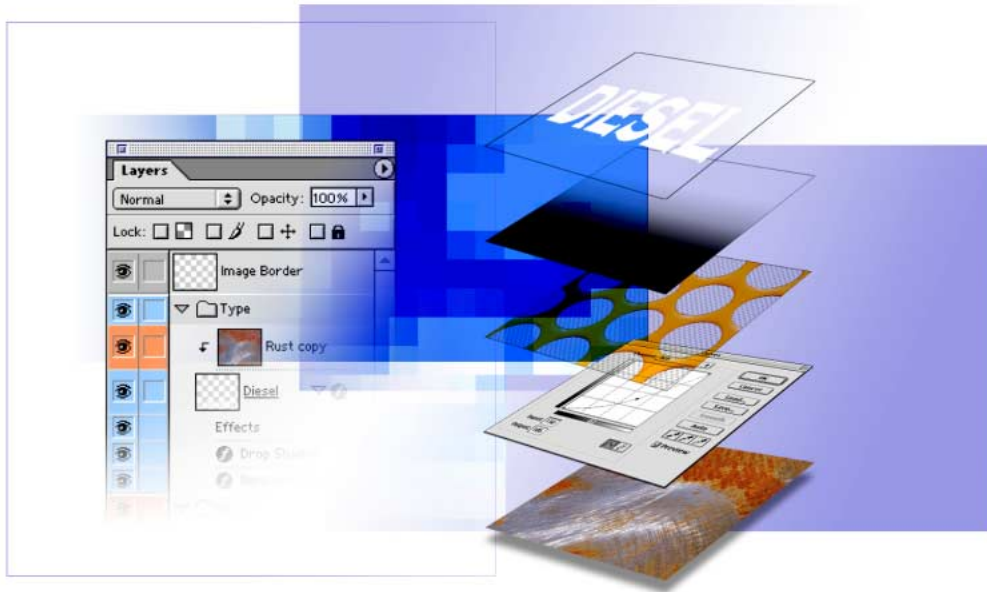


9 Advanced Layer Techniques



Once you've learned basic layer techniques, you can begin to create more complex effects in your artwork using layer masks, clipping groups, and style layers.

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

- Create clipping groups, which let you use an image on one layer as a mask for artwork on other layers.
- Create layer sets to organize and manage layers.
- Add adjustment layers to an image, and use them to apply color and tonal adjustments without permanently changing pixel data.
- Create knockout layers to use one layer selectively to reveal others.
- Import layers from other Photoshop files.
- Work with type layers.
- Duplicate and clip layers.
- Add layer styles to a layer, and apply the effects to multiple layers.
- Rasterize layers.
- Convert clipping paths to masks.
- Liquify a layer, giving it a melted appearance.
- Flatten and save layered files, greatly reducing their file size.

This lesson will take about 60 minutes to complete. The lesson is designed to be done in Adobe Photoshop, but information on using similar functionality in Adobe ImageReady is included where appropriate.

If needed, remove the previous lesson folder from your hard drive, and copy the Lesson09 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.

Getting started

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


You'll start the lesson by viewing the final lesson file to see what you'll accomplish.

1 Start Adobe Photoshop.

If a notice appears asking whether you want to customize your color settings, click No.

2 Choose File > Open, and open the file 09End.psd from the Lessons/Lesson09 folder.

3 When you have finished viewing the file, either leave the 09End.psd file open on your desktop for reference, or close it without saving changes.

 For an illustration of the finished artwork for this lesson, see the gallery at the beginning of the color section.

Now you'll open the start file, which contains an image that has two layers and a background, and you'll work with various layering and masking techniques to complete the image.

4 Choose File > Open, and open the 09Start.psd file, located in the Lessons/Lesson09 folder on your hard drive.

5 If the Layers palette is not already showing, choose Window > Layers to display it.

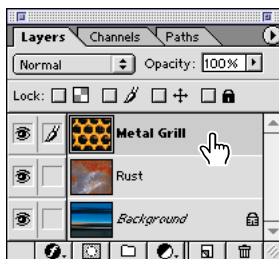
The Layers palette shows that there are three layers in the file—the Metal Grill layer, the Rust layer, and the background. At this point, you can see only the Metal Grill layer, because the Rust layer and the background are positioned under the image of the metal grill.

