

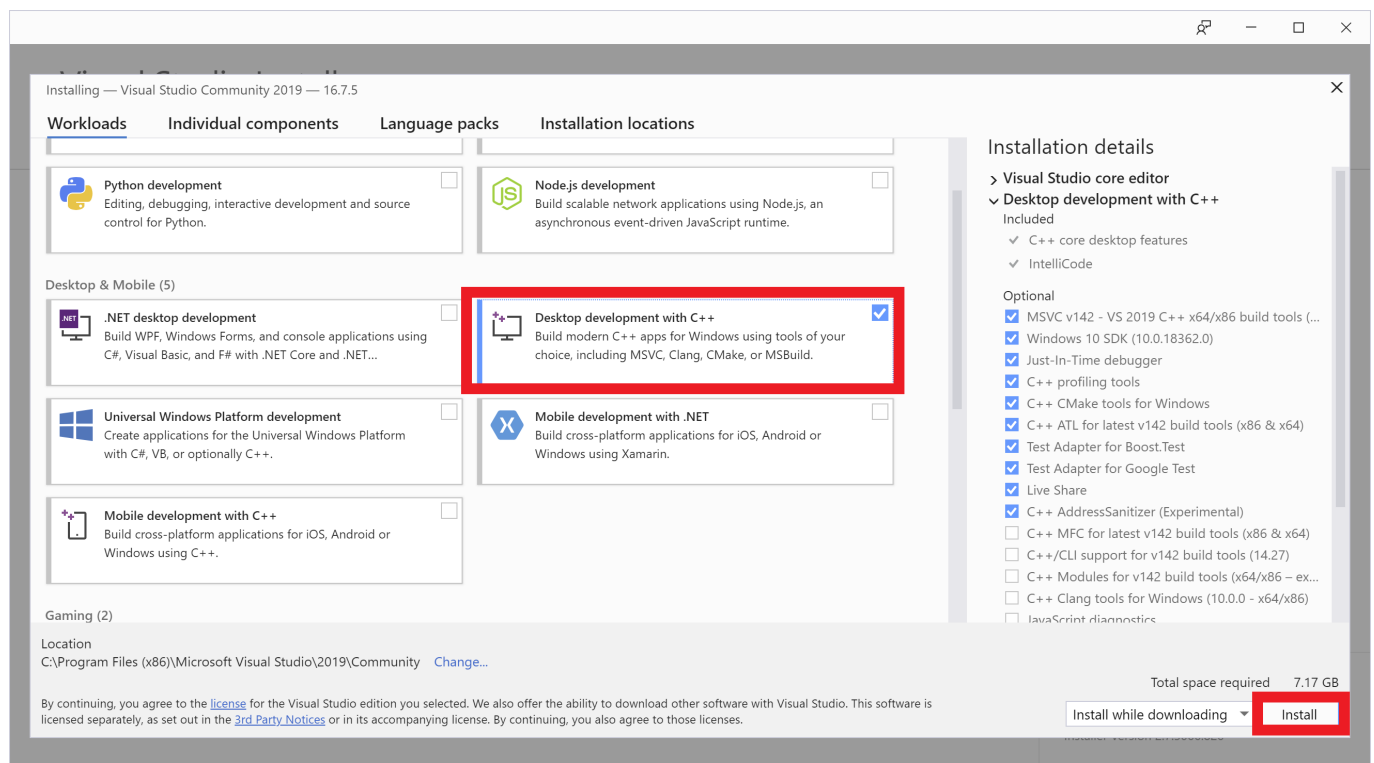
Windows setup for CG2020

This guide is for students who want the full C++ development experience on the MS Windows platform.

Prerequisites:

- Windows 10
- Visual Studio Community 2019 or newer - [Download](#)
- CMake 3.12 or newer - [Download](#)
- Git - [Download](#)

Follow the usual setup wizards for each. **For Visual Studio, make sure you tick "Desktop Development with C++" in the workloads page, leave everything else default.** You MUST reboot your machine after installation.



Once all the required software are installed. Proceed to setup vcpkg, the C++ package manager.

vcpkg setup

vcpkg is a package manager/repository similar to Maven in the Java world. You may want to read official the [documentation](#) for more in-depth explanation. Essentially, CMake provides the cross-platform build definition and vcpkg provides pre-built libraries for CMake to consume.

