, for superior appearance[†]

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Bar numbers

- Display bar numbers at the start of every system, every n bars, or every bar (either centered in the bar or centered over the barline)
- Control the frequency and appearance for each layout independently[†]
- Choice of square or circular enclosure for bar numbers
- Optionally vertically align bar numbers across the width of the system
- Optionally additionally show bar numbers below the bottom staff of the system
- Change bar numbers at any bar, including changing the way bars are numbered (e.g. 1, 2, 3, 3a, 3b, 3c, 4)
- When a bar is split across a system or frame break, the continuation bar number is shown at the start of the new system in square brackets[†]
- View options to show bar numbers on every bar in page view and galley view to aid navigation

Beams

- Automatic determination of stem direction for beamed groups, and for whether beams should be horizontal or slope up or down
- Automatic vertical snapping of beams to valid sit, straddle or hang positions relative to staff lines, including optionally also snapping to similar positions outside the staff
- Override default beaming, e.g. joining notes into a beam, or splitting one or more notes from a beam, etc.
- Flexible cross-staff beaming, including the ability to force beams to appear either above or below the top or bottom staff, or in situations involving more than two staves, between a specific pair of staves[†]
- Automatic avoidance of beam corners for complex rhythmic patterns in beams between staves[†]
- Automatic choice of the appropriate number of secondary beam lines in complex rhythmic groups, creating groups equal in duration to the beat grouping or subdivision[†]

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- Comprehensive support for beamed rests, including allowing rests at the start and/or end of a beamed group, or only in the middle of the group, and choice of how many beam lines should extend over rests
- Optional automatic stemlets for beamed rests, including editability of individual stemlet lengths in Engrave mode
- Rests within beams automatically move vertically to avoid undue lengthening of the stems of notes within the beam[†]
- Thickness of beams is automatically adjusted when rotated (for sloped beam groups) to ensure the same optical thickness at all angles[†]
- Comprehensive options for determining the desired beam slopes, including separate controls for normal and narrow spacing, and for grace notes[†]
- Beamed groups of grace notes also snap to valid sit, straddle or hang positions
- Automatic determination of fractional beam directions (e.g. for dotted rhythms in compound meters), with ability to flip direction
- Optional automatic widening of beams on 32nd/64th notes to allow a wider range of valid sit, straddle or hang positions[†]
- Fanned or feathered beams, including the ability to change the direction of the fanned beam within the same beam group[†]
- Automatic optical spacing adjustments for beams between staves to ensure correct appearance of stems pointing in opposite directions from the beam[†]

Clefs and octave lines

- 22 clefs (including octave clefs, soprano, bass, baritone, sub-bass etc.)
- Size of clef changes can be adjusted in Engraving Options
- Clefs are automatically spaced immediately to the left of the note, rest or barline before which they appear, minimizing rhythmic spacing distortion in other instruments
- Octave lines transposing up or down by 1, 2 or 3 octaves[†]
- Octave lines can include corners and angled lines to closely follow contour of extremes of pitch[†]
- Notes encompassed by octave lines automatically transpose by the correct number of octaves

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- Choice of positioning options for the left- and right-hand ends of octave lines, including alignment with noteheads or accidentals at the left-hand end[†]

Dynamics

- Immediate dynamic changes, gradual dynamic changes (e.g. hairpins, *cresc.*, *dim.*), dynamics of force or intensity of attack (e.g. *rfz*, *sfz*), and combined dynamics (e.g. *fp*, *mp-f*)
- Automatic modifiers for dynamics, e.g. *poco p*, *molto ff*, *meno p*[†]
- Support for extremes of dynamics, e.g. *dim. al niente*, *fff possibile*, and up to six levels of *piano* and *forte*
- Display *niente* for hairpins either as bold italic *n* or circle at the closed end of the hairpin[†]
- Gradual dynamic changes can be displayed as hairpins, text instructions, text followed by a line, or hyphenated over the length of the change (e.g. *cre.....scen.....do*)[†]
- Choice of solid, dashed, or dotted hairpin appearance
- Automatic *messa di voce* hairpins (e.g. a *crescendo* and *diminuendo* over a single held note), with adjustable inflection point[†]
- Dynamics affect rhythmic spacing, so dynamics on successive notes do not collide, and hairpins are always drawn at an appropriate length, not appearing so short as to look like an accent, or not to draw at all[†]
- Immediate dynamics are automatically centered on the note or chord to which they apply, with any modifiers before or after the dynamic proceeding to the left or right as appropriate[†]
- Successive dynamics that abut are automatically grouped and moved vertically as a single unit to avoid collisions with notes
- Dynamics are automatically placed above vocal staves
- Choice of separator for combined dynamics[†]
- Adjust each segment of a dynamic split across several systems independently, including control of aperture and angle[†]
- Hairpins drawn as polygonal paths rather than simplistic angled lines for superior appearance of dashed hairpins, and for a perfect join at the closed end[†]

