# SEQUENCING MULTIPLE MAYA FILES TOGETHER

Brianna Jaeger

DESCRIPTION

Cuddlefish decided as we were transitioning from Layout into animation that it would be easier to animate in 10 larger files then keeping all of our 84 shots separate. As a group we decided that the benefits of this greatly outweighed any downfalls. It would allow for better control over timing, easier set ups for lighting across multiple shots, and would overall make things easier to control as they went down the pipeline. This technical paper will go through the process of taking multiple Maya files that all contain different cameras, rigs, and models and combining them into one large sequence file that can then be used as a base for animators.

TO START

■ We saved all of our layout in scenes > camera > in separate folders for each layout artist to work on shots separately

■ Before creating your sequences decide as a group what shots you want in each sequence. Break them up based on the action in each shot, lighting, and what characters are in each shot.
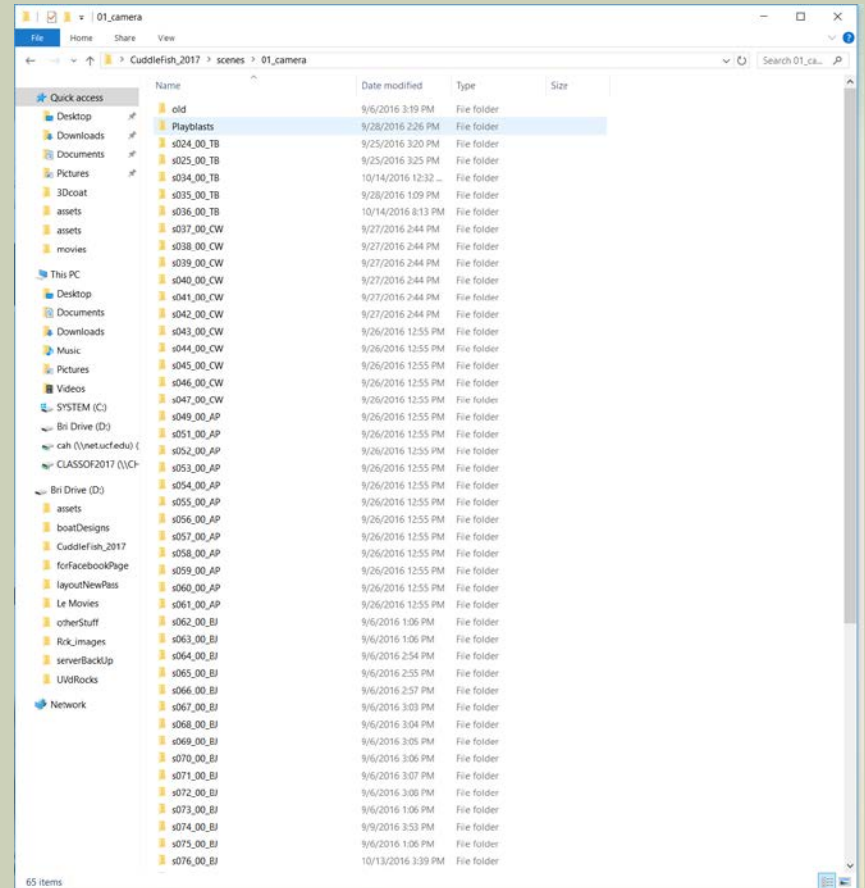
SEQUENCE EXAMPLE

- Below is our shot list, you can see where I have designated what shots will be in Connor's sequence

NAMING CONVENTION

- It's important to decide as a group what you want your naming convention to be, here is a breakdown of what Cuddlefish did for theirs.
  - In the camera folder:
    - EX. s075_00_BJ
    - MEANING: s(shot number_ additions_ initials of person working on shot)
      - NOTE: We created an additions section for any new shots we added, this made adding and deleting shots simpler down the pipeline
  - In the animation folder:
    - SEQUENCE FOLDER NAME: seq10b_CW
    - MEANING: sequence(sequence number)_ initials of person working on sequence
      - FILE NAME: seq10b_00_00
      - MEANING: sequence (sequence number_ additions_ version)

