

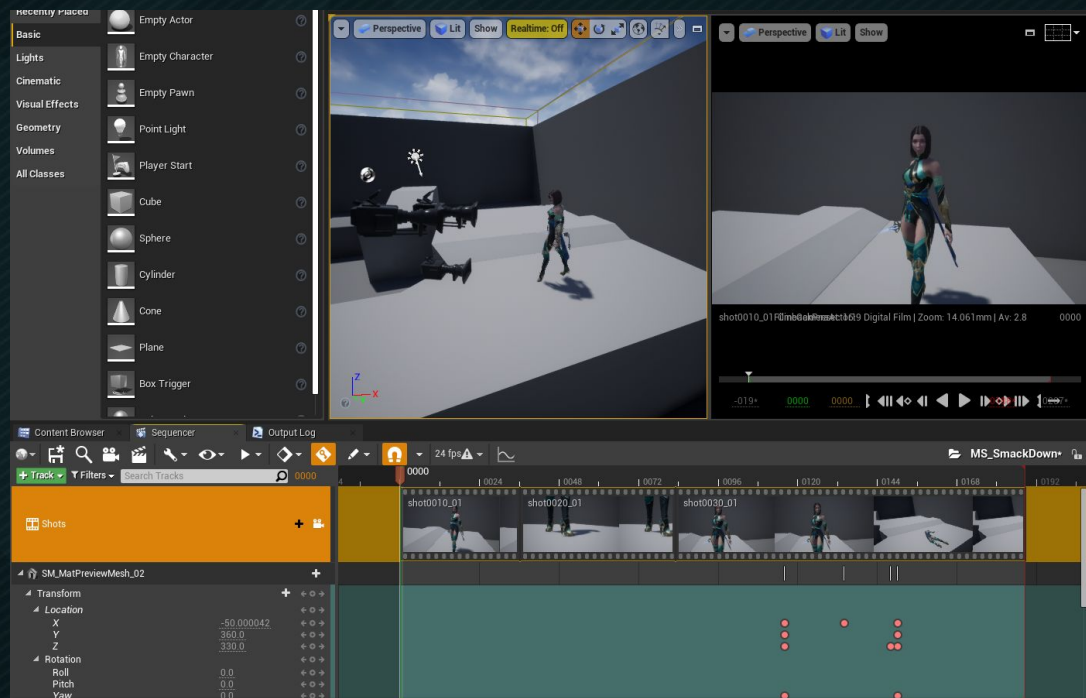
# Intro to Sequencer

Erica Penk

# About Me

- Using Unreal since 2015 for Virtual Production, VR, Motion Capture, Film
- Employers: Trick 3D, Turner Studios, Profile Studios, ProxiVP
- Clients: Delta, Make-A-Wish
- Presentations: GGDA, Terminus

# Teaser





# Overview

- Sequencer Definitions / UI
- Sequencer Workflow
- Creating Master Level Sequence / Shots
- Animation / Shot Editing
- Render Out Final Cut

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# Project Setup

Let's Get Started!

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# Project Setup

- Create New Project
- With Third Person Content Pack
- With Starter Content
- Add Paragon: Yin from Marketplace
- Open ThirdPersonExampleMap



# Level Sequence

What is it and How to Use it?

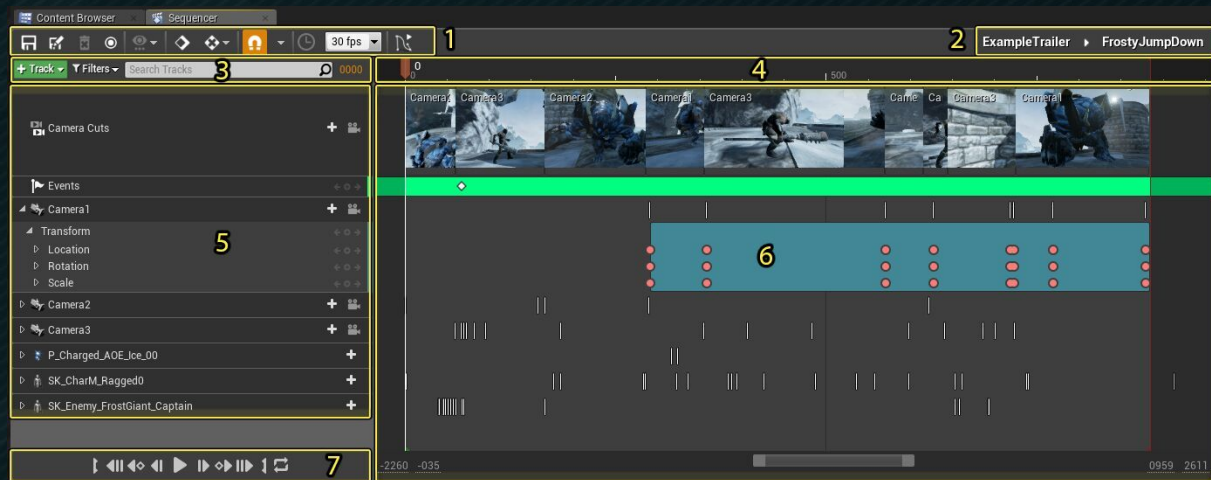
# Level Sequence

- Is the “container” for your cinematic scene.
- Must exist before you can work in the Sequencer tab.
- Usually bound to a specific level. (If so, not visible unless in the right level.)
- Can have many “Tracks” (similar to Adobe layers)
  - Can Add Camera Cuts, Actors, Subscenes, etc
  - Edit / Animate Properties over Time



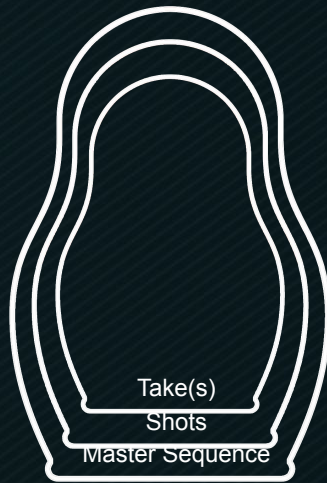
# Sequencer User Interface

1. Toolbar
2. Sequence Breadcrumbs
3. Add / Filter Tracks
4. Timeline
5. Tree View
6. Tracks Area
7. Playback Controls



# Level Sequence Terminology

- Russian Nesting Doll Analogy
- Level Sequences inside of Level Sequences
- Take = Animation Data (characters, cameras, etc)
- Shot = character Takes + Camera(s)
- Master Sequence = All Shot Level Sequences for Scene
- Master Layout = blocked character Takes + virtual camera(s)



