Building LDNet on Win64

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# Install

In this order, install the following:

1. TDM
   1. URL: http://sourceforge.net/projects/tdm-gcc/
2. MSYS
   1. URL:
3. CMake
   1. URL: <http://www.cmake.org/cmake/resources/software.html>
   2. Using the above url, get the Windows ZIP
   3. Extract to:
   4. (or follow <https://sites.google.com/site/axusdev/tutorials/installcmakeformsys> )
4. GPSTK (optional: install new version or for different platform i.e. not win 64 bit)

# Run

# GPSTK

Some adjustments had to be made in order for GPSTK to compile under MinGW/MSYS.

The CMakeLists.txt file had the following lines added *after* the if/elseif statement in the WINDOWS case:

elseif (MSYS)

include\_directories("D:/L1Source/Libraries/mingw-regex")

add\_definitions ( -DBIG\_ENDIAN=0 )

add\_definitions ( -DLITTLE\_ENDIAN=1 )

add\_definitions ( -DBYTE\_ORDER=1 )

endif (MSVC11)

The path for the include\_directories command points to the mingw-regex installation. This install *must* be acquired from

<http://sourceforge.net/p/mingw/regex/ci/master/tree/>

and pre-built before building gpstk.

GPSTK requires Gnu Lib Regex library. Steps to install from this blog: <http://go.kblog.us/2009/07/mingw-porting-gnu-regex-to-windows.html>

Go to: <http://sourceforge.net/projects/mingw/files/MSYS/Base/regex/>

Download latest \*.src.tar.lzma

Extract src to wherever convenient (e.g. L1Source/Libraries/)

cd regex-20090805

./configure --prefix=/d/L1Source/Libraries/libregex\_w64/ --build=x86\_64-w64-mingw32 --host=build=x86\_64-w64-mingw32

make

make install

Within MSYS, run the following to build GPSTK

cd build

cmake –G “MSYS Makefiles” ..

make

make install

It was necessary to modify logstream.hpp in ./src/ and ./lib/ such that the #ifdef WIN32 statement which is intended for Microsoft compilers is changed to #ifdef \_MSC\_VER.

# GLPK

Do not link against the prebuilt libraries compiled in MS VC++. Instead, compile in MSYS separately.

cd glpk-4.52

./configure –prefix=/d/L1Source/Libraries/glpk\_w64/ --build=x86\_64-w64-mingw32 --host=build=x86\_64-w64-mingw32

make

make install

# References

For cross platform project compiler flags, see <http://sourceforge.net/p/predef/wiki/OperatingSystems/>