OPEN YOUR SHOT

Set your project, open your file and say a prayer it doesn't crash
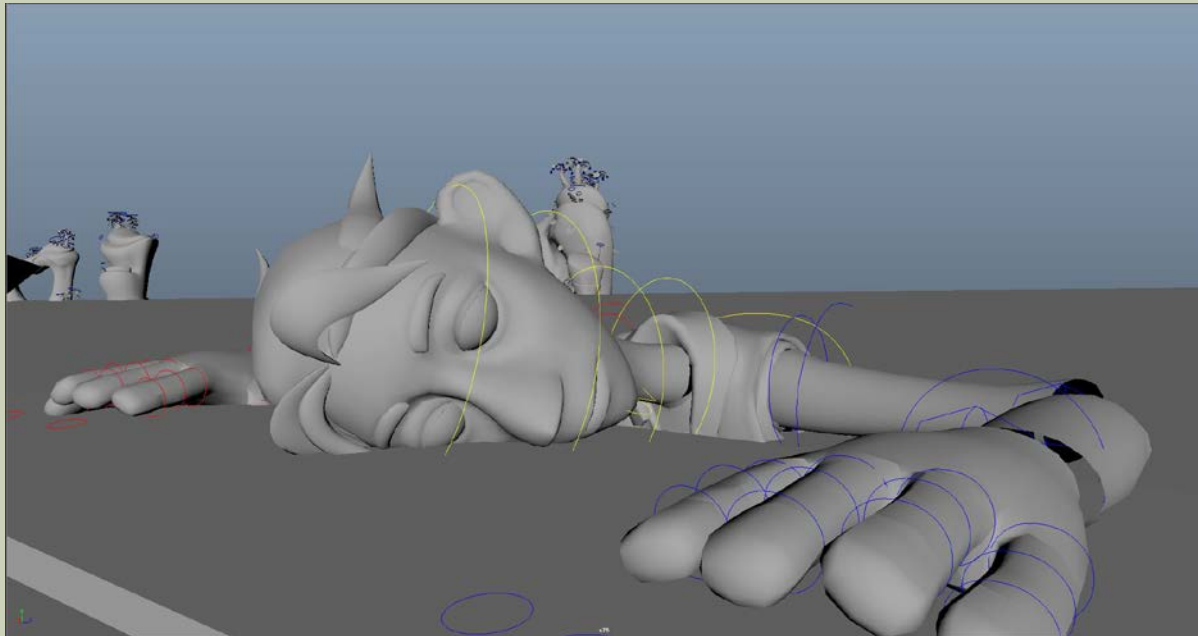
Success!

NEXT STEP

- In your outliner, select the first referenced object in your scene you wish to import and right click > reference > import
  - TIP: Sometimes Maya will give you a warning if you try to do this on any object below the first
- Do this for any rig or prop you want to be brought into your sequence

NEXT STEP

- **Select all the characters, props and camera for the shot you are working on**
  - TIP: I personally recommended for rigs selecting the rig in the outliner AND also click and dragging in the Maya viewport to select it. I found as I exported rigs if I did not do this animation would not transfer over properly.
  - To select curves only, set Maya to only select curves from the tool bar. This makes selecting animation rigs much easier.
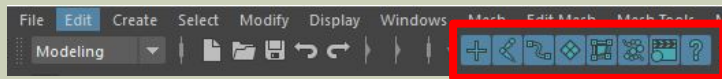
Above: All objects on   Above: Only curves on
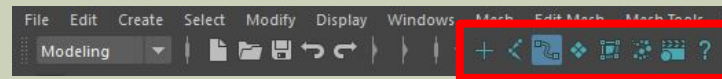
- **Go to File > Export Selection (option box)**
  - Make sure your settings are set to export out a Maya Ascii file

