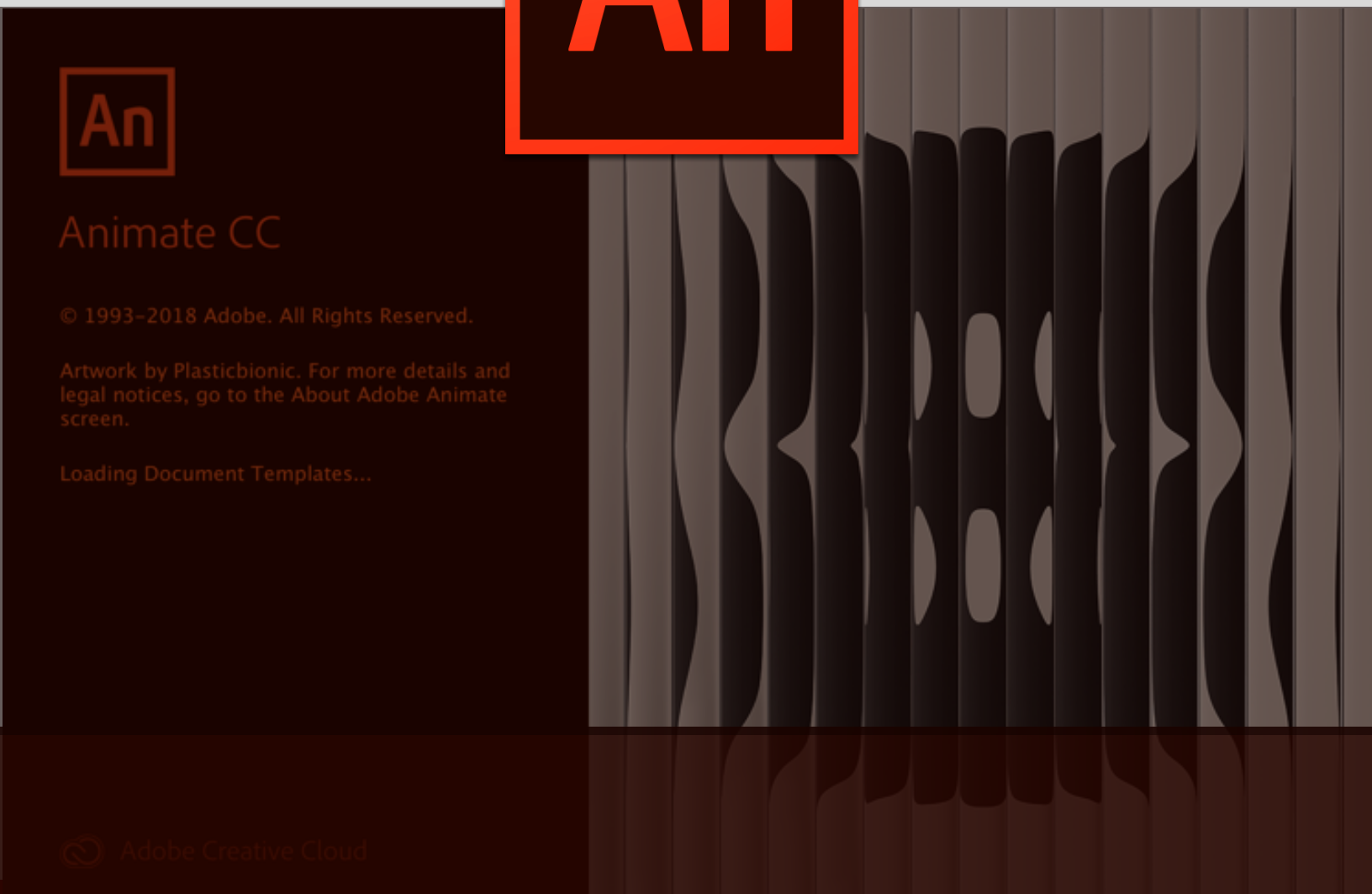
Creating Multiplatform Animations with Animate CC

Adobe MAX 2018 | Session L246 | Joseph Labrecque



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Session Abstract

Learn how to get started creating your own engaging animated content with Animate CC. In this hands-on lab, we'll work with a variety of project types to design and produce animated banners, sweeping scenic animations, and even unique character animations. Let's explore these creative possibilities and more with Animate CC.

Joseph Labrecque, creative developer and interactive designer, will show you how to:

- Effectively utilize elements of the Animate CC interface through creative tools and focused panels
- Make use of the rich capabilities of Animate to design an assortment of vector assets, reusable symbols, and custom animations
- Take advantage of time-tested tips and techniques that let you work fast and produce compelling content for your projects
- Produce a variety of animation types for assorted publishing platforms: HTML5 Canvas, HD video, and more
- Push the creative envelope using the latest exciting features in Animate CC

About the Instructor

EDUCATION LEADER | COMMUNITY PROFESSIONAL

JOSEPH LABRECQUE

Creative Developer / Interactive Designer / Author, Artist, Absintheur

Joseph Labrecque is a creative developer, designer, and educator with over 15 years of experience building expressive web, desktop, and mobile solutions. He is presently employed as Senior Interactive Software Engineer with Academic Technologies Consulting at the University of Denver. Over the past decade, Joseph has authored a number of books, articles, and video course publications on design and development technologies, tools, and concepts through publishers such as Lynda.com, LinkedIn Learning, Peachpit, Pluralsight, and Adobe. He is also the founder of Fractured Vision Media, LLC; a digital media production studio and distribution vehicle for a variety of creative works. Joseph is an Adobe Education Leader, Adobe Community Professional, and a member of Adobe Partners by Design.

Adobe Animate CC

A NEW AGE FOR ANIMATION.

ANY PLATFORM. ANY DEVICE. ANY STYLE.

Design interactive vector animations for games, apps, and the web. Bring cartoons and banner ads to life. And add action to tutorials and infographics. With Animate CC, you can quickly publish to multiple platforms and reach viewers on desktop, mobile, and TV.

The industry's leading animation toolset lets you create apps, ads, and amazing multimedia content that moves across any screen.

Getting Acquainted with the Workspace

The first thing we will do is get a good look at the various tools and panels available to us within Animate.

Some of these may be familiar for those who have worked with Animate in the past, or even other creative tools like Photoshop or Illustrator. Other tools may be brand new – such as the new Asset Warp tool

The Fundamentals

With any project in Animate CC, the first thing we have to do is make some decisions around which platform we want to target, create a new document targeting that platform, and then configure certain aspects of the project before saving the document.

Choosing a Document Type

When creating a new document in Animate, you have a number of choices – but every type will take the form of an .FLA file unless it is strictly code-based. Any document can also be created as an .XFL document – which is a good choice if you'll be using a version control system as it is basically an uncompressed .FLA file.

Targeting Flash Player? FLA.

Targeting HTML5 Canvas? FLA.

Targeting Virtual Reality? FLA.

Targeting raw Video? FLA.

Targeting WebGL-glTF? FLA.

Targeting Windows, macOS, iOS, or Android?

FLA. FLA. FLA.

Why is this important? Because you are able to copy assets and animations across all of these different publish targets – since they all use the exact same authoring file type!

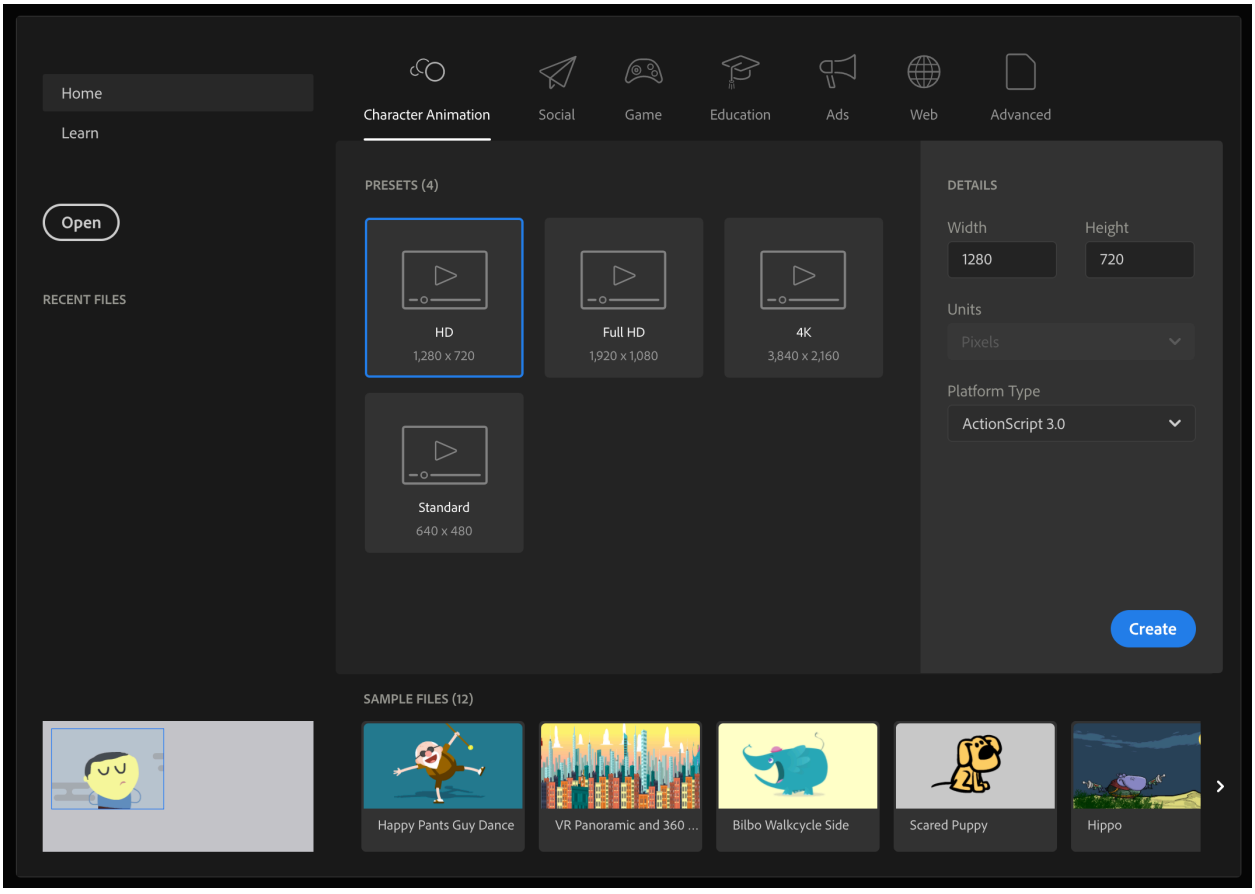
What determines whether you create a document targeting HTML5 Canvas, Flash Player, or some other platform is going to depend upon your inevitable output needs. For instance… if you are going to be generating content for After Effects or straight to video – targeting Flash Player makes a lot of sense because you can use all of the creative tooling available to you within Animate. However, if you are creating an interactive project for distribution over the Web – then HTML5 Canvas or any related document type would be the more likely choice.

SEQUENCE I: Multiplatform Animation

Creating and Managing Documents

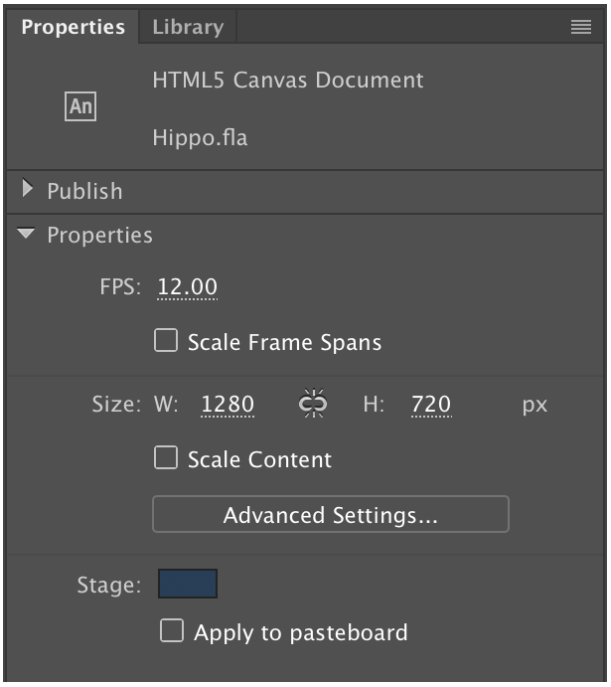
We'll now look at the basics of the Animate CC application itself – and some basic information about managing Animate documents.

