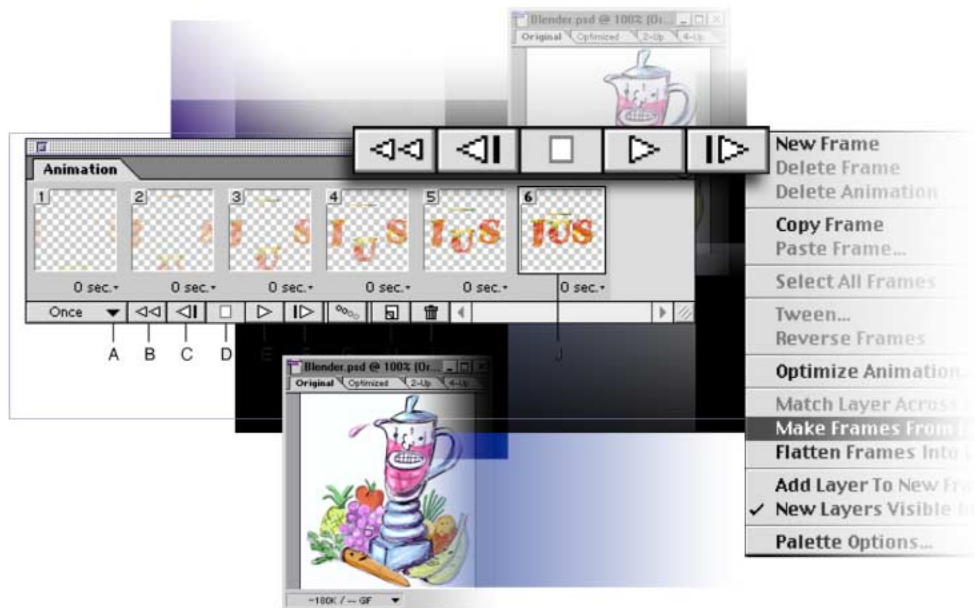


# 17 Creating Animated Images for the Web



*To add dynamic content to your Web page, use Adobe ImageReady to create animated GIF images from a single image. Compact in file size, animated GIFs display and play in most Web browsers. ImageReady provides an easy and convenient way to create imaginative animations.*

In this lesson, you'll learn how to do the following:

- Open a multilayered image to use as the basis for the animation.
- Use the Layers palette in conjunction with the Animation palette to create animation sequences.
- Make changes to single frames, multiple frames, and an entire animation.
- Use the Tween command to automatically vary layer opacity and position across frames.
- Preview animations in Adobe ImageReady and in a Web browser.
- Open and edit an existing animated GIF image.
- Optimize the animation using the Optimize palette.

This lesson will take about 90 minutes to complete. The lesson is designed to be done in Adobe ImageReady.

If needed, remove the previous lesson folder from your hard drive, and copy the Lesson17 folder onto it. As you work on this lesson, you'll overwrite the start files. If you need to restore the start files, copy them from the *Adobe Photoshop Classroom in a Book* CD.

**Note:** Windows users need to unlock the lesson files before using them. For information, see “Copying the Classroom in a Book files” on page 3.

## Creating animations in Adobe ImageReady

In Adobe ImageReady, you create animation from a single image using animated GIF files. An *animated GIF* is a sequence of images, or frames. Each frame varies slightly from the preceding frame, creating the illusion of movement when the frames are viewed in quick succession. You can create animation in several ways:

- By using the New Frame button in the Animation palette to create animation frames and the Layers palette to define the image state associated with each frame.
- By using the Tween feature to quickly create new frames that warp text or vary a layer's opacity, position, or effects, to create the illusion of a single element in a frame moving or fading in and out.
- By opening a multilayer Adobe Photoshop or Adobe Illustrator file for an animation, with each layer becoming a frame.

When creating an animation sequence, it's best to remain in Original image view—this saves ImageReady from having to reoptimize the image as you edit the frame contents. Animation files are output as either GIF files or QuickTime movies. You cannot create a JPEG or PNG animation.

### ***For the Web: About layer-based animation***

*Working with layers is the key to creating animations in ImageReady. Each new frame starts out as a duplicate of the preceding frame—you edit the frame by adjusting its layers. You can apply layer changes to a single frame, a group of frames, or the entire animation.*

*When you work with layers in a frame, you can create or copy selections in the layer; adjust color and tone; change the layer's opacity, blending mode, or position; add layer effects; and perform editing tasks as you would with layers in any image.*

*Using layer attributes to create animation effects is very simple and allows you to save an animation file in Photoshop format for later re-editing.*

*Keep in mind that some changes you make to layers affect only the active frame, while others affect all frames:*

**Frame-specific changes** *Affect only the selected frames in the Animation palette. Changes you make to a layer using Layers palette commands and options—including a layer's opacity, blending mode, visibility, position, and layer effects—are frame-specific.*

**Global changes** *Affect all frames in an animation. Changes you make to the layer's pixel values, using painting and editing tools, color and tone adjustment commands, filters, type, and other image-editing commands, affect every frame in which the layer is included.*

*When you work with layer masks and layer clipping paths, changes in position, state (enabled or disabled), and link state are frame-specific, whereas changes in pixel or vector content affect all frames.*

—From Adobe Photoshop 6.0 online Help

## **Getting started**

Before beginning this lesson, restore the default application settings for Adobe Photoshop and Adobe ImageReady. See “Restoring default preferences” on page 4.

In this lesson, you'll work with a set of images designed to appear on the Web page of a fresh juice company. If you have a browser application installed on your computer, you can preview the finished animations.

- 1 Start your browser application.
- 2 From your browser, choose File > Open, and open the file Jus.html from the Lessons/Lesson17/Jus folder.
- 3 When you have finished viewing the file, quit the browser.

## Creating simple motion

You'll start by animating the construction of a text logo, using a multilayered Photoshop image.



## Using layers to create animation frames

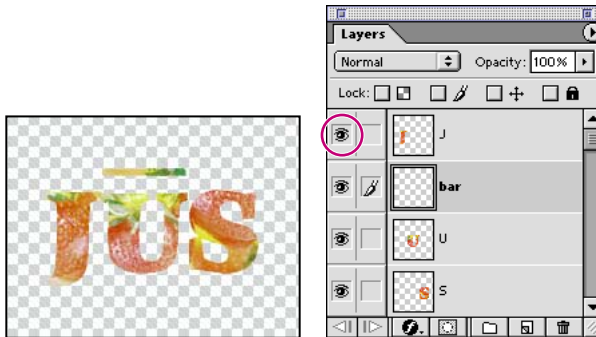
In this part of the lesson, you'll adjust the position and opacity of layers in an image to create the starting and ending frames of an animation sequence.