NEXT STEP

- **Save out ALL of the shots you want to be in your master sequence before you create it, this will make your life easier later on.**
- **Save all your exports not in the Layout folder, but in the animation folder**
  - **Here is my folder structure**
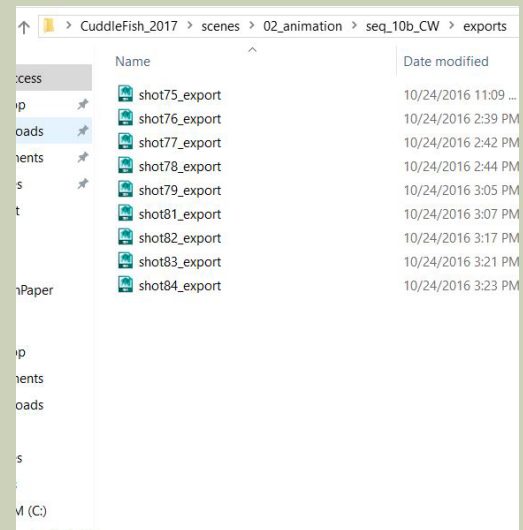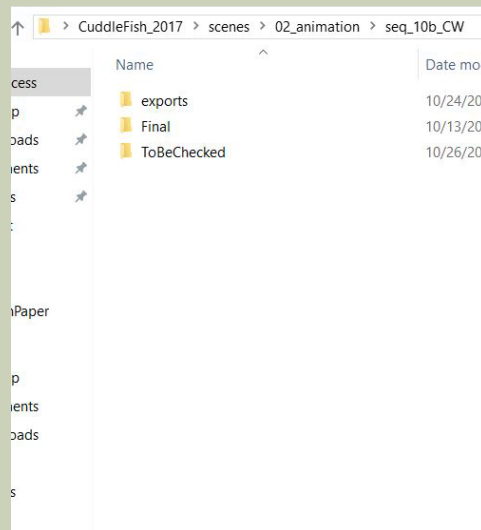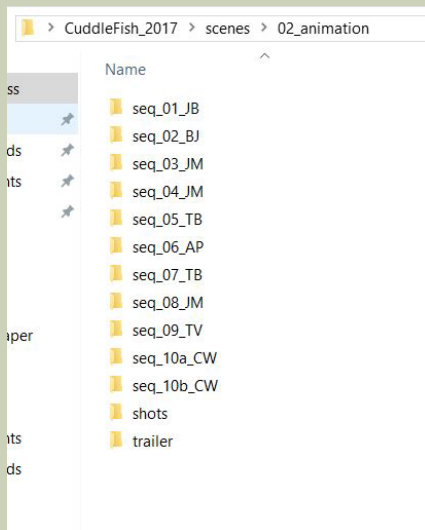
CREATE A NEW MAYA FILE

- This will act as your master sequence file!
- Reference in your environment file
  - Go to file > reference editor > add reference
- Go to File > Import
- Import in the first shot you want in your sequence

