CHAPTER

17

Photoshop and the Web

Preparing graphics for a website is a journey into the unknown: You've got no idea what kind of monitor folks will use to view your images, how fast (or slow) their Internet connections are, or which web browsers they use. It's a proposition riddled with variables that you have zero control over; all you can do is prepare your graphics well and hope for the best.

The main challenge in preparing images for the Web in Photoshop boils down to finding a balance between image quality and file size. Premium-quality, minimally compressed JPEGs look stunning under almost any conditions—but if your site visitor has a pokey dial-up connection, she might decide to click elsewhere rather than wait for the darn thing to download. On the other hand, if you try to satisfy the slowest common denominator by making ultra-lightweight images, you'll deprive those with broadband (high-speed) connections from seeing the impressive details you've lovingly created.

Luckily, there are several tricks for keeping file sizes down *and* retaining quality. That's what this chapter is all about. You'll learn which size and file format to use when creating images destined for the Web. You'll also discover how to make animations; craft *favicons* (those tiny graphics you see in web browsers' address bars); mock up web pages; and publish professional-looking online photo galleries.

NOTE For a tutorial on creating your own custom Twitter page using Photoshop, visit this book's Missing CD page at *www.missingmanuals.com/cds*.

Creating Web- and Email-Friendly Images

Whether you're designing an image destined for life on the Web or creating an email-friendly version of a digital photo, you need to follow three very specific steps to create a high-quality image that people can download quickly:

1. **Adjust the image's dimensions.**

   First, you need to decide how big the image should be. In some cases, someone else may give you the size (like when you're hired to make a web banner or an ad). Other times, you choose the size (like when you email a digital photo, send a sample design to a client, or post an image in an online discussion forum). Once you know the size you need, grab the Crop tool and enter those dimensions into the Width and Height fields on the left side of the Options bar—just be sure to include the unit of measurement, such as "800 px." (For more on resizing with the Crop tool, see Chapter 6).

2. **Decide which file format you want to use.**

   The most common choices are JPEG, PNG, and GIF. See page 721 for the pros and cons of each web-friendly format.

NOTE As you learned in Chapter 2, you should always save your master file as a PSD file (Photoshop document) so you can open, edit, and resave it as often as you want without losing quality. (Each time you save a JPEG as *another* JPEG, Photoshop recompresses it, degrading the image's quality.) The PSD format also retains any layers you created during the editing process.

3. **Save and compress the file.**

   When you're finally ready to create the version that's going to live online, you can squeeze it down to the smallest size possible using the "Save for Web" dialog box, which you'll learn all about beginning on page 723.

If you follow each of these steps, you'll end up with images that match the dimensions you want, look great, and download quickly. The following pages explain how to do all those things.

Resizing an Image

As you learned in Chapter 6, resolution matters when you *print*, but it doesn't mean a hill of beans when you're preparing images for the Web, presentation software, or an email. In the online realm, it's the *pixel dimensions* that matter instead. If you reduce the image's pixel dimensions before posting or emailing it, you won't force unsuspecting folks to download an image that's so big it takes over their whole screen, and you'll end up with a smaller file, which means it'll download faster.

NOTE If you're emailing an image to someone who needs to print it, send him a full-size version in one of the print-friendly formats discussed on page 677. Just be sure to compress the image into a .zip file before you send it so it transfers as fast as possible (see the Tip on page 667).

If you're a designer, someone may give you the pixel dimensions for your project so you can create a new document at that size to start with. But if you're emailing a digital photo or a sample design, or posting an image to an online forum, *you* pick the size. In that case, here are a few all-purpose width-by-height pixel dimension guidelines:

- **800x600 (or 600x800).** Use this size if you're sending a design or photo sample to a client and she doesn't need to print the image. This size image is almost big enough to fill a web browser window (unless your viewer has a 30-inch screen, that is), so she won't have to scroll much to see the whole thing.
- **640x480 (or 480x640).** Use these dimensions if you're emailing a photo or posting it to an online forum. These dimensions produce an image big enough to see well and a file size of less than 1 megabyte (so it transfers nice and fast).
- **320x240 (or 240x320).** These dimensions work well if you're emailing multiple photos or posting to an online forum that contains *a lot* of images. If your recipient has a slow Internet connection, she'll appreciate the smaller file size. And if you crop it wisely these dimensions produce a photo that's big enough for your subject to be identifiable.
- **100x133 (or 133x100).** If you're creating headshots for the company web page—a great way to humanize your firm—this size makes for a nice, small portrait. If you're building a catalog page with a ton of product thumbnails (small preview pictures), this size won't bog down the page. (Linking the thumbnails to full-sized versions lets visitors view enlargements if they want to.)

Once you pick a size, flip back to Chapter 6 for step-by-step instructions on how to resize images using the Crop tool or the Image Size dialog box.

RESIZING WEB IMAGES VISUALLY

Sometimes, it's easier just to choose the size you want for your resized image by *looking* at it. For example, you can use the Zoom tool to decrease the size of your image until it looks good onscreen, and then enter *that* zoom percentage in the Image Size dialog box. Here's how:

1. **Open the image you want to resize and zoom in or out until it looks like it's the right size on your screen.**

   Press Z to grab the Zoom tool and click within your image to zoom in, or Option-click (Alt-click on a PC) to zoom out. To use keyboard shortcuts instead, press ⌘ (Ctrl on a PC) and the + or – key to zoom in or out (respectively).

2. **Make a note of the zoom percentage.**

   You can find this percentage in several places: in the document's tab at the top of the screen, in its title bar if you're using floating windows (page 66), and in the status bar at the bottom left of the document window; the last two are circled in Figure 17-1, top.

3. **Open the Image Size dialog box by choosing Image→Image Size or pressing Option-⌘-I (Alt+Ctrl+I on a PC).**

   At the bottom of the resulting dialog box (Figure 17-1, bottom), make sure the Resample Image checkbox is turned *on*.

4. **Set the Width and Height pop-up menus to Percent.**

   If the Constrain Proportions checkbox at the bottom of the dialog box is turned on, Photoshop automatically changes the second menu when you change the first.

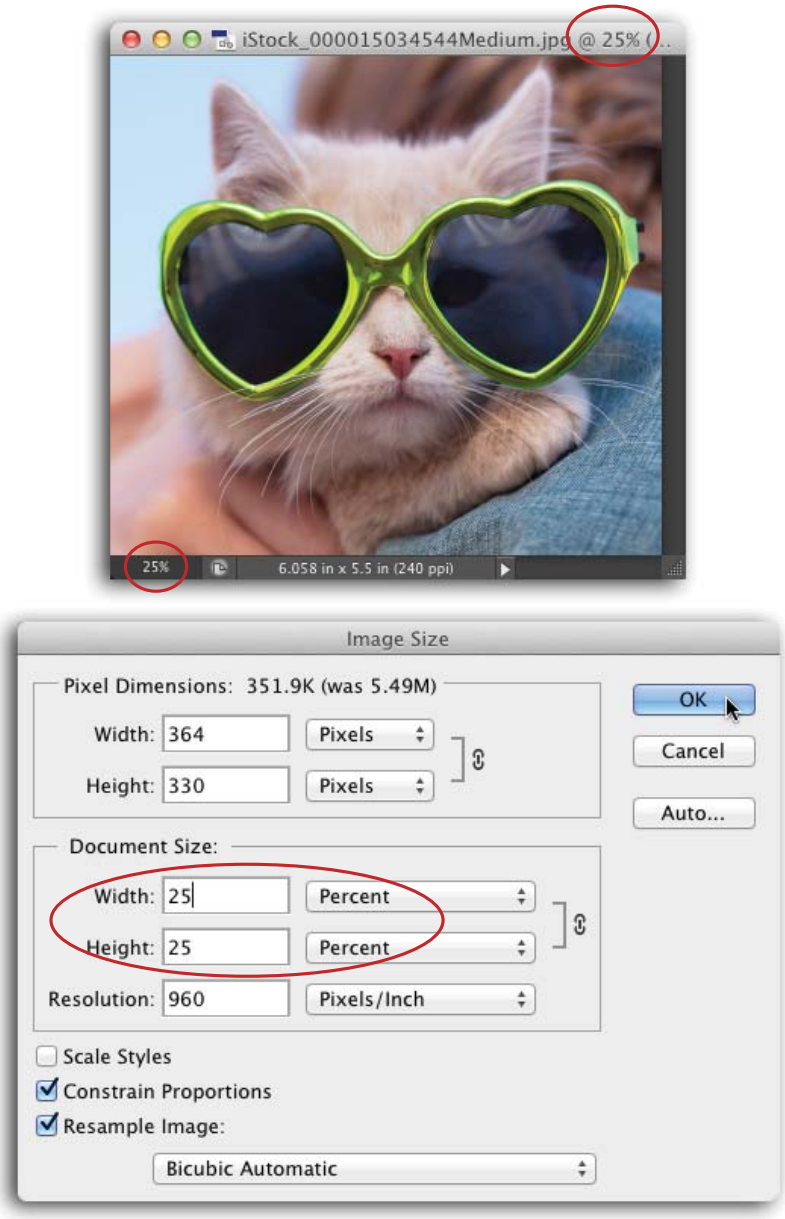

FIGURE 17-1

Top: After you use the Zoom tool to resize your image onscreen, make a note of the zoom percentage shown in the title bar or status bar (both circled).

Bottom: Then pop open the Image Size dialog box and enter the percentage in the Document Size section.

5. **Enter the zoom percentage into the Width or Height field.**

   Again, if the Constrain Proportions checkbox is turned on, you only have to enter the percentage in one field.

6. **Make sure the Resample Image pop-up menu at the bottom of the dialog box is set to Bicubic Automatic.**

   Happily, in Photoshop CS6, the Image Size dialog box chooses the best resampling method *for* you, so you shouldn't have to adjust it. (If you're using an earlier version of the program, choose Bicubic Sharper instead; when you make an image smaller, you lose some details because the pixels become softer, but with this particular method, you get a little sharpening that helps make up for it).

7. **Click OK when you're finished to close the Image Size dialog box.**

Now you can upload the image to the Web (or fire it off in an email) knowing you did your part to be a respectful web citizen. Your mom would be proud.

TIP To *really* make up for the tiny amount of image softening that occurs when you make it smaller, give it another round of sharpening (see Chapter 11).