Creating a layer clipping path

A layer clipping path creates a sharp-edged mask on a layer. In this part of the lesson, you'll draw a circle and use it as a layer clipping path to knock out the holes in the metal grill image. This will let you see through the holes to the layers below.

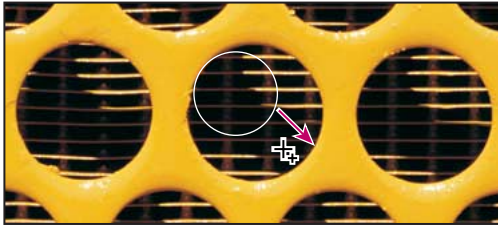
You'll begin by drawing the clipping path on the Metal Grill layer.

1 Click the Metal Grill layer in the Layers palette to select it.



- 2 Select the ellipse tool (\bigcirc). Then click the Create New Work Path button (M) in the options bar.
- 3 Move the pointer to the center of one of the holes in the metal grill.
- 4 Hold down the Shift and Alt keys (Windows) or the Shift and Option keys (Mac OS) and drag to draw a circle the size of the hole. When the circle is the right size, release the mouse button, and then release the Shift and Alt/Shift and Option keys.

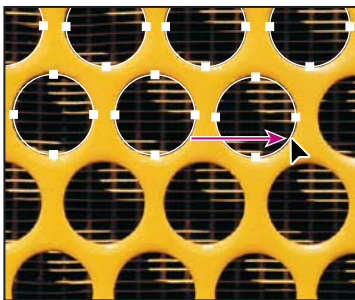
Note: If the circle is not exactly centered when you're done, Command-click the circle and drag it into position.



Next you'll make copies for the rest of the metal grill.

- 5 Select the path component selection tool (\blacktriangleright) and click to select the circle you just created.
- 6 Alt-drag (Windows) or Option-drag (Mac OS) to place a copy of the circle over another hole in the metal grill. Then repeat this step to place copies over the remaining holes.

Notice that some of the circles go past the edge of the image. This isn't a problem, because they are simply clipping paths.

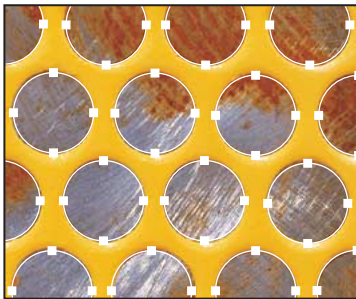


Note: You can adjust the position of a selected circle using the arrow keys on the keyboard.

You're ready to change these circles into a layer clipping path.

- 7 Shift-click the remaining circles until they are all selected.
- 8 Click the Subtract from Shape Area (-) button (□) in the options bar.
- 9 Choose Layer > Add Layer Clipping Path > Current Path.

The Rust layer appears through the holes you cut in the Metal Grill layer, and the layer clipping path you just created appears in the Metal Grill layer in the Layers palette.



- 10 Click the Dismiss Target Path button (☑) in the options bar to temporarily hide the circles you made.
- 11 Choose File > Save to save your work.

Creating layer sets

You can organize and manage individual layers by grouping them into layer sets. You can then expand the layer set to view the layers contained in it or collapse the set to simplify your view. Layer sets let you apply attributes and masks to the layers within the set. In addition, they function like layers, letting you select, duplicate, move, and change the stacking order of layers in the set.

In this section, you'll create two layer sets, one for type and another for the metal grill.

