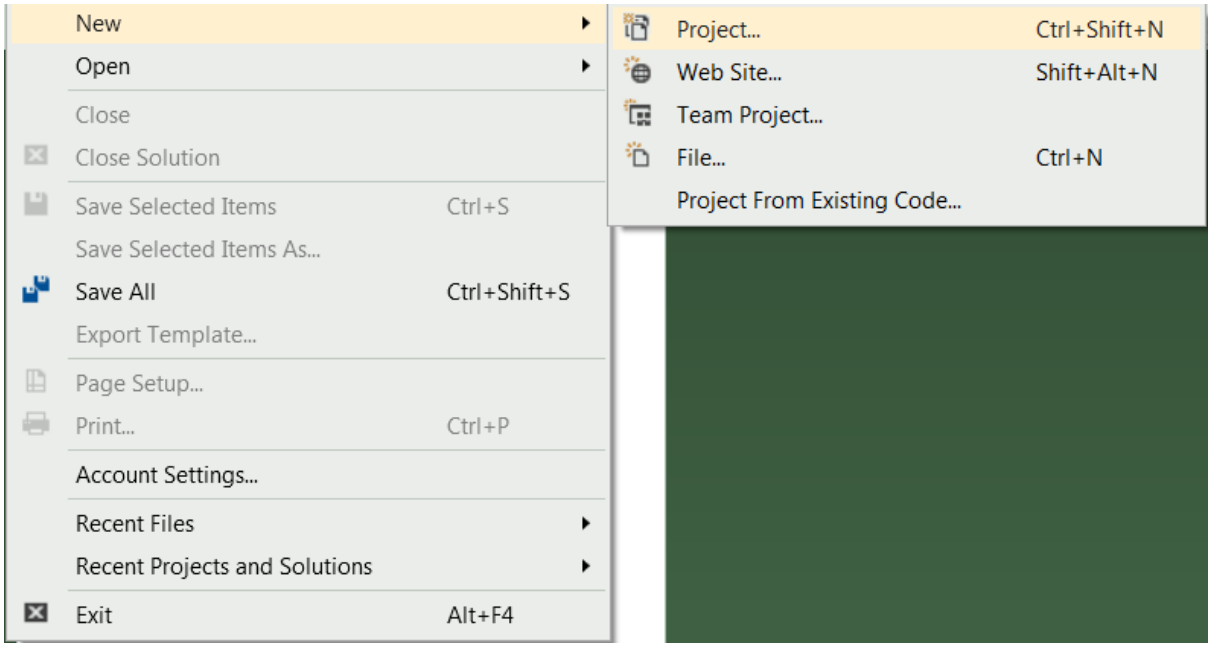
Creating and Configuring a C++ and OpenGL project

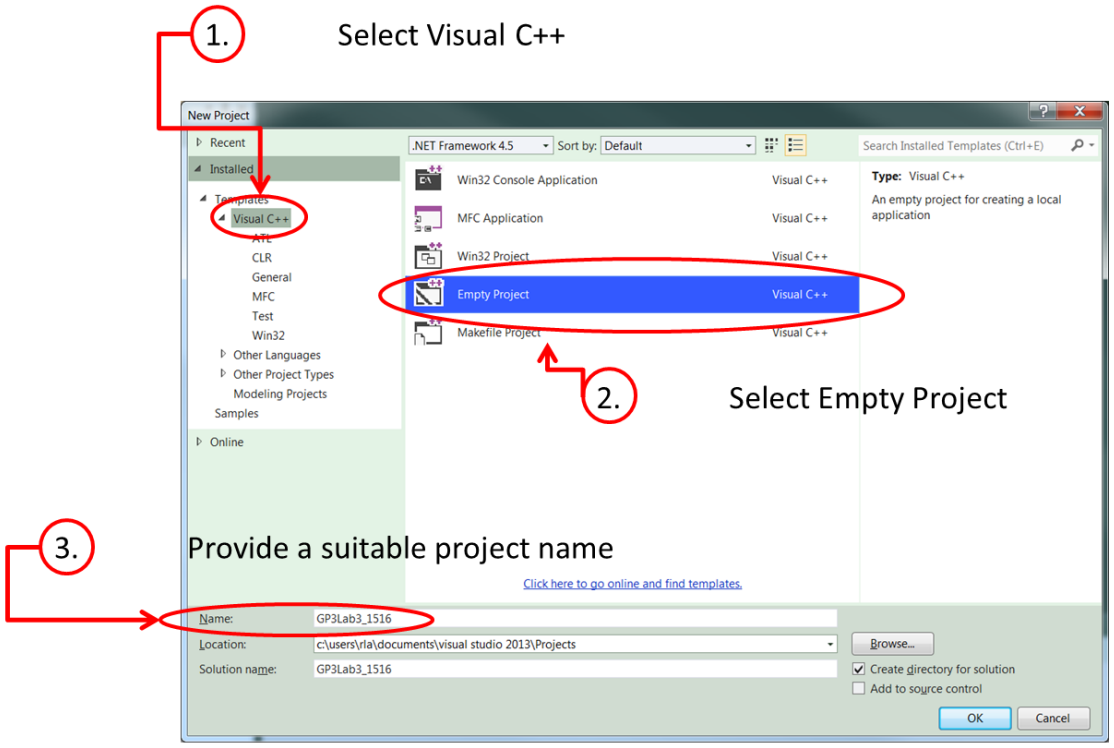
Step 1: Create a new project

It is advisable to create a new project for each lab. To create a new project follow the instructions listed below.

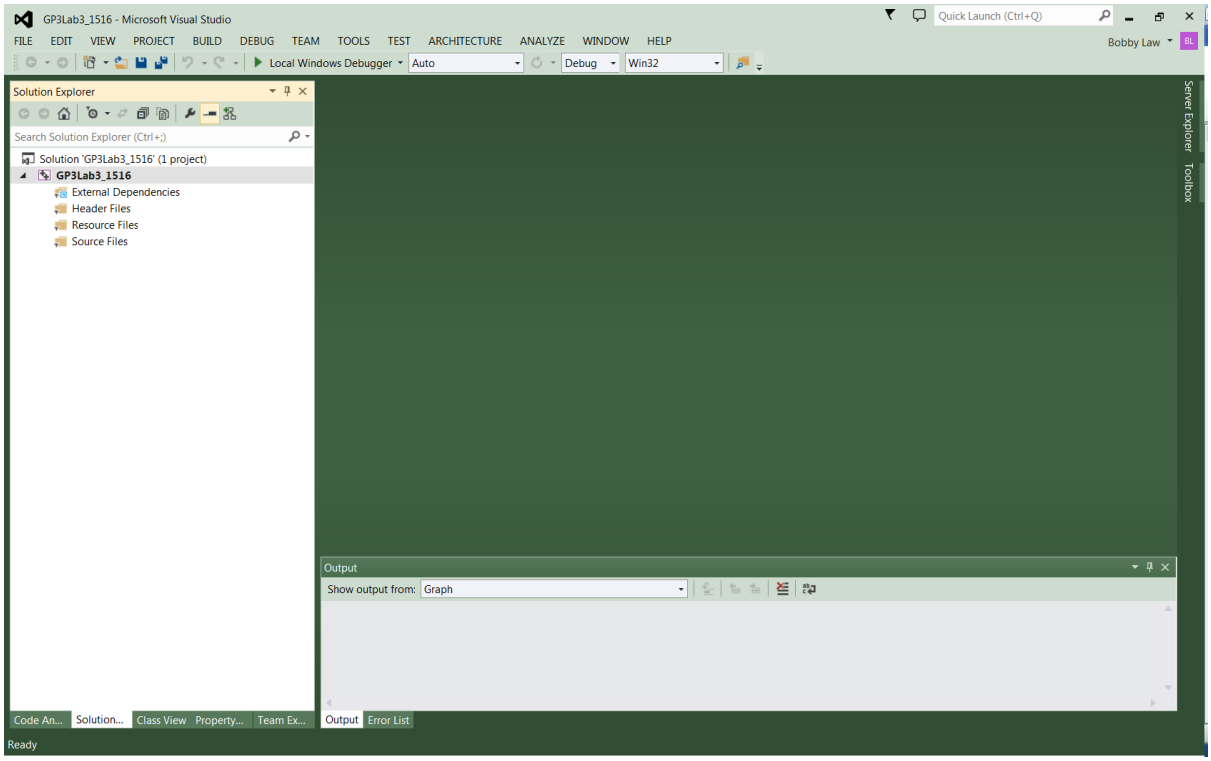
File -> New -> Project



From the dialogue box select **Visual C++** from the *left hand pane*, from the *centre pane* select **Empty project** and in the *name* box provide a **sensible name** for the project.



Visual Studio should now resemble the screenshot below.