Choosing the Best File Format

Once you've resized an image, you need to save it in a format that's not only compatible with both the Web and email, but also reduces it to the smallest possible file size. As you learned back in Chapter 2, those formats include JPEG, PNG, GIF, and WBMP (see Figure 17-2). The one you should pick depends on how many colors are in the image and whether or not it has any transparent (empty) areas:

- **Use JPEG for photos.** This format supports millions of colors, although, as you learned in the box on page 684, it's a *lossy* format, meaning it throws away fine details in order to create a smaller file. However, you can choose the level of compression in the "Save for Web" dialog box (page 246) by setting the amount of compression using the Quality pop-up menu (it ranges from Low to Maximum) or by entering a number from 0 to 100 in the Quality field (0 is the most compression and lowest quality; 100 is the least compression and highest quality).

TIP No matter which file format you choose, be sure to crop the image as close to the artwork's edges as possible before you save it. That way, you shave off extra pixels you don't need. The Image→Trim command is especially handy for this particular job. In fact, that very command was used on every figure in this book!

- **Use GIF for images with solid blocks of color.** If you're dealing with line art (black and white with no shades of gray) or images made from areas of solid color (logos, comic strips, and so on), GIF is the way to go (see Figure 17-2). It supports fewer colors than JPEGs, so it doesn't work very well on photos. GIFs can be lossy or not; it's up to you. If you want to make 'em lossy, use the "Save for Web" dialog box's 0–100 scale (it works just the *opposite* of JPEGs: 0 is

lossless and 100 is full-on lossy). To make the files smaller without resorting to lossy compression, you can limit the number of colors included in the image to anywhere between 2 and 256 (fewer colors equal a smaller file).

FIGURE 17-2

Once you learn each format's strengths and weaknesses, it's easy to decide which one to use when.

Here are prime examples for two of the best Web formats: Use JPEG for photos (top left) and GIF for solid blocks of colors (bottom left) and line art (right).

- **Use GIF or PNG for images with transparent backgrounds.** Use one of these formats when you want a graphic (a logo, say) to blend seamlessly into the background of a web page. If you've painstakingly deleted the background in your image, JPEG won't work since Photoshop *automatically* sticks a solid background behind any empty spaces in that kind of file. Only GIF and PNG lets you retain transparent regions.

  The newer PNG-8 format is *lossless* (meaning it doesn't throw away any details) and can create a higher-quality file at smaller file sizes than GIF. The PNG-24 format supports 256 levels of transparency so it produces the highest-quality transparent image of all—making it perfect for images containing transparency *and* a drop shadow—though the file size is substantially larger than a PNG-8 or GIF. The drawback to PNGs is that some older web browsers—Internet Explorer 6 in particular—don't display transparent PNGs properly and stick a white background behind them. PNG is still a relatively new kid on the file-format block, so hopefully this problem won't be around forever. If you know your Web audience will view your site on outdated browsers, then stick with GIF. But if you think they'll have the latest and greatest browsers, go with PNG.

- **Use PNG for super high-quality files.** If quality is more important than download speed, save your image as a PNG. For example, if you're a photographer trying to sell your images, use PNG-8 for the enlarged versions in your portfolio so potential clients can see every last detail in the images. (Resist the urge to use PNG-24 unless you need the extra transparency detail mentioned above, as this format can create files that are *twice* as big as PNG-8.)
- **Use GIF for animations.** If you want to combine several images into an automatic slideshow, save it as an animated GIF. These are handy when you have too much ad copy to fit in a small space on a website; an animated GIF can cycle through the content automatically. You'll learn how to create animated GIFs starting on page 731.
- **Use WBMP (Wireless Bitmap) for black-and-white images headed for mobile devices.** If you're designing black-and-white images for handheld devices (cellphones, smart phones, and so on), choose WBMP. This format supports only black and white pixels and gives you crisp text and logos that are readable on those itty-bitty screens.

Saving and Compressing Files

The "Save for Web" dialog box can save an image *and* compress the heck out of it at the same time. It also gives you four big preview windows—one for your original image and three for other file type and compression levels of the same image—so you can monitor the image's quality while you're trying to squeeze it into a smaller file size (see Figure 17-3).

FREQUENTLY ASKED QUESTION

A Farewell to Web-Safe Colors

Do I still have to use web-safe colors in my graphics? That feels so 1990.

Negative, good buddy. Computer monitors have come a long way over the years, and they can now display a much wider range of colors than they used to. Heck, today's iPods display more colors than the monitors of the early '90s! For that reason, there's no need to stick with the boring, 256-color web-safe palette.

However, if you're convinced that the majority of your audience is afflicted with prehistoric monitors—ones that can display only 256 colors—you can find the web-safe color palette in the Color Picker by turning on the Only Web Colors checkbox at the bottom left of the dialog box. You can also convert other colors to their web-safe equivalents by using the Color Table section of the "Save for Web" dialog box (see page 726).

These days, it's more important to make sure you have decent contrast in your images than to worry about web-safe colors. Sure, you can upload them and check their contrast on as many monitors or devices as you can get your hands on, but you can't possibly see how they look on *every monitor* (although the "Save for Web" dialog box can help with that). The cold, hard fact is that your images will look darker on some monitors and lighter on others—that's just the way it is. But as long as there's a decent amount of contrast between the darkest and lightest colors, your images will still look good.

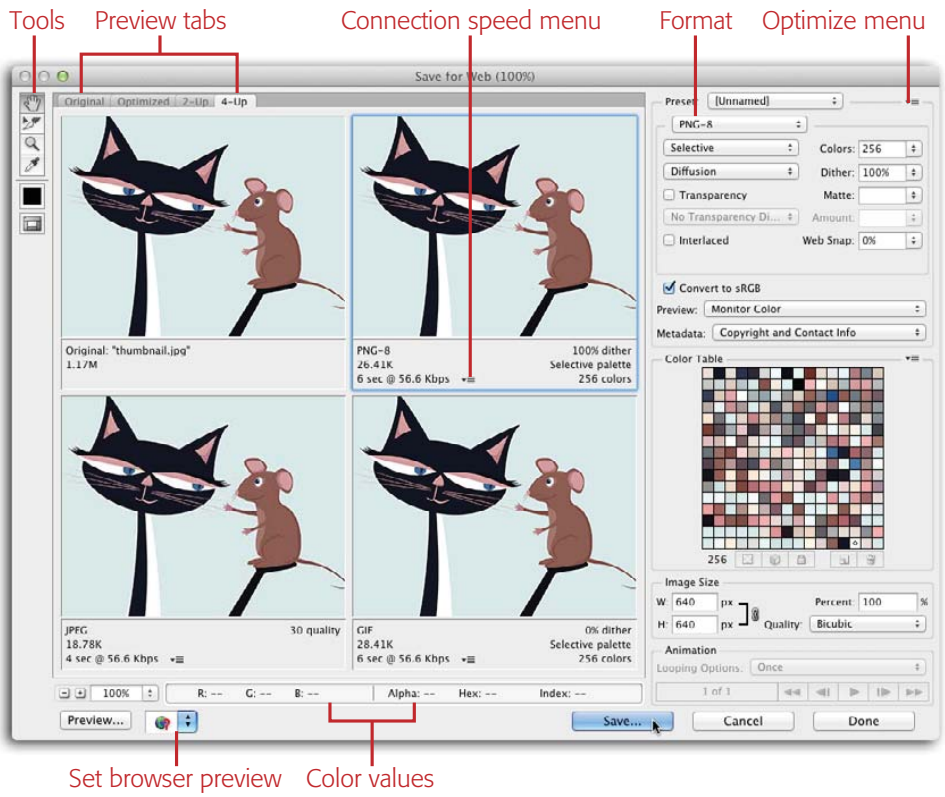

FIGURE 17-3

In this Texas-sized dialog box, you can see up to four previews of your image in various file formats at different levels of compression.

Below each preview, Photoshop lists the file format, size, and an estimate of how long the image will take to download at a given connection speed. You can use the tiny pop-up menu to the right of the estimate to choose a different speed.

You saw this dialog box in action when you resized a JPEG back in Chapter 6 (page 246). To explore even *more* of its settings, follow these steps:

1. **With an image open, choose File→"Save for Web" and then, in the resulting dialog box, click the 4-Up tab.**

   At the top of the dialog box, you'll notice four tabs that let you view the original image and up to three other versions so you can see what it looks like when you change its settings. The most useful tabs are 2-Up and 4-Up. Pick 2-Up if you already know the format you want to use and 4-Up if you want to make more comparisons. Optimize gives you no comparison at all and shows only the resized image, not your original.

2. **Click the preview window to the right of the original and, at the top right of the dialog box, choose a file format from the Preset pop-up menu.**

   The Preset menu contains a list of frequently used file format/compression level combinations for the formats previously mentioned (all of which are discussed later in this section). Photoshop changes the various quality and color settings on the right side of the dialog box for you and displays the file size and estimated download time below the preview. (You can change the connection speed

Photoshop uses to calculate the download time by clicking the tiny icon to the right of the listed speed as shown in Figure 17-3.) If you don't want to go the preset route, pick the format from the unlabeled pop-up menu *underneath* the Preset menu and then adjust the quality/color settings manually, as discussed in the next step.

TIP If you've been experimenting with different file formats in your preview windows, you can have Photoshop return them all to the *same* format automatically. Click to activate the preview window with the file type you want (say, JPEG) and then choose Repopulate Views from the "Save for Web" dialog box's Optimize menu (see Figure 17-3). Photoshop looks at the active preview window's file format and then loads up the *other* windows with previews of the same format at different compression or color settings.

3. **In the panel on the right side of the "Save for Web" dialog box, adjust the quality and color settings for the format you picked.**

   Each item in the Preset menu has its own entourage of settings related to quality and color. Different settings appear in the upper-right part of the dialog box depending on the format you chose in the previous step. Here's the lowdown on what they all mean:

   - **JPEG.** This format is the one you'll probably use most often. When you choose one of the Preset menu's JPEG options, you see the following settings:
     - **Quality.** Right below the Format menu is an unlabeled pop-up menu that lets you set the image's compression level. This menu includes five settings that range from Low (highest compression, smallest file size) to Maximum (least compression, largest file size). You can fine-tune the image's quality by using the numeric Quality field to its right (0 is the highest compression/smallest file size, and 100 is the least compression/largest file size). The preset menu also changes if you happen to choose a format and quality level combination that matches one of the presets.
     - **Progressive.** Normally, an image has to download completely before it appears in a web browser, but if you turn on this checkbox, the image loads a little bit at a time (row by row), sort of like a waterfall effect. If your audience is still on dial-up, turn it on.
     - **Optimized.** Turning on this checkbox creates a slightly smaller, though somewhat less compatible file. Leave it off if your audience is likely to use older browsers.
     - **Embed Color Profile.** If you want the image's color profile to tag along with the file, turn on this checkbox. In the off chance that the viewer's monitor can actually *read* the profile correctly (some can't), the colors will look more accurate. If the monitor can't read the profile, you've

added a little file size for nothing (which is why you should probably leave this checkbox off).