- 1 Start ImageReady.
- 2 Choose File > Open, and open the file Logo1.psd from the Lessons/Lesson17 folder on your hard drive.

The logo consists of four different components that reside on separate layers.

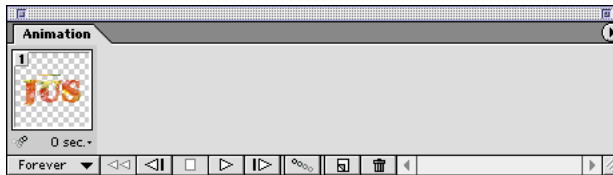
3 If the Layers palette is not showing, choose Window > Show Layers to display it.

In the Layers palette, notice that all the layers are currently visible. Visible layers appear with an eye icon (👁) in the palette.



To define an animation, you use the Layers palette in conjunction with the Animation palette. The Animation palette lets you add new frames, update existing frames, change the order of frames, and preview the animation.

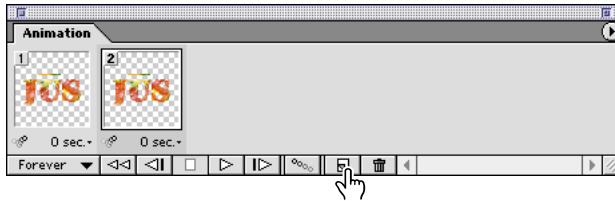
4 If the Animation palette is not showing, choose Window > Show Animation to display it.



The Animation palette opens with a single default frame that reflects the current state of the image. The frame is selected (outlined with a border), indicating that you can change its content by editing the image.

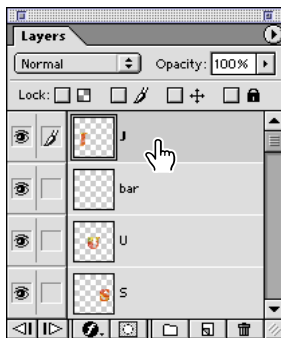
You'll compose animation frames that show the letters of the logo appearing and moving into their final position from different areas. The current image state reflects how you want the logo to appear at the end of the animation.

5 In the Animation palette, click the New Frame button (📄) to create a new animation frame.

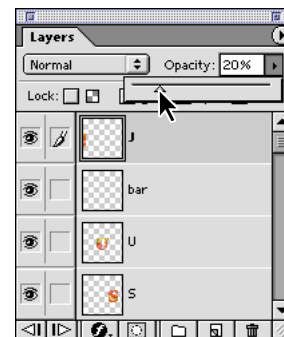


Each new frame you add starts as a duplicate of the preceding frame. Now you'll show the components of the logo text in different starting positions.

6 In the Layers palette, select the J layer.



7 With frame 2 selected in the Animation palette, select the move tool (⇧+V). Hold down Shift to constrain the movement, and in the image, drag the “J” to the left, repositioning it at the left edge of the image. In the Layers palette, reduce the opacity of the J layer to 20%.

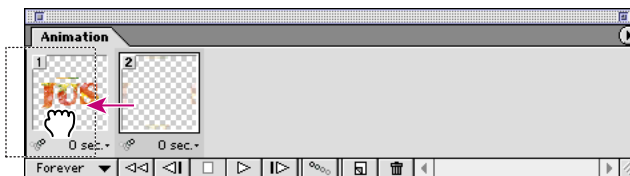


- 8 In the Layers palette, select the S layer.
- 9 In the image, press Shift as you drag the “S” to the right edge of the image.
- 10 In the Layers palette, reduce the opacity of the S layer to 20%.
- 11 Use the procedures you’ve learned in steps 7 through 10 to select, move, and change the opacity of the bar layer and the U layer as follows:
  - Move the bar to the upper edge of the image, and reduce the opacity to 20%.
  - Move the “U” to the lower edge of the image, and reduce the opacity to 20%.



In the Animation palette, notice that frame 2 has updated to reflect the current image state. To make frame 2 the starting state of your animation, you’ll switch the order of the two frames.

- 12 In the Animation palette, drag frame 2 to the left, releasing the mouse when the black bar appears to the left of frame 1.



- 13 Choose File > Save to save your work.

## Tweening the position and opacity of layers

To finish the animation sequence, you'll add frames that represent transitional image states between the two existing frames. When you change the position, opacity, or effects of any layer between two animation frames, you can instruct ImageReady to *tween*, or automatically create intermediate frames.

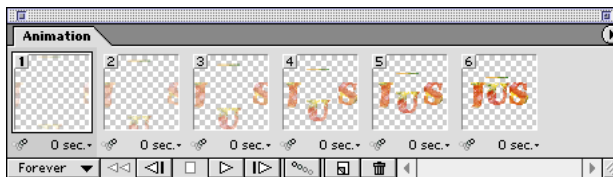
**1** In the Animation palette, make sure that frame 1 is selected; then choose Tween from the palette menu.

You can vary just selected layers in the selected frames, or you can vary all layers in the selection.

**2** In the Tween dialog box, select All Layers, Position, and Opacity. (You can also select Effects to vary the settings of layer effects evenly between the beginning and ending frames. You won't choose this option here.)

**3** Choose Tween with Next Frame to add frames between the selected frame and the following frame. Enter **4** in the Frames to Add text box. Click OK.

ImageReady creates four new transitional frames based on the opacity and position settings of the layers in the original two frames.



**4** At the lower left of the Animation palette, position the pointer on the inverted triangle and press to display the Select Looping Options pop-up menu. Then choose Once from the menu that appears.



In the Animation palette, click the Play button (▶) to preview your animation in ImageReady.

**For the Web: Tweening frames**

*You use the Tween command to automatically add or modify a series of frames between two existing frames—varying the layer attributes (position, opacity, or effect parameters) evenly between the new frames to create the appearance of movement. For example, if you want to fade out a layer, set the opacity of the layer in the starting frame to 100%; then set the opacity of the same layer in the ending frame to 0%. When you tween between the two frames, the opacity of the layer is reduced evenly across the new frames.*

*The term “tweening” is derived from “in betweening,” the traditional animation term used to describe this process. Tweening significantly reduces the time required to create animation effects such as fading in or fading out, or moving an element across a frame. You can edit tweened frames individually after you create them.*

*If you select a single frame when tweening, you choose whether to tween the frame with the previous frame or the next frame. If you select two contiguous frames, new frames are added between the frames. If you select more than two frames, existing frames between the first and last selected frames are altered by the tweening operation. If you select the first and last frames in an animation, these frames are treated as contiguous, and tweened frames are added after the last frame. (This tweening method is useful when the animation is set to loop multiple times.)*

**Note:** You cannot select discontinuous frames for tweening.

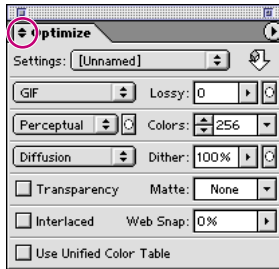
—From Adobe Photoshop 6.0 online Help

**Preserving transparency and optimizing animations**

Next you'll optimize the image in GIF format with background transparency and preview your animation in a Web browser. Remember that only the GIF format supports animated images.


