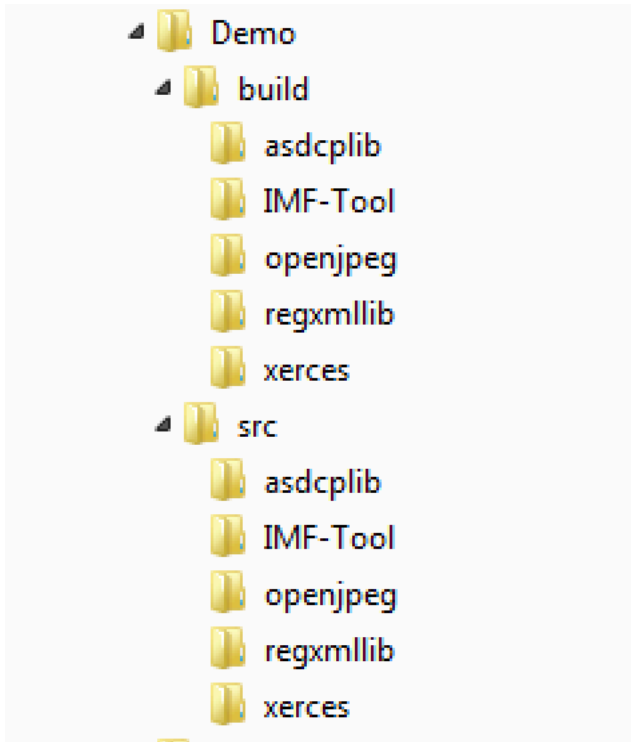# Building IMF Tool under Windows

Wolfgang Ruppel, 2017-11-07

Preparations

Create directories for asdcplib, regxmllib, openjepeg, xerces and IMF Tool:

Prerequisites

Visual Studio:
Install Visual Studio 2015. These instructions will likely also work with other versions of Visual Studio.

Qt5
Download http://download.qt.io/archive/qt/5.7/5.7.0/
It is recommended to install Qt 5.7.

Run installer, select to install the 64 bit version for VS 2015 only, deselect all other options. (saves disk space)

After the installation, verify the following directory is present on the file system:
C:\Qt5.7\5.7\msvc2015_64

Cmake:
Download: https://cmake.org/download/
A binary installer is provided for Windows (win64-x64).

Qt5
Download Qt 5.7.2 (64 bit) from
http://download.qt.io/archive/qt/5.7/5.7.1/qt-opensource-windows-x86-msvc2015_64-5.7.1.exe
Run installer, deselect all but Win64 binaries. (saves disk space)

NOTE: Qt 5.9 ist not supported yet, there are issues with full screen mode playback.
NOTE: A Qt account is required to install the Qt binaries.

OpenSSL Windows 64
Download binaries from
https://slproweb.com/download/Win64OpenSSL-1_0_2L.exe

(Win 64 bit)
Execute the installer. OpenSSL is required for building asdcplib.

Downloading and building Xerces

Download source code from
http://archive.apache.org/dist/xerces/c/3/sources/xerces-c-3.1.3.zip
Unpack into Demo/src/xerces
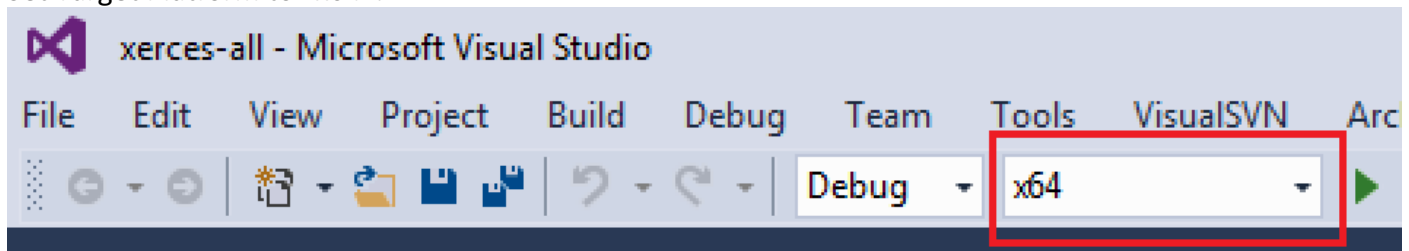NOTE: Xerces 3.2.0 is not tested and supported yet.

