Comp380

Programming Assignment #6

Due Jun.-13 (Fri.) (before 11:59pm)

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Objective: The purpose of these two assignments is to let you to become familiar with the details of the rendering pipeline. A good understanding of the rendering pipeline is a great help in writing and debugging programs that use OpenGL and other graphics APIs. In these assignments, you will implement the basic functionality required to rasterize polygons, as well as parameter interpolation for lighting and texturing. You will be provided with a framework in which you will write your implementation and a program that you can use to test it.

Developing environment: Usage of Windows OS and Visual Studio (2008 or higher) is mandatory

1. Implement the OpenGL lighting model including ambient, diffuse, and specular lighting. Modify the ComputeLighting() function to compute lighting at the vertices and store it in the vertex color.
   - To enable lighting, activate 'l' (lowercase 'L') and '1' (number one)
2. Add a texture to a simple scene displayed when clicking the "F1". Support texture mapping using nearest neighbor filtering.
   - To enable texturing, press key 't'

Deliveries:

1) Binary and source codes of your solutions
   - Please change the file extension of your binary from 'exe' to 'aaa' or something. If not, your submission will be sent back due to gmail policy.
2) Provide a readme file that contains a) your compiler & development environments (e.g., MS Visual 10), and b) your OS that tests your binary files
3) Submit your files by sending them to TA, cs380ta@gmail.com

Policies: Everyone must turn in their own assignment. You can collaborate with others, but any work that you turn in should be your own.

Scores: Total(50)
- lighting(15), texture(25), Comment point(5), Readme point(5)