

Web Gallery Using Flash



Title: Web Gallery Using Flash
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Chapter 6 Introduction to Animate

Learning Outcome

Objectives of this chapter are: -

- What is Animate?
- Adobe Animate panels

WHAT IS AN ANIMATE?

An authoring tool that allows you to design, animate, add interactivity and publish for multiple platforms - including HTML5.

Animate CC is not yet another authoring tool. Whereas other tools for the web mainly focus on CSS and DOM manipulation (animating plain HTML elements), Animate CC follows a different strategy and relies on newer and more promising web technologies such as Canvas, WebGL and SVG animations. As native HTML elements, these technologies are also part of the web standards and are therefore supported on all modern browsers and devices.

Animate Basic tools, Workspaces, and Colors

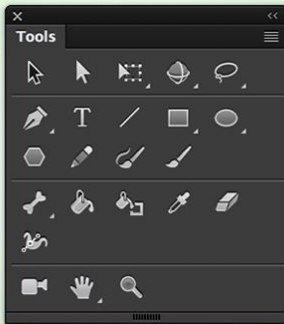


Figure 1 Basic tools

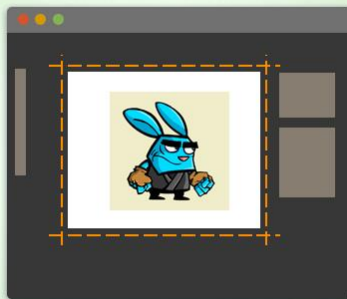


Figure 2 Workspaces

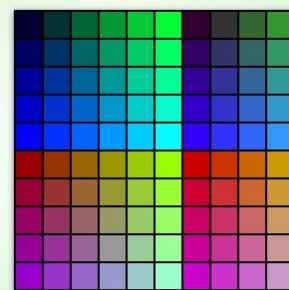


Figure 3 Colors

Animate Time

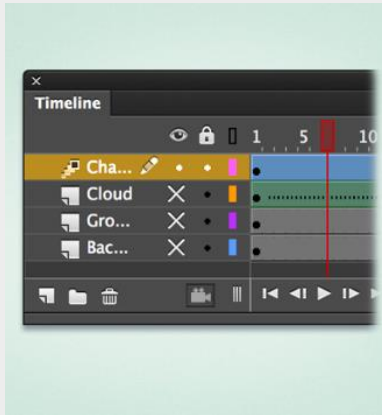


Figure 4 Timeline

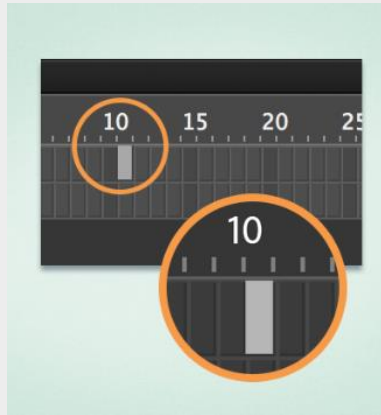


Figure 5 Frames

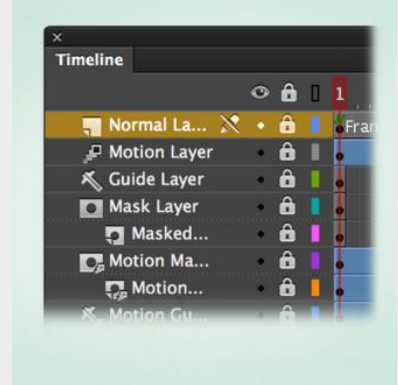


Figure 6 Layers

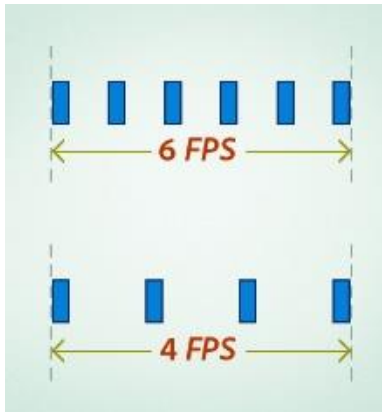


Figure 7 FPS
Layers

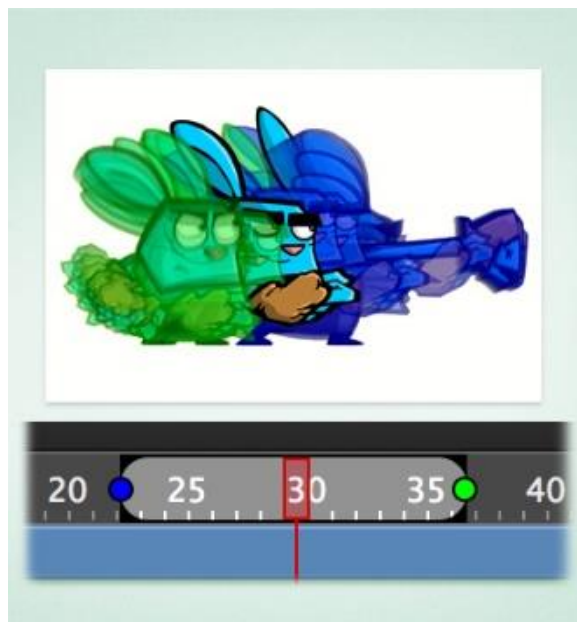

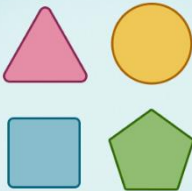

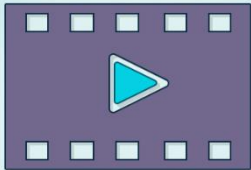

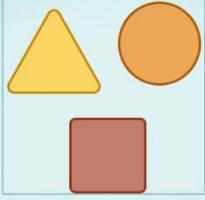


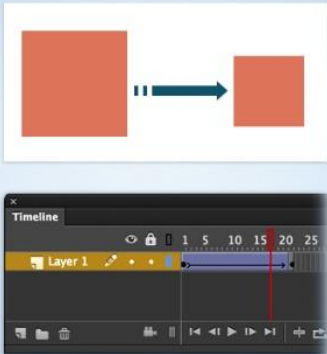
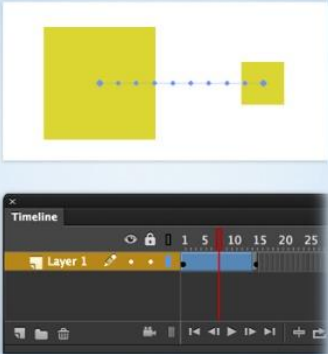
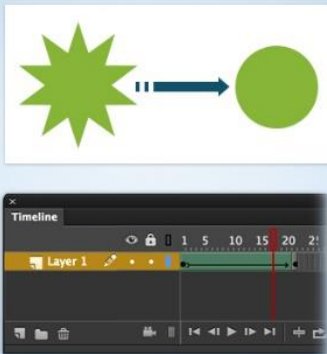


Figure 8 Onion Skinning

Elements

| | | | |
|--|--|---|---|
|  <p><i>Figure 9 Symbols</i></p> |  <p><i>Figure 10 Raw Shapes</i></p> |  <p><i>Figure 11 Bitmap</i></p> |  <p><i>Figure 12 Video</i></p> |
|  <p><i>Figure 13 Audio</i></p> |  <p><i>Figure 14 Groups</i></p> |  <p><i>Figure 15 Text</i></p> |  <p><i>Figure 16 Drawing Objects</i></p> |

Tweens

| | | |
|---|--|---|
|  <p><i>Figure 17 Classic Tween</i></p> |  <p><i>Figure 18 Motion Tween</i></p> |  <p><i>Figure 19 Shape Tween</i></p> |
|---|--|---|

Canvas, SVG and WebGL offer first class design surfaces, so that you can work with real shapes, strokes and paths and modify each and every pixel or path segment. Even 3D is possible with WebGL. Yet there has not been a suitable tool with a visual design surface that supports these technologies and allows you to visually create and animate in this context.