- 1 In the Optimize palette, choose GIF for the format, Perceptual for the palette, and then choose the number of colors. (We chose 256.)

- 2 Choose Show Options from the palette menu or click the Show Options button on the Optimize tab to display all of the options.



*Show Options button in  
Optimize palette*

- 3 Select Transparency to preserve the background transparency of the original image, and choose White from the matte menu.

 An easy way to set the color to white is to click the Default Colors icon, and then choose Background Color from the Matte pop-up menu in the Optimize palette.

- 4 From the Animation palette menu, choose Select All Frames. Then right-click (Windows) or Control-click (Mac OS) one of the frames to display the Disposal Method context menu.

- 5 Make sure that the Automatic option is selected.

The disposal options (Restore to Background (↺) and Automatic) clear the selected frame before the next frame is played, eliminating the danger of displaying remnant pixels from the previous frame. The Do Not Dispose (↻) option retains the frames. The Automatic option is suitable for most animations. This option selects a disposal method based on the presence or absence of transparency in the next frame and discards the selected frame if the next frame contains layer transparency.

Now you'll set options to optimize the animation.

- 6 Choose Optimize Animation from the Animation palette menu.

In addition to the optimization tasks applied to standard GIF files, several other tasks are performed for animated GIF files. If you optimize the animated GIF using an adaptive, perceptual, or selective palette, ImageReady generates a palette for the file based on all of the frames in the animation. A special dithering technique is applied to ensure that dither patterns are consistent across all frames, to prevent flickering during playback. Also, frames are optimized so that only areas that change from frame to frame are included, greatly reducing the file size of the animated GIF. As a result, ImageReady requires more time to optimize an animated GIF than to optimize a standard GIF.


**7** Choose **Optimize by Bounding Box** to direct ImageReady to crop each frame to preserve only the area that has changed from the preceding frame. Animation files created using this option are smaller but are incompatible with GIF editors, which do not support the option. (This option is selected by default and is recommended.)

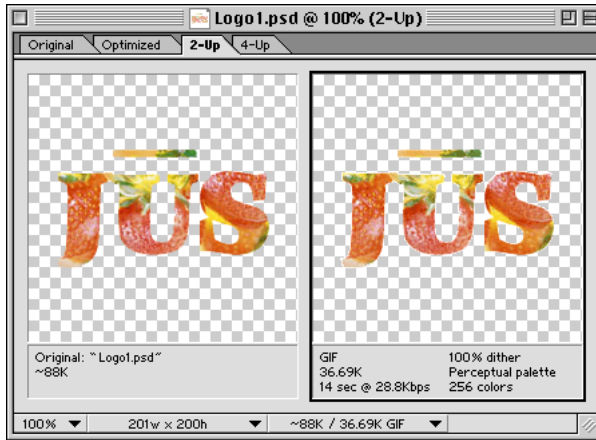
**8** Choose **Optimize by Redundant Pixel Removal** to make all pixels in a frame that are unchanged from the preceding frame transparent. (This option is selected by default and is recommended.) Click **OK**.

When you choose the **Redundant Pixel Removal** option, the **Disposal Method** must be set to **Automatic**, as in step 5.

**9** In the image window, click the **Optimized** tab to build the optimized image. Then click the **2-Up** tab to compare the original image on the left with the optimized image on the right.

Notice the **Optimized** file size in the image information box at the bottom of the document window. Adding animation frames to an image also adds to the file size. To reduce the file size of your animated GIF images, experiment with different palette and color settings.

 For complete information, see “Optimizing Images for the Web” in Photoshop 6.0 online Help.



**10** Choose File > Preview In, and choose a browser application from the submenu. This command plays back an animation accurately, according to the timing you’ve set.

**Note:** To use the Preview In command, you must have a browser application installed on your system. For more information, see “Previewing an image in a browser” in Photoshop 6.0 online Help.

**11** Return to the ImageReady application.

**12** Choose File > Save Optimized As, name the image **Logo1.gif**, and click Save.

**For the Web: Setting the frame disposal method**

*The frame disposal method specifies whether to discard the current frame before displaying the next frame. You select a disposal method when working with animations that include background transparency in order to specify whether the current frame will appear through the transparent areas of the next frame.*

*The Disposal Method icon below each frame in the Animation palette indicates whether the frame is set to Do Not Dispose or Restore to Background. No icon appears when the disposal method is set to Automatic.*

*Choose the Automatic option to determine a disposal method for the current frame automatically, discarding the current frame if the next frame contains layer transparency. For most animations, the Automatic option yields the desired results and is, therefore, the default option.*

**Note:** *Choose the Automatic disposal option when using the Redundant Pixel Removal optimization option, to enable ImageReady to preserve frames that include transparency.*

*Choose the Do Not Dispose option to preserve the current frame as the next frame is added to the display. The current frame (and preceding frames) may show through transparent areas of the next frame. To accurately preview an animation using the Do Not Dispose option, preview the animation in a browser.*

*Choose the Restore to Background option to discard the current frame from the display before the next frame is displayed. Only a single frame is displayed at any time (and the current frame will not appear through the transparent areas of the next frame).*

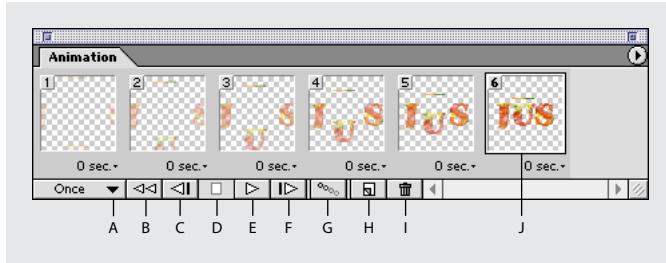
–From Adobe Photoshop 6.0 online Help

## Navigating animation frames

You can use a number of techniques to preview and scroll through your animation frames.

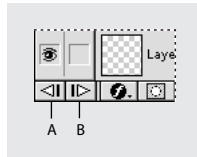
- 1 Use the following navigation controls to practice moving through the frames of the logo text animation.

