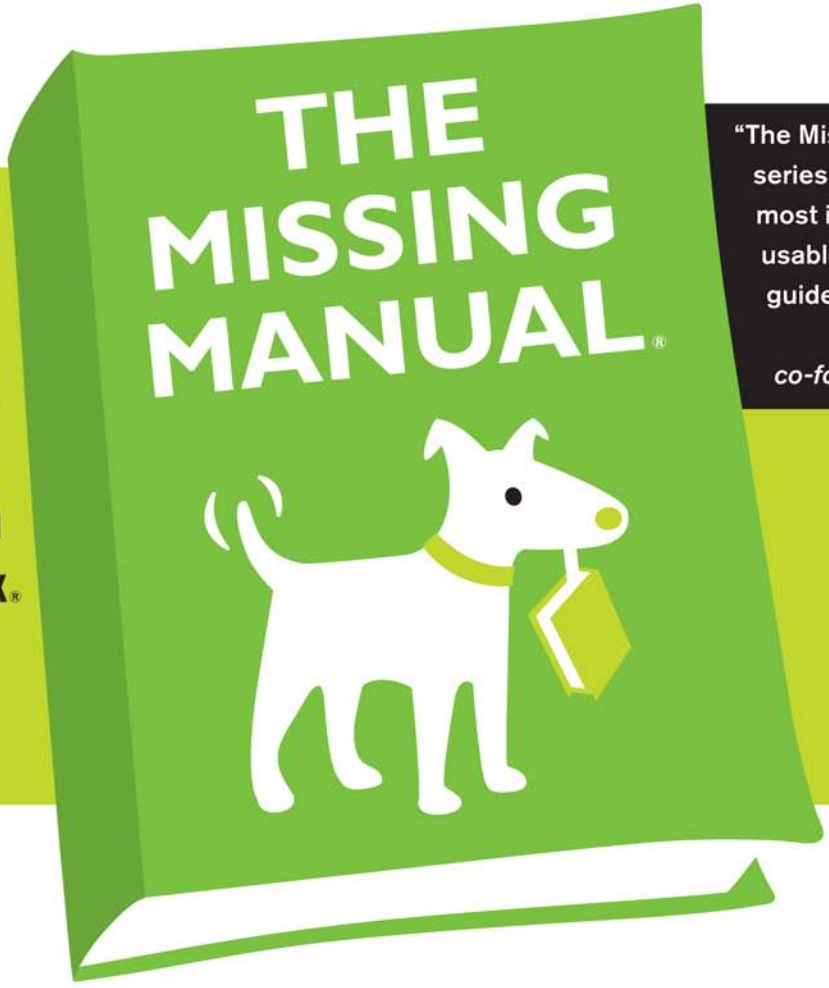
COVERS MAC AND WINDOWS

Photoshop CS4



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—*Kevin Kelly, co-founder of* Wired

The book that should have been in the box®

POGUE PRESS™
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Lesa Snider King
Foreword by David Pogue

Photoshop

Answers found here!

There's no shortage of Photoshop books, but most target seasoned Photoshop jockeys and assume a skill level you may not have. That's where this Missing Manual comes in. Conversational and friendly, it makes learning a breeze by avoiding needless technical jargon. You'll get a gentle introduction to key concepts and understand *why* and *when* to use (or avoid) features throughout the program.

The important stuff you need to know

- **Get to know your way around.** CS4 introduces a whole new look for Photoshop –start your journey with a guided tour.
- **Learn the keys to printing great-looking photos**–it's all about understanding resolution
- **Unlock Photoshop's power: layers, channels, masks, and paths** all get the Missing Manual treatment
- **Work with professional printers? No problem.** A full chapter covers digital and commercial offset presses.
- **Combine, retouch, and make colors pop** in all your photos
- **Download practice images**

Why I started the Missing Manual series.

People learn best when information is engaging, clearly written, and funny. Unfortunately, most computer books read like dry catalogs. That's why I created the Missing Manuals. They're entertaining, unafraid to state when a feature is useless or doesn't work right, and—oh, by the way—written by actual *writers*. And on every page, we answer the simple question: "What's this feature *for*?"

David Pogue is a *New York Times* technology columnist, bestselling author, and creator of the Missing Manual series.

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Photoshop CS4

THE MISSING MANUAL

Lesa Snider King

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Photoshop CS4: The Missing Manual
by Lesa Snider King

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NOTE In addition to the two appendixes printed in this book, we've posted three more online. To download them visit *www.missingmanuals.com* and click the Missing CD link.

Foreword

In the short but crowded history of consumer technology, only two products ever became so common, influential, and powerful that their names become verbs.

Google is one.

Photoshop is the other.

("Did you Google that guy who asked you out?" "Yeah—he's crazy. He Photoshopped his last girlfriend out of all his pictures!")

It's safe to say that these days, not a single photograph gets published, in print or online, without having been processed in Photoshop first. It's usually perfectly innocent stuff: a little color adjustment, contrast boosting, or cropping.

But not always. Sometimes, the editing actually changes the photo so that it no longer represents the original, and all kinds of ethical questions arise. Remember when TV Guide Photoshopped Oprah's head onto Ann-Margaret's body? Or when Time magazine darkened O.J. Simpson's skin to make him look more menacing on the cover? Or when National Geographic moved one of the pyramids closer together to improve the composition?

Well, you get the point: Photoshop is magic. Thanks to Photoshop, photography is no longer a reliable record of reality.

And now, all that magic is in your hands. Use it wisely.

There's only one problem: Photoshop is a monster. It's huge. Just opening it is like watching a slumbering beast heave into consciousness. Dudes: Photoshop CS4 has over 500 menu commands.

In short, installing Photoshop is like being told that you've just won a 747 jumbo jet. You sit down in the cockpit and survey the endless panels of controls and switches. Now what?

You don't even get a printed manual anymore.

If there were ever a piece of software that needed the Missing Manual treatment, it's Photoshop. And yet, despite having published over 100 books since I started this series in 1999, we've never tackled Photoshop. It's been the elephant in the room for all those years, and it's been bugging me.

Frankly, we were terrified.

But no longer; the beast has at last been tamed. I'm delighted to introduce its new master, Lesa Snider King: a first-time author with Missing Manual credentials as long as your arm.

She worked on Missing Manuals, side-by-side with me in my office, for four years, in all kinds of editorial and production capacities. And when she wasn't at my place, she was out in the real world, teaching Photoshop seminars, writing Photoshop how-to articles for the Web, retouching hundreds of photos in Photoshop, and eventually becoming a Photoshop master (which I would define as, "anyone who knows what more than 50 percent of those 500 menu commands actually do").

Even more important, the Missing Manual mantra runs through her blood: make it clear, make it entertaining, make it complete (hence the thickness of the book in your hands). And above all, don't just identify a feature: tell us what it's for. Tell us when to use it. (And if the answer is "you'll never use it," tell us that, too.)

Now, Photoshop CS4: The Missing Manual is not for everybody; I'll be the first to admit it. In fact, the book is aimed primarily at two kinds of people: Photoshop beginners and Photoshop veterans.

But seriously, folks. If you're new to Photoshop, you'll find patient, friendly introductions to all those nutty Photoshoppy concepts like layers, color spaces, image resolution, and so on. And, mercifully, you'll find a lot of loving attention to a time-honored Missing Manual specialty—tips and shortcuts. As Photoshop pros can tell you, you pretty much have to learn some of Photoshop's shortcuts, or it will crush you like a bug.

On the other hand, if you already have some Photoshop experience, you'll appreciate this book's coverage of CS4's new features. Some of them are pretty sweet indeed. (Continuous zoom, content-aware scaling, and flick-panning—mmm.) There's a redesign to contend with, too; CS4 can be like coming home from college to find that your parents have moved around everything in your old room.

In any case, get psyched. You now have both the most famous, powerful, magical piece of software on earth—and an 800-page treasure map to help you find your way.

The only missing ingredients are time, some photos to work on, and a little good taste. You'll have to supply those yourself.

Good luck!

David Pogue

David Pogue is the weekly tech columnist for the New York Times, an Emmy-winning TV correspondent (CBS News and CNBC), and the creator of the Missing Manual series.

The Missing Credits

About the Author

Lesa Snider King is on a mission to teach the world to create—and use—better graphics. She's a stock photographer and chief evangelist for iStockphoto.com and founder of the creative tutorial site GraphicReporter.com. Lesa is the author of many video training titles including *Graphic Secrets for Business Professionals* (Lynda.com, 2007), *From Photo to Graphic Art*, and *Practical Photoshop Elements* (KelbyTraining.com, 2008). She writes regularly for *Macworld* magazine, the National Association of Photoshop Professionals (*www.photoshopuser.com*), Elements Techniques (*www.photoshopelementsuser.com*), and *Layers* magazine. Lesa is also a corporate trainer and teaches at many industry conferences including Photoshop World, Macworld Expo, Mac Mania Cruises, and the esteemed Santa Fe Workshops.

You can catch her Graphics Tip of the Week live each Wednesday night on the Your Mac Life Internet radio show (*www.yourmaclifeshow.com*), which she also co-hosts with husband Shawn King. During her free time, you'll find her carving the twisties on her sportbike or hanging with fellow Mac geeks. Lesa is a proud member of the BMWMOA, F800 Riders Club, DACS, NCMUG, Washington Apple Pi, and LiMac.

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Acknowledgements

This book is dedicated to the Greek god of wine, Bacchus, and all the brave little grapes who so valiantly sacrificed their lives so this book could be written. In vino veritas!

I'd like to express galactic thanks to iStockphoto.com for providing the beautiful imagery you see throughout this book. I truly believe an image is worth a thousand words, and thus made the screenshots as visually pleasing as possible. If you ever need high-quality, affordable images, iStockphoto.com is the way to go! A big hug and thanks go to David Pogue who got me involved in this project to begin with, and so graciously wrote the foreward of this book (while we were in disturbingly rough seas teaching on MacMania 8, no less). To Scott and Jeff Kelby for believing in me and nurturing my career in *immeasurable* ways throughout the last several years. To John "Bynkii" Welch for convincing me during our annual Macworld pub crawl that I should say yes to taking on this monstrous project should I be asked, and to Derrick Story for his wisdom and guidance before this book technically became my project, and my project alone. Also, a big fancy dinner and jugs of Umbrian vino rosso go to Pete Meyers and Dawn Frausto for editing this book and keeping me on track. Their input has made me a better writer and I will forever be grateful to them both.

