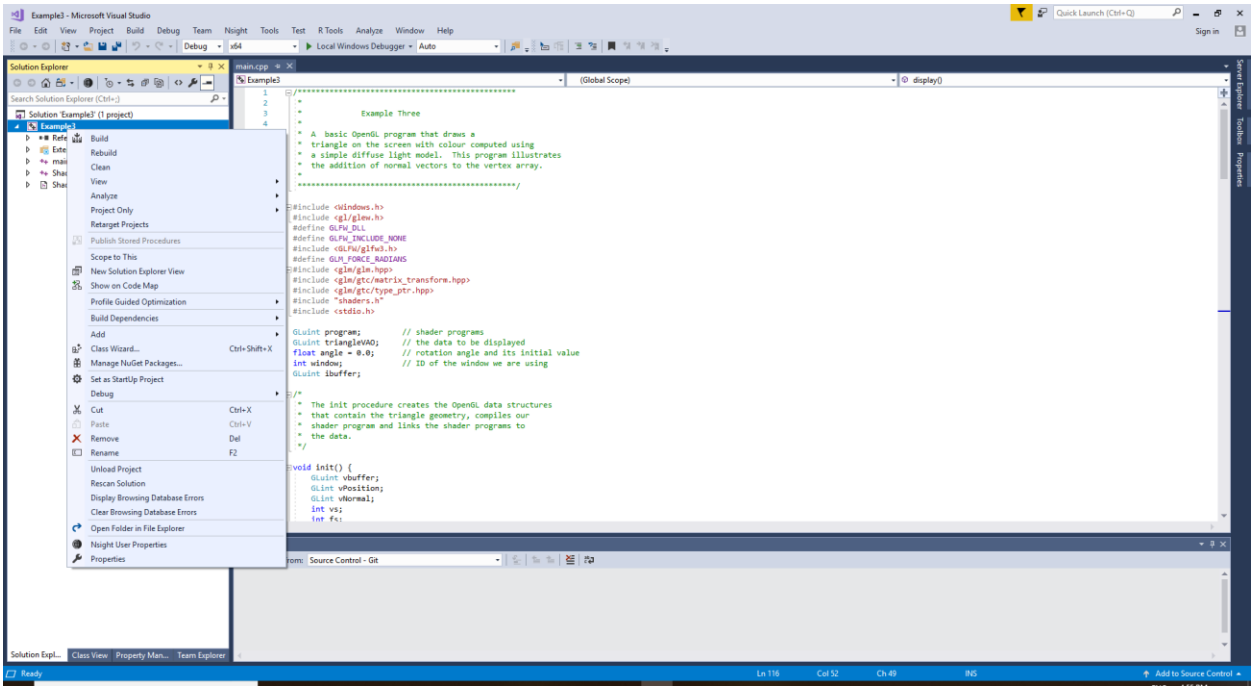
OpenGL on Windows

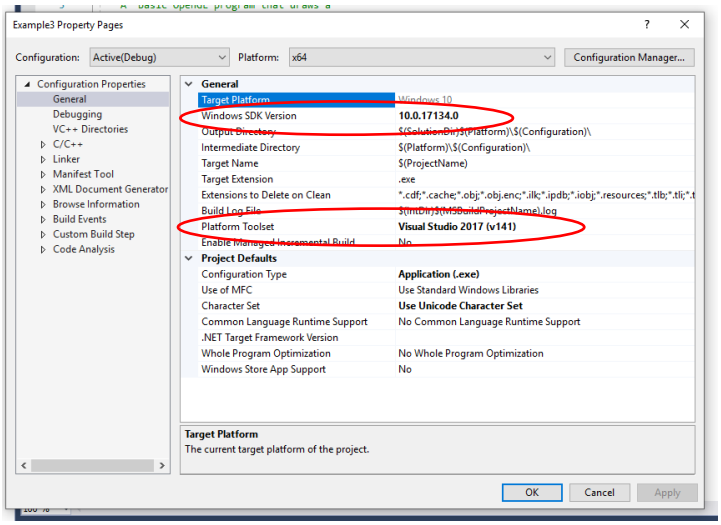
This document is a short description of how to compile and run the example programs for CSCI 3090, and how to set up your own Visual Studio projects.

After you unzip an example program you should start Visual Studio from the solution file, the one that ends with .sln, and not from one of the .cpp files. The solution file contains a project that already has all the include files and libraries set up for you. If you start from the .cpp file Visual Studio will not know where the include files are located and things of that nature.