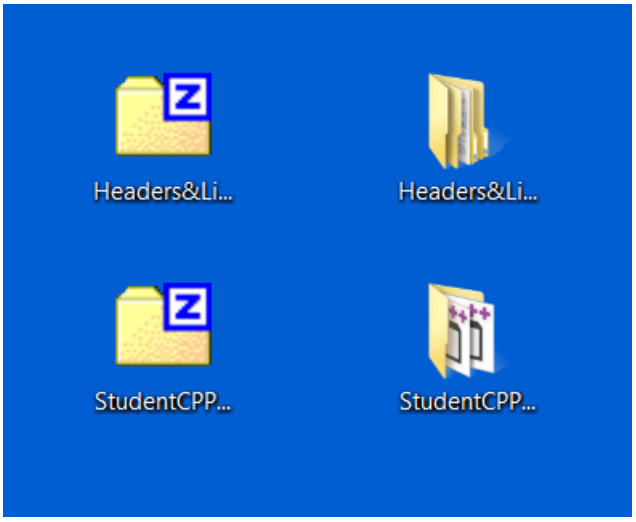


Depending on your chosen layout the **Solution Explorer** *may appear* on the *opposite* side.

Step 2: Add lab project files

This is a ***very*** **important** step and should be followed ***exactly*** or you will encounter problems.

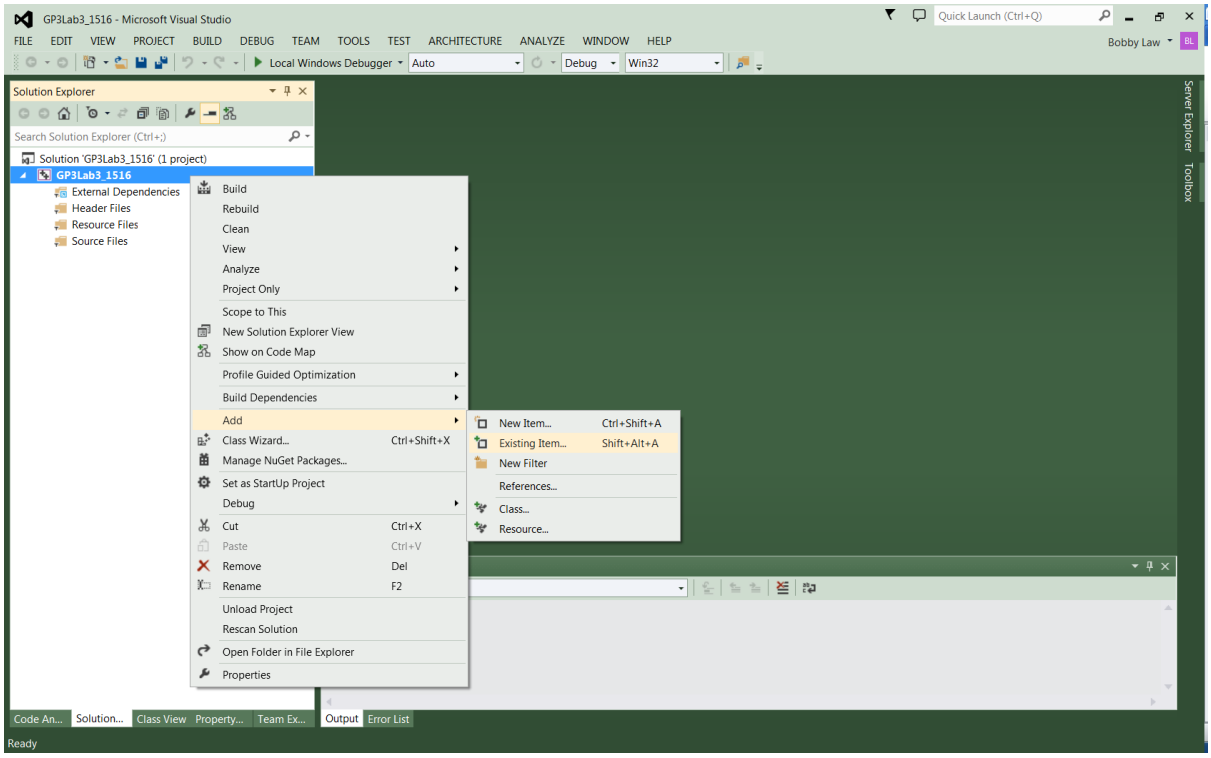
Download all lab files supplied to the desktop. Unzip the files into suitably named folders. See example screenshot below.



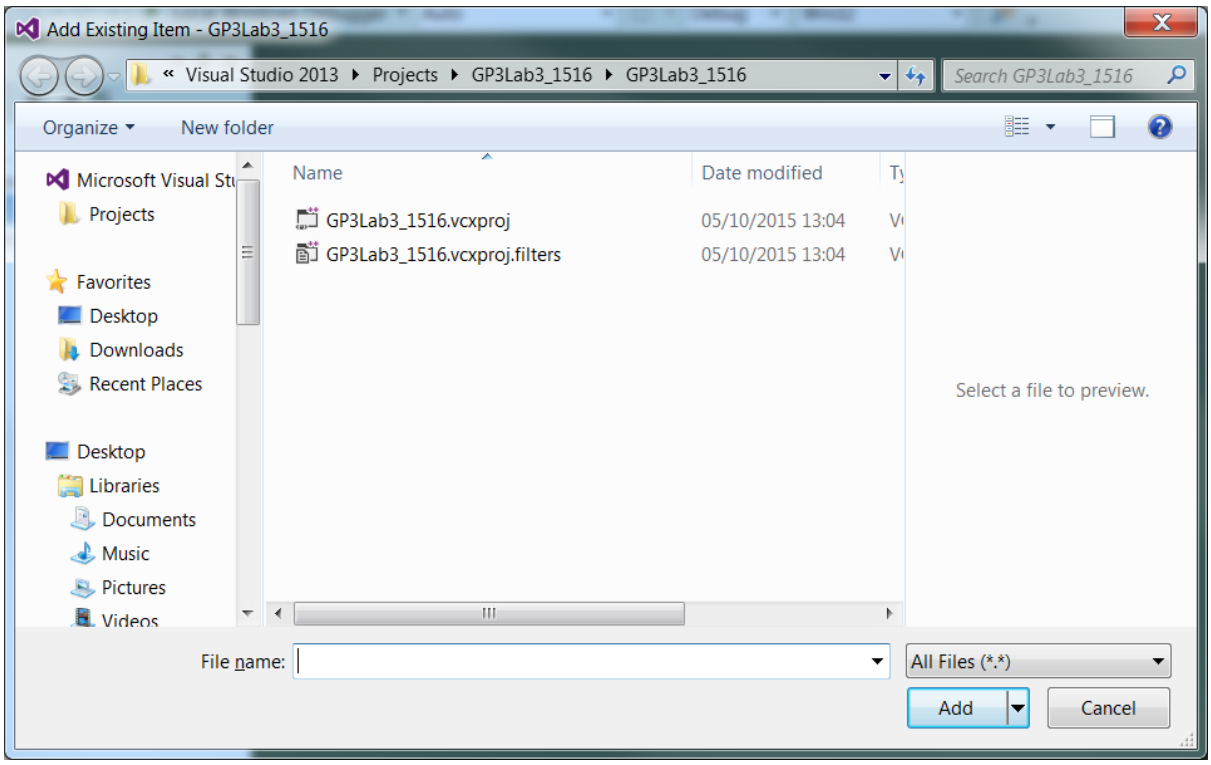
Open the folders in preparation for copying the contents of each folder.

Return to Visual Studio. Firstly add the CPP and Header files by following the process outlined below.

