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ISP

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Analysis

When I first started my ISP, I needed to come up with a puzzle. Hunter suggested I do something really simple like pushing down a button. However, I was able to turn it into more of a puzzle by adding multiple buttons and introducing an in-game hint. This first puzzle is good for the game because it introduces the player to VR in a non-time-based manner. During this puzzle I expect the player to experiment with VR, hopefully, they learn that collision works differently than in real life. Which is something that’s tested in the third puzzle.

The first puzzle introduced me to a couple of things, namely blueprints and blueprint classes. Blueprints are a way that Unreal Engine handles scripting. Blueprint is a proprietary visual scripting language that was one of the more difficult things that I needed to learn. I found learning this difficult because I’ve always done coding through script. Something that I found difficult with blueprints was there not being an if statement node, and not being able to find the node that I wanted. Eventually I learned that there is always a way to do what I want, I just need to adjust my thinking.

Going back to Blueprint Classes though, they allow for multiple static meshes and other actors to work as one cohesive unit while also allowing for them to be programmed. This allows a level designer to simply drag and drop an actor into a level. For me, this came in the shape of a button that when triggered the button would go down over time.

The first puzzle also nudged me to relearn GIMP. I did this because I wanted to include a hint to tell the player which buttons to push down. I found a texture on the web so that it could be used as a hint in the game.

The second puzzle required considerably more time from me than the other two puzzles. This was a result of my workflow. What I was doing was changing something in one software, exporting it, importing it into Unreal and finding out if I liked the changes. If I didn’t like the changes then I would repeat the process until I did. I wish I found a better workflow for working on tasks that have that kind of cycle. Or, that I realized that I’m in complete control of my game and if I think creating a puzzle will take a long time to complete then I can get rid of the puzzle.

The first thing that I was required to learn for puzzle two was how to use the 3D Modeling Software Blender. I would say that out of the stuff that I learned for my ISP learning the basics of Blender was one of the things that took me a large amount of time, however, it is the thing I mastered the least because Blender has so much breadth to it. I would say that for the stuff I did learn I got a lot of value out of it.

The second puzzle is something that I would change if I had more time. This puzzle is completed by holding an item inside of a trigger box for 3 seconds. However, what I expect the player to be doing during this time is to look through the item at the opposite wall and trying to line up the letters on the wall with the holes in the item. This puzzle approximately works because usually after 3 seconds they will have figured out the correct orientation of the item. What should have been done is to use a combination of ray casting and a trigger box, that way the game knows when the player is in the trigger box and is holding the item in the correct orientation.

The third puzzle in my ISP is a test to see if the player has realized that they are in virtual reality. After some time, the player becomes normalized to the controls and how to navigate around in VR. By now the player is expected to have played around with objects that can be picked up and see how they interact with other objects in the world. The third puzzle was a really good investment of time considering how simple it is to build.

The third puzzle forced me to interact with Unreal’s particle system Cascade. My interactions with Cascade is hard to say that it was worth the time invested. What I had done at the end of the puzzle was adjust a particle system from the starter content. The lesson I learned here is that I am completely in charge of my project and I am allowed to change my vision of the game when necessary.

On a whole, my ISP was a useful learning experience. I learned what it’s like to wear many hats. I learned how to go from research on what an escape room is to finding what I want my escape room to be to creating a scheduling for myself to making props to building the level to coding to the final product.

Something I want to change about my next ISP is actually making a good schedule and sticking to it. By that I mean I should research into the field that I’m working on and build a schedule that fits both the workflow I like to follow and the workflow of professionals in the field my ISP is in. For this ISP specifically, I didn’t stick to the schedule because it didn’t fit my workflow and I planned it wrong.