You would not, however, be holding this book if it weren't for Jeff Gamet, managing editor of MacObserver.com, Design-Tools.com, and author of *Designers Guide to Mac OS X* (Peachpit), who cleared his schedule to help meet the world's ugliest deadline, and for staying up with me on iChat more nights than I can count (it's all one big blur). Here's to the Sugar-Free Red Bull and the Mozart station we made on Pandora.com that got us through the last of it! And when I ended up working

straight through my Italian vacation, I'm *really* glad you kept me from jumping overboard while in the middle of the Mediterranean. In hindsight, I shudder to think of all the shopping in Firenze I would have missed.

Special thanks to Richard Harrington (*www.photoshopforvideo.com*) for his help on video layers and the Actions chapter, to Taz Tally (http://*taztallyphotography.com*) for helping with the Photoshop and Print chapter, to Marcus Conge (*www.digitalmanipulation.com*) and Bert Monroy (*www.bertmonroy.com*) for their help with all things 3D and vector-related, and to the wonderfully brilliant Veronica Hanley who sacrificed two days at sea in order to make the vector chapter make sense! To Melissa Findley (*www.wickedeye.com*) for her superb guidance on the Painting in Photoshop chapter, and to photographer extraordinaire, Tony Corbell (*www.corbellproductions.com*), for his guidance on the plug-ins chapter (meet you at the Inn of the Anasazi in Santa Fe next year!).

To my esteemed colleagues—and good friends—Taz (again!), Ben Willmore, Trevor Perry, Terry White, Dave Cross, Jack Davis, Kevin Ames, and Jay Nelson who all expressed how *very* proud of me they are and who each, in their own special way, convinced me I could survive writing a book of this magnitude.

To all my friends who continually gave their support when I needed it the most: Pat Fauquet, Jean MacDonald, Sly Marton, Kirk Aplin, George Canellis, Loren Finkelstein, Lorene Romero, Leslie Hollis, Maurice Shevalier, Leslie Raguso, Kathryn Kroll, and Tiffani Barnes. And to the best mama a girl could have, Fran Snider, who sat on the phone with me while I cried tears of stress more nights than I care to admit.

And finally, many thanks go to my husband, Shawn King, who kept the house stocked with food and who forced me away from my Mac to climb onto my beloved bike, Saphira, for a much needed break now and then. I can't believe you didn't strangle me when I bit your head off so many times, and I'm amazed at how you rigged wireless Internet access in our Umbrian farmhouse so I could send off the last few files. Thanks for putting up with me! I'm really glad I didn't shoot you.

—Lesa Snider King

Introduction

Congratulations on buying one of the most complicated pieces of software ever created. Fortunately, it's also one of the most rewarding. No other program on the market lets you massage, beautify, and transform your images like Photoshop. It's so popular that people use its name as a verb: "Dude, you Photoshopped the *heck* out of her!" You'd be hard pressed to find a published image that *hasn't* spent some quality time in this program, and those that didn't probably should have.

The bad news is that it's a tough program to learn; you won't become a Photoshop guru overnight. Luckily, you hold in your hot little hands a book that covers Photoshop from a *practical* standpoint, so you'll learn the kinds of techniques you can use every day. It's written in plain English for normal people, so you don't have to be any kind of expert to understand it. You'll also learn just enough theory (where appropriate) to help you understand *why* you're doing what you're doing.

NOTE This book focuses primarily on the standard edition of Photoshop CS4, which runs about $650. Adobe also offers Photoshop CS4 Extended, which costs about $1,000 and offers more features primarily designed for folks who work in fields like architecture and medical science. Page 4 lists some of the new Extended-only goodies.

What's New in Photoshop CS4

Adobe has made some pretty serious changes in Photoshop CS4, especially to the program's overall look. It's a change that's long overdue, as each version of the software piles new tools on top of old ones, and some get lost in the shuffle.

Heck, you're liable to notice several "new" tools in Photoshop CS4 that aren't new at all—they've just clawed their way to the surface. Here's an overview:

- **Workspace overhaul.** Your whole Photoshop world now exists within a compact frame that you can move around and resize (this is new for Mac users, anyway). Using the new Arrange Documents menu (page 63), you can see and work with several documents at once, whether they're side-by-side or stacked on top of each other. And you can create even more room for your images by collapsing panels with a single click (page 17). The new Application bar (page 12) gives you quick access to zoom controls, the Hand tool, screen modes, and the brand-new Rotate View tool (page 61) that lets you spin your canvas around so you can work with it at an angle.

- **Adjustments panel.** Adjustment layers (page 71) have long been Photoshop pros' tool of choice for nondestructive editing (that is, editing that preserves your original image). Problem is, lots of folks didn't know where to find these layers. Now these adjustments take center stage in their very own panel, which not only makes them easier to find and work with—who knew there were so many presets?—but also keeps your image from getting covered up by dialog boxes. Also new are "on-image" adjustments for Curves and Hue/Saturation Adjustment layers. So instead of selecting part of your image and adjusting it, you can adjust a specific range of color by clicking and dragging on the image. You'll also find a new type of Adjustment layer: Vibrance. Snatched straight from Camera Raw (page 53), you can use it make your colors pop without completely messing up skin tones.

- **Masks panel.** The new Masks panel is even more exciting because, for the first time, you can feather masks on the fly—nondestructively!—with a handy slider. You can also control their opacity with the new Density slider, and access the Refine Edges and Color Range controls all in the same panel. These last two controls are great for fine-tuning your selections, as you can read in Chapter 4.

- **Smoother panning and zooming.** Photoshop CS4 displays smooth-looking (non-jagged) images at odd zoom percentages (like 33%) and lets you quickly "toss" your image across the screen with your space bar (this feature is called *flick-panning*—see page 59). If you're zoomed way in on your image, Bird's eye view (page 60) lets you zoom back out instantly by pressing one key for a bird's-eye look at where you are in your image. If you zoom in to 501 percent or more, you see a pixel-grid view that lets you retouch images with amazing precision; page 56 has the scoop.

- **Content-Aware Scaling.** If you've ever needed to make an image just a bit larger or smaller, or move your subjects closer together, Photoshop's new Content-Aware Scale tool (page 242) can help you do just that. Using the same simple controls as the Free Transform tool (page 245) and some revolutionary new technology, Photoshop analyzes your image and alters only less important areas of your image like the ground or sky, leaving your subject completely intact.

- **Enhanced Smart Objects.** You can now use the full range of Transform tools (page 245) on Smart Objects (page 115), including the Perspective, Distort, and Warp options. Smart Objects also now work with linked Layer masks (page 105), so you can move an object and its mask as one unit.
- **Adobe Kuler.** The new Kuler panel is an amazingly useful, people-powered color theme generator. If you get stuck trying to choose a color scheme for your design, you can pick one from the growing number of shared themes posted by other designers—and you can join the fun and upload your own (page 454).
- **Drag-resize cursors.** Whether you're retouching or painting, you'll spend a lot of time using brush-based tools, and Adobe has made it easier than ever to resize them: Ctrl-Option-drag (Alt+right-click+drag on a PC) to the left to make them smaller or to the right to make them bigger. To change brush hardness, ⌘-Ctrl-Option-drag (Alt+Shift+right-click+drag on a PC) to the left to make it softer or to the right to make it harder.
- **"Spring-loaded" tools.** Need to temporarily switch from one tool to another? No problem: Just press and hold the tool's keyboard shortcut and then release the key when you're ready to switch back to the tool you were originally using.
- **Enhanced Auto-Blend and Auto-Align.** If you want to combine several images into one to create extended depth-of-field effects (where you take several photos of an object that have different parts in focus and put them together to make it look like the whole thing is in focus), complex collages, or 360-degree panoramas, these two tools make Photoshop do the heavy lifting for you. They're covered on page 288 and page 283, respectively.
- **Improved Dodge and Burn tools.** Long considered too destructive for serious use, Adobe has reengineered these two tools so they now preserve color and details. That said, page 414 shows you how to use a better alternative: the Brush tool. You can make it behave *like* the Dodge and Burn tools *and* it's nondestructive.
- **Cloning and Healing previews.** Now you can see what you're about to paint *before* you actually use the Cloning and Healing tools. Once you tell Photoshop which part of the image you want to clone or heal with, it shows you a preview of that area inside your brush cursor. You can learn about these tools in Chapter 7 (page 288) and Chapter 10 (page 394).
- **Enhanced printing.** The Mac version of Photoshop lets you create 16-bit images (page 43) so your printouts can include even richer details. And you can now preview out-of-gamut colors (ones outside the range of what the printer can reproduce) right in the Print dialog box—see page 652.
- **64-bit support in Windows Vista.** The new buzzword in graphics circles is "64-bit". All it really means is that some programs (ones that can read 64-bit files) let you open and edit honkin' big files—ones that are over 4 gigabytes. Unfortunately, the Mac version of Photoshop doesn't yet support 64-bit files (that'll likely happen in the *next* version). If you're on a Mac, you can still share

Photoshop files with PC folks just like you always have, and aside from the Mac's 4-GB file size limit, you shouldn't see any big performance difference. And unless you plan on working with files that are bigger than 4 GB, the difference between the 64-bit and 32-bit versions of Photoshop CS4 doesn't mean a hill of beans to you.

- **Upgraded Camera Raw.** The newest version of the Camera Raw plug-in (page 53) sports major improvements like selective editing with the new Adjustments brush, the ability to add nondestructive gradient masks with Graduated Filters, and so on. You'll learn about all these features in Chapter 9 (beginning on page 354).
- **Beefed-up Bridge.** Adobe Bridge (a separate program that ships with Photoshop) lets you preview, organize, and process image files. Bridge now boasts better speed, a much-improved workspace, one-click previews, a search bar, and more. Photographers will love the new Review mode, where you see a big, floating carousel of all the photos you've selected. And the new Adobe Output Module lets you export your images as PDFs and Web galleries. See Appendix C for full coverage of Bridge.

