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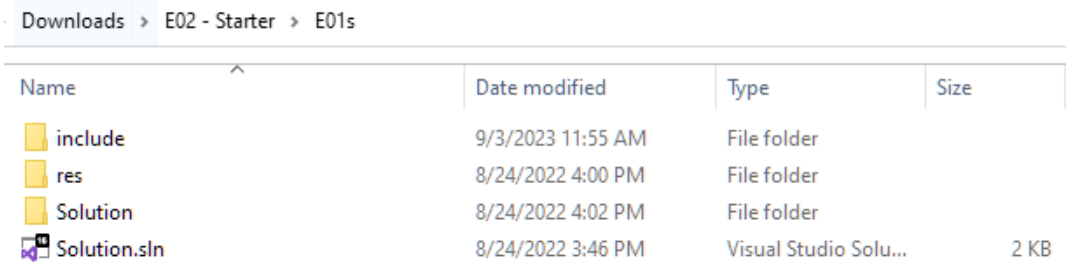
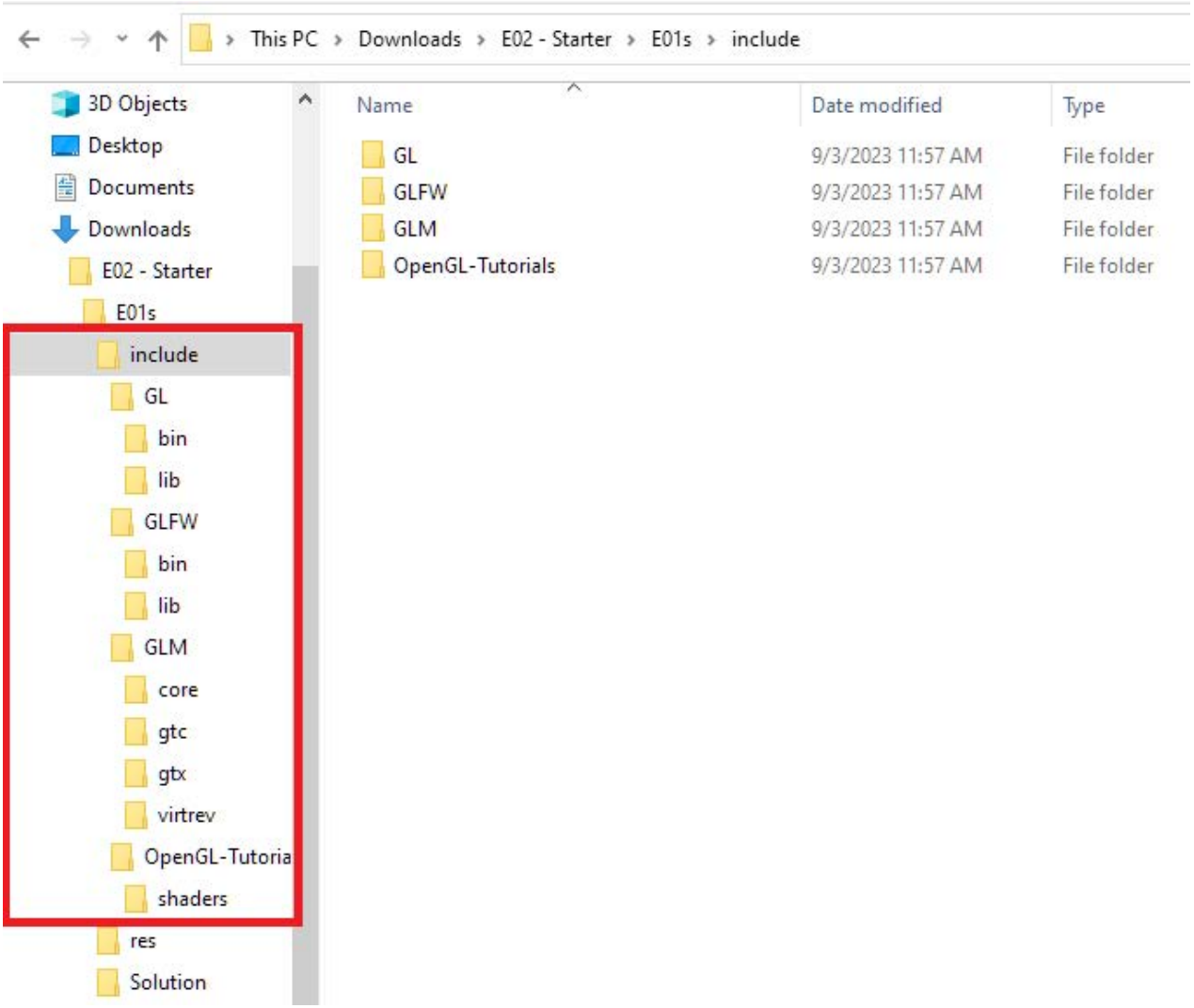
Data Structures & Algorithms for Games & Simulation II
IGME 309
E02: Visual Studio 20 GLFW Configuration

0) The starter is the actual solution for E01 so feel free to use that as your starting point

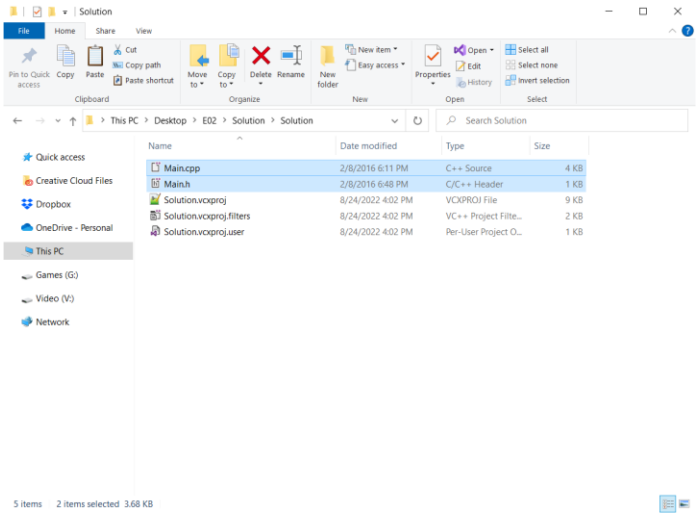
1) In the root of your solution create an include folder:



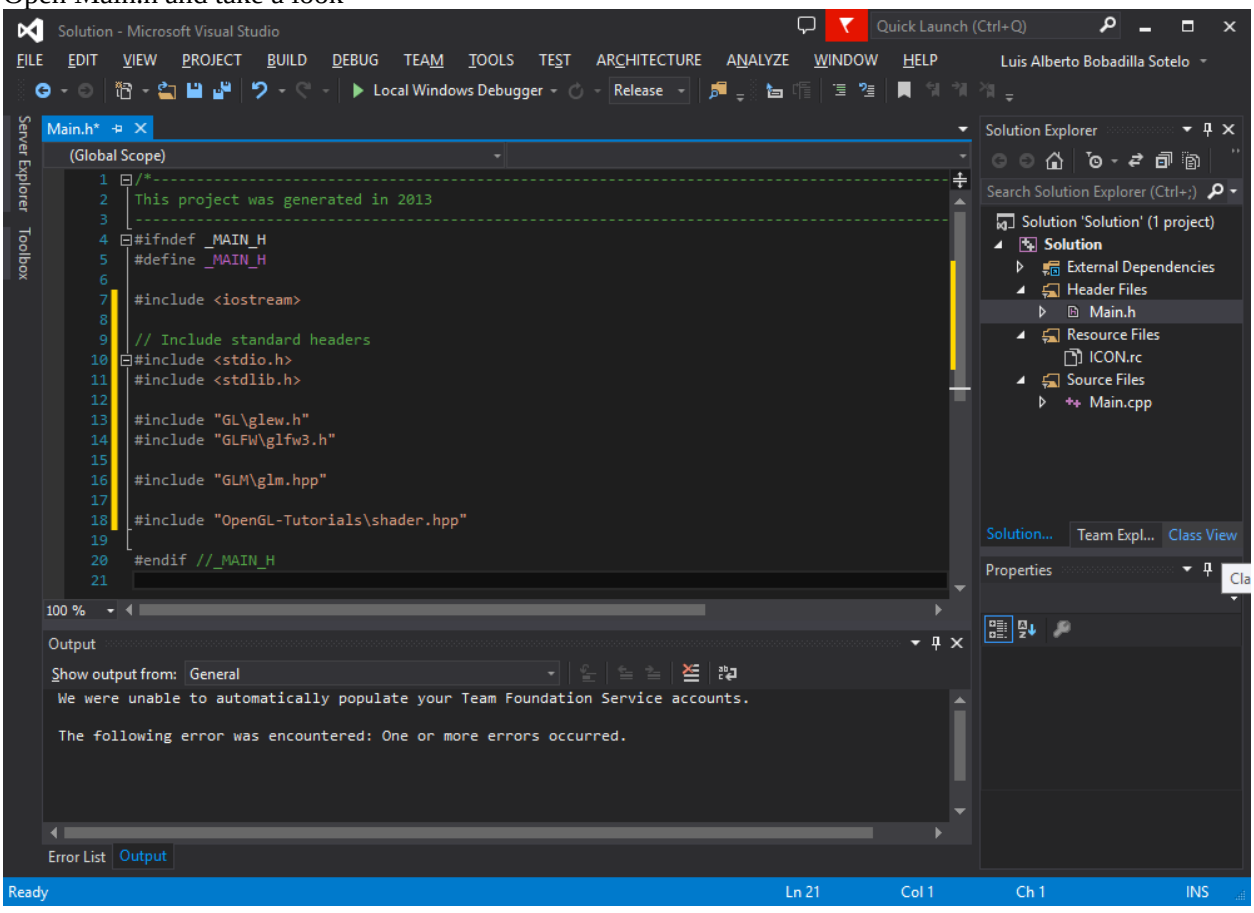
2) Inside of that folder unzip the provided library files in such a way they follow the folder structure on the left:



3) Replace Main.Cpp and Main.h with the provided ones:

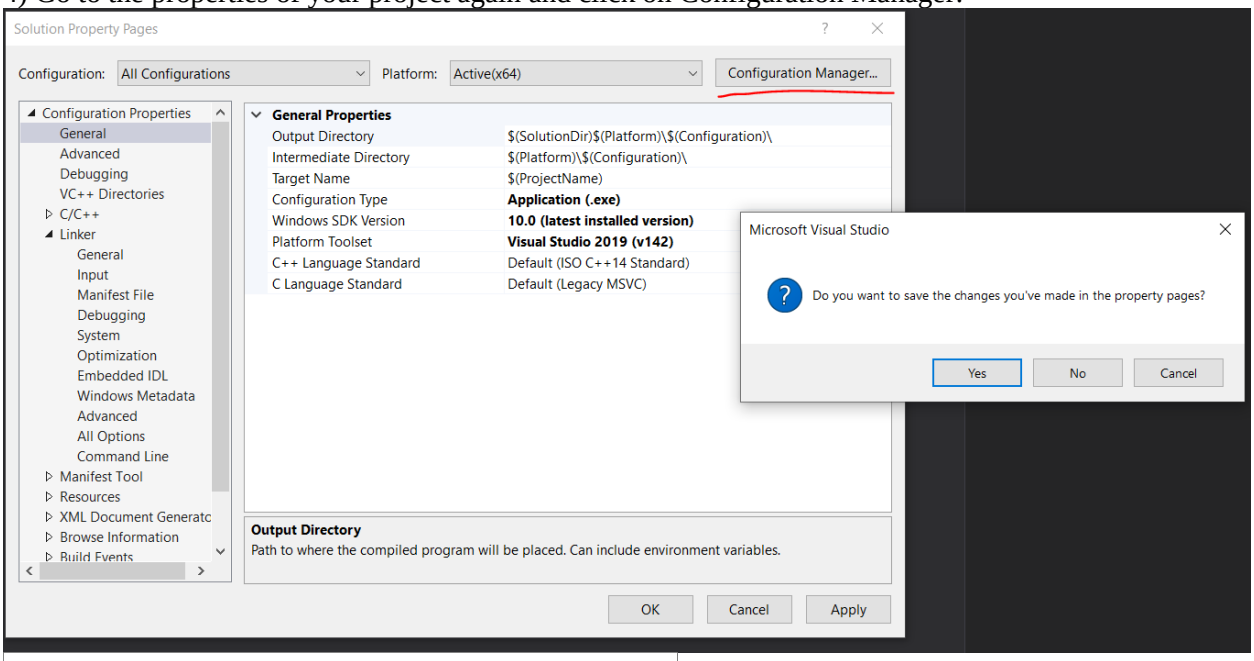


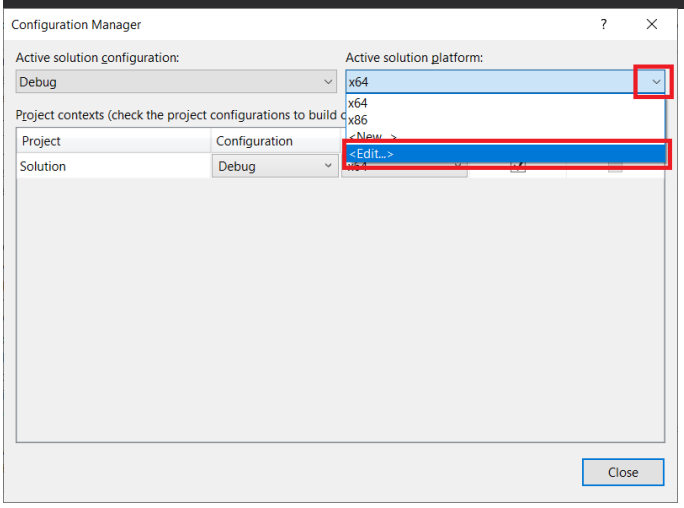
Open Main.h and take a look



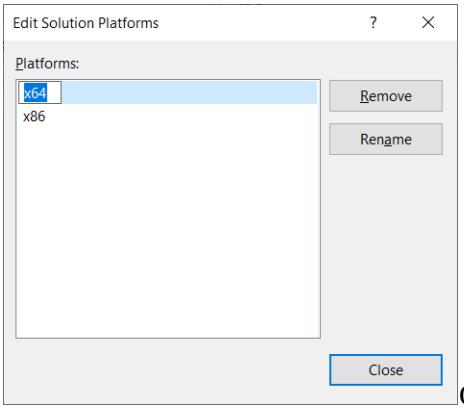
With this you are telling the compiler to look for these libraries, the issue is they are relative routes right now, and the compiler ignores the real location of these files, we will fix that next.

4) Go to the properties of your project again and click on Configuration Manager:





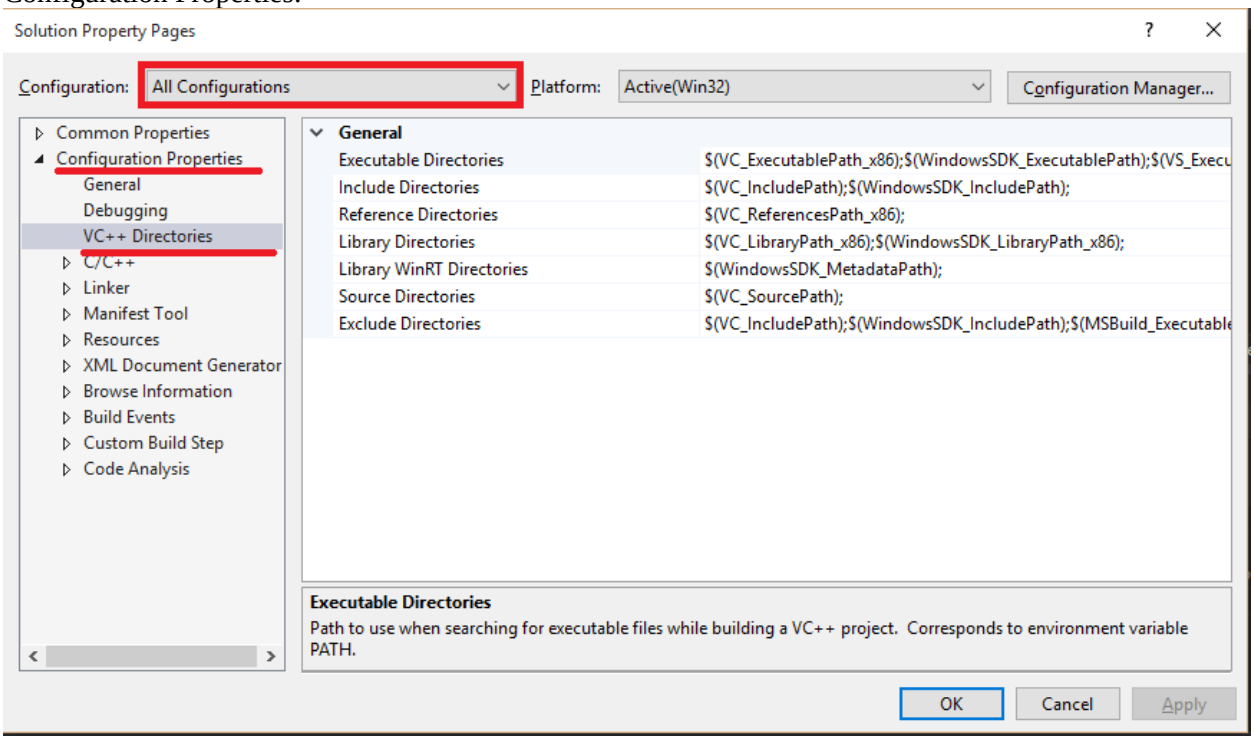
Click on the dropdown and look for edit.