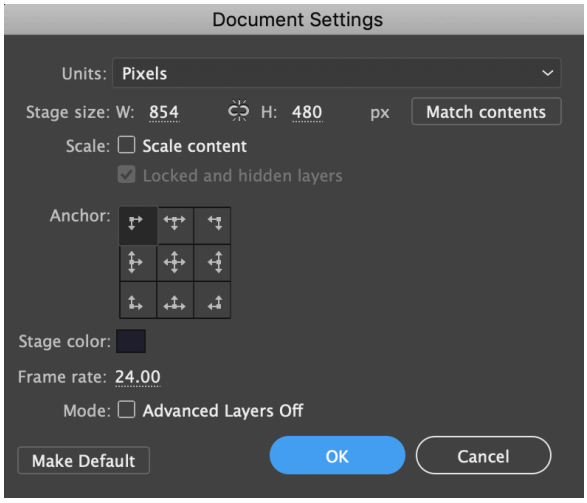
The Animate Start Screen



The start screen allows easy access to a number of intents, specific document types, and your recently opened files. You'll also find a place to access video content showing you some basics and newer features of Animate.

Document Properties and Advanced Settings





This Properties panel will reflect properties of the current document, so long as nothing else is selected on the Stage or within the Timeline. This includes the Stage width and height, Publish properties, Frames per Second (FPS), and Stage background color.

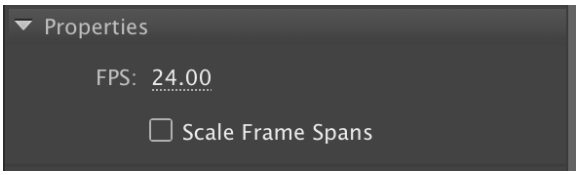
You can also access Advanced (Document) Settings from this panel. From here, you can toggle Advanced Layers on or off. Advanced Layers allow for things like layer effects, layer depth, Layer parenting, and more!

Stage and Pasteboard

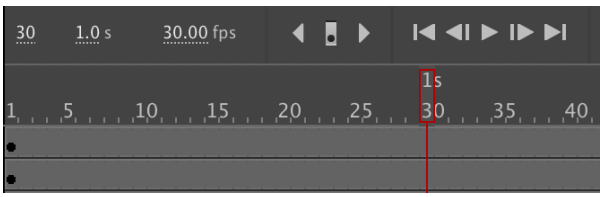
The Stage is the area which defines visible content when publishing our project. We will likely want to customize the Stage size and background color. We do so through the use of the Properties panel.

The Pasteboard is the area surrounding the Stage. This can be used to set content to be hidden off-stage and then either appear or animate into view. You can also use this area to place assets you aren't quite sure what to do with them yet.

Frames Per Second



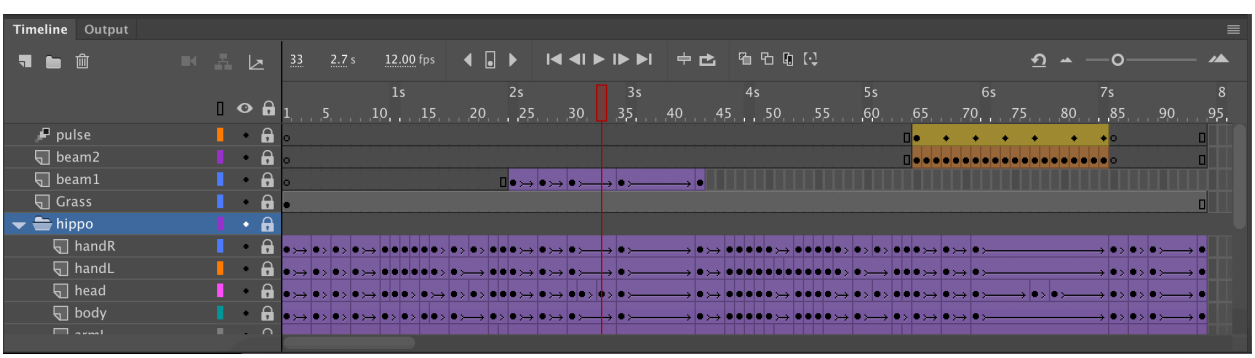
Animate has a frame-based timeline. This means that the overall time it actually takes to perform an animation will be based off of the number of frames along with the framerate – or frames per second – property of the document.



For example, if we have the FPS set to 30 and our total frames in the Timeline is 90, then our resulting animation length will be 3 seconds. Animate now has a display of seconds along the top of the Timeline to help in knowing how long an animation is. In the example above, 1 second will span 30 frames since the FPS is set to 30.

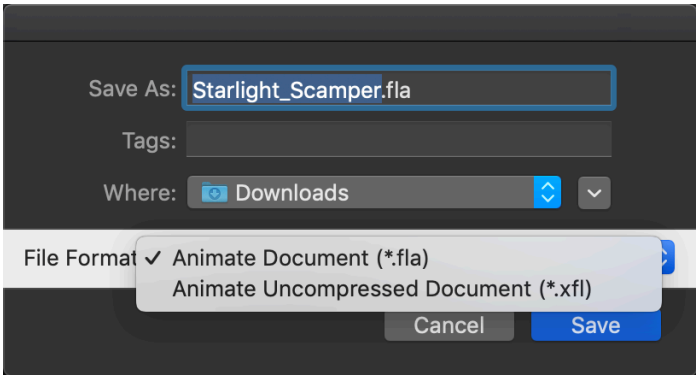
It used to be rather difficult to adjust your FPS after you begin animating within a document, as the frame spans would not adjust, and the entire animation timing would be thrown off. We have an option when adjusting FPS which is an optional checkbox titled "Scale frame spans". If this is selected before adjusting a document's FPS value, Animate will adjust the frame spans accordingly.

Timeline and Layers



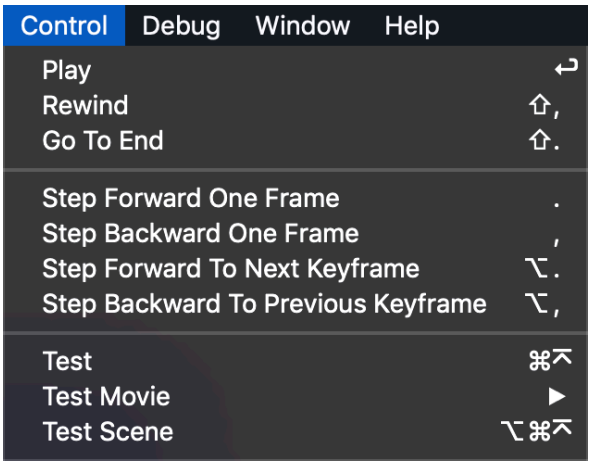
Generally, you'll always want to have any asset you are animating on its own layer. Even with objects which are not being animated – they often benefit from the organizational structures and labeling provided by a well-organized timeline.

Saving Documents



When saving documents, you can save as an Animate Document (FLA) or as an uncompressed version (XFL). Generally, you will want to save your documents as FLA format as this is the most portable. XFL is best if you want to more easily manipulate files and assets or use a version control system – but they are much more difficult to deal with otherwise.

Testing Documents



As you work through your animation, you'll be able to test through playback controls above the Timeline, but certain aspects will not be true-to-life such as MovieClip symbol playback. To really, truly test your project… use Control > Test. This will open your project in either the integrated SWF player, or in the native web browser, depending upon the document type.

The Basics of Animation

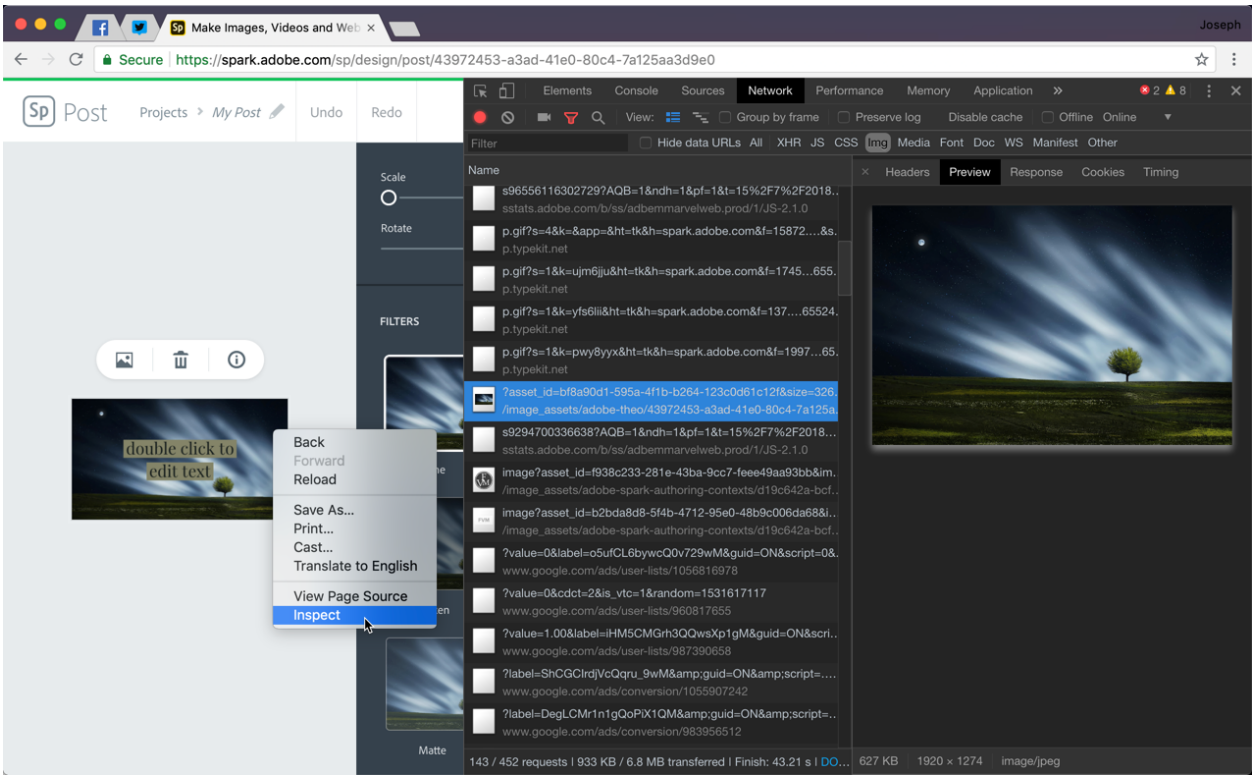
Now that we are more familiar with the way the Animate interface is organized and the procedures for creating and saving documents, it's time to begin working on a project.

1. First, go ahead and create a new document from the start screen. Within the Social intent, choose Standard 640 x 480. Animate will create a new ActionScript 3.0 project.

2. Look to the Properties panel to confirm the width and height of your document.
3. Change the FPS value to 30.
4. Save your document.

Importing External Assets

You can import all sorts of assets into Animate: sound files, bitmap images, even full Photoshop and Illustrator documents. For this project, we'll import a simple PNG file.



I found a nice nighttime sky image through Adobe Spark (https://spark.adobe.com/). Spark is a great way to gather free-use images from a number of places around the Web for use in a Spark project… but you can always figure out the direct URL for the image as well and use it in an Animate project!

5. In your Animate document, choose File > Import… > Import to Stage and locate the file Background_Image.png. Be sure and choose "All Openable Formats" from the dropdown if you don't see it!

You'll see that an instance the image is placed upon the Stage and if you look within the project Library, you'll also see the image itself exists within the Library.

6. Double-click the layer named "Layer_1" and type in the name "Background". It's always important to organize your timeline.
7. Lock this layer by clicking the dot beneath the lock icon and save your project.

Creating Vector Shapes

We'll now create a basic vector shape over the image that will serve as a background element to some text.