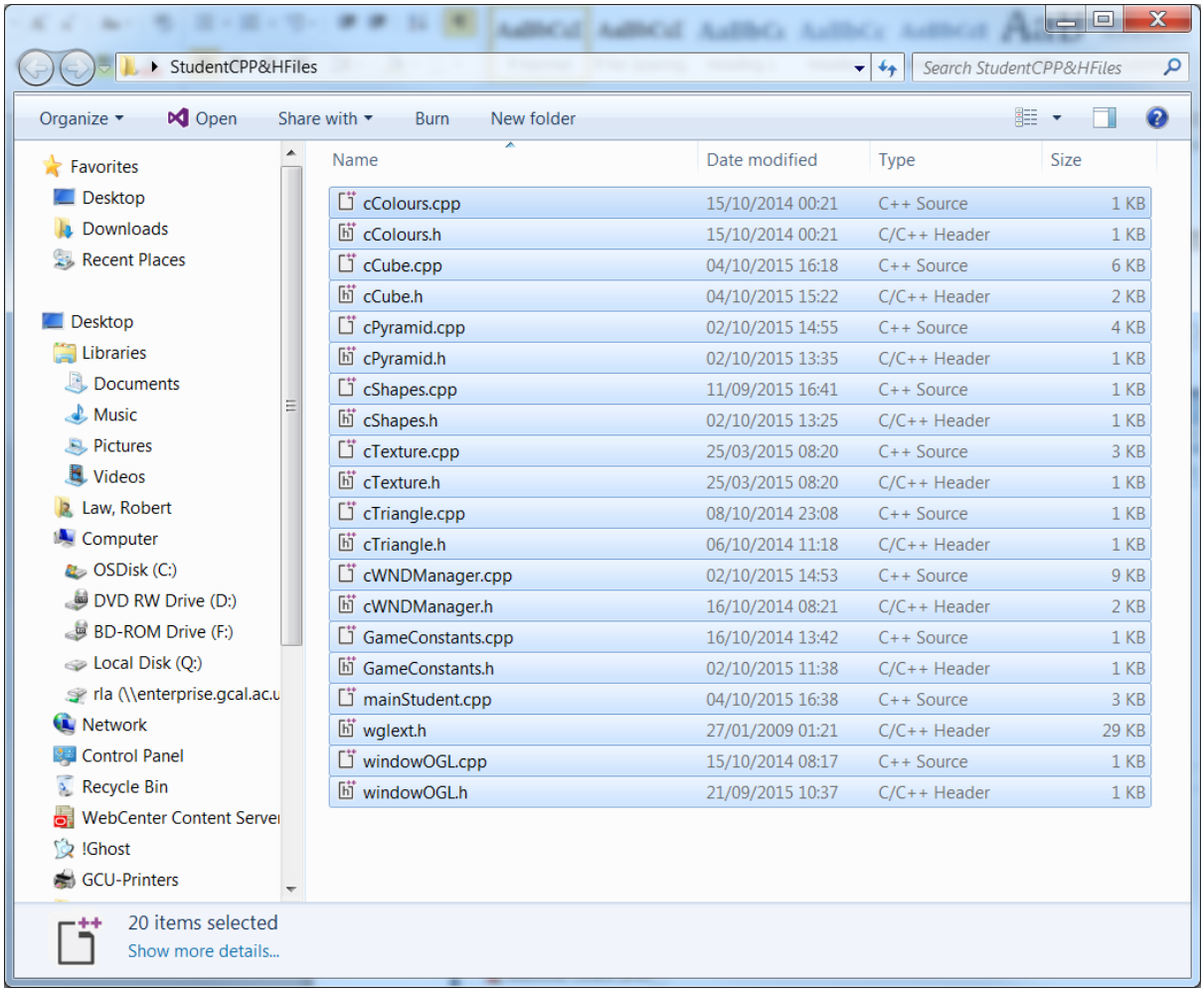
Right click on the *project name*, select **Add** from the *menu* and *then* select **Existing Item**. See screenshot below/next page.



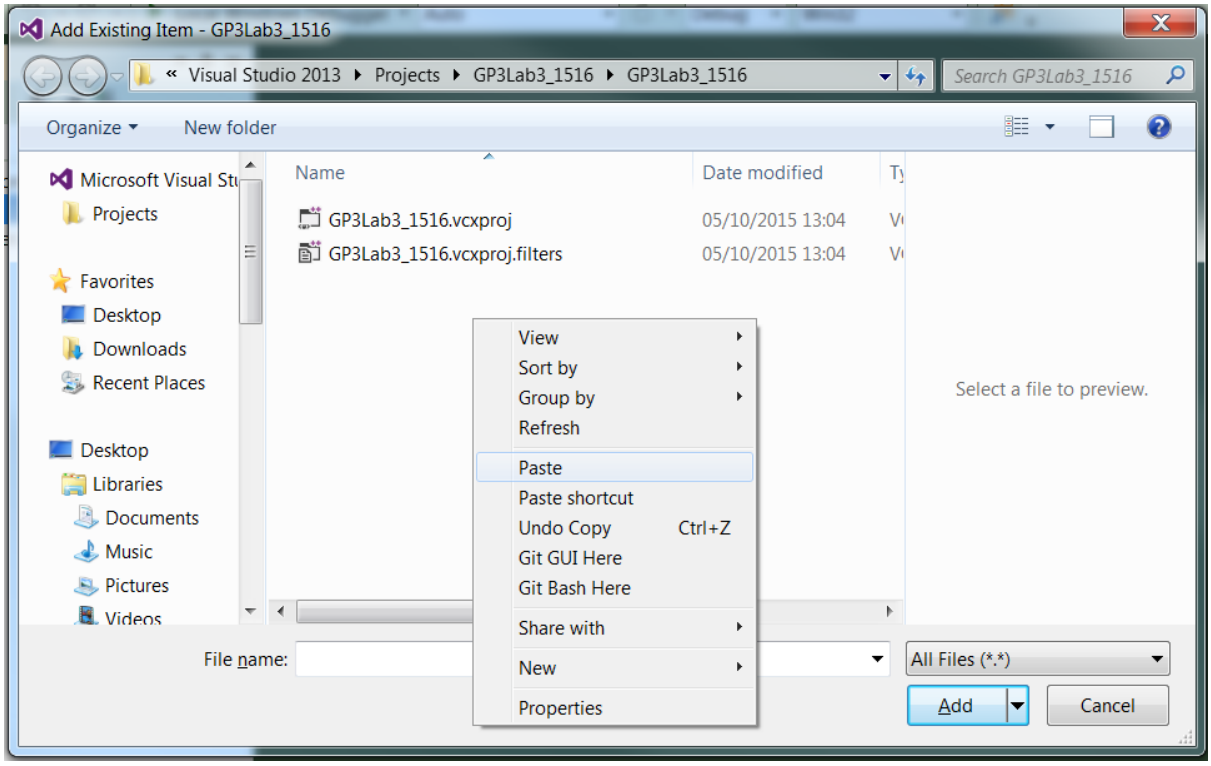
The following dialogue box should now appear.

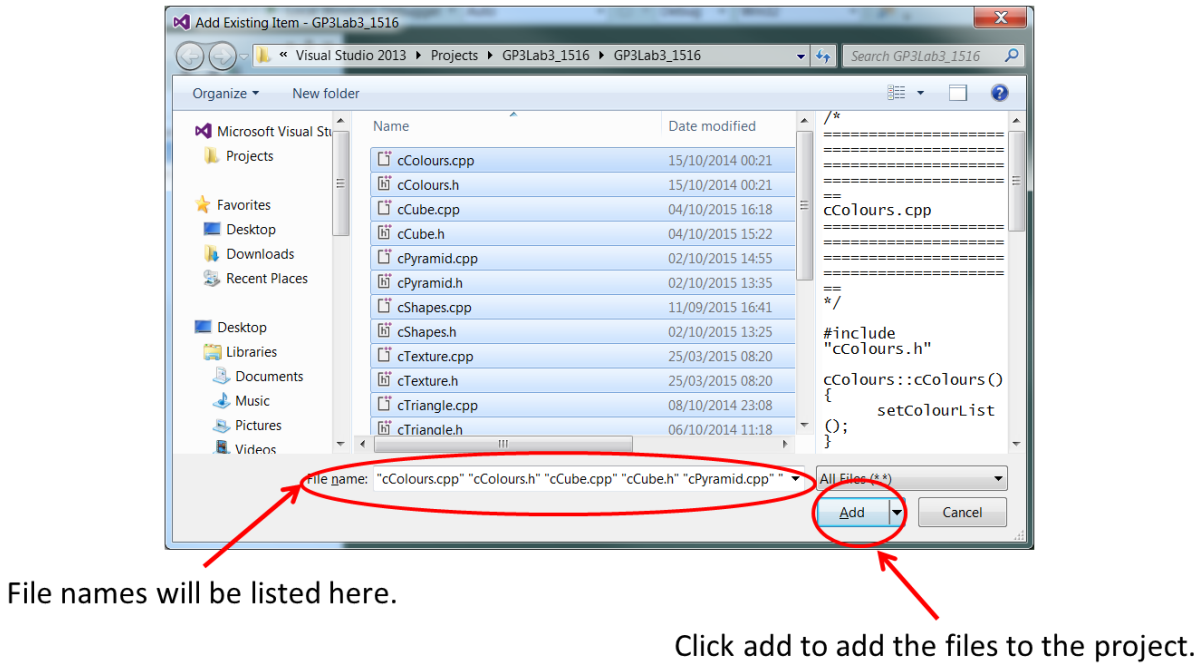


Return to the desktop and **select** and **copy *all*** the files in the folder containing the cpp & header files. See screen shot below.