Click on X64 and Remove it. Then close (twice)

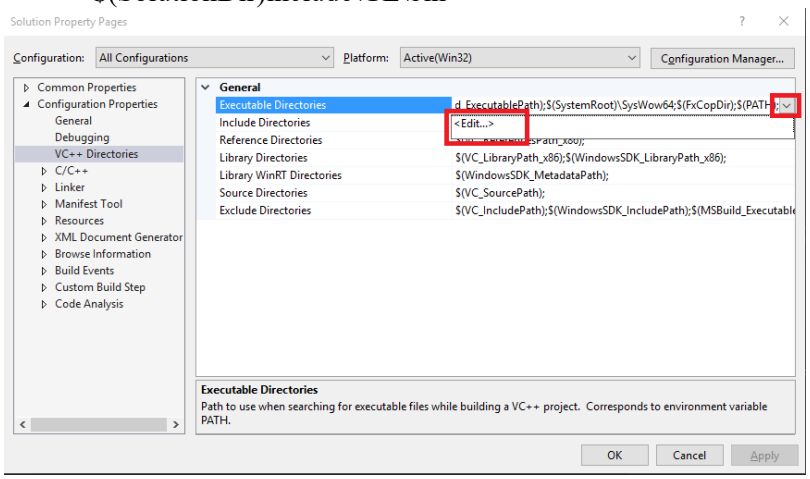
What is going on here is that VS can compile for Windows 32bits (X86) or Windows 64bits, the problem is that the libraries that we are using are only compiled for windows 32bits so this will make sure that all the changes we do are in the right configuration.

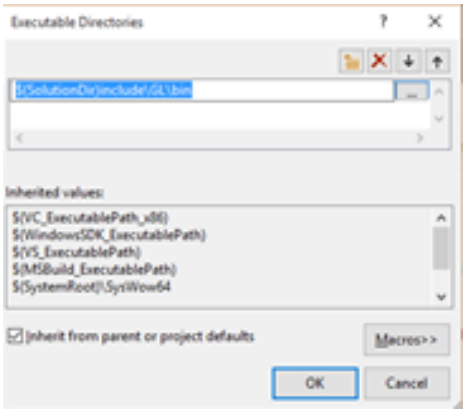
5) (make sure you are under “all configurations” settings) and look for the option VC++ Directories under Configuration Properties:



a) making sure you edit the properties and not just pasting these addresses (using the arrows) add the following folders:

$(SolutionDir)include\GL\bin

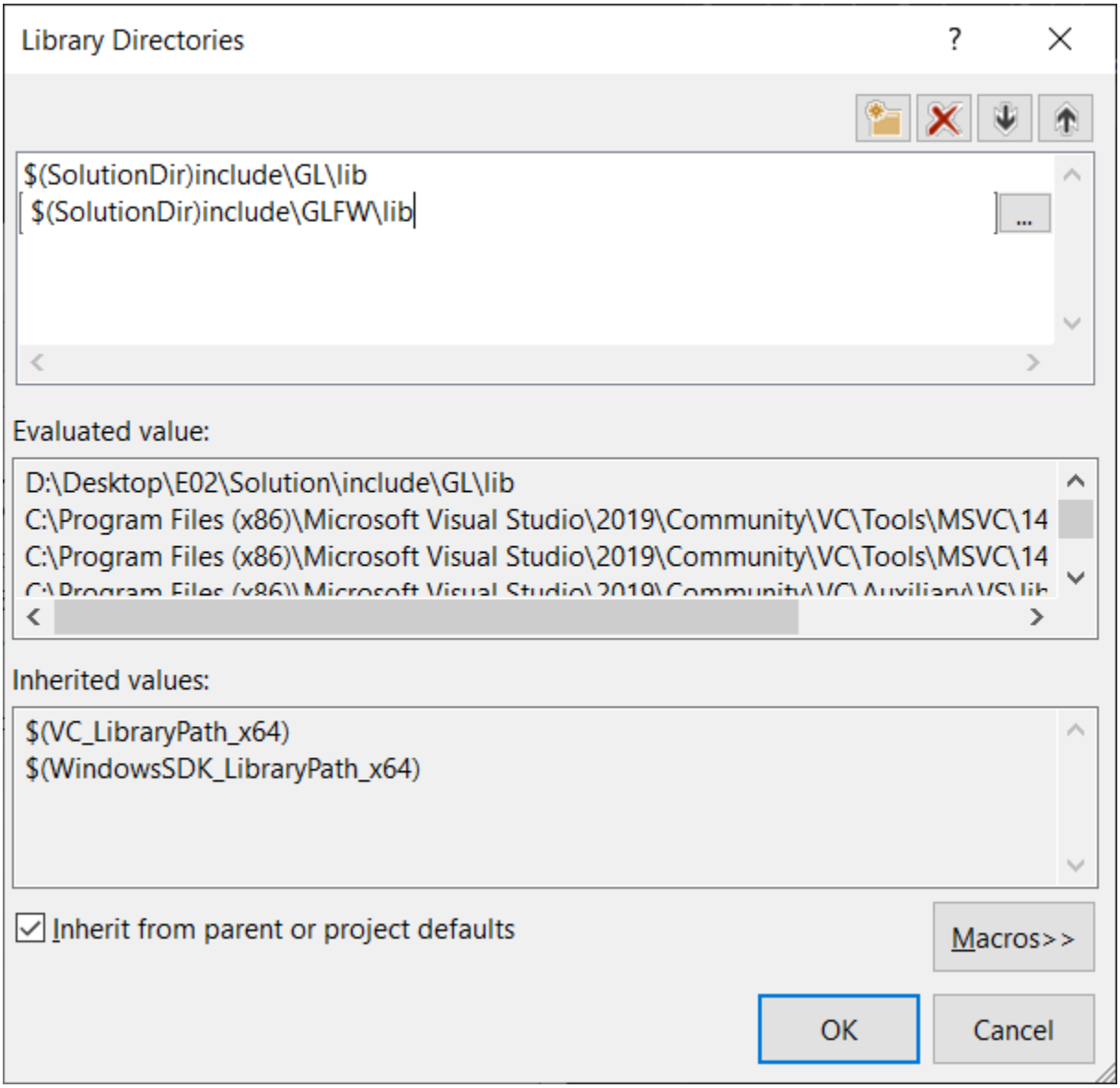




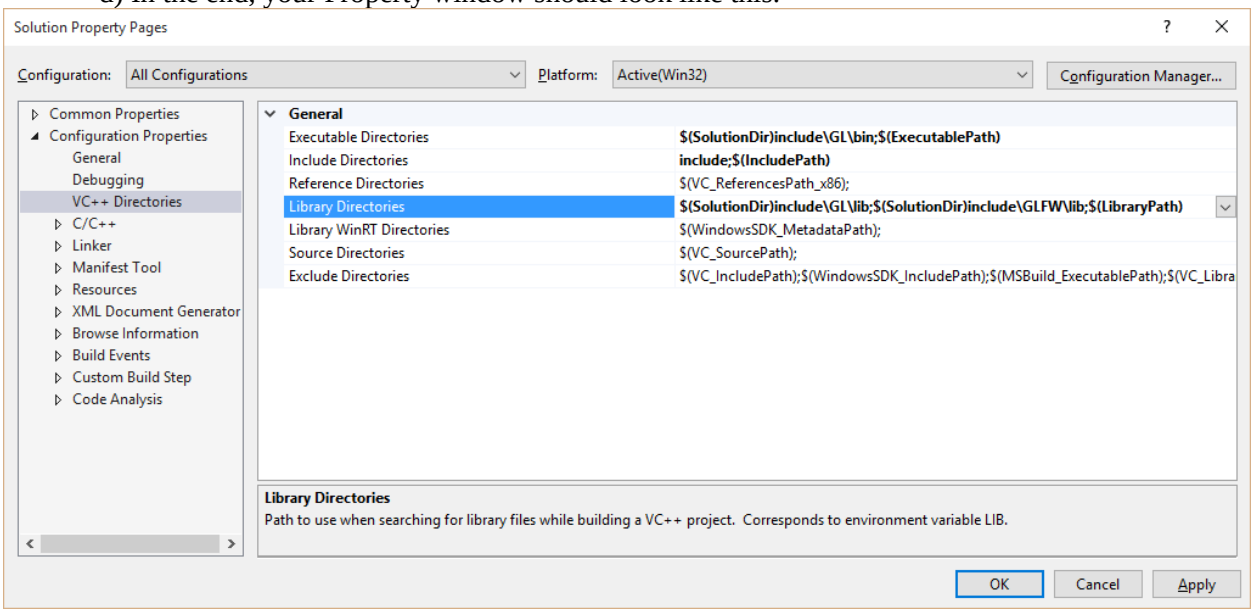
b) Do the same for Include directories but add the following instead:
include

c) For Library directories add:

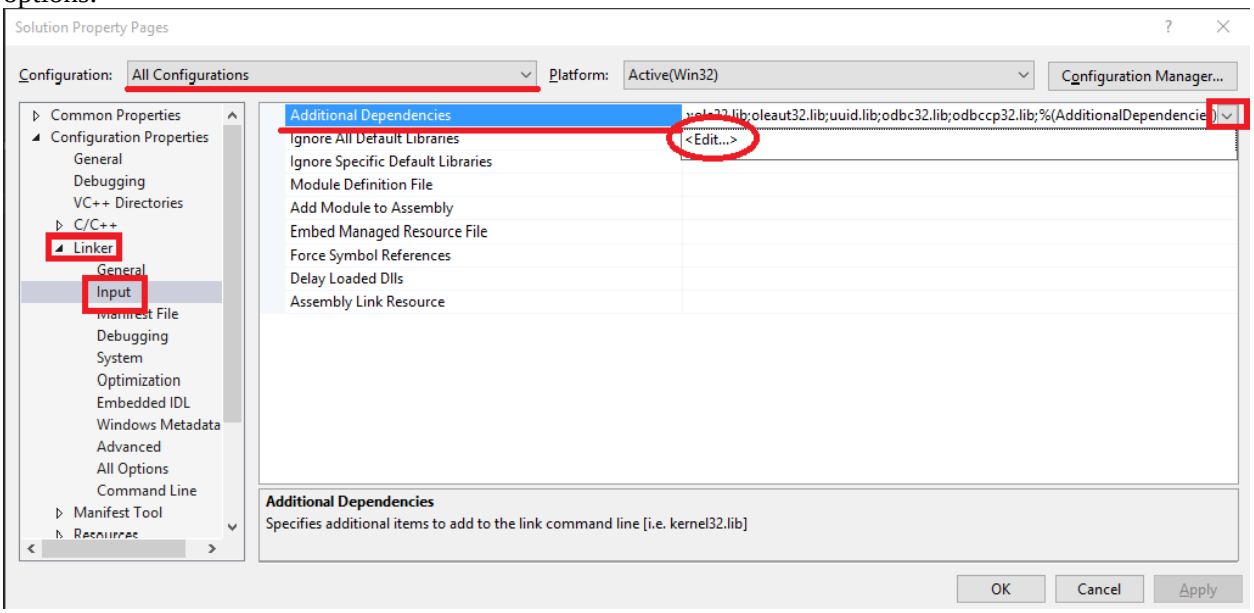
$(SolutionDir)include\GL\lib
$(SolutionDir)include\GLFW\lib