There are also a few features that you'll only find in Photoshop CS4 Extended:

- **3D editing.** Adobe has added a couple of new items to the Tools panel—3D Rotate and 3D Orbit—as well as a new 3D menu stuffed full of commands for working with 3D objects. With CS4, Photoshop has stepped into the realm of 3D modeling, letting you convert 2D objects into 3D ones and adjust textures and lighting. You can even paint on 3D models in real time and open models you've downloaded. This book doesn't cover all the new 3D features in detail, but the box on page 72 has the highlights.
- **Enhanced video features.** If you're a videographer, you'll appreciate Photoshop Extended's single-letter keyboard shortcuts, the way it smoothly displays pixels that aren't perfectly square (see the box on page 74), and the ability to preview and export audio. You can also turn any 3D object into a video display area.

There are also tons of little changes in Photoshop CS4, too. For example, you can finally delete layers by pressing the Delete key (Mac) or Backspace (PC)—yay! And you can now use Photoshop with multi-touch trackpads on Mac laptops, generate color profiles for color-blind folks, view a 6-color histogram in the Histogram panel (page 363), and access a new online help system.

With the good comes a little bad: To make room for new features, Adobe left some plug-ins on the cutting room floor, like the Extract filter, Picture Package, Contact Sheets, and PDF Presentations. Thankfully, the older versions of those plug-ins still work in CS4 (save for PDF Presentations—that one's a goner); you just have to download them from Adobe's Web site or snatch them from Photoshop CS3, if you have it (this book shows you how). The drag-and-drop Photomerge dialog box has also passed quietly into the night, as has the ability to create a PDF of a layer comp in Photoshop (though you can still do that in Bridge).

About This Book

Adobe has pulled together an amazing amount of information in its new online help system (page 729), but despite all these efforts, it's geared toward seasoned Photoshop jockeys and assumes a level of skill that you may not have. The explanations are very clipped and to the point, which makes it difficult to get a real feel for the tool or technique you're learning about.

That's where this book comes in. It's intended to make learning Photoshop CS4 tolerable and even enjoyable by avoiding technical jargon as much as possible and explaining *why* and *when* you'll want to use (or avoid) certain features in the program. It's a conversational and friendly approach intended to speak to beginners and seasoned pixel pushers alike.

Some of the tutorials in this book refer to files you can download from the Missing Manuals Web site (*www.missingmanuals.com*) so you can practice the techniques you're reading about. And throughout the book, you'll find several kinds of sidebar articles. The ones labeled "Up to Speed" help newcomers to Photoshop CS4 do things or explain concepts that veterans are probably already familiar with. Those labeled "Power Users' Clinic" cover more advanced topics for the brave of heart.

NOTE Photoshop CS4 now functions almost identically on Macs and Windows computers, but the screenshots in this book were all taken on a Mac for the sake of consistency. However, the keyboard shortcuts for the two operating systems are different, so you'll find both included throughout this book–Mac shortcuts first, followed by Windows shortcuts in parentheses. In a few instances, the locations of certain folders differ and in those cases, you get the directions for both operating systems.

About the Outline

This hefty book is divided into six parts, each devoted to the type of things you'll do in Photoshop CS4:

- **Part One: The Basics.** Here's where you'll learn the essential skills you need to know before moving forward. Chapter 1 gives you the lay of the land and teaches you how to work with panels and make the Photoshop workspace your own. You'll also find out the many ways of undoing what you've done, which is crucial when you're still learning. Chapter 2 covers how to open and view your documents efficiently, and how to set up new documents so you have a solid foundation on which to build your masterpieces.

  Chapter 3 dives into the most powerful feature in all of Photoshop: layers. You'll learn about the different kinds of layers and how to manage them, the power of layer masks, and how to use Layer styles for special effects. Chapter 4 explains how to select part of an image so you can edit just that area. In Chapter 5, you'll dive head first into the science of color as you explore channels (Photoshop's way of isolating the colors that make up your image) and learn how to use channels to create selections; you'll also pick up some channel-specific editing tips along the way.

- **Part Two: Editing Images.** Chapter 6 starts off by explaining a variety of ways you can crop images, both in Photoshop and in Camera Raw. The chapter then demystifies resolution once and for all so you'll understand how to resize images without reducing their quality. In Chapter 7, you'll learn how to combine your images in a variety of ways, from simple techniques to more complex ones. Chapter 8 covers draining, changing, and adding color, arming you with several techniques for creating gorgeous black-and-white images, delicious duotones, partial-color effects, and more. You'll also learn how to change the color of almost anything.

  Chapter 9 focuses on color-correcting images, beginning with auto fixer-uppers, moving on to the wonderfully simple world of Camera Raw, and then into the more complicated realm of Levels and Curves Adjustment layers. Chapter 10 is all about retouching people and is packed with practical techniques for slimming, trimming, and beautifying the faces and bodies that grace your pictures. It also explains how to use the Dodge and Burn tools in ways that won't harm your images. Chapter 11 covers all kinds of ways to sharpen images to make them look especially crisp.

- **Part Three: The Artistic Side of Photoshop.** This part of the book is all about creativity. Chapter 12 explains the many ways of choosing colors for your documents, and teaches you how to create a painting from scratch. Chapter 13 focuses on using the mighty Pen tool to create complex illustrations and selections, and you'll learn how to use Photoshop's Shape tools. Chapter 14 teaches you the basics of typography and then moves on to how to create and format text in Photoshop. You'll find out how to outline, texturize, and place text, among other fun stuff. Chapter 15 covers the wide world of filters; you'll come away with at least one practical use for one or more of the filters in each filter category.

- **Part Four: Printing and the Web.** In Chapter 16, you'll learn about printing your images, beginning with why it's so darn hard to make what comes out of your printer match what you see onscreen. You'll learn about the different color modes and how to prepare your images for printing, whether you're using an inkjet printer or sending your files to a commercial printing press. Chapter 17 focuses on preparing images for the Web, and walks you through the various file formats you can use, how to protect your images online, and using Adobe Bridge to create Web galleries. Rounding out the chapter is info on using the Slice tool on a Web page design, and step-by-step instructions for creating an animated GIF.

- **Part Five: Photoshop Power.** This part is all about working smarter and faster. It starts with an entire chapter devoted to using actions (Chapter 18), which help you automate tasks you perform regularly. Chapter 19 covers installing and using plug-ins (small programs you can add on to Photoshop) and recommends some of the best ones.

- **Part Six: Appendixes.** Appendix A covers installing and uninstalling Photoshop. Appendix B gives you some troubleshooting tips, explains Photoshop's help system, and points you to resources other than this book. Appendix C gets you up to speed on using Adobe Bridge to import, organize, and export your images. Appendix D walks you through Photoshop CS4's 244 menu items. And Appendix E gives you a tour of the mighty Tools panel.

NOTE Appendixes A, D, and E are available online at *www.missingmanuals.com*.

For Photographers

If you're relatively new to digital-image editing or you've always shot film and are taking your first brave steps into the world of digital cameras, you'll be amazed at what you can do in Photoshop, but there's a lot to learn. By breaking Photoshop down into digestible chunks that are most important to *you*, the learning process will feel less overwhelming. (There's no sense in tackling the whole program when you'll only use a quarter of it—if that much). The most important thing to remember is to be patient and try not to get frustrated.

With patience and practice, you *can* master the bits of Photoshop that you need to help do your job better. And with the help of this book you'll conquer everything much faster than you might think. As you gain confidence, you can start branching out into other parts of the program to broaden your skills. Here's a suggested roadmap for quickly learning the most useful aspects of the program as you're starting out:

1. **Read all of Chapters 1 and 2 (or at the very least skim them).**

   These two chapters show you where to find all of Photoshop's tools and features and explain how the program is organized. You'll learn how to open, view, and save your images, which is vital stuff to know.

2. **If your photos aren't on your computer already, read Appendix A about Adobe Bridge.**

   Bridge is an amazingly powerful image organizer and browser that can help get your images onto your computer. Bridge takes care of importing, renaming, and backing up your precious photos.

3. **If you're shooting in Raw format (page 53) and need to color-correct your images in a hurry, skip ahead to the section on editing in Camera Raw in Chapter 9 (page 354).**

   This chapter includes an entire section on practical editing techniques you can use in Camera Raw, and a quick reference that points you to where you'll find other Camera Raw techniques throughout this book.

4. **If you're not shooting in Raw and you need to resize your images before you edit them, start with Chapter 6.**

   Chapter 6 explains resolution and how to resize images without reducing their quality.

5. **Proceed with Chapters 8, 9, and 10 to learn about color effects, color-correcting, and retouching people, respectively.**

6. **When you're ready to sharpen your images, read Chapter 11.**

7. **Finally, when you want to print your photos, read the section on printing with an inkjet printer in Chapter 16 (page 625).**

   This chapter walks you through the maze of dialog boxes you have to go through to print your photos. It even has advice on how to print borderless images.

That's all you need to get started. When you're ready to dive more fully into Photoshop, pick back up at Chapter 3, which covers layers, and move on through the book as time permits.

The Very Basics

This book assumes that you know how to use a computer and that, to some extent, you're an expert double-clicker, drag and dropper, and menu opener. If not, here's a quick refresher:

To *click* means to move the point of your mouse or trackpad cursor over an object on your screen and press the left mouse or trackpad button once. To *right-click* means to press the right mouse button once, which produces a menu of special features called a *shortcut menu*. To *double-click* means to press the left button twice, quickly, without moving the mouse between clicks. To *drag* means to click an object and use the mouse to move it while holding down the left mouse button. Most selection buttons onscreen are pretty obvious, but you may not be familiar with *radio buttons*: To choose an option, you click one of these little empty circles that are arranged like a list. If you're comfortable with basic concepts like these, you're ready to get started with this book.

You'll find tons of keyboard shortcuts along the way, and they're huge timesavers. If you see "Press ⌘-S (Ctrl+S on a PC) to save your file," that means to hold down the ⌘ (or Ctrl) key while pressing the S key. Press one and keep holding it as you press the other. (This book lists Mac keyboard shortcuts first, followed by Windows shortcuts in parentheses.) Other keyboard shortcuts are so complex that you'll need to use multiple fingers, both hands, and a well-placed elbow. Use them at your own risk!

About → These → Arrows

Throughout *Photoshop CS4: The Missing Manual* (and in all Missing Manuals, for that matter), you'll see arrows sprinkled throughout each chapter in sentences like this: "Choose Filter → Blur → Gaussian Blur." This is a shorthand way of helping you find files, folders, and menu choices without having to read through painfully long and boring instructions. For example, the sentence in the previous paragraph

is a short way of saying: "At the top of the Photoshop window, locate the Filter menu. Click it and, in the list that appears, look for the Blur category. Point to the word Blur without clicking and, in the resulting submenu, click Gaussian Blur."

