

## CS 174a Template Instructions for Both Windows and Mac (C++ version)

### XCode 6.1 OpenGL C++ Project Setup:

- Make a new **Command Line Tool** project, save it in the **same directory** that our template's folders reside in (in with the folders "my code", "exe", etc.)
- Right-click the main.cpp that it made and **delete** it (move to trash)
- Right-click on your project, select "**Add files**" to it, and choose the "**my code**" folder as what to add. Make sure **Animation.cpp** is directly part of the project since it contains main().
- Do that again, this time highlighting the "**CS174a template**" folder
- Click your project, click **Build Phases** tab, choose **Link Binary with Libraries**, hit the +, type **OpenGL** and add the framework that comes up, then do another and type **GLUT** and add that it too
- Choose "**Edit Scheme**" (Command Key + Shift + Comma). In the **Run** tab, select "**Use custom working directory**" and type **\$PROJECT\_DIR/../exe** then **Compile** your project to make sure the whole thing works.
- If it runs with errors or is blank, let your TA know about it.

You're set up; now in **Animation.cpp** you can insert your main code into **display()**, any helper functions above it, any other changes you decided for that file's other glut callbacks, and your extra shapes into **Shapes.h**. Check the (cout) output window for a list of controls.

### Visual Studio 2013 OpenGL C++ Project Setup:

1. Press **Ctrl+Shift+N** (new project). Select **empty project**. **Name it**.
2. Press **Ctrl+Alt+L** in case the solution view is not showing, then right-click the **Solution icon** and say "**Open Folder In File Explorer**" to navigate to the Solution folder that got created. Into there, **paste** the whole group of files we've provided so that they ("my code", "exe", etc.) are all put at the same level as the solution (.sln) file..
3. Back in Visual Studio, right-click **Project icon** and click **Properties**. Fill in the following fields:

1. Select "**All Configurations**" at the top.
2. Configuration Properties > General > Output Directory:

**..\Exe \$(Platform) \$(Configuration)\**

Configuration Properties > General > Intermediate Directory:

**Build \$(Platform) \$(Configuration)\**

Build Events > Post-Build Event > Command Line:

**xcopy "..\GL\\$(Platform)\\*.dll" "\$(OutDir)" /i /r /y**

4. After exiting the settings, press **Shift+Alt+A** (add existing item), navigate to the "**my code**" folder from the ones you just pasted, and choose **Animation.cpp**. Hold down the **CTRL** key and click the two files ending in **.glsl** to include them too. Hit **OK**. Repeat this process and add all the files in the **CS174a template** folder too. Now you should **compile** it to make sure the whole template works. If it runs with errors or is blank, let your TA know about it.

You're set up; now in **Animation.cpp** you can insert your main code into **display()**, any helper functions above it, any other changes you decided for that file's other glut callbacks, and your extra shapes into **Shapes.h**. Check the (cout) console window for a list of controls.