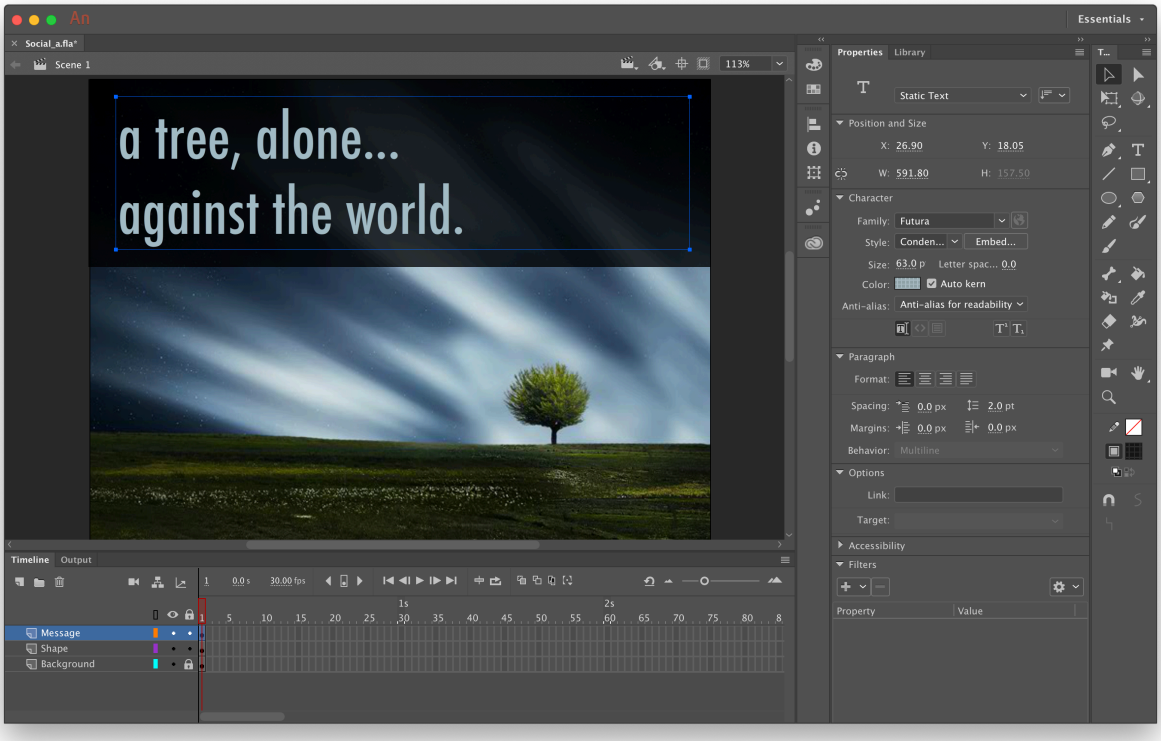
1. Create a new layer and rename it to "Shape".

2. Use the Rectangle Tool to create a 76% opaque black rectangle along the top, covering nearly 1/3 of the Stage.

Creating Text Objects

It's time to get creative with text! We'll add a short, concise text element which overlays the shape just established.

1. Create a new layer and rename it to "Message".
2. Use the Text Tool to create a static text element with the message of your choosing. I've created the message "a tree, alone... against the world." using the font family "Futura" at 63pt type with the color sampled from the background image itself at 100% alpha.
3. Be sure and position the text over the vector shape in a suitable way with the Selection and Free Transform Tools.

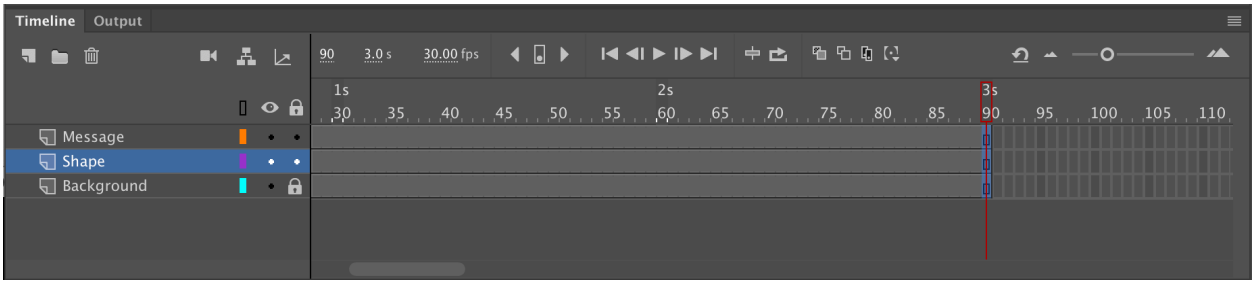


Tweening Basics

As the name suggests, **Shape Tweens** are only usable upon vector shape objects within Animate. They can be used to tween one shape into another, move shapes around, change shape color across time, or even modify a gradient transform in an animated fashion. Shape tweens are used when dealing with shapes and drawing objects.

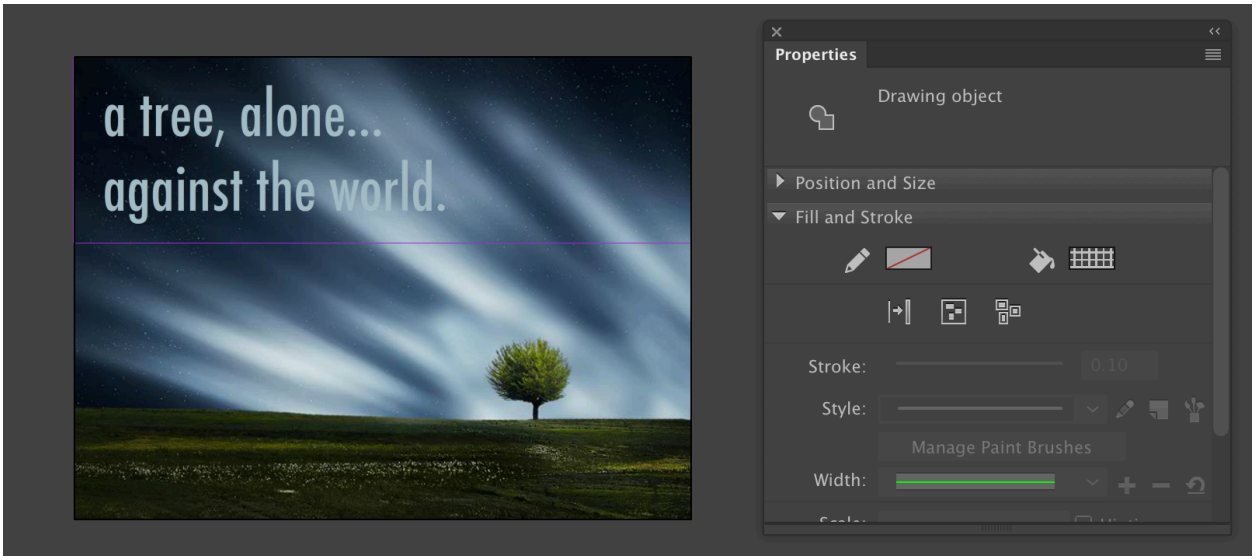
We'll now employ a shape tween in order to reposition our vector shape across the Stage.

1. First, extend the frame span of all layers to the 3 second mark. Use F5 as a shortcut.



2. Now, select the vector object on the Shape layer at frame 1 and look to the Properties panel.

3. Using the Fill Color selection, take the alpha down to 0%.

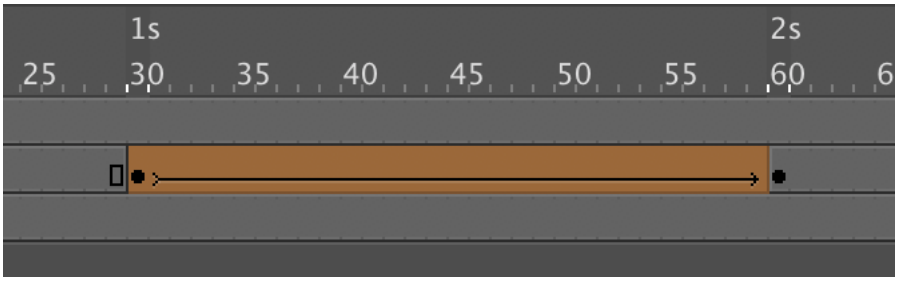


4. Now, insert a new keyframe at the 1 second mark, and the 2 second mark.

5. At the 2 second mark, select the vector object on the stage and using the Fill Color selection in the Properties panel, take the alpha back to 76%.

6. Right-click between the 1 second and 2 second marks in the Shape layer and choose Create Shape Tween. The frame span will

become filled with orange, indicating a Shape Tween exists between the two keyframes.

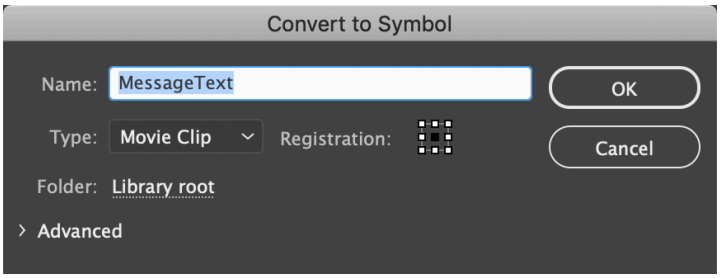


Converting Assets to Symbols

Symbols are re-usable, modular assets in an Animate document that exist within the project **Library**. **Instances** of these symbols are used upon the project Stage. Their internal timeline runs in sync with the main timeline, so it's easy to pop them onto the Stage and visualize your animation by simply scrubbing the playhead.

When dealing with symbol instances, you'll need to employ either **Classic tweens** or **Motion Tweens**.

1. Select the text object on the "Message" layer.
2. Choose Modify > Convert to Symbol with the text object selected.
3. Choose to create a new MovieClip symbol and give it the name of "MessageText".

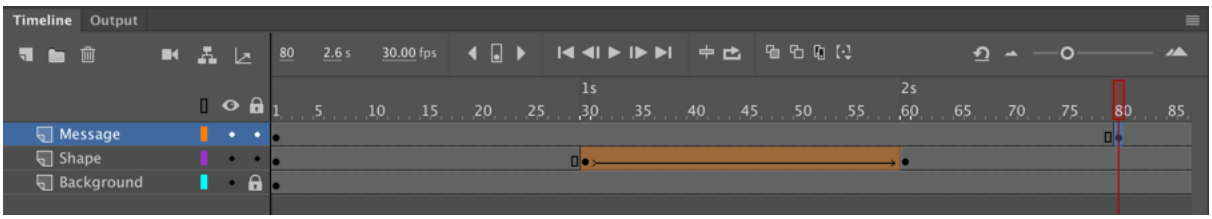


4. Once you hit OK, the text is nested within a MovieClip symbol and placed within the Library panel. An instance of this symbol is placed upon the Stage and is ready to be animated.

Classic Tweens

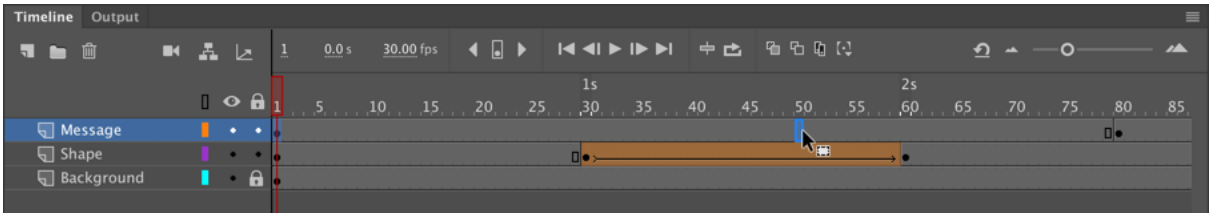
Now that you have a symbol instance on the Stage, you will be able to easily animate it using a Classic Tween or Motion Tween. We will use a Classic Tween in this case.