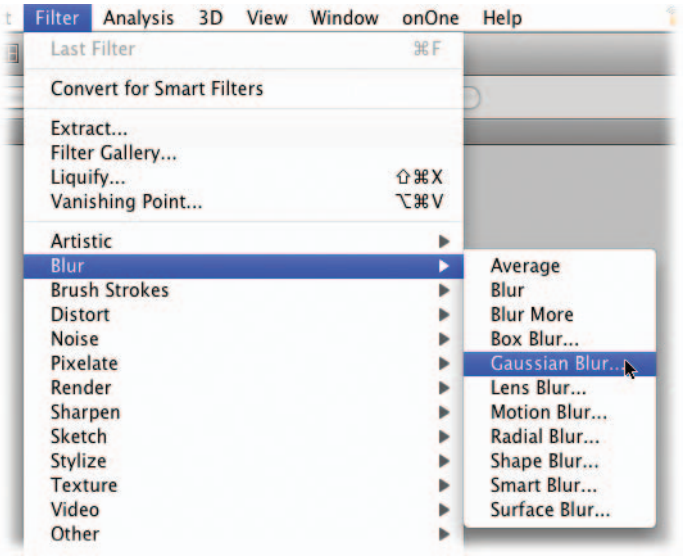

Figure 1-1:
Choosing Filter → Blur → Gaussian Blur takes you to the menu item shown here.

About MissingManuals.com

On the Missing Manuals Web site (*www.missingmanuals.com*), you can find links to downloadable images mentioned in the tutorials in this book, in case you want to practice techniques without using your own photos.

A word about the image files for the tutorials: To make life easier for people with dial-up Internet connections, the file sizes have been kept pretty small. This means you probably won't want to print the results of what you create (you'll end up with a print about the size of a matchbook). But that doesn't really matter because the files are only meant for onscreen use. You'll see notes throughout the book about which practice images are available for any given chapter.

At the Web site, you can also find articles, tips, and updates to this book. If you click the Errata link, you'll see any corrections we've made to the book, too. If you find something in this book that you think is wrong, feel free to report it by clicking that link. Each time the book is printed, we'll update it with any confirmed corrections. If you want to be certain that your own copy is up to the minute, this is where to check for any changes. And thanks for reporting any errors or suggesting corrections.

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CHAPTER
1

Photoshop CS4 Guided Tour

Photoshop CS4 is bursting with amazing features that'll help you edit and create digital masterpieces. If this is your first foray into the world of Photoshop, all these features will be new to you. If you're an experienced pixel pusher, there are surprises a-plenty waiting for you, too. With Photoshop CS4, Adobe introduced major changes to the work environment, and while these changes make Photoshop easier to use, they take some getting used to.

Throughout the rest of this book, you'll dive much deeper into specific tools and techniques, but this chapter gives you a good, solid foundation on which to build your Photoshop skills. You'll learn how to work with the new Application Frame and Application bar and how to wrangle all the windows and panels filling your screen. Once you've gotten them placed just right, you'll learn how to save your setup as a custom workspace. If you're a beginner, the section on using Undo commands and history states will show you how to fix mistakes and back out of almost anything you've done. Finally, you'll learn how to fine-tune Photoshop's behavior through preferences and built-in tools (called presets) that let you personalize your work environment even more.

Meet the Application Frame

When you launch Photoshop CS4 for the first time, you'll be greeted by the new *Application Frame* shown in Figure 1-1. It's part of Adobe's effort to consolidate your work environment and lessen clutter; the frame confines all things Photoshop to a single resizable and movable window. You can grab the whole mess—documents, panels, and all—and move it to one side of your screen (or better yet,

to another monitor) so it's out of your way. If you open more than one document, they're displayed in handy tabs that you can rearrange by dragging to the left or right.

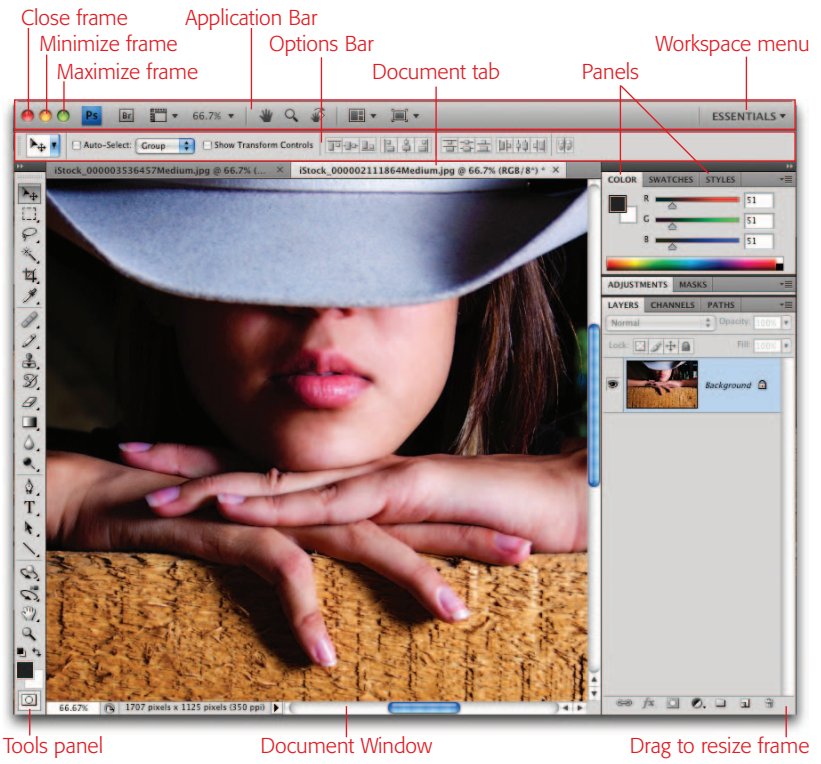


Figure 1-1: *Click an image's document tab to summon it front and center. Photoshop stores the vast majority of its tools in the panels on the left and right sides; a full introduction to panels starts on page 17.*

The upside of using the Application Frame is that all of Photoshop's bits and pieces stay together as you move things around. Resizing the frame also automatically changes the size of your panels and windows to fit within it. The downside is that this kind of all-encompassing worldview is pretty radical for Mac fans though it should feel familiar to folks who use PCs. Chances are, you'll either love it or hate it!

If you find the Application Frame isn't your style, you can turn it off by choosing Window → Application Frame to make Photoshop switch to the floating-window view used in previous versions of the program.

TIP If you need to do some work on your desktop or in another program, you can temporarily *hide* Photoshop. On a Mac, press ⌘-Ctrl-H or click the red dot at the top left of the Application Frame. Your workspace disappears, but Photoshop keeps running in the background, standing by. To bring the program back to the forefront, just click its shrunken icon in the Dock. If you're on a PC, click the upper-right – sign button and Windows tucks the program down into your taskbar. To get it back, click its taskbar icon.

The Application Bar

At the very top of the Application Frame is a row of tools called the *Application bar* (Figure 1-2). Here, you've got one-click access to handy stuff like Adobe Bridge (covered in Appendix C), extras (guides, grids, and rulers), zoom controls, and

more. The real gems, though, are the new Rotate View tool and the Arrange Documents menu. Rotate View will make graphics tablet users squeal with delight because it creates a more natural way to paint or draw (see page 61 for details). The Arrange Documents menu lets you view several open documents so you can see them all at one time, which is handy for evaluating before and after versions of images or just managing a bunch of open windows. Flip over to Chapter 2 for more on using these features (beginning on page 62).

TIP If you're on a Mac and you turned off the Application Frame by choosing Window → Application Frame and don't see the Application bar anymore, you can create a floating Application bar by choosing Window → Application Bar.

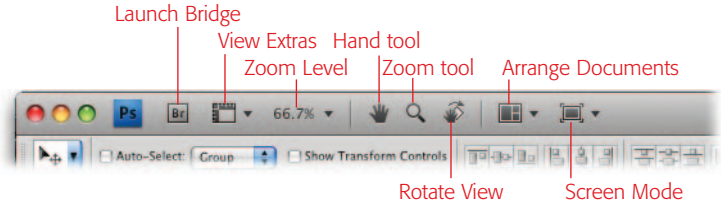


Figure 1-2: *The new Application bar includes features like Rotate View (page 61), Arrange Documents (page 63), and Screen Mode (page 14). It also makes some old tools easier to reach. For example, the extras (guides, grids, and rulers) used to be buried deep within menus, the zoom controls were stuck at the bottom of the document window, and the Hand and Zoom tools hung out at the far end of the Tools panel.*

NOTE In the PC version of Photoshop CS4, the Application bar is also home to all the program's main menus (File, Edit, Image, Layer, and so on); in the Mac version, those menus appear at the top of your screen instead.

The Almighty Options Bar

Lording over your document window is the Options bar, which lets you customize the settings for every tool in the program (see Figure 1-3). The bar automatically changes to show settings related to the tool you're currently using. Unfortunately, its labels are fairly cryptic, so it can be hard to figure out what the heck all that stuff does. Luckily, you can hover your cursor over any item to see a little pop-up description called a *tooltip* (you don't need to click—just wait a couple seconds). When you move your cursor away from the item, the tooltip disappears.

When you first install Photoshop, the Options bar is perched near the top of the screen underneath the Application bar. If you'd rather put it somewhere else, grab its left end and drag it wherever you want, as shown in Figure 1-3, bottom. If you decide to put it back later, drag it to the top of the screen and, when you see a thin blue line appear at the bottom of the Application bar, release your mouse button.

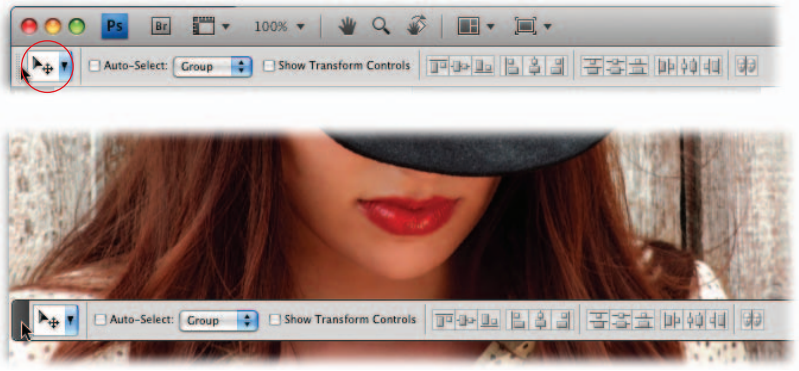


Figure 1-3:
Top: The Options bar is customization central for whatever tool you're currently using. Incidentally, if a tool seems to be misbehaving, it's usually because you changed one of the Options bar's settings and forgot to change it back! The settings are "sticky": once you change them, they stay that way until you change them back.