— **Blur.** Use this field to add a slight Gaussian Blur to the image (page 434) to reduce its file size a little. For a decent-quality image, you can get away with a setting of 0.1 to 0.5 pixels, but anything higher looks terrible.

— **Matte.** This color swatch lets you pick a color to use in place of any transparent (or partially transparent) pixels in your image. Since JPEG doesn't support transparency, those pixels will turn white unless you pick another color here. (Transparency options are discussed on the next page.)

- **GIF and PNG.** You get similar options for both these formats:

— **Colors.** This pop-up menu is the most crucial setting. It controls the number of colors the image contains (shown in the Color Table a little lower in the dialog box). If you reduce the number of colors in the image, you greatly reduce its file size; the downside is that Photoshop substitutes the closest match for any missing colors, which can produce some weird-looking images. Both GIF and PNG-8 let you choose anywhere between 2 and 256 colors. You don't see this menu if you're using PNG-24, though, as that format gives you 16.8 *million* colors and you can't delete a single one of 'em.

— **Color reduction method.** This unlabeled pop-up menu lives below the Format menu (see Figure 17-3). If you've reduced the number of colors as described in the previous bullet, this menu lets you pick the method Photoshop uses when it tosses them out. From the factory, it's set to Selective, which makes Photoshop keep colors that your eyes are most sensitive to, although it favors colors in large areas (like a sky) and those that are safe for the Web. Selective usually produces the most visually pleasing palette, so feel free to leave this menu alone. But in case you're interested, here's what the other options do: The Perceptual method is similar to Selective but ignores large areas of color, and Adaptive creates a palette from the most dominant colors in the image (like greens and blues in landscape images and peachy colors in portraits). Restrictive uses only the web-safe palette (see the box on page 723), and Custom lets you modify the color palette yourself (eek!) using the Color Table section of the dialog box. Choose "Black – White," Grayscale, Mac OS, or Windows to use those respective color palettes.

— **Dither method and amount.** If your image contains colors that the viewer's monitor can't display, you can fake 'em with a process called *dithering*. Use the pop-up menu to the left of the word "Dither" to choose a dither method (or to turn dithering on or off), and the numeric

field to its right to set the amount. A high dither amount (percentage) produces more accurate colors; the tradeoff is larger file size (try a setting between 80 and 90 percent). If you're desperate to make the file smaller, lower the dither amount. As far as how dithering does what it does, Diffusion simulates missing colors with a random pattern that's not too noticeable, so it's usually the best choice. Pattern simulates missing colors with a square pattern (which can sometimes create a weird color seam), and Noise uses a random pattern that doesn't spread across nearby pixels (so you won't get a weird seam). If you choose No Dither, Photoshop won't fake any colors. As of this writing, only a tiny number of web users' monitors are still limited to 256 colors, so you can leave dither turned off (you'll end up with a smaller file size by doing so).

— **Transparency and Matte.** If you've deleted the image's background, turn on the Transparency checkbox. If you want to change partially transparent pixels (those around the edges; see Figure 17-4) to a certain color, click the Matte swatch and then pick a color from the resulting Color Picker. You can also choose a matte color from within your image by choosing Eyedropper Color from the Matte pop-up menu. Then grab the Eyedropper tool at the far left of the dialog box—*not* the one in Photoshop's main Tools panel—and click in the image; whatever color you clicked shows up on the left side of the dialog box in the square color swatch beneath the Eyedropper tool. Use the pop-up menu below the Transparency option to turn dithering on or off for any partially transparent pixels around the matte color, and use the numeric field to its right to set that dither amount. You'll typically leave transparency dithering off.

NOTE The Refine Edge dialog box got a major overhaul back in Photoshop CS5. If you've masked (hidden) your background using the Color Decontamination feature, this whole Matte color business is less of an issue. Skip back to page 171 for the scoop on using Refine Edge.

— **Interlaced, Web Snap, Lossy.** Turn on the Interlaced checkbox to make your image appear a little at a time in your visitor's web browser. If you want to convert the image's colors to the web-safe color palette (see the box on page 723), use the Web Snap slider (the higher the number, the more web-safe colors you get). The Lossy slider (which is available only for GIF format, not PNG) lets you lower the image's quality to make the file smaller. You'll typically leave these settings turned off or set to 0, but feel free to experiment with them if you're feeling frisky.

- **WBMP.** If you've made a black-and-white image that's destined for a cellphone or other handheld device with an itsy-bitsy screen, choose this format from the unlabeled pop-up menu below the Preset menu. Since you're dealing only with black and white pixels, you just need to decide

whether to turn on dithering (to fake colors the viewer's screen can't display) and, if so, the amount. For the best results, choose Diffusion dithering and then shoot for the lowest percentage possible that lets you maintain some detail in the image.

TIP If you're saving a graphic that has to weigh in at a certain size (like a Web banner ad), you can choose "Optimize to File Size" from the Optimize menu (labeled in Figure 17-3). In the resulting dialog box, enter the target size and pick a Start With option. Choose Current Settings to make Photoshop use the settings in the "Save for Web" dialog box. If you want Photoshop to pick a format, choose Auto Select GIF/JPEG. If you're dealing with an image that contains slices, you can choose to optimize the current slice, each slice, or all of 'em. When you click OK, Photoshop tries to make the image as close to your target size as possible. You may still have some tweaking to do afterward, but the program does most of the work for you.

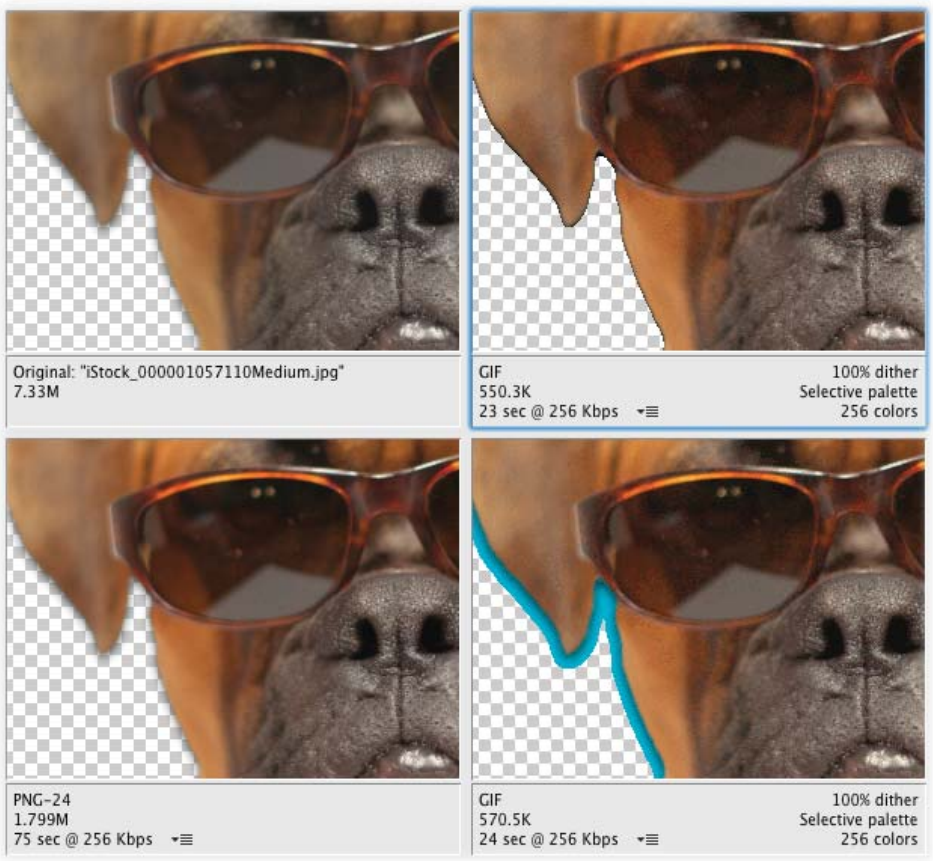

FIGURE 17-4

The edges of a transparent image with a drop shadow look much better as a PNG-24 (bottom left) than a GIF (top right) because the PNG-24 can display so many more colors. But, as the file sizes beneath each preview show, the PNG-24 is also larger and takes longer to download. If file size is more important than download speed, use the Matte menu to change the shadow's partially transparent pixels to the color of your destination background (here that's blue, shown at bottom right). This trick makes the shadow look nice and soft again because Photoshop mixes the matte color with the shadow. It also keeps you from seeing edge halos—leftover pixels from the image's original background.

4. **Make sure the "Convert to sRGB" checkbox is turned on.**

   With this option turned on, Photoshop converts the image to sRGB, a color space designed to mimic the characteristics of a Windows monitor. Since the majority of monitors are attached to Windows computers, that's what you want.

5. **Use the Preview pop-up menu to see what the image looks like on a Mac or Windows computer with no color management or with the document's current color profile.**

   This setting doesn't change your image; it just lets you see it through the eyes of someone with a different monitor. From the factory, this menu is set to Monitor Color, so you see the image exactly as your monitor sees it. Choose Legacy Macintosh (No Color Management) to check what it looks like on a Mac, and Internet Standard RGB (No Color Management) to check what it looks like in Windows. (Windows monitors make images look darker than Macs due to a difference in *gamma* value. So if you're designing images for the Web on a Mac, it's worth choosing Windows to see how dark they'll look.) If the image has a color profile attached to it, choose Use Document Profile to make the preview match.

6. **Set the Metadata pop-up menu to "Copyright and Contact Info."**

   This pop-up menu lets you include the information Photoshop captured from your camera (metadata) or the copyright and contact info you stored using the File Info dialog box (located in the File menu). As you might suspect, including data in your document increases its file size a hair, but it's a good idea to include it anyhow so your image carries info with it about where it came from; otherwise it can appear *orphaned* (visit Wikipedia.com and search for "orphan works" for more on this topic).

7. **Use the Color Table to edit the colors in your image, if necessary.**

   This chart of color swatches lets you change or delete colors in your image. If your viewers are certain to have super old monitors, use the tiny menu near the table's upper right to shift the colors in a GIF or PNG-8 image to web-safe colors. If you need to make your file even smaller, you can delete colors by clicking the swatch you want to zap and then clicking the little trash can icon below the Color Table (shown in Figure 17-3); the number at the bottom left of the table tells you how many colors the image includes. To make a certain color transparent, choose the swatch and then click the transparency button below the table (it looks like a white-and-gray checkerboard). To shift a color to its closest web-safe equivalent, click the little cube. To prevent a color from being tossed, click the tiny lock.

