

# Video Editing

- Introduction to After Effects
- Video Editing Terminology
- Exporting Compositions

# After Effects

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Welcome to one of the most difficult softwares to master. Before any major film hits the big screen, it stops by After Effects at some point during its lifetime. As the name implies, After Effects handles **post-processing effects**, but we will be using it for much more.

After Effects is a massive software. With hundreds of plugins and even more third-party apps and effects, After Effects boasts **the largest visual effects library**.

After Effects links together resources from all other Adobe Software, and with direct access to **Media Encoder**, can render footage in **tens of different formats**.



# Composition Setup

**Compositions** manage all the layers in your video, including **video footage, audio, imported graphics, images, vectors, shape layers, solid objects, adjustment layers**, and more.

**Width/Height** specifies the size in pixels of the composition.

**Aspect Ratio** is Width:Height

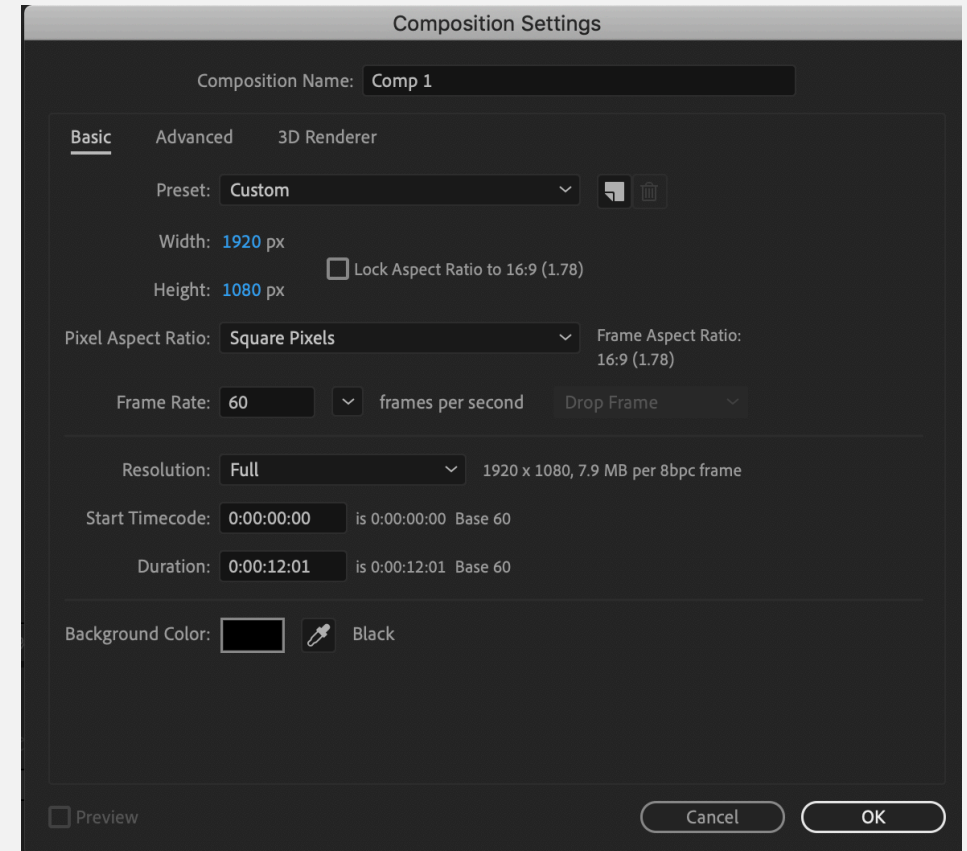
**Frame Rate** specifies the frames per second.