Bottom: To move the Options bar, grab the tiny dotted lines at its far left end and drag the bar somewhere else.

Swapping Screen Modes

Photoshop also includes three different *screen modes* for your document viewing pleasure. Depending on what you're doing, one will suit you better than another. For example, you can make your image take up your whole screen (with or without the Application and Options bars), you can hide your panels, and so on (see Figure 1-4).

> **NOTE** Flip ahead to page 47 to learn how to open an image. The short version: Choose File → Open, navigate to where the image lives, and click Open.

It's a snap to jump between modes—just press the F key repeatedly (as long as you're not using the Type tool—if you are, you'll type a bunch of *f*s) or use the new Screen Mode pop-up menu in the Application bar (see Figure 1-2). Your choices are:

- **Standard Screen Mode** is the view you see when you launch Photoshop for the first time. This mode shows menus, the Application Frame and Application bar, panels, and document windows. Use this mode when the Application Frame is active and you need to move the whole Photoshop application—windows and all—around on your monitor.
- **Full Screen Mode With Menu Bar** completely takes over your screen, puts your currently open document in the center, places it on a gray background, and attaches any open panels to the left and right edges of your monitor. This mode is great for day-to-day editing because you can see all your tools and menus without being distracted by all the files and folders on your desktop. The gray background is also easy on your eyes.

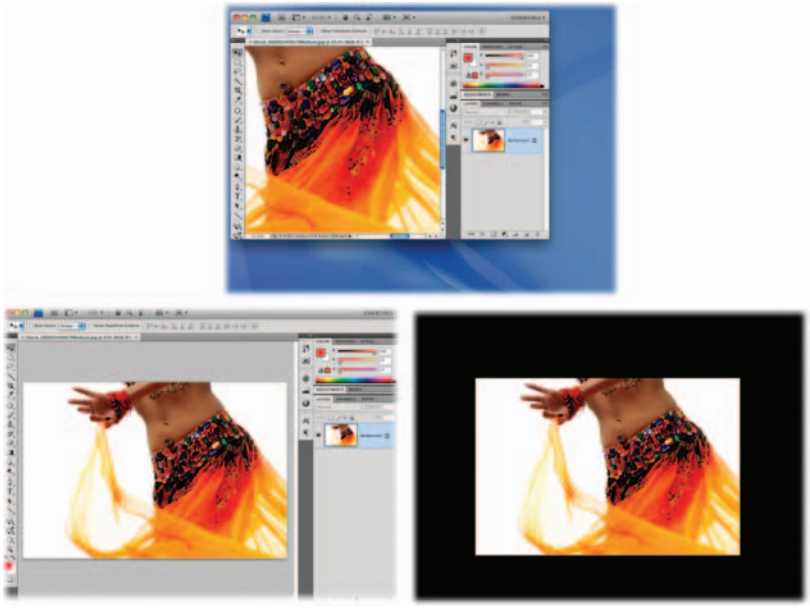


Figure 1-4: The many faces of Photoshop: Standard with Application Frame (top left); Full Screen With Menu Bar (bottom top right); Full Screen with menu bar and panels hidden (bottom left); and Full Screen (bottom right). You can edit images in any of the modes. Pressing the Tab key displays menus and panels if they're hidden.

- **Full Screen Mode** hides all of Photoshop's menus and panels, centers your document on your screen, and puts it on a black background. This mode is great for displaying and evaluating your work or for editing distraction-free. The black background really makes images pop off your screen, too.

TIP You can free up precious screen real estate by pressing the Tab key to hide your panels. This trick is a great way to get rid of distracting elements when you're editing images, especially if you've got a small monitor. Pressing Shift-Tab hides everything except the Tools panel, Options bar, and Application bar. To turn the panels back on, press Tab or mouse over to the edge of your monitor where the panels should be. When you move your mouse away from the panels, they'll disappear again.

Customizing Your Workspace

The folks at Adobe understand that once you arrange your panels just so, you want to keep them that way. That's why Photoshop lets you save your setup as a *workspace* by using the Workspace Switcher menu at the top right of the Application bar. This menu, which is set to Essentials when you first open the program, always shows the name of the currently selected workspace. To change workspaces, click the menu and pick one of the presets (built-in settings) to make Photoshop rearrange your panels accordingly. The list of presets includes customized panel groups for things like painting, working with video, and so on (see Figure 1-5).

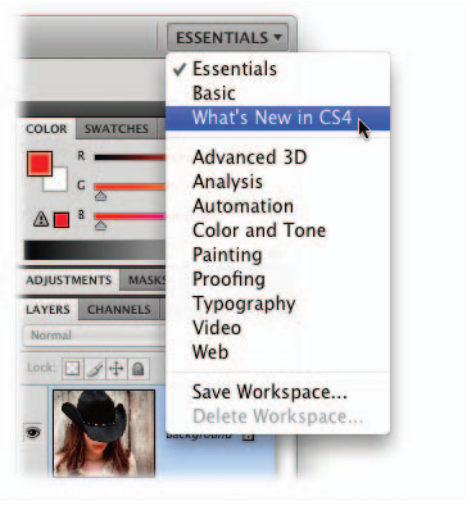


Figure 1-5:
Most of the preset workspaces are designed to help you perform specialized tasks. For example, the Painting workspace puts the Brushes and Navigation panels at the top right and groups together the color-related panels you'll undoubtedly use while you're painting your masterpiece. Take the built-in workspaces for a test drive—they may give you customizing ideas you hadn't thought of.

TIP If you're familiar with Photoshop but new to CS4, try out the "What's New in CS4" workspace. Because it literally highlights all the menu item that are new in Photoshop CS4, it's a great way to see the additions at a glance.

To save your own custom workspace, first get things looking the way you want. (The next section has details on working with panels.) Next, click the Workspace Switcher menu and choose Save Workspace (it's at the bottom of the menu). In the resulting dialog box, give your workspace a name and turn on the options for the features you want to include. You can pick from panel locations, keyboard shortcuts, and menu settings; just be sure to turn on the options for *all* the features you changed or they won't be included in your custom workspace. After you click Save, your custom workspace shows up in the Workspace Switcher menu along with all the built-in workspaces.

TIP Some workspaces hide menu items so you see only the ones you're most likely to use for a specific editing task. If you need to get at hidden menu items temporarily, look for the Show All Menu Items option at the bottom of any menu list. If you don't see that option, it means all of that menu's items are visible.

If you've created some custom workspaces that you'll never use again, you can get rid of them (sorry, you can't get rid of the presets!). First, make sure the workspace you want to delete isn't selected. Next, choose Delete Workspace from the Workspace Switcher menu. In the resulting Delete Workspace dialog box, pick the offending workspace and click Delete.

Working with Panels

The far right side of the Application frame is home to a slew of small windows called *panels* (they were called palettes in previous versions of Photoshop). They let you work with commonly used features like colors, adjustments, layers, and so on. Panels don't have to live alone; you can link them together in groups, which you can then move around. Feel free to organize the panels you use most however you like, and you can position them anywhere you want. Panels can be free floating or *docked* (attached) to the left, top, or right side of your screen (or the Application Frame).

Photoshop starts you off with three docked panel groups filled with the panels it thinks you'll most likely need first. The first group includes the Colors, Swatches, and Styles panels; the second group includes Adjustments and Masks; and the third includes Layers, Channels, and Paths panels (there's more on docked panels coming up shortly).

To work with a panel, select it by clicking its tab. Panels are like Silly Putty—they're incredibly flexible. You can collapse, expand, move, and resize them or swap 'em for other panels (the Windows menu lists all the panels in Photoshop). Here's how:

- **Collapse or expand panels.** If the panels are encroaching on your editing space, you can shrink them both horizontally and vertically so they look and behave like buttons (see Figure 1-6). To collapse a panel horizontally into a button nestled against the side of another panel (or the edge of your screen), click the tiny double arrow in its top-right corner (click this same button again to expand the panel). To collapse a panel vertically against the bottom of the panel above it, click a blank spot in the dark gray area near the panel's tab to make the panel roll up like a window shade (click it again to roll it back down). To adjust a panel's width, hover your cursor over its left edge; when your cursor turns into a double-headed arrow, drag left or right to make the panel bigger or smaller. Collapsing and expanding panels works exactly the same for individual panels and panel groups.
- **Modify panel groups.** As mentioned earlier, Photoshop clumps frequently used panels into *panel groups*. If you don't use certain a panel in a group, replace it with a panel you *do* use. To remove a panel, click its tab and drag it out of the panel group to a different area on your screen (see Figure 1-7, top). Then click the tiny circle in the panel's top-left corner to close it. (On a PC, click the X button in the panel's top-right corner instead.) Don't worry—the panel isn't gone forever; if you want to reopen it, simply choose it from the Windows menu.