1. Select frame 80 on the Message layer and insert a new keyframe (F6). The keyframe at frame 1 is duplicated.

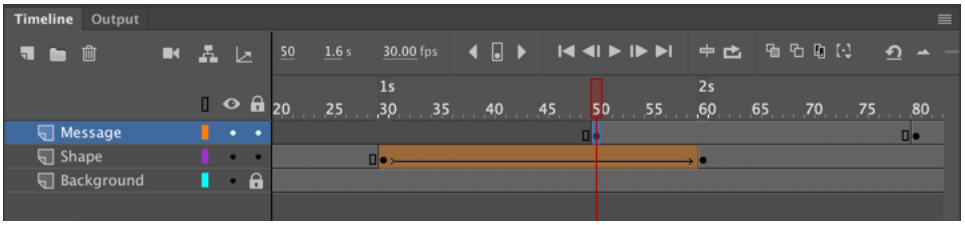


2. Select the keyframe at frame 1. It will be highlighted.

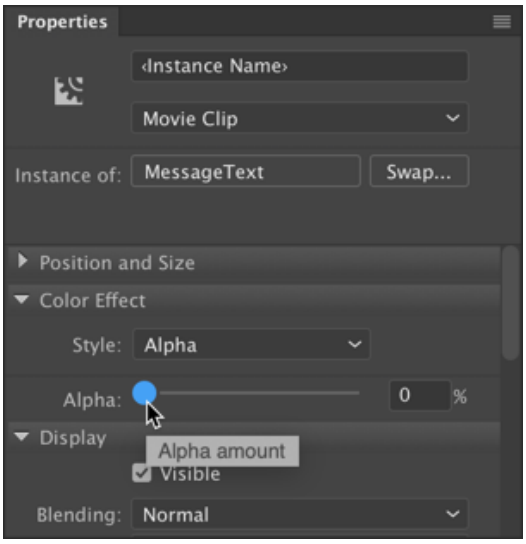
3. Hover over the keyframe at frame 1 until the cursor indicates the keyframe can be moved by changing to appear as a little outlined box. Click and drag the keyframe over to the right and release it at frame 50.



4. Now select the text MovieClip instance on the Stage at the first keyframe on frame 50 and look to the Properties panel.



5. Within the Color Effect section, change the Style to Alpha and pull the slider down until the value is 0. This will create a completely transparent instance.

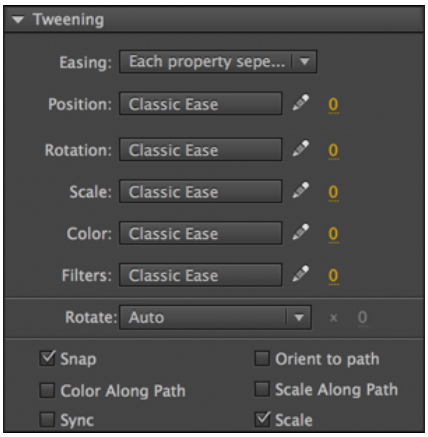


6. Finally, right-click anywhere between the two keyframes and choose Create Classic Tween from the menu. A Classic Tween is indicated by violet colored frames. You now have the text fade in along with – but not exactly at the same time as – the shape.

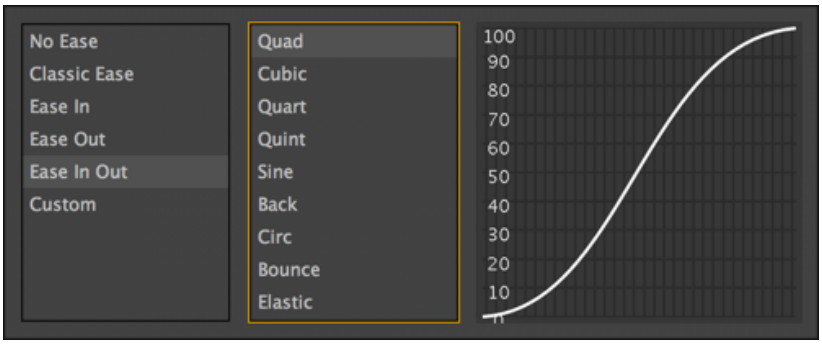
If you like, you can also adjust other properties of objects that exist in either layer. These properties could include x and y position, transformations, or even color shifts.

Easing Presets

Animate CC now includes **Ease Presets** for both Shape tweens and Classic tweens. When using Classic tweens, you have the additional option of setting ease presets and custom eases for each individual property to be tweened.



Just choose **Each property separately** from the **Easing** dropdown. Again, this is only possible with Classic tweens and not Shape tweens.



Go ahead and apply some easing to your tweens and see how the timing and ease of each is affected by your choices.

Advanced Animation Techniques

We'll now move beyond animating single objects and have a look at animations that are more advanced and apply to entire frames, layers, and the entire document.

Enabling the Camera

The **Camera** functionality present within Animate CC allows animators to simulate the use of a real-life camera. Previously, animators relied on third party extensions of varying quality and compatibility or modified their animations to mimic a camera's movement.

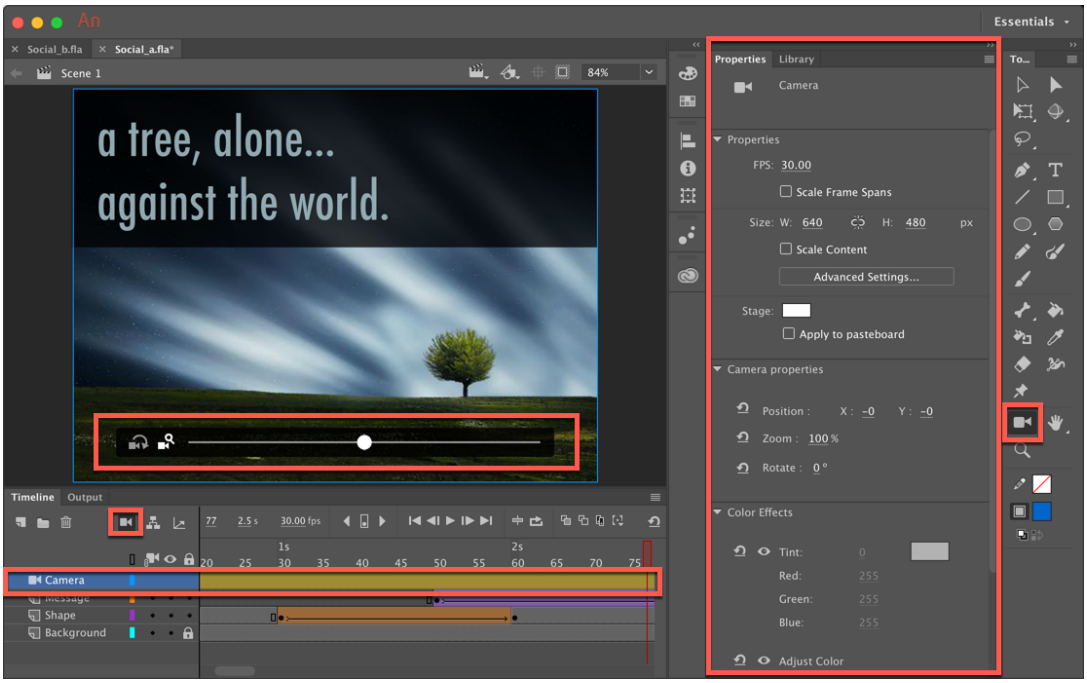
Animators can use the following camera features that are integral to any motion film for efficient storytelling:

- Panning with the subject of the frame
- Zooming in the object of interest for dramatic effect
- Zooming out of a frame to remind the viewer of a larger picture
- Modify the focal point to shift the attention between subjects
- Rotating the camera view
- Apply color effects and tint to an entire scene
- Attach layers to the Camera
- Create expressive parallax effects with Layer Depth

The first thing to do when employing the **Camera** tool is to choose it from the **Tools** panel.

Click the icon that looks like a camera. This enables the **Camera** for the document, displaying a special Camera layer within the Timeline,

Camera overlays on the stage, and Camera Properties.



Note that you can also toggle the Camera on and off with the Camera icon at the bottom of the timeline.

When you set a camera view for your composition, you look at the layers as though you were looking through that camera. The camera layer behaves like a regular object; you can add tweens or keyframes… and animate it like other objects in the document.

With the Camera enabled for our document, we can now create some animated camera movements across the entire Stage.

Tweening the Camera

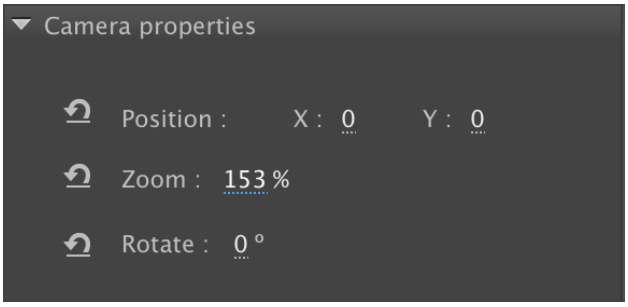
You animate the Virtual Camera in much the same way as you would animate a MovieClip or Graphic symbol instance – that is… you can either set keyframes at various frames and employ Classic tweens… or you can use a **Motion tween**.

A **Motion tween** is probably the easiest tween type to use of the primary tween types that exist in Animate CC since there is no need to expressly insert keyframes across the Timeline.

1. To create a Motion tween for the Camera, select any frame within the Camera layer and choose **Insert > Motion Tween** from the application menu.

We will zoom the Camera back from frame 10 to frame 50.

2. Select frame 50 first and right-click to bring up the menu.
3. Choose Insert Keyframe > All to duplicate the Camera's current properties.
4. Now select frame 10 of the Camera layer and with the Camera Tool selected… use the Camera UI overlay or the Properties panel to zoom the Camera to somewhere between 150% and 155%.

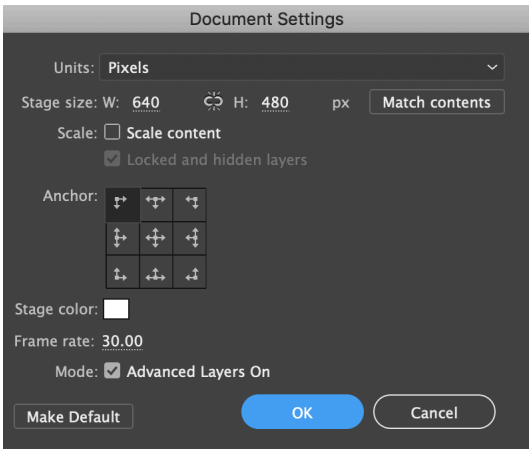


5. Select frame 1 of the Camera layer and duplicate the Zoom value for that frame as well. This will create an initial pause from frame 1 to frame 10.

Go ahead and play back the animation to see how the Camera and other tweens all work together.

Applying Frame Effects

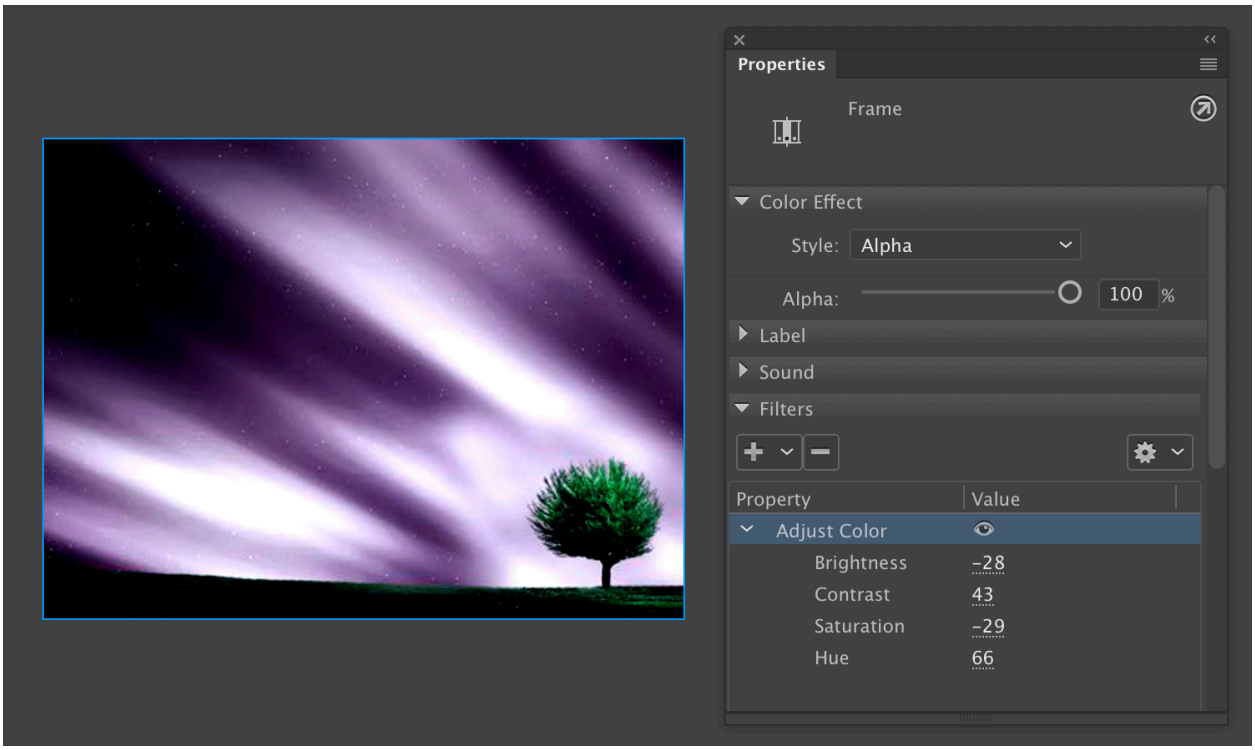
If your document has **Advanced Layers** turned on (it is on by default for documents created in this version of Animate), you will be able to add Color Effects and Filters to entire frames and not only individual symbol instances on the Stage.