8. **When you're finished, click Save.**

   Photoshop opens the Save dialog box so you can pick a name and storage space for the new file.

TIP If you decide you've got some image editing left to do but you want Photoshop to remember your current settings, click Done instead.

The left side of the "Save for Web" dialog box contains these tools:

- **Hand.** This tool lets you move the image around within the preview windows just like the regular Hand tool. You can also press the space bar (or H) to activate it and then move your mouse to see another part of the image.
- **Slice Select.** If you've mocked up a web page and sliced it accordingly (see page 737), use this tool to choose slices you want to save in specific formats. Keyboard shortcut: C.
- **Zoom.** You can use this tool to zoom in and out of your image just like the regular Zoom tool, though it's faster to press ⌘-plus or – (Ctrl+plus or minus on a PC). Alternatively, in the field at the bottom left of the dialog box, you can enter a zoom percentage or choose a preset from the pop-up menu. You can also Control-click (right-click) within the preview window and choose a zoom percentage from the shortcut menu. Keyboard shortcut: Z.
- **Eyedropper.** Use this tool to snatch colors from the image in the dialog box's preview area, which is helpful when you're creating a matte color for a transparent background as discussed on page 726. Keyboard shortcut: I.
- **Eyedropper Color.** This color swatch shows the Eyedropper's current color.
- **Toggle Slices Visibility.** To see the slices in your image, click this button. (Slicing is discussed starting on page 737.) Keyboard shortcut: Q.

And finally, here's what the buttons at the bottom of the dialog box do:

- **Preview.** To see what the image looks like in a web browser, click this button. Photoshop automatically uses the main browser on your computer, but you can choose a different browser by choosing Other from the pop-up menu to the Preview button's right. In the Preview In Other Browser dialog box, navigate to where that browser lives on your hard drive and then click Open. The next time you click the Preview button, Photoshop uses the browser you just picked.
- **Save, Cancel, Done.** Once you have the settings just right, click the Save button to save the image and give it a name. If you want to bail and do nothing, click the Cancel button. Clicking Done makes Photoshop remember the current settings and close the dialog box. Holding Option (Alt on a PC) changes the last two buttons to Reset and Remember, respectively. Click Reset to revert

all the settings in this dialog box to the last ones you saved (in other words, what they were the last time you clicked the Save button). Clicking Remember makes Photoshop uses your current settings the next time you open the "Save for Web" dialog box (whether you click Save or not).

Animating a GIF

You may think that creating an animation is a complicated process, but it's really not. In Photoshop, all you do is create a slideshow that plays automatically. You can control which images the program uses, the amount of time it displays each one, whether it *loops* the slideshow (automatically starts over), and so on. This kind of control is really handy when you're making website ads. For example, if you're designing a 140×140 pixel ad for your costume shop, you need to include a logo, a few costume

POWER USERS' CLINIC

Matching and Snatching Colors on the Web

If you're designing an image destined for an existing web page, you may find yourself in a color-matching conundrum. If you need to match the color scheme or colors in a company logo, you can do that by finding out the colors' *hexadecimal* values.

Hex numbers, as they're affectionately called, are six-digit, alphanumeric programming codes for color values. The first two digits represent red, the next two represent green, and the last two represent blue (since your image will appear only onscreen, RGB values are the only ones that matter). You can find a color's hex number in several different ways:

- Grab the Eyedropper tool by pressing I and then click a color in an open Photoshop document to load it as your foreground color. Next, choose Window→Color to open the Color panel and then, from the panel's menu, choose Copy Color's Hex Code. You can also choose "Copy Color as HTML" from the same menu; it does the same thing except that it adds the HTML tag "Color" to what's copied to your computer's Clipboard.
- Using the Eyedropper tool, click a color in an open Photoshop document and then click the foreground chip to open the Color Picker. The color's hex number appears at the bottom of the dialog box in the field labeled #.
- Choose Window→Info and, from the panel's menu, choose Panel Options. In the dialog box that appears, from the Mode menu, choose Web Color and then click OK. After that, when you mouse over a color in your Photoshop document, its hex number appears in the Info panel no matter which tool is currently active.
- Using the Eyedropper tool, Control-click (right-click on a PC) any color in an open Photoshop document. From the resulting shortcut menu, choose Copy Color's Hex Code.
- Snatch color from *anywhere* on your screen, whether it's on your desktop or in a web browser. In Photoshop, click the foreground color chip to open the Color Picker, mouse over to your document, and then click and hold your mouse button down *while you're in the Photoshop window* and keep it held down as you mouse *outside* Photoshop. Point to the color you want to snatch, *and then* release your mouse button. As long as you first click *within* Photoshop, your cursor remains an eyedropper no matter where you drag it. (You can do the same thing with the Eyedropper tool or by pressing and holding Option [Alt] while using the Brush tool.)

Once you've captured the hex number, you can enter in the field marked # at the bottom of the Color Picker dialog box, or use it in your favorite HTML editor when you're building the web page (just choose Edit→Paste).

samples, and a 10% off coupon. Since you'll never fit all that into a tiny space, you can make an animated GIF that *cycles* through several images automatically. Here's how:

1. **Create the images you want to string together, putting *each image on its very own layer* within the same Photoshop document.**

2. **Open the Timeline panel by choosing Window⊠Timeline (named Animation in previous versions), and create a frame animation.**

   At the bottom of the Application Frame or near the bottom of your screen if you've got the Application Frame turned off, Photoshop displays a long horizontal panel called Timeline. This panel also has controls for video editing (see Chapter 20), so you need to switch it to animation by clicking the downward-pointing triangle to the right of the Create Video Timeline button (Figure 17-5, top). Choose Create Frame Animation and then click the Create Frame Animation button to the menu's left. Photoshop then displays one frame representing what's currently visible in the Layers panel (each frame serves as a placeholder for the image you want to show onscreen).

3. **Add another frame.**

   At the bottom of the Timeline panel, click the "Duplicate selected frames" icon (it looks like a piece of paper with a folded corner) as shown in Figure 17-5 (middle) to create a new placeholder for the next image in your animation. Initially, it contains the same image as the starter frame (don't worry; you'll fix that in the next step).

4. **In the Layers panel, use the visibility eyes to display only the layer containing the next image in your animation.**

   When you turn off the visibility of every layer *except* the one you want to show next, Photoshop displays the visible layer in the frame you created in step 3. That's all there is to it! There's no dragging or dropping, just showing and hiding using the layers' visibility eyes.

5. **Repeat steps 3 and 4 until you've made all the frames of your animation.**

6. **Press the Play button to see the slideshow.**

   Photoshop displays your animation in the main document window. The images flash by quickly, but don't worry—you'll learn how to make 'em stick around longer in the next section.

You just created your first animated GIF! There's still some work to do, but you're more than halfway there.

NOTE Photoshop lets you open animated GIF files and preserve the individual frames from which they're made. This is extremely helpful when you need to edit an existing animation and don't have the original files because it keeps you from having to start from scratch.

Editing Your Animation

Once you've made all the frames in your animation, you can edit it in the following ways:

- **Frame delay.** To control the length of time each image is visible, use the pop-up menus at the bottom of each frame (Figure 17-5, middle). These menus include options ranging from No Delay to "10 seconds." If you want to use a duration that's not listed, choose Other and then type a number in the Set Frame Delay dialog box. You can set the duration for each frame individually, or change several at once by Shift- or ⌘-clicking (Ctrl-clicking) to activate them and then changing the duration of *one* of 'em.
- **Set Loop Count.** To make the animation play over and over, you can set it to loop a certain number of times. Click the down-pointing triangle at the bottom left of the Timeline panel and then choose Once, 3 Times, Forever, or Other from the pop-up menu. If you choose Other, Photoshop opens the dialog box shown in Figure 17-5 (bottom), where you can enter any number you want.

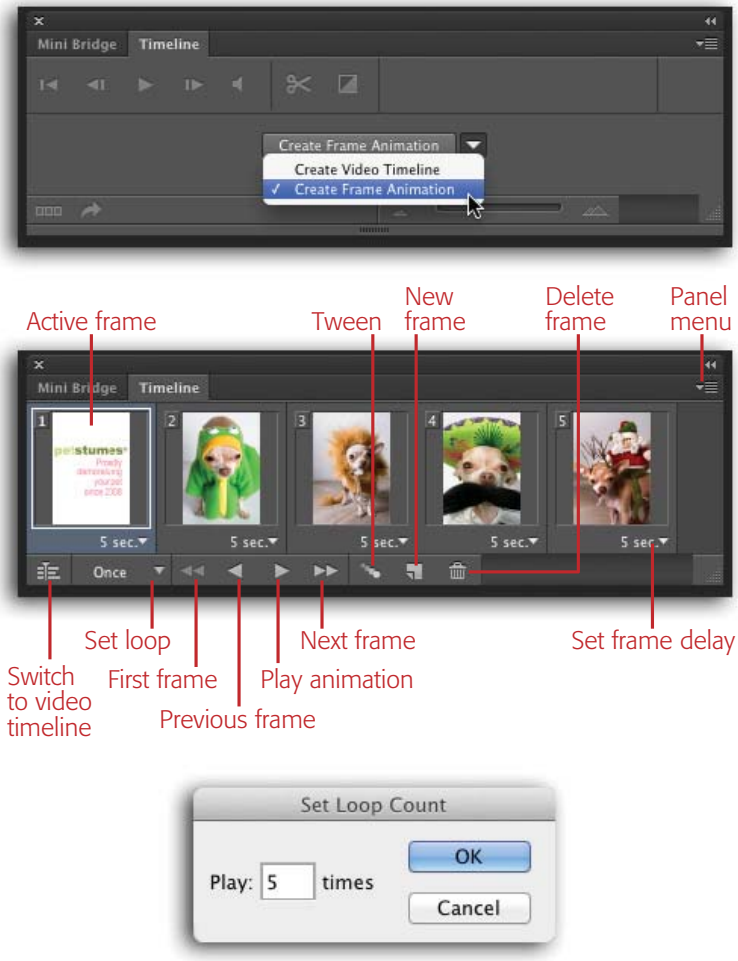

FIGURE 17-5

Top: The Timeline panel does double-duty for both video and animation, so you have to tell it which one you want to work with using the menu shown here. Click the button to its left to apply your choice, and Photoshop sets up the panel accordingly.

Middle: Use the playback buttons at the bottom of the Timeline panel to move through your animation frame by frame. Photoshop highlights the active frame, as shown here. You click a different frame to activate it.

Bottom: Open this dialog box by clicking the Set Loop triangle (labeled, top) and then choosing Other. This dialog box lets you determine how many times the animation plays. If you want it to keep playing without stopping, choose Forever.