- You can select a frame by clicking its thumbnail in the Animation palette. The image and the Layers palette update to reflect the state of the selected frame.



*A. Looping pop-up menu B. First Frame button C. Backward button  
D. Stop button E. Play button F. Forward button G. Tween button  
H. New Frame button I. Trash J. Selected frame*

- In the Animation palette, the Forward and Backward buttons let you move forward and backward through the frame sequence. The First Frame button lets you select the first frame in the sequence.
- In the Layers palette, the Forward and Backward buttons let you move forward and backward through the frame sequence. (These buttons are especially convenient when you want to quickly edit the layers for a succession of frames.)



*A. Backward button  
B. Forward button*

- When you have finished practicing, choose File > Close, and close the original image without saving changes.

## Creating a transition between image states

Now you'll animate layer opacity to create the illusion of an image fading gradually into a different state.



**1** Choose File > Open, and open the file Logo2.psd from the Lessons/Lesson17 folder.

The logo image contains two layers that represent different background styles. A photographic background of an orange tree currently appears in the image.

**2** In the Layers palette, click in the eye icon (👁) column next to the Photo layer to hide the layer. The Illustration layer is now visible in the image and shows a version of the background tree that looks more hand-drawn.

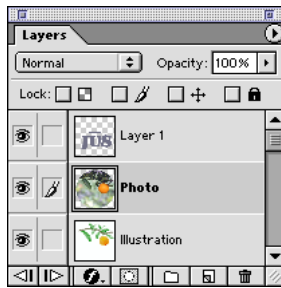
You'll create an animation that shows the background changing from the photo style into the illustration style.

**3** In the Layers palette, click in the eye icon column to make the Photo layer visible. Eye icons should appear next to both the Photo and Illustration layers.

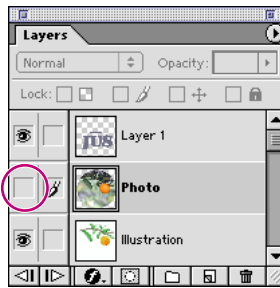
The photo background appears in the image, defining the starting state of the animation. Notice that the first frame in the Animation palette appears with the photo visible. Now you'll define the ending state of the animation.

**4** In the Animation palette, click the New Frame button (📄).

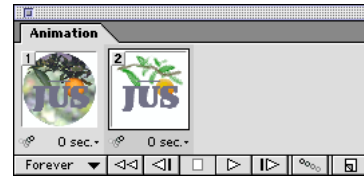
5 In the Layers palette, click in the eye icon (👁) column to hide the Photo layer.



*Photo layer visible*



*Photo layer hidden*



*Result in Animation palette*

6 Choose Tween from the Animation palette menu. In the Tween dialog box, select All Layers. Deselect Position and Effects; select Opacity; for Tween With, choose Previous Frame; and for Frames to Add, enter 4. Click OK.

ImageReady adds four transitional frames with intermediate opacities. When tweening the frames, ImageReady treats the hidden photo layer as a 1% opaque layer.

7 In the Animation palette, choose Once from the Looping pop-up menu.

8 Click the Play button (▶) to play the animation sequence.

Although you can preview animations in ImageReady, the timing of this preview may not be accurate. This is because ImageReady takes a moment to build the composition of each frame during playback. For a more accurate preview, play your animation in a Web browser.

9 Choose File > Preview In, and choose a browser application from the submenu.

10 When you have finished previewing the animation, quit the browser and return to ImageReady.

11 Choose File > Save Optimized As, name the image **Logo2.gif**, and click Save.

ImageReady saves the animation as a GIF using the settings in the Optimize palette.

Remember that you can change the palette and color settings in the Optimize palette to reduce file size.

12 Choose File > Close to close the original image without saving changes.



## Creating a two-step animation

You can create a simple two-step animation by toggling the visibility of two layers. For example, you can make an animated character alternate between different expressions or make an object move back and forth in a simple pattern. In this part of the lesson, you'll animate the shaking of a cartoon juice blender.

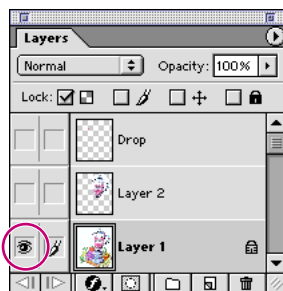


1 Choose File > Open, and open the file Blender.psd from the Lessons/Lesson17 folder. The blender image consists of several layers. You'll create animation frames that alternate between hiding and showing two layers representing different positions of the blender pitcher.

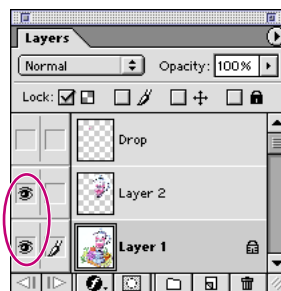
In the Layers palette, an eye icon (👁) appears next to Layer 1, indicating that this is the only visible layer in the image.

2 In the Animation palette, click the New Frame button (📄) to create frame 2.

3 In the Layers palette, click in the eye icon column next to Layer 2 to display this layer in the image. Because Layer 2 sits above Layer 1 in the stacking order, it's not necessary to hide Layer 1.



*Layer 1 visible*



*Layers 1 and 2 visible*

4 In the Animation palette, choose Forever (the default) from the Looping pop-up menu.

5 Click the Play button (▶) in the Animation palette to preview the animation. Click the Stop button (□) to stop the animation.

Now you'll preview the animation in a Web browser.

6 Choose File > Preview In, and choose a browser application from the submenu. (You can also press Ctrl+Alt+P (Windows) or Command+Option+P (Mac OS) to launch a browser preview quickly.)

When you have finished previewing the animation, quit the browser window, and return to Adobe ImageReady.

7 Choose File > Save Optimized As, name the image **Blender.gif**, and click Save.

## Rotating and moving an object

Now you'll animate a different element in the blender image, adding to the existing animation. By successively copying and transforming a layer, you can make an object move or fall in a realistic trajectory.

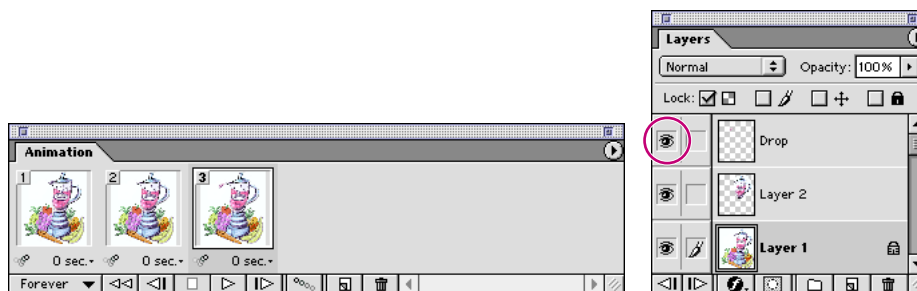
### Creating transformed layers

You'll start by creating layers that simulate the path of a juice drop falling from the top of the blender as the blender shakes.