**Resolution** specifies the viewing quality in the program (independent from export quality).

**Start Timecode** and **Duration** specifies the start time index and temporal length of the composition.

Units of Hours:Minutes:Seconds:Frames

**Background Color** is the background color of the composition.



After Effects Composition Creation

# Layer Generation

**Layers** can be imported as footage, external media, or generated as graphics.

**Text** is a 2D text field with user-defined font parameters and typography stylings.

**Solid** is a 2D solid color layer.

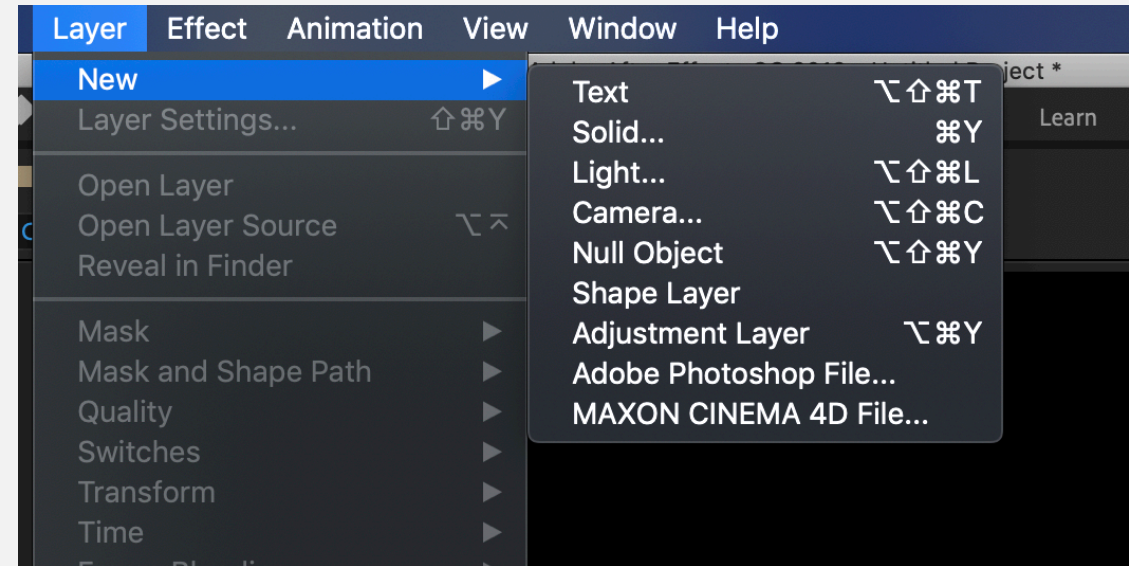
**Light** is a 3D light source that interacts with other layers in the system. Only works in 3D settings.

**Camera** is a 3D viewing frame that interacts only with 3D layers.

**Null Object** is a 2D anchor point shared by other layers.

**Shape Layer** is a 2D solid in the form of a shape.

**Adjustment Layer** is a clear 2D layer that translates any effects applied to it down to the layers beneath it.



After Effects Layers

# Timeline Editing

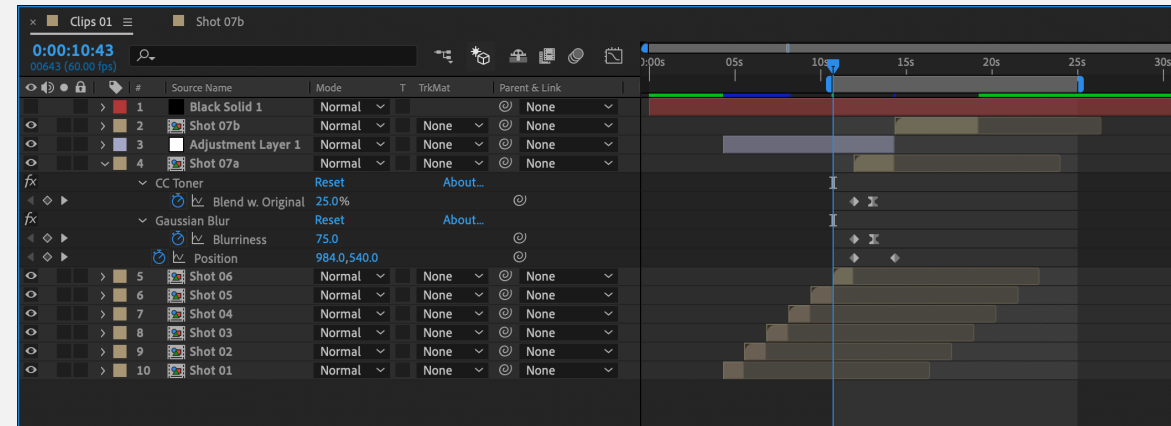
The **Timeline** is where all the layer timing, display, and transformation properties are managed.

