

# How to create transitions with motion tweens

You may have noticed from watching television or movies that transitions are a subtle but important part of telling a story. For example, dissolving between images can indicate a passage of time. On the web, you can use transition effects to create moods and to help keep your visitors interested. You can use transitions to focus the visitor's attention or to indicate a preferred path through your site. One way to create transitions in Adobe Flash Professional is to apply effects to a motion tween.

## Rotation

In the Properties panel, you can add rotation to any motion tween. Rotation can draw attention to content that is entering or exiting the Stage.

To add rotation to a motion tween:

1. Start Flash and open a new blank document (ActionScript 3.0).
2. Use the drawing tools to create a shape and convert the shape to a graphic or movie clip symbol. Make sure the Object Drawing option is not selected in the Tools panel. Make sure the new symbol is alone on its own layer.

By default the symbol is placed in the first keyframe of the timeline (**Figure 1**).

3. Insert a frame (not a keyframe) in the timeline where you want the motion tween to end (**Figure 2**).

**Note:** To make the effect last longer (take longer to complete) place the end frame farther down the timeline. You can use the Frames Per Second (fps) and Elapsed Time (s) values in the Timeline panel determine where to place the end keyframe.

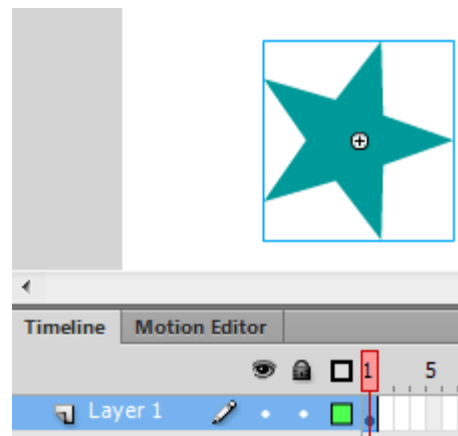
4. Select the layer in the Timeline panel and select Insert > Motion Tween.

The motion tween span is light blue in the Timeline panel.

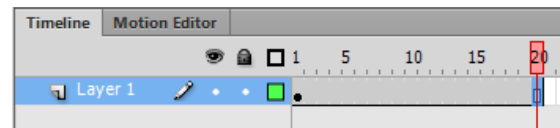
5. Select the last frame in the motion tween span and use the Selection tool to move the object to its ending position. Notice the appearance of the motion path (**Figure 3**).

**Note:** You can add multiple effects, such as changing size or fading to make the object appear to grow or fade in while it enters or fade out and shrink as it exits.

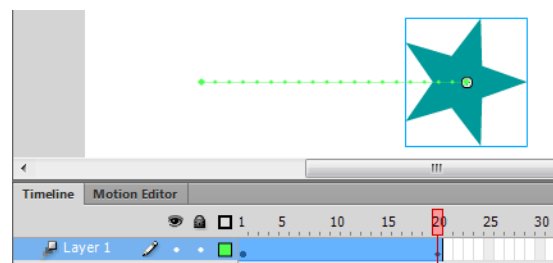
- *Changing size:* Reduce or increase the image percentage in the Transform panel with the Constrain options selected.
- *Fading:* Select the symbol and select Alpha from the Style menu in the Color Effect section of the Properties panel. Adjust the alpha setting to increase or decrease transparency.