Before adding layers to an image that already contains an animation, it's a good idea to create a new frame. This step helps protect your existing frames from unwanted changes.

1 In the Animation palette, select frame 2. Then click the New Frame button (■) to create a new frame (frame 3) after frame 2.

2 In the Layers palette, make the Drop layer visible.

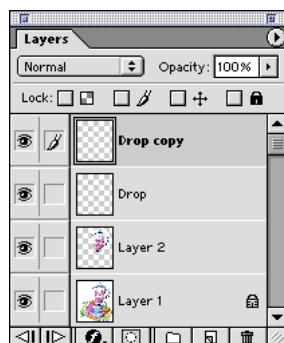


Notice the small juice drop that appears at the top left edge of the blender in the image.

3 In the Animation palette, make sure New Layers Visible in All Frames is deselected in the options menu.

4 Select the Drop layer in the Layers palette. Drag the layer name to the New Layer button (📄) to duplicate the layer.

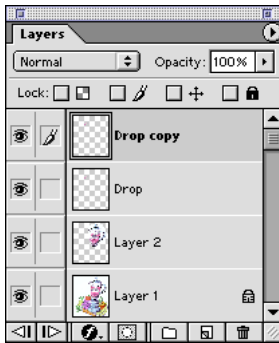
**Note:** The duplicate layer would be visible in all three frames in the Animation palette if New Layers Visible in All Frames was not deselected in the options menu.



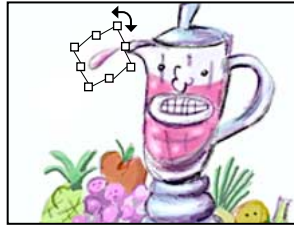
5 With the Drop Copy layer selected, choose Edit > Free Transform.

The transformation bounding box appears around the Drop Copy layer.

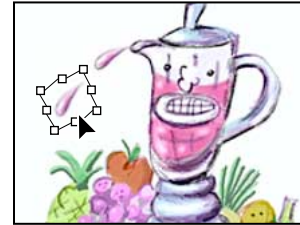
6 Position the pointer outside the bounding box (the pointer becomes a curved double arrow (↻)), and drag to rotate the drop counterclockwise. Then position the pointer inside the bounding box (the pointer becomes an arrowhead (▶)), and drag to reposition the drop as shown in the illustration. Zoom in on the drop to see the pointer change to an arrow. Press Enter (Windows) or Return (Mac OS) to apply the transformation.



*Drop Copy selected*



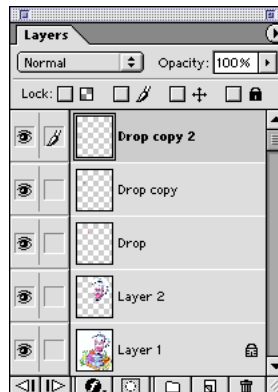
*Rotating Drop Copy layer*



*Dragging Drop Copy layer*

7 Now drag the Drop Copy layer to the New Layer button (📄) to duplicate the layer.

8 With the Drop Copy 2 layer selected, choose Edit > Free Transform. Rotate and reposition the layer as shown in the illustration. Press Enter or Return to apply the transformation.



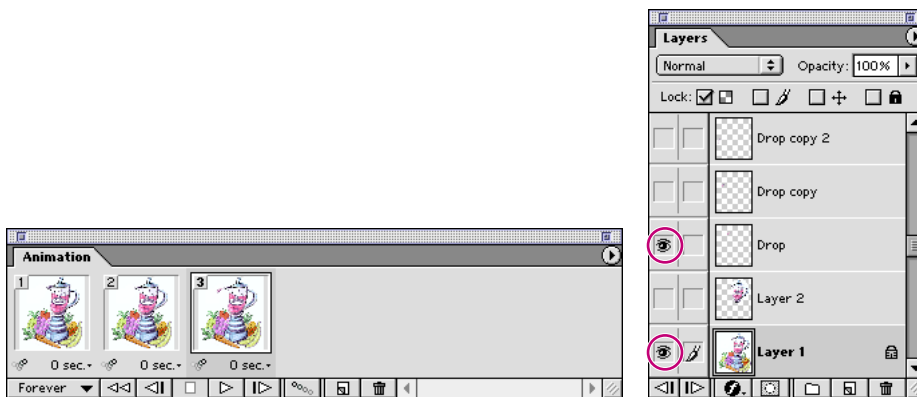
You should now have two copied and transformed Drop layers.

9 Choose File > Save to save a copy of the original image with the layers you've just created. In ImageReady, the Save command saves the layered Photoshop file, including all of the animation and optimization information.

## Creating simultaneous animations

Now you'll define the falling drop animation by successively hiding and showing the layers you've just created. You'll also build in the shaking blender animation as the drop falls.

1 In the Animation palette, make sure that frame 3 is selected. In the Layers palette, select Layer 1 and make the Drop layer visible; then hide all other layers.

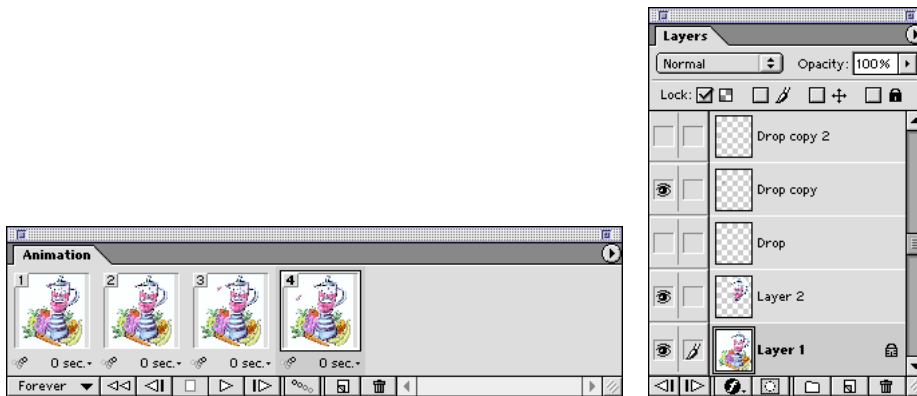


When you hide or show a layer in a frame, the visibility of the layer changes for that frame only.

Now you'll add a frame that continues the shaking of the blender while the drop falls.