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Grace notes

- Input grace notes with any combination of note durations
- Simultaneous grace notes on multiple instruments are spaced against each other, to ensure perfect alignment[†]
- Comprehensive spacing of grace notes in multiple voices on the same staff
- Split grace notes around barlines and changes of clef[†]
- Easily tie grace notes to normal notes at the primary rhythmic position[†]
- Adjustable scale factor for grace note size
- Adjustable rhythmic spacing ratio for grace notes[†]
- Automatic placement of slurs between grace notes and normal notes, and within runs of grace notes, with comprehensive options to control placement[†]
- Automatic determination of stem direction for grace notes, including for multiple voices on the same staff

Holds and pauses

- Choice of seven types of fermata (very short, short, normal, long, very long, plus short and long fermatas used by Henze)[†]
- Curlew pause used by Britten (to denote a pause in some instruments)[†]
- Choice of four types of breath mark (comma or apostrophe, tick, upbow-like, or comma combined with fermata)[†]
- Choice of four types of caesura (normal, thick, straight or curved)[†]
- Adding a fermata to a single note automatically creates the appropriate fermata on all voices across all staves, placing the fermata on the appropriate note or rest in every voice[†]
- Fermatas can be positioned on barlines[†]
- Fermatas are automatically placed above or below the staff as appropriate
- For multi-voice instruments, e.g. piano, choose whether a fermata should appear in all voices, or only for one voice on either side of the staff, or only once in total[†]
- Caesuras are automatically aligned across all staves, and insert a small amount of rhythmic space[†]

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- Breath marks are positioned before the note, with options determining their precise positioning relative to notes
- Automatic collision avoidance for holds and pauses

Instruments

- Nearly 300 built-in instrument types, covering woodwind, brass, strings, pitched and unpitched percussion, voice, keyboards, guitars, etc.
- Add instruments to your project quickly with the keyboard-driven instrument picker, including easy choice of instrument variants (e.g. different transpositions, or showing different clefs in the full score and instrumental parts)
- Automatic instrument changes for doubling players, with automatic text instructions both immediately following the last note played on the first instrument and at the entry of the second instrument[†]
- Quickly create common groups of instruments, e.g. single woodwind, SATB choir, using the provided preset ensembles[†]
- Move instruments between players[†]
- Full support for instruments that by convention do not display key signatures (e.g. French horn, timpani, trumpets)[†]
- Create groups of players and instruments, which are uniquely numbered within the group
- Automatic choice of the appropriate preset patch in HALion Sonic SE 2 for each instrument in the project

Lyrics

- Unlimited number of lines of lyrics both below and above the staff
- Optional line of translated lyrics for each primary line of lyrics, with italic font style[†]
- Optional chorus line, automatically vertically centered in the middle of the height of all active primary lines of lyrics[†]
- Automatic positioning of hyphens between syllables of the same word, and lyric extender lines for melismatic syllables and words
- Adjustable alignment for each lyric syllable (left, center, right)
- Automatic verse numbers

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- Elision slurs below elided lyrics
- Non-breaking spaces and hyphens to allow multiple syllables or words on a single note
- Support for Japanese lyrics (one ideograph per note, with automatic elision when more than one ideograph is present, and automatic ideographic hyphen for melismatic passages)
- Sophisticated interaction of lyrics with rhythmic spacing: the horizontal position of lyrics can be adjusted automatically in order to minimize the impact of lyrics on rhythmic spacing, while still maintaining clarity of text underlay[†]
- Automatic vertical collision avoidance for lyrics