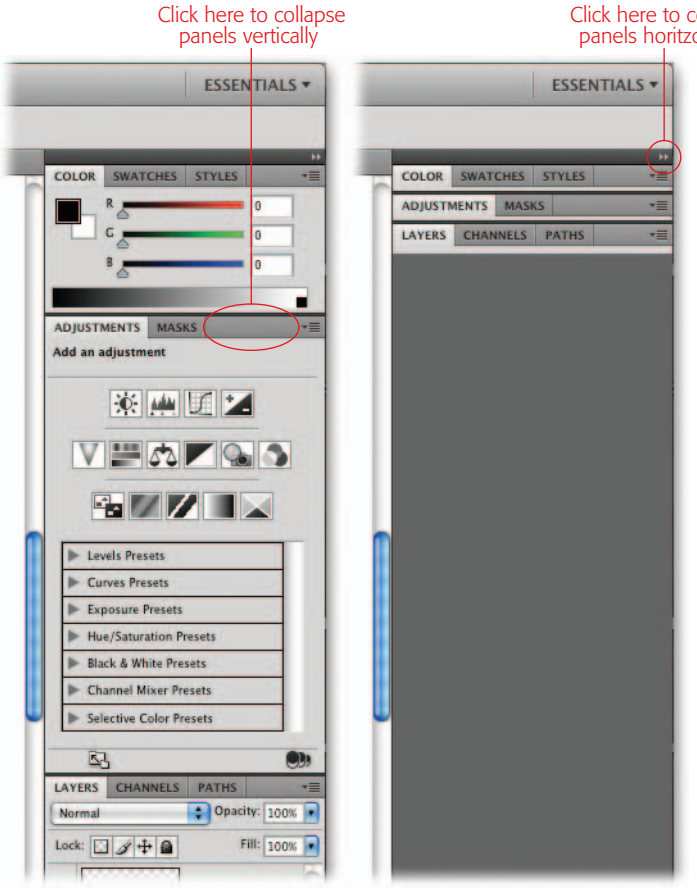


Figure 1-6: *Here you can see the difference between expanded (left) and collapsed (right) panels. Click the medium gray bar at the top of a panel to collapse it vertically (circled on the left), rolling it up like a window shade. Click the bar again to expand it. You can also collapse them horizontally by clicking the double arrows at the top right of the panel (circled on the right).*

To add a panel to a group, first make sure the panel is open (if not, select it from the Windows menu). Then grab the top of the panel near its tab and drag it into the group you want to add it to; when you see a blue outline appear inside the panel group, release your mouse button (see Figure 1-7, middle).

TIP To rearrange panels within a group, drag their tabs left or right.

- **Dock and undock panels.** The first time you open Photoshop, it docks three sets of panel groups to the right side of your screen (or Application Frame). But you're not stuck with your panels glued to this spot; you can set them free by turning them into *floating* panels. To liberate a panel, grab its tab, pull it out of the group it's in, and then move it anywhere you want. When you let go of your mouse button, the panel appears where you put it—all by itself.

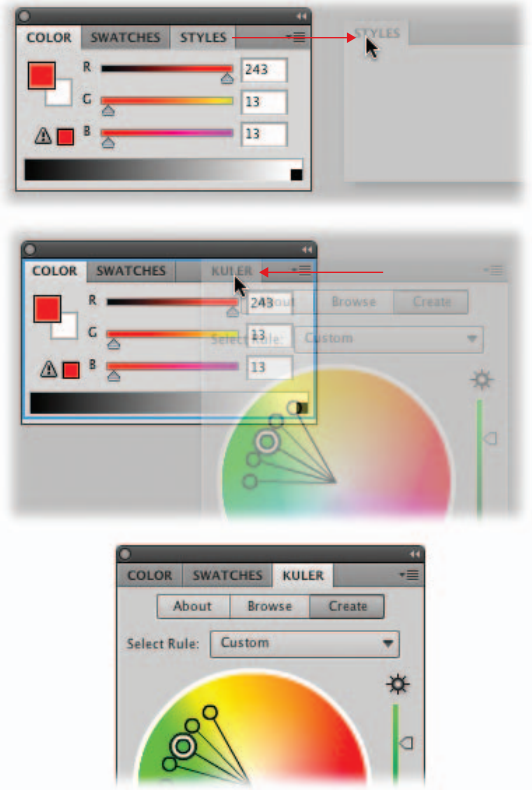


Figure 1-7:
Top: You can remove panels you don't use to free up space. For example, if you never use the Styles panel (and you probably won't use it much), drag it out of the panel group and close it.

Middle: When you're dragging a panel into a panel group, wait until you see a blue line around the inside of the group before you release your mouse button. Here the Kuler panel is being added to a panel group.

Bottom: When you release your mouse button, the new panel becomes part of the group.

To undock a whole panel group, click an empty spot in the group's tab area and drag it out of the Dock (Figure 1-8, top). Once you release your mouse button, you can drag the panel group around by clicking the same empty spot in the tab area. Or, if the group is collapsed, click the tiny dotted lines at the top of the group, just below the dark gray bar (Figure 1-8, bottom). To dock the panel (or panel group) again, drag it back to the right side of your screen. Getting the hang of undocking, redocking, and arranging panels takes a little practice because it's tough to control where the little buggers *land*. When the panel you're dragging is about to join the Dock area at the right side of your screen (or a different panel group), a thin blue line appears showing you where the panel or group will go. Unfortunately, the line can be tough to spot because it's so thin and light colored.

TIP If the thin blue highlight lines are hard to see when you're trying to group or dock panels, try dragging the panels more slowly. When you drag the panel into a group or dockable area, the blue highlight hangs around longer.

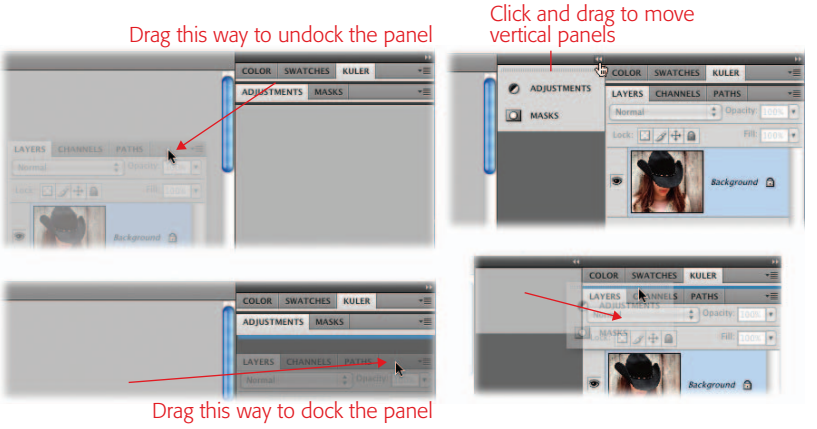


Figure 1-8:
Left: To undock a panel or panel group, grab a free area to the right of the tabs at the top of the panel and drag it somewhere else on your screen. To dock it again, drag it to the right side of your screen–on top of the other panels. When you see a thin blue line appear where you want the panel or group to land, release your mouse button.

Right: You can move vertically collapsed panels in the same way, but you grab them by the row of tiny dots that appears at the top (shown here).

Using the Tools Panel

The most important panel in Photoshop is the one named Tools (Figure 1-9, left); it serves as home base for all of Photoshop's editing tools. When you first launch the program, you'll see the Tools panel on the left side of your screen, but you can drag it anywhere you want by clicking the double row of dots near its top (Figure 1-9, right).

Unfortunately, there's not enough room in the Tools panel for every tool to have its own button (or the panel would be a mile long), so related tools are grouped together into *toolsets*. The microscopic black triangle at the bottom right of each tool's button lets you know it represents more than one tool (the Move and Zoom tools are the only ones that live alone). To see the other tools, hold down the tool's button and Photoshop displays a list of the other tools it harbors in a fly-out menu, as shown in Figure 1-9, left.

Once you expand each toolset, you'll see each tool's keyboard shortcut listed to the right of its name. These shortcuts are great timesavers because they let you switch between tools without moving your hands off the keyboard. To access a tool that's hidden deep within a toolset, add the Shift key to the tool's shortcut and you'll cycle through all the tools in that toolset. For example, to select the Elliptical Marquee tool, press Shift-M repeatedly until that tool appears in the Tools panel.

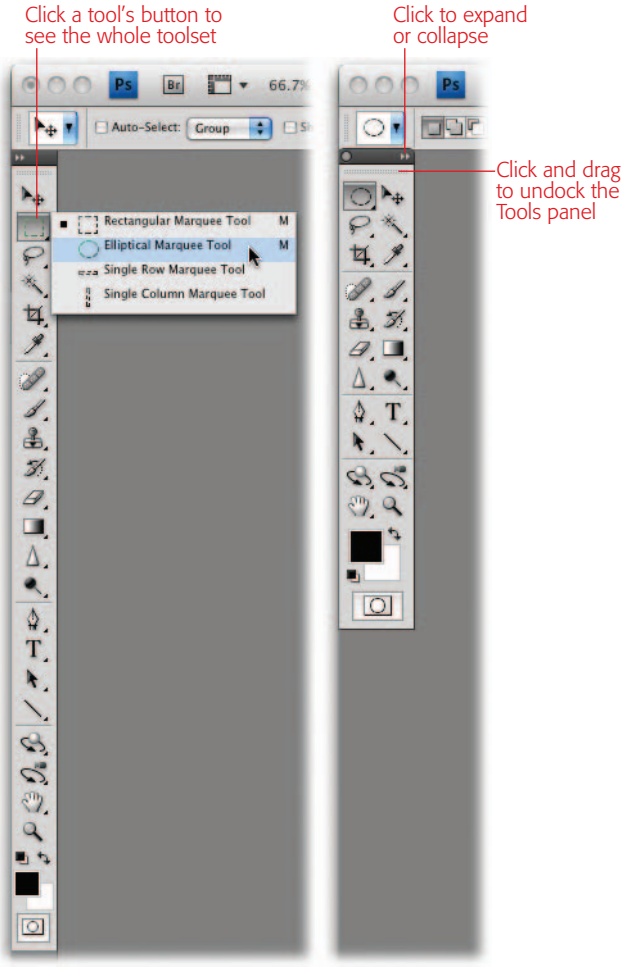


Figure 1-9:
Click and hold any tool to expand its toolset. Photoshop starts you off with a one-column Tools panel, but you can collapse it into two columns by clicking the dark gray bar shown here (click it again to expand it back to one column). If you want to undock the Tools panel from the Application Frame (page 11), grab the dotted bar labeled here and drag the panel wherever you want it.

TIP If you need to switch tools only *temporarily*—for a quick edit—you can use Photoshop CS4's new spring-loaded tools feature. Just press and hold a tool's keyboard shortcut to switch to that tool and then perform your edit. As soon as you release the key, you'll jump back to the tool you were using before. For example, if you're painting with the Brush and suddenly make an error, press and hold E to switch to the Eraser and fix your mistake. Once you release the E key, you're back to using the Brush tool. Sweet!

For an overview of all the tools in this panel, check out online Appendix E. For a quick reminder of what each tool does, hover your mouse pointer over its icon for a couple of seconds; Photoshop displays a handy tooltip that includes the tool's name and its keyboard shortcut (you have to keep your mouse perfectly still or release your mouse button for the tooltip to appear).

