

## New features in 2.12 since 2.10

- Unbeamed 128th notes are now supported:



- Extending LilyPond's existing support for microtones, there are now arrowed accidentals for the notation of microtonal alterations. To use them, redefine the `glyph-name-alist` property of `Accidental` as in the following example which uses quartertones to typeset arrowed accidentals. Alternatively, it is possible to define separate names for all notes with arrowed accidentals (see `ly/makam.ly` for boilerplate code).



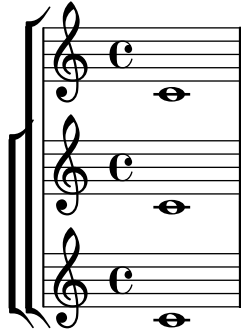
- Straight flags (used in old scores of e.g. Bach, but also in different form in modern scores of e.g. Stockhausen) are now implemented:



- `\bookpart` blocks may be used to split a book into several parts, separated by a page break, in order to ease the page breaking, or to use different `\paper` settings in different parts.

```
\bookpart {  
  \header {  
    title = "Book title"  
    subtitle = "First part"  
  }  
  \score { ... }  
  ...  
}  
\bookpart {  
  \header {  
    subtitle = "Second part"  
  }  
  \score { ... }  
  ...  
}
```

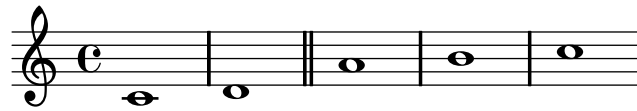
- Nested contexts of the same type are now allowed. This deprecates `InnerStaffGroup` and `InnerChoirStaff`.



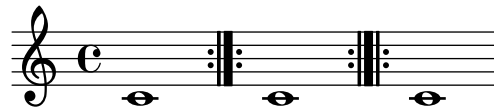
- Percent repeat counters can be shown at regular intervals using the context property `repeatCountVisibility`.



- In addition to the already existing `showLastLength` property, `showFirstLength` can now be set as well, rendering only the first measures of a piece. Both properties may be set at the same time:



- The file extension for MIDI can be set using the command-line program default `midi-extension`. For Windows, the default extension has been changed to `.mid`.
- Two variations on the default double repeat bar line are now available.



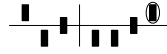
- Four automatic accidentals rules have been added: `neo-modern`, `neo-modern-cautionary`, `dodecaphonic` and `teaching`. The following example illustrates `neo-modern` rule.



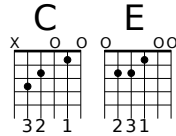
- Flags can now be generated with Scheme-code using the `'flag Stem` grob property. Existing scores will work without change.



- Harp pedalling diagrams were added:



- Predefined, user-configurable, transposable fret diagrams are now available in the `FretBoards` context:

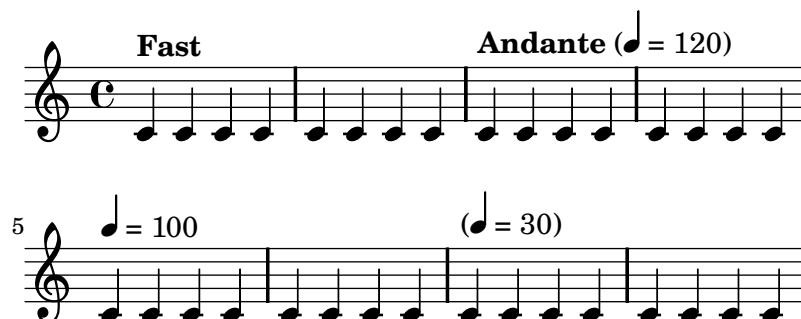


- The following syntax changes were made, in chronological order. In addition, fret diagram properties have been moved to `fret-diagram-details`, and the `#'style` property is used to select solid/dashed lines instead of `#'dash-fraction`.

```
'break-align-symbol -> 'break-align-symbols
scripts.caesura -> scripts.caesura.curved
\setEasyHeads -> \easyHeadsOn
\easyHeadsOff (new command)
\fatText -> \textLengthOn
\emptyText -> \textLengthOff
\set hairpinToBarline -> \override Hairpin #'to-barline
\compressMusic -> \scaleDurations
\octave -> \octaveCheck
\arpeggioUp -> \arpeggioArrowUp
\arpeggioDown -> \arpeggioArrowDown
\arpeggioNeutral -> \arpeggioNormal
\setTextCresc -> \crescTextCresc
\setTextDecresc -> \dimTextDecresc
\setTextDecr -> \dimTextDecr
\setTextDim -> \dimTextDim
\setHairpinCresc -> \crescHairpin
\setHairpinDecresc -> \dimHairpin
\sustainUp -> \sustainOff
\sustainDown -> \sustainOn
\sostenutoDown -> \sostenutoOn
\sostenutoUp -> \sostenutoOff
'infinite-spacing-height -> 'extra-spacing-height
#(set-octavation oct) -> \ottava #oct
\put-adjacent markup axis dir markup -> \put-adjacent axis dir markup markup
\pointAndClickOn (new command)
\pointAndClickOff (new command)
\center-align -> \center-column
\hcenter -> \center-align
printallheaders -> print-all-headers
\bigger -> \larger (already existing command)
systemSeparatorMarkup -> system-separator-markup
```

Moreover, some files in the `ly/` directory have been renamed; the `*-init.ly` filenames are now only used for files that are automatically included, while such files as `makam-init.ly` or `gregorian-init.ly` have been renamed to `makam.ly` or `gregorian.ly`.

- The “tex” and “texstr” backends have been removed. Font are now accessed via the fontconfig library; the Pango library is used to display text strings.
- Metronome marks can now also contain a textual description. The duration and count (if given) are shown in parentheses after the text.



- In figured bass you can now also use a backslash through a number to indicate a raised 6th step.



- Arpeggios may now use “parenthesis” style brackets:



- Single-system scores are now naturally spaced instead of being stretched to fill the line width. This can be changed by setting `ragged-right = ##f`.
- Enclosing text within boxes with rounded corners is now possible, using the `\rounded-box` markup command.
- `lilypond-book` can run any program instead of `latex` to guess the line width, thanks to `--latex-program` command line option.
- Underlining is now possible with the `\underline` markup command.
- It is now possible to specify, using the `page-count` variable in the paper block, the number of pages that will be used.
- A new page breaking function, `ly:minimal-breaking`, is dedicated to books with many pages or a lot of text.
- A table of contents is included using `\markuplines \table-of-contents`. Elements are added to it using the `\tocItem` command.
- Text spreading over several pages is entered using the `\markuplines` keyword. Builtin markup list commands, such as `\justified-lines` or `\wordwrap-lines` may be used, and new ones created using the `define-markup-list-command` Scheme macro.

- See [INSTALL.html#Testing-LilyPond](#) for more information.
- Nested properties, such as `'details` in `Slur`, can be reverted as well. The syntax for this is

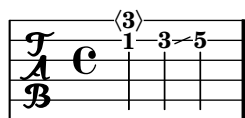
```
\revert Slur #'(details closeness-factor)
```

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- Tie directions may be set with `^~` and `_~`.

- Tablature now supports harmonics and slides:

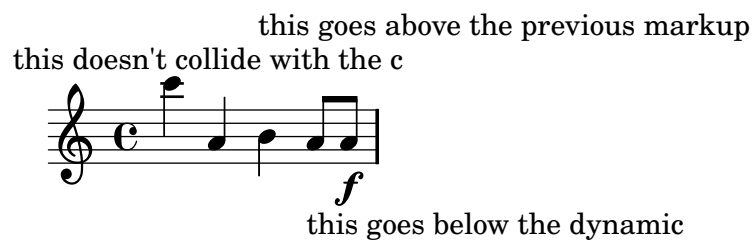


This feature was sponsored by Mike Amundsen

- Horizontal spacing now follows object outlines more accurately. This allows tighter horizontal spacing.



- Objects that belong outside of the staff are now positioned automatically to avoid collisions.



- Staves are spaced vertically using a skyline algorithm. This helps prevent uneven vertical spacing.

