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Game Programming II

Lab 05 Report – UNet Overview

Introduction

We took the time on this lab to watch and follow the instructions of Youtuber *Gamer to Game Developer* over a two part video where he explains the basics behind the new networking suite UNet. He explains the steps to quickly connect sessions over a localhost. He then removes some components so he can show us a smoother, easier, and more robust version of what was already allowed.

Methods and Work

He starts off by having us use the standard assets package from the unity store and the base engine to create a few core components to manipulate: a plane for traversal, two cubes of differing size, and a first person controller named player with an added capsule for visual. He added a quick change to the plane by adding a simple gray material and then set all but the player in an empty game object to remove clutter from the Hierarchy.

Now we get to the meat of the issue. He created a blank object called NetworkManager and searched for a Network Manager component from the Add component tab. He then used the same technique to add a Network Manager HUD.

We make a prefab of the player and then add that prefab to the “Player Prefab” option of the Network Manager component so it is added when the person playing is added to the scene. He then adds two new components to the player: the Network Identity and Network Transform scripts. He activates the Local Player Authority node of the Network Transform to have the active player of the pc use it and sets the Transform Sync Mode to “Sync Transform” on the Network Transform instead of the default so the players transform is communicated.

After we make our first build—adding both the offline menu scene and online main scene—we drag the menu and main scenes into the offline and online scenes respectively. This switches between the two scenes depending on the online status.

Conclusion

Report videos can be found at the following:

<https://www.youtube.com/watch?v=NLnzlwCRjgc>

<https://www.youtube.com/watch?v=PVUT6SR70wg>