2 Click the New Frame button (📄) in the Animation palette to create frame 4.

3 In the Layers palette, make Layer 2 visible, along with Drop Copy and Layer 1.

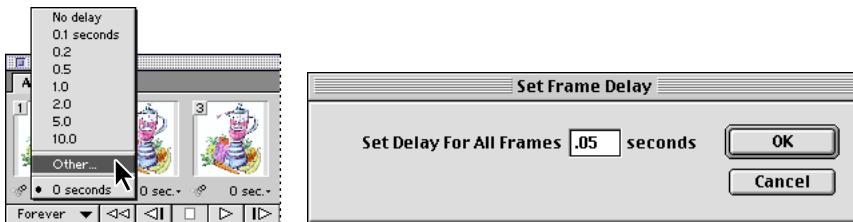


4 Continue to click the New Frame button in the Animation palette to create new frames, and then use the Layers palette to change the layer visibility as follows:

- For frame 5, make Drop Copy 2 and Layer 1 the visible layers.
- For frame 6, make Layer 2 and Layer 1 the visible layers.

Now you'll set a delay for playing each frame in the animation.

5 From the Animation palette menu, choose Select All Frames. In the palette, position the pointer on the time beneath frame 1, and press the mouse button to display the Frame Delay pop-up menu. Choose Other. In the Set Frame Delay dialog box, enter **0.05** in the Set Delay for All Frames text box. (0 seconds is the default.) Click OK.



Frame Delay pop-up menu

Set Frame Delay dialog box

The value appears below each frame thumbnail, indicating that the time delay applies to all the frames in the palette. You can also vary the time delay for individual frames.

- 6 Click the Play button (▶) in the Animation palette to view your animation.

The juice drop should fall as the blender shakes.

- 7 Click the Stop button (◻) to stop the animation.

- 8 Choose File > Preview In, and choose a browser application from the submenu to play the animation with accurate timing.

- 9 Choose File > Save Optimized As. Make sure that the image is named **Blender.gif**, click Save, and replace the existing file.

The Save Optimized As command saves a file in the GIF, JPEG, or PNG format, for use in you Web pages.

- 10 Choose File > Close to close your original image without saving changes.

## Creating a montage sequence

In this part of the lesson, you'll create a quickly changing sequence, or *montage*, of fruit images. You create montage effects by hiding and showing layers in succession.

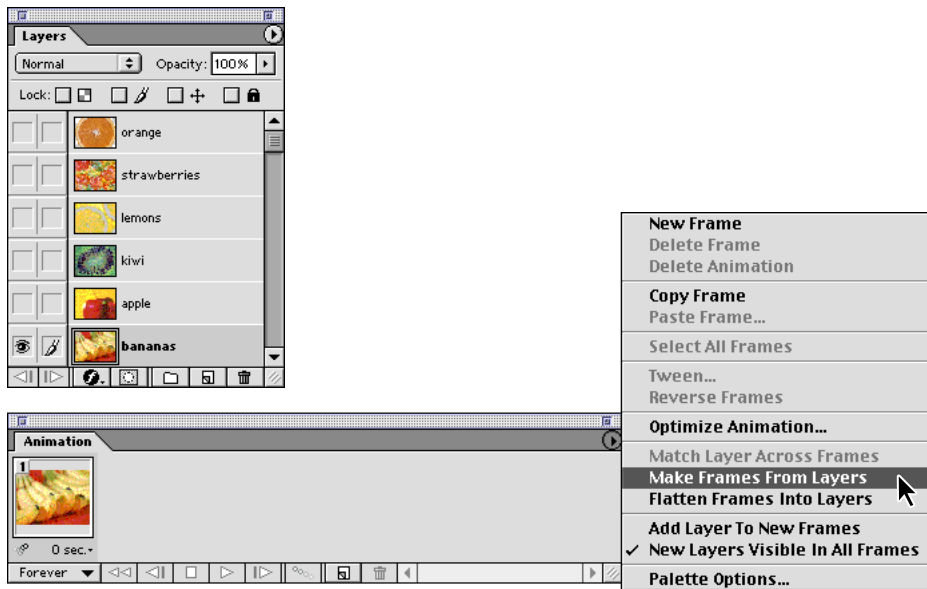


### Setting the montage order

You'll work with an image that contains a number of layers showing different fruit images.

- 1 Choose File > Open, and open the file Fruit.psd from the Lessons/Lesson17 folder.

2 In the Animation palette, choose Make Frames From Layers from the palette menu.



The layers in the image appear as six individual frames in the Animation palette and six layers in the Layers palette.

3 In the Animation palette, Shift-click to select all frames, or choose Select All Frames from the Animation palette menu. In the palette, position the pointer on the time beneath frame 1, and press the mouse button to display the Frame Delay pop-up menu. Choose Other. In the Set Frame Delay dialog box, enter **0.25** in the Set Delay for All Frames text box, and click OK.

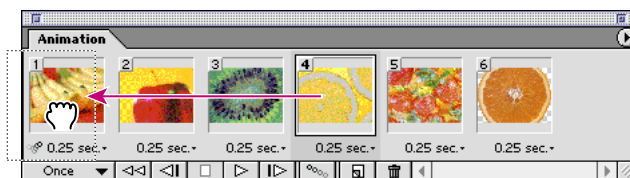
**Note:** To select discontinuous multiple frames, Ctrl-click (Windows) or Command-click (Mac OS) additional frames to add those frames to the selection.

4 In the Animation palette, choose Once from the Looping pop-up menu. Then click the Play button (▶) to view the sequence of images. (To repeat the loop, click Play again.)

Now you'll reorder the animation frames so that the lemons appear first in the sequence.



5 In the Animation palette, click to select the frame containing the lemons. Then drag the selected frame to the left until a heavy line appears before frame 1, and release the mouse.



The lemons frame is now the first frame in the sequence.

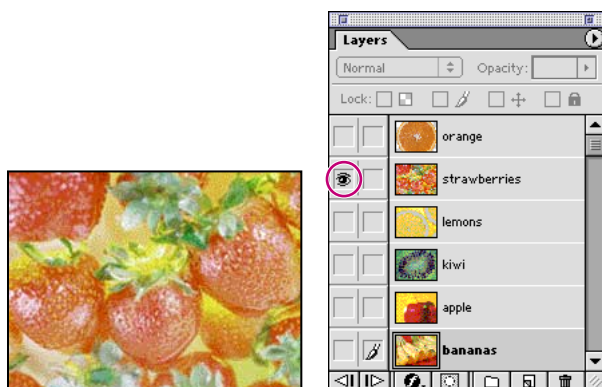
6 Click the Play button (▶) to view the revised montage.