SET UP
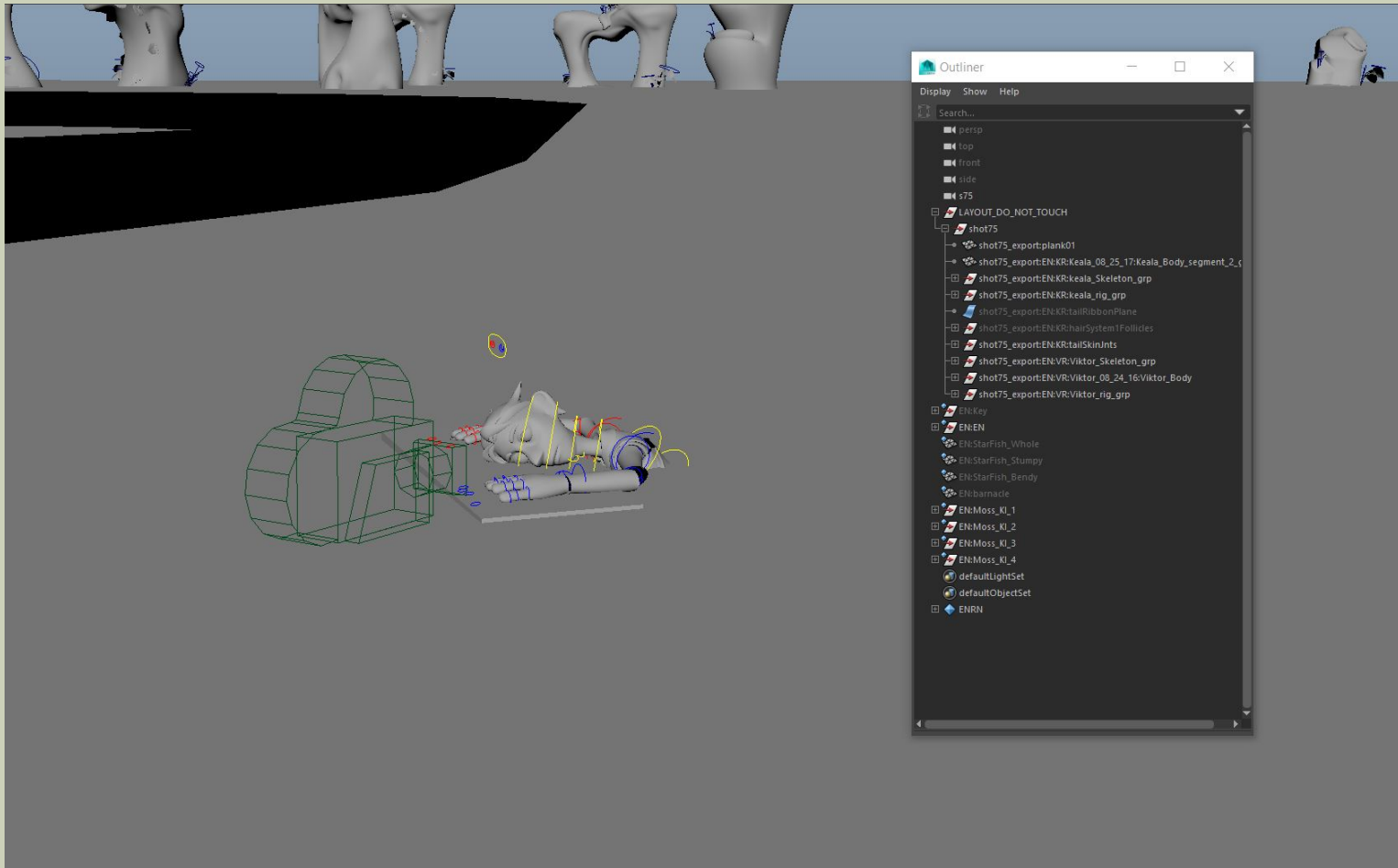
SET UP CONT.

- I grouped all the rigs and props together to clean up the outliner, but left the camera separate for easy access
  - TIP: You will find that for some shots the camera may be grouped or parented into another object so it will follow that objects motion (Ex. For Cuddlefish the camera's were parented into the boat) in this case you will have to leave the camera's where they are
  - Rename your camera s(shot number)

CAMERA ANNOTATION

- To make life easier for your animators you can create an annotation above your camera
- Select your camera: go to create > annotation
  - Name your annotation s(shotNumber)
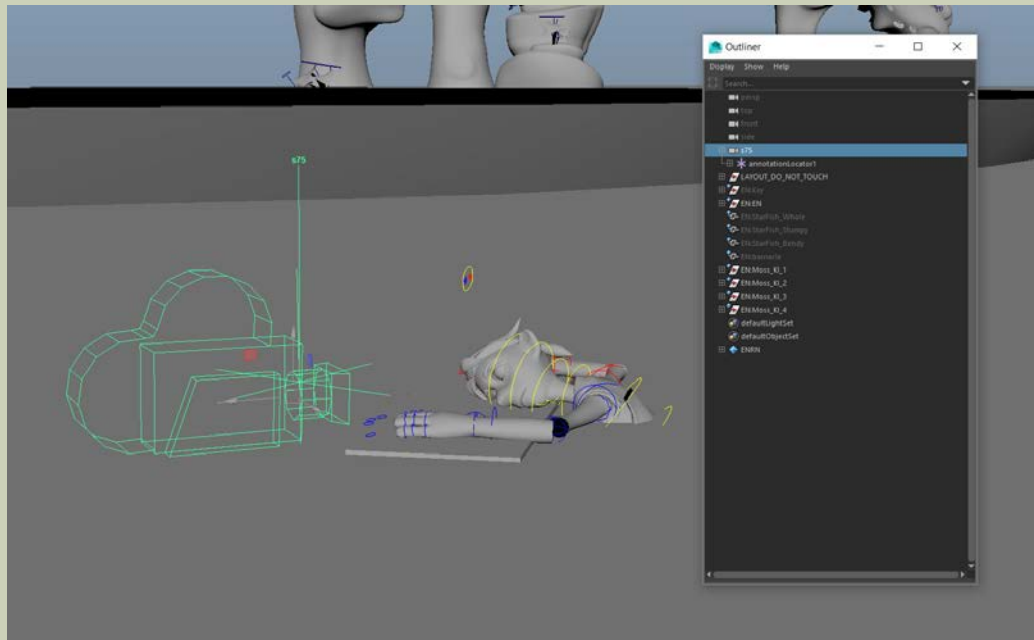
NEXT STEP