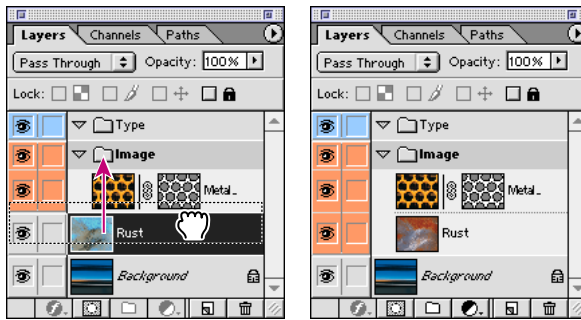
- 1 In the Layers palette, click the Create a New Set button (□) twice to create two layer sets.
- 2 With Set 2 still selected at the top of the Layers palette, choose Layer Set Properties from the palette menu.
- 3 Enter **Type** for Name and choose Blue from the Color menu. Then click OK. The layer set is renamed "Type" in the Layers palette.

4 Select Set 1 from the Layers palette and again choose Layer Set Properties from the palette menu. This time, enter **Image** for Name and choose Orange from the Color menu. Then click OK.

Now you're going to move the Metal Grill and Rust layers into the Image layer set.

5 Drag the layer Metal Grill in the Layers palette onto the folder icon (📁) for Image, then release the layer to add it to the Image layer set. You can tell Metal Grill is a member of that set, because the thumbnails of the metal grill and clipping mask are now indented under Image in the Layers palette.

6 Drag the Rust layer to add it to the Image layer set, too. Notice that the Rust layer is below the Metal Grill layer in the layer set.



7 Choose File > Save.

Using adjustment layers (Photoshop)

An adjustment layer lets you experiment with color or tonal adjustments to an image without permanently modifying the pixels in the image. The color or tonal changes reside within the adjustment layer, which acts as a veil through which the underlying image layers appear.

Once you create an adjustment layer, you can easily edit the settings, or dynamically replace it with a different adjustment or fill type.

When you create an adjustment layer, its effect appears on all the layers below it. This lets you correct multiple layers by making a single adjustment, rather than making the adjustment to each layer separately. Adjustment layers can be applied and edited only in Photoshop; however, they can be viewed in ImageReady. When you apply an adjustment layer to a layer set, Photoshop adds the new adjustment layer in the layer set above the existing layers.

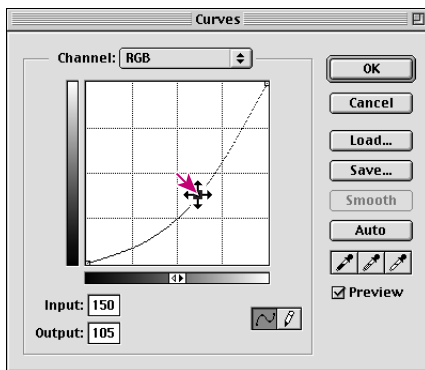
—From Adobe Photoshop 6.0 online Help

Creating an adjustment layer

Adjustment layers can be added to an image to apply color and tonal adjustments without permanently changing the pixel values in the image. For example, if you add a Color Balance adjustment layer to an image, you can experiment with different colors repeatedly, because the change occurs only on the adjustment layer. If you decide to return to the original pixel values, you can hide or delete the adjustment layer.

Here you'll add a Curves adjustment layer to create a greater contrast between the grill and the rust layer in the background. You'll do this by darkening the entire rust image. An adjustment layer affects all layers below it in the image's stacking order. Because you'll place the Curves adjustment layer below the Metal Grill layer, the adjustment will affect the rust layer and the background but not the metal grill.

- 1 Select the Rust layer in the Layers palette.
- 2 Click the Create New Fill or Adjustment Layer button (●) at the bottom of the palette and choose Curves from the menu that appears.
- 3 Click on the middle of the diagonal line in the grid (the color curve) to add a control point on the curve that will adjust the midtones.
- 4 Drag the control point down and to the right or enter values in the Input and Output text boxes. (We moved the control point so that the value in the Input text box was 150% and the value in the Output text box was 105%.)



5 Click OK.

An adjustment layer named Curves 1 appears in the Layers palette. The new layer does not include a layer thumbnail; only layer mask thumbnails are displayed for adjustment layers.