**Figure 1** Timeline panel



**Figure 2** Motion tween start and end frames



**Figure 3** Motion path

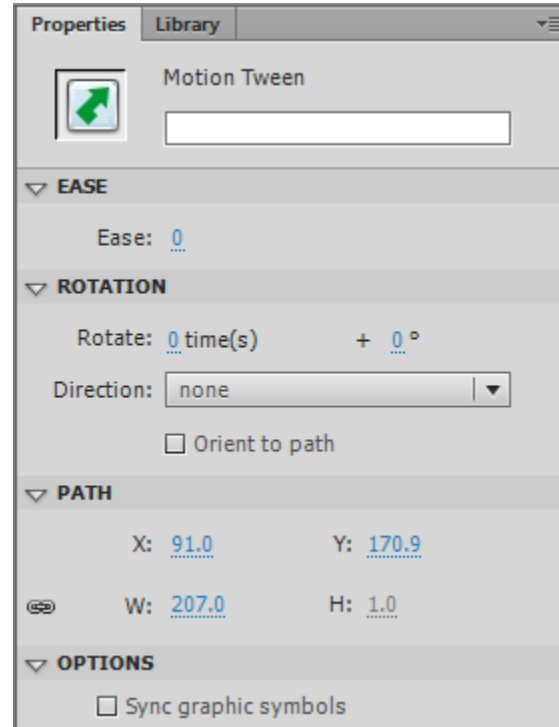
- Click anywhere in the motion tween span in the Timeline panel.

The motion tween properties appear in the Properties panel (**Figure 4**).

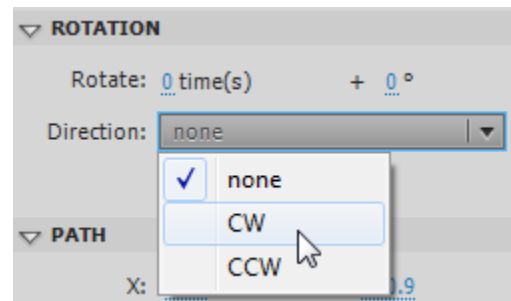
- In the Rotation section of the Properties panel, select CW (clockwise) or CCW (counterclockwise) from the Direction menu (**Figure 5**).
- Change the Rotate value to set the number of times you want the symbol to rotate (**Figure 6**).
- In the Options section, select the Sync Graphic Symbols option (**Figure 7**).

This synchronizes the motion to the number of frames in the timeline.

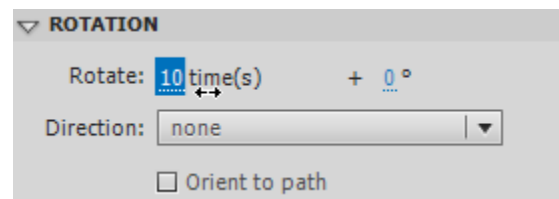
- Select Control > Test Movie > In Flash Professional to test the movie.
- Close the preview window.



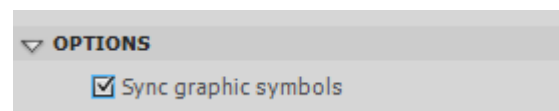
**Figure 4** Motion tween properties



**Figure 5** Direction menu in the Properties panel



**Figure 6** Rotate value in the Properties panel



**Figure 7** Synchronize the rotation to the timeline

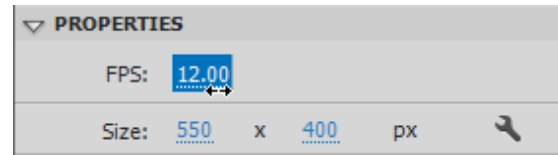
## Change frame rate

The document's *frame rate* determines how fast the play head moves. A frame rate of 12 frames per second (*fps*) usually gives the best results on the web. You can set the frame rate to any number between 0.01 and 120. With larger movies, increasing the frame rate increases the size of your published document.

If you want to change the timing of an animation, it's usually better to change the number of frames than to change the frame rate.

*To change the frame rate:*

1. Click away from any objects on the Stage.  
Document properties are shown in the Properties panel.
2. Enter a new Frames Per Second (FPS) value, such as 30, in the Properties section of the Properties panel (**Figure 8**).
3. Select Control > Test Movie > In Flash Professional to test the movie.  
Observe that the animation plays faster or slower depending on the frame rate you set.
4. Close the preview window.
5. Change the FPS value to 6.
6. Select Control > Test Movie > In Flash Professional to test the movie.  
Observe that the animation plays much more slowly.
7. Close the preview window.



**Figure 8** Properties panel

## Fading

By creating a motion tween with different alpha settings, you can fade images in and out.

*To fade images in and out:*

1. Start Flash and open a new blank document (ActionScript 3.0).
2. Use the drawing tools to create a shape and convert the shape to a graphic or movie clip symbol. Make sure the new symbol is alone on its own layer.