Foreground and background color chips

Photoshop can handle millions of colors, but it lets you work with only two at a time: a foreground color and a background color. Each of these is visible as a square *color chip* near the bottom of the Tools panel (in Figure 1-9, they're black and white, respectively). Photoshop uses your foreground color when you paint or fill something with color. It uses your background color to do things like setting the second color of a *gradient* (page 265) and erasing parts of a locked Background layer (page 80). It's also helpful when you're running special effects like the Clouds filter (page 486). In other words, the foreground color is where most of the action is. If you want to change either color, click its color chip once to make Photoshop open the Color Picker (page 457), which lets you pick another color for that particular color chip. To swap your foreground and background colors, click the double-headed arrow just above the two chips or press X. (Remember this shortcut; it's extremely handy when you work with layer masks, which are discussed in Chapter 3.)

Colors

In the upper-right part of your screen, you'll see the Color panel, which also displays your current foreground and background color chips. This panel lets you pick a new color for either chip *without* having to open the just-mentioned Color Picker (which also means Photoshop won't pop open a big dialog box that hides part of your image). The Color panel is discussed in Chapter 12 on page 461.

Swatches

The Swatches panel holds miniature samples of colors, giving you easy access to them for use in painting or colorizing your images. This panel also stores a variety of color libraries like the Pantone Matching System (special inks used in professional printing processes). You'll learn all about the Swatches panel in Chapter 12 on page 460.

Styles

Styles are saved special effects created with a variety of layer styles (page 119). For example, if you've created a glass-button look by using several layer styles, you can save the whole lot of 'em as a *single* style—which means you can apply it with a swift double-click (instead of adding each layer style individually). You can choose from tons of built-in styles; they're all discussed starting on page 122.

Adjustments

The Adjustments panel, new in Photoshop CS4, gives you one-stop access to all the Adjustment layers in Photoshop. Instead of making color and lighting changes to your original image, these Adjustment layers make the change on a separate layer, giving you all kinds of editing flexibility and keeping your original image out of harm's way. They're defined in detail in Chapter 3 (page 71).

Masks

Also new in CS4, the Masks panel lets you create and fine-tune layer masks. You'll dive headfirst into masks in Chapter 3 (page 105), but, for now, you can think of them as digital masking tape that lets you hide the contents of a layer, whether that's an adjustment of some sort (color or lighting change) or parts of an image.

Layers

The Layers panel is the single most important panel in Photoshop. Layers let you work with your images as if they were a stack of transparencies, so you can create one image from many. With layers, you can resize, adjust, and add special effects to each element independently. Understanding layers is the key to Photoshop success, and you'll learn all about them in Chapter 3.

Channels

Channels are containers in which Photoshop stores the color information your images are made from, whether that's RGB (red, green, blue), CMYK (cyan, magenta, yellow, black), grayscale, and so on. Channels are extremely powerful, and you can use them to edit the individual colors in your image, which is helpful in sharpening images, creating selections (telling Photoshop which part of an image you want to work with), and so on. Chapter 5 has the scoop on channels.

Paths

Paths are the lines you make with the Pen and Shape tools. They're not your average, run-of-the-mill lines; because they're comprised of points and paths instead of pixels, they'll always print perfectly crisp, and you can make them bigger or smaller without losing any quality. You'll learn all about paths in Chapter 13.

Navigator

Think of the Navigator panel as a map. It displays a mini version of your image with a frame around the area you're currently zoomed into. You can use the Navigator panel to move around in your document, and change magnification levels. The Navigator panel is especially useful when you're working with really big images and you're zoomed in to work on fine details. To see the Navigator panel in action, flip to Chapter 2, page 60.

Histogram

A histogram is a graph that shows a visual representation of the color info contained in your image. The left side of the graph shows how much of the image falls into the darkest colors (shadows), the far right shows the brightest colors (highlights), and the area in the middle represents colors in between (midtones). Histograms are crucial when you're color-correcting images, and they're discussed at length in Chapter 9, beginning on page 363.

Info

The Info panel is your command center for general info about the image you're working on. It shows you the color values of certain pixels, your mouse pointer location, image size, and other useful bits of, well, image info. It also changes on the fly to show info that relates to the currently selected tool and gives you a handy tip about using the currently active tool. You can find out more on pages 68 and 373.

The Power of Undo

Thankfully, Photoshop is extremely forgiving: It'll let you back out of almost anything you do, which is *muy importante* when you're first learning.

You've got several ways to retrace your steps, including the lifesaving Undo command—just choose Edit → Undo or press ⌘-Z (Ctrl+Z on a PC). Unfortunately, the Undo command lets you undo only the last edit you made.

If you need to go back *more* than one step, use the Step Backward command—choose Edit → Step Backward or press ⌘-Option-Z (Ctrl+Alt+Z on a PC). Out of the box, this command lets you undo the last 20 things you did, one at a time. If you want to go back even further, you can change that number by digging into Photoshop preferences, as the next section explains. You can step forward through your edit history, too, by choosing Edit → Step Forward or ⌘-Shift-Z (Shift+Ctrl+Z on a PC).

TIP Photoshop lets you undo up to 20 changes, back to the point when you first opened the document, which means you can't close a document and then undo the changes you made *before* you closed it.

Changing How Far Back You Can Go

If you think you might someday need to go back *further* than your last 20 steps, you can make Photoshop remember up to 1,000 steps by changing the program's preferences. Here's how:

1. **Choose Photoshop → Preferences.**

   On a Mac, doing this opens the Preferences dialog box. Click Performance in the left-hand column to see the history preferences. On a PC, choosing Photoshop → Preferences opens another submenu. Choose Performance from the submenu to see the history preferences.

2. **Look for the History States field in the upper right corner of the Preferences dialog box and then pick the number of Undo steps you want Photoshop to remember.**

   Choose any number between 1 and 1,000. While increasing the number of history states might help you sleep better, doing so means Photoshop has to keep track of that many versions of your document, which requires memory and processing power. If you increase this setting and notice that the program is running like molasses, try lowering it.

3. **Click OK when you're finished.**

Turning Back Time with the History Panel

The History panel is like your very own time machine. Whereas the Undo and Step Backward commands let you move back through changes one step at a time, the History panel (see Figure 1-10) kicks it up a notch and lets you jump back *several* steps at once. (You can step back through as many history states as you set in Photoshop's preferences, as mentioned earlier.) The History panel is much quicker than undoing a long list of changes one by one, and it gives you a nice list of *exactly* what you've done to your image—in chronological order from top to bottom—letting you pinpoint the exact state you want to jump back to. You can also take snapshots of your image at various points in the editing process to make it easier to jump back to the state you want (covered later in this section).

After you make a few changes to your image, pop open the History panel by choosing Window → History to see a list of everything you've done to the image, including opening it. To jump back in time, click the step you want to go back to, making Photoshop return your image to the way it looked at that point. The tiny pointer in the panel's left column (circled in Figure 1-10, top) shows which step you selected (and the step itself is highlighted). If you stepped back further than you meant to, just pick a more recent step in the list.

Each time you save your image, a thumbnail preview of what it looked like appears at the top of the History panel. Clicking the thumbnail is a fast and easy way to jump back to the last saved version of your document without having to close and reopen it.

TIP You can also get back to the last saved version of your document by choosing File → Revert, as discussed later in this chapter.

Taking *snapshots* of your image along the way lets you mark key points in the editing process. A snapshot is more than a preview of your image because it also includes all the edits you've made up to that point. Think of snapshots as milestones in your editing work: When you reach a critical point that you might want to return to, take a snapshot so you can easily get back to that particular version of your document. To take a snapshot, click the little camera icon at the bottom of the History panel (shown in Figure 1-10). Photoshop adds the snapshot to the top of the panel, just below the saved-state thumbnail. The snapshots you take appears in the list in the order you took them.

NOTE History states don't hang around forever: As soon as you close your document, they're gone. If you think you'll ever want to return to an earlier version of your document, use the "Create new document from current state" button at the bottom of the History panel. That way you've got a brand new document to return to, instead of having to recreate it.

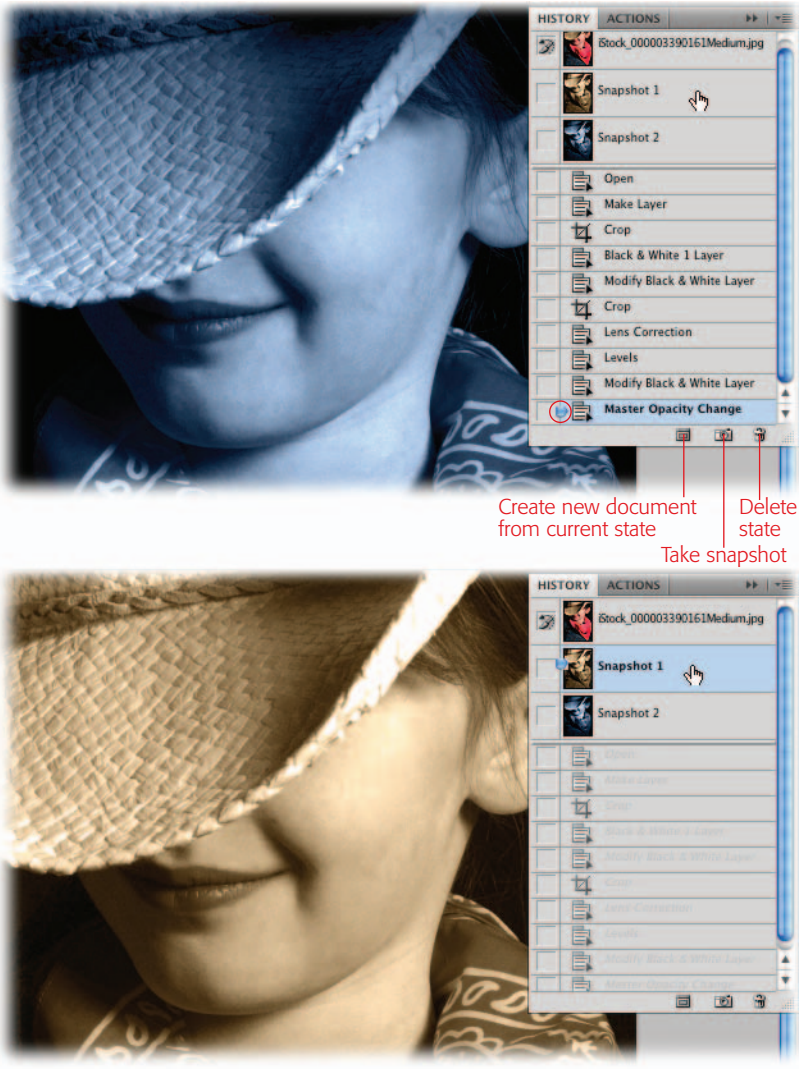


Figure 1-10:
Top: The History panel keeps track of everything you do to your images, beginning with opening them. The tiny pointer (circled) lets you know which editing step you're on. And you can also take snapshots of your image at crucial points during the editing process like when you convert it to black and white and add a color tint.

