## **MinGW** Compiler

I have been using MinGW (Minimalist GNU for Windows) to build my code for Windows platform. It has changed a bit since I last used it to build a cross compiler for my class. So, I want to keep a note on how I build using latest binaries. The project has moved here.

Installing MinGW:

- Get the 'package manager' from here
  - $\,\circ\,$  version 0.6.3 (beta) at the moment
  - I prefer the standalone binary (no setup)
- Pick a location and extract the zip file
  - o I choose C:\Users\Public\Tool
  - change the folder name so that we have C:\Users\Public\Tool\mingw\bin\mingwget.exe
- Prepare to use mingw-get binary
  - o cd C:\Users\Public\Tool\mingw\var\lib\mingw-get\data\
  - $\circ$  copy defaults.xml profile.xml
- Open a command prompt and update catalogue
  - o cd C:\Users\Public\Tool\mingw\bin\
  - o mingw-get.exe update
- Get stuffs (compiler with Unix-like environment) without using GUI
  - ∘ mingw-get.exe install gcc g++ gmp mpfr mpc msys msys-wget-bin
- To get GUI interface install mingw-get (apparently, we are NOT running mingw-get!
  - mingw-get.exe install mingw-get
  - $\circ\,$  now, a window will come up when you run <code>mingw-get</code>

**Note20211207** Current software versions {gcc:9.2.0,binutils:2.32}

Some useful things to do:

- Get helper script(s) I wrote that for personal use
  - copy everything (except LICENSE, README.md and msys2.vbs) to C:\Users\Public\Tool\mingw
  - $\circ$  allows environment to be used on shared computer (no need for admin account)
- Running msys.vbs (\*Hint\*: double-click) will install (or remove if already installed) a pop-up context menu entry (MinGW Shell) whenever you right-click on a folder in Windows Explorer
  - edit C:\Users\Public\Tool\mingw\msys\1.0\etc\profile and comment (place '#' at the beginning of) the last line with cd \$HOME command
- To have git in MinGW shell, install Git-for-Windows at C:\Users\Public\Tool\Git
  - edit C:\Users\Public\Tool\mingw\msys\1.0\etc\profile and insert PATH="/c/users/public/tool/git/bin:\$PATH" before the block containing an export PATH line(s)
- Running mingw-setup.bat sets up normal command prompt for command-line compilation
  - place mingw-term.bat script in any folder when executed, it will open a command prompt (with MinGW path properly configured) in that folder
- Running mingw-clear.bat cleans up settings created by mingw-setup.bat



## Installing wxWidgets

This is what I recommend to my students when developing cross-platform GUI solution. I now compile from source because I can never completely download the pre-built binaries... problem with my uni's

network maybe?

Obviously, MinGW must already be installed.

- Get the source file from here
  - since we are compiling on MinGW, get the 'source for Linux...' (I got wxWidgets-3.0.3.tar.bz2)
  - extract (can be done in MinGW shell: tar xf <file>)
- Compile... (note: '\$' is the prompt)

```
$ ./configure --prefix=/c/Users/Public/Tool/wxwidgets --disable-shared
$ make
$ make install
```

work in progress...

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