By default the symbol is placed in the first keyframe of the timeline.

3. Insert a frame (not a keyframe) in the timeline where you want the fade to end.

**Note:** To make the effect last longer (take longer to complete) place the end frame farther down the timeline. You can use the Frames Per Second (fps) and Elapsed Time (s) values in the Timeline panel determine where to place the end keyframe.

4. Select the layer in the Timeline panel and select Insert > Motion Tween.
5. In the timeline, select the first frame in the motion tween span and click the symbol on the Stage.
6. In the Properties panel, open the Color Effect Style menu and choose Alpha (**Figure 9**).

The Alpha value changes to the last Alpha setting you applied. The default is 0% (transparent) (**Figure 10**).

7. Make sure the Alpha value is set to 0%.

The symbol on the Stage is transparent, but the blue outline of the symbol is still visible.

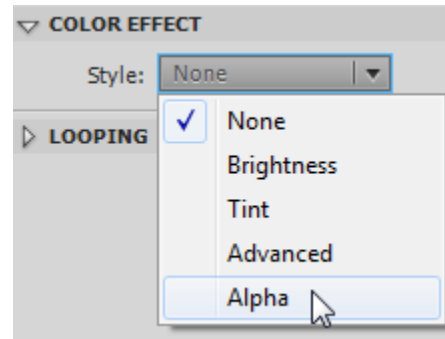
8. In the timeline, select the last frame in the motion tween span and click the symbol on the Stage.
9. Change the Alpha value to 100%.

10. Select Control > Test Movie > In Flash Professional to test the movie.

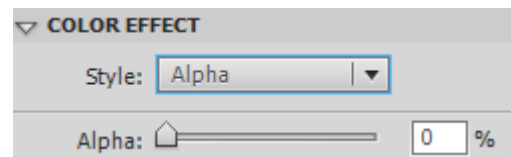
The symbol fades in.

**Note:** To create a fade-out, set the Alpha value to 100% on the starting frame and the Alpha value on the ending frame to 0%.

11. Close the preview window.



**Figure 9** Properties panel, Color Effect Style menu



**Figure 10** Alpha value slider

## Color fades

You can use color fades to draw the viewer's attention to an object on-screen. To create a color fade, apply a motion tween between two instances of the same movie clip or button symbol, and then change the color of the instances in the starting and ending frames.

To create a color fade:

1. Start Flash and open a new blank document (ActionScript 3.0).
2. Use the drawing tools to create a shape and convert the shape to a movie clip or button symbol. Make sure the new symbol is alone on its own layer.

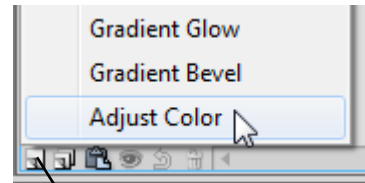
**Note:** It's important that you make the object a movie clip or button symbol. You will use a filter to adjust the color and you cannot add filters to graphic symbols.

By default the symbol is placed in the first keyframe of the timeline.

3. Insert a frame (not a keyframe) in the timeline where you want the color fade to end.
4. Select the layer in the Timeline panel and select Insert > Motion Tween.
5. In the timeline, select the last frame in the motion tween span and click the symbol on the Stage.
6. In Properties panel, click the Add Filter button and choose Adjust Color in the Add Filter menu (**Figure 11**).
7. In the Filters section of the Properties panel, use the Hue scrubber to change the color of the symbol (**Figure 12**).

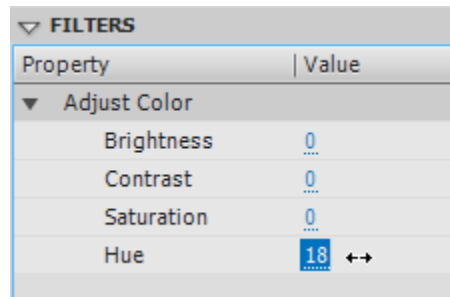
As you change the value, notice the changing color of the symbol on the Stage.

