C/C++ Environment setup for Mac and Windows

This guide will tell you how to setup the environment and tool chain on Windows and Mac OS.

For Linux users, I think you can handle it.

Windows

There are two different ways to use gcc/g++ on Windows. One way is using MinGW, which is a port of GNU Compiler Collection to generate .exe in Windows. The other way is to use WSL (Windows Subsystem Linux). It can generate executable files for linux, but the generated files are also only executable in WSL, so it is somehow more complicated than using MinGW.
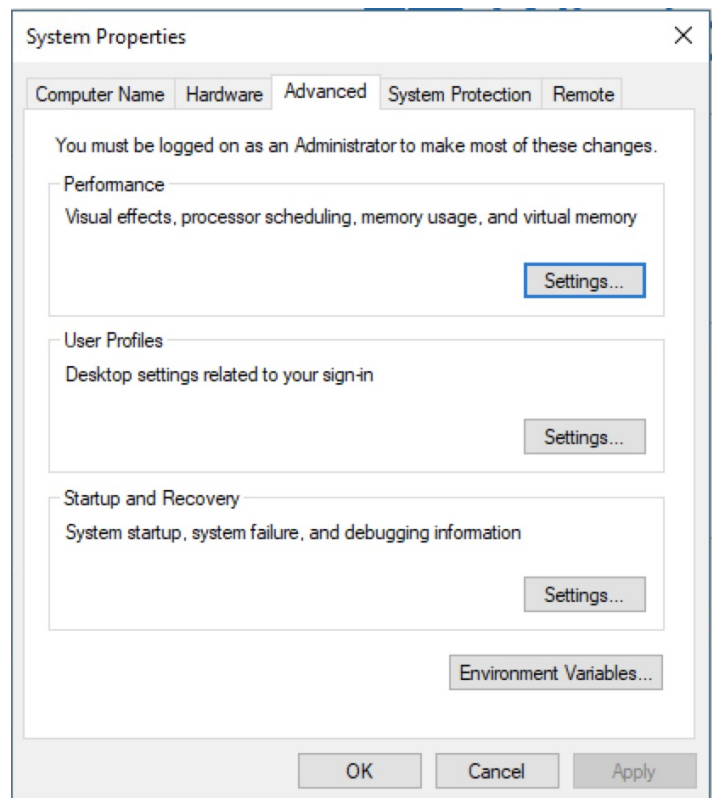
MinGW

- Visit MinGW.
- Download installer.
- Run the installer and follow the instruction to install MinGW
- Mark mingw32-base and mingw32-gcc-g++.

	Package	Class	Installed Version	Repository Version	Description
☐	mingw-developer-toolkit	bin		2013072300	An MSYS Installation for MinGW Developers (meta)
⟳	mingw32-base	bin		2013072200	A Basic MinGW Installation
☐	mingw32-gcc-ada	bin		5.3.0-3	The GNU Ada Compiler
☐	mingw32-gcc-fortran	bin		5.3.0-3	The GNU FORTRAN Compiler
⟳	mingw32-gcc-g++	bin		5.3.0-3	The GNU C++ Compiler
☐	mingw32-gcc-objc	bin		5.3.0-3	The GNU Objective-C Compiler
☐	msys-base	bin		2013072300	A Basic MSYS Installation (meta)