As authoring tool, Animate CC gives you full control over these design surfaces. Create like in Illustrator and orchestrate animations like in After Effects. This means getting production ready, having the necessary support for large scale projects and the appropriate infrastructure, with a UI and design surface plus timeline that gives you full control over design, timing and actions - with vector art brushes, full support for graphic tablets, versatile tweening options exchange with other Creative Cloud tools through creative sync and deep integration of Adobe Stock and much more...

As a truly versatile tool, you are not limited to Canvas, WebGL and SVG as export options but can also output up to 4k video and first-class Flash and Air. Want more? It comes with an extensible architecture for custom platform support.

There's more: It is also a HTML5 ad solution: The output complies with latest Interactive Advertising Bureau (IAB) standards, a long requested and vacant field.

This is why Animate CC is the premier animation tool for the web and beyond.

Intrigued? Then you have come to the right place. Browse through the samples to get an impression on what Animate CC is capable of in terms of the modern web. Download these samples for free and start exploring this fascinating tool right away.

Learn Animate

Stage area

Two related aspects of any animate project are the stage, which is the visible area of the project when published, and the pasteboard.

The hidden area outside the bounds of the defined project stage. You can see the stage here. We've selected that light tan color to represent it and the pasteboard is the area around it, which is a dark gray in our case here.

Now the main differences are that anything that overlaps the stage will be seen by the user and anything that's not on the stage, but rather on the pasteboard, will be hidden. To demonstrate this, let's go ahead and draw something. I'm going to choose the oval tool from the Tools panel and notice that the Properties panel changes.

I can make selections like, Turn on Object Drawing Mode, and change the color selections. So, maybe I'll use the color picker here to define some of my colors; an orange fill and I'll give it a stroke that's a bit darker, more red. We can also increase the stroke size and, as you can see, there are a number of other options specific to this one tool.

