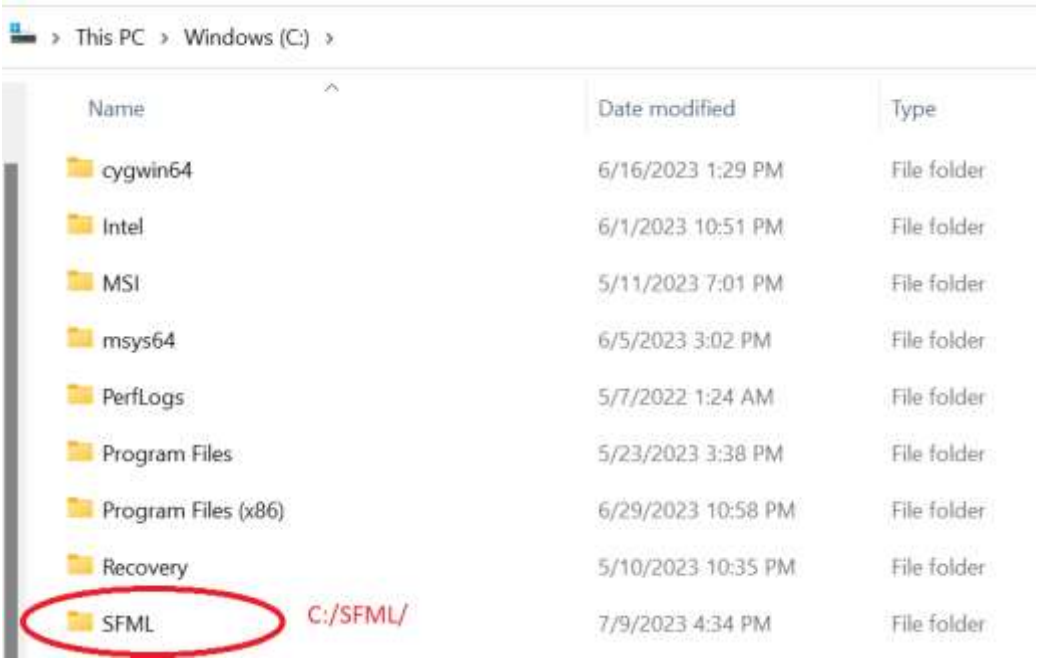
Instructions for Setup of SFML Library on CLion

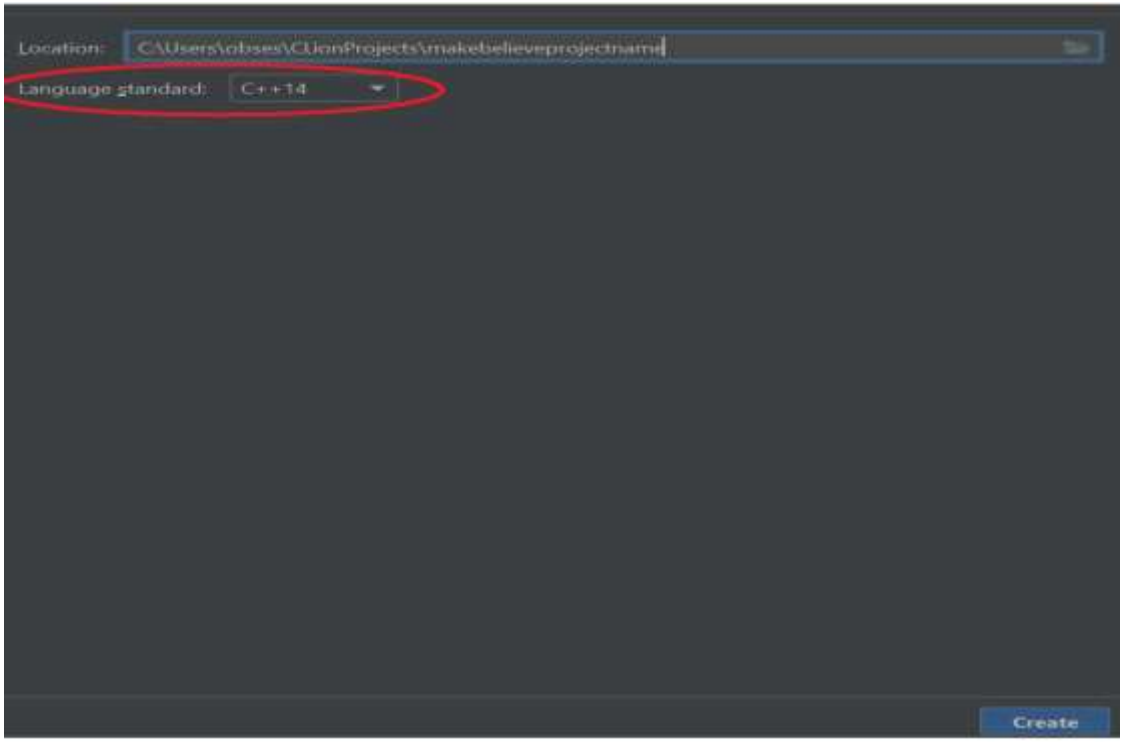
SFML Setup for Windows

1. Download here… *Note: You MUST figure out which version of GCC you have. If you installed GCC in 211/201 you probably have MinGW64bt. Select GCC 13.1.0 MinGW(SEH)64-Bit*