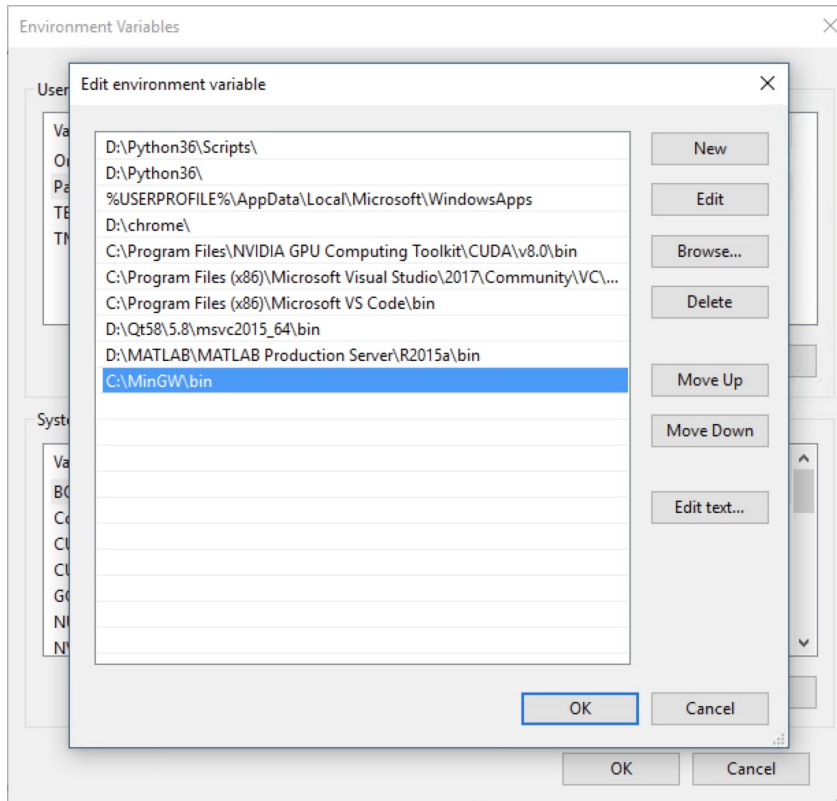- Apply change in Installation in menu bar.
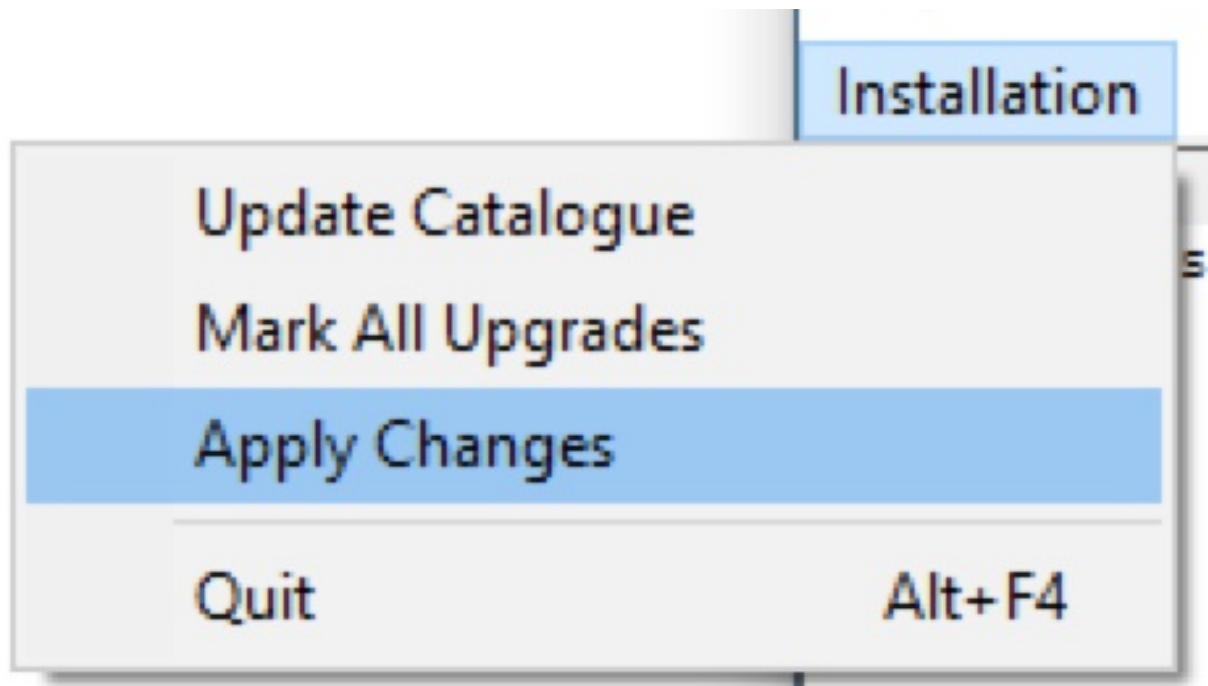
- Open Windows Settings->System->About->System info-

>Advanced system settings

- Click Environment Variables->Double click Path->Add the directory /bin in MinGW installation path to the path

- restart computer.
- run `gcc -v` in cmd. If it shows information about gcc, then the installation is succeeded.

WSL

- See Installation Guide to install the WSL.
- Run `sudo apt-get install build-essential` in bash.
- run `gcc -v` in cmd. If it shows information about gcc, then the installation is succeeded.

Mac OS

- Open terminal, and run `xcode-select --install`
- run `gcc -v` in cmd. If it shows information about gcc, then the installation is succeeded.