To access Frame Effects after ensuring Advanced Layers are on, simply select a frame and look to the Properties panel.

1. Select any frame on the Background layer. Note that there is no need to unlock the layer.
2. In the Properties panel, you will see a section for Color Effect and a section for Filters.
3. Go ahead and play with the property values in either section.

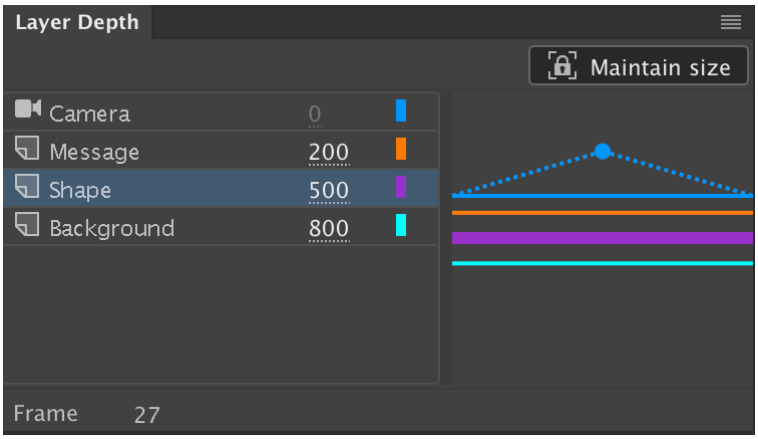
Using Frame Effects, you can apply these effects to multiple objects at once, within a single layer. The objects within the layer can be of any type and do not need to be symbols. The contents of the Background layer, for example, is just a bitmap image… which normally cannot have any such effects applied to it. The layer itself takes on the properties of a symbol with Advanced Layers activated.



Note that you can even apply such effects within MovieClip and Graphic symbols!

Using Layer Depth

Once again, if your document has **Advanced Layers** turned on it will also enable the ability to specify z-depth for each layer (and even folders) via the **Layer Depth** panel. You can access this panel from above the timeline or from the application menu under **Window > Layer Depth**.



This presents a *major* new set of capabilities within Animate CC. It allows you to specify how near or far any specific layer is in front of or behind the Camera. In addition, **Layer Depth** is completely tweenable - allowing objects to move across layers as an animation progresses.

Using **Layer Depth** along with the Camera allows for some really neat effects in your animations that you would have had to create in a much more manual way previous to this release. This allows the creation of depth and parallax effects easily by simply using the Camera against layers of varying depth.

If you like, go ahead and play around with Layer Depth by adjusting the z-depth values of various layers.

Publishing Your Animation

Adobe Flash Player

Animate CC has deep roots in ActionScript and the Adobe Flash Runtimes: Flash Player and AIR. This should come as no surprise… for the majority of its lifetime – this was really the only supported platform!

As a result, choosing any of the AS3-based document types allows for the fullest set of creative tooling and the use of a deeply mature programming language – ActionScript 3.0.

A great example from this workshop project is the Camera. Using the Camera in an ActionScript 3.0 document gives you access to Tints and Color Effects!

SWF Archive

You can also publish all of your layers as separate SWF files to be imported and further composited in an application like After Effects. For this, you can bundle everything within a **SWF Archive** from **Publish Settings**.

Note that you can also drag a full FLA document into After Effects with this new release as well!

Projectors

Sometimes, it's really useful to have a standalone playback for your Flash Player content. A projector is a small application which is basically your SWF content that is bundled with a standalone version of Flash Player for Windows or macOS.

Adobe AIR for Desktop and Mobile

While we are not targeting AIR in this project, it is so closely related to Flash Player that we need to make mention of it. AIR is hugely popular for building real apps across both desktop and mobile targeting Windows, macOS, Linux, iOS, and Android.

While targeting Flash Player, Video, Canvas, or WebGL… we could just convert the document and just tweak things here or there… creating a native mobile app is a bit of a different story.

We'll probably want to rearrange the various elements on the Stage to accommodate the device resolution, as mobile apps are generally full screen experiences. Additionally, we'd most likely want to create a true app experience around such content, not have a simple animation be the entire app.

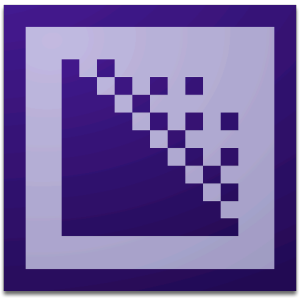
Regardless – Adobe AIR is a great target for desktop and mobile app development that you can consider when working in Animate CC!

Exporting your Animation

When you are happy with the state of your animated project, you'll want to get it out of Animate CC and into some format which a user can either view or interact with.

There are two main ways of doing this – exporting and publishing. As an example of the differences here… you can export an animated GIF from basically any document type you choose – ActionScript 3.0, HTML5 Canvas, WebGL… the document type doesn't really matter much. However, if you want to publish to Flash Player then you must do so from an ActionScript 3.0 document type. If you want to publish an interactive for the native web – you'll likely choose HTML5 Canvas as your document type.

Video and Adobe Media Encoder



If we render our project to a web-friendly video format like MP4 – we don't have to worry about the limitations of certain platforms. Just make an awesome little video!

One of the major uses of Animate is to design and produce content for television and video… so we are good! The fact that an ActionScript 3.0 based document type is generally the best choice for video simply due to the number of extra tools and filters that are available should not be overlooked.

Choose **File > Export > Export Video** and then make some decisions around where to export the video and at what resolution. Animate does a frame by frame rendering of the content… so what ends up in the

video is precisely what was authored. It even takes into account dynamic animation through the use of code!

Once the video is rendered, we can fire up **Adobe Media Encoder** to render it to any format desired. You can also just import the video to an **Adobe Premiere Pro** or **After Effects** project.

Animated GIF and other Image Formats

Select **File > Export > Export Animated GIF** and a dialog will appear. You can apply individual preset, image, size, color, and animation settings to the optimized and 2-UP views and use the various preset options to set various parameters.

- Select Matte to modify and blend the background color across the edges of the asset.
- Select Transparent or non-transparent to work with the color picker and the transparent option to control the transparency of the asset.
- Set the Image size, color and animation options.

The file size values are displayed below the screen and clicking the **Preview** button allows you to preview the animation and navigate to a specific frame. Additionally, you may choose **Select Clip to Stage** in the image size panel to set the clipping boundary to the stage.

When ready, select **Save** to save the animated GIF!

When you save an optimized file using the **Export Animated GIF** option, you can generate an HTML file for the image. This file contains all the necessary information to display your image in a web browser.

Converting between Document Types

When considering target platforms… perhaps you made a mistake in your initial evaluation – or the request comes in for another platform. Not to worry. By selecting File > Convert to… from the application menu, you can easily repurpose animations and assets for additional target platforms. For instance, maybe we want to convert our project to HTML5 Canvas for native web browser playback.

HTML5 Canvas

Content created in Animate can now to be published directly to a number of modern HTML5 formats. The primary document type which allows this publish target is HTML5 Canvas.

When creating content using this publish target, Animate will leverage the CreateJS JavaScript libraries to output an entire animation or interactive project for the HTML5 canvas element. You can even write JavaScript in the Actions panel!

Publish Settings can be easily accessed from the Properties panel and include a LOT of different options. You can actually perform a true publish through the **File > Publish** option in the application menu.

SEQUENCE II: Feature-Focused Animations

Layer Parenting

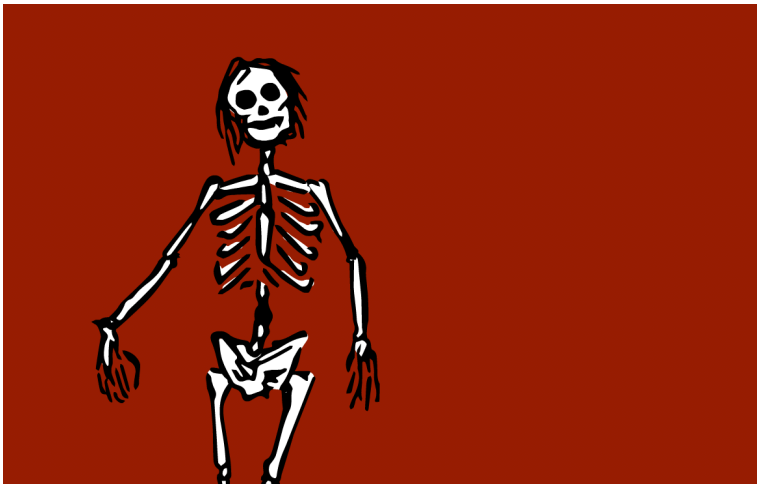
Layer Parenting is a new feature that allows the construction of hierarchical layers. You create parent-child relationships between layers to allow transformations of parent layers to additionally be applied to their children. We'll be building a skeleton that can be manipulated and even animated based upon these concepts.

Open the provided **Skeleton.fla** Animate file.

Assemble your Skeleton

We'll start out with a set of skeletal bones and assemble them as a complete skeleton on the Stage. Look to the Stage to find the various bones associated with our skeleton.

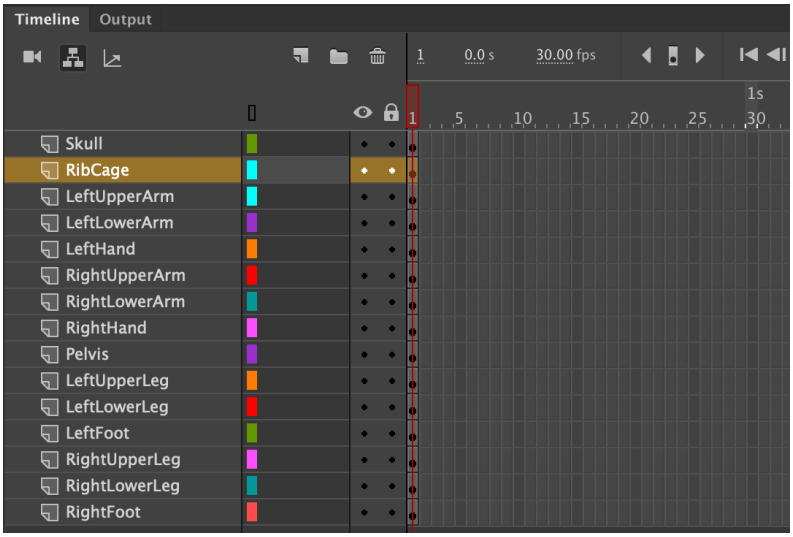
Assemble your skeleton and tweak the transform points using the Free Transform tool when necessary.



Note that each bone is on its own layer!

Enable Layer Parenting

In order to use layer parenting, we need to have each of these instances on their own layer. This has already been done for you.