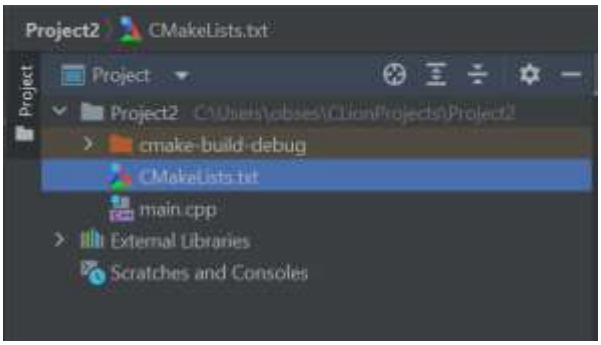
2. *Extract and move ENTIRE SFML folder to desired directory… for example I store mine directly within C:/*



3. *Create a new project in CLion… set standard language to C++ 14.*



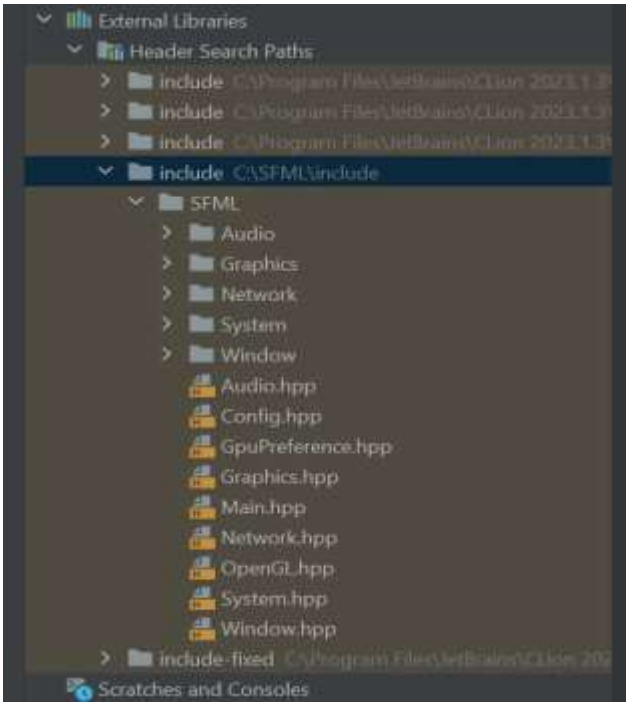
4. *Locate CMakeLists.txt within your new project (name depending on your choice… Mine is 'Project2' **NOTE:** Whenever you see project2 referenced; replace with your project folders name.*



5. *Edit CMakeLists.txt file to look like the following; **NOTE** adjust paths to reflect where you store SFML and directory name to reflect yours.*

```
cmake_minimum_required(VERSION 3.25)
project(Project2)

set(CMAKE_CXX_STANDARD 14)

add_executable(Project2 main.cpp)

set(SFML_STATIC_LIBRARIES TRUE)
set(SFML_DIR C:/SFML/lib/cmake/SFML)
find_package(SFML COMPONENTS system window graphics audio network REQUIRED)

include_directories(c:/SFML/include)
target_link_libraries(Project2 sfml-system sfml-window sfml-graphics sfml-audio sfml-network)
```

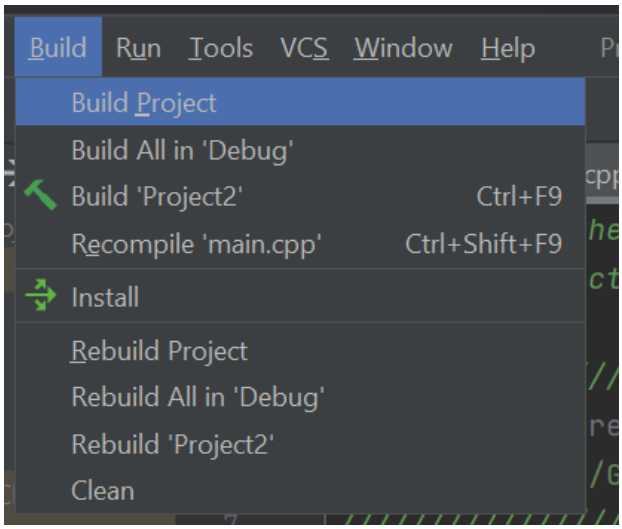
6. *This should create a new file in your external libraries that looks like this:*



