

How to Set Up and Run Your C++ Project with CMake in PowerShell

This guide explains how to configure, build, and run your C++ project using CMake from PowerShell on Windows.

1. Folder Structure

Your project should look like this:

```
fhuor_text_game/
  CMakeLists.txt
  src/
    main.cpp
    Classes (cpp.hpp files)
    player.cpp
    player.hpp
    waifu.cpp
    waifu.hpp
    eun_bi.cpp
    eun_bi.hpp
```

2. Create the CMakeLists.txt File

Place this file in the project root (same folder as src):

```
cmake_minimum_required(VERSION 3.16) project(fhuor_text_game LANGUAGES CXX)
set(CMAKE_CXX_STANDARD 17) set(CMAKE_CXX_STANDARD_REQUIRED ON) file(GLOB SRC_FILES
"${CMAKE_SOURCE_DIR}/src/*.cpp" "${CMAKE_SOURCE_DIR}/src/Classes (cpp.hpp files)/*.cpp")
add_executable(fhuor_text_game ${SRC_FILES})
target_include_directories(fhuor_text_game PRIVATE "${CMAKE_SOURCE_DIR}/src"
"${CMAKE_SOURCE_DIR}/src/Classes (cpp.hpp files)" )
```

3. Check Requirements

In PowerShell, make sure you have both CMake and a compiler installed:

```
cmake --version g++ --version
```

If either command fails, install CMake and MinGW, and ensure both are added to your PATH.

4. Configure the Build

Run the following commands from your project root:

```
cd "D:\Windows\Shortcuts\Documents\VS_Code\fhuor_text_game" mkdir build cd build cmake
-G "MinGW Makefiles" ..
```

This generates the necessary build files for your project.

5. Build and Run

Still inside the build folder:

```
cmake --build .. huor_text_game.exe
```

This compiles your code and runs the executable.

6. Common Errors

- "CMake Error: The source directory does not appear to contain CMakeLists.txt": Make sure CMakeLists.txt is in the project root, not in src.
- "cmake not recognized": CMake is not in PATH. Reinstall and check the PATH box during installation.
- "g++ not recognized": MinGW is not installed or not in PATH.

7. Rebuilding

After making changes to your code, you only need to re-run: `cmake --build .` Then execute the program again: `.\huor_text_game.exe`

■ Summary

1. Place CMakeLists.txt in your project root.
2. Open PowerShell → navigate to project folder.
3. Run: `mkdir build` `cd build` `cmake -G "MinGW Makefiles" ..` `cmake --build .`
4. Run your program: `.\huor_text_game.exe`