MOTION TWEENING IN ANIMATE

Introduction
Animate CC has several ways to animate elements. In this handout we’ll look at the most widely used type, Motion Tweening. For motion tweening, you have to start with a Symbol, so let’s create a simple symbol.

Creating a symbol
A symbol is simply a collection of shapes or images that is treated as a collection, not as individual pieces. Let’s start with an HTML5 canvas and use the Oval tool. Draw a simple oval on the canvas.

Don’t worry if it doesn’t look exactly like this. Simply activate the selection tool at the top of the toolbar (or use the shortcut V) and double click on the fill. The fill and stroke will be selected, and their properties will be shown in the Properties panel to the right. Let’s change the stroke style to Ragged; that will produce something like the image below. You can see how the stroke now looks somewhat random and hand drawn.

But we can still select the fill and the stroke separately. Again, double click on the fill to select the fill and stroke, then right click.
You’ll see a drop-down menu like the one on the left. Choose Convert to Symbol and type in a suitable name in the dialog box. Now when you go to the Library tab you’ll see the new symbol there. This can now be used for a motion tween. It can also be edited at any time by double clicking on it. You’ll know you’re in edit mode by looking at the top left of the canvas window; the name of the symbol will show after the scene name. Edit the symbol, then click on the scene name in the list above (or click the left facing arrow) to return to the scene view.

Now we have a symbol that we can use in a motion tween.

**Motion tweening**

Your symbol is in the Library. Now delete it from the scene. You don’t have to do this, but it’s good practice to remember that the object in the scene is an instance of what’s in the Library. An instance means it’s a copy - an identical, linked copy. When one instance changes, all the others do too. The master copy is in the Library.

Select the Oval object in the Library and drag it on to the stage. Move it to the left side. You’ll notice that when a symbol is selected a blue rectangle is drawn around it.

Now we’ll make a motion tween. Look at the Timeline and you’ll see the first frame is selected in orange. There is a solid dot in it, indicating that it’s a keyframe. However, our animation is only one frame long, so no movement is possible. We have to define the frames over which the movement happens.
We'll make the symbol move from one side of the screen to the other over 24 frames, or a second at the default speed.

Select frame 24 by left clicking on it, and then right click on the frame to bring up the dialog box on the left. Choose Insert Frame. A series of plain frames will be inserted as below.

Now we need to define this series of frames as a motion tween. Right click anywhere in the gray sequence and choose Create Motion Tween from the list.

The sequence will turn blue. Note that the small rectangle at the end of the sequence (which doesn’t really mean anything) has disappeared.

Next, we need to define the end point of the motion. Move the playhead to frame 24, right click anywhere on the blue range of frames and this time choose Insert Keyframe.

Look at the options - do they seem familiar? These are the same ones that we’ve seen in Photoshop animation. We can animate each property independently, or all at once. Let’s choose Position. A second keyframe is created at the position of the playhead. But nothing looks very different, and our symbol hasn’t moved.

This is because the two keyframes are identical. We need to move the symbol. Making sure the playhead is still on frame 24, move the symbol to the other side of the stage.
A breadcrumb trail of dots shows the new motion tween over the 24 frames. Scrub the playhead back and forward a few times to see the tween.

Now move your cursor to frame 12 and drag the symbol up. A new keyframe is automatically created.

So the procedure is create the first keyframe (by dragging a symbol on to the canvas), select the frames the motion tween is to be active, then make a second keyframe somewhere - generally the end - of that sequence.

Finally, hover your cursor over the motion path. It will include a curved line when you can drag the line into a curved shape and an L angle when you can move one of the points. Change the shape of the motion path. If you select the line you can edit it further using the Pen tool (P) as in Illustrator.

Note however that you can’t animate the properties of the symbol. That is a shape tween, which we’ll look at in another handout.