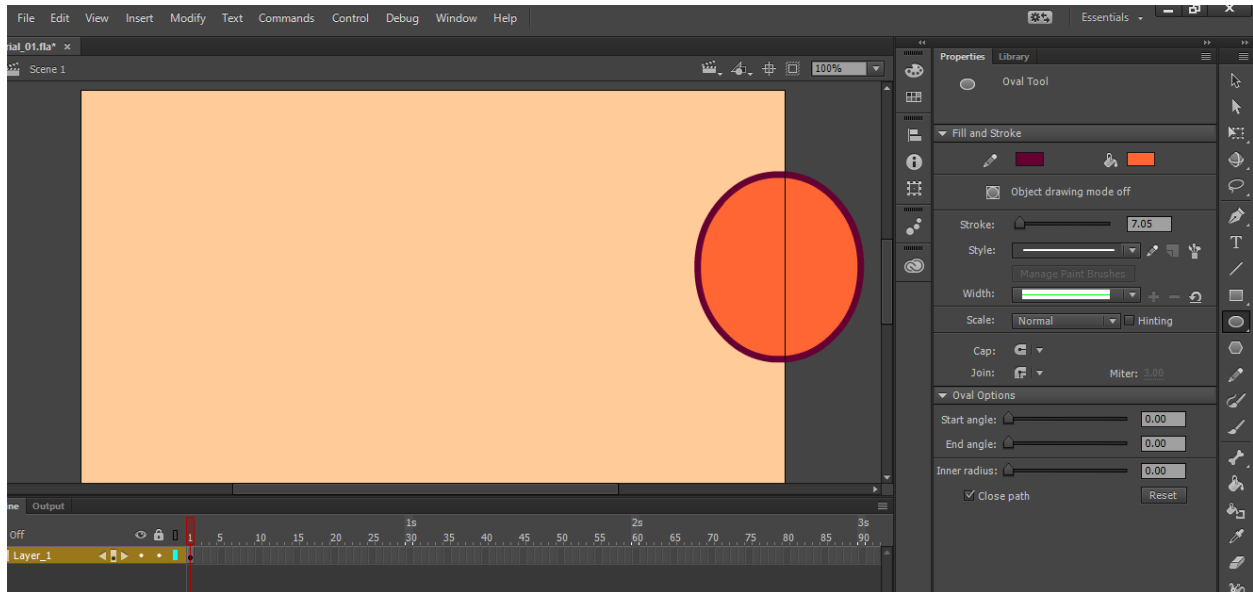


Figure 20 Stage and pasteboard

However, this is going to be good enough to demonstrate the differences between stage and pasteboard. What I'm going to do is just draw something that overlaps both.

So, as you see here, we have this circle overlapping our stage and also overlapping the pasteboard. By default, there's a nice border that only shows up in Authoring mode, but gives us an idea of where the stage ends and where the pasteboard begins.

There are two different ways to preview this. One way is to go to Control. Test, as we've already seen, and as you can see here, we don't see anything that lies on the pasteboard only what's overlapping the stage.

If we don't want to test, we can also choose this little option right here, to clip content outside the stage. When I turn this on, we see exactly how things will look when we publish or test. This can be very useful when designing complex scenes. However, most of the time you'll probably want to keep that off.

As we can see in this demonstration, assets can exist on the stage or on the pasteboard, but will only be visible to the user once exposed by the stage itself.

Property panel

As we've already seen, Animate CC has a dedicated panel for making modifications to the various properties of the document itself, individual frames and the wide variety of assets you can use within a project, among other things.

So, right now, the Properties panel is actually displaying document properties. So, this is where earlier we changed the frames per second, the background color of the stage and the width and height.

The important thing to recognize about the Properties panel is that it is entirely contextual, which means that anything that we have selected will cause the Properties panel to display properties for that specific tool or object.

For instance, if I go ahead and click on the circle that we created, the Properties panel now changes to display the properties for that circle.

We can see that the circle is a drawing object. We can see and adjust its position and size, change, fill and stroke colors, and there are also some handy little shortcuts here to expand to fill, create a drawing object or break apart this drawing object.

We can change the size of the stroke, the style of the stroke, the width profile, the scaling and even the cap, joint and miter of that stroke. So, what we see here are properties that are inherent to all drawing objects.

As mentioned, if we choose a specific tool, we can get properties for that tool, as well. What we can also do is click anywhere on the stage or pasteboard where objects do not exist to go back and view the document properties. That's a really easy way to switch between specific object properties and your document properties. As mentioned, choosing Tools, will also give us the properties for those tools.

So, if I choose the Paintbrush tool with nothing selected, then I get the properties for the Paintbrush Tool itself. The same thing with a tool like the Text tool.

Here are the properties for the Text Tool. And again, if I want to get back to my document properties, all I have to do is click the Selection Tool and just make sure that nothing is actually selected on the stage by clicking an empty area of the pasteboard or stage. And there we are, document properties.

If unfamiliar with the manageable properties of any aspect of an Animate project, you can easily give the Properties panel a glance to discover the possibilities.

Library panel

The Animate project library is an organizational repository which contains complex assets such as imported bitmap files, audio and complex symbols within an Animate project.

To view the library, just go over to the library tab right here, it's docked with the properties panel and we can see the library itself. Note that in this current document, there is absolutely nothing within the library.

Even though we have a shape on our stage, shapes do not exist within the library.

Only symbols and imported assets do. Let's go ahead and open up another FLA file, which is the completed version of this project.

File open, and we'll open up this HTML5 Canvas version. This is the completed version of our project, and we can see here within the library, that we have a number of

different things, including bitmap assets, textures, wave files and a variety of different symbols.

Note that since we have two documents open right now, our `personal_landing.fla` and the completed version of our project, which is targeting HTML5 Canvas, we're actually able to share library items between the two.

To do this, just go to your library panel and note that we're looking at the library for `personal_landing.fla`, however we're able to switch that to see what's within our HTML5 Canvas version.