7 Choose File > Save Optimized As. Name the image **Fruit1.gif**, and click Save.

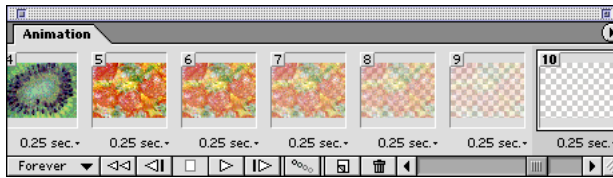
## Smoothing the transition between frames



Now you'll enhance your newly assembled montage by adding intermediate frames that smooth the transition between the strawberries and the orange.

1 In the Animation palette, select the frame containing the strawberries. The image window and the Layers palette update to reflect the contents of the frame.



- 2 Click the New Frame button (  ) in the Animation palette to create a new frame after the strawberries frame.
- 3 In the Layers palette, select the Strawberries layer, and enter **1%** in the Opacity text box.
- 4 Choose Tween from the Animation palette menu. In the Tween dialog box, choose Selected Layer; deselect Position and Effects, and select Opacity; enter **4** in the Frames to Add text box; and for Tween With, choose Previous Frame. Click OK.



- 5 In the Animation palette, choose Forever from the Looping pop-up menu. Then click the Play button (  ) to view the sequence of images. Click the Stop button (  ) to stop the animation.

If desired, you can add transitional opacities between the other fruit images in the sequence.

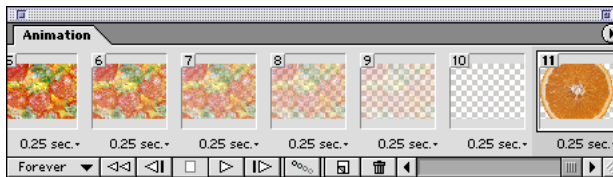
- 6 Choose File > Save. If you don't save, the strawberry opacity animation will be gone as you continue this lesson.

## Making an object grow in size

For the grand conclusion to the fruit montage, you'll animate the orange swelling from a small to a large size.

First you'll copy and resize the Orange layer several times.

- 1 In the Animation palette, select the frame containing the orange.



2 In the Layers palette, drag the Orange layer to the New Layer button (📄) to create a duplicate layer.

***Note:** Make sure New Layers Visible in All Frames is deselected in the Animation palette options menu before you duplicate the Orange layer.*

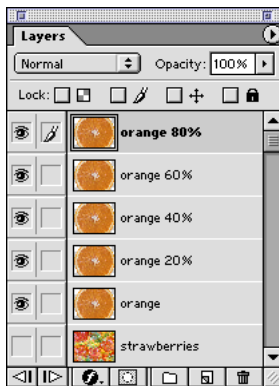
When you create a new layer in a frame, the layer is added to all frames in the animation but is visible only in the current frame.

3 Repeat step 2 to create three more duplicates of the Orange layer.

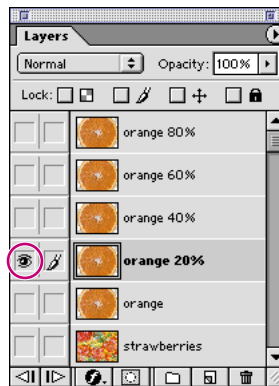
4 Double-click the Orange Copy layer to display the Layer Options dialog box. For name, enter **Orange 20%**. Then click OK.

5 Repeat step 4 for the other duplicate layers, renaming the layers **Orange 40%**, **Orange 60%**, and **Orange 80%**.

6 In the Layers palette, select and make visible the Orange 20% layer. Hide the other orange layers.



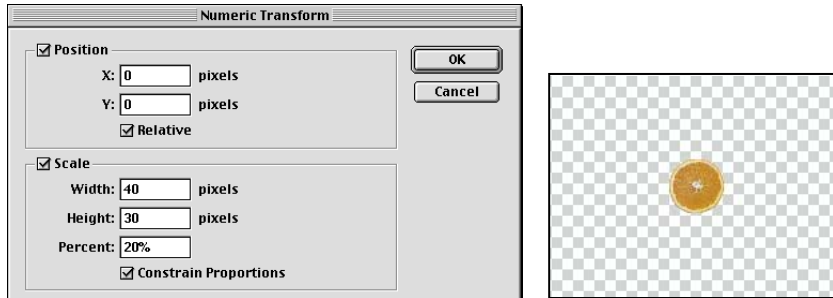
Renaming layers



Making Orange 20% layer visible

Now you'll create gradually larger copies of the orange.

7 Choose Edit > Transform > Numeric. Enter **20%** in the Scale Percent text box. Make sure that Constrain Proportions is selected, and click OK.



*Scaling the Orange 20% layer*

*Result*

When you work with layers in a frame, you can create or copy selections in the layer; adjust color and tone; change the layer's opacity, blending mode, or position; add layer effects; and perform editing tasks as you would with layers in any image.

8 Do the following for the next frame:

- In the Animation palette with the orange frame selected, click the New Frame button (📄) to create a new frame.
- In the Layers palette, hide the Orange 20% frame. Select and make visible the Orange 40% layer.
- Choose Edit > Transform > Numeric, and enter **40%** in the Scale Percent text box to resize the layer to 40%.

9 Repeat step 7 to create frames containing the Orange 60% and Orange 80% layers resized to their respective percentages, hiding the previous layer with each step. Remember to create a frame from the original (100%) orange.

10 Click the Play button (▶) to play your animation. Click the Stop button (⏏) to stop the animation.

11 Choose File > Save Optimized. ImageReady saves the animation as a GIF using the current settings in the Optimize palette.

12 Choose File > Close to close the original image without saving changes.

## Using advanced layer features to create animations

In this part of the lesson, you'll learn some animation tricks that can be created through the use of advanced layer features, such as layer masks, clipping paths, and clipping groups.

You'll work with versions of the logo image that you saw at the beginning of the lesson.



### Using layer masks to create animations

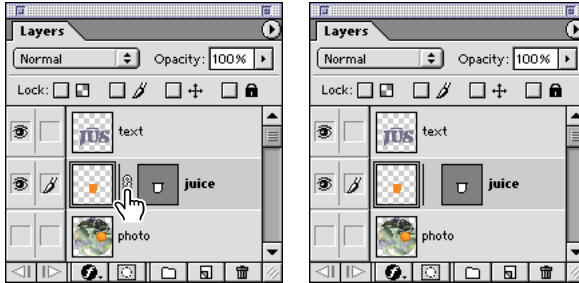
First you'll use a clipping path to create the illusion of juice filling slowly to the top of the "U" in the logo text.

