50.017 - Graphics and Visualization

Assignment 0 – OpenGL “Hello World”

Handout date: 2022.05.19

A green triangle with a black background

Description automatically generated with low confidence

Figure 1. Expected program output.

This ungraded assignment is primarily intended to ensure the provided OpenGL framework code properly builds and runs on your computer. Instructions for building the code can be found in README.md of the zip archive. You are also encouraged to browse through and familiarize yourself with the code; the next few assignments will ask you to add various functionalities to it.

Please do make sure the OpenGL code works on your computer during this assignment. If you have any problem, please contact the TA for help. In later weeks, we will not provide assistance in setting up the code.

**OpenGL Framework**

Download and unpack assignment\_0.zip and refer to its README.md for instructions on building the framework code. If all goes well, you should see the window shown in Figure 1 when you run the Assignment\_0 binary in the build folder.

You can change the positions and/or colors of the triangle vertices in the source code and see how the rendering is updated; see Figure 2 for an example. You can also render the triangle in different modes to show its edges or vertices; see Figure 3 for an example.

A screenshot of a computer

Description automatically generated with low confidence

Figure 2. Expected program output after changing the vertex colors.

Shape, polygon

Description automatically generated

Figure 3. Rendering edges of the triangle.

**Grading**

This assignment is ungraded.