6 Choose File > Save.

Creating a knockout gradient layer

Knockout layer options let you specify how one layer reveals other layers. In this section, you'll create a knockout gradient layer so that the lower third of the image reveals the background layer.

You'll begin by creating a new layer in the Image layer set.

1 Select the Image layer set in the Layers palette and click the Create a New Layer button (📄) at the bottom of the palette.

This creates a new layer above the Metal Grill, Curves 1, and Rust layers in the Image layer set.

2 With the new layer selected in the Layers palette, choose Layer Properties from the palette menu. Then enter **Knockout Gradient** for Name and click OK.

Now you'll create a gradient on this layer.

3 Select the gradient tool (📏).

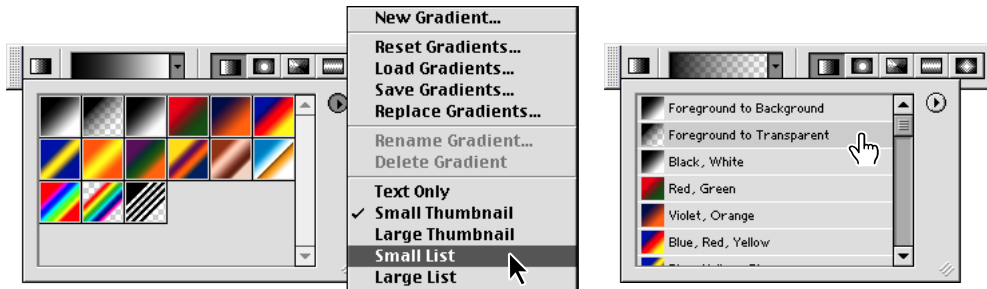
4 Click the Default Foreground and Background Colors icon (■) in the toolbox to set the foreground color to black and the background color to white.



5 Click the Linear Gradient button (📏) in the options bar to create a linear gradient.

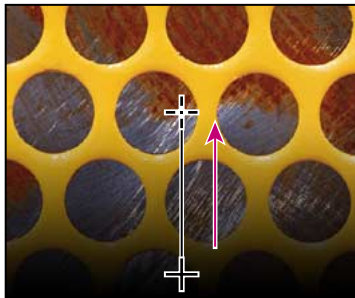
6 Click the arrow (▼) to the right of the gradient display in the options bar to open the gradient picker.

7 Choose Small List from the gradient picker menu. Then choose Foreground to Transparent in the gradient picker.



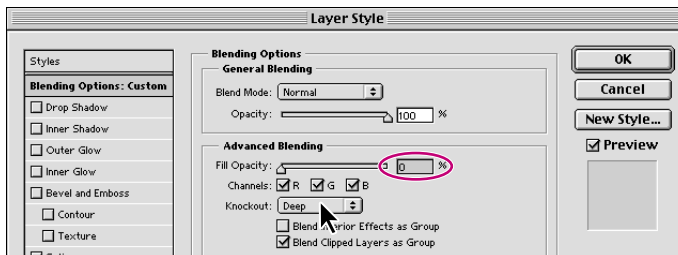
8 Click in the image to close the gradient picker.

9 Shift-drag from the bottom of the image to slightly above the midpoint to create a gradient that goes from black at the bottom to transparent at the top.



10 Double-click Knockout Gradient in the Layers palette to display the Layer Style dialog box.

11 In the Advanced Blending area, enter 0 for Fill Opacity. Then choose Deep from the Knockout menu to apply this to all of the lower layers in the layer set. Then click OK.



12 Choose File > Save.

Importing a type layer

Text is added to images with the type tool. Each use of the type tool adds a new type layer to the image. Each of these type layers can be moved, edited, or modified independently, giving you virtually unlimited typographic flexibility.

