Project Seven-One

Cs 330 Computer Graphics

By: Jordan Krueger

So for my project I had to recreate a scene with a stack of books, a monitor, mouse, keyboard, mug and pencils. I got to scope out this scene starting in model 3 with beginning a scene. Here we had to start our scene with basic shapes. The shapes I chose to represent the scene were a cylinder for the mug, pencils, and monitor stand. A torus for the mug handle. A cone for the pencil tips and mouse arch. I did boxes as well for the books, monitor, monitor screen edge, keyboard, and the base of the mouse. There was no trouble here as everything worked and turned out well. In module 4 I got to experiment with camera controls and different views such as perspective and orthographic. The code I used ->

// process camera zooming in and out

if (glfwGetKey(m\_pWindow, GLFW\_KEY\_W) == GLFW\_PRESS)

{

g\_pCamera->ProcessKeyboard(FORWARD, gDeltaTime);

}

if (glfwGetKey(m\_pWindow, GLFW\_KEY\_S) == GLFW\_PRESS)

{

g\_pCamera->ProcessKeyboard(BACKWARD, gDeltaTime);

}

// process camera panning left and right

if (glfwGetKey(m\_pWindow, GLFW\_KEY\_A) == GLFW\_PRESS)

{

g\_pCamera->ProcessKeyboard(LEFT, gDeltaTime);

}

if (glfwGetKey(m\_pWindow, GLFW\_KEY\_D) == GLFW\_PRESS)

{

g\_pCamera->ProcessKeyboard(RIGHT, gDeltaTime);

}

// process camera moving upward

if (glfwGetKey(m\_pWindow, GLFW\_KEY\_E) == GLFW\_PRESS)

{

g\_pCamera->ProcessKeyboard(UP, gDeltaTime);

}

// process camera moving downward

if (glfwGetKey(m\_pWindow, GLFW\_KEY\_Q) == GLFW\_PRESS)

{

g\_pCamera->ProcessKeyboard(DOWN, gDeltaTime);

}

//switch to perspective projection

if (glfwGetKey(m\_pWindow, GLFW\_KEY\_P) == GLFW\_PRESS)

{

bOrthographicProjection = false;

}

// switch to orthographic projection

if (glfwGetKey(m\_pWindow, GLFW\_KEY\_O) == GLFW\_PRESS)

{

bOrthographicProjection = true;

}

allowed me to move around the scene upward(e key), downward(q key), left(a key), right(d key), forward(w key) and backward(s key). Also allowed me to switch between different views, perspective(p key) and orthographic(o key). For module 5 I got work on adding textures. These textures could be textures themselves like a glass texture, wood, or even metal. These brought out the object’s realism. For example, the screen I used a glass texture for the monitor screen to make it stand out as an actual monitor. Now I could do this for all or I could find images on the web that best resembles said object. For example, I used a wood texture I found on the web that makes the platform everything is on look real to that of an actual desk, or at least gives off that vibe, hopefully. For module 6 it was about lighting. For the lighting here I used a point lighting to kind of simulate a glare from the sun like in the original image. There are other lightings to use as well such as directional and spotlight. Spot light would not work to well as it will kind of hover over the object(s) you choose, messing it up for the others to where point will have the other included and actually match the image. Directional lighting would be a good one to use as the light source itself has a common direction and can very well simulate a glare coming through a window from the sun. Overall the project was very fun, fun enough I did two (A StarWars scene as well).