- **Rearrange frames.** To change the frames' order, simply drag them into place (easy peasy!).
- **Delete frames.** Just like most panels in Photoshop, this one has its own little trash can icon. To zap a frame, activate it and then click the trash can or drag it onto the trash can. To delete more than one frame, activate them first by Shift- or ⌘-clicking (Ctrl-clicking) them and then click the trash can. In the resulting "Are you sure?" dialog box, click Yes. Alternatively, choose Delete Frame from the Timeline panel's menu.
- **Tween frames.** At first, there isn't any transition between your frames; the animation works just like a regular slideshow, with one frame abruptly giving way to the next. To make the frames fade in and out, you can add *tweening* (short for "in-betweening"). Just tell Photoshop *which* frames to tween, along with how many frames of fading you want, and it adds the new frames for you. When you play the animation, the frames blend softly into one another. Figure 17-6 has the details.

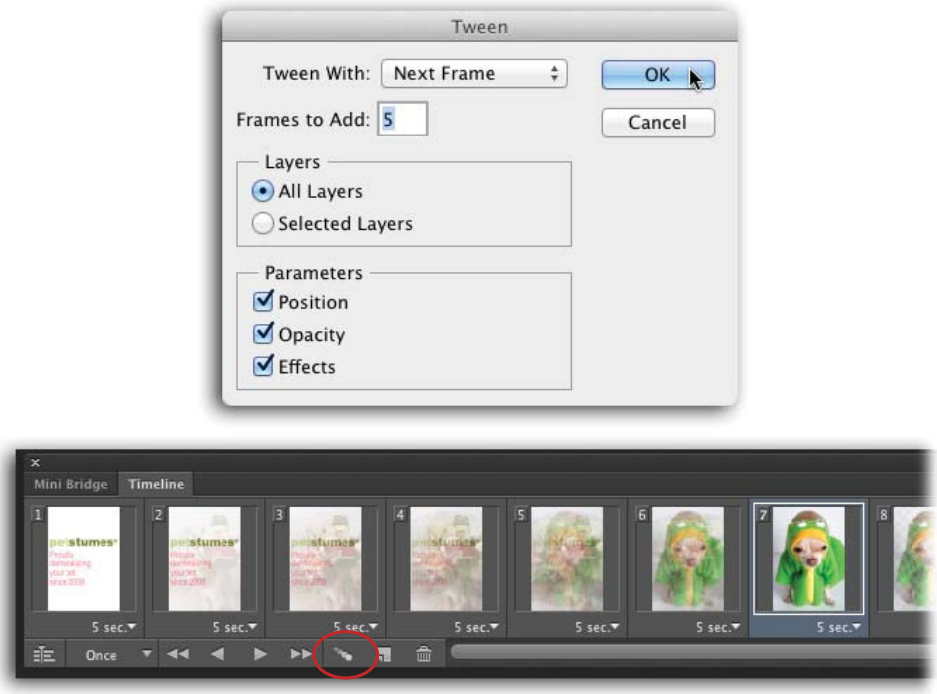

FIGURE 17-6

Top: To fade the first frame (shown in Figure 17-5) into the second, activate the first one and then click the Tween button (circled, bottom). In the Tween dialog box, choose Next Frame from the Tween With pop-up menu, enter 5 in the "Frames to Add" box, and then click OK.

Bottom: Here, Photoshop has added five additional frames (numbered 2–6) that gradually change opacity. When you play the animation, it'll look like the text and Chihuahua photos fade together. For a more gradual fade, enter 10 in the "Frames to Add" box.

NOTE Once you start adding tweened frames, you may need to speed up the whole animation's frame duration so it doesn't take forever to play!

You can create all kinds of special effects using tweening, though you'll need to play around with it to learn what you can do. It's all about setting up a layer for each frame, creating the frames, and then adjusting what you want to happen *between* each frame. For example, if you move the contents of a layer in one frame, you can use tweening to make it look like the object is moving. You can also turn layer styles on or off, add solid-colored frames to make the animation look like it fades into that color, and so on. The creative possibilities are endless!

Saving Your Animation

When you've got the animation just right, you need to do just a couple of things before you post it on the Web. Save it as a Photoshop (PSD) document so you can go back and edit it later, and then do the following:

- **Optimize it.** Choose Optimize Animation from the Timeline panel's menu to create a slightly smaller file, which makes the animation download faster and run more smoothly. The resulting Optimize Animation dialog box has two settings:
  - **Bounding Box** crops each changed frame to the part that's different from the previous frame. This is like running the Trim command on each frame, so that each one is cropped closely to the content.
  - **Redundant Pixel Removal** makes unchanged pixels transparent in subsequent frames, making the file a little smaller.

  Both settings are turned on straight from the factory, but Photoshop doesn't *apply* them until you choose Optimize Animation and then click OK.
- **Save it as an animated GIF.** Last but not least, choose File→"Save for Web" and, in the upper right of the resulting dialog box, choose GIF from the unlabeled format pop-up menu (below the Preset menu). When you do, Photoshop activates the Animation section at the bottom right of the dialog box, giving you one last chance to change the Looping Options and preview your handiwork. When you've finished, click Save and exclaim with gusto, "I'm an animator!"

Designing a Website Favicon

You know those tiny little icons on the left edge of your web browser's address bar (see Figure 17-7). They're called *favicons* (short for "favorites icons"), and they're great for adding a bit o' branding to web pages. They show up not only in web browsers, but also in news feeds (clickable headlines from your favorite websites that you can access through a newsreader program or your browser). Creating them in Photoshop is a snap, and you'll be designing them like a pro after you read this section.

The first step is to spend some quality time looking at other sites' favicons. Your goal is to brand your website with a graphic that's exactly 16x16 pixels—no more, no less. It's tough to design anything that small that's recognizable, but it *can* be done. For example, you might use a portion of your logo rather than the whole thing or your company's initials rather than its full name.

FIGURE 17-7

Here are three different favicons for various websites (circled).

Designing favicons is a good way to test your design skills, since you're limited to 16 pixels square!

Next, you need to download a plug-in that lets Photoshop save the file in the Windows Icon (ICO) file format. The free plug-in ICO Format is a good option: *www.telegraphics.com.au/sw*. Just quit Photoshop and follow the instructions on page 772 to install this plug-in. When you relaunch Photoshop, you should see ICO appear in Save As dialog box's Format pop-up menu. Now you're ready to create your teeny-weeny work of art. Here's how:

1. **Create a new document that's 64x64 pixels with a resolution of 72.**

   Choose File→New or press ⌘-N (Ctrl+N on a PC) to start a new document. Your favicon will *ultimately* be 16x16 pixels, but that's too small a size to work with initially. To save yourself some eyestrain, start out with a 64x64-pixel canvas; you'll reduce its size later.

2. **Create or place your artwork in the new document.**

   If you designed a logo using Adobe Illustrator, choose File→Place to open it as a Smart Object. If you're creating it in Photoshop, be sure to turn off anti-aliasing so the edges are nice and crisp (this is especially important when creating tiny text for the Web, as discussed on page 601).

3. **If you need to, resize the artwork to fit the canvas.**

   If you placed your artwork as a Smart Object, Photoshop automatically surrounds it with resizing handles. If you went another route, you can resize it by pressing ⌘-T (Ctrl+T on a PC) to summon Free Transform and then dragging one of the corner handles. When you're happy with the size, press Return (Enter) to let Photoshop know you're done.

4. **Resize the document.**

   When your design is finished, choose Image→Image Size. Make sure the Constrain Proportions checkbox at the bottom of the dialog box is turned on. In the Pixel Dimensions section, set the Width or Height field to 16 pixels (Photoshop automatically changes the other field to 16), and then click OK.

5. **Sharpen the image if you need to.**

   If your design looks a bit blurry, run a sharpening filter on it (see Chapter 11).

6. **Save the file in the ICO format and name it *favicon*.**

   Choose File→Save As and pick Windows Icon (ICO) from the Format pop-up menu at the bottom of the dialog box and then click Save.

That's it! You've created your very first favicon. If a client asked you to create the favicon and send it to her, email the *favicon.ico* file so she can add it to her website. If you created it for your own site, you're ready to upload the file to the root level of your website, where your index (home) page lives. (If you have no idea what that last sentence means, check out *Creating a Web Site: The Missing Manual*, Third Edition.)

Be aware that not *all* web browsers support favicons, and some even want you to bury a link to the favicon in the code of each page. If you want to take that extra step, you can insert the following code somewhere within the <head> section of your web pages:

```
<link rel="SHORTCUT ICON" href="/favicon.ico">
```

If you've got a big website, adding that line of code can be time consuming, so you may want to use the "Find and Replace" command found in most HTML editors, which lets you search for a piece of code that appears in every page, like the closing </title> tag. For example, you could search for *</title>* and Replace it with *</title><link rel="SHORTCUT ICON" href="/favicon.ico">*.

Creating Web Page Mockups and Image Maps

As you've learned throughout this book, Photoshop is an amazingly powerful image editor, which means it's great for designing web pages. In fact, Photoshop has a tool that'll let you *slice* your design into web-friendly pieces that, when clicked, lead to whatever web address you want to link them to. Photoshop churns out the proper code that you can then paste into your own web page using your favorite HTML editor.

But does all that mean you *should* use Photoshop to build a website? Heck, no. Remember how back in Chapter 14 you learned that, even though Photoshop has a powerful text tool, you shouldn't use it to create a book? The same principle applies here. While you *could* use it to build real web pages, you shouldn't; you're much better off using a program designed for the job, like Adobe Dreamweaver. That said, the Slice tool comes in really handy in a few situations:

- **Building a website prototype.** If you've designed a website for a client in Photoshop and want to give him an idea of how the site will look and behave, you can use the Slice tool to get that done fast. If you slice up your design and assign different hyperlinks to navigation bars, you can give the client a good idea of how the navigation in the final website will *feel*.
- **Making an image map.** The Slice tool lets you add hyperlinks to certain portions of a single image.
- **Making an image-heavy page load a bit faster.** Chopping images into pieces makes them load a little at a time instead of in one big piece. However, this is becoming less of a problem as more people get faster Internet connections.

TIP An alternative to slicing images yourself is to buy a plug-in called SiteGrinder, which can build a fully functional website from a layered Photoshop document. See page 784 for details or visit *www.medialab.com*.

