

Introducing Adobe Photoshop CS6

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If you are reading this book, you likely have access to one of the most intricate and extensive software applications available. Don't let that discourage you, though. Adobe Photoshop is also a powerful and extremely fun application to use. With throngs of fans all over the globe, over the years, Photoshop has become the pinnacle software application for image editing. In fact, if you look up Photoshop at www.wikionary.org, you will find the term *photoshop* listed as a verb meaning, "to digitally edit or alter a picture or photograph."

Photoshop draws such a big crowd because it provides amazing results when you are editing images and yet is fairly intuitive to use such that even casual users can get pretty good results without much effort. In addition, as digital imaging has advanced over the years, Photoshop has kept pace and even led the advancements in many areas.

The purpose of this chapter is to introduce Photoshop CS6, show you when to use it, and discuss the new features that have been added since version CS5. Chapter 2 dives into the details of the Photoshop application workspace.

Discovering the Versatile World of Photoshop

The simplest description of Photoshop is "a digital image-editing application." Photoshop provides the standard color- and lighting-correction capabilities historically associated with photo editing, but it also provides filtering, painting, masking, layering, and many more tools that allow you to take image editing to the next level.

Photoshop comes in two versions. The standard Photoshop edition provides all the functionality you need to create, enhance, and correct digital images. The extended edition, which costs more, provides additional functionality to work with 3D objects, video, and digital animation. The extended edition is worth the money if you are working with 3D objects or need to add color and lighting corrections and artistic effects to video. If you are not working with 3D objects or video, the standard edition is all you need.

The following sections discuss the uses of Photoshop as well as additional applications you can use with Photoshop. Their purpose is to give you a glimpse of what Photoshop is used for before showing you how to use it. Of course, the only real way to understand the capabilities of Photoshop is to delve into them as you follow along with the next 30 chapters in this book.

Knowing when to use Photoshop

Photoshop has so many tools and so much power that it can do an unlimited number of things. The following list describes the most common tasks for which Photoshop is used to help you get an idea of when you may want to use it:

- **Photo corrections.** Photoshop is able to correct digital images by restoring the original color and lighting, as well as to correct problems introduced by camera lenses. These Photoshop features are covered in Chapter 13.
- **Photo enhancements.** Photoshop also provides tools that allow you to enhance photos. For example, you can add a blur to soften a portrait or use a sharpening filter to remove camera jitter. Photoshop is also great at fixing scratches and dust marks on older images. These concepts are discussed in Chapters 14 and 15.
- **Photo compositions.** One of the strengths of Photoshop is the ability to combine multiple images to create a single image or composition. A common use of Photoshop is to take a headshot from one image and place it into another image. Photoshop also enables you to merge photos that were taken at different horizontal angles, from the same spot, and then turn them into a single panoramic image. Photo compositions are discussed in Chapter 21.
- **Artistic effects.** One of the most fun features of Photoshop is the ability to use different filters and warping tools to apply artistic effects to images. The combination of numerous tools and filters in Photoshop means that the only limitation you have when adding artistic effects is your own creativity. The tools used for artistic effects are covered in Chapters 19 and 20.
- **Painting.** Photoshop has always been a good painting application, but with the addition of the wet brush capability in CS5 as well as erodible and airbrush tips in CS6, Photoshop is now one of the best applications available to create digital paintings. What puts Photoshop ahead of the competition is that many powerful features, such as layers and masks, are also available for use with the painting tools. In addition, the painting brushes are integrated into many of the other tools in Photoshop. Chapter 16 discusses the painting tools.

- **Creating vector artwork.** Photoshop is also an excellent application to use when creating vector artwork. The path tools allow you to quickly create and manipulate vector artwork, and add vector artwork to raster images. Vector artwork, including vector text, is discussed in Chapters 17 and 18.
- **Adding text to images.** Photoshop provides tools that allow you to add text to images. The text can be resized, warped, and adjusted to create some stunning visual effects. Chapter 18 discusses adding textual elements to images.
- **Creating web images.** Another area where Photoshop excels is in preparing images for the web. Photoshop provides utilities that allow you to quickly format images with the appropriate size, file format, and colors for use in web pages. Photoshop also provides some tools you can use to slice an image into clickable sections and provides the HTML code necessary to use the slices in a web page. Outputting to the web is discussed in Chapter 30.
- **Print preparation.** Photoshop is often used to prepare images for printing by converting the color mode to CMYK, adding spot colors, and creating color separations. These topics are covered in Chapters 11 and 29.
- **Creating 3D objects.** The 3D tools in Photoshop just get better and better. Photoshop has the capability to create and manipulate 3D objects so that they can be incorporated into 2D images or video. The 3D capabilities of Photoshop are covered in Chapters 22, 23, and 24.
- **Adding textures to 3D objects.** Photoshop has a big advantage over other 3D applications when applying textures to 3D objects. With the Photoshop filter and painting capabilities, you can edit the textures of your 3D objects in ways that you may not have thought possible. Chapter 23 discusses creating and enhancing 3D textures.
- **Video corrections.** Using the color, lighting, and filter effects of Photoshop, you can quickly apply corrections to video and even add some artistic effects. Chapter 27 discusses applying corrections and effects to video files.
- **Animating images.** Another fun feature of Photoshop is the ability to add animation to your images. Animated images can give life to web pages and allow you to create short animated movies. Chapter 28 discusses animating images.