If desired, we could pull in all sorts of different items from that library. And then of course, switch back over to our original document and here they exist once again.

Now we have all of the objects that we pulled over from our completed version of the FLA project, into our work in progress version. Before we move on, we'll want to clear everything out of our library and off of our stage.

So, to do that, with the selection tool I'm simply going to draw a selection rectangle across those objects that we just brought in and hit my delete button on the keyboard, in terms of library itself for `personal_landing.fla`, let's close out that completed version, now it no longer exists within our drop down here and then we can actually select the first item and shift select the final item, in order to select everything down below hit delete.

That once again clears our library and we're ready to move on with this project. Libraries are a powerful aspect to any Animate project but they must be organized well to be used effectively.

Animate is an authoring tool that allows you to design, animate, add interactivity and publish for multiple platforms - including HTML5.

Timeline

Overview

Adobe Animate documents divide lengths of time into frames similar to films. Frames are at the core of any animation, dictating each segment of time and movement. The total number of frames in your movie, and the speed at which they are played back, together determine your movie's overall length. A brief description of some of the concepts on frames is explained below for your reference.

Animate CC has deep roots as an animation program. Because of this fact and its continued focus as an animation platform to this day, we have access to a robust timeline within the program.

As mentioned before the timeline itself calculates time via a setting of FPS or frames per second. This is displayed above the timeline here and we can see that it's 30 frames

per second right now but we can also see that and manipulate it within the properties panel, 30 frames per second.

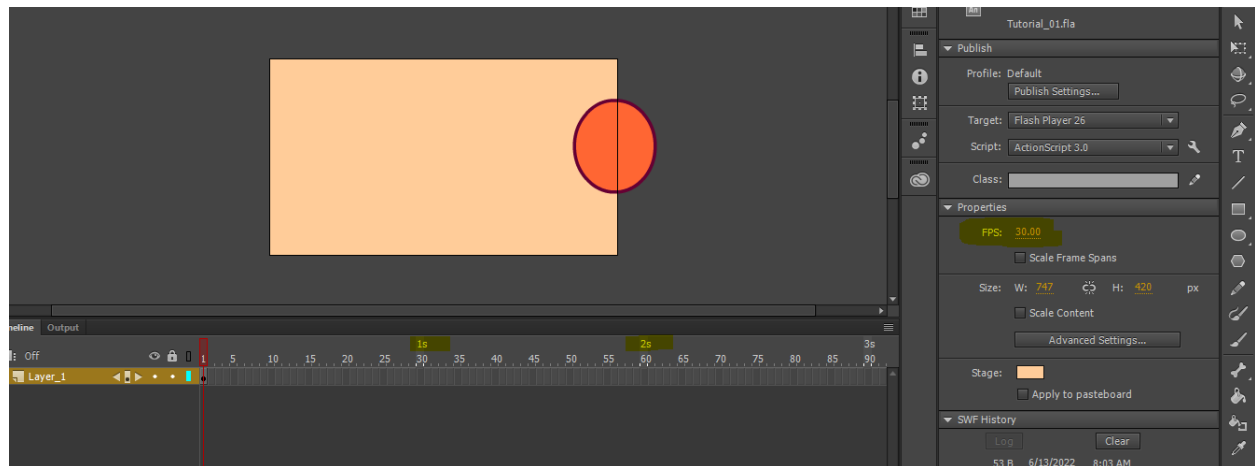


Figure 21 Timeline

Because we have this set to 30 frames per second what that means is that at the 30-frame mark that will also be the one second marker.

So, one second of time equals 30 frames. By default, we only have one frame when we create a new document. And that exists on frame one. Within the timeline we have the play head here, which is this red marker and if we had more frames, we'd be able to scrub the play head back and forth to preview our animation.

However, since we only have one frame the play head is stuck or bound to that single frame. Aside from frames we also have the ability to manage layers. The default layer name in a new document is layer underscore one however if we wanted to create new layers, we could click the new layer button and then we get layer underscore two and so forth.

We can also rename layers. So, if I double click on a layer name, I can give it a unique name like circle. It's important to give each layer a specific name so that you know what's on that layer and what its purpose is.

Let's create a few more layers using the new layer button because if you have many layers and want to organize them you can always use a layer folder.

Layer folders can be created with the new folder button and they can also be named. So, maybe I'll double click there and just type in Misc for miscellaneous since these layers don't really have much of a function. And then we can click and drag to move certain layers into that folder.

A layer folder is very useful because we can collapse and expand it. We can also show outlines for everything within that folder or through specific layers of course.

For instance, if I grab my circle and add it back to our layer stack within the miscellaneous folder and turned on our outline mode, we would only see the outlines for anything on that specific layer.

We can also toggle the visibility and that's done through the toggle switches below the eye icon. This will make anything on those layers' invisible during author time however once we publish, they would still show up.

We also have the ability to lock anything in that folder or on specific layers. When something is locked if we try to select it or manipulate it in any way you can see that we're not able to because it's been locked. It's useful to lock down different layers when we're done dealing with them so we don't mistakenly adjust any of the properties of objects on those layers.

Note that we can also remove layers from a folder by clicking and dragging in the same way. To delete extra or unneeded layers and folders we can hit the delete button with those layers and folders selected. And that will clean up our layer stack.