8. Select Control > Test Movie > In Flash Professional to test the movie.
9. Close the preview window.



Add Filter button

**Figure 11** Properties panel, Add Filter menu



**Figure 12** Hue scrubber in the Properties panel

## Flipping images

Flipping images and then creating a motion tween can create an effective transition between images of roughly the same size. The trick is to flip the first image half way and then start fading in the second image while the first image is still flipping to make a smooth transition.

To flip an image:

1. Start Flash and open a new blank document (ActionScript 3.0).
2. Import or create the objects you want to flip between.
3. Convert both objects to movie clip symbols and then remove them from the Stage. The symbols will remain in the document library.

**Note:** In this example, we imported two photos of similar size to the Stage, converted them to symbols, and then removed them from the Stage.

4. In the Timeline panel, rename Layer 1 **exiting object**. Add a new layer and rename it **entering object** (**Figure 13**).
5. Add the image symbols from the document library to the blank keyframes in each layer. One image is the entering object and the other is the exiting object.
6. Decide how much time is required to complete the transition.

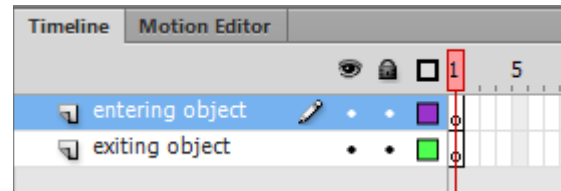
This tells you where to place the ending frames for each of the images for the motion tweens.

7. Insert the ending frames (not keyframes) accordingly in the timeline (**Figure 14**).
8. For each image, select the layer in the timeline and choose Insert > Motion Tween.
9. Click the first frame in the top, entering object, layer. Select the image and change its Color Effect (in the Properties panel) to Alpha with an Alpha value of 0%.
10. Click the last frame in the top, entering object, layer. Select the image and set the Alpha Amount to 100%.

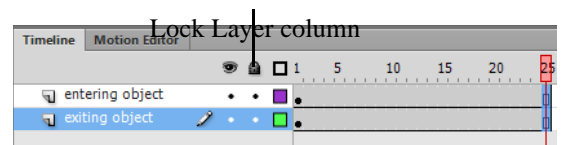
The entering image is transparent in the beginning and becomes visible.

11. Lock the top, entering object, layer by clicking in the Lock Layer column (**Figure 14**).

Locking the top layer makes it easier to work with the image in the layer below it.



**Figure 13** Entering and exiting layers in the timeline



**Figure 14** Start and end frames for the tween

12. Click the first frame in the bottom, exiting object, layer. Select the image and change the Color Effect to Alpha with an Alpha value of 100%.

13. Click the last frame in the bottom, exiting object, layer. Select the image and change the Alpha value of 0%.

The exiting image is visible in the beginning and becomes transparent.

14. Click in the center frame of the tween span in the bottom, exiting object, layer and select Modify > Transform > Flip Horizontal.

The exiting object is flipped around a vertical axis through its center. This adds a keyframe in the center of the tween span (**Figure 15**).

15. Lock the bottom layer and unlock the top layer.

16. Click in the center of the tween span in the top, entering object, layer and select Modify > Transform > Flip Horizontal.

The entering object is flipped around a vertical axis through its center. A keyframe appears in the center of the top, entering object, tween span (**Figure 16**).

**Note:** Instead of Flip Horizontal, you can select Flip Vertical in both tween spans. As long as both exiting and entering objects flip the same way, the transition will work.

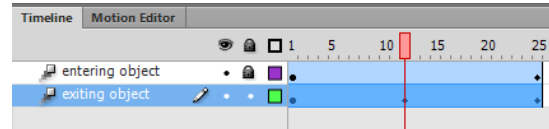
17. In the Properties panel, change the Easing value to -100 (**Figure 17**).

18. Unlock the bottom layer and select it. In the Properties panel, change the Easing value to -100.

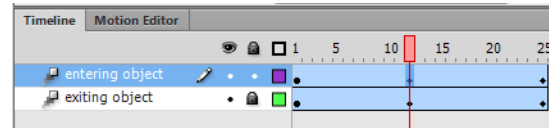
Changing the easing value adjusts the rate of change between tweened frames. Negative easing values cause the motion tween to begin slowly and accelerate at the end of the tween. A positive value causes the tween to begin rapidly and decelerate at the end. The animation still takes the same amount of time, regardless of the easing value.

