



# LilyPond - Music Typesetting

## Basic usage - LilyPond Version 2.14 and above

Cheatsheet by R. Kainhofer, Edition Kainhofer, <http://www.edition-kainhofer.com/>



### Command-line usage

```
lilypond [-l LOGLEVEL] [-dSCMOPTIONS] [-o OUTPUT] [-V] FILE.ly [FILE2.ly]
```

#### Common options:

--pdf, --png, --ps	Output file format	-dpreview	Cropped "preview" image
-dbackend=eps	Use different backend	-dlog-file=FILE	Create .log file
-l LOGLEVEL	ERR/WARN/PROG/DEBUG	-dno-point-and-click	No Point & Click info
-o OUTDIR	Name of output dir/file	-djob-count=NR	Process files in parallel
-V	Verbose output	-dpixmap-format=pngalpha	Transparent PNG
-dhelp	Help on options	-dno-delete-intermediate-files	Keep .ps files

### General Syntax

<code>\xxxx</code>	function or variable
<code>{ ... }</code>	Code grouping
<code>var = {...}</code>	Variable assignment
<code>\version "2.14.0"</code>	LilyPond version
<code>% dots</code>	Comment
<code>{ ... }</code>	Block comment
<code>c\...</code>	Postfix-notation (notes)
<code>#'(...), ##t, #'sym</code>	Scheme list, true, symb.
<code>x-.., x^.., x_..</code>	Directions

### Basic Notation

	<code>c d e f g a b</code>	Note names (Dutch)
	<code>cis bes as cisis beses b b! b?</code>	Alterations: -is/-es for sharp/flat, -isis/-eses for double, ! forces, ? shows cautionary accidental
	<code>\relative c' {c f d' c,}</code>	Relative mode (change less than a fifth), raise/lower one octave
	<code>g1 g2 g4 g8 g16 g4. g4..</code>	durations (1, 2, 4, 8, 16, ...); append "." for dotted note
	<code>g8 g8 g8[ g g] g8[ g16 g16]</code>	Automatic and manual beaming
	<code>r2 r4 r4.. r16 s4 r4</code>	rests: r (like a note name) s for invisible rests
	<code>\clef \"treble\" \clef \"bass\" \clef \"tenor\" \clef \"treble_3\"</code>	Clefs
	<code>\time 4/4 \time 2/2 \time 3/4 \time 3/8</code>	Time signature
	<code>\key c \minor \key b \dorian \key c \major</code>	Key
	<code>&lt;c e g&gt;4 &lt;f c'&gt; q2</code>	Chords, repeated chord
	<code>c4~ c c2~ c4 &lt;c a f&gt;~ c</code>	Tie
	<code>c( a) c\ ( b( a) g f\ )</code>	Slur / Phrasing slur
	<code>g\p\ &lt;a b c\ f\ cresc d e\ !</code>	Dynamics, hairpins, text crescendo
	<code>c4-&gt; c-. c~  c~_+ c\trill c\marcato c~\"Text\"</code>	Articulations and text markup
	<code>\partial 8 c8   c1   c \bar\"  \" c \bar\" .\"</code>	Partial measure, bar line check, bar lines
	<code>R1   R1*3   \time 3/4 R2.*4</code>	Full-/Multimeasure rests: R (with exact duration)
	<code>c1 \repeat volta 2 { d } \alternative {e} {f} g</code>	Repeats (with alternative endings; can be left out)
	<code>\tempo \"Adagio\" 4=60 c1 c c \mark \default c \mark \"X\"</code>	Tempo indications, text marks
	<code>\grace d8 c4\appoggiatura d8 c4\acciaccatura d8 c4</code>	Grace notes
	<code>\times 2/3 {c8 d e} \times 4/5 {c d e d c}</code>	Triplet, tuplets
	<code>&lt;&lt;{a2 c4 a}\{f4 g4 f2}&gt;&gt;</code>	Parallel music

### Creating Staves, Voices and Groups

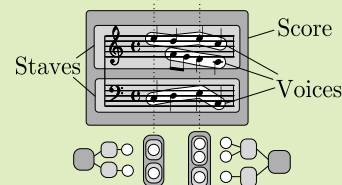
```
\version "2.15.0"
SMusic = \relative c'' { c1\p }
SLyrics = \lyricmode { Oh! }
AMusic = \relative c' { e1 }

\score {
  \new ChoirStaff <<
    \new Staff {
      \new Voice = "Sop" {
        \dynamicUp \SMusic
      }
    }
  \new Lyrics = "SLyrics"
  \lyricsto "Sop" \SLyrics
  \new Staff {
    \new Voice = "Alto" {
      \dynamicUp \AMusic
    }
  }
}
>>
```

### Useful Contexts

Score	The whole score
<< ... >>	Staves in parallel
StaffGroup	Staffgroup with bracket
GrandStaff	Staffgroup with brace
ChoirStaff	Staffgroup with bracket
PianoStaff	Staffgroup with brace
Staff	One single staff
Voice	A voice inside a staff
CueVoice	Smaller voice for cues
Lyrics	Lyrics inside staff/voice
ChordNames	Chords (lead sheet)
Devnull	No output

Also: Dynamics, FiguredBass, Tab(Staff|Voice), Drum(Staff|Voice), RhythmicStaff, FretBoards, ...