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# Sequencer Workflow

Before We Begin

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# Workflow Considerations

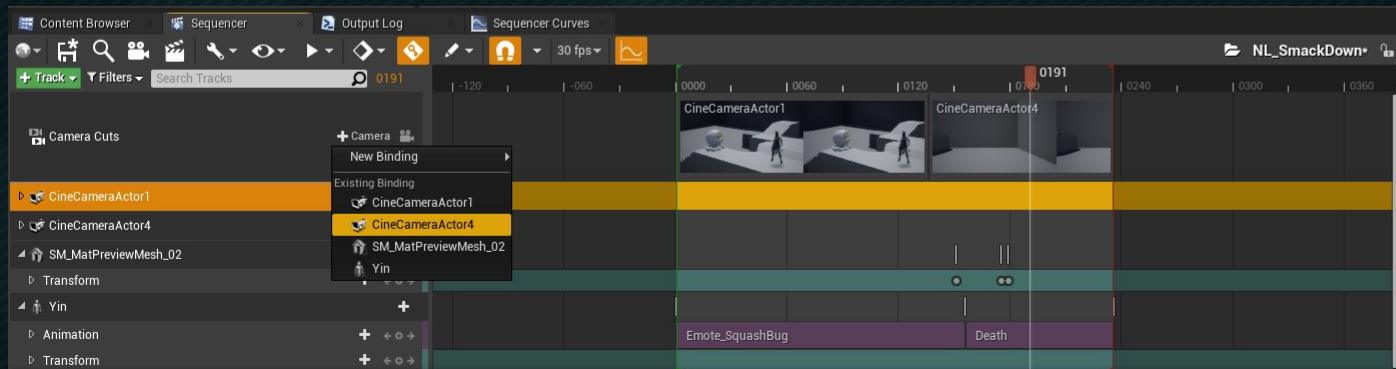
- Working in a Team? Individual?
- Linear v. NonLinear Workflow?
- Source Control?
- Level Streaming or Subscenes for Collaboration?
- File Structure? Naming Conventions?

<https://docs.unrealengine.com/en-US/Engine/Sequencer/Workflow/ToolUsage/index.html#mastersequenceworkflow>

<https://docs.unrealengine.com/en-US/Engine/Sequencer/HowTo/TracksSub/index.html>

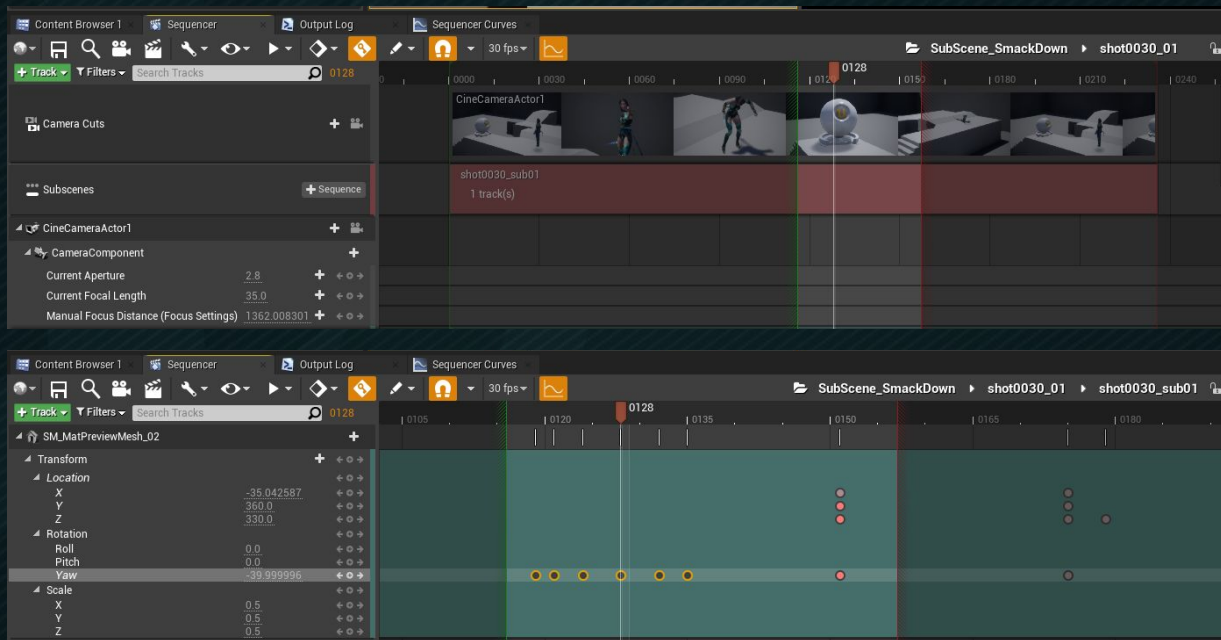
# Linear Example (individual)

- 1 Level Sequence Sequencer with Camera Cuts Track (usually multiple cameras)
- New Camera Binding for additional cameras
- Animation Takes included
- No Shots Track



