

Graphics Final Project

We were attempting to display a scene in which you can select different sized lego bricks and give them four different possible colors red, blue, green, and yellow. You first determine the size of the brick you want by pressing keys 1-4 such that 1 gives you a 1x1 brick, 2 a 1x2, 3 a 2x2, and 4 a 2x4. The color can be changed by pressing **PUT KEY HERE USED** here. You can use WASD to change the placement of the current brick then once you have selected its placement you can commit to that placement by pressing the C key the placement is permanent. The most difficult part of this project was recovering code from a tar clobbering of all the current work previously done. However other than that the hardest part was figuring out how to commit a brick to a position and rotation without affecting other bricks previously committed or future bricks. Also C/C++ not having dynamic size data structures was kind of a pain. We were able to solve the data structure once we found that what we wanted was called a Vector. Which is also how we solved the problem of the current brick not being able to affect the other bricks already in use. The parts of this project that were surprising were how simple it was to get going yet when we ran into errors they weren't that difficult to overcome the only problem we had the most difficulty with were time constraints which were obviously unavoidable. The part we enjoyed most about our project was unlike most of our classmates projects it was less of a scene or picture, and more about the interaction, and is something that isn't just nice to look at but is fun to use. Also focusing on interactions means less need for focusing on the positioning of objects in a scene which can be tedious and tiresome after time. Where as interactions are more fun to handle, in our opinion. However our least liked visual aspect of this project were the inability to do the underside of a lego because it would be insanely difficult. If we had more time we thought about implementing the ability to undo bricks or maybe go through the previously committed bricks and modify attributes about them. Overall this

project was very interesting and enjoyable.