Slicing an Existing Image

Once you've created an image or design that you want to chop up, you can use the Slice tool to draw the pieces by hand or make *Photoshop* create slices from individual layers by choosing Layer→New Layer Based Slices. You can also make Photoshop slice an images according to the guides you've drawn (discussed later in this section). Here's how to slice and dice a web page mockup:

1. **Turn on Photoshop's Rulers and draw guides around the areas you want to slice.**

   Instead of drawing each slice yourself, make Photoshop do the hard work by dragging a few well-placed guides around each slice you want to create. Turn on Rulers by pressing ⌘-R (Ctrl+R on a PC) and then click within the horizontal ruler and drag downward to create a horizontal guide. Do the same thing in the vertical ruler to create vertical guides until you've placed a guide around every slice you want to make, as shown in Figure 17-8.

2. **Press C to grab the Slice tool.**

   The Slice tool, which looks like a tiny X-Acto knife, hides in the crop toolset (it's circled in Figure 17-8).

FIGURE 17-8

Here, Photoshop created individual slices from the guides. A bounding box and a tiny number appear at the top left corner of each slice; Photoshop numbers each slice, beginning at the document's top left and working down to the bottom right. If you draw the slices yourself (to create what are called user slices), the number appears in a blue box. If you make Photoshop draw the slices for you (to create auto slices), the number appears in a gray box instead (not shown).

3. **Trot up to the Options bar and click the Slices From Guides button.**

   In less than a second, Photoshop draws slices around the areas you specified, following the guides you placed in the first step. If you opted out of drawing guides first, you can slice areas yourself by clicking where you want the slice to begin and then dragging diagonally to the right. (To draw a perfectly square slice, hold Shift as you drag.) When you let go of your mouse button, Photoshop puts a blue bounding box around the slice. This kind of slice is called a *user slice*. To account for the rest of your image (the areas you haven't yet sliced), Photoshop draws other slices (called *auto slices*) automatically and marks them with a gray bounding box. Auto slices are discussed in the next section.

TIP If you've drawn a slice that's perfectly suited for another graphic, you can duplicate it by Option-dragging (Alt-dragging on a PC) the slice onto another image.

Modifying Slices

Once you create a slice, you may need to move or change it. If so, select it using the Slice Select tool. (Press Shift-C to activate the tool or, if the Slice tool is active, you can grab the Slice Select tool temporarily by pressing ⌘ [Ctrl on a PC]; when you let go of that key, Photoshop switches back to the regular Slice tool.) To select a slice, just click it. Its bounding box turns brown and little resizing handles (squares) appear in the center of each side, as shown in Figure 17-9.

FIGURE 17-9
When you select a slice (bottom), all kinds of buttons appear in the Options bar, as shown here (top). These options are discussed over the next few pages.

Now you're ready to:

- **Resize the slice.** Once you select a slice, you can drag any of its corner or center handles (they look like tiny solid squares) to make it bigger or smaller.
- **Move the slice.** Click within the slice and then drag it to another location. To make it so you can drag the slice only horizontally or vertically, hold the Shift key as you drag.

TIP To make your slices to snap to guides, other slices, or objects, choose View→Snap To. (Unless you've previously turned it off, this option is already turned on.)

- **Promote slices.** You can change a layer or an auto slice into a user slice by clicking the Option bar's Promote button (Figure 17-9, top). This is useful because you can't edit auto slices. For example, if you placed guides and let Photoshop make the slices for you, as described in the previous section, you can't move or resize any of those slices until you promote them to user slices (as shown in Figure 17-10). Similarly, layer-based slices are tied to the pixel content of that layer. Before you can change the slice itself or the layer's contents, you have to promote it to a user slice.

FIGURE 17-10
Notice that the auto slices around the document's edges are tagged with gray icons while the user slices are tagged with blue ones. Promoting auto slices to user slices lets you do things like divide them, as was done in the pink navigation bar shown here.

- **Arrange slices.** Because the Slice tool draws only rectangles, you have to overlap slices to make other shapes. To do that, you may need to fiddle with their stacking order by first selecting a slice with the Slice Select tool and then clicking the arrange buttons labeled in Figure 17-9, top.
- **Align slices.** Photoshop lets you align slices just like you can align layers (page 101). Using the Slice Select tool, Shift-click to select more than one slice and then click the appropriate alignment button in the Options bar.

TIP To change the color of the slice lines, choose Photoshop→Preferences→"Guides, Grid & Slices" (Edit→Preferences→"Guides, Grid & Slices" on a PC). In the Slices section at the bottom of the dialog box, use the pop-up menu to select a new color. You can turn off the Show Slice Numbers checkbox here, too.

- **Divide slices.** If you need to slice a slice (oy!), select it with the Slice Select tool and click the Options bar's Divide button. In the resulting Divide Slice dialog box, turn on either the Divide Horizontally Into or the Divide Vertically Into checkbox, enter the number of slices you want to create, and then click OK.
- **Combine slices.** Select two or more slices by Shift-clicking with the Slice Select tool. Then Control-click (right-click on a PC) and choose Combine Slices from the resulting shortcut menu. This technique is helpful when Photoshop creates too many auto-slices and you want to combine 'em so they'll load as one image.

- **Copy and paste slices.** You can copy and paste a slice by selecting it and then pressing ⌘-C (Ctrl+C). Next, open the target document and press ⌘-V (Ctrl+V). The slice and graphics from the associated layers appear in your new document, but they're all on one layer (which means you can't edit them individually—you have to do that in your original document).
- **Give it a URL.** To transport visitors to a particular web address when they click a slice, select the slice and then click the Slice Options button shown in Figure 17-9 or double-click the slice itself. In the resulting Slice Options dialog box, enter the *full* web address into the URL field (for example, *http://www.petstumes.com*). (The next section also discusses Slice Options.)
- **Delete it.** To delete a slice, select it with the Slice Select tool and then press Delete (Backspace on a PC).
- **Hide.** If you find all those slice borders and numbers distracting, you can hide them temporarily by pressing ⌘-H (Ctrl+H on a PC)—unless you've reassigned that keyboard shortcut to hide Photoshop on your Mac, as described in the box on page 37.
- **Lock.** To lock your unlocked slices so they can't be changed, choose View→Lock Slices (you can't lock individual slices).
- **Clear.** To zap all your slices, choose View→Clear Slices.

To forget you ever heard of slices, hire a web designer (kidding!).

SLICE OPTIONS

Once you've drawn slices and put them in the right spots, you can start controlling how they behave in your web browser by setting Slice Options (see Figure 17-11). The Slice Options dialog box lets you control the following:

- **Slice Type.** Most of your slices consist of an image, although they can also be solid blocks of color or plain text. If you want to create an empty space that you can fill with HTML color or HTML text later, choose No Image from this pop-up menu and a "Text Displayed in Cell" field appears that lets you enter text that'll be—you guessed it—displayed in that cell (the empty space).
- **Name.** Photoshop automatically gives slices generic names that include the document name and a number. To use a name that's more descriptive (and useful), enter it here.
- **URL.** One of the big benefits of slicing images is that you can make part of the image act as a *hyperlink* that takes visitors to another web page. Enter the full web address here to make that happen. Photoshop doesn't actually embed this info into your image; instead, it stores the info in a separate HTML file that you can copy and paste into your *own* web page.

NOTE Assigning a hyperlink to part of your image is called *creating an image map*. Now if you hear image maps mentioned at the water cooler, you'll be in the know!

- **Target.** This field determines where the hyperlink opens. For example, to make the hyperlink open the URL in another browser window, enter *_blank* into this field (complete with underscore). If you want the page to load within the same window, leave this field blank.

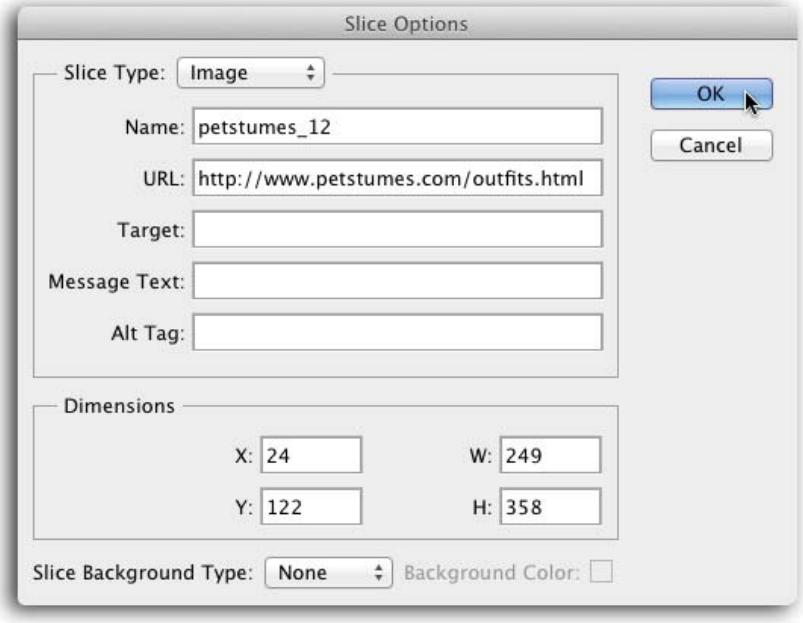

FIGURE 17-11
Click the Slice Options button at the right side of the Options bar (shown in Figure 17-9) to open this dialog box, which lets you assign each slice a descriptive name and URL. You can also open this dialog box by double-clicking a slice with the Slice Select tool.

- **Message Text.** Almost every web browser has a status bar at the bottom of the window that let folks know what's going on in the background. For example, when you type a URL into your browser's address bar and press Return (Enter on a PC), you'll see some kind of "loading" message. If you want to include messages in the status bar (like a love note to your visitors: "Dude—thanks for clicking!"), enter text in this field. But since few folks ever look down that far, your efforts may be in vain.
- **Alt Tag.** Because some folks surf the web with graphics turned off (to make sites load faster), you can use this field to give your image an alternate text description. Visually impaired people using *web readers*—special software that speaks the contents of web pages—will hear this text read to them. The text also pops up as a balloon or tooltip when visitors point to it with their cursors.
- **Dimensions.** This info lets you know the width and height of your slice, along with its X and Y coordinates.
- **Slice Background Type.** If you chose "No Image" in the Slice Type menu, or if part of the image is transparent, you can use this pop-up menu to give the selected cell a color. Your choices include None, Matte (page 726), White, Black, and Other (which summons the almighty Color Picker).

Saving Slices

Once you've set all the options for your slices, it's time to save them to use on the Web (finally!). Use the File→"Save for Web" dialog box to set all those file-type, compression, and other options discussed earlier in this chapter. (If you use File→Save As, all your slice options will fly right out the window.)