Library Directories
?
$(SolutionDir)include\GL\lib
$(SolutionDir)include\GLFW\lib
...
Evaluated value:
D:\Desktop\E02\Solution\include\GL\lib
C:\Program Files (x86)\Microsoft Visual Studio\2019\Community\VC\Tools\MSVC\14
C:\Program Files (x86)\Microsoft Visual Studio\2019\Community\VC\Tools\MSVC\14
Inherited values:
$(VC_LibraryPath_x64)
$(WindowsSDK_LibraryPath_x64)
Inherit from parent or project defaults
Macros>>
OK
Cancel

d) In the end, your Property window should look like this:

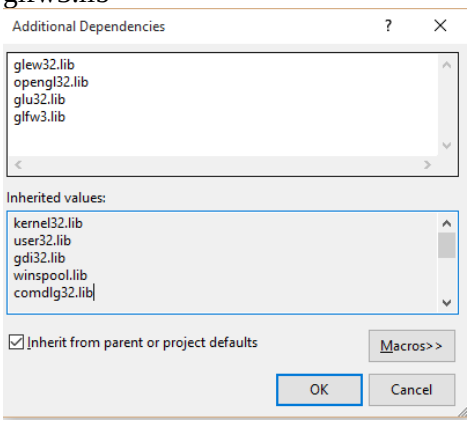


6) Under “Additional Dependencies” in Linker Input click on the arrow so you have access to the edit options.