19. Select Control > Test Movie > In Flash Professional to test the movie.

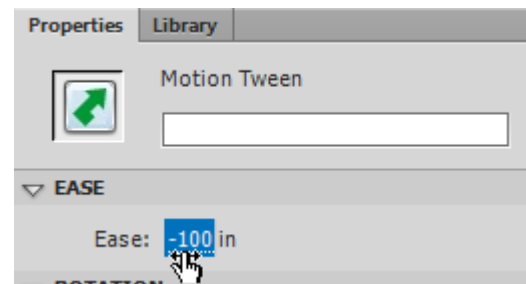
20. Close the preview window.



**Figure 15** Flip keyframe in the exiting object tween span



**Figure 16** Flip keyframe in the entering object tween span



**Figure 17** Properties panel, Ease value

## Motion presets

You can also add motion presets to movie clip symbols. Motion presets are pre-configured motion tweens you can apply to an object on the Stage. You simply select the motion clip symbol and click the Apply button in the Motion Presets panel.

To add a motion preset to your symbol:

1. Start Flash and open a new blank document (ActionScript 3.0).
2. Create a shape and convert it to a movie symbol.
 

**Note:** Only movie clip symbols can have motion presets applied to them.
3. Display the Motion Presets panel by selecting Window > Motion Presets.

You can preview the motion presets by selecting a preset from the list of Default Presets (**Figure 18**).

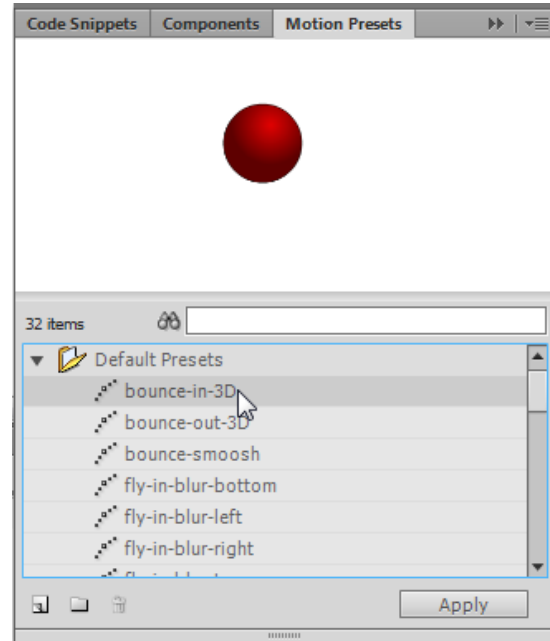
4. To apply a motion preset to the symbol on the Stage, select it and click the Apply button.
5. Click the Motion Editor tab (in the same panel group as the Timeline panel) to find the properties for the preset you have just applied. Make any changes you like in the Motion Editor.

**Note:** For information on using the Motion Editor, see the guide “How to ease tweens.”

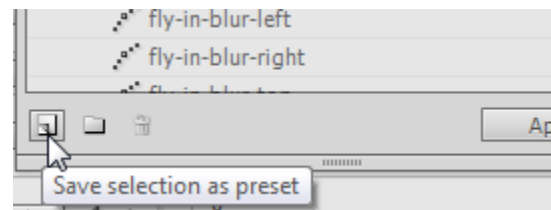
6. After making changes to any motion settings in the Motion Editor, save your customized motion preset by clicking the Save Selection As Preset button in the lower-left corner of the Motion Presets panel (**Figure 19**).
7. Type a name for your custom preset in the Save Preset As dialog box and click OK.

You will now see your motion preset under the Custom Presets folder of the Motion Presets panel. You can apply your custom motion presets to other tweens in this file or new files. Using presets can save significant production time during design and development of your projects, especially if you often use similar kinds of tweens.

8. Select Control > Test Movie > In Flash Professional to test the movie.
9. Close the preview window.



**Figure 18** Motion Presets panel



**Figure 19** Save Selection As Preset button