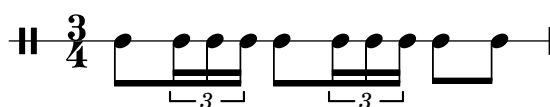


## New features in 2.20 since 2.18

- Isolated durations in music sequences now stand for unpitched notes. This may be useful for specifying rhythms to music or scheme functions. When encountered in the final score, the pitches are provided by the preceding note or chord. Here are two examples where this makes for readable input:

```
\new DrumStaff \with { \override StaffSymbol.line-count = 1 }
\drummode {
  \time 3/4
  tambourine 8 \tuplet 3/2 { 16 16 16 }
              8 \tuplet 3/2 { 16 16 16 } 8 8 |
}
```



```
\new Staff { r16 c'16 ~ 8 ~ 4 ~ 2 | }
```



- Beaming exceptions can now be constructed using the `\beamExceptions` scheme function. One can now write

```
\time #'(2 1) 3/16
\set Timing.beamExceptions =
  \beamExceptions { 32[ 32] 32[ 32] 32[ 32] }
c16 c c |
\repeat unfold 6 { c32 } |
```



with multiple exceptions separated with | bar checks (writing the exception pattern without pitches is convenient but not mandatory). Previously, setting the beam exceptions would have required writing

```
\set Timing.beamExceptions =
#'(
  (end . ;start of alist
    ( ;entry for end of beams
      ( ;start of alist of end points
        ((1 . 32) . (2 2 2)) ;rule for 1/32 beams -- end each 1/16
      ))
    )
  )
```

- The most common articulations are now reflected in MIDI output. Accent and marcato make notes louder; staccato, staccatissimo and portato make them shorter. Breath marks shorten the previous note.

This behavior is customizable through the `midiLength` and `midiExtraVelocity` properties on `ArticulationEvent`. See ‘`script-init.ly`’ for examples.

- The PostScript functionality of stroke adjustment is no longer applied automatically but left to the discretion of the PostScript device (by default, Ghostscript uses it for resolutions

up to 150dpi when generating raster images). When it is enabled, a more complex drawing algorithm designed to benefit from stroke adjustment is employed mostly for stems and bar lines.

Stroke adjustment can be forced by specifying the command line option ‘**-dstrokeadjust**’ to LilyPond. When generating PDF files, this will usually result in markedly better looking PDF previews but significantly larger file size. Print quality at high resolutions will be unaffected.