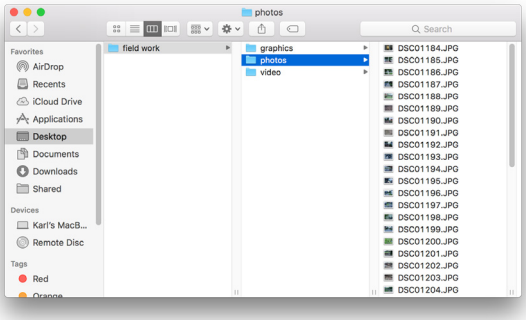
ADOBE AFTER EFFECTS

ANIMATED COMPOSITIONS, LAYERING, MASKING, KEYFRAMING

OVERVIEW:

Adobe After Effects is a motion graphics and compositing application. It excels at combining a variety of media formats in a timeline setting, where these media can be combined with text, shapes, and other graphics to produce an animated sequence.

The organizational structure of After Effects is based on compositions: sequences of media that can be exported as a movie file or nested within other compositions and *then* exported as a movie file. Those compositions are stored in a project, which links back to all of the media files used in creating your compositions.



Keep your assets organized

ORGANIZING ASSETS:

Because an After Effects project links back to all of the assets referenced in a project, it is important to maintain a consistent file structure. Before beginning a project, you may want create folders that to contain the various elements in your project, including video, audio, vector graphics, and raster images, or only reference to files that you know will not be moved during the production of the project.

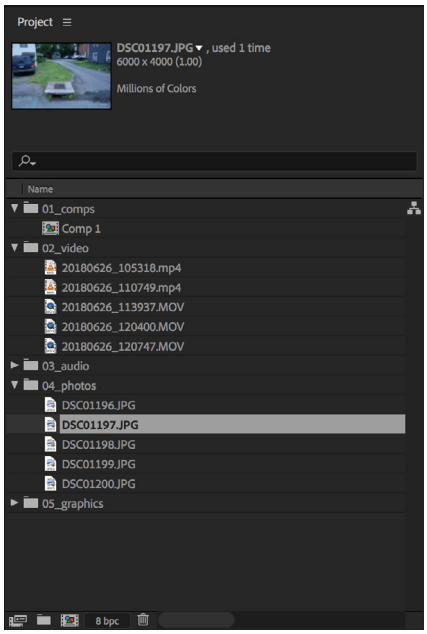
STARTING A NEW PROJECT:

When you first open After Effects, a splash-screen will pop up. On this screen, choose New Project. Or choose ***File > New > New Project***.

ORGANIZING THE PROJECT PANEL:

The project panel displays a list of all the assets used in the current project and gives you the ability to organize those assets. Compositions that you create will also be displayed in this list.

To organize your assets in this panel, create new folders by pressing the folder icon at the bottom of the panel. A few folders you might want to create include Video, Audio, Photos, Graphics, and Compositions. Develop a structure that works well for your workflow.



Project panel

Keep your assets organized *within* your project. Changes in the project panel will not affect the files on your system. Edits to footage in After Effects are non-destructive.

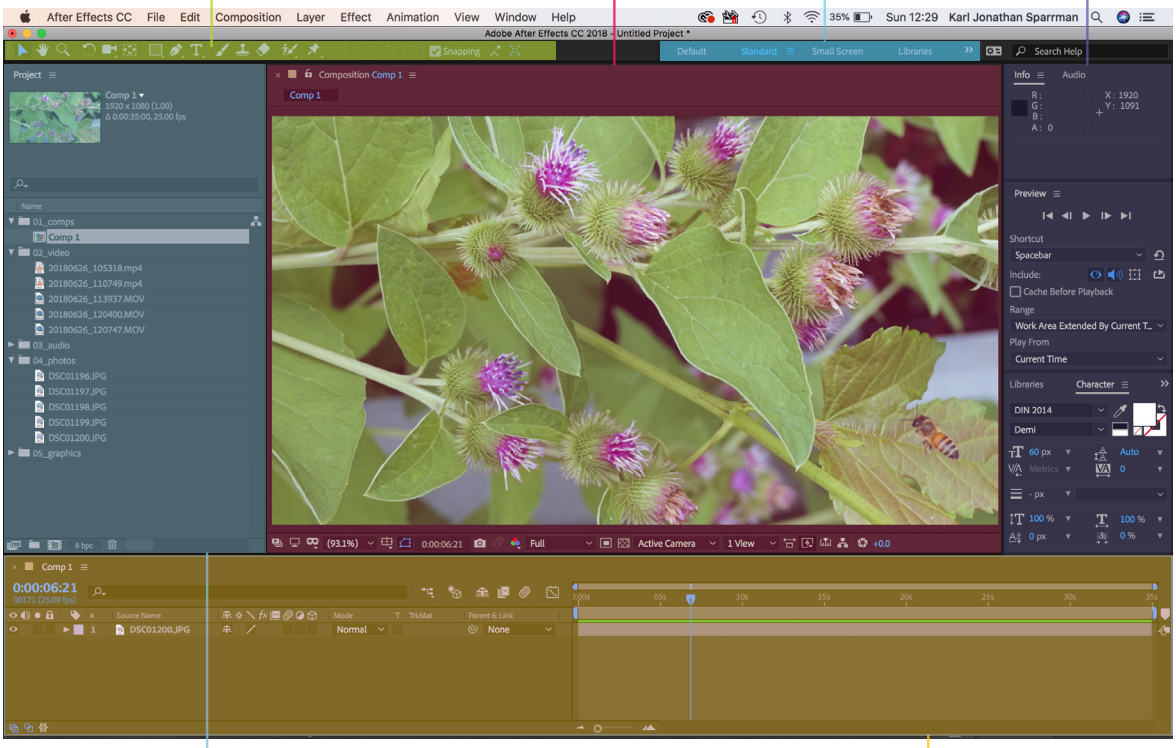
THE AFTER EFFECTS WORKSPACE:

Composition (or Footage) Panel
Active compositions or footage are displayed in this window. Some types of edits, like adding shapes and text or applying transformations can be made directly in this panel. Multiple items can be open at the same time and are accessible as tabs at the top of this panel.

Contextual Panels
Different panels will open here as you utilize different tools or as you change the workspace mode. (This screenshot displays the "Standard" workspace.

Toolbar

Workspaces

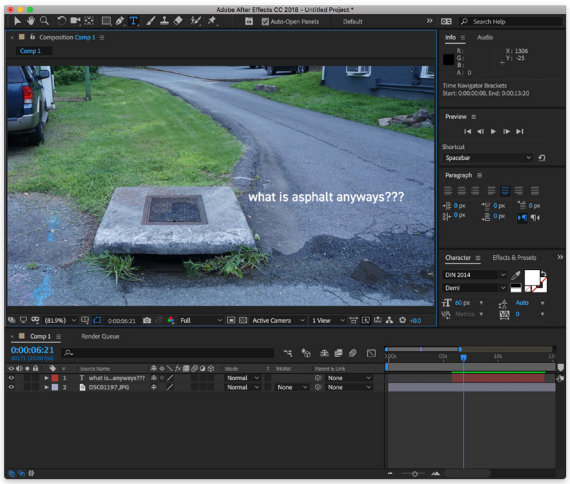


Project Panel
Displays all imported footage and compositions in the current project. Use this panel to organize your project. Changes made here do not affect the underlying file structure.

Composition Timeline
Displays the timeline and layers for the open composition. The left side provides a list of the layers in the project (audio, video, shapes, etc.), and the right side shows you where and how that media appears in time. You will use this panel to make many edits, including keyframing.

ADDING TEXT LAYERS:

To add text to a composition select the Type tool (T) and click somewhere inside your composition. Type your text. The right panel will now allow you to make adjustments to the character and paragraph attributes.



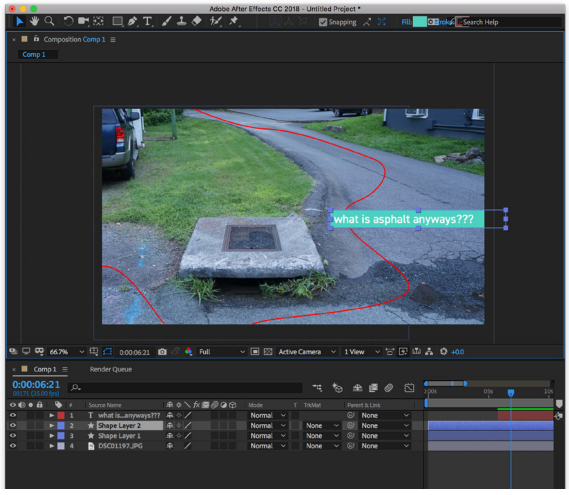
Adding a Text Layer
Note that the new text has its own layer in the timeline/layer panel.

ADDING SHAPE LAYERS:

Shape layers are vector-based elements, allowing them to be scaled up and down without losing sharpness.

To create a shape layer, first make sure you do not have a layer selected by clicking in the gray area below your layers in the layer panel, or choose *Edit > Deselect All* (Shift+Command+A, Ctrl+Shift+A). Now use the pen tool (G) to create a closed polygon or a line. As soon as you start drawing, you will see that a new layer named “Shape Layer #” will be created to contain the shape you are drawing.