### Adding Lyrics

```
<<
  \new Voice = "m" {
    c4 c8[( b)] a8[( b)] | c4 c4~ c4 |
  }
  \new Lyrics \lyricsto "m" {
    Sim -- ple e -- xam -- ple --
  }
>>
```

### Writing text and markup

```
\markup {
  \justify {
    A \underline justified \bold paragraph,
    \fontsize #-2 automatically line-broken.
    Some symbols: \dynamic ff \eyeglasses
    \rounded-box text, \with-color #red Text
  }
}
```

A justified paragraph, automatically line-broken. Some symbols: **ff** text Text

### Links

LilyPond Homepage:  
<http://www.lilypond.org/>

LilyPond Snippet Repository (LSR):  
<http://lsr.dsi.unimi.it/>

User Mailing list:  
[lilypond-user@gnu.org](mailto:lilypond-user@gnu.org)

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# LilyPond - Advanced Tweaking

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## Structure of a note

```
c is ' 4. *3 ~ ( [ ->-3 ~"text" \f\<
```

arbitrary order

c	Note name or q, REQUIRED
is	Alteration
'	Octave indication
4.	Duration, repeated if not given
*3	Duration multiplier
~	Tie
(	Slur
[	Beam
->-3	Articulations, fingerings, etc.
~"text"	Text and other scripts
\f\<	Dynamics

## Figured bass structure

```
< [ 6 \ \ ] _ + > 4.
```

## Markup commands

## Pitch commands

```
\transpose from to music  
\ottava #(-2/-1/0/1/2)  
\transposition pitch-for-written-c'  
#(set-accidental-style 'style 'ctxt)
```

## Rhythmic concerns

```
Durations: \longa \breve 1 2 4 8 16 32..  
\autoBeam[On|Off]  
\cadenza[On|Off]  
\barNumberCheck #Nr  
\tempo ["Text"] [duration = count]
```

## Grobs and Grob Properties

```
NoteHead  
#'style = #'(cross|harmonic|slash| default|...)  
Other grob
```

## Vertical spacing

V spacing

## Useful Context properties

Context props

## Multiple voices

```
<< {...} \ \ {...} >>  
<< {...} \new Voice {...} >>  
\oneVoice  
\voice(One|Two|Three|Four|..)
```

## Quoting other voices, Cue notes

Quoting

## Header fields

title	printed at very top
(sub)subtitle	below title, smaller
dedication	above title
instrument	below subtitles
composer	below title, on the right
arranger	below Composer
poet	below title, on the left
meter	below poet
tagline	at very end of score
copyright	bottom of first page
piece	below meter (left), per score
opus	below arranger (right)

## Paper fields

(book score)TitleMarkup	title markup
print-all-headers	bookTitleMarkup for each score
(even odd)HeaderMarkup	header markup
(even odd)FooterMarkup	footer markup
#(set-paper-size "...")	paper size
line-width	
(left right)-margin	margins
(top bottom)-margin	
paper-height	page height
ragged-(right last)	ragged systems
ragged-(last-)bottom)	ragged pages
[...] - [...] -spacing	Vertical spacing
two-sided	Two-sided printing
(inner outer)-margin	
binding-offset	
(short-)indent	all/first systems
(max- min-)systems-per-page	
(page system)-count	page/sys. count
page-breaking = #ly:page-turn-breaking	
page-breaking = #ly:optimal-breaking	
first-page-number	Nr. of first page
print-page-number	Show page nrs.
system-separator-markup	markup between systems

## Note names in the most common languages

Select with: \language "italiano", default is "nederlands"

Language	Note names	accidentals
nederlands	c d e f g a bes b	-is -es -isis -eses
deutsch	c d e f g a b h	-is -es -isis -eses
english	c d e f g a bf b	-s/-sharp -f/-flat -ss/-x -ff
espanol	do re mi fa sol la sib si	-s -b -ss/-x -bb
italiano	do re mi fa sol la sib si	-d -b -dd -bb