Understanding the limitations of Photoshop

Believe it or not, Photoshop is not designed to do everything. Photoshop is not designed to function as a word processor like Microsoft Word, to create charts and graphics in presentations like Microsoft PowerPoint, or to lay out brochures, magazines, or books like Adobe InDesign.

For the following tasks, you would use another application:

- **Word processing.** Most word processing applications such as Word allow you to add images to documents created with those programs, and although Photoshop supports adding text to images, it doesn't support text editing well and can't handle text

flowing from one page to another. You should use Photoshop to work with the images and then import them into the word processing application.

- **Business graphics.** Photoshop doesn't do charts and presentations very well, but you can create great images in Photoshop and then use them in business applications such as Microsoft Excel or PowerPoint.
- **Page layout.** Applications such as InDesign are much more adept at laying out brochures, flyers, and documents that are mostly textual. You should create the images in Photoshop and then import them into the layout application.
- **Vector art.** Although Photoshop has a lot of capability when it comes to creating vector paths, Adobe Illustrator is a much better application for working with clipart and designing advertisements, flyers, and one-page layouts that have multiple vector objects.

Looking at What's New in Photoshop CS6

Adobe has added several great new features to Photoshop CS6 that make tools easier to use, extend capabilities, and add a lot of justification for upgrading. These new changes are discussed throughout the book. The purpose of this section is to describe the biggest changes and let you know where in the book you can find more information about the following new features:

- **Dark user interface (UI).** Arguably, the most noticeable change in Photoshop CS6 is the addition of a Dark UI. This feature is configurable in the Preferences panel and provides several different options to darken the UI components. This has been a much-requested feature that should lessen the brightness of the screen and could reduce eye fatigue when working long hours. Setting the Interface preferences is covered in Chapter 2.
- **Changes to the Crop tool.** Several new and very useful enhancements have been added to the Crop tool. The biggest is a non-destructive crop that allows you to go back and edit the crop. When you select the Crop tool again, the areas hidden by the crop are displayed so that you can easily adjust the crop to add pixels back in. The Crop tool now automatically sets the initial crop to the size of the original image so you no longer have to drag to create a crop box. When you rotate the crop in the document window, the canvas automatically expands so that you can easily preview what the final cropped canvas will look like. The changes to the Crop tool are discussed in Chapter 3.
- **Adjustments to Aspect Ratio tools.** You can now change the aspect ratio while in Crop mode. This allows you to select preset aspect ratios to flip the orientation of the crop box without exiting the tool. You can also set a custom crop size directly. The Crop tool also allows you to use constrained aspect ratio and unconstrained modes. These changes are discussed in Chapter 3.

- **Auto Curve adjustments.** The Curve adjustment feature now provides a new algorithm that analyzes an image and looks for a curve that uses all color channels that will provide the optimal brightness and contrast. The curve can be more accurately calculated by matching image characteristics to a curve database. Curve adjustments are discussed in Chapter 13.
- **Auto Level adjustments.** This is similar to the new Auto Curve adjustment feature. The Level adjustment now provides the ability to automatically calculate accurate histograms that will provide optimal brightness and contrast. Level adjustments are discussed in Chapters 12 and 13.
- **Improved lighting adjustment in Camera Raw.** Our personal favorite change in Photoshop CS6 is the new sliders in Camera Raw 7.0. The Fill Light and Recovery sliders have been replaced with new Shadows and Highlights sliders, and a new Whites slider has been added to balance the Blacks slider. The new sliders have been set to 0 and can move in either direction, allowing you to increase or decrease the brightness of each setting. Because you can deepen highlights and brighten shadows with these new sliders, you can greatly improve the look of photos that contain both shadows and highlights, bringing a better balance to their exposure. Changes made to these types of photos in Camera Raw rival HDR imagery, as demonstrated in Figure 1.1. Because this figure is in grayscale in the print version of this book, you can also find it in the center insert in full color. Making adjustments in Camera Raw is covered in Chapter 8.
- **Layer filtering.** The Layers panel has a new filtering feature that allows you to view only the layers you want to see within the panel. You can view layers based on parameters such as type, name, or effect. This feature greatly enhances the ease and capability of working with multiple layers.
- **Blur tools.** A new feature has been added to the Filter menu, implementing the Iris, Field, and Tilt-Shift blur in a completely new way. These tools now have a new panel, called the Blur Gallery that allows you to add and adjust the blur effects quickly in an image. In addition to the new panel, on-image controls are added that allow you to control size, intensity, and positioning of the blurring effect. You can also apply effects to the blur by adding a bokeh. These blur tools are discussed in Chapter 14. Figure 1.2 shows the new Blur Gallery panel along with the on-image controls that allow you to fine-tune blurring effects.
- **Wide-Angle Correction.** A Wide-Angle Correction filter has been added to Photoshop. This filter analyzes an image and makes adaptive changes that can correct perceived distortion in the image caused by wide-angle lenses. The Wide-Angle Correction filter is discussed in Chapter 14.