Make sure you run the following commands from a native *Windows* environment, for example: *cmd* or PowerShell (i.e. NOT WSL/MSYS2/Cygwin). Install vcpkg:

```
# in a suitable directory
git clone https://github.com/microsoft/vcpkg
```

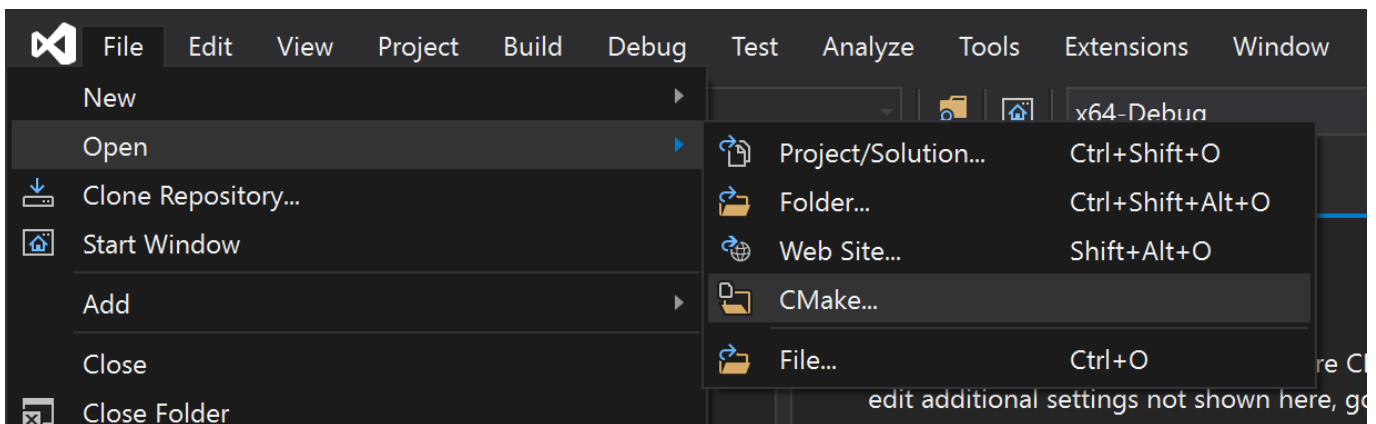
```
.\vcpkg\bootstrap-vcpkg.bat
.\vcpkg\vcpkg integrate install
```

Then, install SDL2:

```
.\vcpkg\vcpkg install sdl2:x64-windows
```

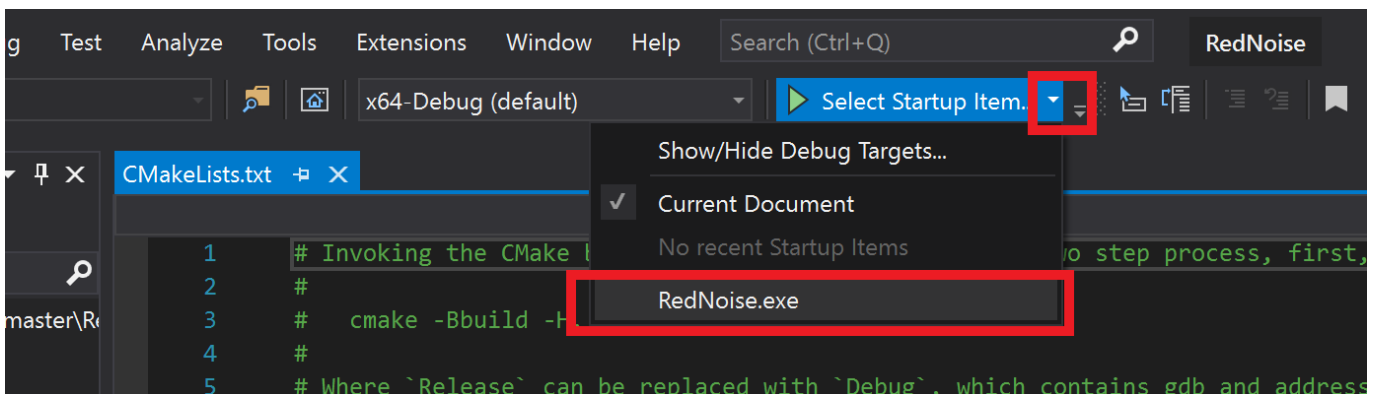
Once this is done, open Visual Studio. If you are presented with a welcome dialog, click "Continue without code →".

In the main editor window, select **File | Open | CMake...**, choose the **CMakeList.txt** file from the template project.



Visual Studio should now configure the project automatically, this may take a few minutes.

Once the project is configured, on the top main toolbar, open the "Select Startup Item" drop-down and choose the executable. You can now press the play button to compile and debug/run the program.



For development, simply edit code as usual and press play to see results.

You can search and install other packages using the `vcpkg install` command mentioned above. Note that `vcpkg` defaults to the x86 architecture, make sure you append the `:x64-windows` triplet to your package name if you are on x64.