**Keyframes** can be applied to each layer and any one of its properties. Specific interpolation properties can be modified using the **Motion Editor**.

**Motion Blur** can be toggled for any layers with motion involved (keyframes on rotation, scaling, or position).

Layers can be **parented** to other layers. Any **transformations** applied to the parent layer are **carried down** to the child layers. Each layer can only have **one parent**.

More on this when we talk about terminology.



After Effects Timeline

~~• Introduction to After Effects~~

• Video Editing Terminology

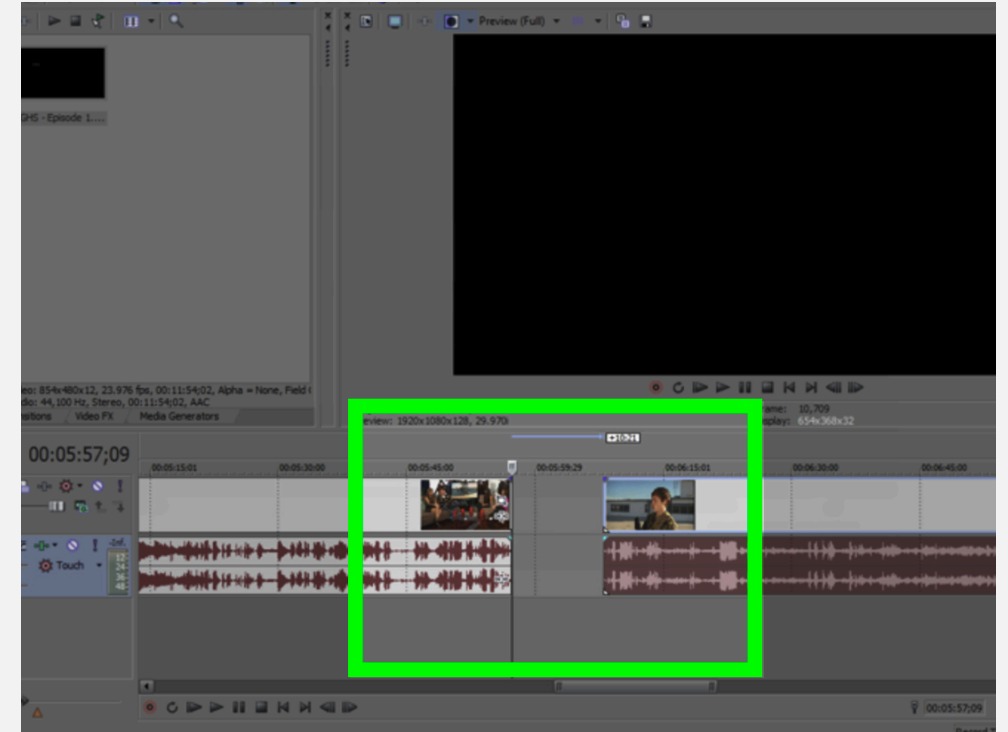
• Exporting Compositions

# Clip Splicing

**Clip Splicing** is the act of **separating** a clip into a two separate clips at a specific point in the clip's time.

More generally, clip splicing is starting from multiple pieces of footage and splicing them to only include the **relevant** parts in your video.

Clip Splicing can go a long way to tell a story, even **without fancy transitions or effects**. It puts more emphasis on the clips used rather than any assisting or guiding effects.