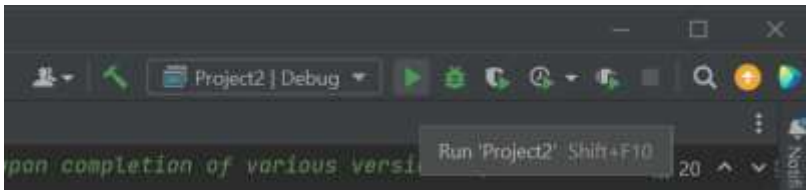
7. *From here you are ready to test if SFML library is properly installed: Copy this code into your main.cpp to test…*

```
////////////////// Libraries //////////////////
#include <SFML/Graphics.hpp>
///////////////////////////////////////////////

int main(){
sf::RenderWindow window(sf::VideoMode(640,480), "SFML Application");
sf::CircleShape shape;
shape.setRadius(100.f);
shape.setPosition(100.f, 150.f);
shape.setFillColor(sf::Color::Red);

while(window.isOpen()){
sf::Event event;

while(window.pollEvent(event)){
if(event.type == sf::Event::Closed){
window.close();
}
}
window.clear();
window.draw(shape);
window.display();
}

}
```

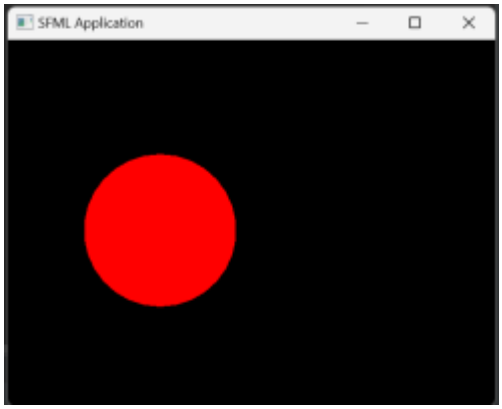
8. *You **CANNOT** compile using the traditional terminal methods. You must select **'build project'**.*



9. *If you do not get a build finished message; you have the wrong version of SMFL or pathing is inconsistent. Or you're not using C++14. Now you can select 'Run'.*



10. *If this menu pops up, you're ready to run and Compile the Project*



SFML Setup for MAC (Not Assured – Supplementary Instructions)

1. Download here. Note: Make sure you scroll down to where the macOS downloads are. You will have to know the type of MAC you are using. To do this, check under 'about this MAC'. If there is a section that says "Chip: Apple M1 (or M2)", download the option that says "Clang-64-bit (OS X 10.7+, compatible with C++11 and libc++). If 'about this mac', says "Processor:" followed by some version of "Intel Core", then be sure to download "Clang-ARM64 (OS X 11.0+)".

2. Download the extension Homebrew here. It is recommended to do so to help streamline the process by avoiding any issues that come up with copying and locating the libraries.

3. Once homebrew is installed open your terminal and type: ‘ *brew install sfml* ‘. This will begin the process of installing SFML to your machine.
4. We can now go ahead and create a new CLion project. Be sure to set standard language to C++ 14.

5. Locate CMakeLists.txt in your new project (the project name will differ based on what you choose, for example: ‘newProject’ **NOTE**: Whenever you see newProject referenced or written; replace with your project folders name.

6. *Replace the current contents of your CMakeLists.txt file with the following; **NOTE** be sure to change anywhere it says 'newProject' with your projects name*

