

Resources: Programming in C++

Installing g++

Windows

Use the [“Windows Subsystem for Linux”](#) selecting the “Ubuntu” option for installation. After installation, from within the `bash` prompt, follow the instructions below for Ubuntu-like Linux. (Spring 2024) I recommend using Ubuntu 22.04 LTS for the Linux version, only because it will be the same version that I am using.

Install an Xserver application in Windows. Here are a couple of choices. As of Spring 2024, VcXsrv appears to be more current.

- Install [VcXsrv](#) in Windows for displaying graphical applications. Be sure to configure “no access control”.

Inside of a bash prompt edit your `.profile` and add lines like this at the bottom:

```
export DISPLAY=$(awk '/nameserver / {print $2; exit}' /etc/resolv.conf 2>/dev/null):0
export LIBGL_ALWAYS_INDIRECT=1
```

[Irfanview PPM image viewer.](#)

Mac OS X

Install the command line developer tools. Here's [one guide](#) with a couple of options.

Ubuntu-like Linux

Use `apt` to install the correct packages

```
sudo apt update
sudo apt install g++ freeglut3-dev libglu1-mesa-dev libgl1-mesa-dev valgrind libgtest-dev
```