Assignment 3 Part 2
Complex graphics application

Introduction

This assignment requires use of many of the techniques illustrated in this course to build a complex graphical program. The assignment specification can be viewed for further information.

Instructions

The program runs with no parameters. Use the ‘s’ key to cycle illustrations of lighting techniques, beginning with fog (and no lighting), and ‘escape’ to terminate.

Implementation

It was intended that this program will be used to generate a realistic environmental scene. The techniques required/used to obtain marks would have been directional lighting, “.obj” loading, multiple cameras, texture mapping, depth cue, skybox, multiple shaders, sound, height mapping, and rigging. These techniques should have accurately simulated a forest environment and view using third, and first person perspective.

As illustrated in the previous report, these objectives were subject to change, depending on difficulties encountered during development. Evidently, some these techniques were definitely harder than others to implement.

However, the underlying engine powering this application is reasonably high level and capable of much more than what it portrays. Techniques mentioned above are built in, and are simplistic to extend upon. The fundamental core is also quite solid, and further techniques can be built in.

Techniques that this program illustrate include; directional light, point light, obj loading, texture mapping, depth cueing, and handles usage of multiple shaders. The basic of height mapping and skyboxing were also in their infantry, however these were unable to be completed, leading to the simplistic nature of the program.

Conclusion

This assignment successfully rounded off COMP SCI 3014 techniques to create a complex program. While the end result with simplistic in nature, significant effort was provided to ensure further development is easy to implement.