Layers

Layers play an essential role in all aspects of Photoshop work. Whether you are designing a Web page layout or editing a photograph, working with layers lets you keep the various elements in a design separate from each other. Layers also give you the opportunity to assemble an image using separate, discrete layers and have the flexibility to make any edit changes you want at a later stage. You can also add as many new layers as you like to a document, up to a maximum limit of 8000 layers! The Photoshop layers feature has evolved in stages over the years and Photoshop CS2 onwards includes new ways for selecting multiple layers and linking them together. Also new to Photoshop CS5 is the ability to drag and drop a file to a Photoshop document and place it as a new layer (see pages 526–527). First let’s look at managing layers and the different types you can have in a Photoshop document.

Layer basics

Layers can be copied from one file to another by using the move tool to drag and drop a layer (or a selection of layers) from one image to another. This step can also be assisted by the use of the Shift key to ensure layers are positioned centered in the destination file. To duplicate a layer, drag the layer icon to the New Layer button and to rename a layer in Photoshop, simply double-click the layer name. To remove a layer, drag the layer icon to the Delete button in the Layers panel and to delete multiple layers, use a Shift-click or Ctrl-click to select the layers or layer groups you want to remove and then press the Delete button at the bottom of the Layers panel. There is also a Delete Hidden Layers command in both the Layers panel submenu and the Layer ➤ Delete submenu. In addition there is now a File ➤ Scripts menu item that can be used to delete all empty layers (see Figure 9.10).

Image layers

The most common type of layer is an image layer, which is used to contain pixel information. New empty image layers can be created by clicking on the ‘Create new layer’ button in the Layers panel (Figure 9.14). They can also be created by copying the contents of a selection to create a new layer within the same document. To do this, choose Layer ➤ New ➤ Layer via Copy, or use the Shift J keyboard shortcut. This copies the selection contents, so
that they become a new layer in register with the image below. Alternatively you can cut and copy the contents from a layer by choosing Layer ▸ New ▸ Layer via Cut or use the `Ctrl`+`Shift`+`J` keyboard shortcut.

### Shape layers

Shape layers is a catch-all term used to describe non-pixel layers where the layer is filled with a solid color and the outline is defined using either a vector or pixel layer mask. A shape layer is created whenever you add an object to an image using one of the shape tools, or draw a path using the Shape layer mode, or when you add a solid fill layer from the adjustment layer menu. Figure 9.11 shows an example of a shape layer that is basically a solid fill layer masked by a vector mask.

### Text layers

Typefaces are essentially made up of vector data, which means that Text layers too are basically vector-based shape layers. When you select the type tool in Photoshop and click or drag with the tool and begin to enter text, a new text layer is added to the Layers panel. Text layers are symbolized with a capital ‘T’, and when you hit `Return` to confirm a text entry, the layer name displays the initial text for that layer, making it easier for you to identify the layer (see Figure 9.12). Note that you can double-click the text layer ‘T’ icon to highlight the text and make the type tool active.

### Adjustment layers

Adjustment layers are image adjustments in the form of layers. With adjustment layers you have the opportunity to edit the adjustments as often as you like, plus you can toggle an adjustment on or off by clicking the layer eyeball icon (Figure 9.13). The chief advantages of working with adjustment layers are that you can re-edit the adjustment settings at any time and you can use the paint, fill or gradient tools to selectively apply the adjustments to an image.

### Layers panel controls

Figure 9.14 provides an overview of the Layers panel controls for the layered image shown in Figure 9.15. The blending mode options determine how a selected layer will blend with the layers below,
while the Opacity controls the transparency of the layer contents and the Fill opacity controls the opacity of the layer contents independent of any layer style (such as a drop shadow) which might have been applied to the layer. Next to this are the various layer locking options. At the bottom of the panel are the layer content controls for layer linking, adding layer styles, layer masks, adjustment layers, new groups, and new layers, as well as a Delete Layer button. Most of the other essential layer operation commands are conveniently located in the Layer panel fly-out options.

Layer visibility
You can selectively choose which layers are to be viewed by selecting and deselecting the eye icons. If you go to the History panel options and check ‘Make Layer Visibility Changes Undoable’, you can even make switching the Layer visibility on and off an undoable action.

**Figure 9.14** This is an overview of the Photoshop Layers panel. See also the diagram in Figure 9.15 which shows how this layered image appeared as a final composite.
Figure 9.15 Here is an expanded diagram of how the layers in a magazine cover image file were arranged inside Photoshop. The checkerboard pattern represents transparency and the layers are represented here in the order they appeared in the Layers panel.

Client: Goldwell Professional Haircare.
**Layer styles**
You can use the layer style menu at the bottom of the Layers panel (see Figure 9.14) to apply different types of layer styles to an image, shape or text layer. This feature is really of more interest to graphic designers rather than photographers, but you’ll find descriptions of the various layer styles in the DVD Help Guide.