On the left side of the "Save for Web" dialog box, click the Slice Select tool to grab each slice so you can apply different format and compression settings to each one (though if you're building a website prototype, choosing one file format for the whole thing works just fine). When you're finished, click Save and tell Photoshop where you want to store the files. If you've assigned URLs to the slices, be sure to choose "HTML and Images" from the Format pop-up menu at the bottom of the Save Optimized As dialog box, as shown in Figure 17-12. (Then make sure to change the Format menu back to Images the next time you use the Save Optimized As dialog box.)

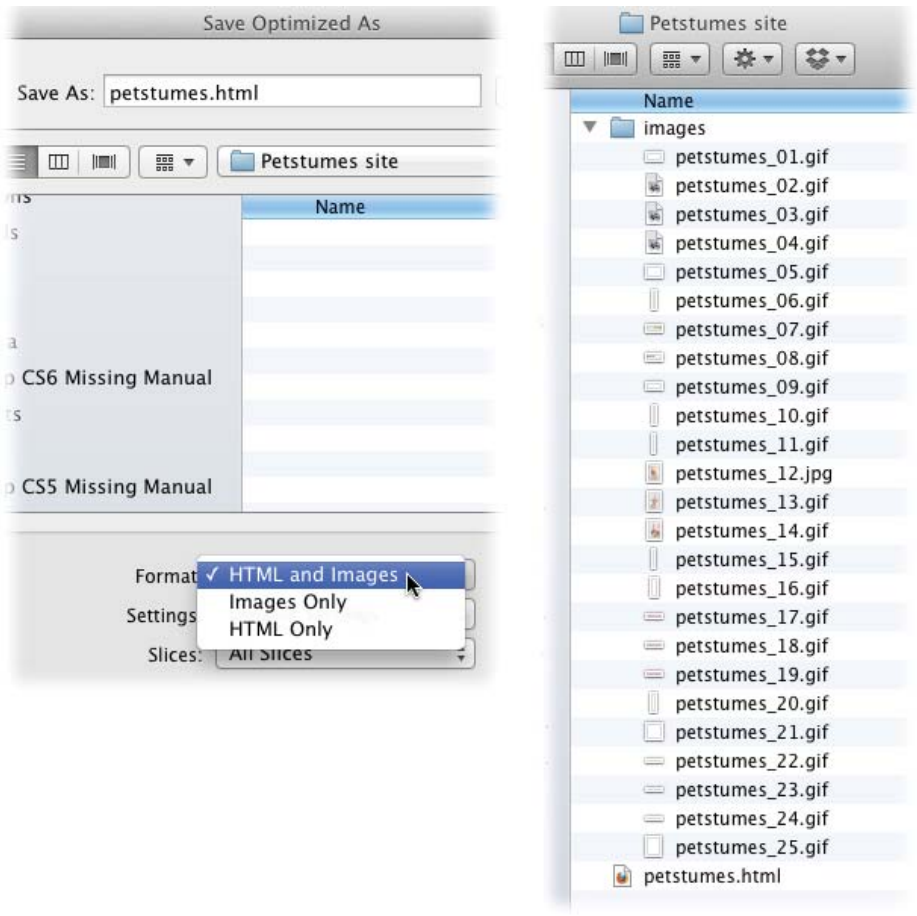

FIGURE 17-12

Left: If you've chosen to save both HTML and images, as shown here, it's a good idea to create a folder to store them in first. That way all the files are saved together in one place.

Right: Once you've saved the slices, you can open the folder and see the images, along with the HTML document containing code you can use in your very own web page.

Protecting Your Images Online

Being able to share images with the world via the Web is a glorious thing, but, in doing so, you risk having your images stolen (gasp!). It's frighteningly easy for thieves to snatch photos from your website to sell or use as their own, so it's important to take a few extra steps to protect them. You can deter evildoers in several different ways, including posting smaller versions of your images (640x480 pixels, for example), using photo galleries such as *www.smugmug.com* that prevent folks from Control-clicking (right-clicking on a PC) to copy images to their hard drives, embedding copyright info, adding watermarks, or using Zoomify (see the box on page 749). Keep reading for the scoop on each option.

Embedding Copyright Info

One of the first steps you can take toward protecting your work is to embed copyright and contact info into the image file by choosing File→File Info (see Figure 17-13). Sadly, this won't keep folks from stealing your image (heck, they won't even see it unless they choose File→File Info themselves), but they *might* think twice about taking it if they do find a name attached to it. Alternatively, you can declare that the image is in the public domain, granting anyone and everyone a license to use it.

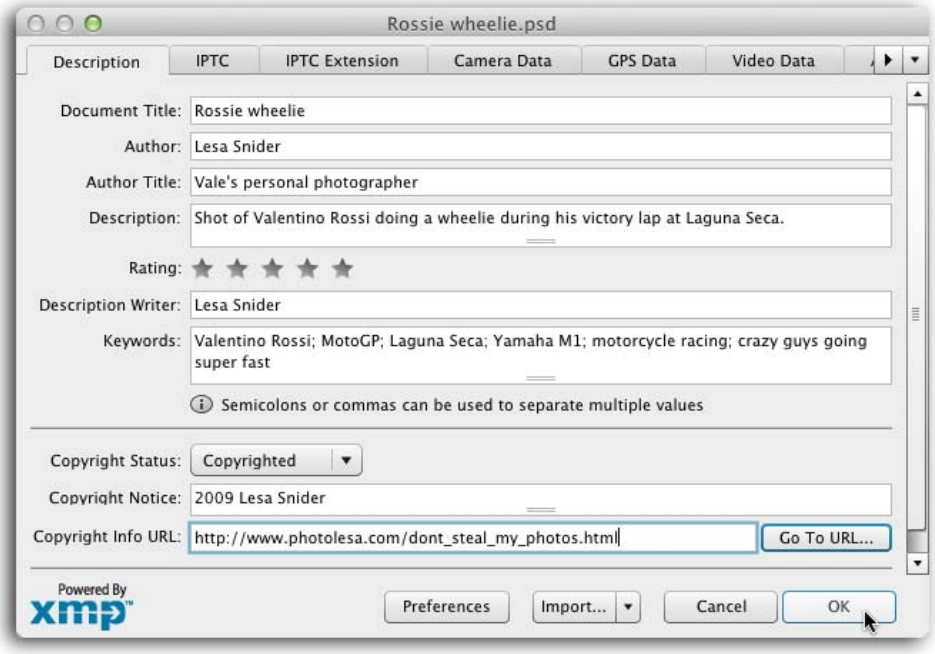

FIGURE 17-13
If you choose File→File Info, you can attach all kinds of descriptive info to an image. Once you change the Copyright Status pop-up menu to Copyrighted, Photoshop puts a © in the document window's title bar. You can also choose Public from the Copyright Status menu to give anyone permission to use your image.

TIP The File Info dialog box in Photoshop CS6 gives you more info than ever before. It sports a new GPS Data tab that you can use to view any location information that was stored when you took the shot (assuming you have a GPS-enabled camera or memory card). And the Camera Data panel now includes more info about the moment of capture, such as the date and time, the lens you used, the metering mode, and the color space.

Watermarking Images

One of the best ways to protect images online is to add a *watermark* to them—a recognizable image or pattern that you either place atop the images (as shown in Figure 17-14, bottom) or embed into them invisibly. A watermark is a great deterrent because would-be thieves will have one *heck* of a time trying to get rid of it. You can add watermarks in Photoshop in a couple of ways:

- **Use custom shapes to add an opaque copyright symbol or logo.** The simplest way to watermark an image is to stick a big ol' copyright symbol (or your logo) on top of it. This process is called *visual watermarking*. If you make the logo partially see-through, folks can still see the image but won't, presumably, steal it because of the huge graphic stamped on top of it.
- **Use the Digimarc filter.** This paid service creates a nearly invisible watermark by adding noise to your image (called *digital watermarking*). It's not cheap, but you also get other features like image linking and tracking, online backups, and visual watermarking. The cost depends on the number of images you use it on and the type of service you pick. A basic account runs $50 per year for 1,000 images; a pro account (which includes an online image-tracking service) is $100 for 2,000 images; and so on. You can learn all about it by visiting *www.digimarc.com*.

Since you've already plunked down good money on both Photoshop *and* this book, here's how to watermark images for *free* using the Custom Shape tool:

1. **Open an image and grab the Custom Shape tool.**

   You can find this tool in the shape toolset, or grab it by pressing Shift-U repeatedly (the tool's icon looks like a rounded star).

2. **Set your foreground color chip to light gray.**

   Setting the foreground color now means you won't need to change the watermark's color later. At the bottom of the Tools panel, click the foreground color chip, pick a light gray from the resulting Color Picker, and then click OK.

3. **Open the Custom Shape menu and choose the copyright symbol.**

   In the right half of the Options bar, click the downward-pointing arrow to the right of the word "Shape" to open the menu of custom shape presets (see Figure 17-14, top). Scroll down until you see the copyright symbol (©), and then click it once to activate it.

4. **Draw the shape on top of your image.**

   Mouse over to your image, click once where you want the shape to begin, and then Shift-drag diagonally to draw the shape. (Holding Shift keeps the symbol perfectly square instead of squished.) When you let go of the mouse, Photoshop adds a layer named Shape 1 to your document. If you want to resize the shape, summon Free Transform by pressing ⌘-T (Ctrl+T).

FIGURE 17-14

Top: The Custom Shape tool makes creating your own watermark a snap.

Bottom: If you change the blend mode to Hard Light and lower the opacity to about 50 percent, you can create a nice, professional-looking watermark that doesn't completely obscure your image.

New in Photoshop CS6 is the ability to change the blend modes of multiple layers at once. Yippee!

5. **Add a Bevel & Emboss layer style.**

   To give your watermark a little depth, tack on a layer style. Click the tiny *fx* at the bottom of the Layers panel and choose Bevel & Emboss from the pop-up menu. Feel free to fiddle with the settings (though they're probably fine the way they are), and then click OK to close the Layer Style dialog box.

TIP The shape's gray outline can make it darn difficult to see a preview of the layer style you're about to apply. Luckily, you can hide the outline by pressing ⌘-H (Ctrl+H). This trick works with paths, too!

6. **Grab the Type tool and type your name below the copyright symbol.**

   Press T to fetch the Type tool, mouse over to your image, and then click where you want the text to start (Photoshop adds a Type layer to your document). You can type whatever you want, but it's a good idea to include "Copyright," followed by the current year and your name or studio name. To change the font and text size, double-click the Type layer in the Layers panel and tweak the Options bar's settings (Arial Black is a good choice). Flip back to Chapter 14 for more on formatting text.

