Tutorial Scripts Eternal

Many script use empty public GameObjects (or text, etc..). So for most scripts to work you are required to drag in the player object into the script. You can make use of tags on all objects and declare them in the script with the tags but I found it easier to work with the drag system in Unity.

# Checkpoint

This Script is attached to a checkpoint which is an empty gameobject with a sphere collider that is set on trigger. When anything with the Player tag run through this it will send the transform position to the script where you lose health. When you die this is the location you will spawn.

# DoorMovement

For the first level the house has a locked door. It checks if you have 4 crystals in your inventory you are allowed to open the door. This door will also open with an animation and sound. The door opening makes use of Animation. Animator is attached to the doors. Door idle, door close, door open are all the states. Don’t loop the door open because this will trigger the door opening animation constantly.

# EndLevel

When you walk into the portal in the end you will go back to the Menu.

# ExtendedCameraWalkerController

This script inherits from the asset script I’ve used for movement. In this script I add the possibility to sprint, slide and crouch. While sprinting the FoV will also increase to add to the effect of going fast. The sliding code. Makes use of addforce. This will add to your players velocity so you get a short speedboost.

# LavaDamage

LavaDamage gets triggered when touching a collider that is added to the water. When you toch the water you take damage.

# MainMenu

MenuScreens start will begin the first scene. LevelSelect give an option menu to choose level 1 or level 2. Quit will end the game. This script will also make the cursor visible again.

# MovingRock

A simple script with speed and vector3 positions. In these position place an empty object to where you want the moving rock (object) to move. It makes use of lerp to pingpong between these positions.

# OptionsMenu

An Extension the the MainMenu. It shows the canvas with a menu of all the levels. Here you can choose the 1st or 2nd scene to play.

# PlayerHealth

This script will manipulate the players health. A player has standard 100 health and when this reaches 0 (by LavaDamage). The player will die and respawn at the point set by the checkpoint script.

# ShowText

This is a simple script that will put a messagepanel on true when you come close to an area. It is used for warning the player about a portal, or something that is going on close to him.

# TeleporterScript

This moves the player to the target set. This is an older version on the checkpoint system but still used for resetting the game with R. This Is only temporary at the moment until the game is further developed with an escape and settings option.

# Inventory

This script will enable and disable the inventory system on the canvas.

# DefaultObject

Simple script that makes it easier to create a default item. It uses a CreateAssetMenu so it Is easier to add multiple “default” items. Just right click and you can make new ones in unity.

# ItemObject

Here I declare all the Itemtypes and inherit of the ScriptableObject so Items can be used and created throughout scripts. The importance in this script lies with that it is a ScriptableObject.It makes it so I can easily add new inventories and items. This is great for scalability. If I want to add another item all I have to do it right click add new default item and give it a model/prefab. While the inventory isn’t really worked further on in the game there are plans to create more items to loot and even items that will give you perks like increasing movement speed.

# DisplayInventory

A script that makes the items you picked up with ItemPickup show in your inventory on the Canvasdisplay.

# ItemPickup

By making use of RayCasts I will determine if a player Is looking at an object. We declare a ScreenPointToRay in the middle of the screen. So that a ray is checking in the middle of the screen if it ever collides with an object that has the tag Item. In this case the items are the crystals. When pressing E and looking at the item it will be destroyed but not before it is saved and changed in the Objective text above the inventory hat you picked up 1 crystal.

# (TakeHiResShot)

Script that takes a screenshot of your scene and uses it for my level picture in the menu screen.

Extra

I little more about the extra’s I have used which wasn’t really seen during the classes. But I’ve found needed or wanted to improve the feel of my game.

# Post Processing

In the Package manager are a lot of useful tools. Post Processing is 1 of the things I have used there to have a coloured effect on my camera when I’m under water.

# ProBuilder

Useful tool to create big maps. There isn’t high level of detail but it is a tool which helps you build certain forms a lot quicker (like stairs) compared to placing a lot of cubes next to each other.

# Animator

While I don’t have animation for a model moving since I am using 1st person. The idea is still to add hands while running and standing idle. However for now I’ve made use of the animator to open and close the doors in level 1. Which uses the same principle but much more simplified since I am not using a skeleton of a player model. (I’ve touched upon this animation in my Week7&8 Projects on Panopto.)

Todo’s

Work more on Lighting setting. The reason the game seems so dark is due to the lighting not being generated yet. This however takes 2-3 hours before it is finished and I’m not even sure if this is the solution the all the problems of extremely dark shades.

There are sudden FPS drops in the forest and cave which I believe is cause by the water, even though it can’t be seen under that terrain, is rendering all the trees and little leaves. After staying in the forest for a while the frames will jump back to high and smooth frames per second. Can be fixed by avoiding rendingering things you cannot see with Occlusion culling or avoiding having water under the terrain all together possibly too.