Multi-bar rests

- Automatic consolidation of successive bars rest into multi-bar rests
- Multi-bar rests automatically break at changes of key, time signature, tempo, and at rehearsal marks
- Width of multi-bar rests scales according to the number of bars contained within them
- Automatic “tacet” multi-bar rests, including “tacet al fine” for a multi-bar rest that extends to the end of the flow[†]
- Choice of H-bar or old style (consisting of appropriate rests of different durations) multi-bar rests, including specifying the threshold at which old style multi-bar rests should become H-bar rests
- Multi-bar rest numbers are automatically centered between the staves of grand staff instruments such as piano, harp, organ, etc.[†]
- Choose whether single bar rests should be displayed with an H-bar or a normal bar rest, and whether or not the number 1 should appear
- Comprehensive options controlling H-bar appearance and width, number positioning, spacing adjustments

Music fonts

- Includes beautiful Bravura music font, with more than 3000 glyphs
- Support for all SMuFL-compliant music fonts
- Seamlessly switch between any installed SMuFL-compliant music font

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Notes and noteheads

- Note durations from 1/1,024th note to maxima (32 quarters)
- Up to four rhythm (augmentation) dots
- Unlimited number of simultaneous up- and down-stem voices per player, with comprehensive collision avoidance and sophisticated voice ordering algorithms[†]
- Automatic determination of the most appropriate way to display notes of any duration, considering the prevailing meter and the rhythmic position of the notes or chords within the meter[†]
- Automatic stem directions according to pitch and number of active voices, including automatic calculation of stem directions for notes on the middle line of the staff based on musical context[†]
- Automatic stem shortening for high and low notes in multiple voice contexts
- Automatic shortening of ledger lines for runs of very short notes, and for notes with accidentals[†]
- Fully editable stem lengths and ledger line widths in Engrave mode
- Automatic diagonal split stems for close-position or cluster chords with altered unisons[†]
- Choice of notehead types, including regular and larger sizes
- Automatic display of note name and pitch inside noteheads for educational materials
- Per-notehead adjustment of stem attachment point for flawless connections between noteheads and stems even at extreme magnification
- Options for positioning rhythm dots, including how to handle rhythm dots on up-stem unbeamed notes (lengthen stem, use short flag, or move rhythm dot)[†]

Ornaments

- Glissando lines attach to notes at either end, and follow changes in pitch
- Glissando lines automatically avoid collisions with rhythm dots to the right and accidentals to the left[†]

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- Glissando lines between notes at the same staff position with different accidentals, or notes on adjacent staff positions, are specially positioned to ensure they show the direction of the glissando[†]
- Glissando lines affect rhythmic spacing, to ensure they are not drawn too short[†]
- Multiple glissando lines between successive chords will only show *gliss.* text on the topmost glissando line[†]
- Comprehensive Engraving Options controlling the design and placement of glissando lines
- Turns, mordents and trills are automatically positioned relative to notes and chords, and can display accidentals above and/or below as necessary[†]
- Trills affect rhythmic spacing, to ensure that their wiggly lines (if shown) are not drawn too short[†]
- The wiggly line following a trill can change speed, e.g. from slow to fast, or fast to slow[†]
- Ornaments can be positioned inside or outside the curvature of the slur as needed[†]
- Arpeggio signs attach to the highest and lowest notes in a chord, and automatically adjust their position based on changes in pitch or addition or removal of notes from the chord[‡]
- Wiggly line can show arrowhead or Couperin-style swash to denote upwards or downwards direction[‡]
- *Non arpeggio* bracket to indicate that a chord should not be arpeggiated[‡]
- Arpeggio signs and *non arpeggio* brackets can be attached to voices on separate staves, with automatically updating position and length as staff spacing or pitches of notes change[‡]
- Arpeggio signs affect rhythmic spacing, to ensure they do not collide with the preceding note or chord[‡]

Playing techniques

- Notations for more than 200 playing techniques, organized according to instrument family, available from the right-panel in Write mode or by typing them directly into the score using the dedicated popover
- Automatic placement of playing techniques, depending on their type