- 1 Choose File > Open, and open the file Logo3.psd from the Lessons/Lesson17 folder.
- 2 In the Layers palette, hide the Photo layer, and leave the Text layer and the Juice layer visible.

The Juice layer contains a vector clipping path, as indicated by the grayscale thumbnail that appears to the right of the layer thumbnail in the palette. The clipping path is U-shaped, restricting the orange juice to appear only through the "U" in the logo text.

The orange juice currently fills to the brim of the "U." You'll move the Juice layer to define another frame that shows the "U" empty of juice.

- 3 In the Animation palette, click the New Frame button (📄) to create a second frame. In the Layers palette, click to turn off the link icon (🔗) between the layer and clipping path thumbnails.

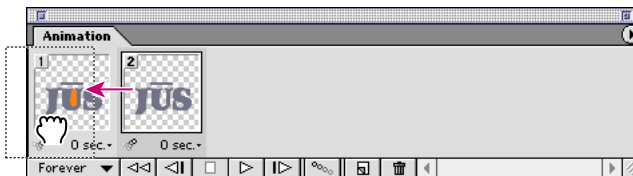


Turning off the link icon lets you move the layer independent of its layer mask.

- 4 Select the move tool (↻).
- 5 In the Layers palette, click the layer thumbnail for the juice layer to select the layer.
- 6 In the image, position the move tool over the orange color, and drag to reposition the orange color beneath the curve of the “U.”



- 7 In the Animation palette, drag to reverse the order of frames 1 and 2.



Because you have defined the two frames by repositioning a single layer, you can generate intermediate frames automatically using the Tween command.

**8** Choose Tween from the Animation palette menu. Select All Layers and Position; deselect Opacity and Effects; for Tween With, choose Next Frame; and enter **5** in the Frames to Add text box. Click OK.

**9** In the Animation palette, select frame 1; in the Layers palette, select the Photo layer and show it. From the Animation palette menu, choose Match Layer Across Frames to reveal the photo in all frames.

**10** In the Animation palette, select frame 1. Then click the Play button (▶) to play the animation. Click the Stop button (□) to stop the animation.

**11** Choose File > Preview In, and choose a browser application from the submenu to play the animation with accurate timing. You can also select Preview in Default Browser in the toolbox.

**12** Choose File > Save Optimized As, name the file **Logo3.gif**, and click Save. Then choose File > Close to close the original file without saving changes.

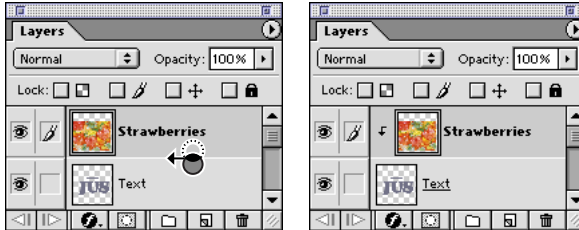
## Using clipping groups to create animations

Now you'll create the effect of strawberries shaking inside the logo text.

**1** Choose File > Open, and open the file Logo4.psd from the Lessons/Lesson17 folder.

**2** In the Layers palette, make sure that both the Strawberries and Text layers are visible. To make the strawberries appear only through the shape of the logo text, you'll create a clipping group.

3 In the Layers palette, select the Strawberries layer. Hold down Alt (Windows) or Option (Mac OS), position the pointer over the solid line dividing two layers in the Layers palette (the pointer changes to two overlapping circles), and click the dividing line between the layers. You can also choose Layer > Group with Previous.



Notice that the strawberries now appear masked by the logo text. The thumbnail for the Strawberries layer is indented with a downward-pointing arrow (⇩), indicating that the layer is grouped with the layer that precedes it.

4 In the Animation palette, click the New Frame button.

For the second animation frame, you'll reposition the Strawberries layer slightly.

5 In the Layers palette, select the Strawberries layer. Then select the move tool (⇧+V).

6 In the image, drag the Strawberries layer slightly to the right, or use the arrow keys to move the layer.





- 7 Click the Play button (▶) to play the animation. The strawberries shake from side to side inside the logo text.
- 8 Click the Stop button (◻) to stop the animation.
- 9 Choose File > Preview In, and choose a browser application from the submenu to play the animation with accurate timing.
- 10 Choose File > Save Optimized As, name the file **Logo4.gif**, and click Save. ImageReady saves the animation as a GIF using the current settings in the Optimize palette.
- 11 Choose File > Close to close the original file without saving changes.

## Review questions

- 1 Describe a simple way to create animation.
- 2 In what instances can you tween animation frames? When can't you tween frames?
- 3 How do you optimize an animation?
- 4 What does optimizing an animation accomplish?
- 5 What is frame disposal? Which frame disposal method should you generally use?
- 6 How do you edit an existing animation frame?
- 7 What file formats can you use for animations?

## Review answers

- 1 A simple way to create animation is to start with a layered Photoshop file. Use the New Frame button in the Animation palette to create a new frame, and use the Layers palette to alter the position, opacity, or effects of one of the selected frames. Then create intermediate frames between the selection and the new frame either manually using the New Frame button or automatically using the Tween command.
- 2 You can instruct Adobe ImageReady to tween intermediate frames between any two frames, to change layer opacity or position between two frames, or to add new layers to a sequence of frames. You cannot tween discontinuous frames.
- 3 Click the Show Options button in the Optimize palette, and then choose File > Save Optimized to optimize animations. Choose Optimize Animation from the Animation palette menu to perform optimization tasks specific to animation files, including removing redundant pixels and cropping frames according to the bounding box.
- 4 In addition to the optimization tasks applied to standard GIF files, ImageReady generates an adaptive, perceptual, or selective palette for the file based on all frames in the animation if you selected one of those palettes. ImageReady applies a special dithering technique to ensure that dither patterns are consistent across all frames, to prevent flickering during playback. The application also optimizes frames so that only areas that change from frame to frame are included, greatly reducing the file size of the animated GIF.

- 5 A frame disposal method specifies whether to discard the selected frame before displaying the next frame when an animation includes background transparency. This option determines whether the selected frame will appear through the transparent areas of the next frame. Generally, the Automatic option is suitable for most animations. This option selects a disposal method based on the presence or absence of transparency in the next frame, and discards the selected frame if the next frame contains layer transparency.
- 6 To edit an existing animation frame, you first select the frame, either by clicking the frame thumbnail in the Animation palette or by navigating to the desired frame using the First Frame, Backward, or Forward buttons in the Animation palette or Layers palette. Then edit the layers in the image to update the contents of the selected frame.
- 7 Files for animations must be saved in GIF format or as a QuickTime movie. You cannot create animations as JPEG or PNG files.