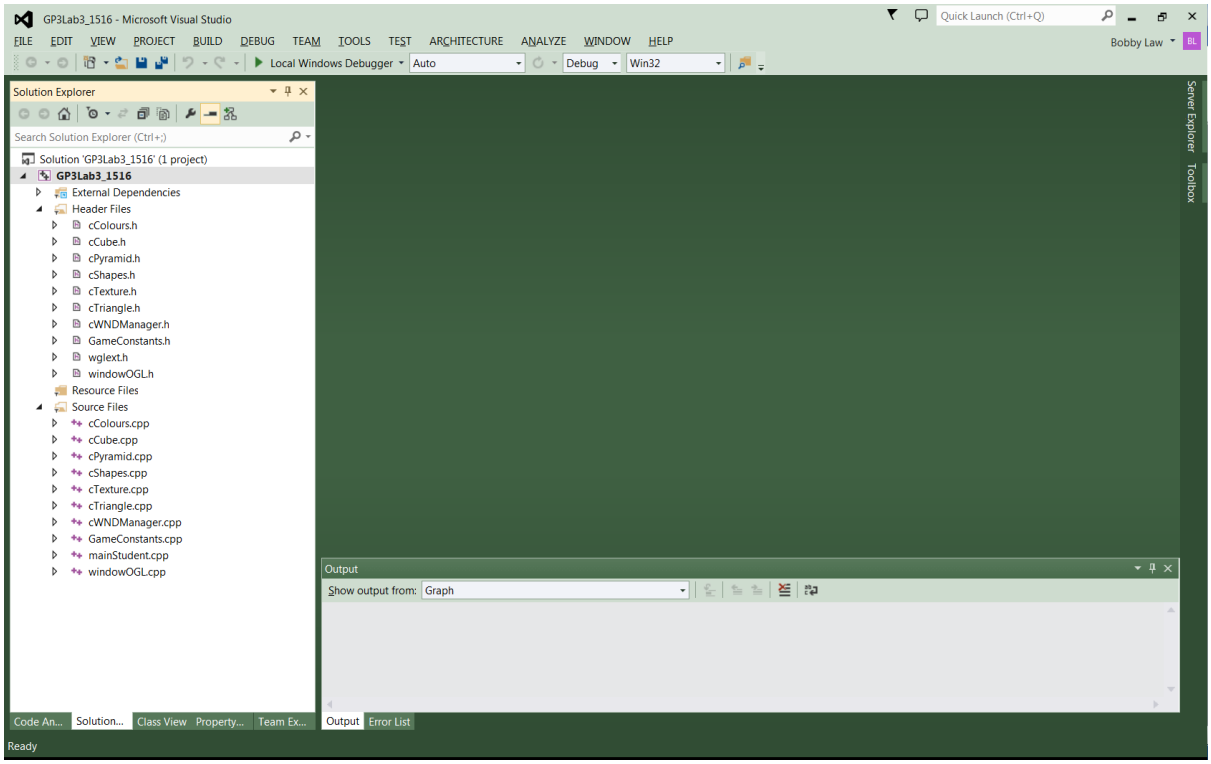


Return to Visual Studio, right click within the white area of the centre pane and paste the copied files. See screenshots below.



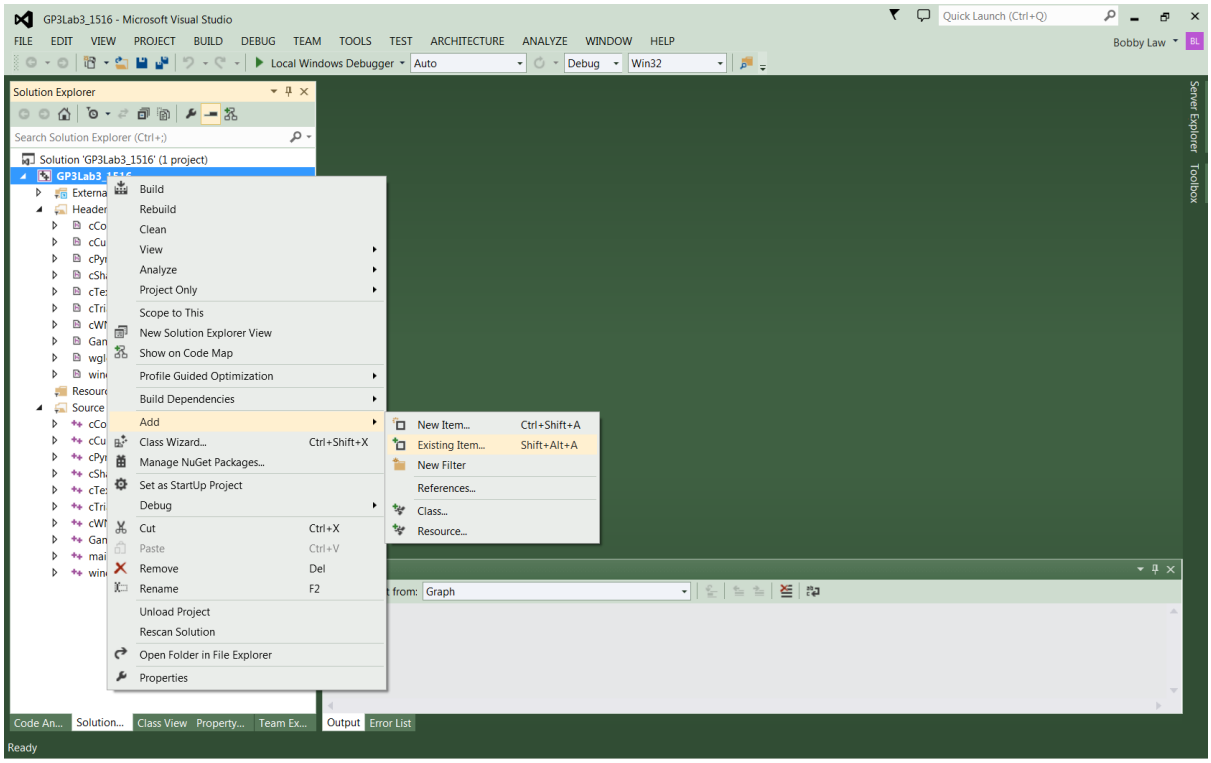


Clicking the add button will add the files to the project. Visual Studio should now look like the screenshot below.

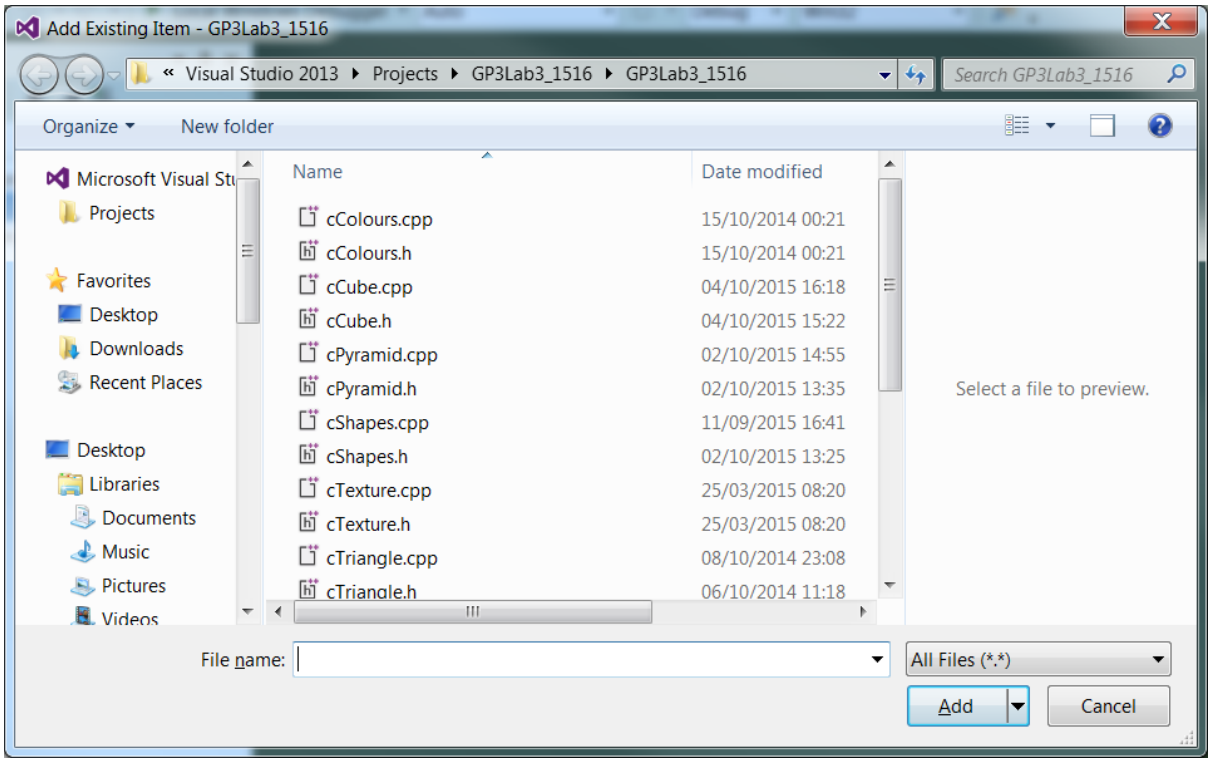


Step two requires the folders to be placed in the correct area of the project. The easiest way to do this is to follow the same add procedure as above but without clicking the Add button. The steps are detailed below.

