CS-330 Comp Graphics and Visualization

Design Decisions

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**Reflection**

For my project, I chose four random objects laying around my house. The four objects included a roll of tape, a box my apple pencil came in, a piece of wood, and a plastic jar. To make these objects, I chose from primitive shapes outlined at the beginning of the course. To make the piece of wood, I simply used a cube and stretched it; I did the same with the box. For the roll of tape, I used a torus combined with a cube due to the fact that the tape had square edges. For the plastic jar, I used a sphere and cube.

With camera movement, my project can be navigated using a keyboard and mouse. Similar to the keys used in gaming, the same keys are used in my project. A = left, D = right, W=zoom(forward), S = zoom(backward), E = up, and Q = down. For the mouse, the camera movement follows the same direction the mouse is moved. However, the camera position does not move with the mouse, just the angle. The project contains a function “processInput” which is the main while loop. This loop is always checking for user input. The input takes any key stroke and mouse movement and relates that to a call back function, which employs the camera file.

I aimed to keep as much logic outside the loop as much as possible. I incorporated multiple functions that set up VBO’s and VBA’s, keeping the name as simple as possible. I did this for easier callback in the future. For example, the process to create an object uses a shader “OurShader” is the same throughout. Depending on the object being created, I just add different comments to distinguish between objects. Furthermore, I created separate files for different parts of the project, i.e., cylinder and camera movement. This allowed for the code to remain easily readable and clean.