This document describes how to build the wxWidgets port of nSIGHTS. This project is still in progress, so these instructions may change over time.

# Prerequisites

1. Visual Studio 2010 (recommended)
   - This should theoretically work with other versions of Visual Studio, but that has not been well tested
2. CMake version 2.8.0 or higher (http://www.cmake.org/)
3. wxWidgets version 2.9.4 or higher
   - Get the windows binaries from here: http://sourceforge.net/projects/wxwindows/files/2.9.4/binaries/
   - For visual studio 2010, you want the following files
     - **wxMSW-2.9.4_vc100_Dev.7z**
     - **wxWidgets-2.9.4_Headers.7z**
4. LAPACK binaries, available from http://icl.cs.utk.edu/lapack-for-windows/lapack/index.html
   - The build has only been tested with the precompiled MinGW 32bit version of these files
   - If you use the Mingw version, you will also need the following DLLs from MinGW in order to run:
     - **libgcc_s_dw2-1.dll**
     - **libgfortran-3.dll**
     - **libquadmath-0.dll**

# CMake Configuration/Generation

1. Open the CMakeLists.txt file in CMake, select an appropriate build folder
2. Set the wxWidgets_ROOT_DIR variable to the place you put the wxWidgets files
   - NOTE: If you have trouble with CMake not finding wxWidgets, you may need to go into the wxWidgets folder (where you unzipped the above files), and rename "lib\vc100_dll" to "lib\vc_dll" and reconfigure CMake.
3. Set the BLAS_LIBRARY and LAPACK_LIBRARY variables to point at the proper lib files (libblas.lib, and liblapack.lib)
4. Run Configure
   - Note that the build for nPreX with wxWidgets is not yet working, so don't check the box for BUILD_NPRE_X
5. Run Generate

# Build Solution

1. Open the **nSIGHTS.sln** file that CMake generates, right click on "nPre" and click "Build".
   - Note that SaLib and nPost currently do not compile

# Locate DLLs

1. To run the executable, you will need to make sure your system can find all the required DLLs. This means either modifying your PATH, or copying the DLLs to the same folder as nPre.exe
   - LAPACK DLLs (if using pre-build version from website)
     - **libblas.dll**
     - **liblapack.dll**
     - **libgcc_s_dw2-1.dll**
     - **libgfortran-3.dll**
     - **libquadmath-0.dll**
   - wxWidgets DLLs (wxmsw294ud*.dll)