SeeScoreLib
The SeeScore MusicXML Rendering Library

SeeScoreLib is a binary library for rendering a MusicXML score into a platform-native graphics context, which has been targeted to multiple platforms. There is also support for generating a standard MIDI file from the score which can be used to play audio.

Features
- The graphical output is entirely vector-based so it can be rendered at any scale.
- Bar layout is automatic, and fully justified at the scale and width specified.
- Individual parts or sets of parts can be rendered.
- A free evaluation version with 'watermark' can be downloaded, with a project to build a sample application is available for each platform.
- The API can be augmented under separate licence.

Platforms
At the time of writing there are versions of the library for several platforms:
- iOS Objective-C interface supported by iOS SeeScoreLib.framework
- OS X Objective-C interface supported by OS X SeeScoreLib.framework
- Windows desktop (GDI+) with C# interface supported by SeeScoreLib-gdi+.dll and associated C# files
- Windows 8 with XAML+Direct2D supported by SeeScoreLib-d2d.dll
- Android with Java interface supported by SeeScoreLib.so and associated Java files

Required Project settings:
Under 'Linking'
Runpath search paths

Required standard library
All versions of SeeScoreLib must link to the C++11 standard library. This is the default with Xcode and Visual Studio Express 2013

SeeScoreLib interface
The C and Objective-C interfaces to SeeScoreLib are documented in html - doc/SeeScoreLib-header-doc/masterTOC.html in your browser.
The C# interface for Windows is documented in html - open Help/index.html

`Coordinate system`
In all coordinates x increases to the left and y increases downwards.

`Threading`
All functions in this interface must be called from a single thread (probably the main thread), EXCEPT for the layout method (sscore_layout() in C), which can (and should) be called on a background thread so as not to block the foreground UI thread. A callback function is provided to supply musical systems from top to bottom as they are created. NB The callback function is called on the same thread as the layout call, so it must not directly call other functions in this interface.

Licensing terms

Additional functions can be enabled through a licence key system for extra charge. These functions are noted in the API documentation.

Note that the evaluation version includes some of these licence keys, and the playdata and synth can be used in a limited mode for evaluation. The playdata works for 10 minutes, the synth plays for a limited time and only a limited number of notes can be captured in MIDI. The app can be restarted to reset the limited licences.

Any App using SeeScoreLib should display an acknowledgement in the App or its documentation: “SeeScore MusicXML rendering is used under license (c) Dolphin Computing http://dolphin-com.co.uk”
The SeeScoreLib framework must not be copied to a third party, but should always be obtained direct from Dolphin Computing. http://www.dolphin-com.co.uk