■ **You will continue this process for all the shots in your sequence**
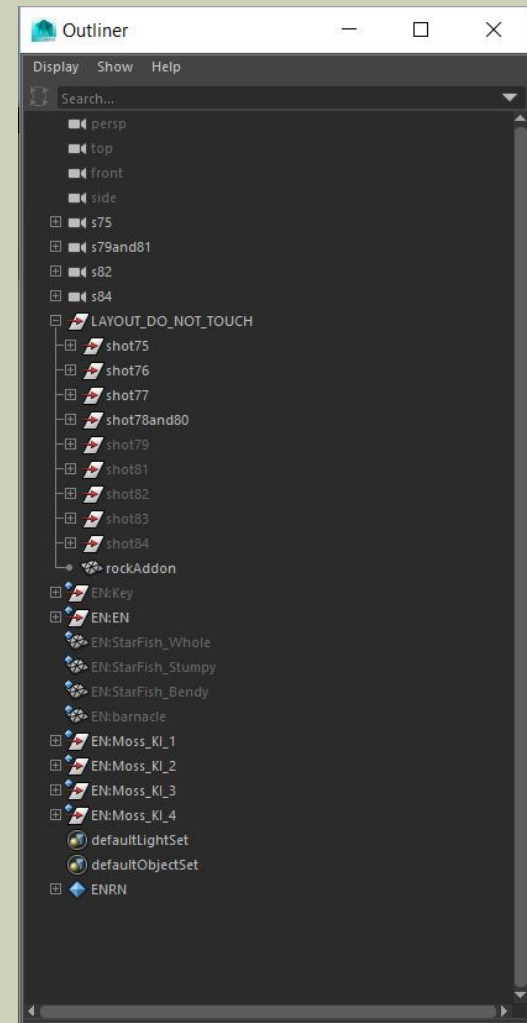
TIMING

- The hardest part of this process is staggering your layout animation so that your different groups all match up accordingly
  - In this sequence's case, the whole sequence is 1030 frame long and is broken done like so:
    - Shot 75: Frames 1 – 293
    - Shot 76: Frames 294 – 430
    - Shot 77: Frames 431 – 510
    - Shot 78, 79, 80: Frames 511 – 710
    - Shot 81: Frames711 – 770
    - Shot 82: Frames 771 – 839
    - Shot 83: Frames 840 – 944
    - Shot 84: Frames 944 - 1030

NEXT STEP

- The easiest way to do the math is to use the frame count numbers from your layout reel, and add those numbers up for accurate timing

- Below is a shot from our layout reel, I took note of where each shot began and ended, then used these numbers to figure out the frame count for each shot (in out shot list)

| 75	75	8352 - 8645	293
76	76	8646 - 8785	139
77	77	8786 - 8866	80
78	78	8867 - 8958	91
	79	8959 - 8985	26
80	80	8986 - 9084	98
81	81	9085 - 9144	59
82	82	9145 - 9214	69
83	83	9215 - 9320	105
84	84	9321 - 9395	74

