

Assignment ½ – OpenGL 3D

Due: November 6th (11:59pm)

Overview:

This is an optional assignment. Up to 20 extra credit points from this will be added to your lowest project grade so far (up to a total of 100 points). If you have a perfect on all your projects, you will get no points, but it may still be worth doing as prep for Assignment 4.

The goal of this assignment will be to get some simple OpenGL demos compiling and make some small modifications to them. The code relies on the SDL2 framework, which you can download from here:

<https://www.libsdl.org/download-2.0.php>

Run the Demos (5 points):

Take an image of each of the demos running on your computer. You should have five images one for each demo in order: BlankScreenSDL, TriangleColored, Cube3D, CubeLit1VBO, ModelLoad

Add User Interaction (7 points):

- (3) Change the color in the triangle in TriangleColored when the user presses a key.
- (4) Translate and Rotate the model in ModelLoad based on key presses

Change the Shader (8 points):

My code calculated the Phong lighting model for each per pixel.

- (3) Change to a per-pixel Blinn-Phong shader
- (5) Change to interpolated Gouraud shader

Submission Details:

Submission should be in the form of a link to a webpage. The web page must contain an image of your program in progress. A short description (~1 paragraph) of any difficulties you encountered. A zip file with all the code needed to compile your project and a working executable.