CS 432 – Interactive Computer Graphics
Assignment 6

The goals of this assignment are

1. Texture Mapping
2. Skybox

Requirements

For each programming assignment you should submit a **zip file** containing the code (and MSVS/Xcode project/solution files) and a **report** stating: what you did; how you did it; any particular features you want to draw attention to; any problems with the program that you know about.

In addition:

1. Your code must be original. You may discuss approaches with your colleagues but not how to code it.
2. You must use GLSL (shaders) and vertex buffer objects (VBOs)
    a. Therefore you **may not** use glVertex*, etc..
3. Make sure you program complies and runs on either a Windows 7/8 machine with VC++, freeglut and glew or on a Mac with OSX and Xcode

What to Submit

For your submission, zip together the following.

- A README file with instructions on how to compile and run your program(s). This should also include the environment in which you are developing and running (OS version, Developing Environment version, Shader Version) and any issues/features you want to draw attention to.
- Your source files
- Your file(s) containing rules for compiling and running your program(s) (i.e. project files, make files, etc...)
- **A short screencast video that you talk over (5 minutes max)**

Overview

In this assignment you will build upon HW5's world by adding textures to the cube and to the ground plane. In addition, you will add a skybox to make the environment more realistic.

Objects

1. Your recursively built sphere
2. Your texture mapped cube
3. A texture mapped ground plane

Lights:

All of the lights should be as in HW5

Interaction:

All of the interactions should be as in HW5 with one addition:

When the user hits the 't/T' key, the texture of the cube is toggled between two different textures.

Grading

- Everything from HW5   (20pts)
- Texture Mapping   (40pts)
- Toggle Texture Mapping   (10pts)
- Skybox   (30pts)