The last thing I'll note here is that right clicking on any layer allows us to access layer properties by choosing properties in the menu that appears.

The layer properties expose much of what we just saw such as locking the layer, changing the visibility and so forth.

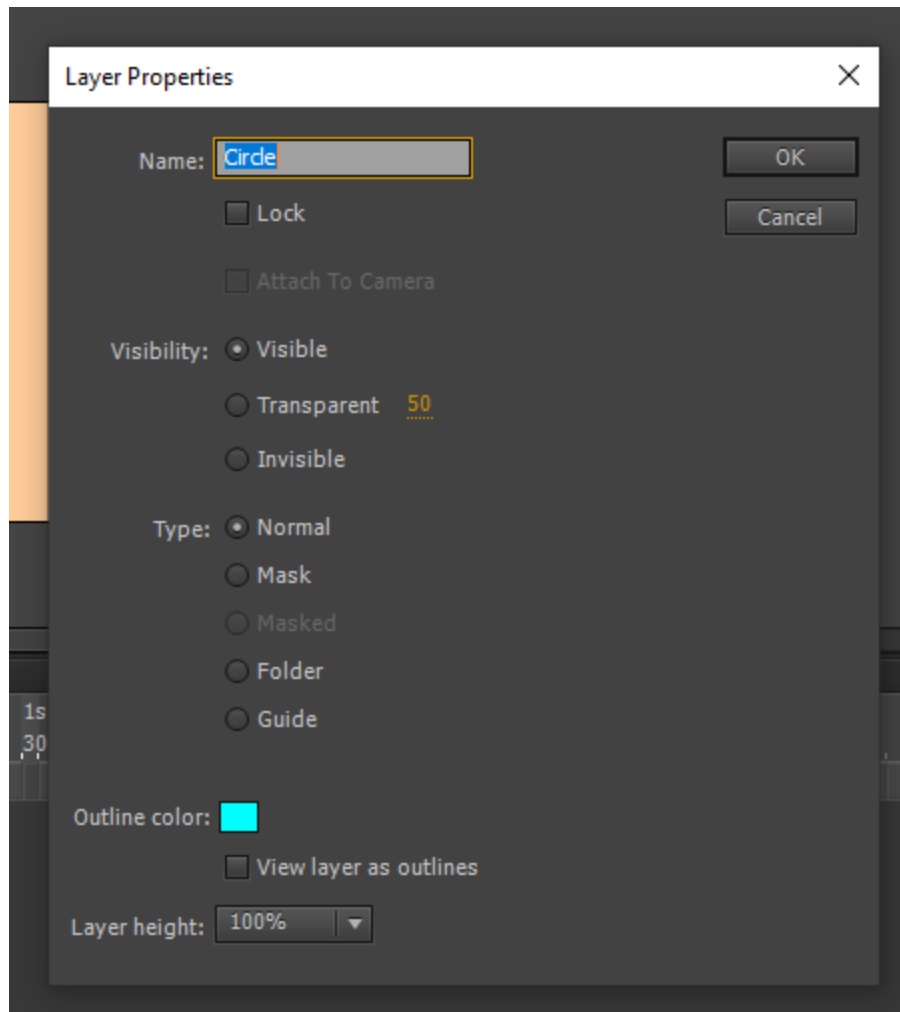


Figure 22 layer Properties

However, we can also make the contents of the layer transparent and the transparency value can be anywhere from zero to one hundred. We can also change the type of layer so a normal layer is what you'll normally be working with but we can change it to mask, folder, guide and so forth.

If desired you can also specify a unique specific outline color for any of your layers and you have the option of changing the layer height if you want specific layers to appear taller than others in order for them to stand out while you're authoring. Hit okay to apply any of these settings, and there we are.

Becoming familiar with the timeline and ways of managing elements in the timeline is incredibly important to being successful within Animate CC.

Frames

In the timeline, you work with the frames to organize and control the content of your document. You place frames in the timeline in the order you want the objects in the frames to appear in your finished content.