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- Any playing technique can be drawn with a hooked line or arrow to clearly show its extent[†]
- Choice of text instructions or graphical symbols where appropriate
- Automatic choice of the most appropriate appearance based on instrument type (e.g. + symbol for mute on trumpet, *con sord.* text for mute on violin)[†]

Rehearsal marks

- Automatic incrementing of rehearsal mark sequence, including responding correctly to insertions or deletions in the middle of the sequence
- Choice of letters, numbers, or using the displayed bar number as the sequence type
- Choice of square or circular enclosure, with ability to ensure a fixed width or diameter regardless of the width of the rehearsal mark text or digit, for an improved and more consistent appearance[†]
- Bar numbers are automatically hidden if they coincide with a rehearsal mark
- Rehearsal marks at the start of the system can optionally be aligned with the left-hand edge of the system, or positioned to the right of the initial clef and key signature
- Rehearsal marks are automatically vertically aligned with coincident changes of tempo[†]
- It is possible to have two independent sequences of rehearsal marks using different sequence types running within the same flow[†]
- Optionally additionally show rehearsal marks below the bottom staff of the system

Rests

- Rest durations from 1/1024th to maxima (32 quarters)
- Voices automatically padded with rests, including optional strict counterpoint rules
- Automatic positioning of rests in multiple voices, including keeping rests within the current beat group aligned, and following the contour of the melodic material in the same voice

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- Automatic consolidation of coincident rests of the same duration in multiple voices
- Choice of rest types, including old-style (reversed eighth) and Z-shaped quarter rests[†]
- Fully editable vertical positioning of rests in Engrave mode
- Automatic division of ranges of rests according to the meter, including options for the handling of fractions of beats in simple and compound meters[†]

Slurs

- Comprehensive positioning options for slurs, including collision avoidance with items under their arc, and articulations at end points
- Multi-segment slurs with any number of independent segments
- Dashed, half-dashed, dotted and editorial slur styles[†]
- Choice of flat or curvy slurs for long phrase indications[†]
- Slurs can start in one voice and end in another, and can follow a voice from one staff to another, e.g. for piano and harp writing
- Edit shape or position of multiple slurs simultaneously in Engrave mode, with independent editing of each control point on the slur
- Create grouped slurs across multiple instruments, then edit them together[†]

Staves

- Automatic collision avoidance between staves and items above/below staves[†]
- Engraving Options to control staff line thickness
- Any staff can have a different size relative to the current global staff size, with every staff in the system having a different size if necessary
- Change global staff size at any system or frame break

Text

- Create text anywhere at any rhythmic position in the music
- Hierarchical paragraph and character styles for consistent use of fonts and sizes throughout your project
- Left, center and right alignment

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- Support for font families with multiple weights
- Control over typographical elements such as leading (line spacing), character spacing, superscript, subscript, baseline shift, etc.
- Page-attached text frames can use tokens that substitute metadata from Project Info, allowing e.g. the use of running headers and footers
- Text frames can include fully justified text, and simple tab stops (left, center and right)
- Includes three high quality text font families, all licensed under the SIL Open Font License: Academico (similar to Century Schoolbook); Libre Bodoni; Crimson Text (similar to Garamond)

Time signature and meter

- Time signatures with any denominator from 1 (whole note) to 1,024 (1/1,024th), including non-power of two denominators (e.g. 3/6)[†]
- Alternating time signatures, e.g. fixed alternating pattern of 2/4 6/8[†]
- Aggregate time signatures, e.g. each bar consisting of 12/8 5/8, divided by a dashed barline[†]
- Interchangeable time signatures, e.g. each bar uses one of 3/4 2/4 4/4, but the explicit time signature is not indicated on each bar[†]
- Pick-up (anacrusis) bars with correct rhythmic divisions and rests
- Open meter, including automatic casting off of music with no barlines[†]
- Initial support for polymeter (beat lengths coincide, but bar lengths do not necessarily coincide)
- Automatic beat, note, and rest grouping according to the time signature, including handling of syncopated rhythms, with comprehensive options allowing different settings in each flow