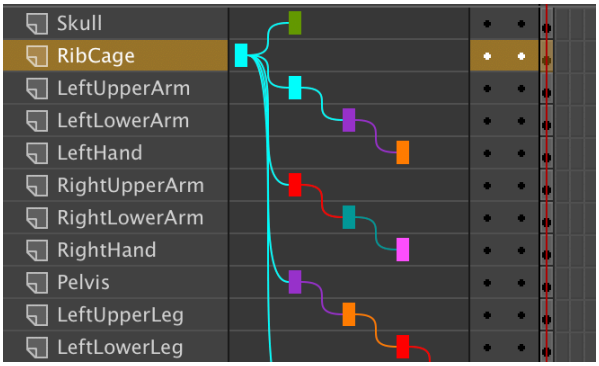


Enable layer parenting by switching layer parenting on from within the timeline. You now have a new layer parenting view exposed that can be manipulated.

Layer parenting can only be used when the document has Advanced Layers toggled on.

Building a Rig

You may want to reorder your layers so that the intended hierarchy is apparent – but it isn't entirely necessary. Use the little parenting anchors to establish a relationship among all bones.



I suggest making the ribcage the root parent layer with the skull, upper arms, and pelvis connected as direct children. Then, work your way through the further extremities until the entire skeleton is rigged.

Adjust your Transform Points

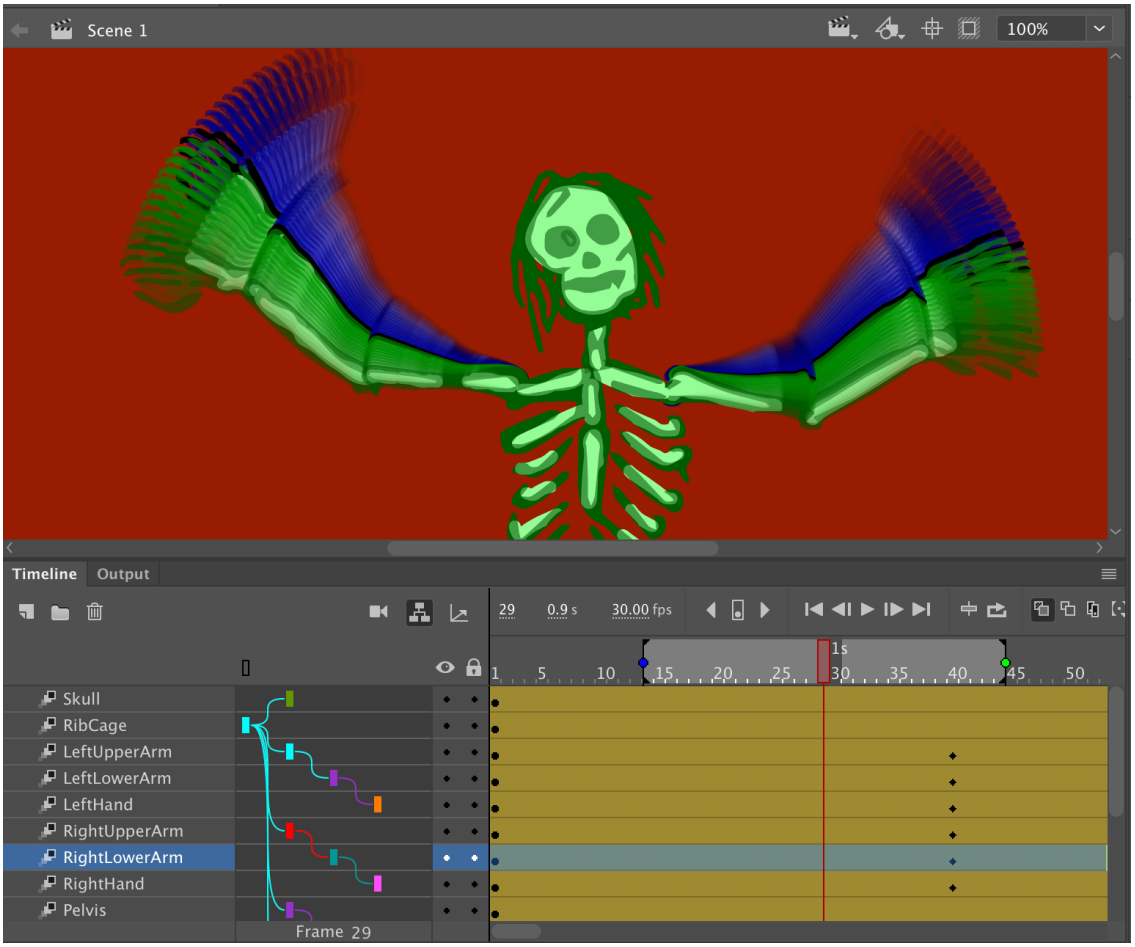
The placement of transform points is important for this sort of work as they determine how scaling and rotation function.

Turn snapping off completely and then use the Free Transform tool to adjust the white, circular transform point of each bone to a natural point of rotation.

Animate the Skeleton

You can now reposition and rescale the entire skeleton by selecting the ribcage. Finds a suitable spot to place the skeleton and resize appropriately. You can also manipulate the position and rotation of child bones to really customize the initial posture.

With this done, think of how you'd like to animate the skeleton. Maybe all it will do is simply reach to the sky and shift its body slightly. Maybe the skeleton will wave its arms wildly. In any case, I suggest using Motion Tweens.



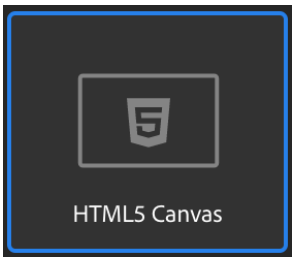
Create a motion tween on those layers that will be animated and make adjustments along the timeline to create motion tweened animation.

Asset Warping

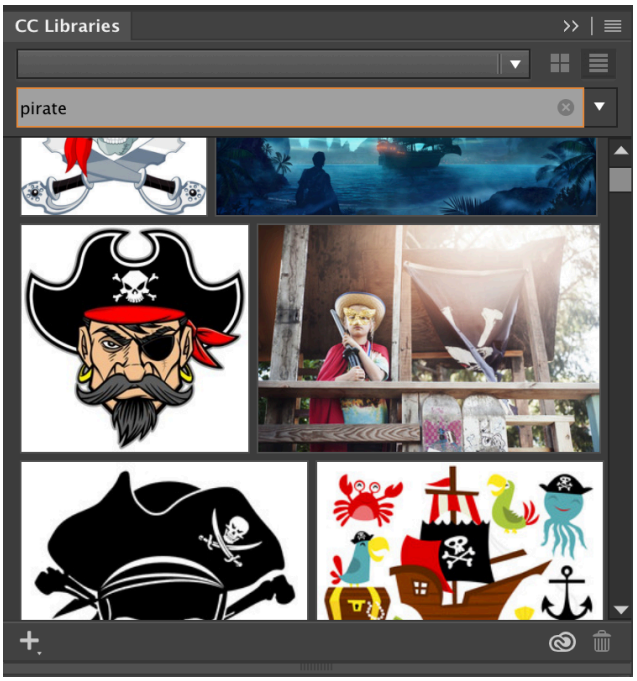
Use the new Asset Warp tool to establish a mesh over a shape or bitmap image and then use the contextual overlay to modify how the mesh and asset work together visually.

Getting Started

Create a new HTML5 Canvas document type from the Advanced area of the Start Screen.



Now open the CC Libraries panel and do a search for an image that you can have fun with. I did a search for the term "pirate".



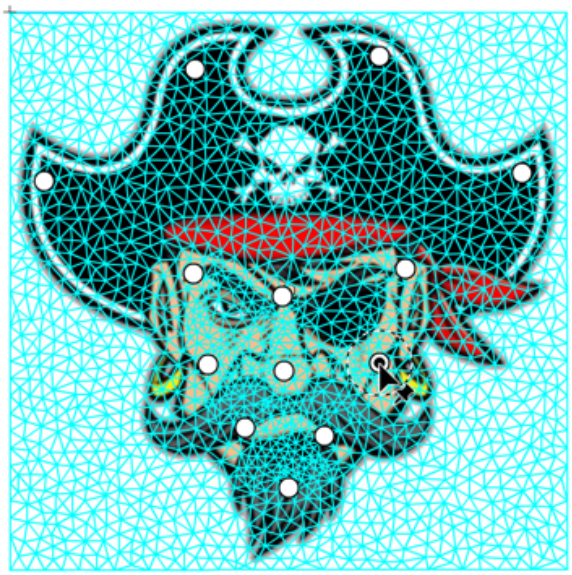
Once you locate something good from Stock, drag an instance onto the Stage and resize it appropriately. Note that this is only a preview of the asset from Adobe Stock – but it works for our purposes.

Warped Assets can be created on shapes or bitmap images – so this preview from Stock will be just fine.

Using the Asset Warp Tool

Select the new Asset Warp tool  from the Tools panel.

Place a handful of pins at strategic points across the image. A mesh is automatically created based upon the points set. This is a warp mesh and determines how the image is distorted as pins are moved from their original location.



I've placed pins at prominent features like the brow between his eyes, the corners of his eyebrows, the nose, cheeks, chin, and so on.

Animating a Warped Asset

You can use the Asset Warp tool to move currently placed pins or to rotate existing pins. Both of these actions will distort the mesh and its Warped Asset visually. We can tween these mesh distortions across keyframes.

Before you do anything - duplicate the keyframe down a second or two past frame 1. With the keyframe (and the mesh with full pin set) duplicated, you can warp the mesh on the secondary keyframe with the Asset Warp tool, leaving the original intact.

Once you are satisfied, create a Classic Tween between the two keyframes and preview your animation. The mesh will tween between the two keyframes.

You may also want to place some extra frames at the end of your animation as I've done.

Automated Lip-Sync

Animate can now automatically assign specific frames of a Graphic symbol to an instance of that symbol across the timeline, using imported audio files to determine which frames to apply at which locations along the timeline.

Open the provided **Moon.fla** Animate file.

Moon

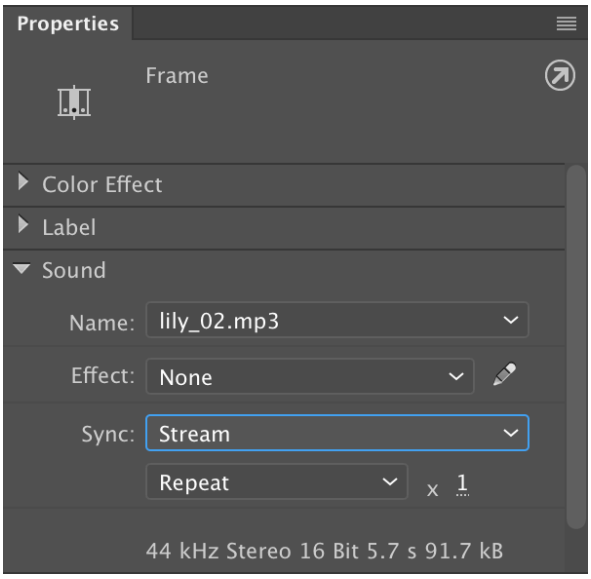
The animation features a number of layers and a moonrise. At one point in the animation, along the audio layer, you will find a blank keyframe. This is set just after the moon rises and stops in the sky and is where we will place our audio for playback.

You'll also note that this is an ActionScript 3.0 project. The primary reason for this is that in order to use the lip-sync feature, we must have audio on the timeline and set to stream. The audio stream choice binds audio playback to specific frames and simply does not exist in other documents types.

Audio File Integration

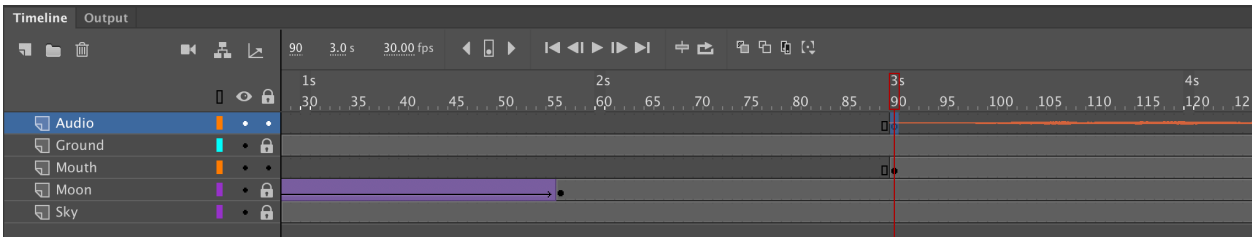
You will find an audio folder within the provided files on your machine. Within this folder are a set of interesting recordings – Edgar Allen Poe quotes as read by my daughters. You can choose between any of these recordings to pull into your project library.