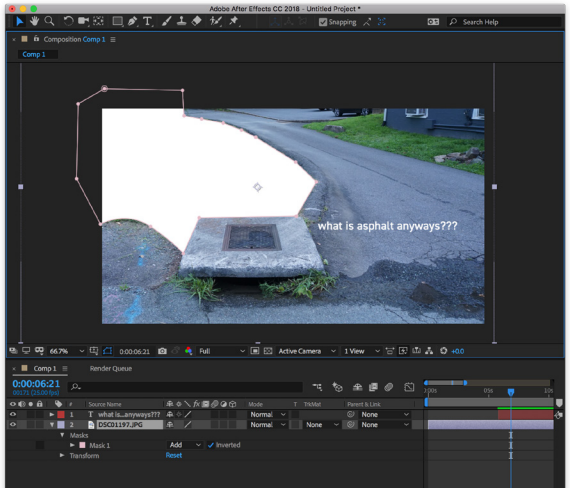
Now that you have drawn a shape you can alter its stroke, fill, and other attributes in the tool ribbon or in the layer panel. To see the shape in its layer, press the arrow button to expand the Shape Layer, and then its Contents.



Adding Shape Layers
Note that the shapes have their own layers in the timeline/layer panel.

MASKS:

Masks allow you to hide and reveal layers or portions of layers. They are created with the same tools as shape layers but are attached as a mask to a layer (not as a separate shape layer). Select the layer on which you want to create a mask. Choose the pen tool (G) and draw a shape around the area you want to mask out (remove). You will see that in the layer hierarchy, there will be a new tab called “Masks”. Expanding that tab, we can see all of the masks associated with a layer, and, expanding a single mask tab, we can alter that mask’s properties. Other alterations to the mask (feathering, inverting, etc.) can be made by going to *Layer > Mask* from the top menu bar.



Masking
Draw irregular masks with the pen tool. Note that this mask is “inverted” (checkbox in the layer).

KEYFRAMING:

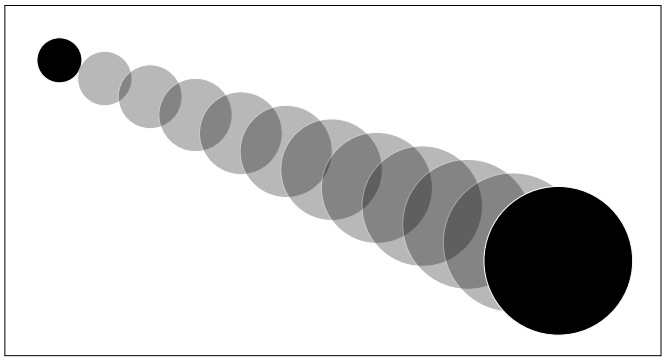
Keyframing allows you to change the property of an item over time. It is a method of setting the properties of an item at multiple points in time and the interpolation of that items qualities (position, color, scale, etc.) between those two times.

To keyframe the attributes of an object, expand a layer (click the arrow next to the layer name) and then expand the Transform tab. Let's change the opacity of an object from 0% to 100%. To do this, click the stopwatch icon next to "Opacity", enabling keyframing for that attribute. Move the playhead to the beginning of your composition (I). Change the opacity to 0% by click-dragging to the left or typing in "0". We are telling this layer "At time 0:00:00:00, this layer is at 0% opacity".

Now, move the playhead to the end of your composition (O). Change the opacity to 100%. Play the composition from the beginning. Your layer should now fade in from 0% to 100% opacity over the course of the composition.

You will also see that there are two diamond shaped icons where you set the opacity in the same row as opacity in the timeline. These are your actual keyframes, holding an attribute and a time. Try dragging the diamond at the end of the composition to somewhere near the middle. Play your composition again. Now the layer should be at 100% opacity at whatever point you moved the keyframe to.