Sony Vegas

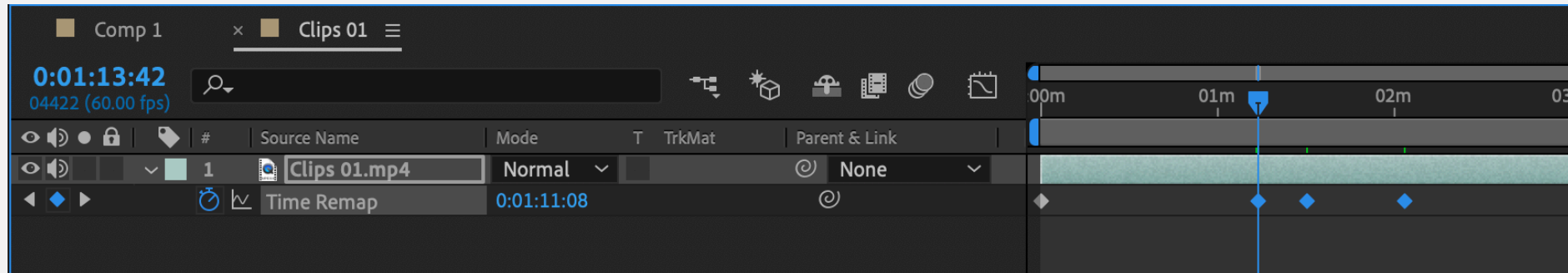


# Time Remapping

**Time Remapping** is the act of changing the playback speed of clips.

Playback speed is specified in **frames per second**. Slowing down a clip plays less frames per second but does nothing to produce additional in-between frames. Footage playback will appear **choppier**.

After Effects allows time remapping to be keyframed, where the frame rate changes **dynamically** over time.



After Effects Timeline

# Transformations

**Transformations** are keyframe-able properties that change the presentation of layers on screen.

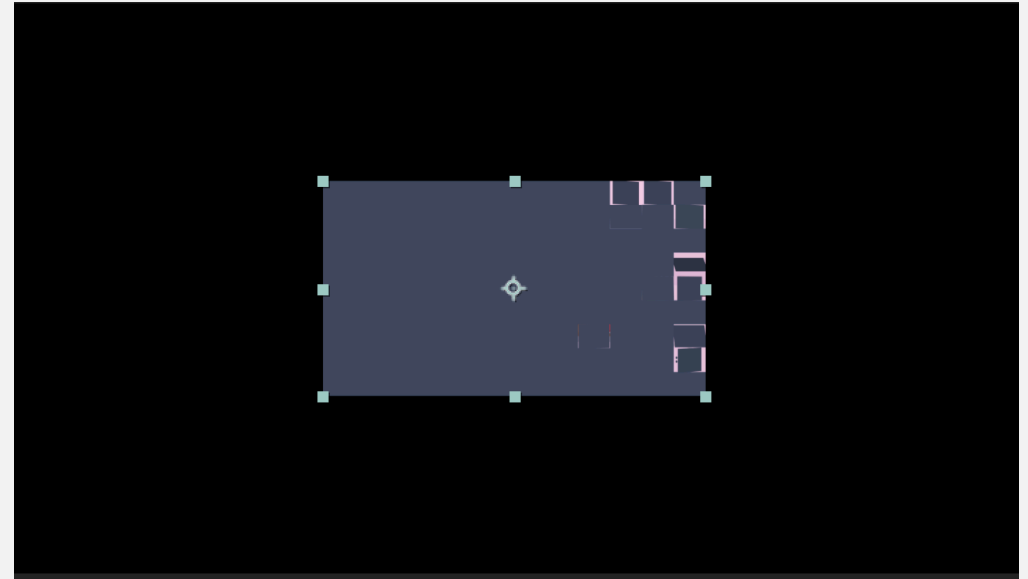
**Anchor Point** is the center point of the object. Think of it as the pin holding up the layer on a pin-board