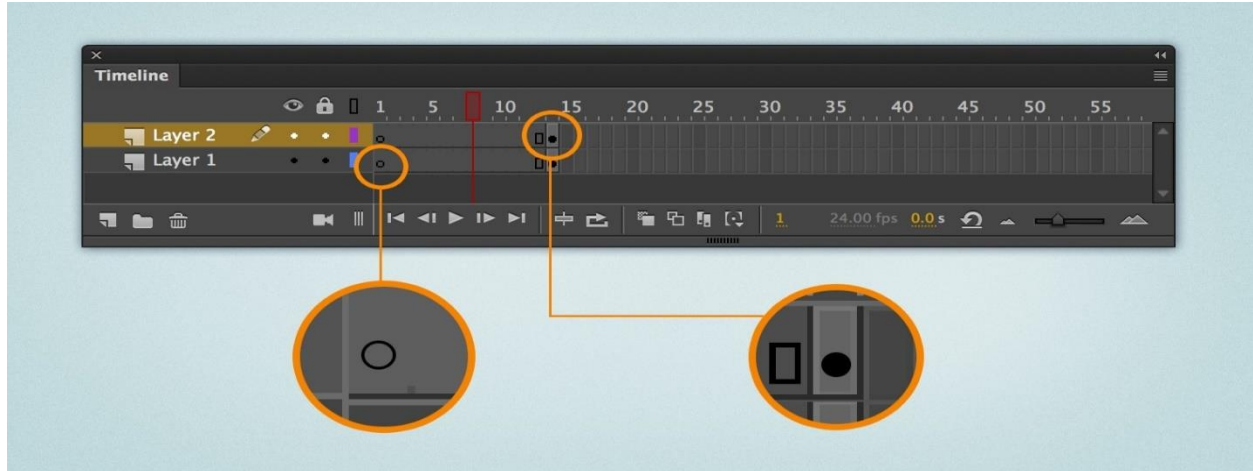


Figure 23 Keyframe

Keyframe

A **keyframe** is a frame where a new symbol instance appears in the timeline. A keyframe can also be a frame that includes ActionScript code to control some aspect of your document. You can also add a blank keyframe to the timeline as a placeholder for symbols you plan to add later or to explicitly leave the frame blank. Using keyframe you can set a position, add anchor points, actions, comments and so on.

Span

Span-based frame selection allows you to select a range of frames between two keyframes with a single click.

Static frame span

In static frame span, same content is available for entire duration of span. You can use this type of span whenever you need to display graphics for fixed amount of time.

Tweened frame span

In tweened frame span, the content changes within the span for each frame. You can use this type of span for animations.

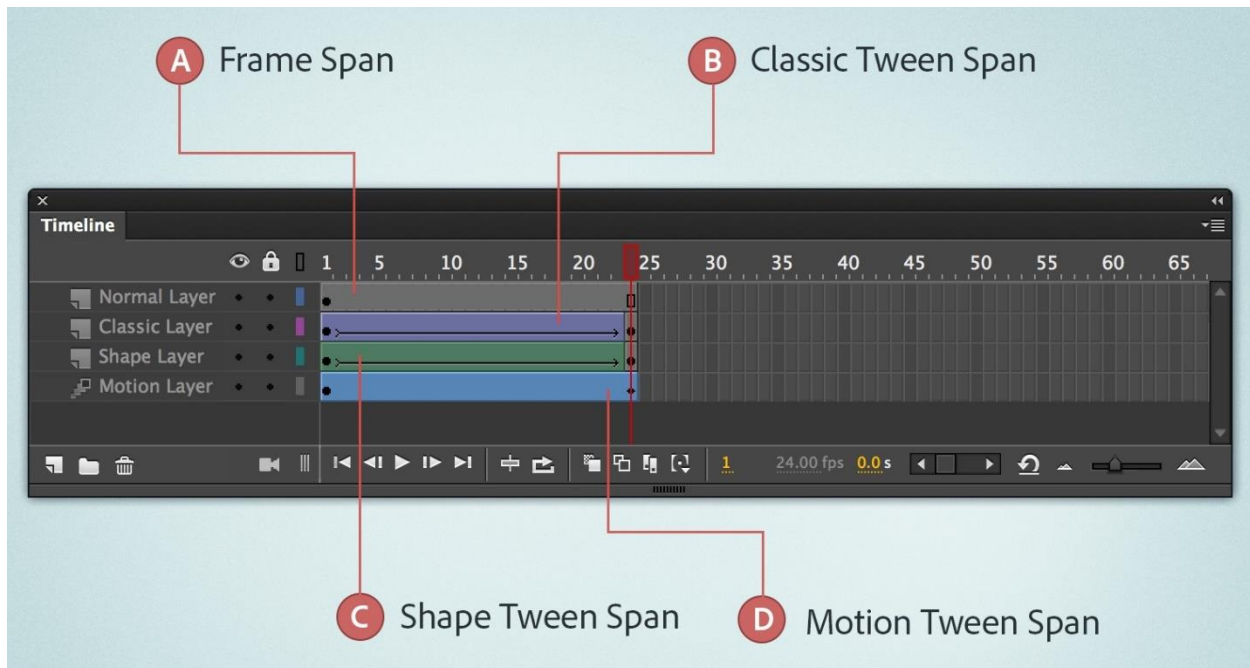


Figure 24 Timeline

Add or insert frames in the timeline

To insert a new frame, select **Insert > Timeline > Frame** (F5).

To create a keyframe, select **Insert > Timeline > Keyframe** (F6), or right-click (Windows) or Control-click (Macintosh) the frame where you want to place a keyframe, and select **Insert Keyframe** from the context menu.

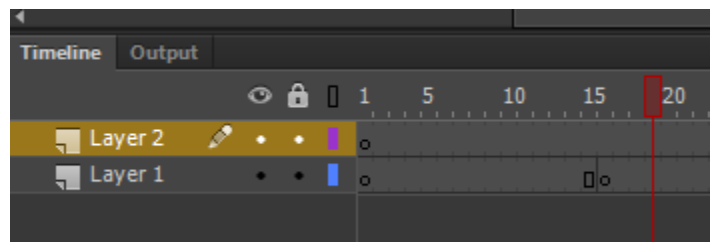


Figure 25 Inserting Blank Keyframe

To create a blank keyframe, select **Insert > Timeline > Blank Keyframe**, or right-click (Windows) or Control-click (Macintosh) the frame where you want to place the keyframe, and select **Insert Blank Keyframe** from the context menu.