Tremolos

- Single-note and multi-note tremolos with between one and four tremolo strokes
- Automatic stem lengthening to ensure tremolo strokes do not collide with noteheads or beams, with tremolos snapping to appropriate positions relative to staff lines to ensure clarity and legibility[†]

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- Choice of appearance for multi-note tremolos: all tremolo strokes touching stems, only outermost stroke touching stems, or no tremolo strokes touching stems
- Draw a multi-note tremolo with more than two notes/chords for a single tuplet[†]
- Automatically draw tremolo strokes between notes at least an octave apart, instead of above or below[†]
- Automatic optical adjustment of tremolo strokes between stemless notes (e.g. whole notes or longer) to ensure they appear centered[†]
- Comprehensive options for the positioning of tremolo strokes relative to stems, and the insets used for positioning multi-note tremolo strokes between notes[†]
- Fermatas are automatically centered between the notes of a multi-note tremolo[†]

Tempo

- Library of preset tempos, ranging from *Larghissimo* to *Prestissimo*
- Immediate tempo changes, gradual tempo changes (e.g. *rit.*, *accel.*), relative tempo changes (e.g. *più mosso*), and tempo rests (e.g. *A tempo*, *Tempo I*)
- Automatic metronome marks for preset tempos with appropriate text formatting[†]
- Hide either the metronome mark or the text portion of a single tempo instruction independently[†]
- Show metronome mark in parentheses[†]
- Show approximate tempos with a variety of appearances (e.g. *circa*, *c.*, *ca.*), including ranges of tempos[†]
- Display tempos to nearest whole number, but maintain more precise internal tempo, ideal for media music applications[†]
- Gradual tempo changes can be displayed as text instructions, text followed by a line, or hyphenated over the length of the change (e.g. *rall.....en.....tan.....do*)[†]
- Display the same tempo instruction with a different appearance in each layout (e.g. between the full score and the instrumental part)[†]

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- Automatic horizontal alignment of tempo marks with time signatures if present, and with the note or rest at the relevant rhythmic position if not

Ties

- Comprehensive automatic positioning of ties, including collision avoidance for rhythm dots, accidentals, glissando lines, note flags, etc.
- Ties automatically avoid collisions with staff lines both at the ends and at the apex of their curves, with choice of whether to avoid the collision by adjusting curvature or the vertical position of the tie
- Tie direction (i.e. curving up or down) is automatically determined, but can be overridden on a case by case basis
- Ties draw correctly between notes and chords that are either side of a change of clef or staff[†]
- Ties draw correctly between notes in different voices, between grace notes and their primary notes, or between notes that do not abut rhythmically (e.g. for sustained arpeggiated chords in keyboard music)
- Dashed, half-dashed, dotted and editorial tie appearance[†]
- More than 50 options for the placement, positioning and design of ties
- Adjust the shape, position and placement of ties in Engrave mode

Tuplets

- Create tuplets with any ratio to a given (undotted) note duration
- Create nested tuplets to any level of nesting
- Display the tuplet ratio as a number, ratio, ratio with note, or nothing at all
- Tuplet brackets are automatically hidden if they completely cover a primary beam group
- Options for whether the tuplet ratio should be shown in the rhythmic or visual center of the tuplet bracket, including automatic optical adjustment for tuplets with rhythmic subgroups in the middle of the tuplet duration[†]
- Choice of bold or light weight tuplet digits
- Control over relative size of numbers and notes in tuplet ratios[†]
- Automatic tuplet brackets between staves for unbeamed notes, with one hook pointing up and the other pointing down, as appropriate

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- Option to force all tuplet brackets to be horizontal, or to allow the innermost tuplet to be angled following the contour of the notes under the tuplet
- Option to place all tuplets above vocal staves
- Quickly input a sequence of identical tuplets during note input with tuplet mode
- Tuplets automatically split into appropriate shorter tuplets at barlines, and automatically recombine into a single tuplet if they end up in the same bar again[†]
- Tuplets that cross a barline can optionally be notated as a single tuplet instead of being split into shorter ones[†]
- Deleting a tuplet bracket/ratio leaves the notes behind, automatically unscaling them to their rational durations