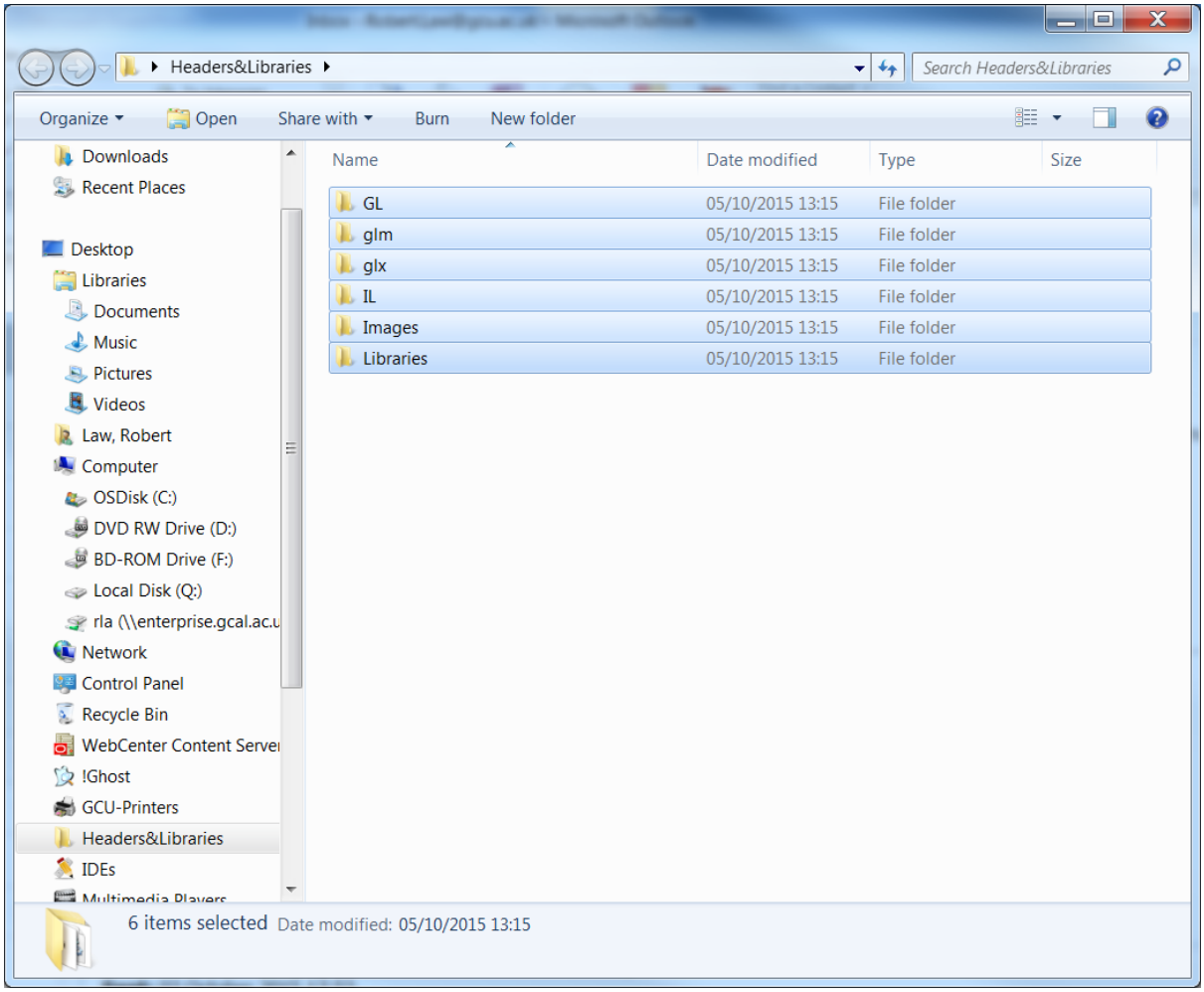
Right click on the *project name*, select **Add** from the *menu* and *then* select **Existing Item**. See screenshot below/next page.



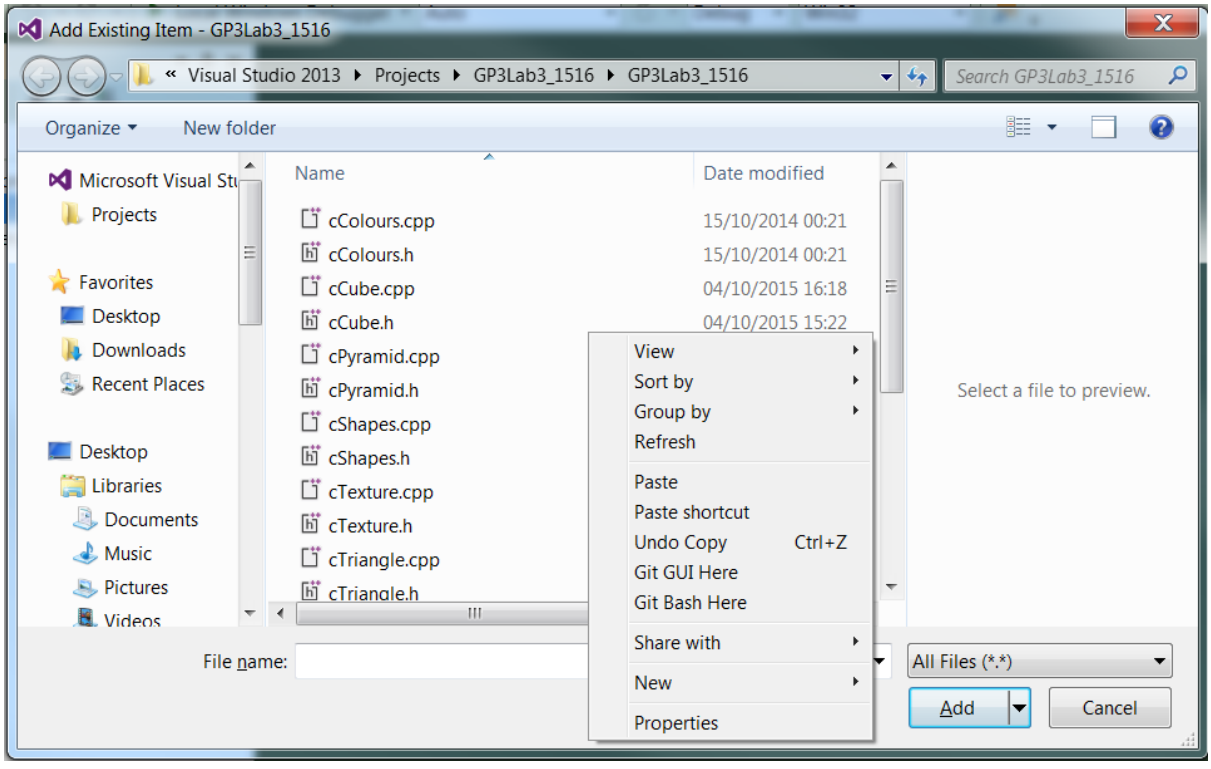
The following dialogue box should now appear.

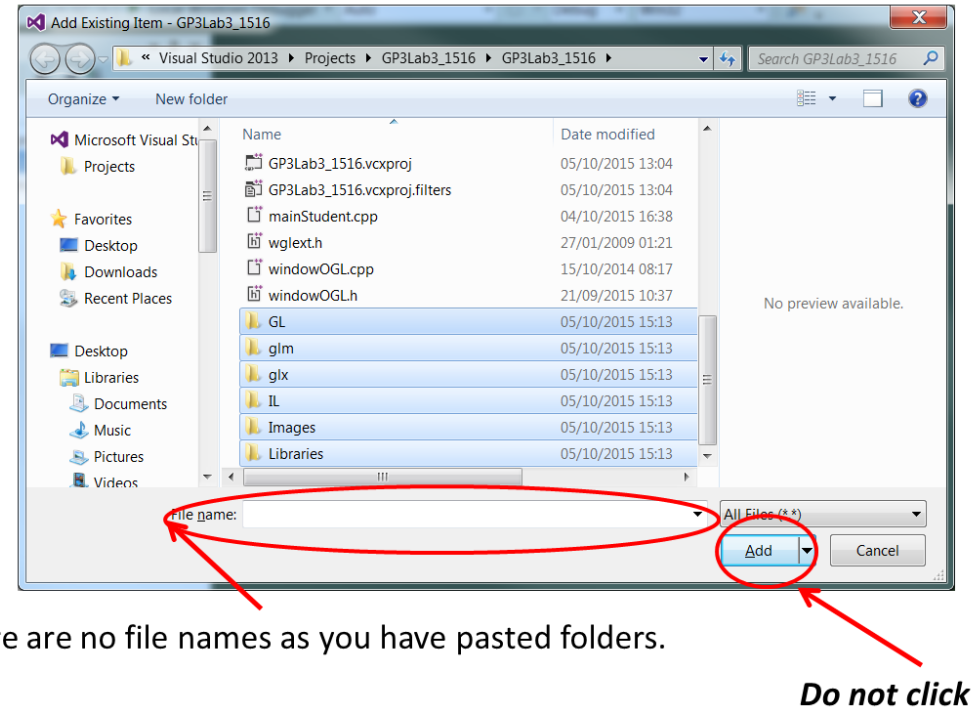


Return to the desktop and **select** and **copy *all*** the folders in the folder containing Libraries, Images, GL etc. See screen shot below.