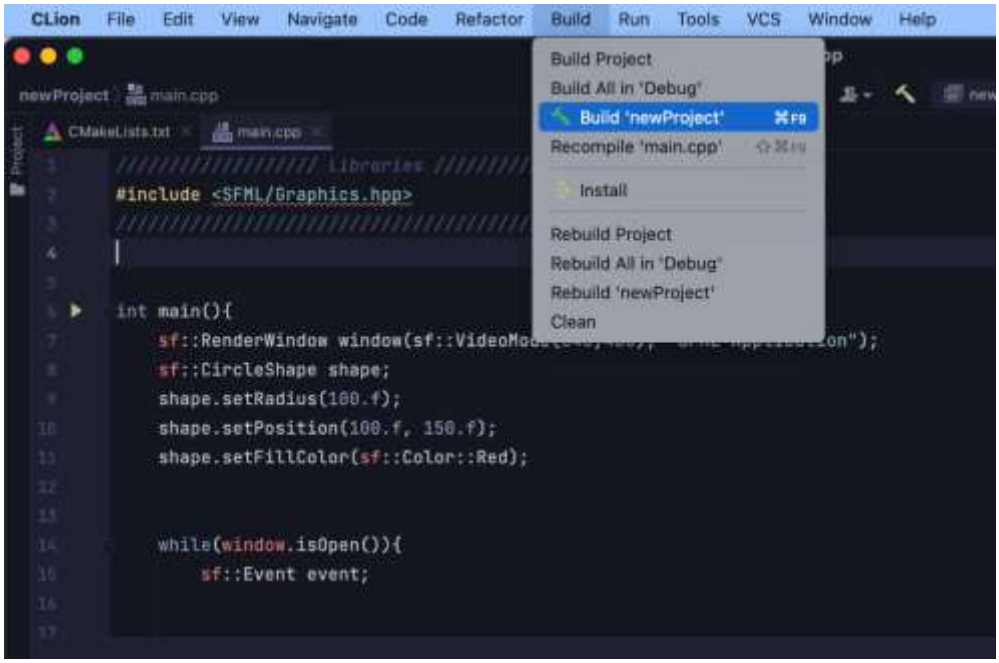
```
cmake_minimum_required(VERSION 3.14)
project(newProject)

set(CMAKE_CXX_FLAGS "${CMAKE_CXX_FLAGS} -std=c++11")

set(SOURCE_FILES main.cpp)
add_executable(newProject ${SOURCE_FILES})
include_directories(/usr/local/include)

find_package(SFML 2.5 COMPONENTS system window graphics network audio REQUIRED)
include_directories(${SFML_INCLUDE_DIRS})
target_link_libraries(newProject sfml-system sfml-window sfml-graphics sfml-audio sfml-network)
```

7. *From here you are ready to test if SFML library is properly installed: Copy this code into your main.cpp to test…*

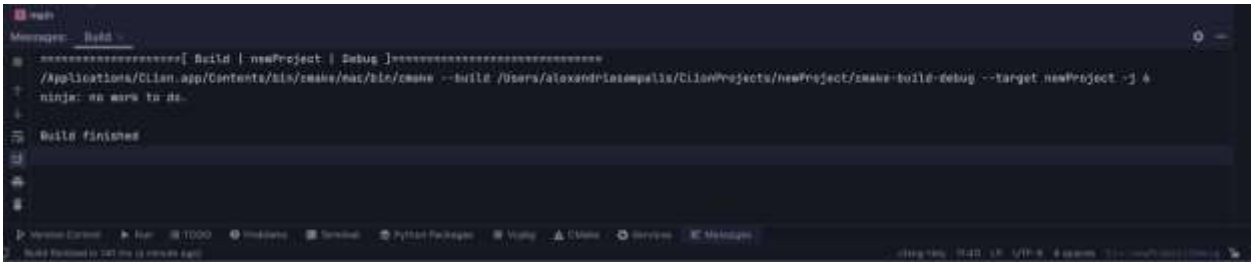
```
////////////////// Libraries ////////////////////
#include <SFML/Graphics.hpp>
/////////////////////////////////////////////////


int main(){
   sf::RenderWindow window(sf::VideoMode(640,480), "SFML Application");
   sf::CircleShape shape;
   shape.setRadius(100.f);
   shape.setPosition(100.f, 150.f);
   shape.setFillColor(sf::Color::Red);


   while(window.isOpen()){
       sf::Event event;
```

```
        while(window.pollEvent(event)){
            if(event.type == sf::Event::Closed){
                window.close();
            }
        }
        window.clear();
        window.draw(shape);
        window.display();
    }


}
```

8. *You cannot compile this code, you must select '**build project**'*

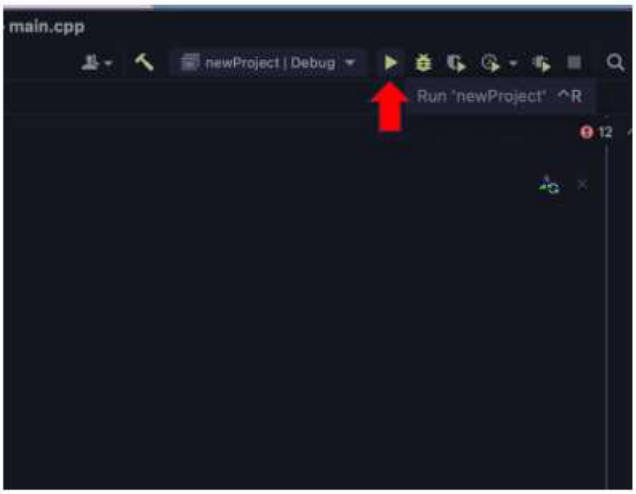


If the build is successful, you will see this message appear:



If not, you might need to troubleshoot, you may not be using C++14, or you could have run into an issue downloading SFML.

9. *Once your build is successful you can select ‘Run”.*



10. *If this menu pops up, you are ready to run and Compile the Project.*