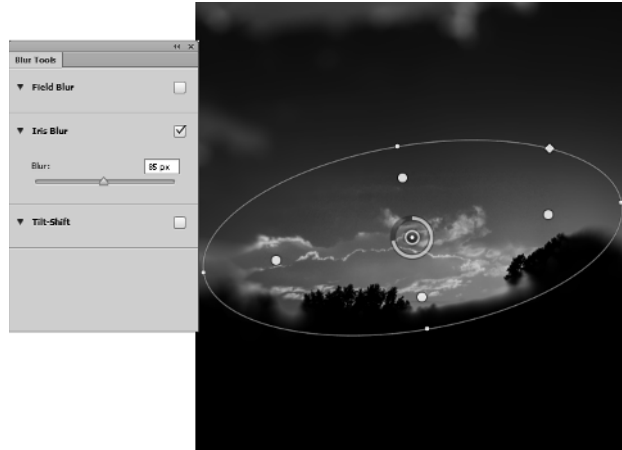
FIGURE 1.1

The new adjustment tools in Camera Raw 7.0 can fix problematic exposures, creating fantastic imagery.



FIGURE 1.2

The Blur Gallery provides a new panel along with on-image controls that give you direct control over the blurring effect.



- **Content-Aware patch.** The Content-Aware patch expands the capabilities of both the Content-Aware tools that were introduced in CS5 and the Patch tool. The Patch tool works by sampling an area of an image and using it to repair another area of the image using the lighting of the repaired area and the texture of the sampled area. The new Content-Aware feature allows Photoshop to run an algorithm that looks for differences in texture and hard lines in the area that is being repaired so that the patch will be more realistic. For example, you can see in Figure 1.3 that there are two textures involved in removing the second model from the image, the cliff, and the sky. By using the Content-Aware patch tool, this is accomplished in one easy step. You can learn more about the Content-Aware patch tool in Chapter 15.
- **Erodible brush tip.** A new concept in brush tips has been added to the paint tools. The Erodible tip brush shapes provide a new drawing experience by having the shape of the brush tip change as you use it, just as a crayon or pencil would. These new tips are based on computer algorithms that calculate how to adjust the shape of the brush tip as it wears down through use. Photoshop provides several settings for the erodible tip, shown in Figure 1.4, that control how the brush tip erodes, thus changing the painting effect of the brush. The new erodible tips are discussed in Chapter 16.

FIGURE 1.3

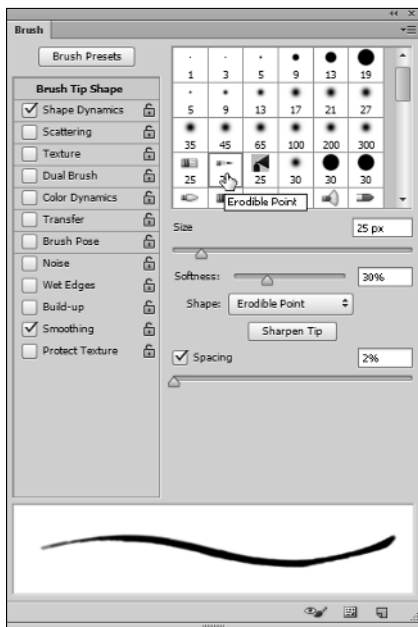
The Content-Aware patch tool makes it easy to remove the model from an area that requires duplicating two textures.