# Collaborative Subscenes

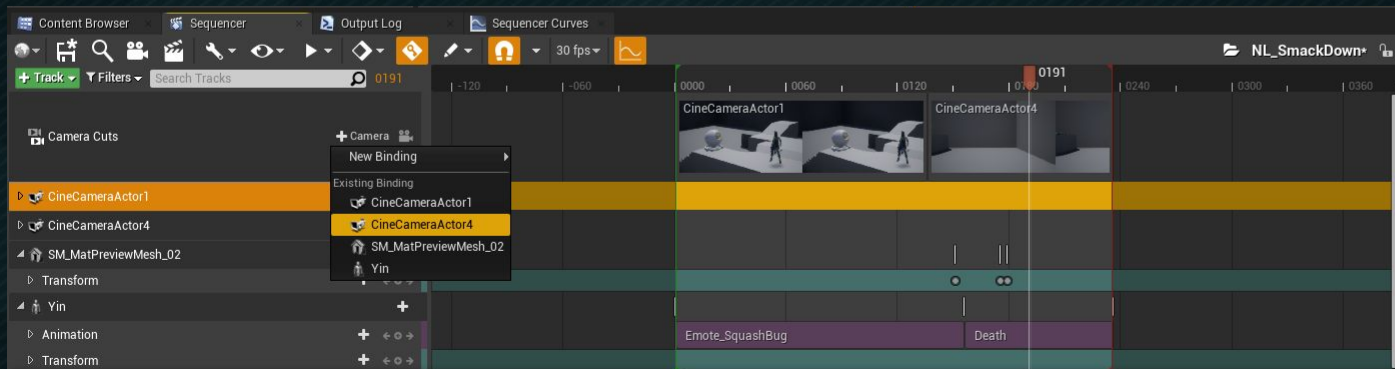
- Work in parallel on lighting, animation, cameras, etc (same scene)





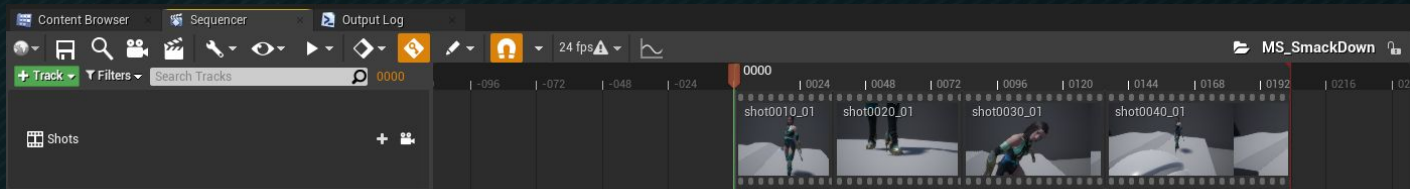
# Master Layout (Virtual Production)

- 1 Level Sequence with blocked Character Animation
- Intermediate for blending mocap and recording virtual cameras
- No Shots Track
- Virtual Cameras require manipulation before adding to the Master Sequence

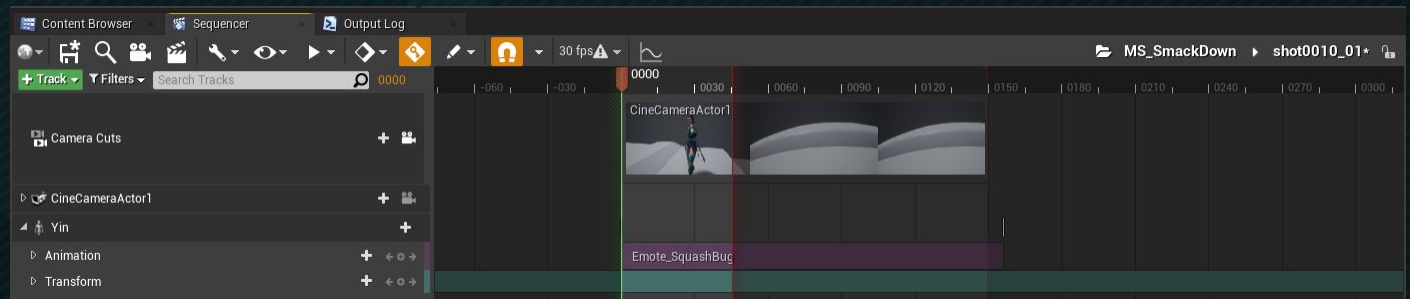


# NonLinear Workflow For This Demo

- One Master Sequence with a Shots Track



- Each Shot Level Sequence has a Camera Cuts Track with 1 Camera



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# Practice

Now it's Your Turn!

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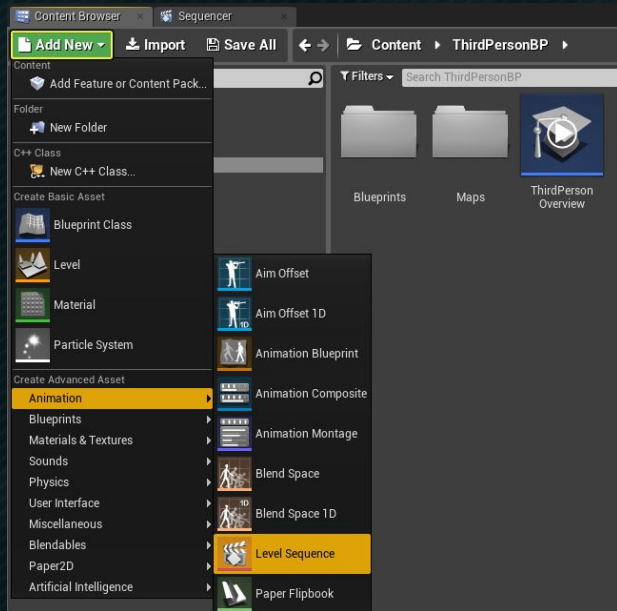