Open File
\Demo\src\xerces\xerces-c-3.1.3\projects\Win32\VC12\xerces-all\xerces-all.sln
using Right-Click an "Open with.." Visual Studio 2015
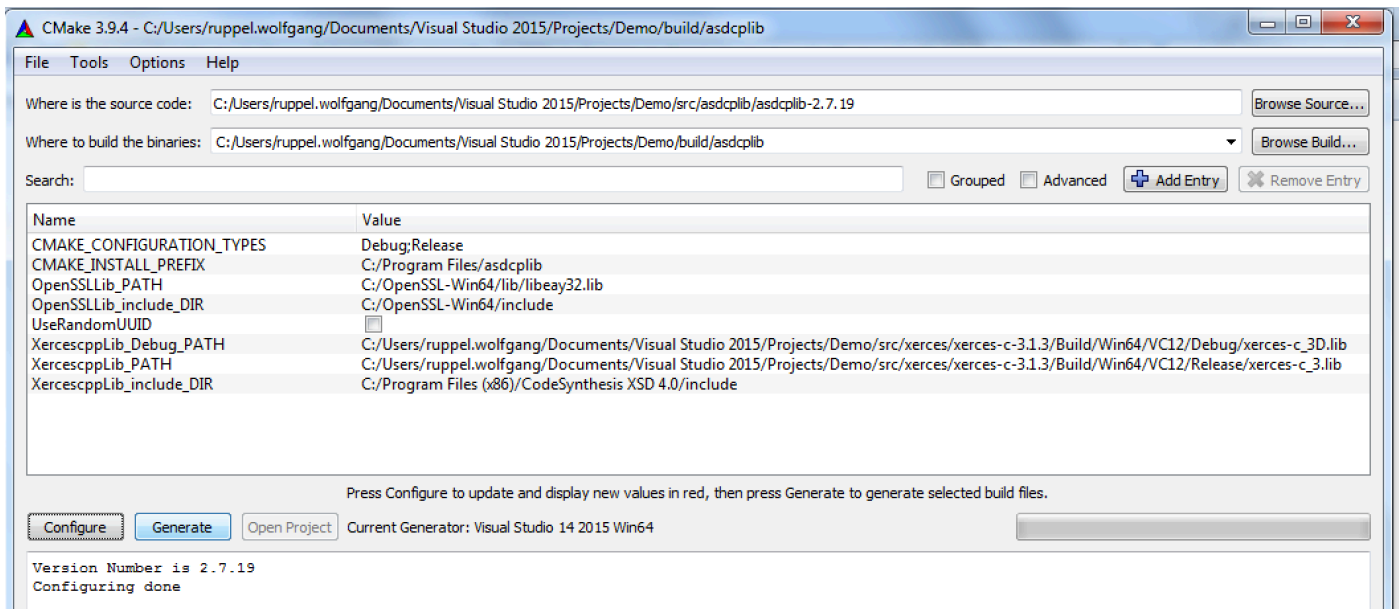
In Visual Studio 2015:
Set Target Platform to "x64":

Build Project "all" in both Debug and Release mode
Note: The Output will go to \Demo\src\xerces\xerces-c-3.1.3\Build\Win64\VC12

Downloading and building asdcplib

Download asdcplib-2.7.19.tar.gz, unpack into Demo/src/asdcplib.