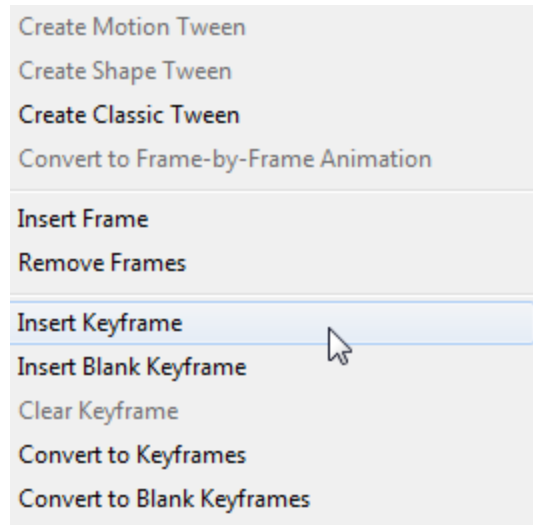


Figure 26 Inserting Keyframe

Effects on frames

The filters and color effects used to be applicable only to movie clips and graphic symbols. With the advanced layers, filters and color effects can now be applied to a selective frame(s), which in turn applies to all its content including shapes, drawing objects, graphic symbols, and so on. Layer effects can also be tweened using classic, shape, and IK tweens across frames.

Select and label frames in the timeline

You can select frames by using two methods provided in Animate. You can also label frames to organize its contents.

Animate offers two different methods for selecting frames in the timeline. In frame-based selection (the default), you select individual frames in the timeline. In span-based selection, the entire frame sequence, from one keyframe to the next, is selected when you click any frame in the sequence.

Select frames in the timeline

Single or multiple frames selection

- To select one frame, click the frame.
- To select multiple contiguous frames, drag the cursor over the frames, or Shift-click additional frames.
- To select multiple non-contiguous frames, Control-click (Windows) or Command-click (Macintosh) additional frames.
- To select all frames in the timeline, select Edit > Timeline > Select All Frames.

Span based frames selection

As a prerequisite for span-based selection, you can specify span-based selection in Animate timeline by clicking the hamburger icon at the upper-right corner and selecting Span Based Selection menu item.

- To select a whole span of frames (motion tween or inverse kinematics) click on frame.
- To select multiple spans, click on each of them while holding the Shift key.

Label frames in the timeline

You can label frames in the timeline as a way of helping organize its contents. You can also label a frame in order to be able to refer to that frame in ActionScript by its label. That way, if you rearrange the timeline and move the label to a different frame number, the ActionScript will still refer to the frame label and will not have to be updated.

Frame labels can only be applied to keyframes. A best practice is to create a separate layer in the timeline to contain your frame labels. Using separate layer for labels enables you to organize content and keyframes better.

To add a frame label: -

1. Select the frame you wish to label in the timeline.
2. With the frame selected, enter the label name in the Label section of the Property inspector. Press Enter or Return.

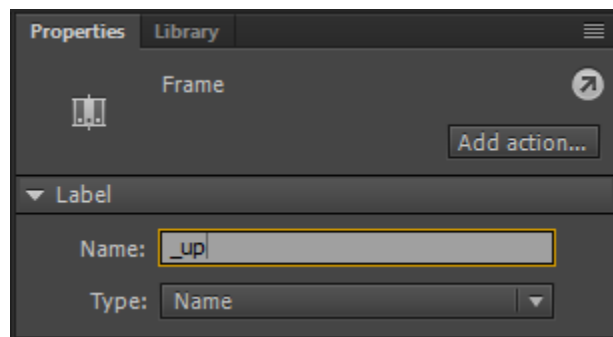


Figure 27 Properties

3. As a best practice, create a separate layer for all labels in the frame.

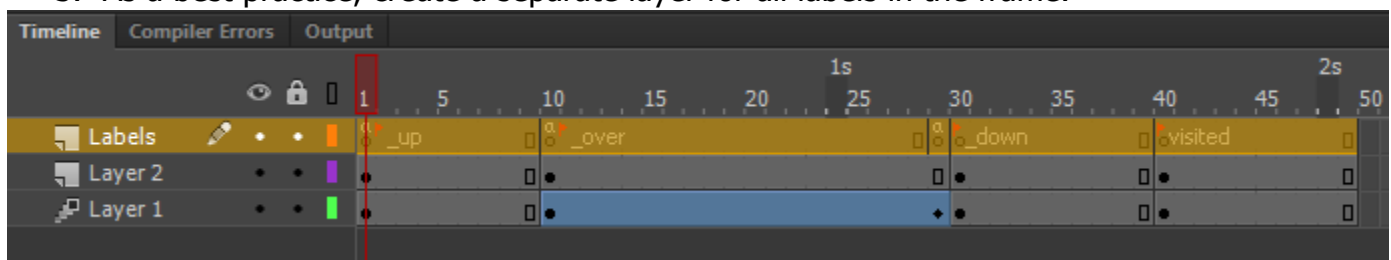


Figure 28 Create layers

Enable span-based frame selection

Span-based frame selection allows you to select a range of frames between two keyframes with a single click.

- Click the hamburger icon at the upper-right corner of the timeline section.
- A pop-up menu appears.
- Select the Span Based Selection from the pop-up menu.

