**HW5 document**

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I tested my program in Zoolab before submitting and my program accomplishes everything exactly and correctly required by HW5. Please click the “GLSLExperiment.sln” which should open Visual Studio, and then run the program (Ctrl + F5).

I started HW5 on base of the starting codes given by Professor, which contains GLEW/GLUT as well as some starting header files and source files that I need. My main program is in example1.cpp, and I have a vertex shader (vshader1.glsl) and a fragment shader (fshader1.glsl). And there is bmpread.h and bmpread.cpp for .bmp file reading.

Program starts at main() in example1.cpp. It first initializes basic settings and creates a window. Then in init(), it sets up shaders and GPU buffer. Also, it creates texture objects for 2D mapping and cube mapping. Then it registers callback functions – display, keyboard and reshape. Finally it enters the drawing loop glutMainLoop().

I have a global variable mode, which is updated by keyboard function and then passed to fragment shader. All calculations for different image effects are done in fragment shader, which outputs different fColor according to the mode value.

My programs can do everything exactly the way required by HW5 on course website. I won’t repeat them here. Please use keyboard to test different image effects.