omlily

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1 About

omlily [2] is an OpenMusic [1] Library interfacing with Lilypond [3] the music engraving program.

2 Compatibility

This Library is compatible with OpenMusic 6.x and runs on Linux, MacOsX and Windows platforms.

3 Installation

Install the folder 'omlily 3.x' in your OpenMusic Library's desired path.

3.1 Linux

Once loaded, the library will automatically query the Lilypond binary in your path. For Linux users, it will also query for the xpdf reader. You can change these options in OpenMusic preferences in the External tab. For MacOsX and Windows users, the default system pdf reader will be used for displaying the score.

3.2 Macosx

In order to have the library automatically compile your *.ly file, you will need, beside the standard installation of Lilypond.app, to configure the command-line link to the application as described here in the "Running on the command-line": http://www.lilypond.org/website/macos-x.html

3.3 Windows

In order to have the library automatically compile your *.ly file, you will need, beside the standard installation of Lilypond.exe, to configure the command-line link to the application as described here in the "Running on the command-line": http://lilypond.org/website/windows.html

4 Usage

4.1 OM->LILY

om->lily will export and compile VOICE, POLY, CHORD-SEQ and MULTI-SEQ objects into lilypond *.ly files.

4.1.1 Modes

om->lily has two basic modes for generating the score according to the nature of the polyphony:

- **Generic :** for most of the music that is set without polymetrics and polytempi.
- **Polymetric :** for special cases where music is polymetric and/or polytempic.

4.2 LILY->OM

In order to import *.ly files into OpenMusic objects (POLY), you will have to:

1. Uncomment the following 3 lines found in your *.ly generated file:

```
\score {
 {

...


% #(with-output-to-file "temp.lisp" --> uncomment
% (lambda () #{ \displayMusic {     --> uncomment

...

% } #}))   --> uncomment

}
```

2. After removing the comment sign '%', you should recompile your file with Lilypond. This will produce a "temp.lisp" file.

3. Connect lily->om to the first input of a POLY object (<self>) or CRTL+SHIFT+CLICK the output of lily->om in order to create a POLY instance.

Important:

The Lilypond/Openmusic communication will work ONLY with om->lily generated files.

"barchecks" are mandatory. If they are absent this will output erroneous rhythms.

If not, please be really carefull when:

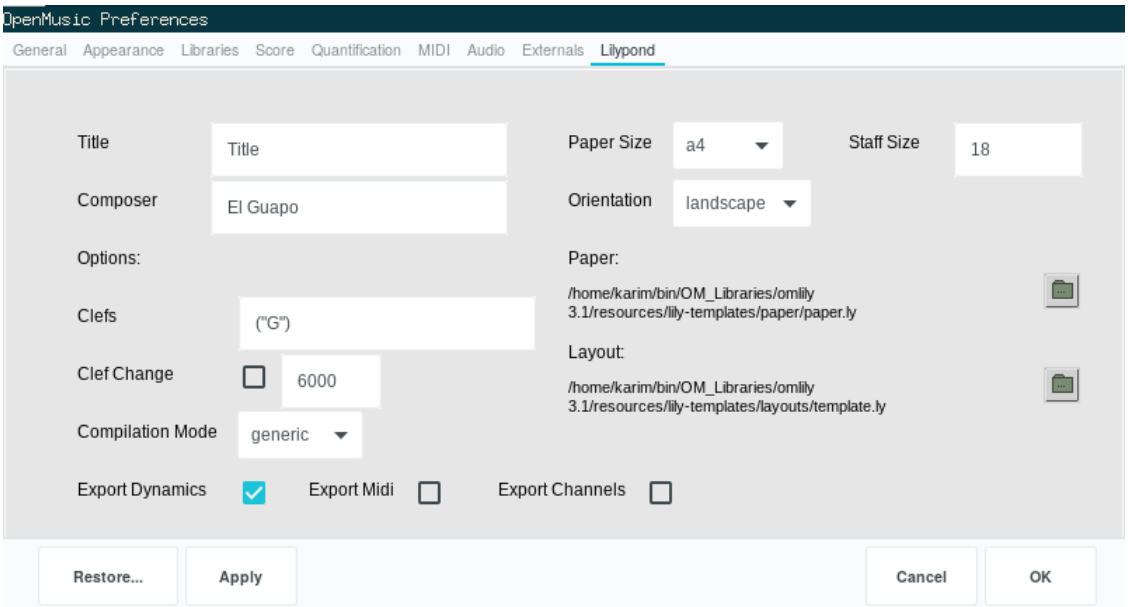
1. For general cases of music, put bar checks after each measures.