Layout and formatting

Templates

- More than 30 predefined project templates ranging from solo instruments up to large bands and orchestras to help kickstart your project

Layout types

- Unlimited number of full score, instrumental parts, and custom score layouts within the same project, all of which are completely customizable[†]
- Full score layouts by default contain music for all players from all flows
- Part layouts are automatically created when players are added, and by default contain music from all flows for a single player
- Custom score layouts can contain any combination of players and flows, useful for creating e.g. rehearsal vocal scores
- Page size, margins, staff size, master page usage, etc. are all independent between layouts and controlled via Layout Options[†]
- Appearance of individual notated items can vary between layouts using properties[†]

Page setup

- Choose between 19 preset page sizes, or define your own custom size
- Landscape or portrait orientation

Features marked with [†] are unique to Dorico and not found in any other commercial desktop scoring software. Those marked with [‡] have been added since Dorico 1.0.

- Page margins can be identical, mirrored or independent on facing pages
- Page setup is completely independent for each layout in the project

System layout

- Optional automatic indentation of the first system in a flow, often used in instrumental parts and scores for solo instruments
- Create system breaks at any rhythmic position, including in the middle of bars, or even in the middle of nested tuplets[†]
- Automatic casting-off of music in open meter[†]
- Change staff size at any system break
- Scale any player's staves to any size proportional to the current staff size
- Change note spacing values and ratio at any rhythmic position[†]
- Make into system, make into frame, lock system and lock frame formatting commands

Vertical spacing

- Automatic adjustment of the distance between staves for collision avoidance[†]
- Default top and bottom margin within music frames defined in Layout Options, and can be overridden on a per-frame basis[†]
- Threshold-based vertical justification: if page is nearly full, try to justify only by increasing the distance between systems; if page is less full, justify by increasing both the distance between staves and the distance between systems[†]
- Grand staff instruments are justified as a single unit
- Automatic vertical spacing of braced staves takes dynamics and beams between staves into account[†]
- Separate vertical spacing values for every combination of staves (top or bottom of bracket, in the middle of bracket, braced, or unbracketed) for total control
- Edit vertical spacing for a single frame or page in Engrave mode, and apply those changes to other pages in a single operation[†]
- Advanced interactive tools for editing vertical spacing, including precise numeric control over the distance between staves[‡]

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Page layout

- Full desktop publisher-style frame-based page layout system
- Separate frames for text, music, and graphics
- Master page templates define default appearance of left- and right-hand pages[†]
- Automatic use of specific master page for first page of each flow[†]
- Multiple music frames on the same page can have independent content or be linked together
- Music frames can be filtered to include only music from specific flows or players[†]
- Music inside each chain of music frames can be sized and laid out independently
- Text frames can include tokens that dynamically display information from Project Info, such as title, layout name, copyright information, etc.
- Insert blank pages at any point in a layout
- Change page numbers, including switching between Arabic and Roman numerals (useful for front matter)
- Constraint-based layout system allows frame layouts to adapt to different page sizes
- Define independent sets of master pages and specify which set should be used by each layout[†]

Graphics

- Import bitmap (PNG, JPG, BMP) and vector (SVG) graphics into graphics frames
- Resize graphic to fit frame at the same aspect ratio as the original graphic, or to fill the frame completely, or at any other size relative to the frame
- Place a graphic frame on a master page to automatically show that graphic on every instance of that master page[†]

Playback and audio

Audio engine

- 32-bit floating point audio engine[†]

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- Supports all VST 3-compatible virtual instruments and effects plug-ins[†]
- Supports specific whitelisted VST 2-compatible virtual instruments and effects, including NI Kontakt
- Includes Generic Low Latency ASIO Driver for audio devices without dedicated ASIO drivers[†]

Included plug-ins

- HALion Sonic SE 2 sampler workstation instrument[†]
- More than 1500 production-ready sounds from the HALion Sonic SE 2 factory collection
- The complete HALion Symphonic Orchestra library, including more than 100 high-quality orchestral patches[†]
- REVerence convolution reverb effects processor
- More than 30 other effects processors, including compressor, brickwall limiter, delay, conventional reverb, guitar amp simulator, and many more[†]