**Position** is the location of a layer in 2D space relative to the Anchor Point.

**Rotation** is the orientation of an object in 2D space relative to the Anchor Point.

**Scale** is the size of an object in 2D space relative to the Anchor Point.

**Opacity** is the transparency of an object.



After Effects Display

# 3D Transformations

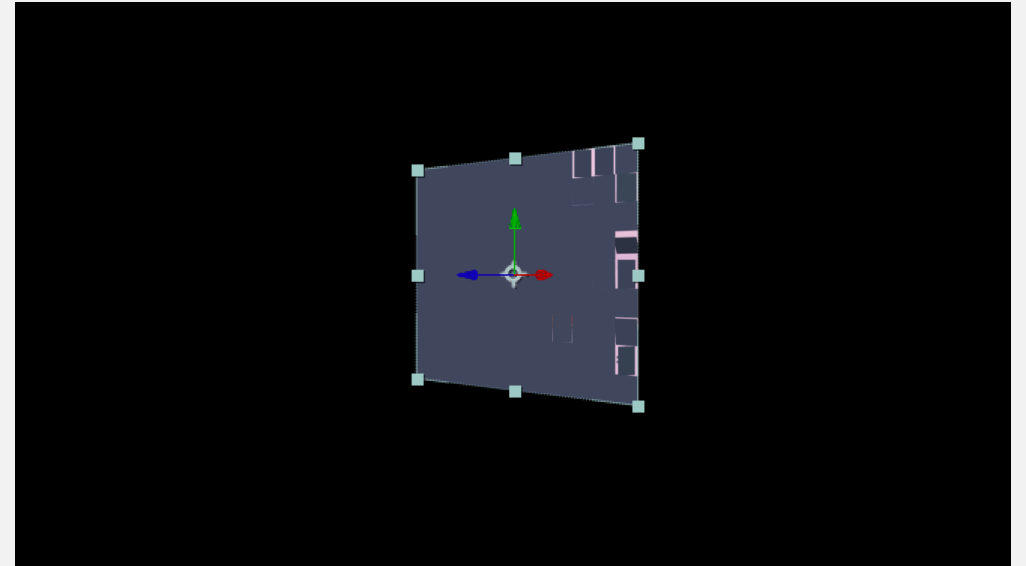
**3D Transformations** are keyframe-able properties that can be modified in 3D space.

**Anchor Point** is the 3D center point of the object.

**Position** is the location of a layer in 3D space relative to the Anchor Point.

**Rotation** is the orientation of an object in 3D space relative to the Anchor Point.

**Scale** is the size of an object in 3D space relative to the Anchor Point.



After Effects Display

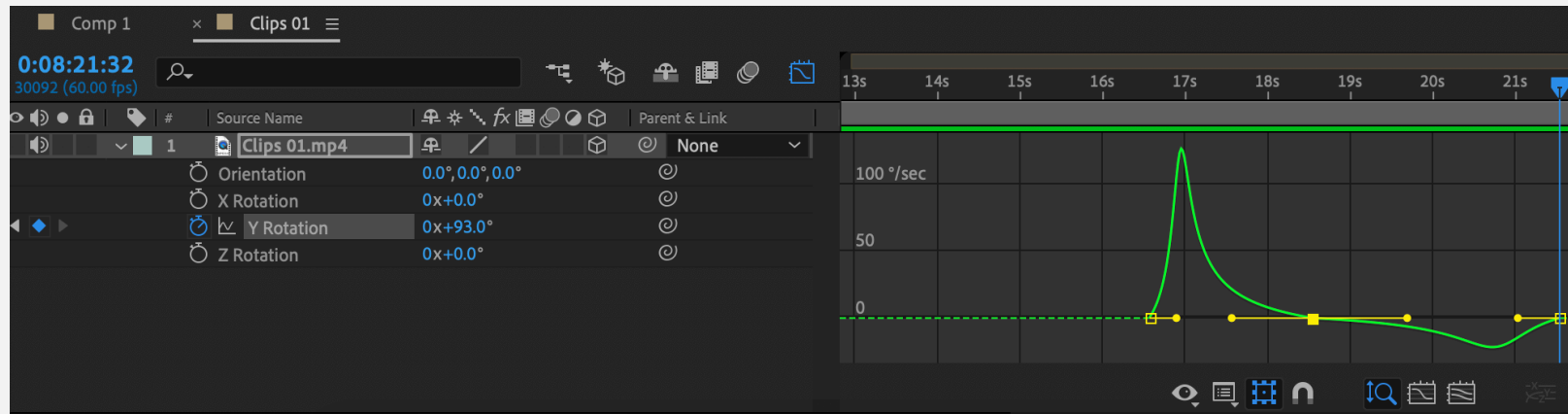
# Motion Editing

**Motion Editing** is a visualization of the motion graphs associated with the speed and accelerations of a keyframed motion.

**Motion graphs** are a sequence of **cubic polynomials** with tangents at each keyframe.

Can view a **speed-based** graph or **value-based** graph.