# Add Actors to Scene



<https://docs.unrealengine.com/en-US/Engine/Sequencer/Overview/index.html>

# Create Master Level Sequence



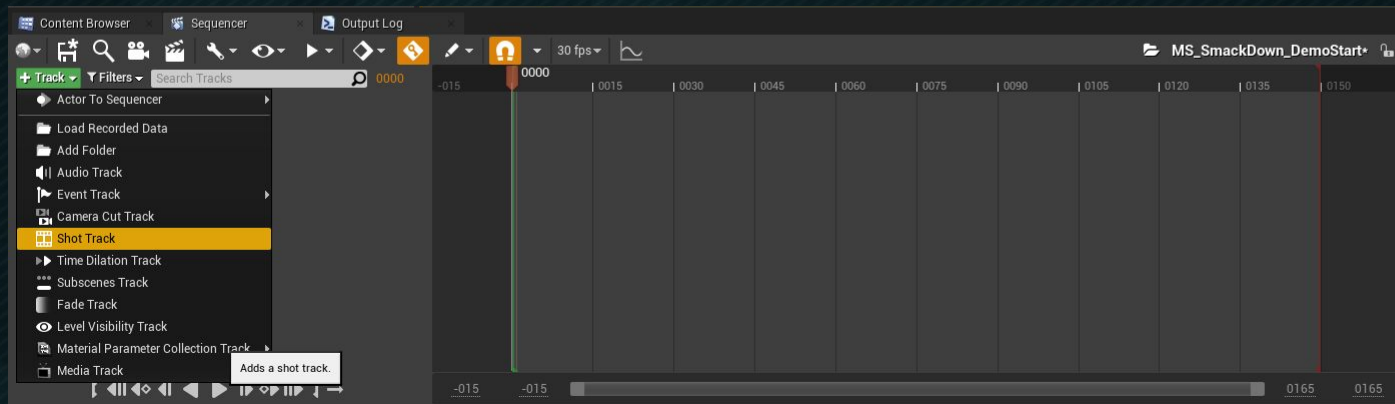
OR



<https://docs.unrealengine.com/en-US/Engine/Sequencer/Overview/index.html>

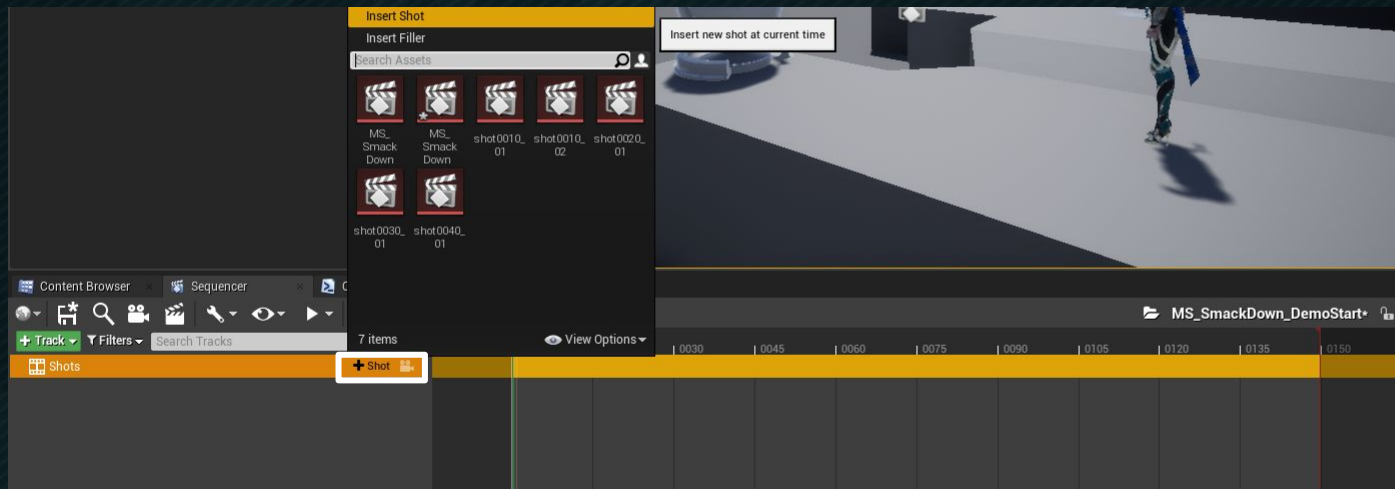
<https://docs.unrealengine.com/en-US/Engine/Sequencer/Workflow/ToolUsage/index.html#mastersequenceworkflow>