Mixer

- True audio mixer with per-channel insert/send effects and routing control, plus integrated channel strip with four-band parametric equalizer
- Separate channels for each output from each virtual instrument in the rack
- Master effects channel fader with default REVerence reverb
- Hide/show controls for inserts, sends, routing, EQ
- Mute/solo tracks
- Make faders narrower or wider to fit more faders into view

Score interpretation

- Automatic generation of tempo map from tempo marks in the project
- Automatic generation of dynamic profile from immediate and gradual dynamics in the project
- Automatic playback of staccato, accent, tenuto, marcato articulations[†]
- Automatic playback of slurs and *legato* playing techniques[‡]
- Automatic playback of grace notes[†]
- Automatic playback of single and multiple note tremolos[‡]
- Playing techniques result in changes of VST Expression Map[†]

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- Built-in editor for creating and editing VST Expression Maps, including import of existing Cubase Expression Maps[†]

Playback control

- Start playback from playhead location, start of selection, start of flow, last playback start location
- Fast-forward/rewind

Play mode

- Dedicated Play mode interface with piano roll event display
- Each voice for each instrument displayed as a separate track
- Expand/collapse each track to see either played regions or individual events
- Expand/collapse automation lane for editing controller data and dynamic profile (limited functionality)
- VST Instruments panel allows the loading/unloading of VST plug-ins, and showing their editor interfaces

Import and export

MusicXML

- Import compressed or uncompressed MusicXML files created in other music applications, including Cubase, Sibelius, and Finale
- Optionally retain coarse formatting information specified in the MusicXML file (e.g. stem directions, beam grouping, explicit accidentals, slur placement, etc.), or allow Dorico to calculate these automatically using its own rules
- Export compressed or uncompressed MusicXML files (some notations not currently exported)

Audio export

- Export your project in uncompressed WAV or compressed MP3 format

MIDI

- Import MIDI files created in other music applications

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- Currently, limited control over transcription/quantization settings and choice of instruments mapped for each track in the MIDI file
- Export MIDI files with each voice on each instrument exported as a separate track

Printing

- Batch print multiple copies of all layouts from the project with one click
- Normal, spreads, 2-up, or booklet print jobs
- Support for printers with automatic duplex printing units
- When printing 2-up or spreads on large-format paper in landscape, automatically print odd final page on small-format paper in portrait[†]
- Print at any scale factor, with music automatically resized to fit the destination paper size
- Include standard annotations (date/time, crop marks, border, watermark) on printed pages if needed

Graphics export

- Batch export of all layouts from the project with one click
- Export a range of pages from one or more layouts
- Export press-ready monochrome PDFs
- Export bitmap graphics in PNG or TIFF format, with choice of output resolution
- Export vector graphics in PDF or SVG format
- Optionally include date in the filename to avoid overwriting previous version, or keep track of revisions
- Include standard annotations (date/time, crop marks, border, watermark) in exported graphics if needed

Workflow and utilities

Windowing

- Single-window interface, with collapsible panels on all four edges of the window
- Open multiple tabs within the same window to work on multiple layouts

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- Split the document editing area into two vertical or horizontal sections with independent tab groups, ideal for widescreen displays
- Open multiple windows onto the same project, with each window in a separate mode
- Window sizes, positions, and modes are all saved and restored when the project is reopened
- Separate pop-up Mixer and Transport windows for playback control
- Options dialogs are non-modal and can be left open while you work

View types

- Page view shows the music as it will be printed or exported as graphics
- Galley view shows the music as a single, infinitely-wide system, including showing any hidden empty staves or staves belonging to instruments not currently playing

Localization

- User interface localized in Chinese (Simplified), French, German, Italian, Japanese, Portuguese, Russian and Spanish
- Key commands localized for keyboards in all localized languages[†]

Included documentation

- Integrated web-based documentation, with the latest version available online
- Loads local version if internet connection not available
- Initially in English, with other languages to follow soon

Key commands

- Extensive default key commands for efficient input and editing
- Integrated key commands editor to customize keyboard shortcuts
- View/print list of mapped key commands, with interactive keyboard display

Scripting language

- Integrated Lua interpreter for script plug-in development with basic API

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