NEXT STEP

- I found the easiest way to move key framed animation on rigs and props simultaneously was to select everything in the outliner, and then click drag select everything in the graph editor as well
  - Moving keys to a specific frame is also easier to do in the graph editor

EXAMPLE
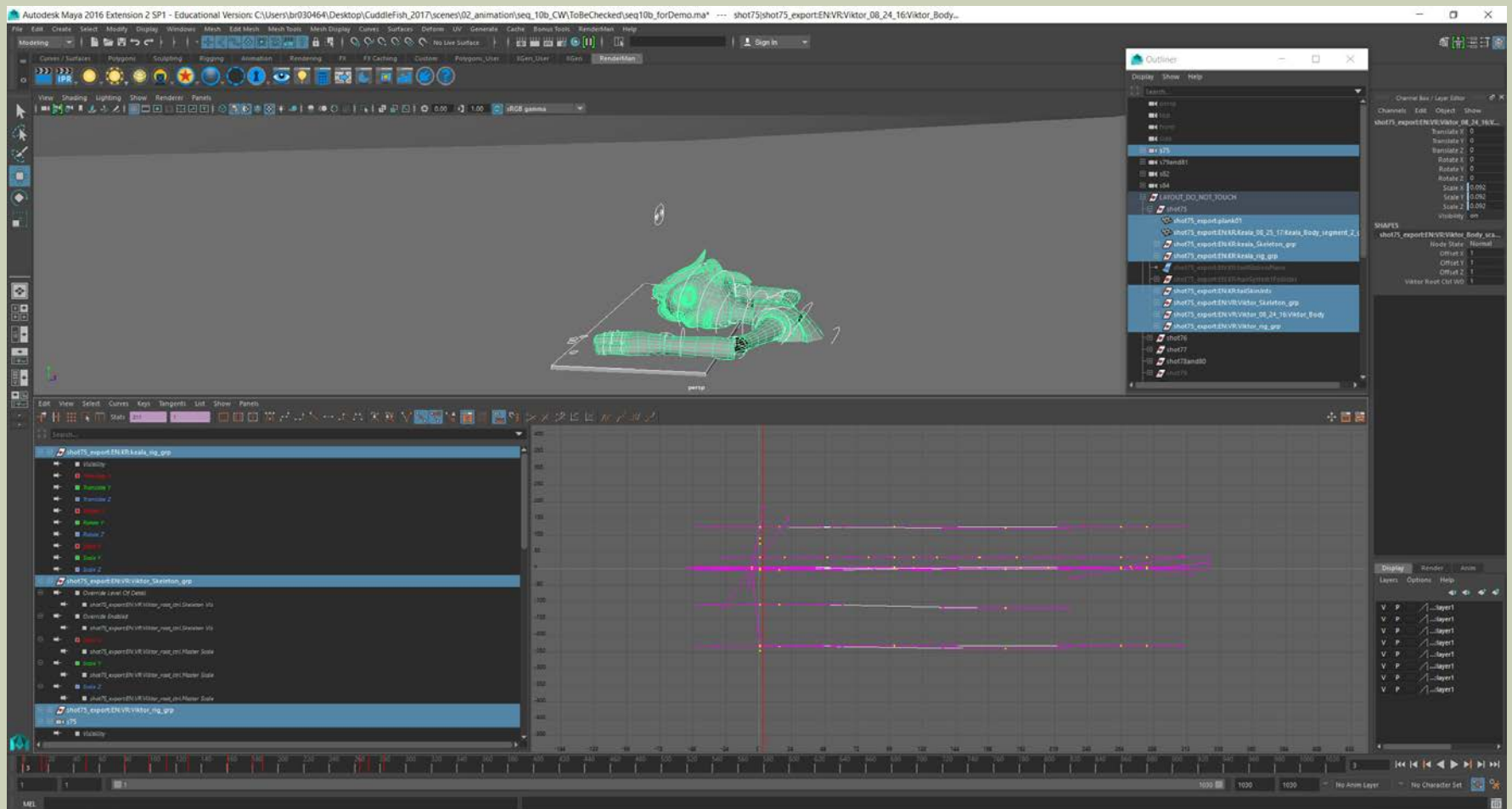
THE FINAL PRODUCT

- In the end you should have multiple rigs, cameras, and props that all move seamlessly to create one master sequence file where your animators can use this layout animation as a base to continue their work down the pipeline
  - NOTE: I gave the layout rigs a purple material to distinguish them from the newer gray animation rigs
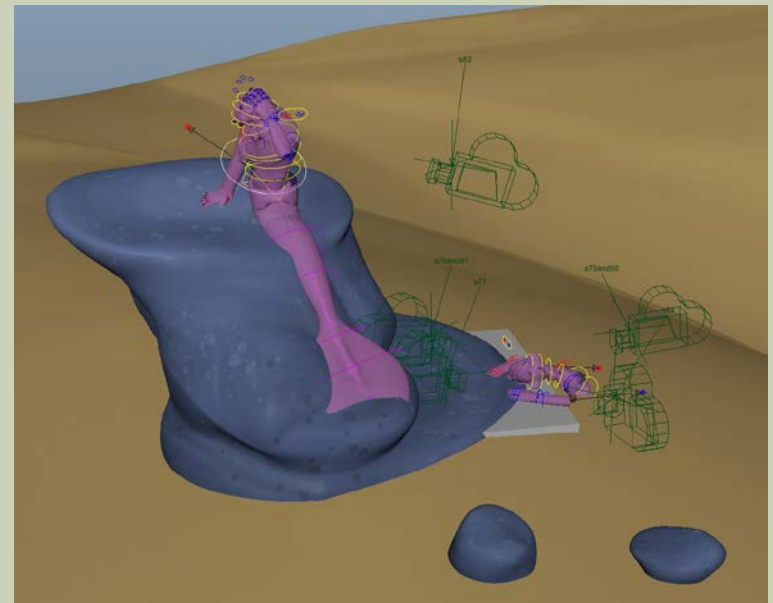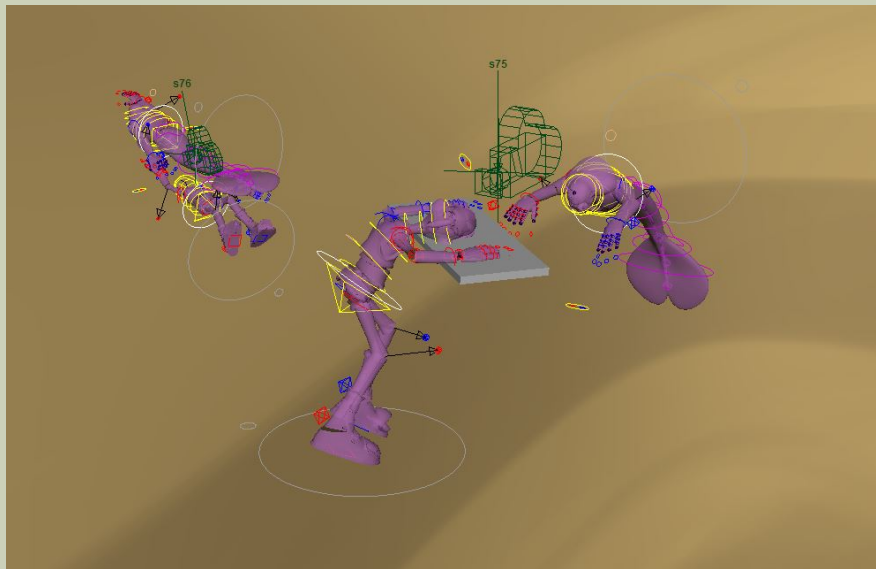
ANIMATION

- Your animators will reference in the final animation rigs and props and KEEP these referenced until the animation is final
  - The point of this process is so the animators will have the layout rigs in the file to use as a base for their animation. Once they are done blocking out their animation they can delete the imported layout rigs
  - NOTE: Before deleting any of the layout rig groups make sure none of your cameras are in said group, you want to keep all of these in the master sequence file
    - If you have camera's in any of those groups, you will need to update where they are grouped so they follow any of the new rigs or props

CONGRATULATIONS!

- You have successfully sequenced together all of your layout shots! Have fun animating!