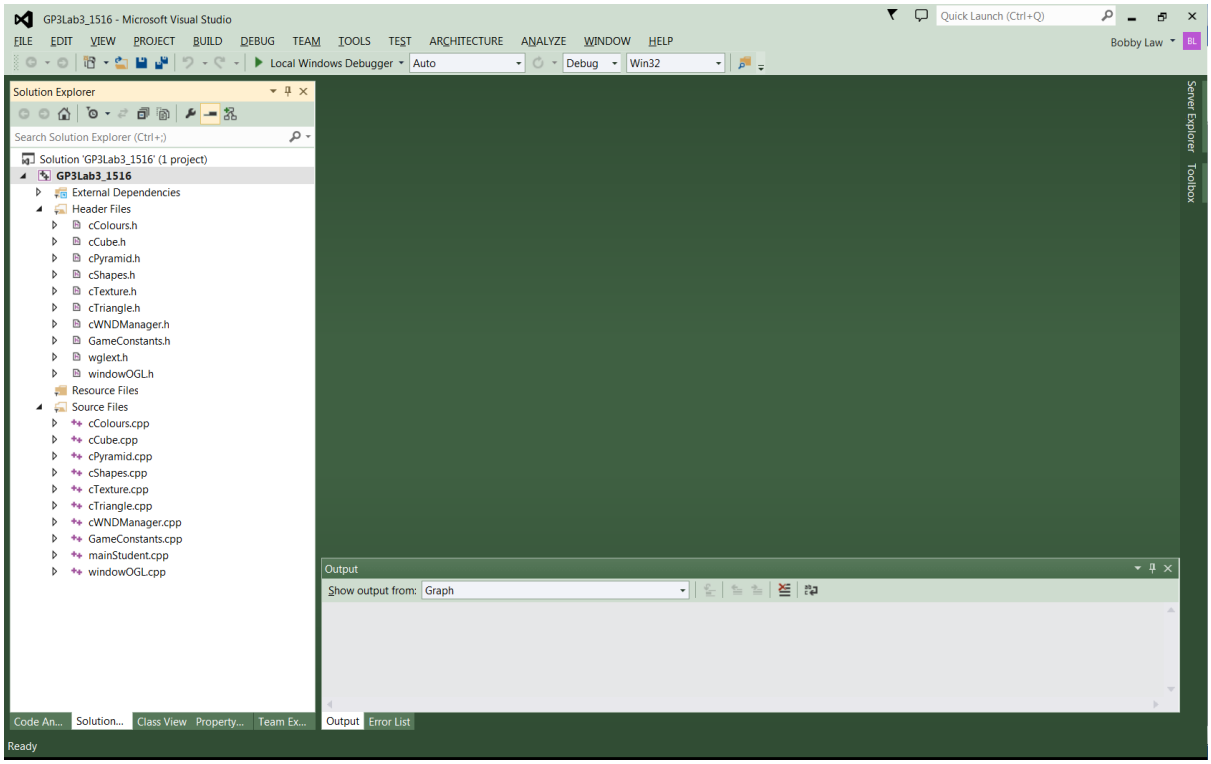


Return to Visual Studio, right click within the white area of the centre pane and paste the copied files. See screenshots below.





Do not click the **add** button. Visual Studio should now look like the screenshot below.

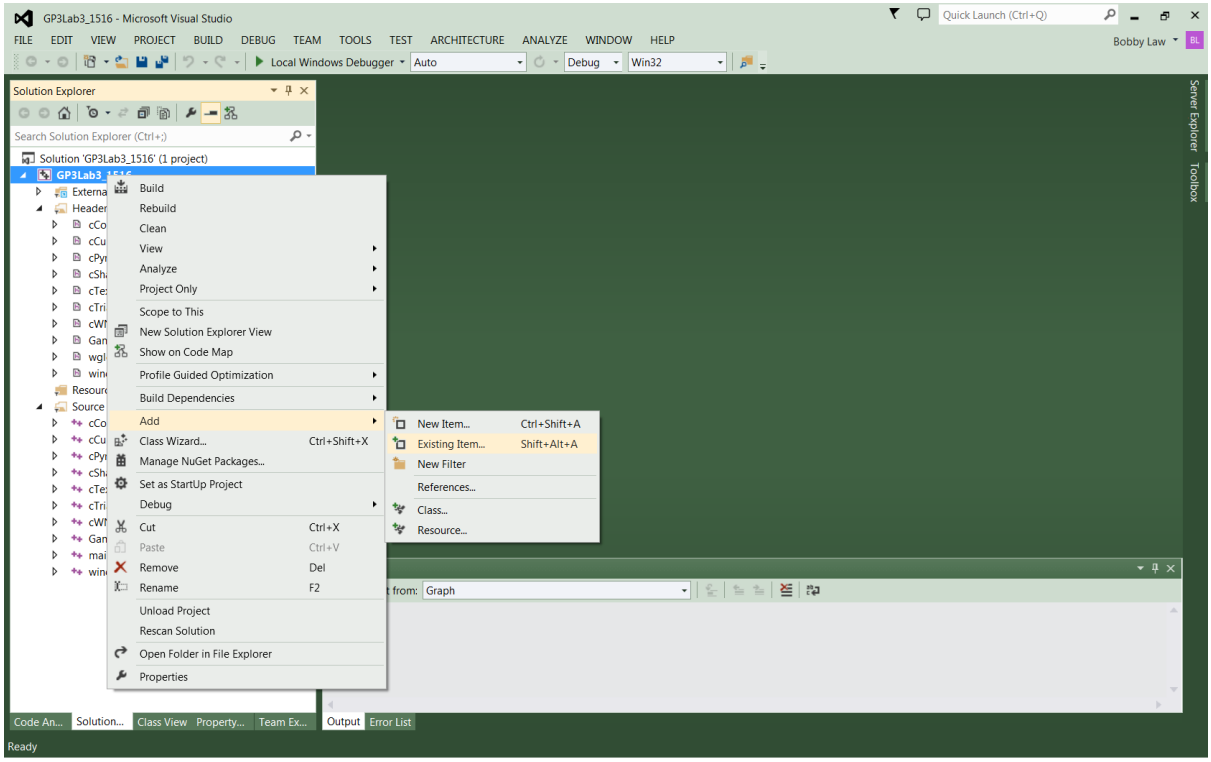


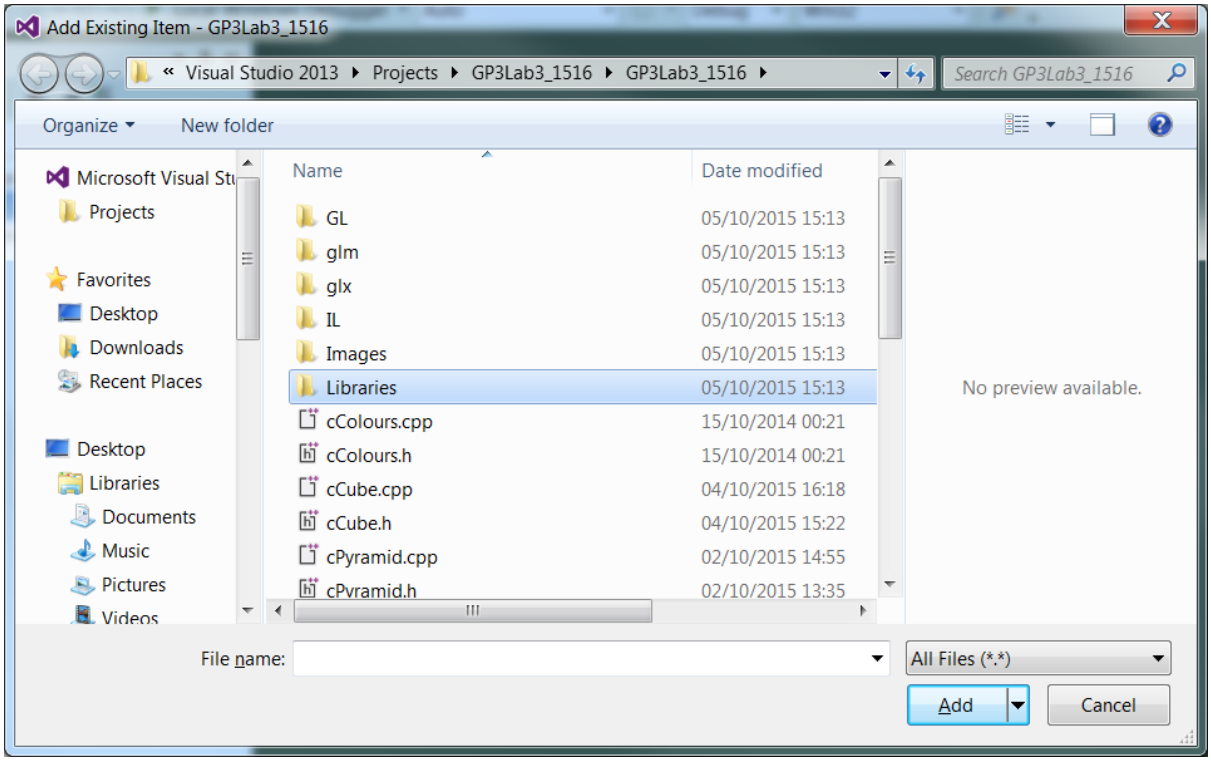
No Change has occurred to the outward appearance of Visual Studio but the folders have been correctly added to the project.