Tangents of value-based graphs represent speed. Tangents of speed-based graphs represent acceleration.



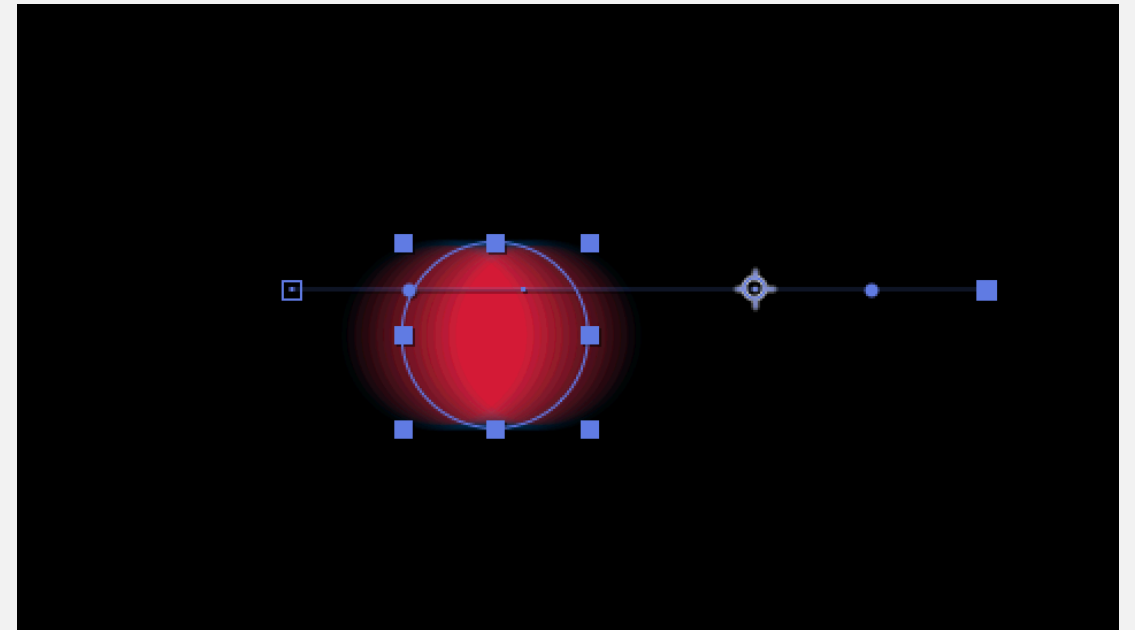
After Effects Motion Editor

# Motion Blur

**Motion Blur** is the **directional blur** caused by moving objects.

Software's will **automatically** calculate motion blur based on **speed** and **direction**.

Motion Blur is configured to work on standard transformations such as **position**, **rotation**, & **scale**, as well as their **3D equivalent**.



After Effects Motion Blur

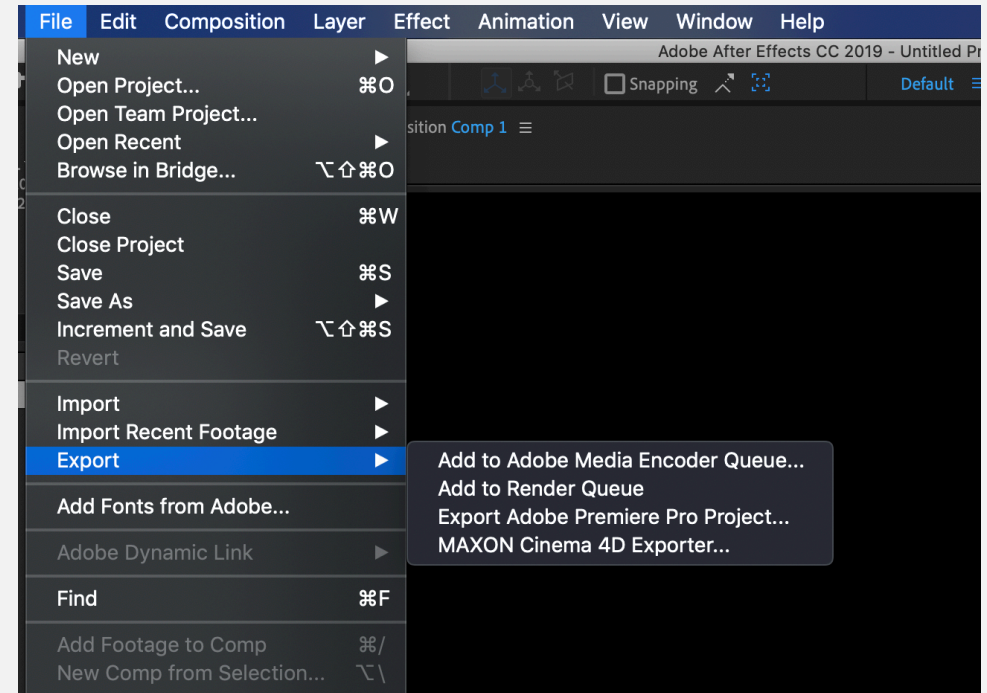
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# Exporting Options

