

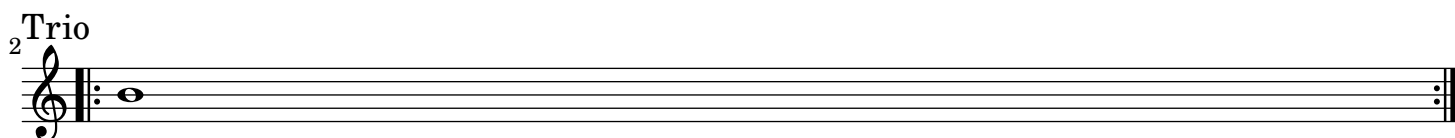
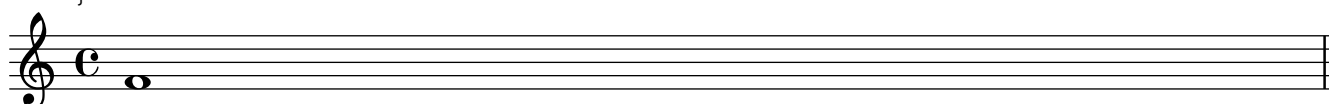
# This document lists changes and new features in LilyPond version 2.24.3 since 2.22.

Note: LilyPond releases can contain syntax changes, which may require modifications in your existing files written for older versions so that they work in the new version. To upgrade files, it is *strongly recommended* to use the ‘convert-ly’ tool distributed with LilyPond, which is described in *note* (lilypond-usage)Updating files with convert-ly:: ‘convert-ly’ can perform almost all syntax updates automatically. Frescobaldi users can run ‘convert-ly’ directly from Frescobaldi using “Tools > Update with convert-ly...”. Other editing environments with LilyPond support may provide a way to run ‘convert-ly’ graphically.

## Rhythm improvements

- The new ‘\section’ command inserts a double bar line that interacts gracefully with repeat bar lines. A passage can be named with the new ‘\sectionLabel’ command.

```
\fixed c' {  
  f1  
  \break  
  \section  
  \sectionLabel "Trio"  
  \repeat volta 2 {  
    b1  
  }  
}
```



- The ‘\rhythm’ markup command has been added. It is a simple way to enter rhythms mixed with text, such as in “swing” indications.

```
\relative {  
  \tempo \markup {  
    Swing  
    \hspace #0.4  
    \rhythm { 8[ 8] } = \rhythm { \tuplet 3/2 { 4 8 } }  
  }  
  b8 g' c, d ees d16 ees d c r8  
}
```

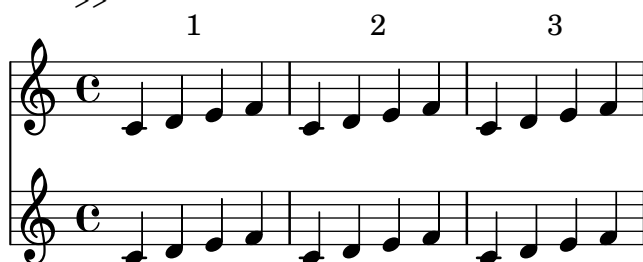


- Bar numbers may be centered in their measure, as is common in film scores.

```

\layout {
  \context {
    \Score
    centerBarNumbers = ##t
    barNumberVisibility = #all-bar-numbers-visible
  }
}
<<
  { \repeat unfold 3 { c'4 d' e' f' } }
  { \repeat unfold 3 { c'4 d' e' f' } }
>>

```



- Due to changes in the internals of ‘\bar’, it is no longer supported to use it before creating lower contexts with ‘ew’. Such uses will now create an extra staff. This is similar to what happens with commands such as ‘\override Staff...’ (see \*note (lilypond-usage)An extra staff appears:).

```

{
  \bar ".|:"
  <<
    \new Staff { c' }
    \new Staff { c' }
  >>
}

```



The solution is to place ‘\bar’ inside the music for each staff, as is usual with most commands.

