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Learning Journal

Entry 15/10/2019 – Inventory System

I want to end up making some sort of inventory system with the components that I create so I'm going to have a look around for tutorials for inventory systems.

The tutorial I ended up going with deals with creating a base Item class and an Inventory class. The base Item class is a scriptable object so that its data can be re-used easily.

I've tried to make an inventory system before, but kept getting hung up on formatting the UI. The tutorial I followed showed that Unity has a built-in system for handing that called a Grid Layout Group. Everything childed onto an object with a grid layout group will automatically be formatted into a grid.

The most important part of this inventory system is making sure every link is maintained as you go. I took an hour trying to debug an issue where the UI sprites weren't updating, but I had only forgotten to re-link the inventory slots to the Inventory script!

Entry 11/1/2019 - Dialogue System

I wanted to make something that would complement the inventory system that I created earlier, and the easiest thing that I could find was a dialogue system.

I followed a fairly short Brackey's tutorial for the dialogue system, and found that you can use an IEnumerator to get effects like text typing. It's important to ensure that the yield return null is placed on the inside of the for loop in the IEnumerator though, or it will print all of the text straight away in the first frame and that won't work. With IEnumerators, Unity will continue to call the IEnumerator from the same place that it left off on at the yield return on the next frame. This makes it possible to create the typing effect with the dialogue system.

Entry 11/5/2019 – Dissolve Shader

I had a rough start when trying to start my tutorial because I was trying to figure out why Unity wouldn't let me make a PBR Graph straight away. Turns out, you need to import shader graphs for this! To do this, go to Window->Package Manager -> shader Graph and install the shader graph package.

If you get the error message about the pipeline not working with the shader graph, download the Lightweight Render Pipeline from the Package Manager, right-click on the asset folder and go to Create->Rendering-> Lightweight pipeline asset -> name it anything. Go to edit -> project settings -> graphics and drag and drop the pipeline asset just created onto the scriptable render pipeline settings. This wasn't included in the tutorial I followed and tripped me up for a bit.

11/12/2019 – Camera Shake Tutorial

I was a bit lost as to what to make for my fourth tutorial, so I decided to do a camera shake effect that I found on the Brackey's Youtube channel. It was fairly easy to do, but it's important to create an empty gameObject for the camera to be childed onto. This makes it so that the camera can be reset to (0,0,0) after the shake is finished and the cameraHolder can be moved around like the camera would normally be moved.

After I followed the tutorial, I found that there is a camera shaker on the asset store that can be easily downloaded and used instead of creating your own. It moves more smoothly than this one, but if you're going for a jerky effect this one works just fine. It is also important to have objects in the scene that are in view of the camera for testing purposes. Otherwise, you won't be able to tell even if the camera is moving.

11/26/2019 – Building the Component

Based on the tutorials that I have made, I decided to make a courier system. When I initially set out, I had a fully-fledged inventory system in mind but it would be more difficult to add a removal system for the inventory. I decided to make a courier that could drop down, initiate a camera shake, approach the player, start a conversation, add an item to the player inventory, walk away and dissolve.

When building a scripted encounter, there are a lot of Booleans involved. I ran into an error where only the first character of a dialogue sentence was showing up. I assumed it was an error having to do with the IEnumerator in the sentence typing and couldn't figure out where it was going wrong. Eventually I found out that the IEnumerator was getting started every single frame. To fix this, I used another Boolean to ensure that the dialogue only got started once.

I had another issue trying to get the DissolveShader to be triggered with code. As it was, I just had it turning on and off over time, but was able to add a variable and used SetFloat to get the dissolve working.