7. **Copy the Shape layer's style to the Type layer to make the text look similar to the copyright symbol.**

   You can copy a layer style from one layer to another by Option-dragging (Alt-dragging on a PC) the layer effect to the new layer (your cursor turns into a double-headed arrow, and you'll see a little *fx* icon behind it when you drag). In this example, Option-click (Alt-click) the layer named Bevel & Emboss, and then drag it to the new layer and release your mouse button. If you don't press Option (Alt) *before* you start to drag, you'll *move* the layer style instead; if that happens, just press ⌘-Z or Ctrl+Z to undo and then try again.

8. **Change the Shape and Type layers' blend modes to Hard Light.**

   Doing this makes your watermark see-through. Remember that in Photoshop CS6, you can change the blend mode of multiple layers at the same time. Just Shift-click to activate both the Shape and Type layers, and then change their blend modes to Hard Light using the pop-up menu at the top of the panel.

9. **Lower the Shape and Type layers' opacity to 40 percent.**

   While you've got the Shape and Type layers active, lower their opacity to 40 percent using the Opacity slider at the top of the Layers panel. This keeps the watermark from overpowering your image.

10. **Save the file and upload it to the Web.**

    Now you can enjoy peace of mind knowing that it'd take someone *weeks* to clone away your watermark.

Protecting your images takes a bit of effort, but it's well worth it. In fact, watermarking is *exactly* the type of thing you should record as an action. Just follow the instructions in Chapter 18 for creating a new action (page 759) and then repeat the steps in this list. You can even include the bit about embedding copyright info in your file (page 745). Once you create the action, you can run it on a whole folder of files to save yourself tons of time!

NOTE You can also use the Image Processer script (page 251) to resize images, run a watermarking action on them, and add copyright info to them all at the same time!

Building Online Photo Galleries

Once you've massaged and tweaked your images to perfection, why not have Photoshop prepare a web-ready photo gallery, complete with thumbnails and enlargements, like the one shown in Figure 17-15? Actually, *Bridge* does all the work using the Adobe Output Module, but that doesn't make it any less cool.

NOTE In previous versions of Photoshop, you could create a gallery by choosing File→Automate→Web Photo Gallery, but back in CS4, Adobe offloaded that feature to Bridge.

POWER USERS' CLINIC

Zoomify Your Enlargements

It can be dangerous to post a full-sized image on the Web—you're practically giving thieves permission to steal it. But if you're a photographer and you want folks to see all the intricate details of your work, you can protect your images by using a Photoshop feature called Zoomify.

Instead of posting an image as one high-quality piece, Zoomify chops it into pieces and displays it in a Flash-based window with controls that visitors can use to zoom in on and move around within the image. (People who view the image need to have Flash installed on their computers, but if they don't, their browser should prompt them to get it.) That way, instead of seeing the whole thing at full size, they see only one piece at a time, so they can't grab it by taking a screenshot or downloading the whole image. And the new version of Zoomify exports to Flash *and* HTML5, which gives your image's admirers a few more viewing options. To see Zoomify in action, visit *www.bertmonroy.com/timessquare/timessquare.html*.

To use Zoomify, follow these steps:

1. Adjust the image's size using the techniques discussed in Chapter 6. (This step is optional; if you want to upload a full-size image from your camera, feel free, although Zoomify won't work on Raw files).
2. Choose File→Export→Zoomify.
3. In the Zoomify Export dialog box, use the Output Location section to name the file and tell Photoshop where to save it.
4. In the Image Tile Options section, choose an image quality. Use the Quality text box, pop-up menu, or slider to set the quality of the individual pieces. (Behind the scenes, Zoomify chops your image into a bunch of pieces—called *tiles*—that it reassembles on the fly when your visitor looks at a given area.) Leave the Optimize Tables checkbox turned on so Photoshop optimizes the compression tables for each tile.
5. Enter a width and height (in pixels) for the Zoomify window to determine how large it is in your visitor's web browser.
6. Click OK, and Zoomify creates a block of code that you can paste into your web page. If you left the Open In Web Browser checkbox turned on, Photoshop opens your browser to show you what your Zoomify window looks like.

Now, just open the HTML document that Zoomify made, copy and paste the code into your web page, and then upload the page and image pieces that Zoomify created to your server. After that, folks who look at your image online can see all its exquisite details but can't swipe it and claim it as their own.

Here's how to create a web gallery using Bridge:

1. **Place the images in a single folder.**

   It's a lot easier to grab all the images you want to create a web gallery from if you stick 'em in a folder first.

2. **Fire up Adobe Bridge.**

   You'll learn tons about Bridge in Chapter 21. For now, launch it by choosing File→"Browse in Bridge" or by pressing Shift-⌘-O (Shift+Ctrl+O on a PC).

3. **On the left side of the Bridge window, use the Folders panel to navigate to your images.**

   The images appear in the Content panel in the middle of the Bridge window.

4. **In the Content panel, arrange your images in the order you want them to appear in the gallery.**

   A vertical orange line appears as you drag an image around. When the image is in the right place, just let go of your mouse button.

5. **Activate the images you want to include in your gallery.**

   If you've taken the time to place your images in a single folder as described in step 1, press ⌘-A (Ctrl+A on a PC) to activate 'em all. If you've changed your mind about including some of the images, ⌘-click (Ctrl-click) to pick just the ones you want in the gallery.

6. **At the top left of the Bridge window, click the Output button (which looks like a piece of paper with a folded corner) and choose "Output to Web or PDF" as shown in Figure 17-16, top.**

   On the right side of the Bridge window, the Output panel opens.

7. **Click the Web Gallery button at the top right of the Output panel.**

   Because Bridge can create either a PDF or a web gallery, you have to tell it which one you want.

8. **In the Output panel's Template pop-up menu, choose HTML Gallery.**

   Each version of Photoshop offers more templates to choose from. For a basic photo gallery, the HTML Gallery template is tough to beat (Figure 17-15 shows it in action).

9. **In the panel's Site Info section, add a title, caption, and description.**

   You can add all sorts of other stuff, too, if you want, including your name, email address, and copyright info. These extra tidbits appear at the top and bottom of your web page (see Figure 17-15).

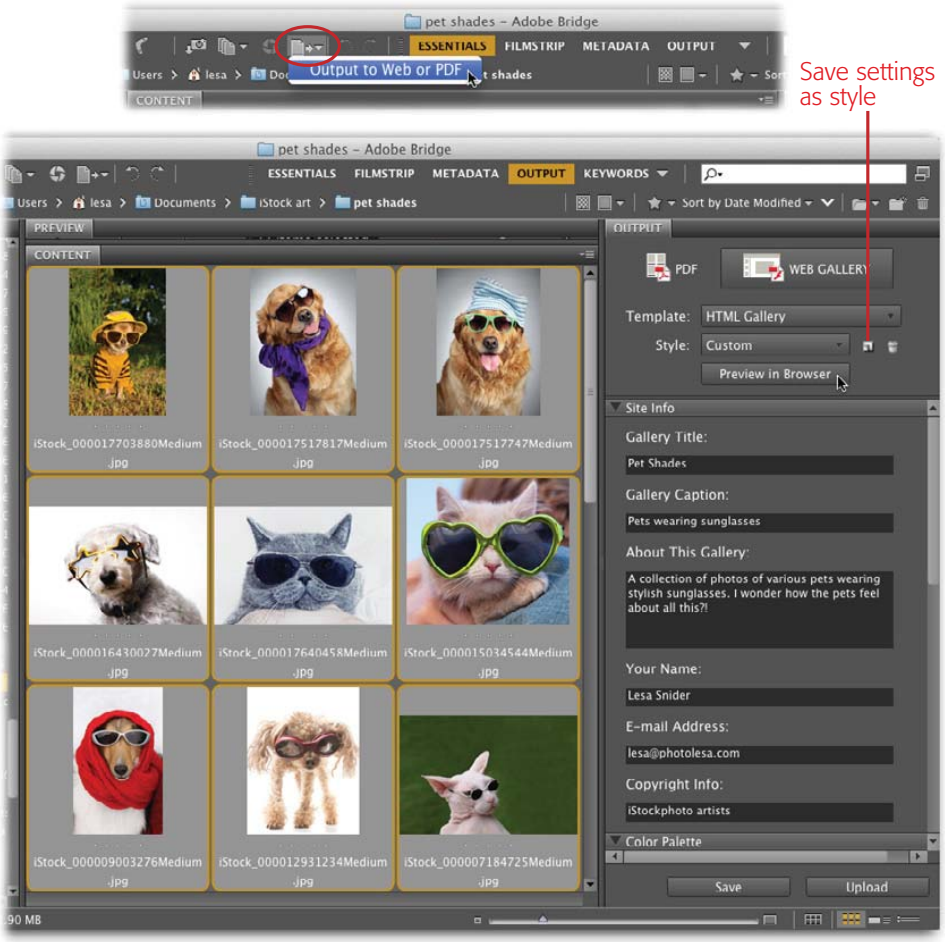

FIGURE 17-16

Top: Bridge has both an Output menu (circled) and Output workspace that let you create a web gallery or PDF page.

Bottom: When you click the Web Gallery at the top of the Output panel, Bridge adds all kinds of options to the panel so you can customize your gallery. Once you've got the settings just right, click the tiny icon labeled here to save those settings as a preset style you can use later.

10. **Scroll down to the Output panel's Color Palette section and edit the background, text, and link colors.**

    Bridge has all kinds of settings that let you customize how your web gallery looks. To change one of the gallery's colors, just click one of the little color swatches and choose something else from the Color Picker.

11. **In the Appearance section, set the photo size, quality, and number of columns and rows.**

    Unless you change these settings, your gallery will have three rows and columns, and the previews will be medium sized. (If it needs to, Bridge automatically builds more pages to accommodate all your images.)

12. **Back near the top of the Output panel, click the "Preview in Browser" button to get a sneak peek at your web gallery.**

    This button lets you take a peek at your gallery in a real web browser. Depending on the number of images in the gallery, this process may take a few seconds.

13. **Head back to Bridge and, if you want to make changes to your gallery, scroll to the appropriate Output panel section and tweak the settings.**

    If necessary, preview your changes by clicking the "Preview in Browser" button again.

14. **When everything looks good, scroll down to the Create Gallery section of the Output panel to tell Bridge whether to save the gallery to your hard drive or upload it to the Web.**

    At the bottom of the Output panel, you can give your gallery a name and save it to your hard drive or upload it to your web server. If you upload it, you'll need to enter your website's *FTP* (file transfer protocol) settings, along with your login and password.

15. **Click Save (if the gallery is headed for your hard drive) or Upload (if it's bound for the Web).**

Creating web galleries using Bridge is incredibly painless and, in Photoshop CS6, faster than ever. And if you take the time to create a preset, as described in Figure 17-16, you won't have to fiddle with all the Output panel's settings the next time around. Sweet!