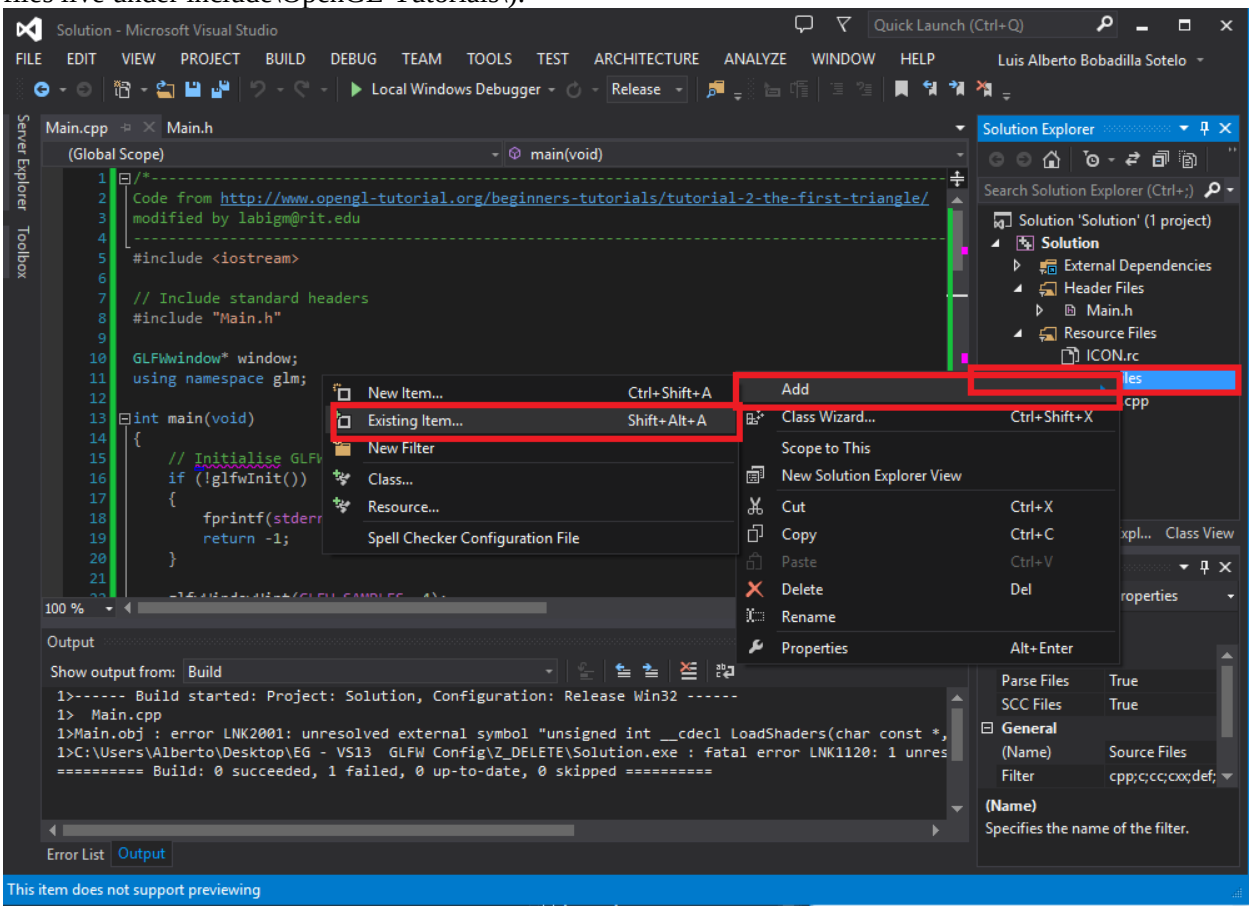


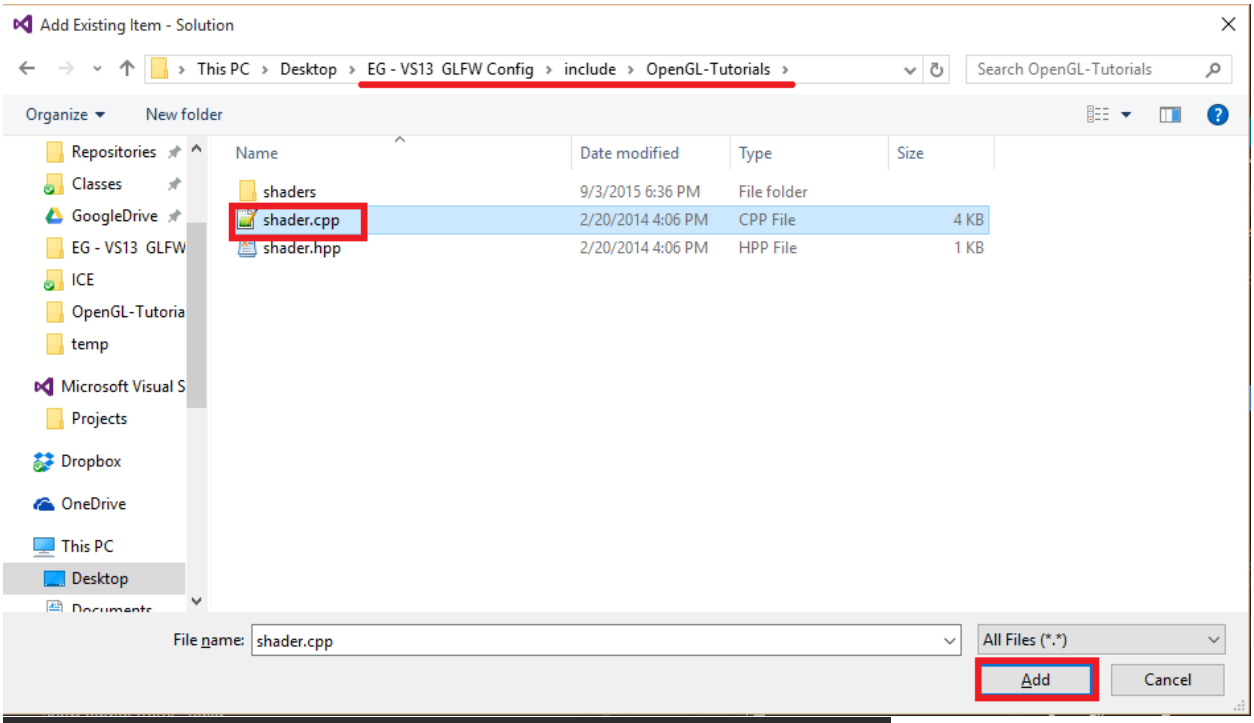
Insert the following dependencies:

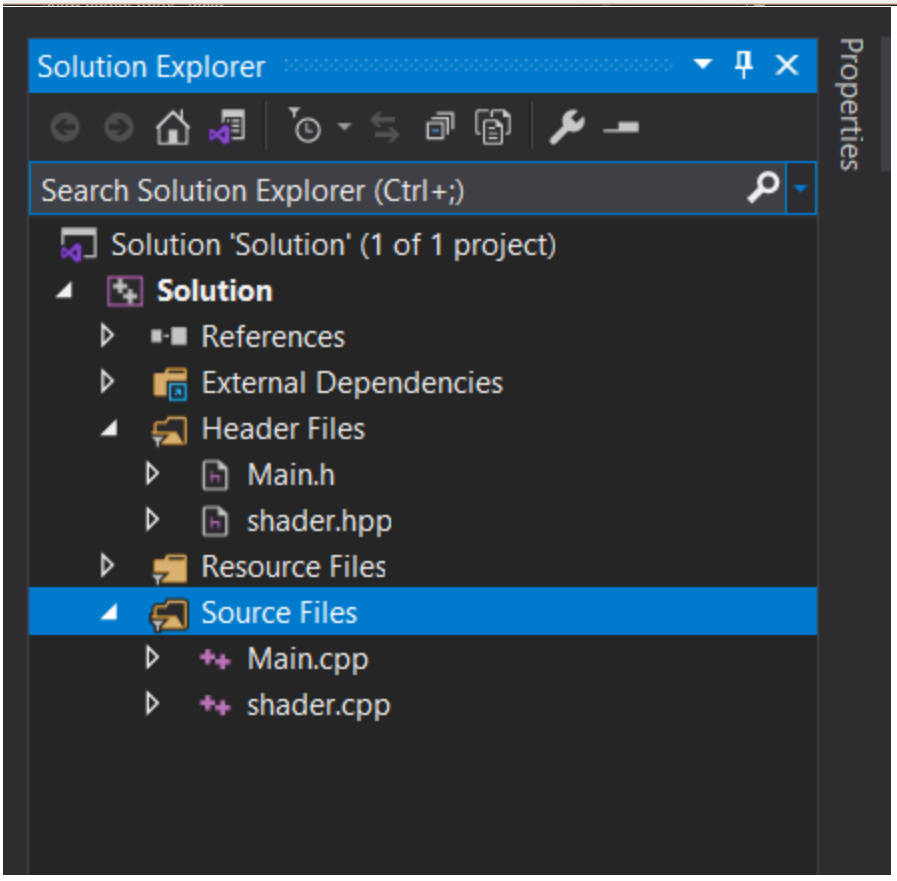
glew32.lib
opengl32.lib
glu32.lib
glfw3.lib



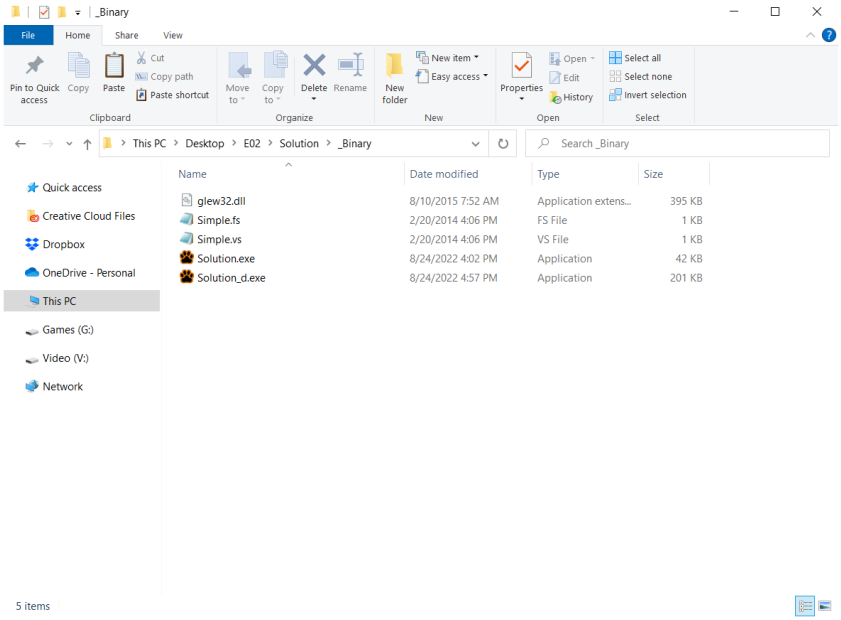
7) Include the files shader.cpp to your “source files” folder and the shader.hpp to your “header files” (the files live under include\OpenGL-Tutorials\):