Use CMake to create a Visual Studio 14 2015 Win64 Solution File:

Open VS 2015 Solution File
Demo\build\asdcplib\asdcplib.sln
Build Project "ALL_BUILD" in Debug and Release mode

MANUAL STEP REQUIRED:
Create folder Demo\build\asdcplib\src\CMakeFiles\Export\lib
Copy these files into the Export\lib folder:
Demo\build\asdcplib\src\Debug*.lib
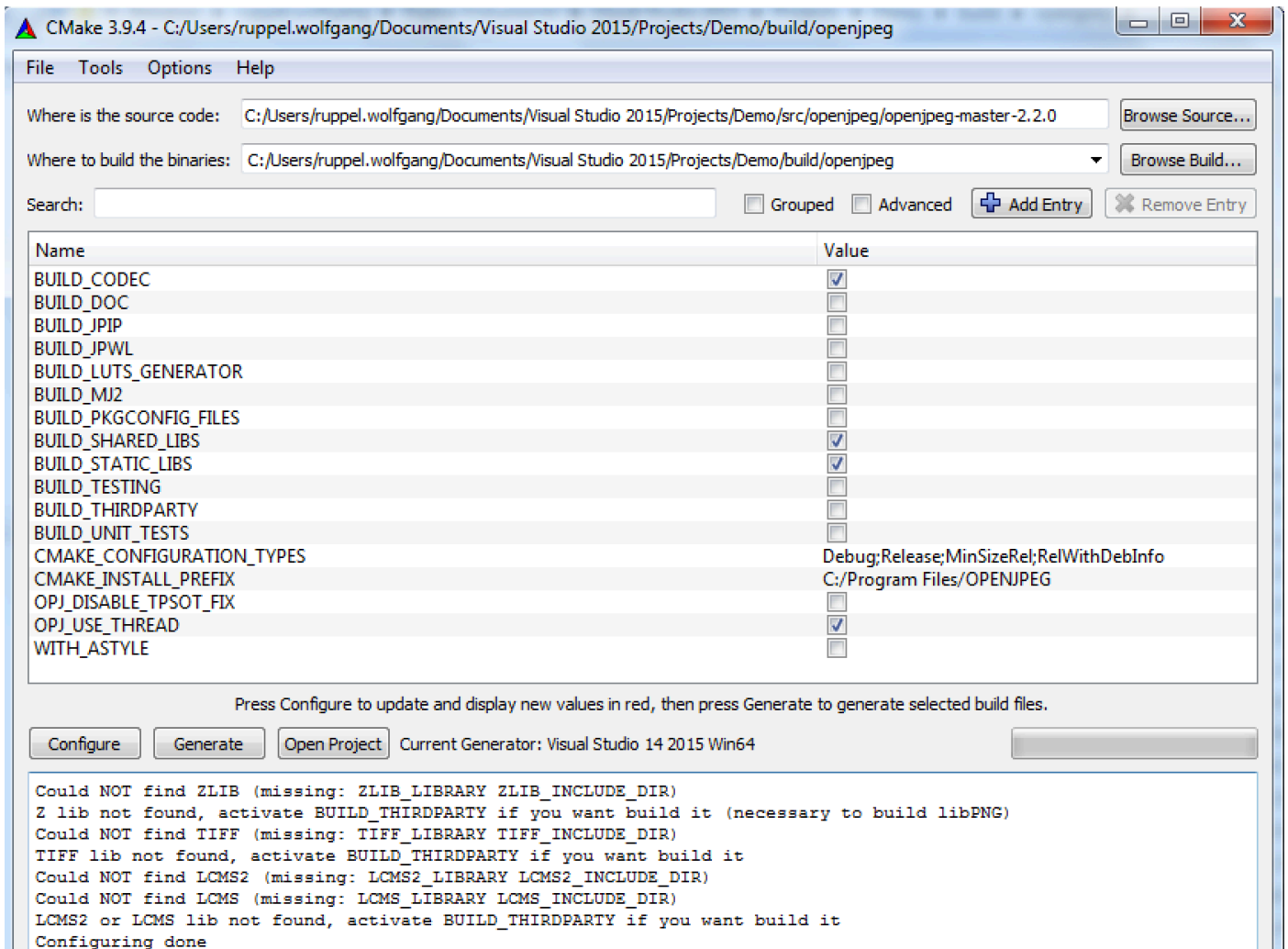Demo\build\asdcplib\src\Release*.lib
(6 files in total)

Downloading and building openjpeg

Download OpenJPEG from https://github.com/uclouvain/openjpeg/
Note: OpenJPEG 2.2 (with multi-threading support) is required!