**Adding layer masks**
You can hide the contents of a layer either wholly or partially by adding a layer mask, a vector mask or both. Masks can be applied to any type of layer: image layers, adjustment layers, type layers or shape layers. Image layer masks are defined using a pixel-based mask, while vector masks are defined using path outlines. Click once on the Add Layer Mask button to add a layer mask and click a second time to add a vector mask (in the case of shape layers a vector mask is created first and clicking the Add Layer Mask button adds a layer mask). You will also notice that when you add an adjustment layer or fill adjustment layer a layer mask is added by default. The layer mask icon always appears next to the layer icon and a dashed stroke surrounding the icon tells you which is active (see Figures 9.16 and 9.17).

The most important thing to remember about masking in Photoshop is that whenever you apply a mask you are not deleting anything; you are only hiding the contents. By using a mask to hide rather than to erase unwanted image areas you can go back and edit the mask at a later date. If you make a mistake when editing a layer mask, it is easy enough to correct such mistakes since you are not limited to a single level of undo. To show or hide the layer contents, first make sure the layer mask is active. Select the paintbrush tool and paint with black to hide the layer contents and paint with white to reveal. To add a layer mask based on a selection, highlight the layer, make the selection active and click on the Add Layer Mask button at the bottom of the Layers panel, or choose Layer ➔ Layer Mask ➔ Reveal Selection. To add a layer mask to a layer with the area within the selection hidden, `alt`-click the Layer Mask button in the Layers panel, or choose Layer ➔ Layer Mask ➔ Hide Selection.

Lastly, the mask linking buttons referred to in Figures 9.16 and 9.17 allow you to lock or unlock a mask so that you can move the mask or layer contents independently of each other.

**Figure 9.16** The Layers panel view shown here contains two layers, and the selected layer is the one that’s highlighted here. The dashed border line around the layer mask icon indicates that the layer mask is active and any editing operations will be carried out on the layer mask only. There is no link icon between the image layer and the layer mask. This means that the image layer or layer mask can be moved independently of each other.

**Figure 9.17** In this next panel screen shot, the border surrounding the vector mask indicates that the vector mask is active and that any editing operations will be carried out on the vector mask. In this example, the image layer, layer mask and vector mask are now all linked. This means that if the image layer is targeted and you use the move tool to move it, the image layer and layer masks will move in unison.
Copying a layer mask
You can use the `alt` key to drag/copy a layer mask across to another layer.

Viewing in Mask or Rubylith mode
The layer mask icon preview provides you with a rough indication of how the mask looks, but if you `alt`-click the layer mask icon the image window view switches to display a full image view of the mask (see Step 1 opposite). If you `Shift alt Shift`-click the layer mask icon, the layer mask is displayed as a quick mask type transparent overlay (see Step 2 opposite). Both these steps can be toggled.

Removing a layer mask
To remove a layer mask, select the mask in the Layers panel and click on the Layers panel Delete button (or drag the layer mask to the Delete button). A dialog box then appears asking if you want to ‘Apply mask to layer before removing’ (Figure 9.18)? There are several options here: if you simply want to delete the layer mask, then select ‘Delete’. If you wish to remove the layer mask and at the same time apply the mask to the layer, choose ‘Apply’. Or click ‘Cancel’ to cancel the whole operation.

To temporarily disable a layer mask, choose Layer ➔ Layer Mask ➔ Disable, and to reverse this, choose Layer ➔ Layer Mask ➔ Enable. You can also `Shift`-click a mask icon to temporarily disable the layer mask (when a layer mask is disabled it will appear overlaid with a red cross). A simple click then restores the layer mask again (but to restore a vector mask you will have to `Shift`-click again). Or alternatively, `ctrl` right mouse-click the mask icon to open the full list of contextual menu options to disable, delete or apply a layer mask (see Figure 9.19).

Adding an empty image layer mask
If you create an empty layer mask (one that is filled with white) on a layer, you can hide pixels in a layer filling or painting with black. To add a layer mask to a layer with all the layer remaining visible, click the Layer Mask button in the Layers panel (Figure 9.20). Alternatively, choose Layer ➔ Add Layer Mask ➔ Reveal All. To add a layer mask to a layer that hides all the pixels, `alt`-click the Add Layer Mask button in the Layers panel. Alternatively, choose Layer ➔ Add Layer Mask ➔ Hide All. This also adds a layer mask filled with black.
1 If you \( \text{Alt} \)-click the layer mask icon, you can preview a layer mask in Normal Mask mode.

2 If instead you \( \text{Shift Alt} \)-click the layer mask icon, you can preview a layer mask in Quick Mask mode. The mask can be edited more easily in either of these preview modes. The Backslash key (\) can be used to toggle showing the layer mask as a quick mask and return to Normal view mode again.