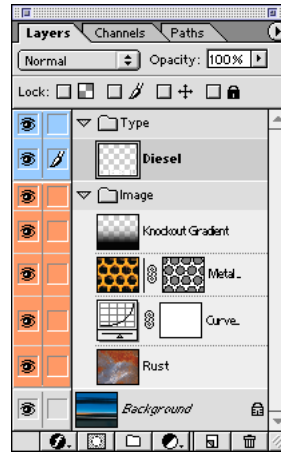
In this part of the lesson, you'll import an existing type layer into your artwork.

For information on creating a type layer using the type tool, see Lesson 3, "Layer Basics."

- 1 Select the Type layer set in the Layers palette.
- 2 Choose File > Open, select DieselType.psd, and click Open.
- 3 Drag the Diesel layer from the Layers palette into the 09Start.psd image.

Because the Type layer set was selected in the 09Start.psd image, the Diesel layer is added to that set.

- 4 Select the move tool (⇧+V) and drag the word "Diesel" to the bottom center of the image.



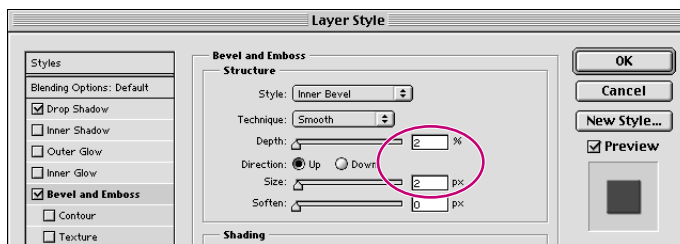
- 5 Choose File > Save.
- 6 Close the DieselType.psd file without saving it.

Applying layer styles

Once you have the text arranged on the image, you can add layer styles to enhance the look of the type. Layer styles are automated special effects that you can apply to a layer. For more information on layer styles, see Lesson 3, “Layer Basics.”

Now you’ll add two different layer styles to the Diesel type layer.

- 1 Double-click the Diesel layer in the Layers palette to display the Layer Style dialog box.
- 2 Select Preview on the right side of the dialog box to preview the styles you’ll apply.
- 3 Select Drop Shadow.
- 4 Select Bevel and Emboss, and then click the name of that option to display individual options for it.
- 5 In the Structure area, enter 2 for Depth and 2 for Size. Then Click OK.



- 6 Choose File > Save.

Duplicating and clipping a layer

In this section, you’ll learn how to copy the Rust layer and clip it to the shape described by the type layer.

First, you’ll copy the Rust layer and move it above the type layer.

1 Select the Rust layer in the Layers palette and drag it onto the Create a New Layer button (📄) at the bottom of the palette.

A new layer called “Rust copy” is created directly above the Rust layer in the palette.

2 In the Layers palette, drag Rust copy just above the Diesel layer inside the Type layer set. Because Rust copy is the top layer, the rust image is all you can see.

3 Hold down Alt (Windows) or Option (Mac OS) and move the mouse pointer over the line dividing the Rust copy and Diesel layers in the Layers palette. When the pointer changes to two overlapping circles (⦿), click the mouse button.

Rust copy is clipped to the shape of the Diesel text, and you can see the other layers again.



💡 You can move a clipping path or mask independently of the artwork on the layer by unlinking them. To do so, click the link icon between the layer thumbnail and the mask or clipping path.

4 Choose File > Save.

Using the Liquify command

The Liquify command makes it easy to manipulate areas of an image, as if those areas had been melted. You work with a preview image of the current layer, using special tools to warp, twirl, expand, contract, shift, and reflect areas of the image. An optional warp mesh shows distortions from the original.

You can “freeze” areas of the preview image to protect them from further changes, and “thaw” frozen areas, making them editable. You can also use several reconstruction modes to fully or partially reverse the distortions—or to extend the distortions or redo them in new areas. When you’re finished, you can apply the changes to the actual image.

Note: The Liquify command is available only for 8-bit images in RGB Color, CMYK Color, Lab Color, and Grayscale image modes.


—From Adobe Photoshop 6.0 online Help

Liquifying a layer

The Liquify command lets you add a melted look to the image. In this part of the lesson, you’ll make the metal grill look as if it has melted from one side to the other.