# Add Shots Track

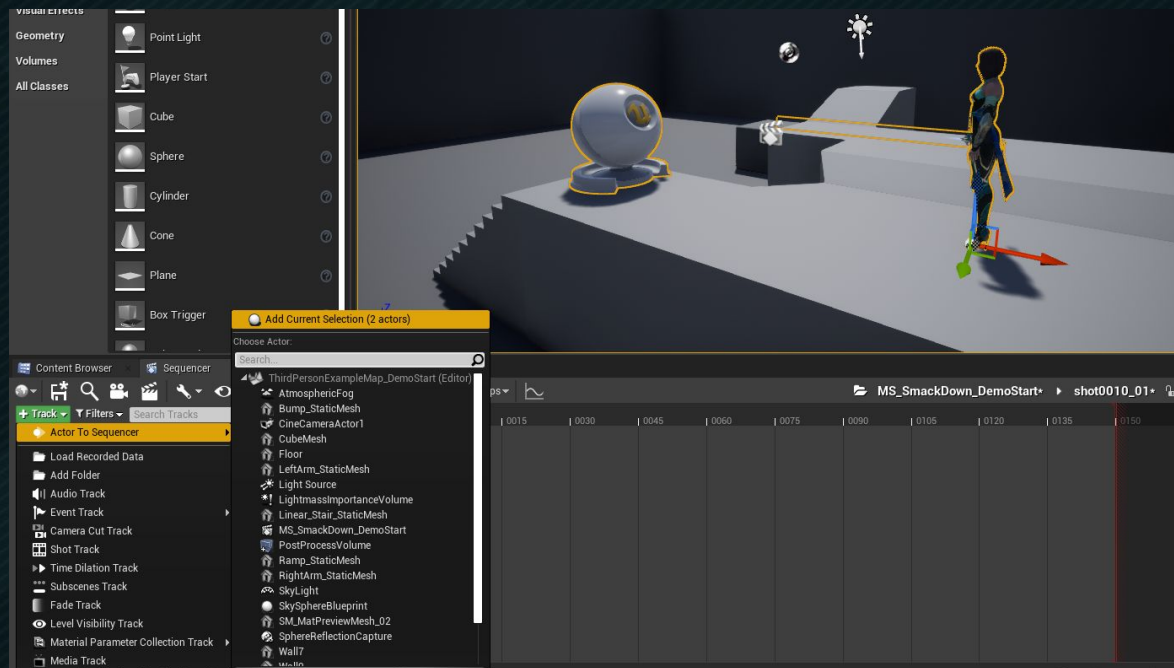




# Add Shot Level Sequences

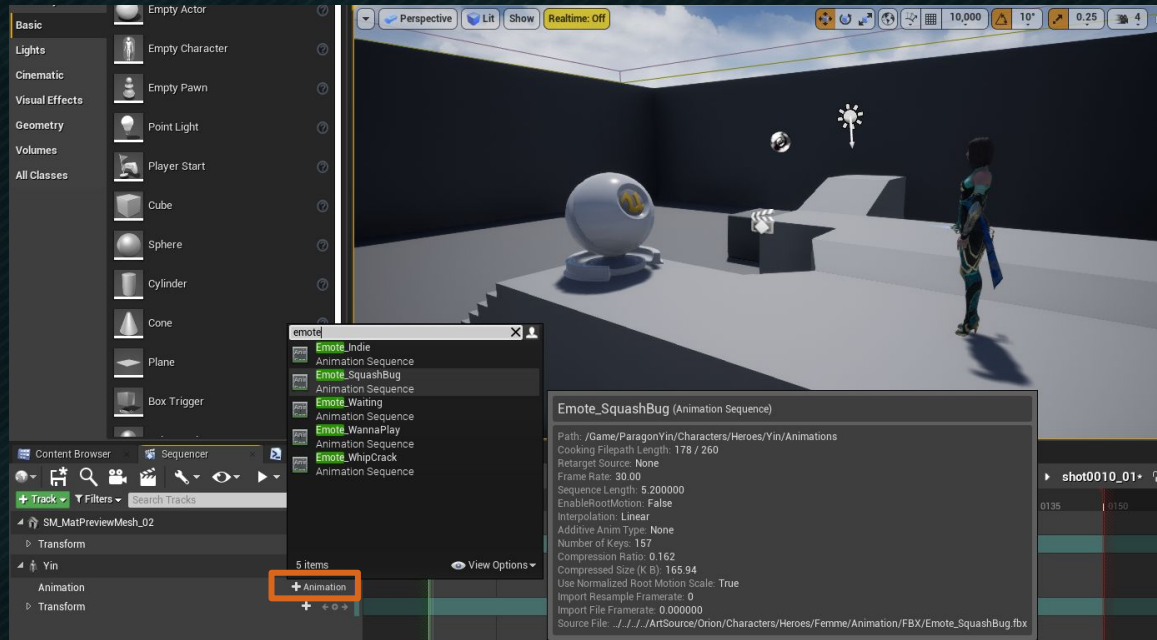


# Add Actors



<https://docs.unrealengine.com/en-US/Engine/Sequencer/Overview/index.html>

# Add Animation

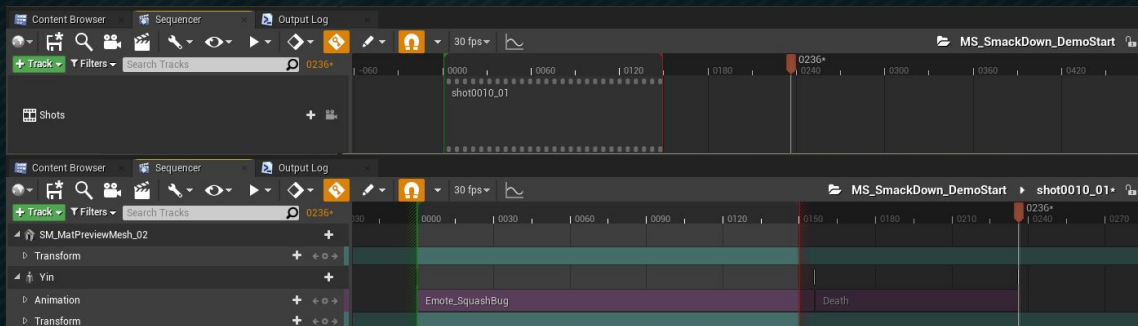


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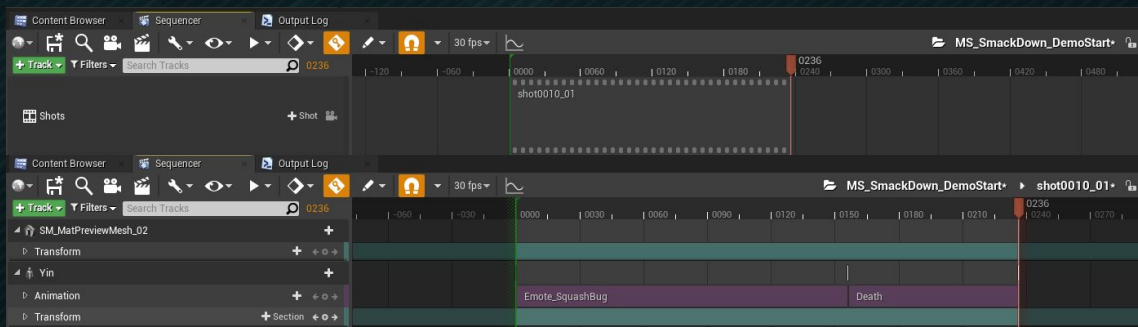


# Adjust Playback Range

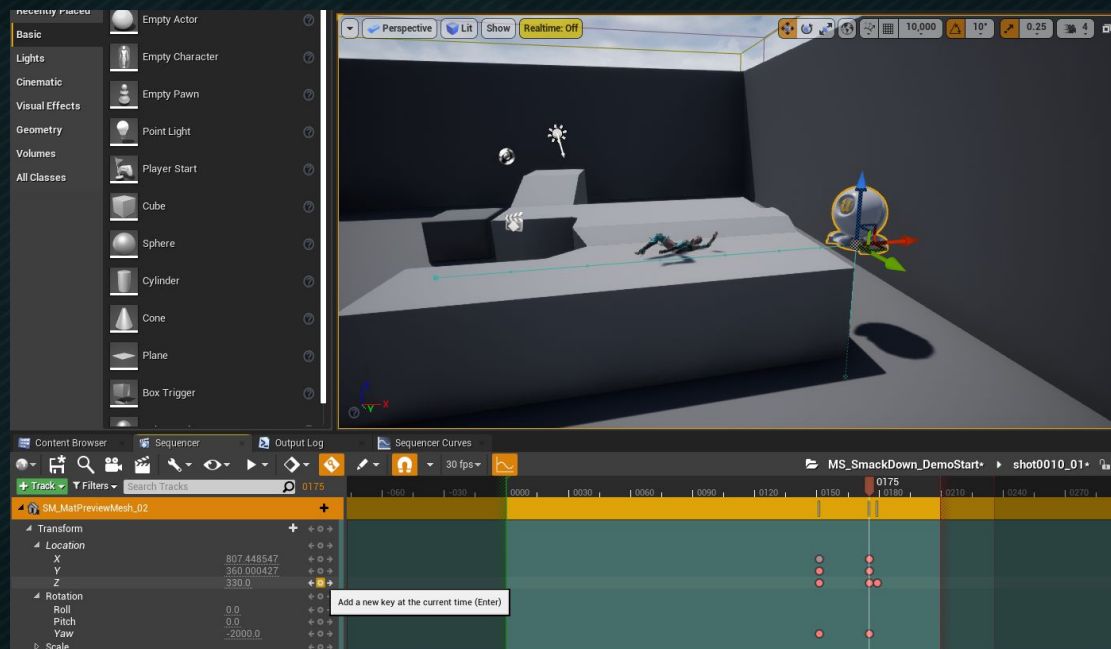
- Before:



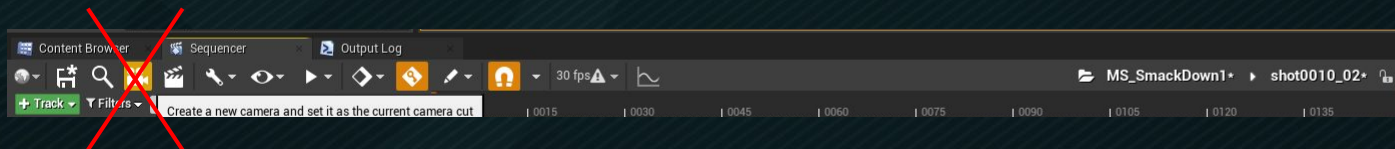
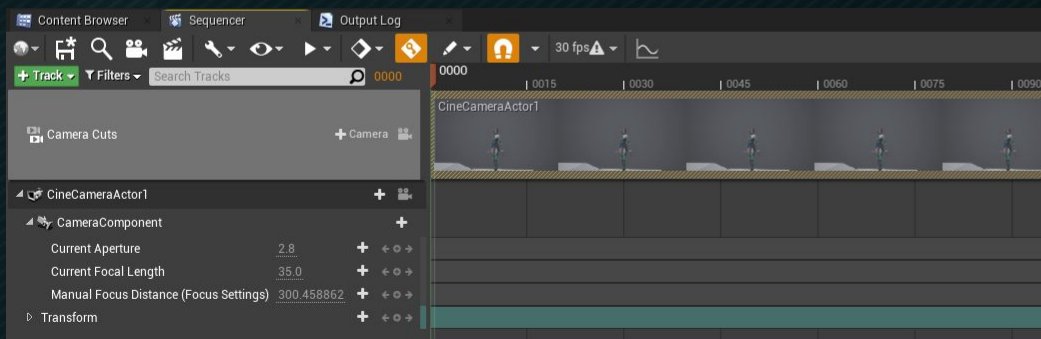
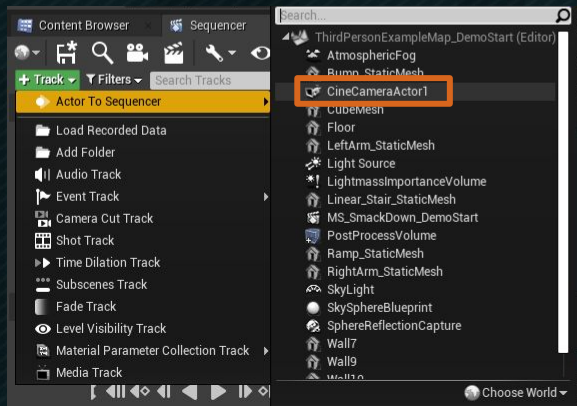
- After:



# Keyframe Animation



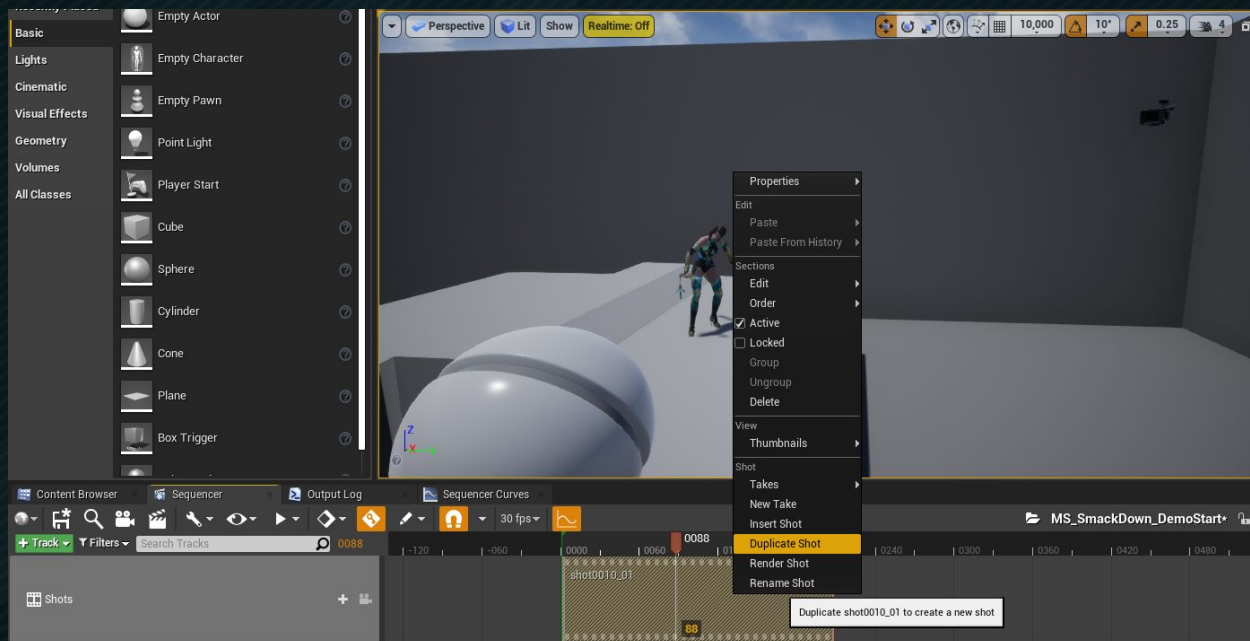
# Add Camera / Camera Cuts Track



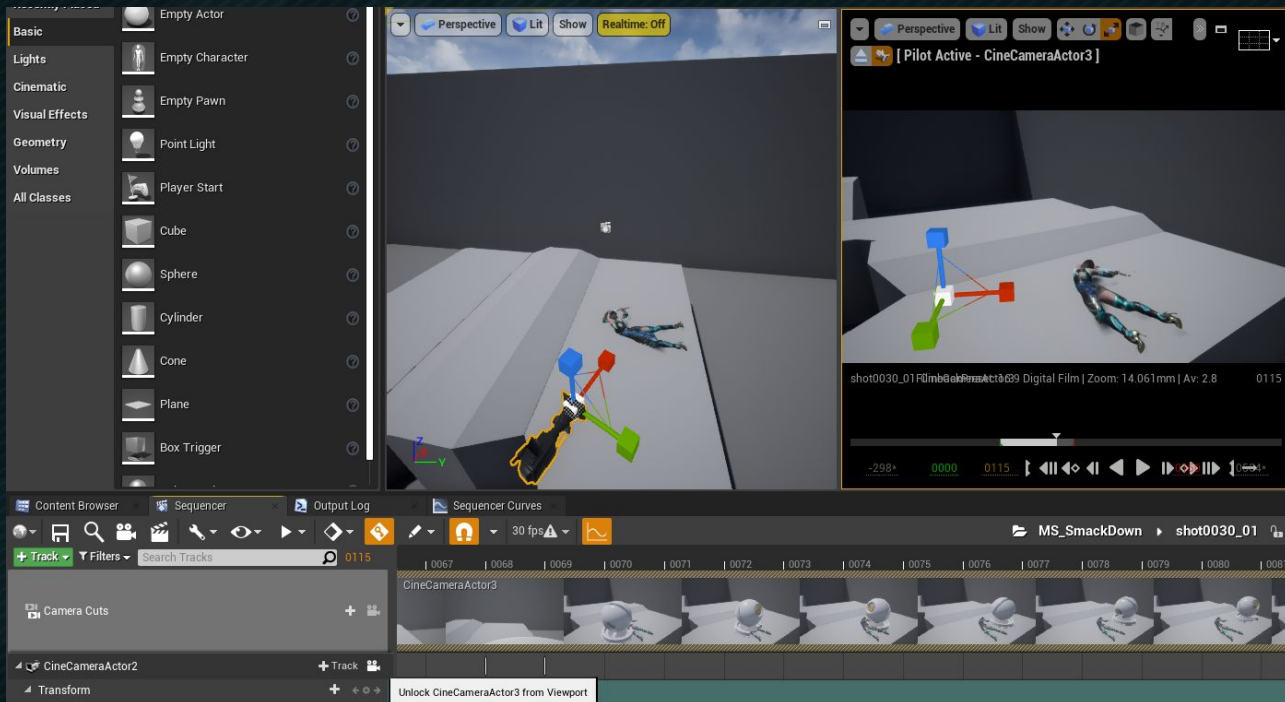
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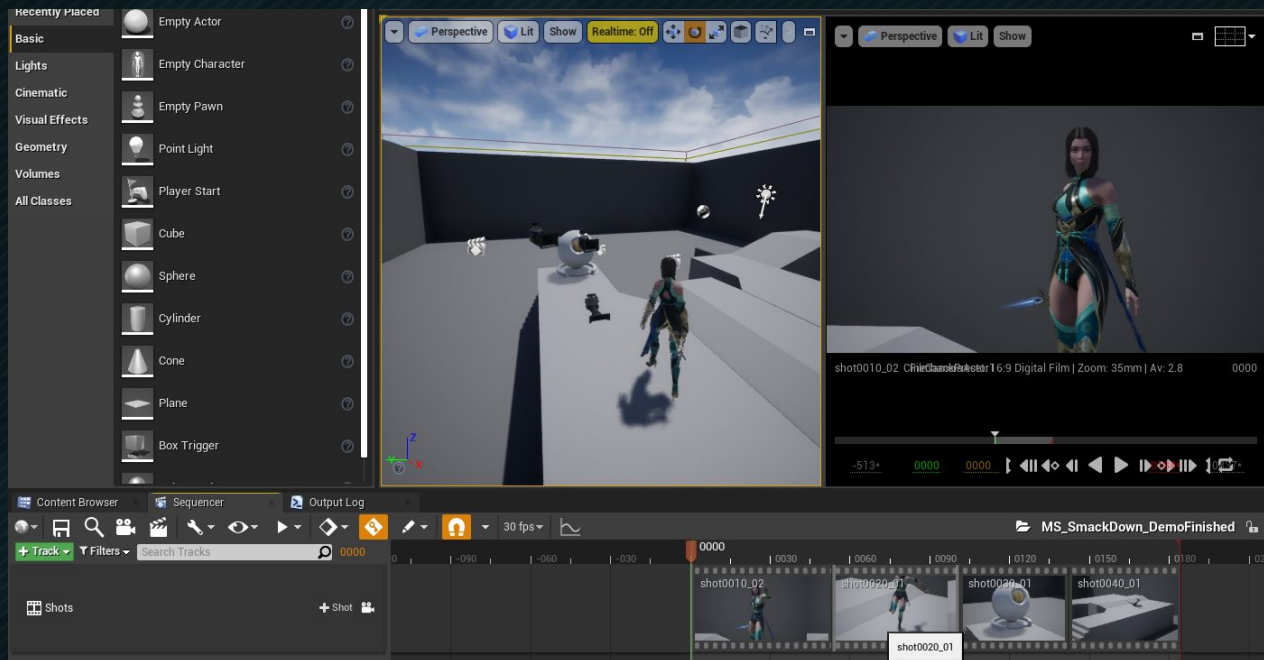
# Duplicate Shot from Master Sequence