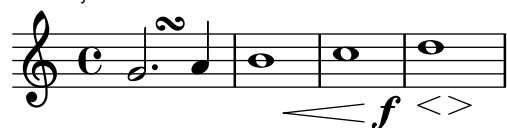
```
<<
  \new Staff { \bar ".|:" c' }
  \new Staff { \bar ".|:" c' }
>>
```



## Expressive mark improvements

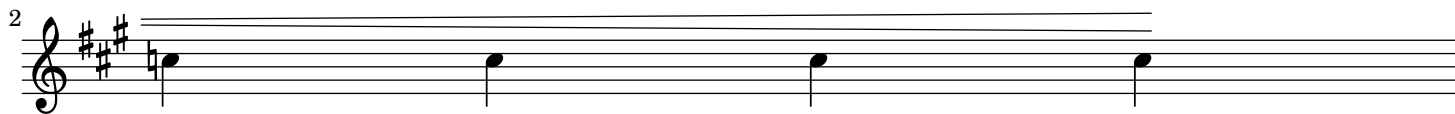
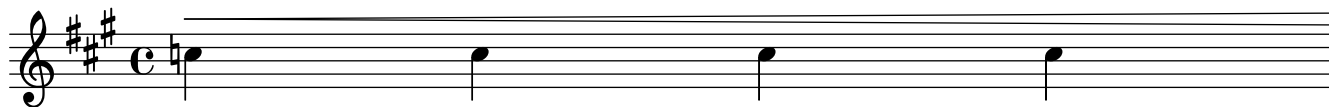
- Events attached to notes (e.g., dynamics or articulations) can be delayed by an arbitrary duration using ‘\after’. This simplifies many situations that previously required the use of explicit polyphony and spacer rests.

```
{
  \after 2 \turn g'2. a'4
  \after 2 \< b'1
  \after 2. \f c''
  <>\< \after 4 \> \after 2\! d''
}
```



- Broken hairpins now have some left padding by default. This is in line with published scores and it fixes some cases where broken hairpins were vertically displaced by the key signature.

```
\relative {
  \key a \major
  c''4^\< c c c \break c c c c\! |
}
```



The old glyph remains available under the name ‘raltcomma’:

```
{
  \override BreathingSign.text =
    \markup { \musicglyph "scripts.raltcomma" }
  f'2 \breathe f' |
}
```



- The new context property ‘breathMarkType’ selects the mark that ‘\breathe’ produces from several predefined types.

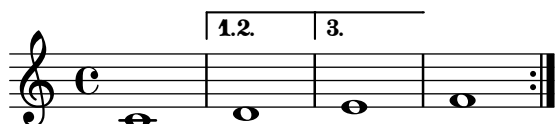
```
\fixed c' {
  \set breathMarkType = #'tickmark
  c2 \breathe d2
}
```



## Repeat improvements

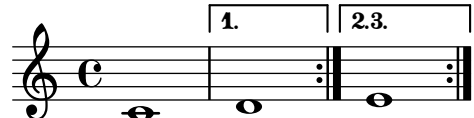
- Repeat alternatives may appear within the repeated section.

```
\repeat volta 3 { c'1 \alternative { d' e' } f' }
```




- The volta numbers for repeat alternatives may be set with the ‘\volta’ command.

```
\repeat volta 3 c'1 \alternative { \volta 1 d' \volta 2,3 e' }
```




- The new ‘\repeat segno’ command automatically notates a variety of *\_da-capo\_* and *\_dal-segno\_* forms.