First you need to rasterize the Metal Grill image and its clipping path into a single image.

- 1 Select the Metal Grill layer in the Layers palette.
- 2 Choose Layer > Rasterize > Layer. This converts the clipping path, which is a vector graphic and is resolution-independent, into a mask, which is a raster image and is resolution-dependent.

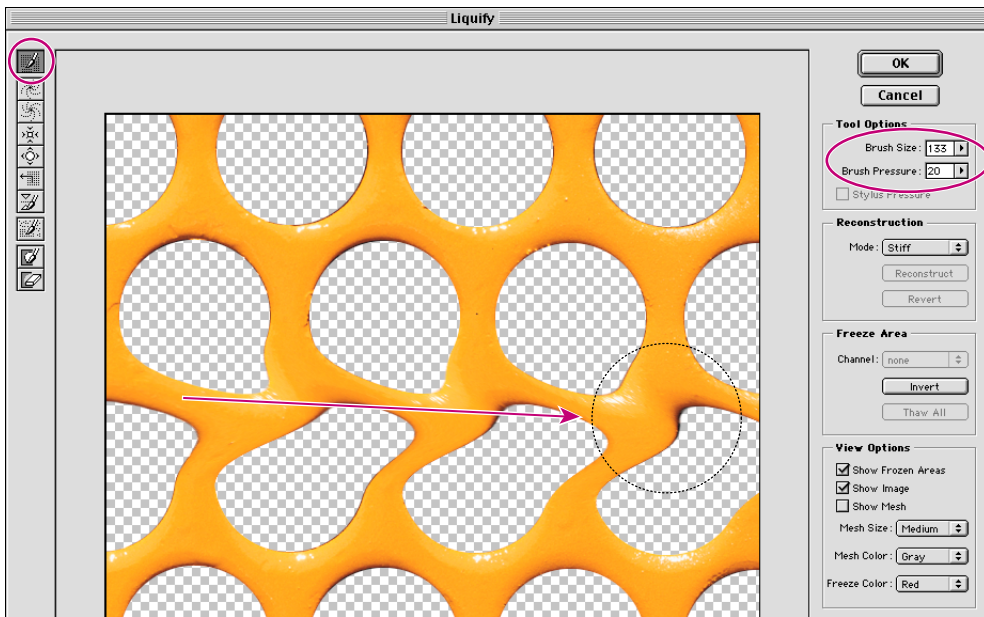
 *To view a mask by itself, Alt-click (Windows) or Option-click (Mac OS) the mask thumbnail in the Layers palette. You can then use the painting tools to add to or subtract from the mask. For more information, see Lesson 5, “Masks and Channels.”*

- 3 Choose Layer > Remove Layer Mask > Apply to merge the layer with its mask, creating a single rasterized image on that layer.

Now you’ll warp the layer with the Liquify command and warp tool.

- 4 Chose Image > Liquify.
- 5 Select the warp tool () in the Liquify dialog box. Then enter a brush size that’s the same size as the holes in the grill (we used 133) and enter a moderate brush pressure (we used 20).

- 6 Drag the brush across and down the image in the dialog box. Then click OK.



Notice that the metal grill is now warped.

- 7 Choose File > Save.