- **Airbrush brush tips.** A new addition to the Photoshop paint tools is the airbrush brush shapes. These brush tips use computer algorithms that can mimic applying paint to the canvas in a random dispersion from multiple angles in a 3D manner as if the brush tip was a distance away from the canvas. This simulates an airbrush or spray-painting effect. Photoshop provides several settings that control the flow and dispersion of the paint, thus changing the effect of using the brush. The new airbrush tips are discussed in Chapter 16.
- **Deco patterns.** Photoshop has enhanced its fill options with a new concept called a Deco pattern. The new Deco patterns allow you to use more than one input image patch and load new pattern scripts. Deco patterns provide much wider functionality by allowing you to offset, scale, and rotate patterns when applying a fill. Another great feature of the Deco patterns is that their transparency is persistent when applying scripting operations, making it easier to create intricate combinations by filling multiple layers with different patterns and scripts. Deco patterns are discussed in Chapter 16.

FIGURE 1.4

The brush settings allow you to control the behavior of erodible tips, enabling you to simulate crayon, pencil, or other erodible media.

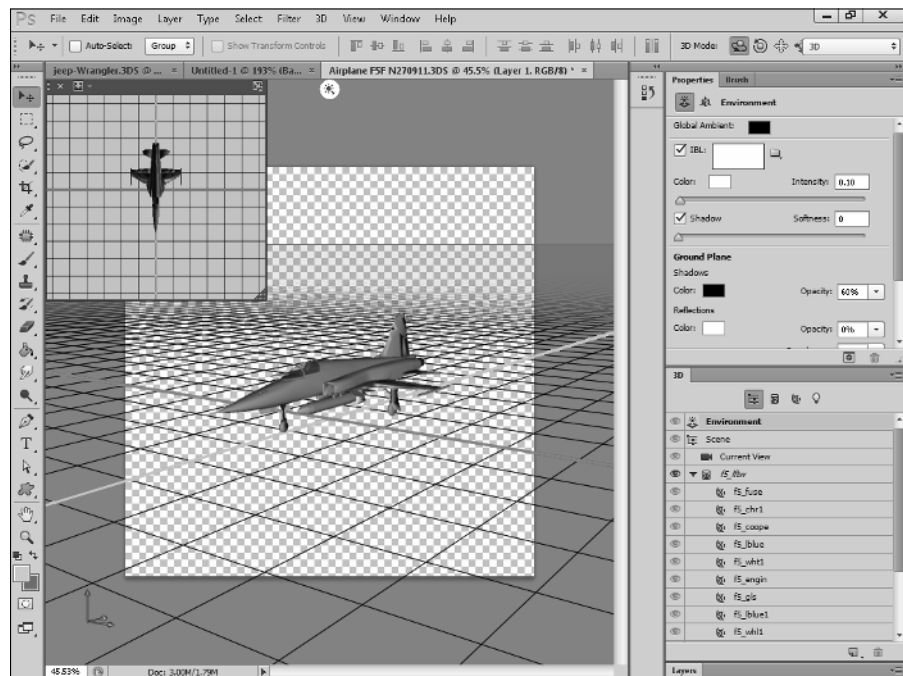


- **Vector layers.** If you use Photoshop to create and manipulate vector shapes, then you are going to be ecstatic about what has been done in CS6. Vector shapes have now been promoted to first-class citizens. The biggest change is that vector shapes can now be automatically created in their own layer. In addition, several additional tools make it much easier to apply fills and strokes to a vector shape. Chapter 17 discusses the new vector layers and the enhancements made to the shape tools.
- **Type styles.** Photoshop now applies type styles using a hierarchical model with Paragraph Styles, which control all elements of type such as justification, and Character Styles, which control the type elements such as font face, size, color, and kerning. Character Styles override Paragraph Styles, and manual settings override the Character and Paragraph Styles. The cool thing about how Photoshop is now applying type styles is that you can now create a standardized format and use that standard again and again in all of your work. Another great feature is that text created using a type style will be updated automatically later by changing the style settings. Type is covered in Chapter 18.
- **Liquify now uses the GPU.** If your video card supports it, the Liquify filter now uses the GPU. This makes the filter much faster and more efficient to use. The Mirror and Turbulence tools are still CPU-based. The Liquify filter is covered in Chapter 19.