# Adjust Cameras

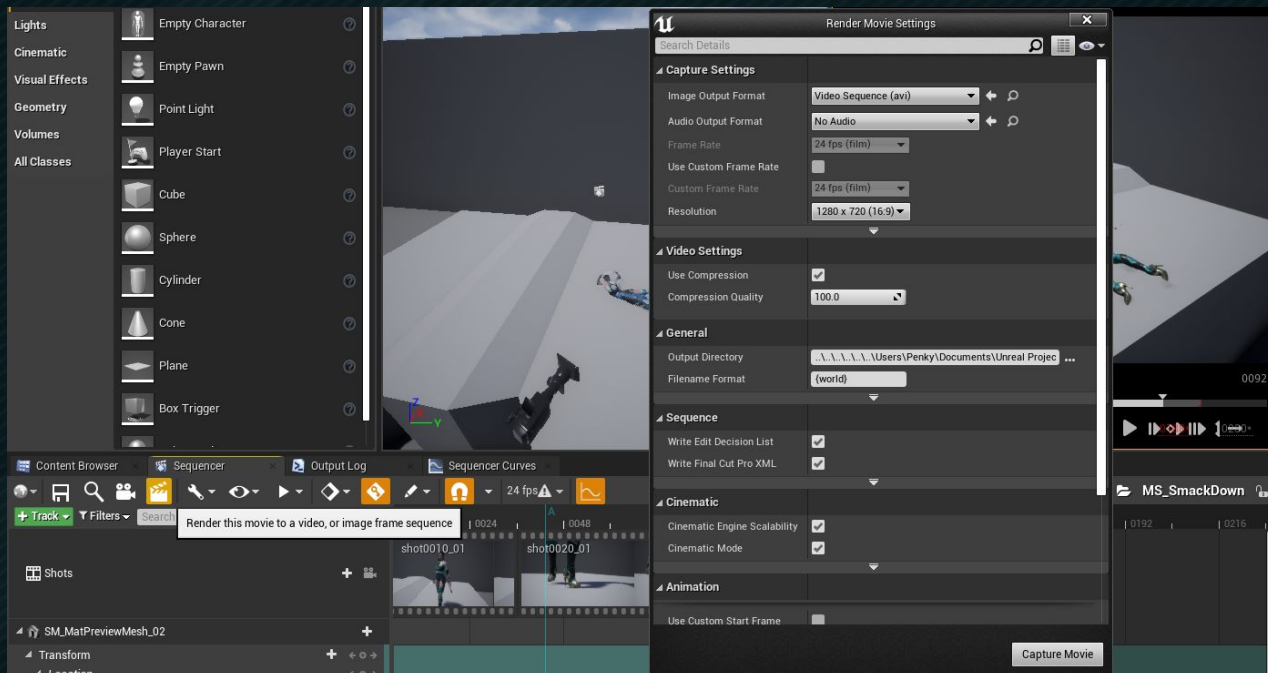


# Adjust Final Edit

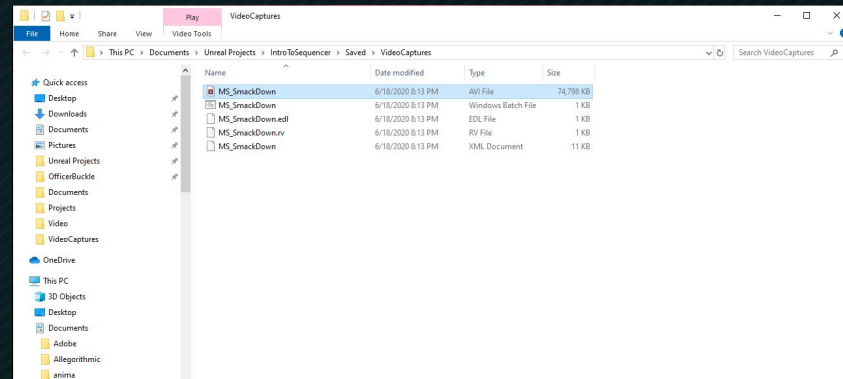
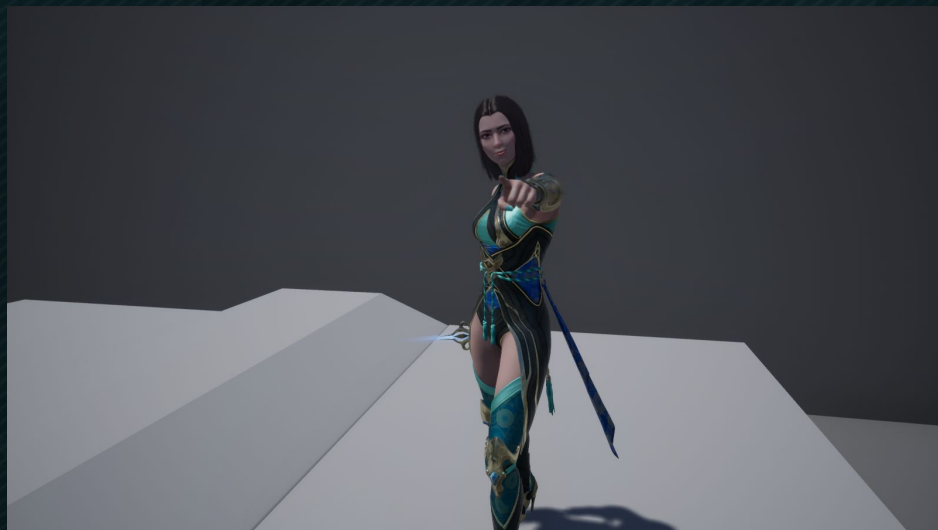




# Render Out Final Output



# Tada!



<https://docs.unrealengine.com/en-US/Engine/Sequencer/Workflow/RenderMovieSettings/index.html>

# Sequencer Hotkeys

CTRL + MMB	Zoom	SPACEBAR	Toggle Playback
[ , ]	Set Playback Start / End to Current Time	G	Toggles Game View
, , .	Last / Next Keyframe	S	Sets Keyframe all Transforms
CTRL + G	Set Time / Frames	CTRL + L	Pilot / Eject Camera
← , →	Step Forward / Backward One Frame	CTRL + /	Cut Asset at Current Time
↓	Start Sequencer Play	CTRL + ,	Trim Asset Left of Current Time
↑	Set Playback Time to 0	CTRL + .	Trim Asset Rt. of Current Time