Step 3: Add library files to the project

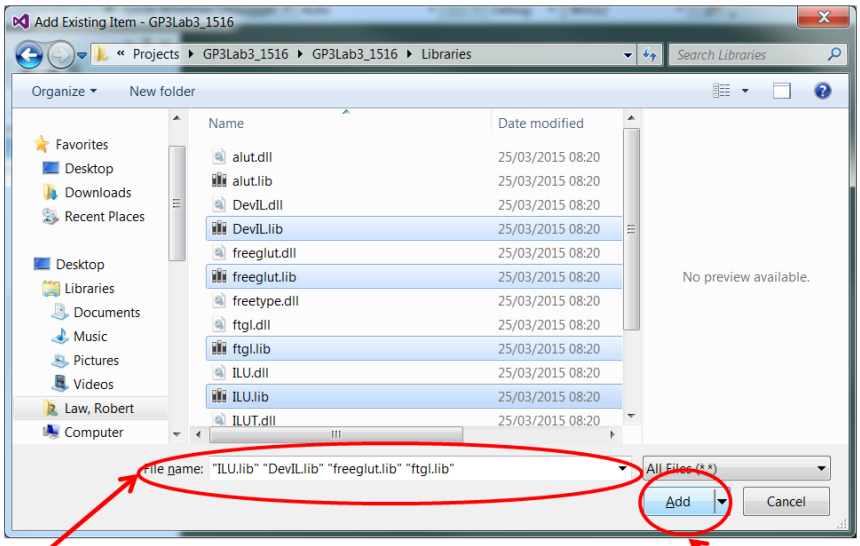
For the project to compile and build correctly certain library files must be added to the project. The library files to be added will be indicated on a per lab basis therefore the screenshots shown in following instructions are indicative of the process only and will not necessarily represent the library files for all labs.

Right click on the *project name*, select **Add** from the *menu* and *then* select **Existing Item**. See screenshot below/next page.





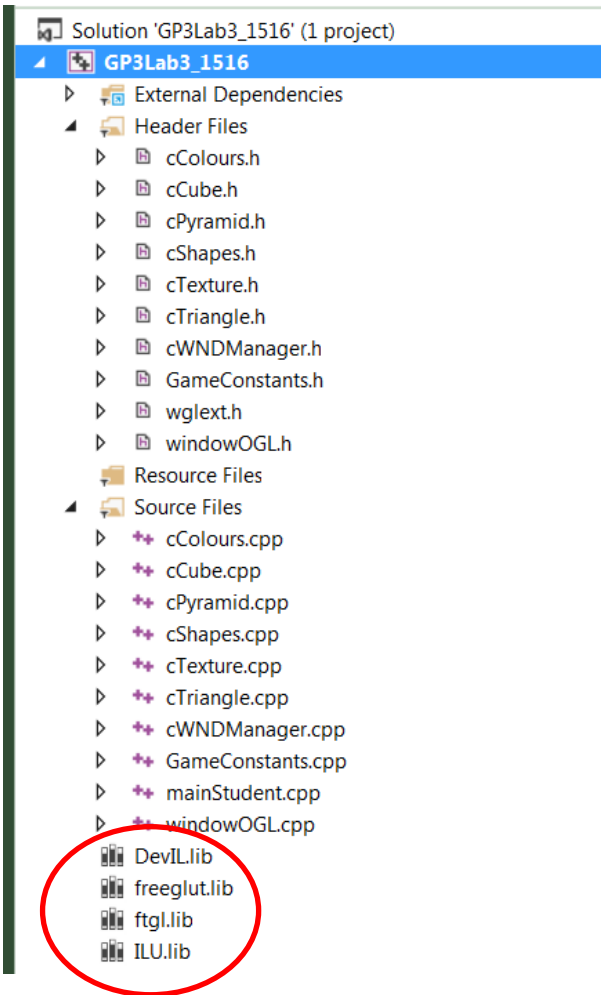
Double click the Libraries folder and select the appropriate .lib files. See screenshot below.



File names will be listed here.

Click add to add the libraries to the project.

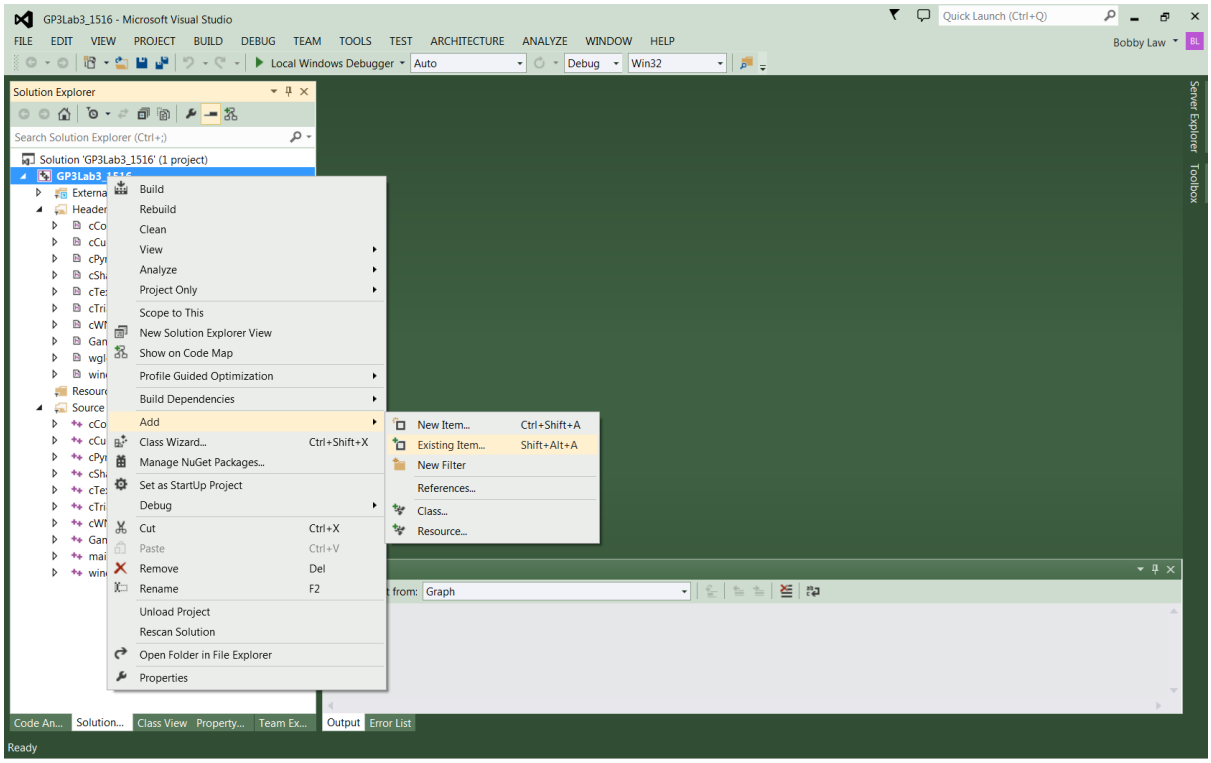
Clicking the add button will add the files to the project. Visual Studio should now look like the screenshot below.



Note the Libraries have been added at the foot of the project. *Compile* and *build* the project ***but do not*** execute the code as the required DLL files are ***not*** in the debug folder and thus the program will not function correctly.

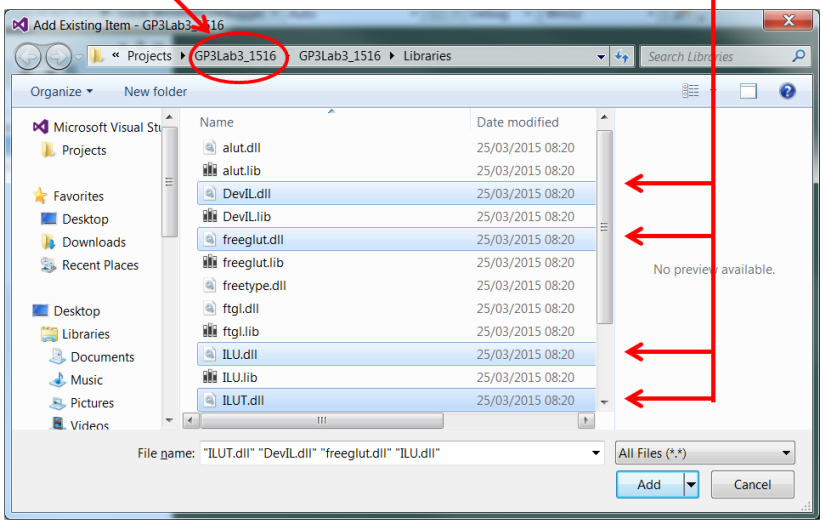
Step 4: Add DLL files to the Debug folder of the project

Right click on the *project name*, select **Add** from the *menu* and *then* select **Existing Item**. See screenshot below/next page.