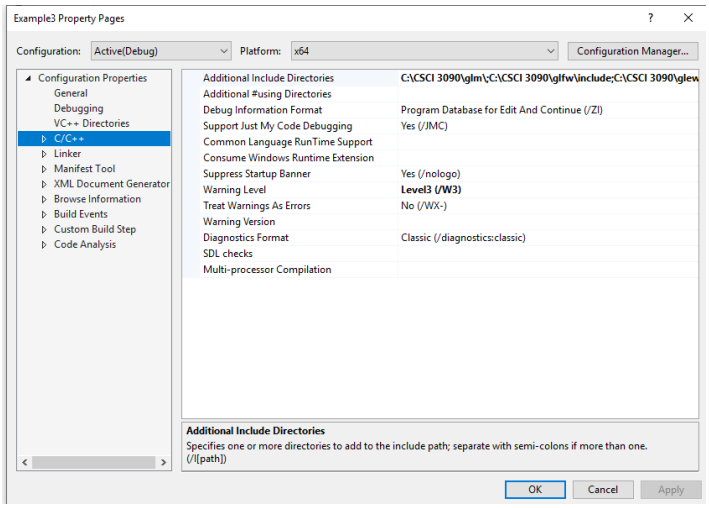
One of the most important parts of Visual Studio is the solution explorer, which usually appears on the left side. This is the easiest place for setting project properties, it also makes it easier to explore the files in the project. If the solution explorer is not visible, go to the view menu and select it. It is right up at the top of the menu. Once you have done that right click on the project name in the solution explorer, this will bring up a large popup menu. The last item on this menu is Properties, select this item to bring up the property page.



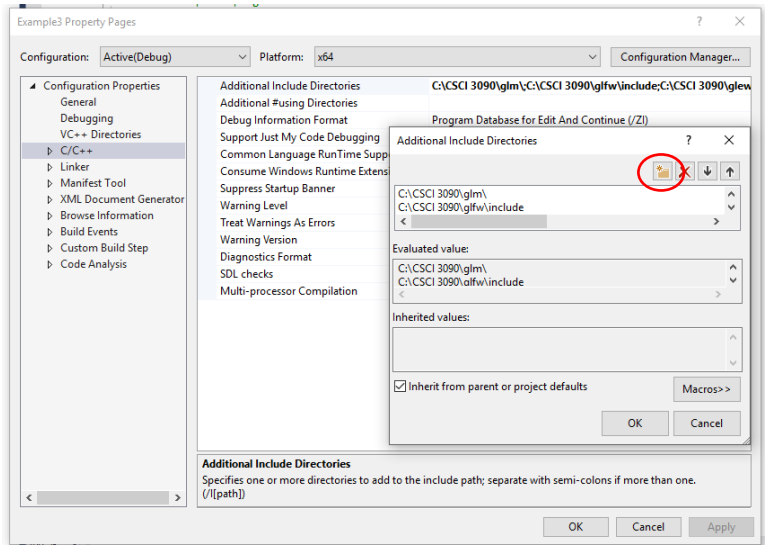
The property page is shown at the top of the next page. In this case the general tab has been selected and two important fields have been highlighted. If you are using a different version of Visual Studio these fields may not be set correctly. In this case they will indicate an error. The quick fix for this is to select the field. An arrow for a drop-down menu will appear at the right end of the field and you can use this to select the correct setting. There is typically only one item in this menu.



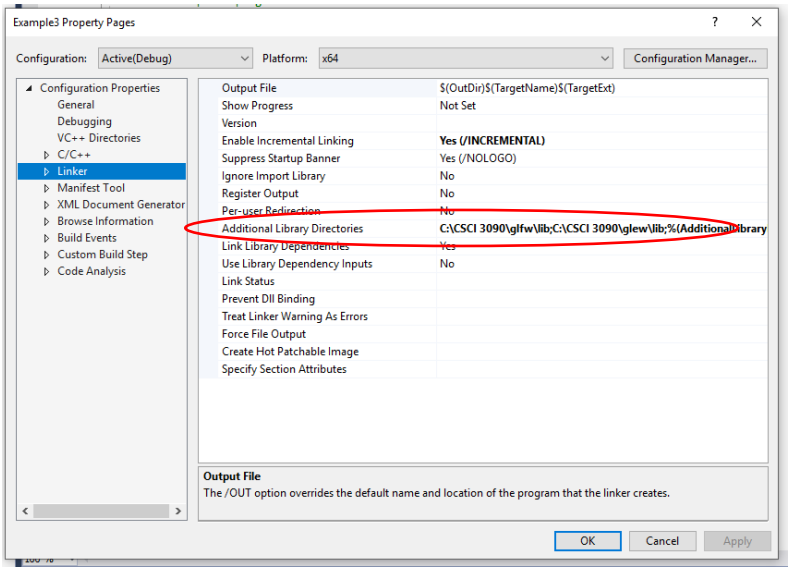
Now we are ready to examine the project's include files. To do this select the C/C++ tab from the left side, the top field in this tab is Additional Include Directories, see below.