Just choose File > Import > Import to Library and choose one of the available MP3 files. With that done, you'll assign the sound to a frame in the audio layer. Choose the blank keyframe at frame 90 of the audio layer and look to the Properties panel.



You will see the properties for this specific frame. Under the Sound section, choose an audio file from the Library using the Name dropdown selector.

Be sure and change the Sync selection to Stream before moving on!

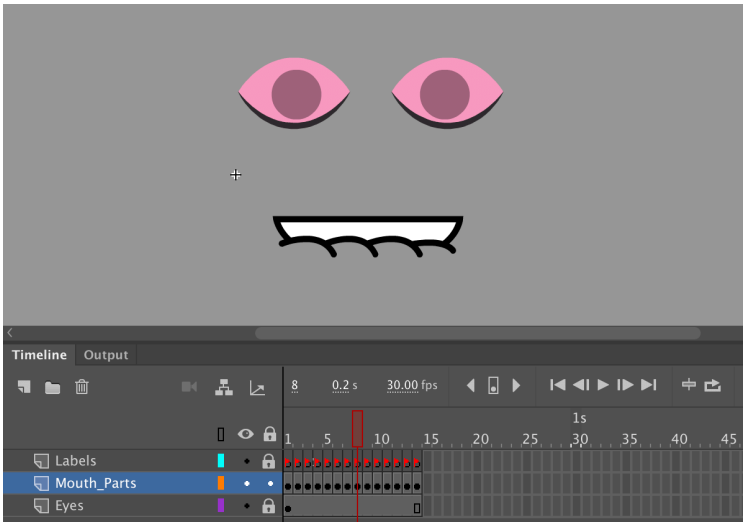


With that done, you will have an audio waveform appear at frame 90 of your audio layer. Since the sync is set to stream, scrubbing the playhead will result in a frame by frame audio preview.

Explore the Viseme Graphic Symbol

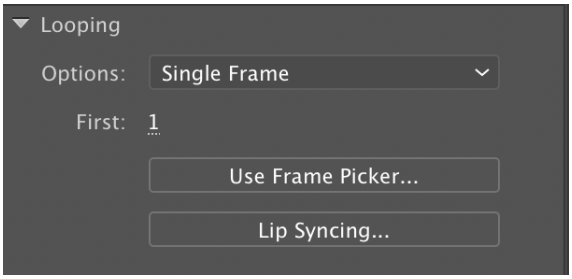
Automatic lip sync in Animate works by mapping certain standard speech sounds to a set of mouth frames within a Graphic symbol. Go ahead and have a look within the Mouth Graphic symbol and you will

see a different mouth shape for each sound – and note they are all labeled in this same way as well for easy identification.

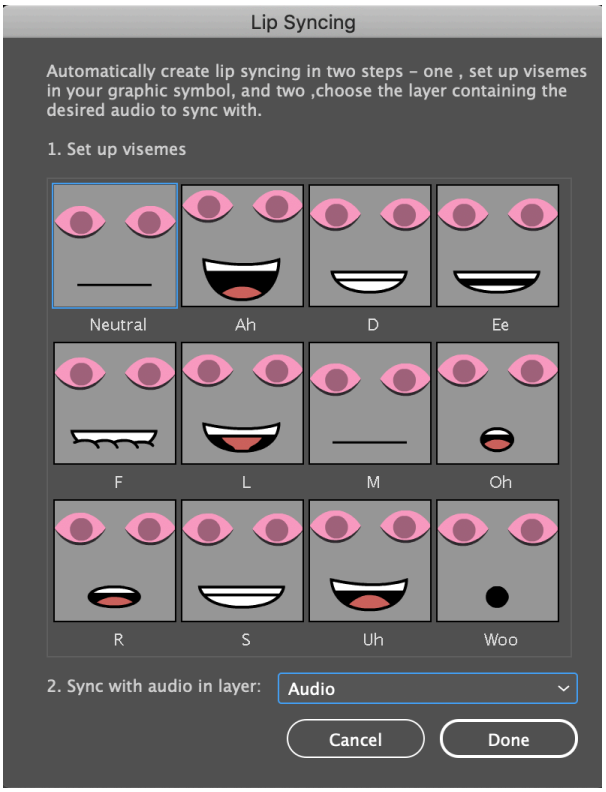


Automatic Lip-Sync

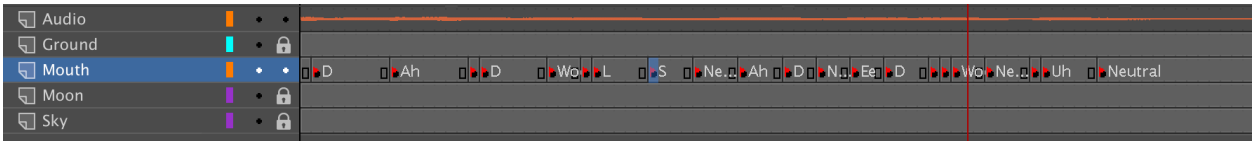
To use the automatic lip sync feature, select the mouth instance on the timeline and look to the Properties panel.



In the looping section, click the button that reads "Lip Syncing…" and a Lip Syncing dialog will appear.



This dialog allows you to set up your viseme by clicking each speech sound and selecting the proper frame which matches that sound from your Graphic symbol. Once the viseme has been set up, choose the audio layer to sync against and click Done.



Have a look in the Timeline to see that the dialog has inserted keyframes at all the appropriate places and has chosen specific frames based off the viseme you've established. You can play the animation in the Timeline or through the Control > Test menu option.

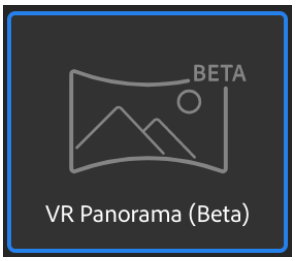
Of course, you can modify these frames if you notice any errors but the automatic lip syncing does a wonderful job!

Exploring Virtual Reality

Animate CC now includes a new set of Virtual Reality document types – both panoramic, and full 360 degrees.

VR Document Types

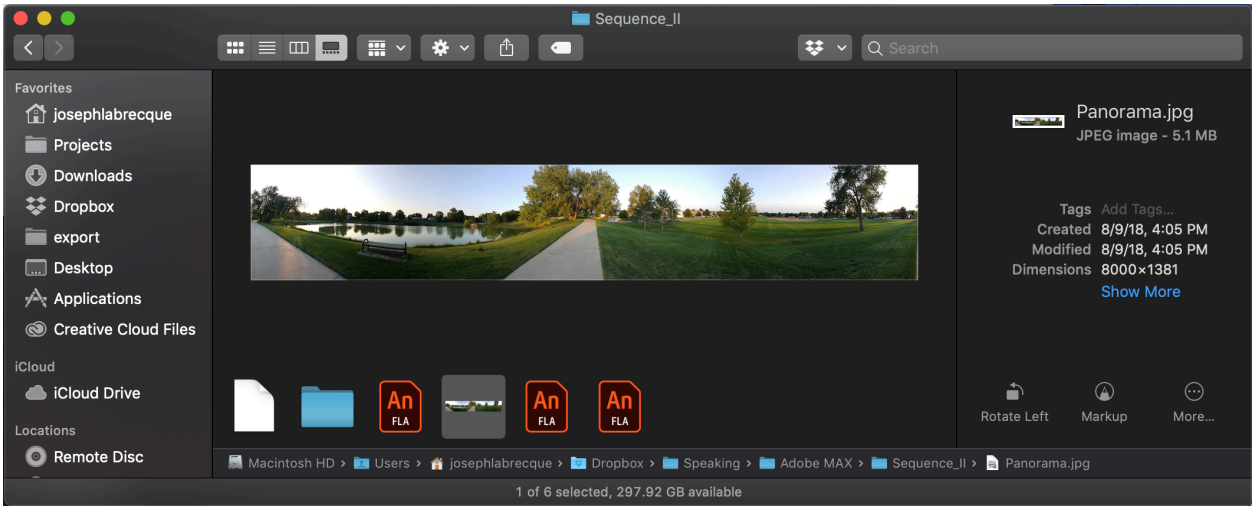
Create a new VR Panorama document from the Start Screen.



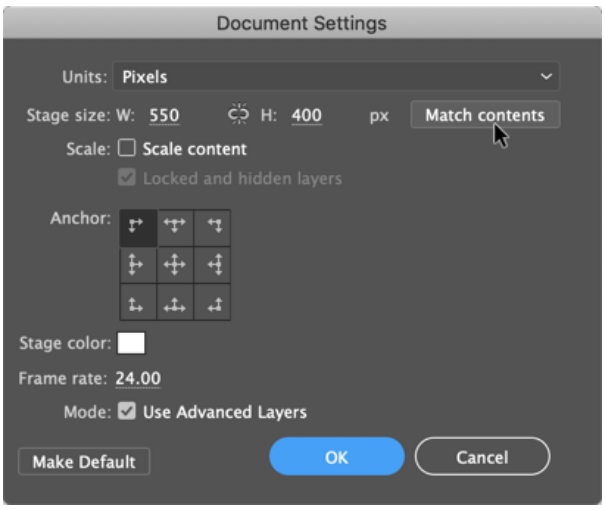
Both VR document types work in very similar ways and support the inclusion of additional animated assets and interactivity.

Implementing a Background Texture

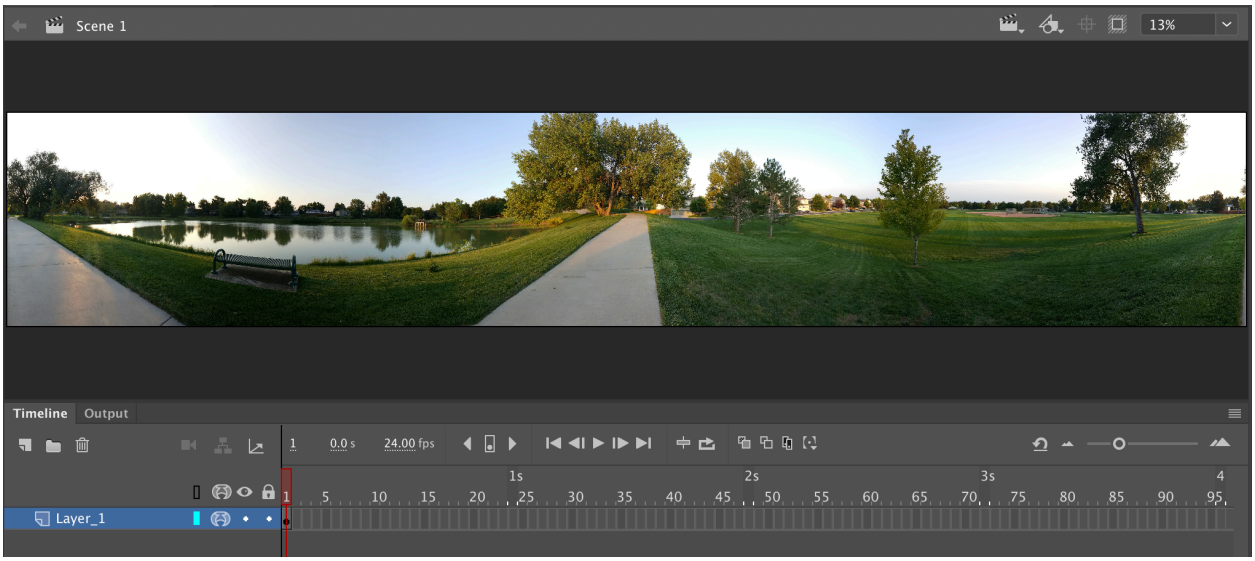
Import **Panorama.jpg** onto the stage by choosing File > Import > Import to Stage…



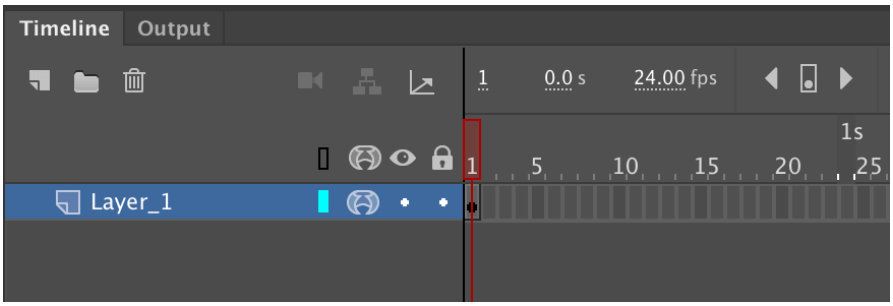
The bitmap will be placed upon your stage and spill well onto the pasteboard since it is way, way larger that the stage size. We can fix this by going into Document Settings and clicking the Match Contents button.



