Final Project: Elf Village

COSC 3306

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Controls:

‘A’ Key: Moves the elf sprite left in the scene, stopping at boundary of base rectangle.

‘W’ Key: Moves the elf sprite backward in the scene, stopping at boundary of base rectangle.

‘S’ Key: Moves the elf sprite forward in the scene, stopping at boundary of base rectangle.

‘D’ Key: Moves the elf sprite right in the scene, stopping at boundary of base rectangle.

Up Arrow: Moves camera up.

Down Arrow: moves camera down.

Right Arrow: moves camera right.

Left Arrow: moves camera left.

‘+’ Key: Zooms in.

‘-‘ Key: Zooms out.

‘Z’ Key: Opens cabin door.

‘X’ Key: Closes cabin door.

Space Bar: Resets the scene and every variable to default values.

Lights: Slider changes ambient light intensity starting at a base of 0.2.

Features:

* The elf sprite can move independently throughout the scene.
* The cabin has a door hinge that is manipulated using a rotation transformation about the y-axis.
* The HUD displays the name of the project
* Animated smoke rings with alpha blending enabled rise out of the chimney, scale as they move toward the top of the scene, and then reset to their original position and size past a certain point.
* When adjusting the light intensity, the sun texture changes to a moon texture when the light intensity reaches below 0.15.
* There are 4 separate textures being used in the scene (grass, sun, moon, and brick).
* Curved objects include the cones used as trees, spheres in various places and toruses (tori?) that make up the smoke rings coming out of the chimney.