After Effects comes with a few different exporting options for rendering footage into a video media sharing format or to work on in another program.

**Adobe Render Queue** is the built-in rendering platform that used to be the default until Creative Cloud's release in 2014. Since then, many export formats have been deprecated, and is now mainly used for image sequence and audio exporting.

**Adobe Media Encoder Queue** is the new external application that supports nearly all audio and video formats. It is a stand-alone app, allowing editors to render as they continue to work on their compositions.



After Effects Exporting

# Media Encoder

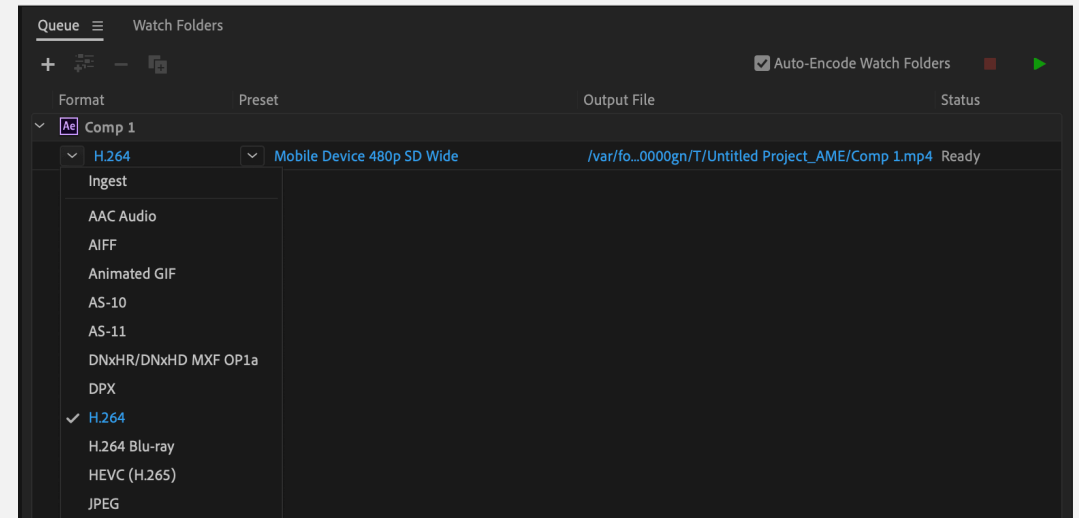
Adobe Media Encoder was introduced with After Effects since the Creative Cloud update, and downloads automatically with After Effects.

When exporting a clip, you can select the **render format, quality, and directory** to save to.

For this course, make sure to use **H.264** (.mp4) format with **high quality**.

The exporter is structured like a **queue**: add multiple compositions and watch them render in the order they were added.

You can render a composition and still work on it. Be advised that the composition will be rendered in the state it was in when it was added to the queue.



Media Encoder



# Homework

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- ☐ With found footage, use clip splicing to extract key components and stitch together a new story.
- ☐ Build custom transitions into your timeline from transformation properties.
- ☐ Experiment with keyframing and the motion editor.
- ☐ Render the composition to H.264 with specs specified on the syllabus.
- ☐ Upload the resulting .mp4 to the course Drive.

Questions?

# Live Demo