Unpack into Demo/src/openjpeg.

Use CMake to create a Visual Studio 14 2015 Win64 Solution File:

Build Project "ALL_BUILD" in Release mode ONLY.

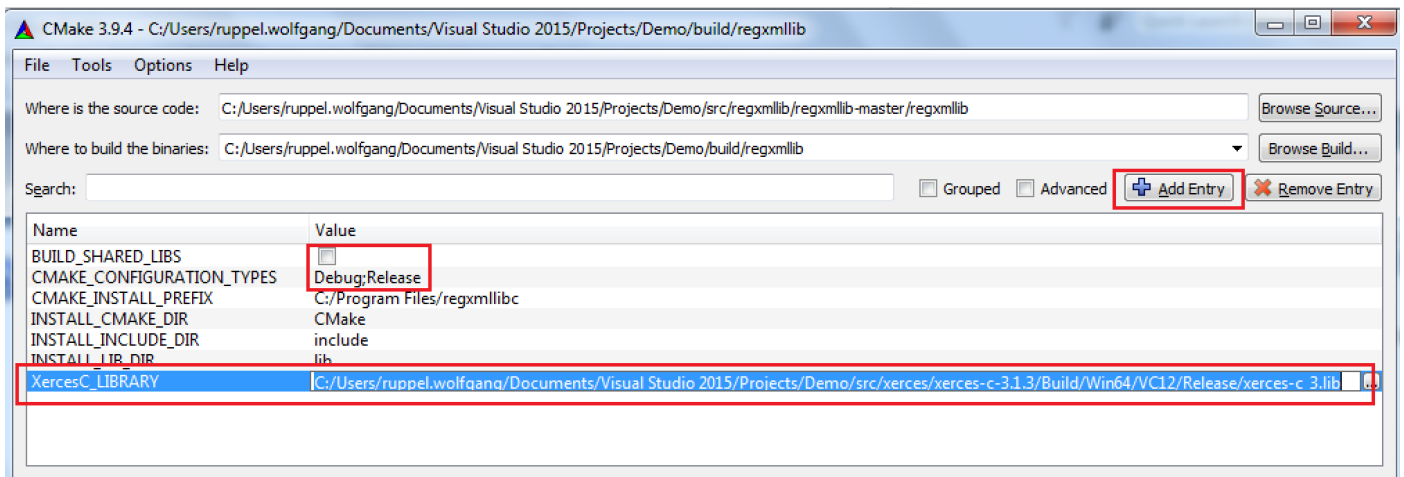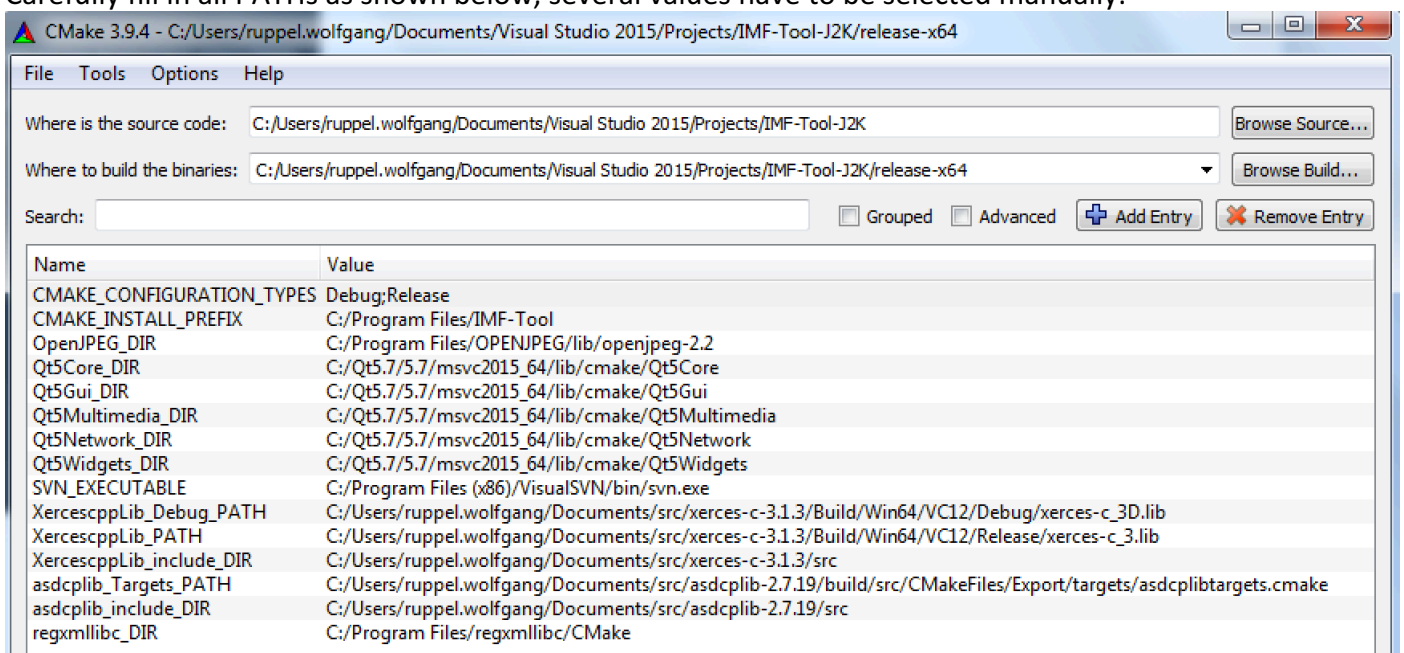This project needs to be installed in addition:

- Create folder C:/Program Files/OPENJPEG
- Open Properties of folder OPENJPEG, add current user with read/write access (full permissions).
- Build project "INSTALL", make sure "Release" mode is selected.
- Verify that target files have been installed in C:/Program Files/OPENJPEG

Downloading and building regxmllibc

Download tar or zip archive from
https://github.com/IMFTool/regxmllib/tree/FEATURE-regxmllibc
Configure, build and install using CMake:

The Key XercesC_LIBRARY (Type FILEPATH) needs to be added manually.
The Value of XercesC_LIBRARY should point to xerces-c_3.lib
Make sure BUILD_SHARED_LIBS is deselected.

Open Solution file, build project "BUILD_ALL" for both Release and Debug version.

This project needs to be installed in addition:

- Create folder
  C:/Program Files/regxmllibc
- Open Properties of folder regxmllibc, add current user with read/write access (full permissions).
- Build project "INSTALL", for both "Release" and "Debug" mode.
- Verify that target files have been installed in C:/Program Files/regxmllibc

Installing and downloading IMF Tool

Download or clone IMF Tool from http://github.com/IMFTool/IMFTool

Configure and build using CMake:

Carefully fill in all PATHs as shown below, several values have to be selected manually:

After building, IMF Tool will complain about missing DLL libraries.
Locate the respective libraries and copy them into the folder where IMFTool.exe is located, e.g.:

Name

- IMF-Tool.exe
- openjp2.dll
- Qt5Cored.dll
- Qt5Guid.dll
- Qt5Multimediad.dll
- Qt5Networkd.dll
- Qt5Widgetsd.dll
- xerces-c_3_1.dll
- xerces-c_3_1D.dll
- IMF-Tool.ilk
- IMF-Tool.pdb
- IMF-Tool.log

Due to a bug in the build system, the Debug version of IMF Tool will also require the Xerces Release DLL.