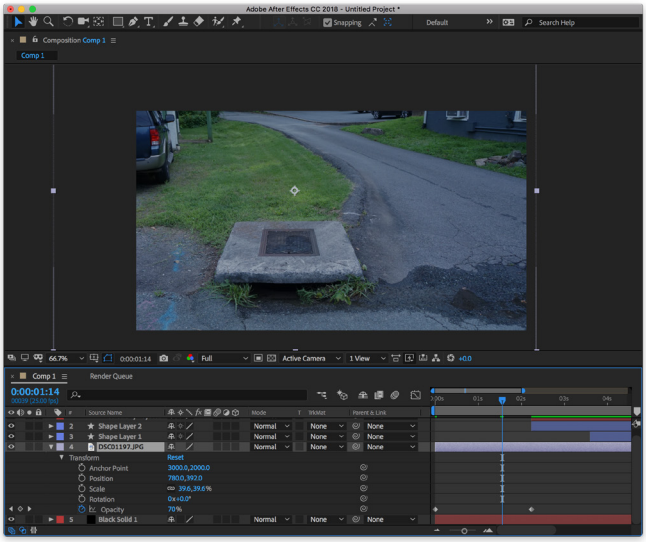
You can add as many keyframes as you want to a layer, and they can be applied to any attribute that has a stopwatch icon next to it. Try making the scale, position, or rotation of an object change over the course of the composition.



0 seconds: circle is small, and in the top-left-hand corner of the composition

0–5 seconds: circle position and scale is interpolated at each frame between 0 and 5 seconds.

5 seconds: circle is larger, and in the lower-right-hand corner of the composition



Keyframing

Here, the opactiy of the background photo has been keyframed so that it appears to fade in from black A black solid layer has been added below the image layer: *Layer > New > Solid....*

EXPORTING A COMPOSITION:

You can export your composition as a .MOV file from After Effects, but this file is going to be very large. To export as a compressed (yet still high quality) .MP4 file, you will need to download a separate application, the Adobe Media Encoder (included with a Creative Cloud license)[1].

When you are ready to export a composition, choose:

Composition > Add to Adobe Media Encoder Queue...
(Ctrl+Option+M, Ctrl+Alt+M)

The Adobe Media Encoder will open if it is not already, and your composition will be added to the queue. Choose ".H264" under format if it is not already, and click on ".H264." .H264 is the video format that will be used in our .MP4 file.

In the Export Settings panel, under Preset, you can select from a list of setting presets that are optimized for various output locations, such as Vimeo, YouTube, or a mobile device[2]. Once you have configured your settings, press "OK".

Under the "Output File" column, click the file path and choose where you want the exported file to be saved. Press "Save".

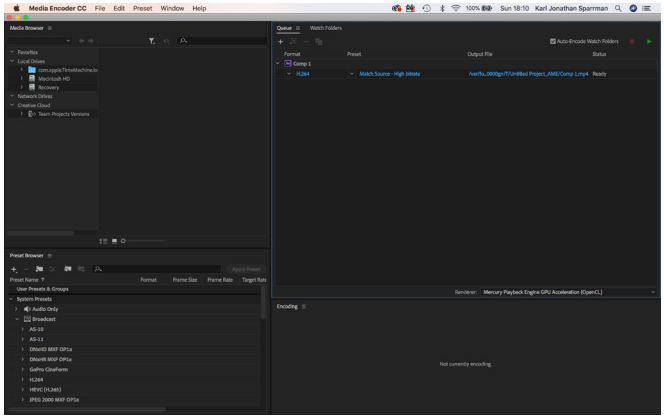
When you are ready to export, press the green play button in the top right-hand corner, or simply press "Enter". You will see the encoding process as a blue bar. Your file should now be in the location you specified. Check the file size and change your settings if necessary and re-export.

PACKAGING A PROJECT:

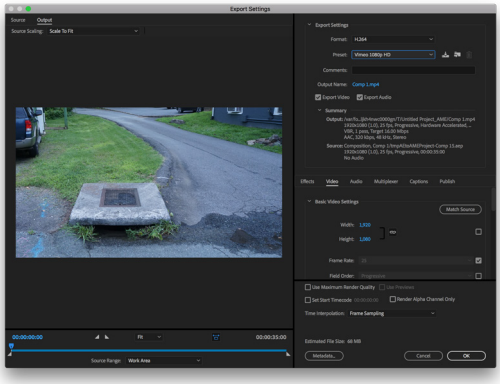
Perhaps your project is referencing files that are scattered across your system, you need to archive the project, or you want to send it to a collaborator. To pull all of those files into a single location, choose:

File > Dependencies > Collect Files...

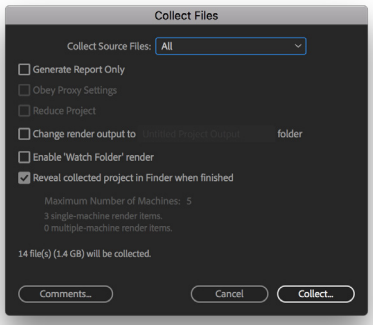
Press "Collect..." and then a location where you want the collected files to be copied to. This package will inherit the file structure that you built in your Project panel.



Adobe Media Encoder
Files in the queue appear as a list on the right. Multiple files can be added to the list and then encoded en masse.