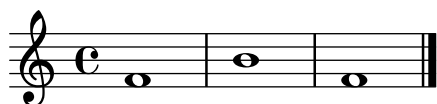
```
music = \fixed c' {
  \repeat segno 2 {
    b1
  }
  \fine
}
\score { \music }
\score { \unfoldRepeats \music }
```




- The new ‘\fine’ command inserts a final bar line that interacts gracefully with repeat bar lines. Used inside ‘\repeat’, it also prints *\_Fine\_* and ends the music after unfolding.

```
music = \fixed c' {
  \repeat volta 2 {
    f1
    \volta 2 \fine
    \volta 1 b1
  }
}
\score { \music }
\score { \unfoldRepeats \music }
```





## Editorial annotation improvements

• A “time-based” version of the ‘\parenthesize’ command was added. It takes a grob path: ‘\parenthesize GROBNAME’ or ‘\parenthesize CONTEXTNAME.GROBNAME’. It acts like a ‘\once \override’. This interface complements the already existing form ‘\parenthesize EVENT’, in a fashion similar to ‘\footnote’.

```
{
  \parenthesize NoteHead
  c'1
  \parenthesize Staff.KeySignature
  \key g \major
  c'1
}
```



• Adding the ‘Melody\_engraver’ to the ‘Voice’ context now works out of the box to change the stem direction of the middle note according to the melody. Previously, this required an additional override to ‘Stem.neutral-direction’.

```
\new Voice \with {
  \consists Melody_engraver
}
\relative c'' {
  \autoBeamOff
  g8 b a e g b a g |
  c b d c b e d c |
}
```



## Text improvements

- New commands ‘`\textMark`’ and ‘`\textEndMark`’ are available to add an arbitrary piece of text between notes, called a text mark. These commands improve over the previously existing syntax with the ‘`\mark`’ command called as ‘`\mark MARKUP`’ (i.e., ‘`\mark ...`’ or ‘`\mark \markup ...`’).

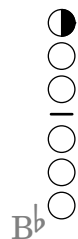
```
\fixed c' {
  \textMark "Text mark"
  c16 d e f e f e d c e d c e d c8
  \textEndMark "Text end mark"
}
```



## Wind instrument improvements

- Additional display details of a ‘`\woodwind-diagram`’ can now be specified including the angle of partially-covered-keys and the display of non-graphical trill keys.

```
\markup {
  \override #'(graphical . #f)
  \override #'(woodwind-diagram-details . ((fill-angle . 90)
                                           (text-trill-circled . #f)))
  \woodwind-diagram #'flute #'((cc . (one1h))
                               (lh . ()))
                               (rh . (best)))
}
```



## Chord notation improvements

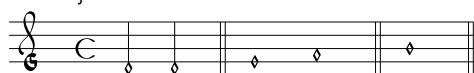
- In figured bass, ‘`_`’ now creates an empty figure that still takes up space.

```
\figures {
  <8 _ 4]> <_ 5+ 3>
}
```

## Ancient notation improvements

'MensuralStaff' and 'VaticanaStaff' use 'Divisio\_engraver' to interpret the above commands as well as '\repeat volta' and '\fine'.

```
\new MensuralStaff \fixed c' {
  \repeat volta 2 { f2 f }
  g1
  a1 \section
  b1 \fine
}
```



## World music improvements

• Support for Persian classical music is now available. For this, two accidental glyphs, `_sori_` and `_koron_`, have been added to LilyPond.

```
\include "persian.ly"
\relative c' {
  \key d \chahargah
  bk'8 a gs fo r g ak g |
  fs ek d c d ef16 d c4 |
}
```

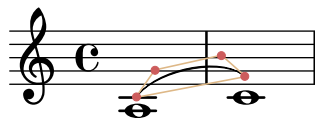


## Miscellaneous improvements



- The new command ‘\vshape’ is like ‘\shape’, but also shows the control points and polygon for easier tweaking.

```
{ a1\vshape #'((0 . 0) (0 . 0.5) (0 . 0.9) (0 . 0.4))^( c'1) }
```



- =====
- Strings now support Unicode characters. Previously, a Unicode character was represented by several characters, and various functions were not tailored for Unicode support.

- Some numeric functions now return exact results in more cases. For instance, ‘(sqrt 4)’ returns ‘2.0’ in Guile 1.8, but ‘2’ (an integer) in Guile 2.2.

### **Please; read NEWS.txt**

```
$ tar Jxvf lilypond-2.24.3-documentation.tar.xz =====>...../share/doc/lilypond/html/NEWS.txt
```