Jonathan Corwin

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CS330

Final Project Design Decisions

**Scene selection –**

My decision to use a laboratory type design was based on my current employment experience. It is also a practical scene which anyone could really picture what it would look like and then match the expectations with the scene I have created.

**Object selection –**

I decided to use common objects that would be found in a chemical laboratory and readily identifiable. I used several 2D objects to create the finished 3D objects. I also selected a bottom plane that appeared to be a table. This was followed by a back plane representing the laboratory wall.

**Camera control –**

The camera control was introduced as demonstrated. It creates a scene that appears more realistic because you can see around the objects. I had some difficult implementing the perspective and orthographic views. This took some troubleshooting but was eventually rectified. I also had issues with the objects not appearing to be on the table when that camera was moved. This was fixed by insuring that the objects were set to the proper coordinate that corresponded to the table without going through the plane.

**Texture design –**

Originally, I had several different textures which can be seen in the coding. I decided to change the textures of the lab objects to make them appear more realistic for the lab. Not many labs would have a red marble textured flask. I kept the wall and table textures the same.

**Lighting** –

This was by far the most challenging aspect of this project. I spent a great deal of time trying to implement the correct lighting. Ultimately, I was forced to settle for what I had as I exhausted all other options to fix the lighting. The lighting is present and can be seen in the reflections of the lab objects.

**Synopsis –**

In total the project was a success. Each of the modules built upon each other to result in the finished product. I can appreciate that fact that going into this project I knew nothing about computer graphics but ultimately I was able to construct a functioning scene.