**Lab Assignment #4: Review and Combining Scenes/Intro to VR**

**Due Thursday 7/12/18 at 5:00 PM**

Pt. 1

**Render Settings**

Go to **Windows → Rendering Editors → Render Settings**. Under the Common tab, scroll to Image Size. In the Presets drop-down menu, select "HD 720".

In your playblast settings, your display size should be set to “from render settings”.

Pt. 2

**STEP BY STEP OVERVIEW OF LAB ASSIGNMENT**

**STEP 1: REVIEW AND REVISE**

Review and Revise your poses. This is your last chance to improve and add to your story poses! After combining the files this will be harder to do individually.

**If you have accidentally keyed your Topcon to move your character, you will have to delete those keys and then move and rotate the COG, feet, and knee anims to get your character to the correct location.**

**STEP 2:  IMPORT FILES**

The first thing you’ll want to do with your group is decide which file you will be pasting all the poses into. From there, you’ll want to import all other scenes into that file. This will be easiest one file at a time.

To split up workload, you could have each person try importing their own scene and copy over those poses. Make sure to save some back-up files in case something breaks!

When you import a scene, you want to delete the extra set and props **that are not keyed**. You’ll be copying over all other keys.

It may be helpful for you to hide objects so it is easier to see what you are doing. To hide an object, press ctrl+h while it is selected. To unhide it, press shift+h after selecting it in the outliner.

**STEP 3: COPY KEYS AND DELETE EXTRA MODELS**

To copy over a pose from one model to an identical model, you’ll need to:

1. Select all anims from the model you want to copy poses from.
2. Right click the **key** in the timeline and click “Copy” from the menu.
3. Select all anims from the model you want to paste the pose onto.
4. On the timeline, right click where you want the new pose to be keyed, then got to Paste → Paste. Your pose should be copied over completely.
	1. If you have any issues with this step, make sure:
		1. You’ve selected the exact same keys, and the same number of keys, when copying and pasting
		2. You are copying and pasting from the same character rig or same prop.
	2. If you’re still having issues, ask a TA for help.
5. Repeat this process for every pose, every visibility change, every prop movement.
6. When you’re done copying poses over for a model and no longer need it, just delete the model.

**STEP 4: FIX TIMING**

Oofta!  Step 3 was a doozy. But it’s done now and you’re close to finishing!

You need to review timing and make sure each pose is as long as you need it to be.

You might be in splined mode. To get to Stepped, you want to select your keys, then double click on the timeline so it turns red. Then right click → Tangents → stepped. That should remove any interpolation between keys, which will make it easier to see your poses.

Most likely your timing will not be the same as what you see in Maya, because as the file becomes bigger, Maya plays your animation back more slowly. You’ll want to playblast to review your timing, then edit as needed.

**STEP 5: PLAYBLAST AND EDIT**

Playblast again. Refer to last week’s assignment write up if you need a reminder on how to playblast.

*Remember to edit the Render settings and make sure you are playblasting from render settings. Also remember to hide all possible anims and playblast from one camera angle.*

**STEP 6: AUDIO and NARRATION**After the playblast is complete, you’ll want to make a narration for your story. Your poses should be telling the story by themselves, your narration should supplement what we are watching.

You’ll also want to submit audio files for sound effects that your story may need.

When submitting sound effects, name the file with the name of the sound effect and provide us with a list telling us where each sound effect belongs. We will edit It into your playblast for you.

**STEP 6: You’re done!**

Submit your Playblast, Audio, and Narration files onto Canvas. Also upload your maya file!

**TLDR:**

Review and Revise your poses, then choose a Maya file to import all other Maya files into. Copy and paste keys from one rig to the other, then delete the other models when you’re done.

**To Turn-in:**

**Grading Criteria:**

All files submitted

Playblast submitted

* Appropriate timing on poses
* Good poses (Strong line of action, no twinning, appealing, clear)
* Static Camera

Narration and Audio

* Files provided
* Narration supports the story
* Narration is clear
* Narration is same time as Video
* Audio files have indication of where they belong in the video

Pt. 3

**Maya to Unity**

The first steps to bringing your content to life in VR

First step is creating FBX files for each character and prop you would like to export from Maya, and import into Unity. To create the FBX files, in the outliner select the topcon of the character you would like to export.

Once selected, click the **FBXit** tool on your tool shelf.

When the UI window appears, click the button on the bottom right that says **Export Shot FBXs**.

Another window will pop up with your export options, there will be two boxes checked. UNCHECK the box that reads **Export animation as in-place**, then press **Export**.

Where are my newly created FBX files being stored, you ask? Follow this file path:

**\\csenetid\cs\unix\projects\instr\capstone3\production\vr\shot**

Onces you have situated yourself with the location of your FBX files, please proceed to your closest Unity game engine. There will be multiple Unity’s downloaded on your desktop, use “Unity 2018.1.0f2” and create a new file.

Follow the file path to your FBX files. Click and drag the .fbx for the animation and locator of our character into the project window. Click and drag the locator and character into your **Hierarchy**. From the hierarchy, click and drag your character into the **Scene** window.

Now right click in your Hierarchy and select **Create Empty**. Rename the empty object Timeline. Then go to the windows tab, and select **Timeline**, and in the Timeline window press **Create**.

Once you’ve created your timeline, click **Add** and select **Animation Track**. You will create two new animation tracks, one for your character’s locator and one for the character. When you’ve created the animation tracks, click and drag your locator from your hierarchy into the text window of the animation track. Then, expand the locator in the project window and click and drag the animation click onto the timeline (The animation clip is a grey rectangle with a play button in the center). Align the clip so it starts at 0.

Notes:

In the case your scene does not play in VR when you press the play button; go to the Edit tab, select **Project Settings** then **Player**. Scroll to the bottom where you will see **UX** Settings. Make sure **Virtual Reality Supported** is **checked**, and **Stereo Rendering Method** is set to **Single Pass**.

WELCOME TO VIRTUAL REALITY!

**CSE 456 Lecture Critique**

**Student Name:**

**Date:**

**Contact Information:**

**Regarding your Assignments 1-4  for CSE456:**

1**.** What was successful? What worked well? What are you most proud of?

2. What needs to be corrected or improved? What is not successful?

3. What would you do to improve or complete the project if you had more time to work on it

4. What remaining questions, concerns or comments do you have about the project?

**CSE456 Lab Critique**

**Student Name:**

**Date:**

**Contact Information:**

**Regarding the interaction of your group to complete projects 1-4 for CSE456:**

1. What was successful? What worked well? What are you most proud of?

2. What needs to be corrected or improved? What is not successful

3. What would you do to improve or complete the final project if you had more time to work on it?

4. What remaining questions, concerns or comments do you have about the final project?

5. Was the collaboration with your colleagues in the class successful?  If not, how could the collaboration be improved?