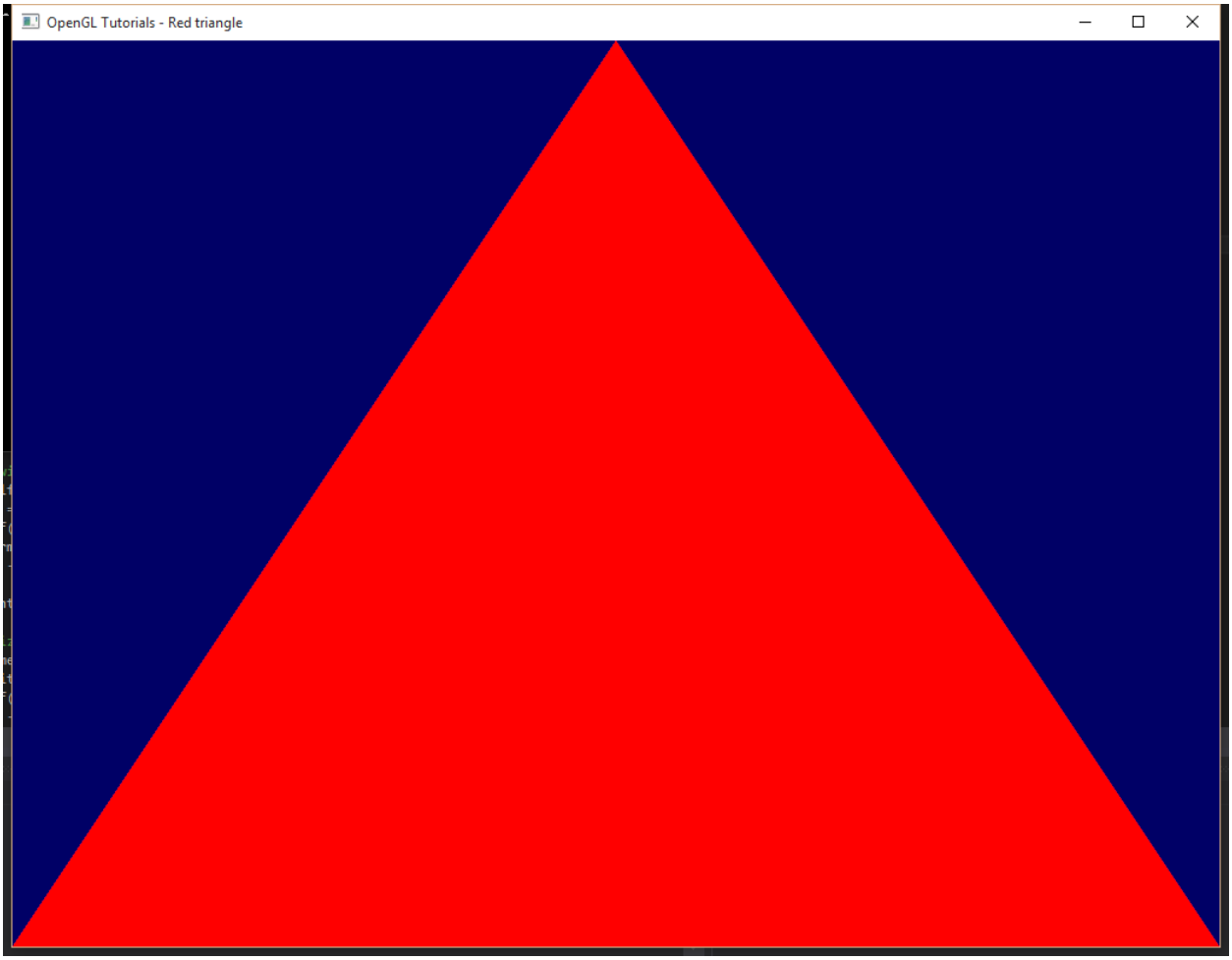

Add Existing Item - Solution
This PC › Desktop › EG - VS13 GLFW Config › include › OpenGL-Tutorials ›
Search OpenGL-Tutorials
Organize
New folder
Repositories
Classes
GoogleDrive
EG - VS13 GLFW
ICE
OpenGL-Tutoria
temp
Microsoft Visual S
Projects
Dropbox
OneDrive
This PC
Desktop
Name
Date modified
Type
Size
shaders
9/3/2015 6:36 PM
File folder
shader.cpp
2/20/2014 4:06 PM
CPP File
4 KB
shader.hpp
2/20/2014 4:06 PM
HPP File
1 KB
File name: shader.cpp
All Files (*.*)
Add
Cancel


Solution Explorer
Search Solution Explorer (Ctrl+;)
Solution 'Solution' (1 of 1 project)
Solution
References
External Dependencies
Header Files
Main.h
shader.hpp
Resource Files
Source Files
Main.cpp
shader.cpp
Properties

8) Copy Simple.fs and Simple.vs from Include\OpenGL-Tutorials\Shaders to _Binary
Also copy glew32.dll from Include\GL\bin to _Binary as well



9) Run the program. If it doesn't work, recheck your work for the steps above. If it runs, it should look like this:



10) Remove the hidden .vs folder and the intermediary Z_Delete folder and zip your folder.

NOTE: This configuration will only work for an x86 solution, you can apply the same changes to a 64 solution but the corresponding libs and dlls are needed (I only provided 86 versions)