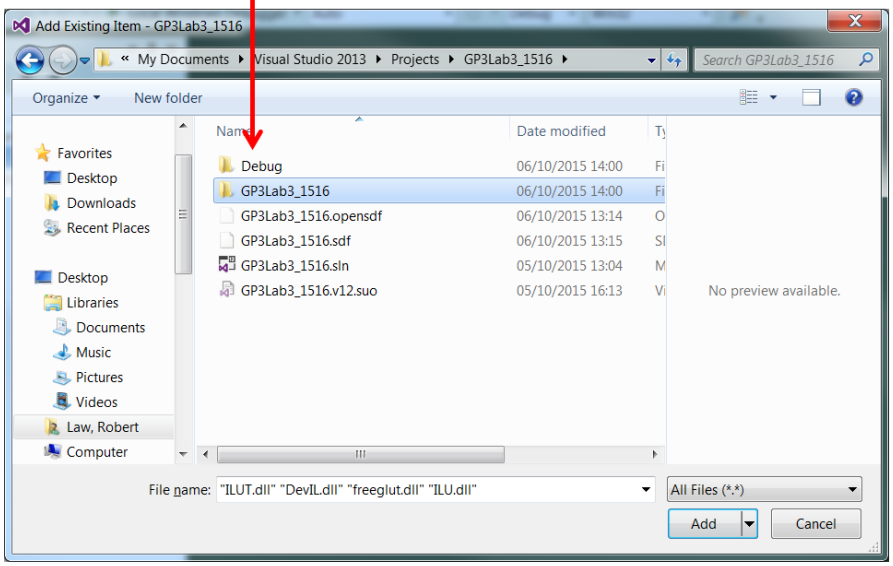
2. Click the circled folder.

1. Select and ***copy*** the required DLL's.



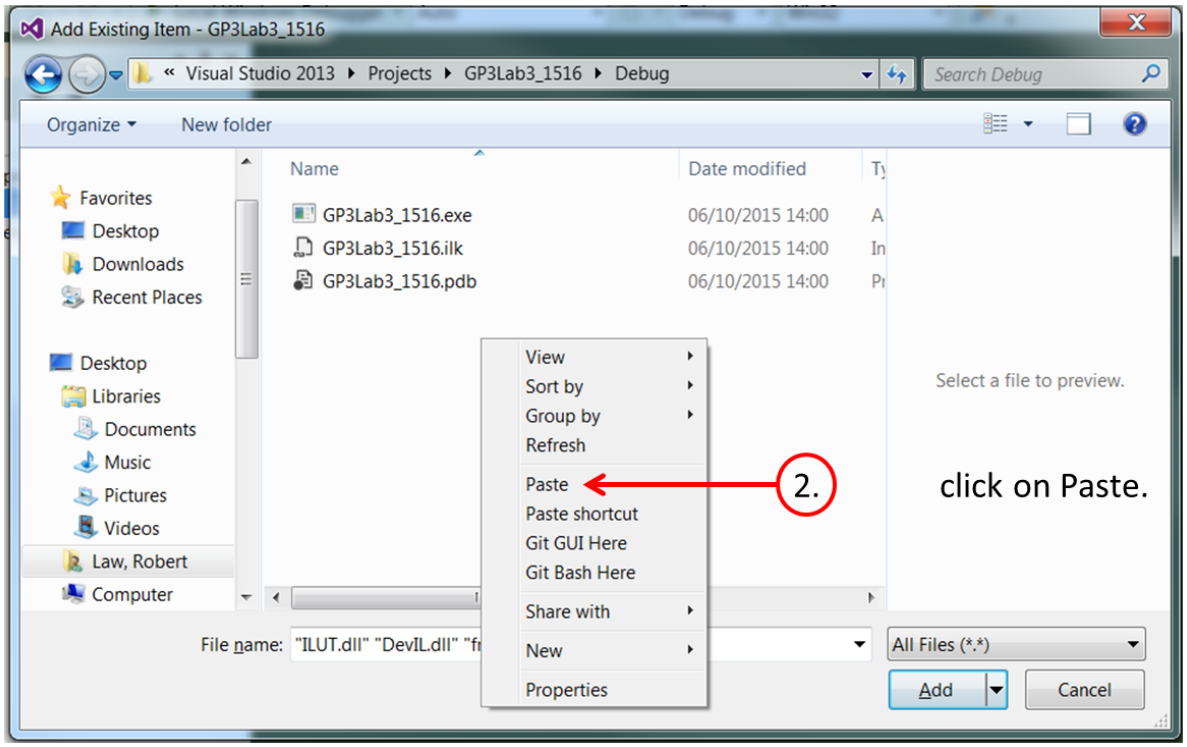
3. The contents of the centre pane will change as shown in the next screenshot.

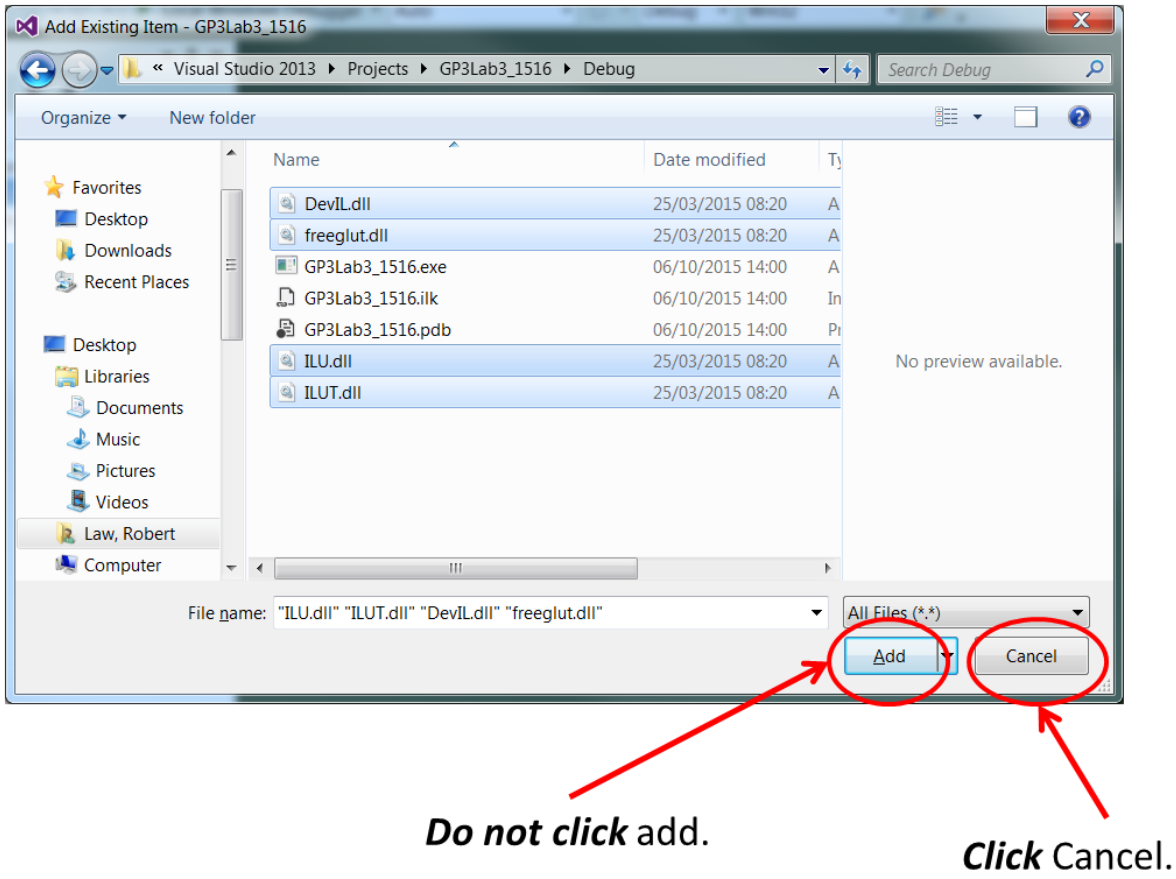
1. Double-click on the debug folder.



2. The contents of the centre pane will change as shown in the next screenshot.

1. Right-click in the centre pane.





Now execute your project clicking on the green triangle. Your program should now execute.