- **Faster rendering and better placement of 3D files.** Some of the 3D changes in CS6 are behind the scenes. You'll notice right away that 3D objects are rendered using OpenGL automatically and you can render the final product using the ray tracer by clicking the Render button in the Properties panel. CS6 has also changed its coordinate system to match that of the 3D object file so that the chances of your 3D object coming in right side up are greatly increased. Neither of these modifications will change the way you work, but they will make what you do much easier. 3D editing is discussed in Chapters 22 through 24.
- **New 3D interface.** Since 3D capability was introduced in Photoshop CS3, every edition has introduced a new interface for the 3D tools and settings in an effort to make them easy to learn and use. The interface for CS6 is the best yet, using the Properties panel to display the settings for selected 3D layers and placing the 3D move tools in one location: the Options bar. The new 3D workspace opens automatically when a 3D file is opened or placed, and it is very intuitive, finally feeling like an integral part of the Photoshop repertoire, as shown in Figure 1.5. 3D editing is discussed in Chapters 22 through 24.

FIGURE 1.5

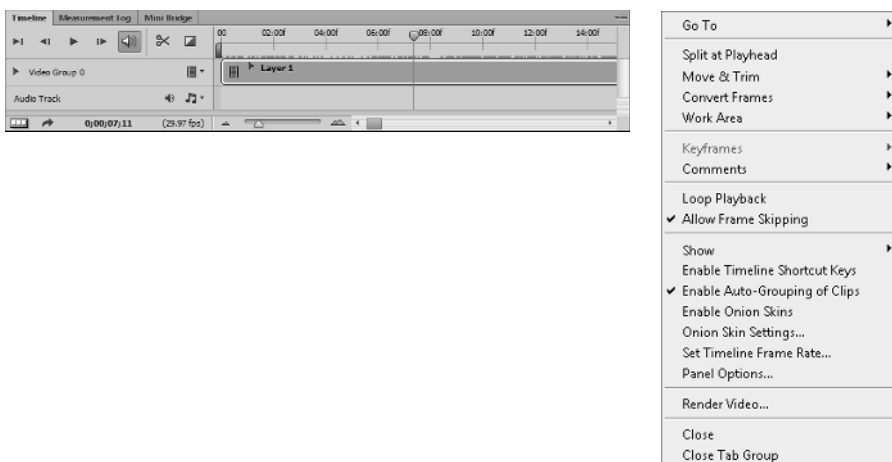
A new look for the 3D workspace is functional and user-friendly.



- **Improved look of the ground plane in a 3D scene.** The ground plane is turned on automatically when you open a 3D object, and it continues to the horizon, fading out as it goes to reduce visual clutter. (See Figure 1.5.) 3D editing is discussed in Chapters 22 through 24.
- **Picture in Picture window for 3D scenes.** The new Picture in Picture window for 3D scenes gives you a quick reference guide when manipulating 3D objects. (See Figure 1.5.) You can see your scene from two different viewpoints at the same time, and you can change the view of the Picture in Picture window for the best results. 3D editing is discussed in Chapters 22 through 24.
- **Audio has been added to the Timeline panel.** You can now listen to the audio on the video tracks that you bring into Photoshop. You can also toggle the audio on and off using the new audio button in the video Timeline. The video Timeline is discussed in Chapters 25.
- **New look and new features of the Timeline panel.** The Timeline panel has a new name, a new look, and a new menu. The capability is mostly the same with a few enhancements, such as the ability to hear and mute the audio in your video clips. The new layout, however, greatly simplifies your workflow when working with video clips. You can see the new Timeline and the new Timeline panel menu in Figure 1.6. The new features of the Timeline are covered in Chapter 25.

FIGURE 1.6

A new look for the Timeline and its menu make working with video in Photoshop easier and more efficient.



- **Video drag-and-drop transitions.** Along with the new look of the Timeline comes a new icon that allows you to drag and drop one of several basic transitions into your video clips. This allows you to create a fade between video clips, smoothly transitioning from one to the other. Learn how to use the drag-and-drop transitions in Chapter 25.
- **Animating transformations.** One of the most exciting new features of the Timeline is the Transform property. Using this property, you can animate the transform properties of the Scale and Rotate features. Learn how to animate transformations in Chapter 26.
- **Animating 3D elements.** When you have a 3D object open in Photoshop, many of the properties of that 3D object can be animated. These properties are the 3D scene position, the 3D camera position, the 3D render settings, and the 3D cross-section. You can also animate the position of the 3D lights, materials, and mesh objects in the 3D scene. You can learn how to animate these properties in Chapter 26.

Summary

This chapter introduced Photoshop CS6 by discussing the general uses of Photoshop and the new features in version CS6. Photoshop can be used for a variety of purposes, from photo editing to digital art to adding artistic effects.

In this chapter, you learned that:

- Photoshop can be used to edit, enhance, and create images in several ways.
- Photoshop CS6 includes new sliders that make Camera Raw a more powerful tool, as well as a new blur gallery that allows you to apply several new special blur effects.
- Adobe has improved the set of 3D tools that allow you to apply the editing capabilities of Photoshop to 3D objects.