Export Settings Window
Choose a preset or set your preferences manually on the right. A preview of your encoded file will appear on the left.



Packaging/Collect Files

1 .MP4 and .MOV are both *file containers*. They are not the video file itself but contain a variety of files for the video, audio, captions (if they are included), and metadata. Our .MP4, for example, will hold a .H264 format video file and an ACC format audio file.
2 These settings are tailored to work best with the codec particular to each location. A codec is a method for encoding and decoding a digital data stream (codec is a portmanteau of coder-decoder).

FOOTAGE STABILIZATION:

After Effects includes a powerful tool for stabilizing shaky footage. We will look at the most basic operations[1].

Once you have added the shaky footage to a composition, select that footage layer and choose:

Effect > Distort > Warp Stabilizer VFX

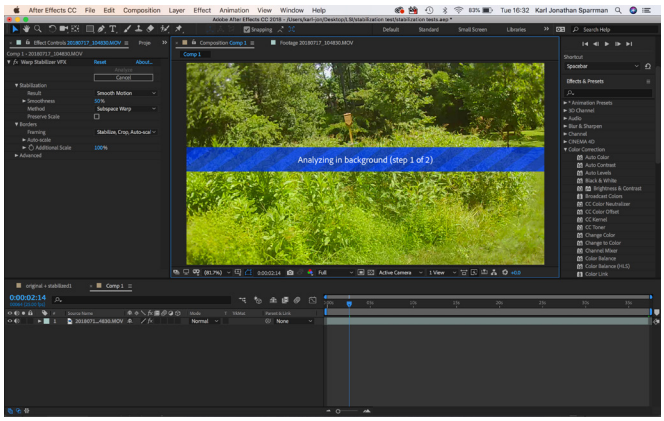
The text “Analyzing in background (step 1 of 2)” will appear over your footage. In the first step, After Effects analyzes the footage to understand the camera motion. In the second step, it will stabilize the footage based on the parameters that you set in the effect controls.

Under the Effect Controls, under “Result” choose either “Smooth Motion” or “No Motion”. Smooth Motion is for shots where you are intentionally moving the camera (e.g. you are riding a bicycle or you are standing still but panning across the scene). No Motion is for shots where you didn’t intend the camera to move at all (e.g. you were standing still holding the camera).

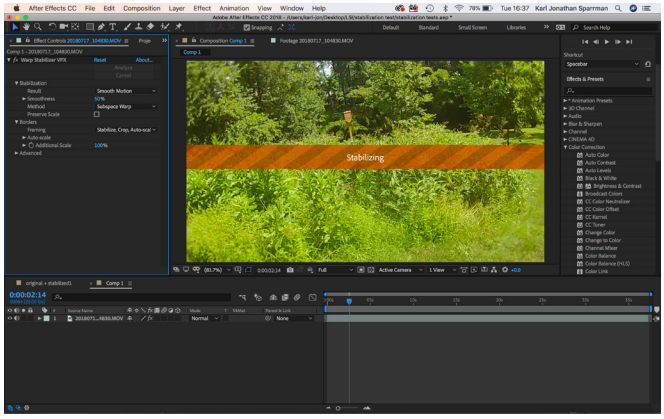
“Smoothness” is essentially the amount of stabilization applied.

“Framing” determines how the stabilized footage is rectified to fit the composition frame. Typically, I choose “Stabilize, Crop, Auto-scale,” meaning that the footage is stabilized, cropped so that we don’t see the wandering edges of the frame, and then resized to fit the composition frame. If the footage is very shaky, so much cropping will be done that the footage’s resolution will be noticeably lower (and you will not see as much of your scene).

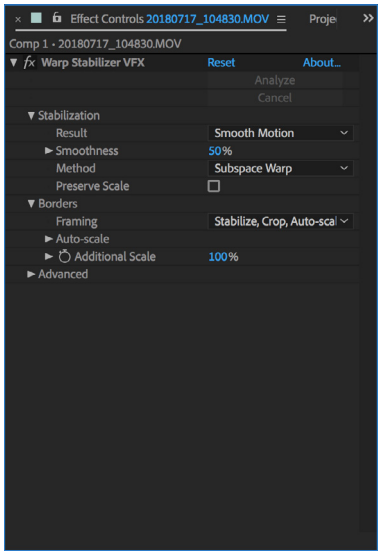
Play around with these settings to achieve a desired result. With the effect applied, you can use this footage like any other layer.



1: Analysis



2: Stabilization



Stabilization options

1 For more information, see: https://blogs.adobe.com/creativecloud/warp-stabilizer-in-after-effects-cs5-5/?segment=dva