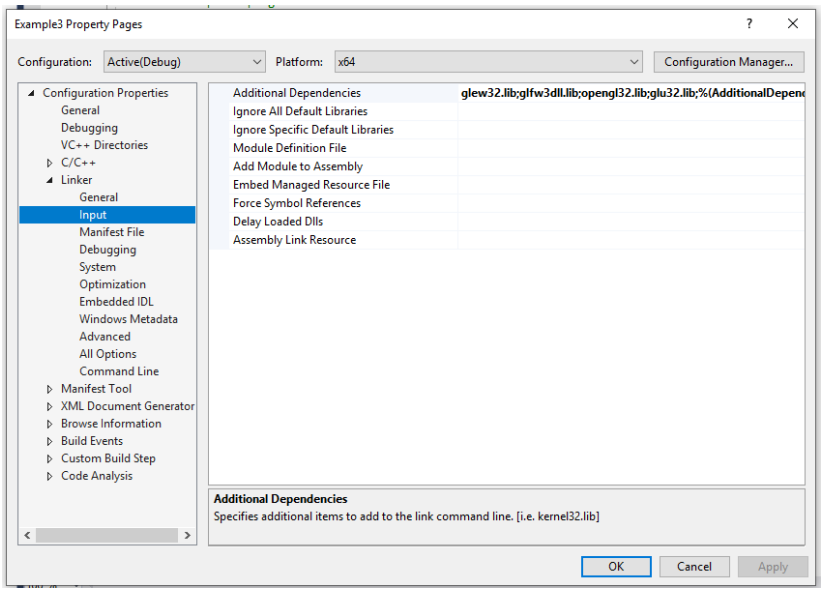
In a new project this field will be empty and in the example projects it will have the location of the include files. To change this field, select the field and select the <edit…> item from the drop-down menu on the right end of the field, as shown at the top of the next page. The button circled in red is used to add another directory to this list. After pressing this button an empty entry is added and at the right of this entry is a button for starting a file browser for selecting the new directory. If you are creating a new project this is the time to enter the required include file directories. Use one of the example projects as a model for this.

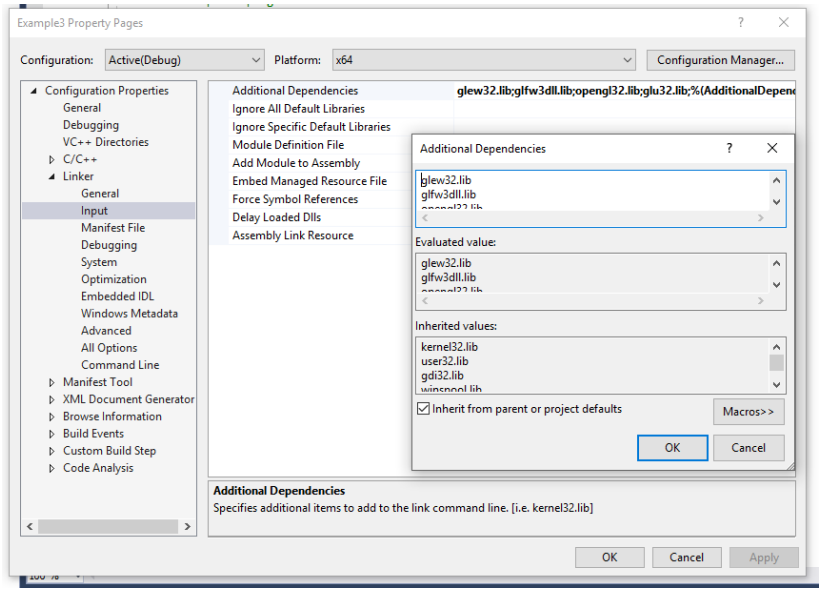


Next select the linker tab. Part way done this tab you will find Additional Library Directories. This works exactly the same way as Additional Include Directories. Again, check one of the example projects to see how this should be set up.



Finally expand the Linker tab on the left and select Input as shown at the top of the next page. The field at the top of this tab is the list of libraries required to build this project. Again, select this field and from the drop-down menu select <edit…> as you have done for the other fields. This field works differently from the others. In this case you just type the name of the libraries that you want. The nice thing about this field is you can just cut-and-paste the library names from an existing project. There is a total of 4 libraries required, you can just copy them from one of the example programs.





You are now ready to compile and run your program. You can do this from the build menu. After doing this the first time you will need to copy the DLL's and shaders to the directory containing the executable version of the program.