Creating a border layer

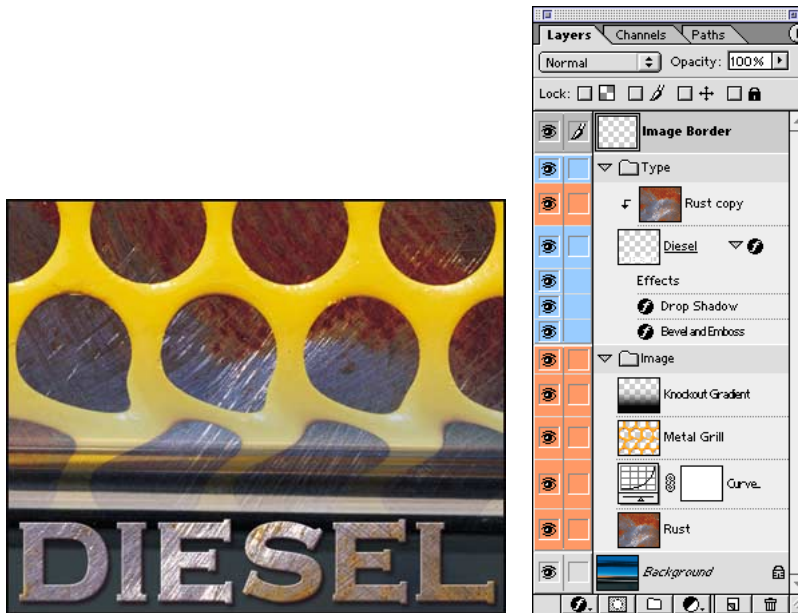
To give the image a finished look, you'll add a border to it.

- 1 Click the Create a New Layer button (📄) in the Layers palette.
- 2 Choose Layer Properties from the palette menu.
- 3 Enter **Image Border** for Name and choose Gray from the Color menu. Then click OK.
- 4 Drag the Image Border layer to the top, until a black line appears immediately above the Type layer set, and then release the mouse button.

The Image Border layer is now the top layer in the image.

- 5 Choose Select > All to select the entire image.

- 6 Choose Edit > Stroke. In the Stroke area, enter **5 px** for Width and click OK.
A 5-pixel-wide black stroke is drawn around the entire image.



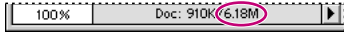
- 7 Choose Select > Deselect to deselect the entire image.
8 Choose File > Save.

Flattening a layered image

If you plan to send a file out for proofs, it's also a good idea to save two versions of the file—one containing all the layers so that you can edit the file if necessary and one flattened version to send to the print shop. When you flatten a file, all layers are merged into a single background, greatly reducing the size of the file.

- 1 First, note the file size in the lower-left corner of the 09Start.psd document window. (If the file size isn't displayed, choose File Size from the menu toward the lower-left corner of the document window.)

The number on the left is the printing size of the image, which is about the size of the saved, flattened file in Adobe Photoshop format. The number on the right indicates the file's approximate size including layers and channels.



- 2 Choose Image > Duplicate, name the duplicate file **09Final.psd**, and click OK.
- 3 Choose Flatten Image from the Layers palette menu. The 09Final.psd file is combined onto a single background.
- 4 Now check the file size of the 09Final.psd image. You'll notice that it is significantly smaller than the 09Start.psd image, because it has been flattened onto the background.
- 5 Choose File > Save. Then click Save in the Save As dialog box to save the file in Photoshop format.

You've completed the Advanced Layer Techniques lesson. If you like, you can also experiment using layer masks, clipping groups, and adjustment layers with your own work.

Review questions

- 1 Why would you use layer sets?
- 2 What is a clipping group? How could you use it in your work?
- 3 How do adjustment layers work, and what is the benefit of using an adjustment layer?
- 4 What does an adjustment layer affect when it is added to a clipping group?
- 5 What are layer styles? Why would you use them?

Review answers

- 1 Layer sets help you organize and manage layers. For example, you can move all the layers in a layer set as a group and apply attributes or a mask to them as a group.
- 2 A clipping group consists of at least two layers, where the artwork on the base layer is used as a mask for artwork on the layer or layers above.
- 3 Adjustment layers are a special type of Photoshop layer that work specifically with color and tonal adjustments. When you apply an adjustment layer, you can edit an image repeatedly without making a permanent change to the colors or tonal range in the image. You can view adjustment layers in ImageReady, but you can create or edit them only in Photoshop.
- 4 When an adjustment layer is added to a clipping group, only the layers in the clipping group are affected.
- 5 Layer styles are customizable effects you can apply to layers. They enable you to apply changes to a layer that you can modify or remove at any time.