2. In case of PianoStaff cross-staff notation, this will not render as a cross-staff in OM. Hence all notes will stay on the same staff.

3. PianoStaff is not yet integrated nor the CHORD-SEQ export.

4. Polymetric and tempo changes are not yet supported.

5 Preferences



The preference panel under the Lilypond tab:

- **Title :** sets the title of the score.
- **Composer :** sets the composer's name of the score.
- **Options :**
  - **Clefs :** sets the clefs.
  - **Clef Change :** sets the switching of clefs between G and F (in midicents).
  - **Compilation mode :** sets the compilation mode generic/polymetric according to the given music.
  - **Export Dynamics :** if checked, dynamics will be exported.
  - **Export Midi :** if checked, will export a midi file.
  - **Export Channels :** if checked, all midi channels will be displayed as fingerings.
- **Paper Size :** sets the paper size a4/a3.
- **Staff Size :** sets the global staff size.
- **Orientation :** sets paper orientation between portait/landscape.
- **Paper :** Choose a template for more specific paper preferences (margins, page numbering, ...)
- **Layout :** Choose a template for most Lilypond specific preferences and contexts.

The preferences will be saved in a future session of the workspace ONLY if the library is set in *autoload* mode (cf. OM documentation).

A Appendix

om->lily output default file example:

```
\version "2.19.83"

#(set-default-paper-size "a4landscape")
#(set-global-staff-size 18)
\paper {
    system-system-spacing = #'((basic-distance . 15) (padding . 20))
     system-separator-markup = \slashSeparator
    #(define after-title-space (* 0.5 cm))
    #(define head-separation (* 0.5 cm))
    print-page-number = ##t
    print-first-page-number = ##t
    first-page-number =#1
   top-margin = 2\cm
```

```
   bottom-margin = 3\cm
         two-sided = ##t
   inner-margin = 20\mm
   outer-margin = 20\mm
%%%%%these come together:%%%%
    %left-margin = 20\mm
    %line-width = 380\mm
%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
  tagline = \markup {

  }
}




\header {
breakbefore =##t
title = \markup {"Title"}
composer = \markup {"El Guapo"}
}


"one"=
{
%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
%%%%%%%%%%%%%%%%%%%%%%%% VOICE : 1 %%%%%%%%%%%%%%%%%%%%%%%%
%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%


#(set-accidental-style 'dodecaphonic)

\clef "G"
%%%%%%%%%%%%%%%%%%%%%%%%% MESURE : 1 %%%%%%%%%%%%%%%%%%%%%%%%%
\tempo 4 = 60
\time 4/4
c'4 \f
c'4
c'4
c'4
|
}


\score {
 {
```

```
<<
% #(with-output-to-file "temp.lisp"
% (lambda () #{ \displayMusic {

\new StaffGroup
 <<


\new Staff  {
\one
}


 >>


 % } #}))


 >>

}


%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%omlily template%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%






\layout {
ragged-last = ##f
indent = 0.0
\context {\Score
         \override TupletBracket #'staff-padding = #1.5
         \override TupletBracket #'direction = #1
         \override TupletBracket #'bracket-visibility = ##t
          \override Stem #'stemlet-length = #0.75
  \remove "Mark_engraver" %%%for the fermata on barline
   \override MetronomeMark #'padding = #2.5
  %\remove "Timing_translator"
  %\remove "Default_bar_line_engraver"

         }
\context {\Staff
         \numericTimeSignature
          \override NoteHead #'style = #'baroque
```

```
   \override DynamicLineSpanner #'staff-padding = #3  %%add this by default Should I ??
\override Flag #'stencil = #modern-straight-flag
   \consists "Mark_engraver" %%%for the fermata on barline
       %   \consists "Timing_translator"
%  \consists "Default_bar_line_engraver"

}
}
}
```

References

[1] Jean Bresson, Carlos Agon, and Gérard Assayag. Openmusic–visual programming environment for music composition, analysis and research. 2011.

[2] Karim Haddad and Carlos Agon. Omlily: filling the notational gap between composition and performance. 2016.

[3] Han-Wen Nienhuys and Jan Nieuwenhuizen. Lilypond, a system for automated music engraving. In *Proceedings of the XIV Colloquium on Musical Informatics (XIV CIM 2003)*, volume 1, pages 167–171, 2003.