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CS-330 Comp Graphics and Visualization

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Project Reflection

I chose to focus on the TV, mouse and keyboard objects in the desk image as well as the desk itself to give the scene a frame of reference. The object that seemed most logical to apply the multiple shape requirement to was the mouse. It was the shape that I thought would most improve in its immediate recognition if another shape was added. My other option would be to make some kind of trim on the TV but that wouldn’t help add much detail to the image at the expense of a whole other shape. They keyboard also would need just under 100 separate squares to make sense as just adding one or two large blocks on top would have made it look less like a keyboard. The mouse was probably the most difficult to initially recreate and I ended up going with two cylinders tilted on their side, one to represent the mouse body and one to represent the mouse scroll wheel. I set up the camera to initially be centered on the world and have you start as if you were in it. From there you can move in any direction and look around using a combination of the w,a,s,d for basic movement, q,e keys for up and down and the mouse cursor as well as the scroll wheel to look around and zoom in and out. The controls work more or less like a standard computer generated world one would come across in an average video game and should be familiar to most people. If the user wishes to switch to an orthographic or 2D view they can do so by hitting the p button and can switch back to 3D or perspective view with the same button. I used some functions to help keep things organized especially when it came to managing user input. The functions that were used to process all the user navigation throughout the system were all contained and organized outside of the main function. I also employed several header files such as the shader and camera to help keep things more organized in that regard as well rather than just having one long source file with all of the program's functionality. Splitting things up like this also makes it easier to tell what is wrong when something doesn;t go correctly and it makes it easier to adapt the code in the future to other applications or to tweak the existing graphics.

Citations

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