The stage is resized automatically to match the contents upon it. Click OK to exit out of Document Settings.



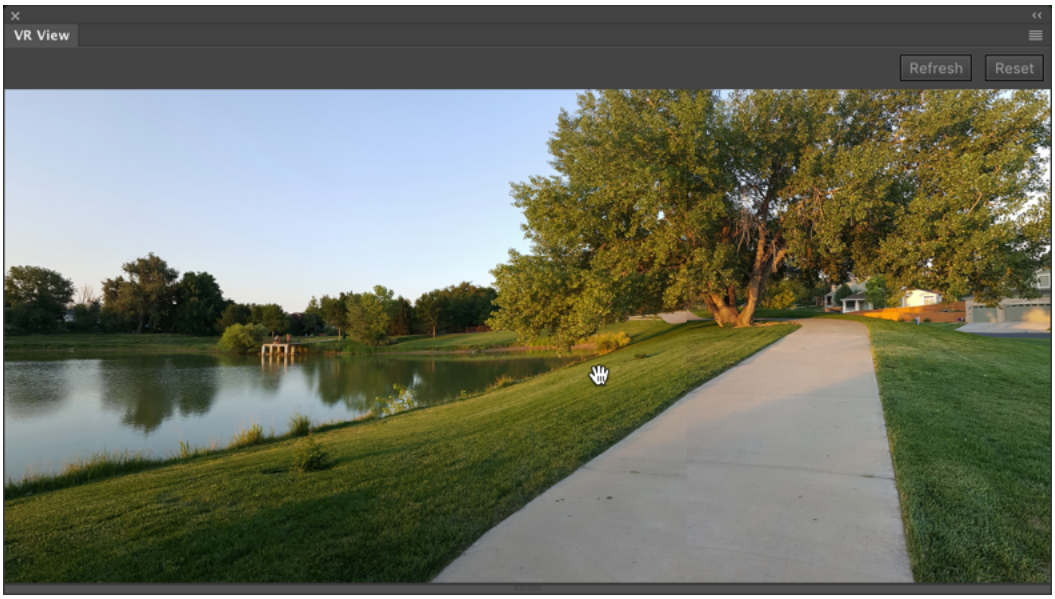
Zooming out to 13% (or Fit in Window) now have a nice, wide panoramic shot of a park near my home. You may even be able to see Denver from here!



The final thing we need to do is to specify the layer with our panoramic photograph for Texture Wrapping. Do this by clicking the Texture Wrapping icon alongside the Visibility and Lock icons in the Timeline.

Using the VR View Panel

You can open the VR View panel at any time while working in Animate by choosing Window > VR View from the application menu.



VR View allows you to click and drag to experience the panorama as a preview. If you have placed MovieClip symbol instances along the stage, you can even adjust their positioning in VR space through this view.

You can also preview in the web browser by choosing Control > Test.

Exploring Further

Play around with creating additional layers and building animations atop your panoramic texture. Note that you should not specify anything that will be animated as a background texture as you've done with the imported bitmap.

WebGL glTF and the 3rd Dimension

WebGL content is actually GPU-accelerated, meaning that it makes direct use of the hardware GPU (Graphical Processing Unit) instead of sharing rendering tasks with everything else running on the CPU (Central Processing Unit). This makes for a much more effective and powerful rendering target. We'll have a very brief look at these new document types before concluding.

WebGL Document Types

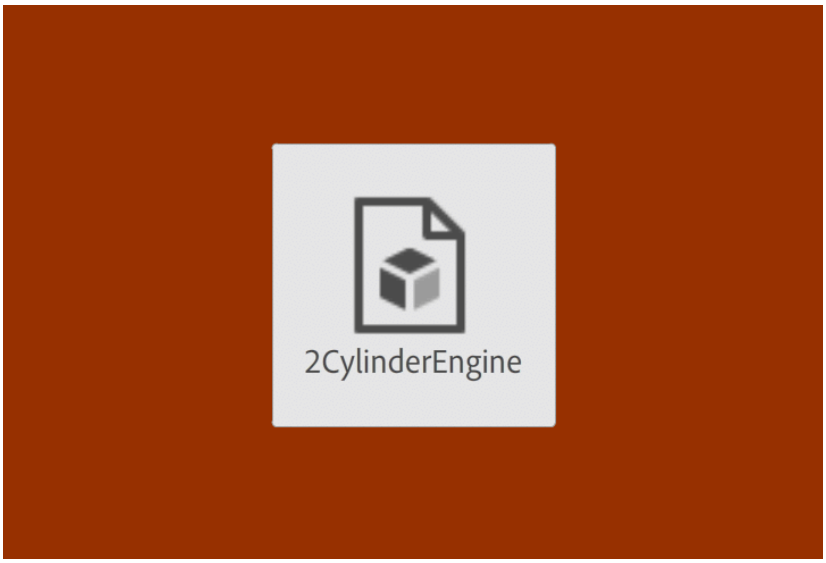
Create a new WebGL glTF Extended document.

While WebGL glTF Standard with create a standards-compliant output… certain features like transformative skew, filters, and interactivity will not function using the standards-based format. This is one of the reasons we are using the extended version for this example.

Importing 3D Objects

We'll be having a look at the inclusion of standard WebGL glTF GLB files within the stage of our glTF Extended project.

Choose File > Import > Import to Stage and select the 2CylinderEngine.glb file from your project files.



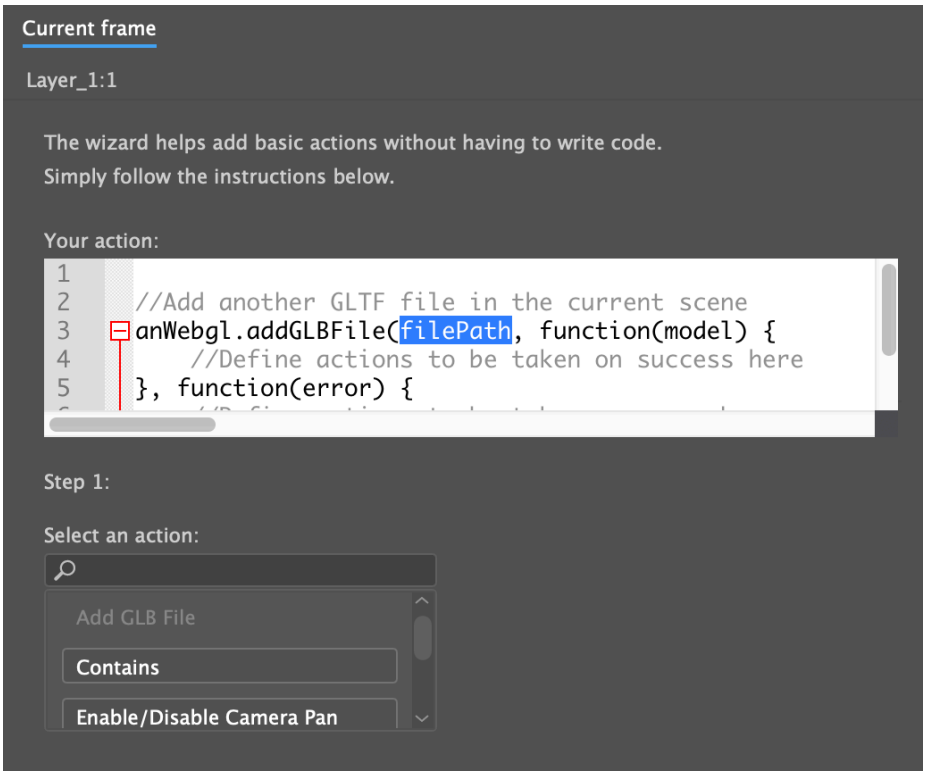
A placeholder MovieClip symbol instance appears on the stage. You can animate this, move it around, and change its properties like any other instance… however, you won't see it rendered until you test or publish.

Adding Interactivity

While animation is certainly a valid use for Animate CC, the application is great for implementing interactivity as well.

Open the Actions Panel by choosing Window > Actions from the application menu.

Click the Add Using Wizard button in the upper right and the Actions Wizard appears.

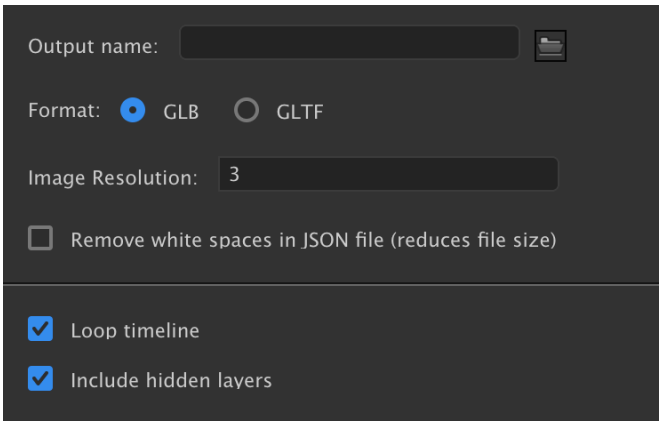


You can see a set of WebGL glTF Extended specific actions that can be chosen – including the import of GLB files through code. Very neat!

Publishing WebGL glTF Files

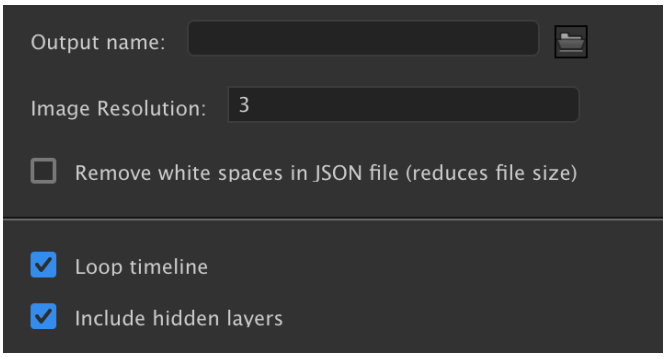
While the Extended version of WebGL glTF will publish with its very own runtime from Adobe, publishing the Standard version will create standards-compliant files which can be played back in any standard glTF viewer.

Choosing Publish Settings with a Standard document type allows you to choose between GLB or GLTF file output.



Either one of these can be played back in stardards-based viewers such as the one found at https://sandbox.babylonjs.com/ - just drag and drop your GLB file into the browser window!

When publishing the Extended version, you will not have the option to choose output formats since this is a extended, Animate-specific verion of the glTF standard which uses its own custom runtime.



In either case, you can browse to file location and name the output, set the image resolution, clean up the generated JSON or not, and choose from the standard playback options of looping the Timeline and whether or not to publish hidden layers.

Pretty straightforward!

Additional Resources

To keep up on all things Animate, here are a few resources:

- **Adobe Animate Team Blog**
  https://blogs.adobe.com/creativecloud/tag/adobe-animate-cc/
- **Adobe AIR and Adobe Flash Player Team Blog**
  http://blogs.adobe.com/flashplayer/
- **Adobe Animate CC Learn and Support**
  https://helpx.adobe.com/animate.html

To contact Joseph Labrecque, note the following links:

- **Website**
  http://josephlabrecque.com/
- **Twitter Profile**
  https://twitter.com/JosephLabrecque
- **Blog - In Flagrante Delicto!**
  http://inflagrantedelicto.memoryspiral.com/
- **Lynda.com Author Page**
  http://www.lynda.com/JosephLabrecque
- **Pluralsight Author Page**
  https://www.pluralsight.com/authors/joseph-labrecque
- **Amazon.com Author Profile**
  http://amazon.com/author/josephlabrecque

THANK YOU!

HAVE FUN WITH ADOBE ANIMATE!