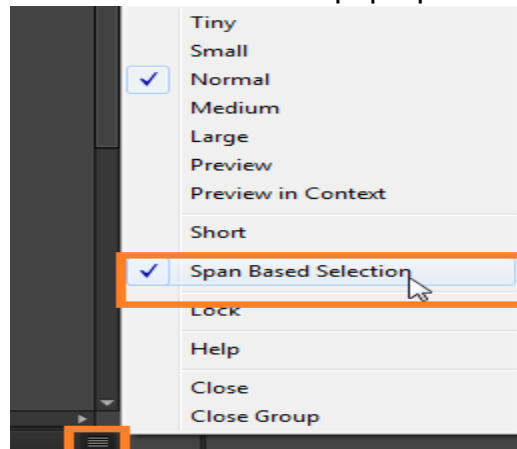


Figure 29 Span selection

Distribute to keyframes

Distribute to keyframes option allows you to distribute multiple objects (Symbols and Bitmaps) on the stage to individual keyframes each.

- Select multiple objects of any layer on the stage.
- Right-click anywhere on stage, and select Distribute to Keyframes.

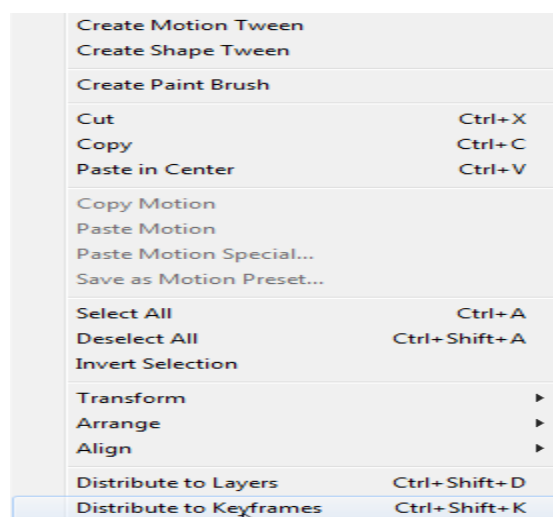


Figure 30 Insert Menu

Copy, paste, delete, or move a frame or frame sequence

A keyframe and the span of regular frames that follow it are known as a keyframe sequence. The timeline can contain any number of keyframe sequences.

To copy or paste a frame or frame sequence, do one of the following: -

- **Copy or paste a frame or frame sequence**
 - ❖ Select the frame or sequence and select Edit > Timeline > Copy Frames. Select the frame or sequence that you want to replace, and select Edit > Timeline > Paste Frames.
 - ❖ Alt-drag (Windows) or Option-drag (Macintosh) a keyframe to the location where you want to copy it.

Delete a frame or frame sequence

DELETE A FRAME, FRAME SEQUENCE OR A KEYFRAME

- Select the frame or sequence and select Edit > Timeline > Remove Frame, or right-click (Windows) or Control-click (Macintosh) the frame or sequence and select Remove Frame from the context menu.
- Surrounding frames remain unchanged.

| Timeline | | Remove Frames | Shift+F5 |
|-----------------------|--------|----------------------------|---------------|
| Edit Symbols | Ctrl+E | Cut Frames | Ctrl+Alt+X |
| Edit Selected | | Copy Frames | Ctrl+Alt+C |
| Edit in Place | | Paste Frames | Ctrl+Alt+V |
| Preferences... | Ctrl+U | Paste and Overwrite Frames | |
| Font Mapping... | | Clear Frames | Alt+Backspace |
| Keyboard Shortcuts... | | Select All Frames | Ctrl+Alt+A |

Figure 31

DELETE KEYFRAME

Select the keyframe and select Edit > Timeline > Clear Keyframe, or right-click (Windows) or Control-click (Macintosh) the keyframe and select Clear Keyframe from the context menu.

Move a keyframe or frame sequence

Select a keyframe or frame sequence and then drag the keyframe or sequence to the desired location.

Change the length of a static frame sequence

Control-drag (Windows) or Command-drag (Macintosh) the beginning or ending frame of the span to the left or right.

Preview frame content in the timeline

Choose Preview from the timeline panel options menu at the upper-right corner of the timeline panel.

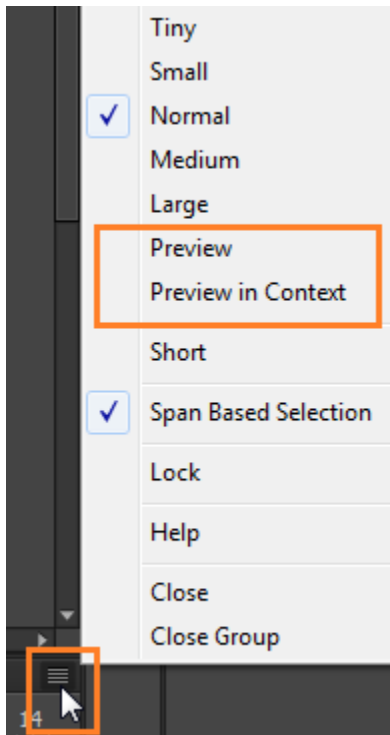


Figure 32

In each keyframe of the timeline, you can view a thumbnail preview of the items in the keyframe.