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Virtual, Augmented and Mixed Reality

17 October 2022

VR: Simulated vs Quest Headset

Virtual Reality has a lot of advantages and has been evolving significantly since its emergence. It is a growing field where every minor advancement causes waves in the tech industry. Advancements in this field are used to treat and identify diseases like glaucoma, schizophrenia, and Alzheimer's disease. In all of these cases, it is more efficient to use some headset rather than running it on a simulator. The Quest headset has a higher resolution display compared to the simulator. Meta keeps updating and releasing better software and newer versions of these devices almost yearly. As newer devices emerge, they get more affordable, making them more accessible for people to obtain. Since it's more affordable, it is a better alternative than the simulator. However, since not everyone owns a Quest headset, they are compelled to use the simulator. If one wants to use the headset for their programs, one needs to ensure that the frame rate is pretty high, between 30-60 frames per second. To achieve these, people must ensure that the models are low poly. No tool could measure the frame rate on the simulator as the systems are entirely different. As a result, one needs to work with the headset since the project's inception.

If the project compiles and runs without errors, it would run more smoothly on the headset compared to the simulator. While running my project on the simulator, I noticed several reloads as I went through the cupboards and the makehuman character. It also kept changing the heights while walking around the kiosk. Moving around with the WASD keys and trackpad made it harder to walk around. It was also challenging to handle the controllers with the 1, 2, and 3 number keys. It is easier, and we can move more freely with the Quest touch controllers. Grabbing objects also was more rigid on the simulator as the controllers couldn't get close to the object. I couldn't get to touch that feature of the project on my simulator. It would've helped if I owned a headset, as I could've tested the project every step of the way. I also couldn't test the duplicating object's aspect of the project. Although I could tell that it was created a new object every time I went close to the object, however, the physics of the model appearing didn't show up. It was a hassle to test the models I created as I couldn't implement the VRTK tools for the simulator.

I haven't tried viewing my kiosk on the Quest headset yet, as my Unity editor gave errors. I had to uninstall the editor and redownload it and the Android packages. However, the kiosk looks as expected on the simulator. The animations and physics work and look well. Since I only ran my project on the simulator, I can't comment on how it would look on the headset. However, I saw other projects running on the headset and can assume that it would look and interact much better. The projects looked smoother, and the interactions didn't seem to glitch. The glitches and changes in height with the simulator made it a hassle to interact with the models. Using it on the Quest will make the whole experience better.