Bottom: If you take a snapshot, you can revert to that state later on with a single mouse click. For example, if you've given your image a sepia (brown) tint and later changed it to blue, you can easily go back to the sepia version by clicking the snapshot you took, as shown here, without working your way back through all the other changes you made.

The History Brush

The History Brush takes the power of the History panel and lets you focus it on specific parts of your image. Instead of sending your *entire* image back in time, you can use the History brush to paint your edits away *selectively*, revealing the previous state of your choosing. For example, you could blur the heck out of a portrait with the Gaussian Blur filter (page 591) and then use the History Brush to revert to the original, sharp version of your subject's face, as shown in Figure 1-11. Of course, you paint away other edits, too, like color changes, filter effects, or any other changes you made in between.

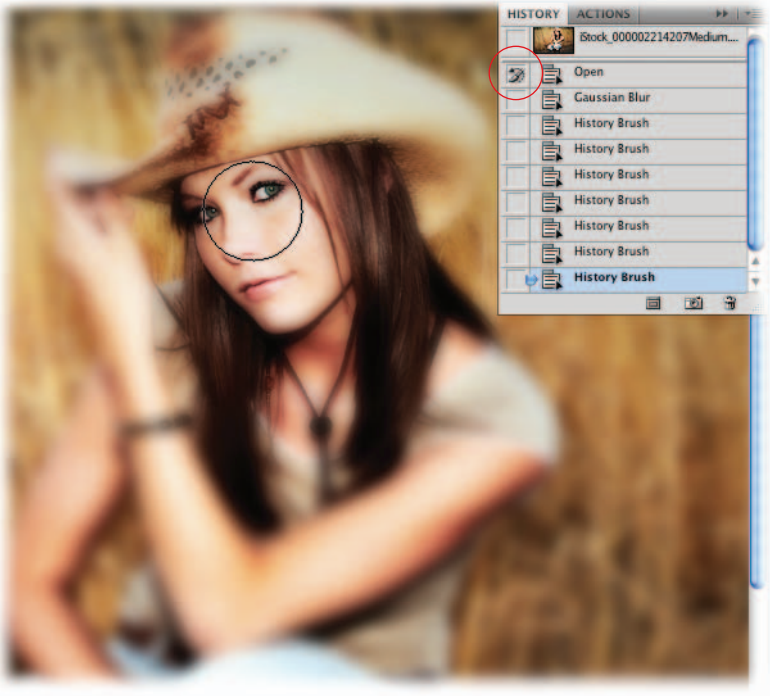


Figure 1-11: *By using the History Brush set to your image's Open state–see step 4 on page 28–you can undo all kinds of effects, including a severe Gaussian Blur.*

NOTE The Art History Brush works similarly, but it adds bizarre, stylized effects as it returns your image to a previous state (see the box on page 493).

Here's how to use the History Brush to undo a serious Gaussian Blur you've applied:

1. **Open an image—in this example, a photo of a person—and run the Gaussian Blur filter.**

   You'll learn all about opening images on page 47, but, for now, choose File → Open and then navigate to where the image lives on your computer. Then choose Filter → Blur → Gaussian Blur. (You'll learn all about using filters in Chapter 15.)

2. **In the resulting dialog box, enter a radius of 10 and then click OK.**

   This setting blurs your image pretty severely, giving you a *lot* to undo with the History Brush.

3. **Grab the History Brush by pressing Y and choose a brush from the Options bar.**

   Once you've grabbed the History Brush, hop up to the Options bar's Brush menu and pick a large, soft-edged brush (one that's pretty big and blurry around the edges). You'll learn about brushes in Chapter 12.

4. **Open your History panel (Window → History) and click a saved state or snapshot.**

   This is where you pick which version of the image you want to revert to. Since all you've done is open the image and run the Gaussian Blur filter, choose the Open state. Just click within the panel's left-hand column next to that state to choose it (you'll see the History Brush's icon appear in the column).

5. **Mouse over to your image and paint over the person's eyes to reveal the unblurred eyes of the original image.**

   If you keep painting in the same place, you'll expose more and more of the original image. For example, a quick swipe over the eyes reveals traces of the original while a good scrubbing back and forth in one area reveals the original in its full glory.

As you can see, you can use the History Brush to easily undo any kind of change. Just pick the state you want to revert to in the History panel and paint away!

POWER USERS' CLINIC

Erasing to History

At some point you'll realize that the perfect fix for your image is something you zapped about 10 steps ago. For example, you may change the color of an object only to decide later that it looked better the way it was. Argh.

Thanks to Photoshop's "Erase to History" feature, you can jump back in time and paint away the edits you no longer want. Choose the Eraser tool by pressing E and then turn on the "Erase to History" checkbox in the Options bar. Choose the layer you want to edit from your Layers panel and then start erasing the areas you want to restore to their former glory.

Erasing to history is a really handy way to leave *some* changes in place while recovering your original image in other areas.

Revert Command

If you've taken your image down a path of craziness from which you *can't* rescue it by using Undo or the History panel, you can revert back to its most recent saved state by choosing File → Revert. This command opens the previously saved version of your image, giving you a quick escape route back to square one.

NOTE If you haven't made any changes to your image since it was last saved, the Revert option is disabled.

Tweaking Photoshop's Preferences

As you learned earlier in this chapter, Photoshop is pretty darn customizable. In addition to personalizing the way your tools behave and how your workspace looks, you can make lots of changes using the program's preferences, which control different aspects of Photoshop and let you turn features on or off, change how tools act, and fine-tune how the program performs on your computer.

To open the Preferences dialog box, choose Photoshop → Preferences (Edit → Preferences → General on a PC), or press ⌘-K (Ctrl+K). When you choose a category from the left side of the dialog box, you see tons of settings related to that category appear on the right side. In the following pages, you'll get an idea of the types of goodies each category contains.

General

The General section in the Preferences dialog box (Figure 1-12) is a kind of catch-all for preferences that don't fit anywhere else. Most of these options are either self-explanatory (Beep When Done, for example) or covered elsewhere in this book. A few, however, are worth taking a closer look at here.

Unless you tell it otherwise, Photoshop displays the Adobe Color Picker (see page 457) anytime you choose a color. If you're more comfortable using your operating system's color picker instead, choose it from the Color Picker pop-up menu. If you download and install third-party color pickers like Painter's Picker (page 457), they show up in this menu, too. However, since the Adobe Color Picker is designed to work with Photoshop and all its built-in options, using another color picker may mean losing quick access to critical features like Color Libraries (page 459).

Figure 1-12: *The General section of Photoshop's Preferences dialog box is home to the History Log settings. If you turn on the History Log checkbox, Photoshop keeps track of everything that happens to your images. The History Log is an invaluable tool for folks who need to prove what they've done to an image for billing clients or to produce legal documentation of all the edits they've made to an image (think law enforcement professionals and criminal investigators).*

Another notable option in this dialog box involves a couple of cool new features called animated zoom and flick-panning (both covered in Chapter 2). If your computer is running at a snail's pace, try turning off one or both features by turning off their checkboxes. Both features can *really* tax slower computers, and while they're sure fun to use, you can edit without 'em.

Interface

The Interface preferences control how Photoshop looks on your screen. You can squeeze a little more performance out of slower computers by setting the Border pop-up menus at the top of the dialog box to None. That way, Photoshop won't waste any processing power generating those pretty drop shadows around your images or around the Photoshop window itself.

Also, if you're familiar with all of Photoshop's tools and don't care to see the little yellow tooltips that appear when you hover over them (page 13), turn off the Show Tool Tips checkbox (you can find the setting in the middle of the dialog box below the screen mode pop-up menus). If you'd like new documents to open in separate windows instead of in new tabs, turn off the "Open Documents as Tabs" checkbox.

File Handling

The File Handling settings control how Photoshop opens and saves files. If you're a Mac user and you plan on working with images that'll be opened on both Macs and PCs, you need to make sure Append File Extension is set to Always and that Use Lower Case is turned on. These settings improve the chances that your files will open on *either* type of computer without hassle. PC users can leave their File Handling settings alone because Mac users can open their Photoshop files just fine.

Straight from the factory, Photoshop is set to display a dialog box each time you save a file that asks if you want to save your images for maximum compatibility with *PSD* and *PSB* files (the native Photoshop format and the format for really big files, respectively; see page 46). Saving your documents with maximum compatibility improves the chances that your document can be understood by other programs like Adobe InDesign. If the pesky dialog box annoys you, change the "Maximize PSD and PSB File Compatibility" pop-up menu to Always and you'll never see the dialog box again (plus you'll have the peace of mind that comes with knowing your images will play nice with other programs).

Another handy option lies at the very bottom of the dialog box. Here you can change the number of documents Photoshop remembers in its Recent files menu (found by choosing File → Open Recent). This field is automatically set to 10, but you can change it if you like.

Performance

The Performance preferences (shown in Figure 1-13) control how efficiently Photoshop runs on your computer. For example, the amount of memory the program has to work with affects how well it performs. In the Memory Usage section's Let Photoshop Use field, Photoshop's factory setting tells the program to use up to 70 percent of your machine's available memory. If you're tempted to increase it to 100 percent for better performance, don't. Remember that other programs need to use your computer's memory, too, and leaving it set to 70 percent ensures that all of them get their fair share (after Photoshop takes the biggest chunk, of course).

POWER USERS' CLINIC

Customizing Keyboard Shortcuts and Menus

Keyboard shortcuts can make the difference between working fast and working at warp speed. They can drastically reduce the amount of time you spend taking your hands off the keyboard to do things like use your mouse to choose menu items or grab tools. Photoshop has a ton of built-in keyboard shortcuts and menu groups, but that doesn't mean you're stuck with 'em. You can reassign shortcuts, add new ones, and show or hide menu options. Here's how to add or change keyboard shortcuts:

1. Choose Edit → Keyboard Shortcuts to open the "Keyboard Shortcuts and Menus" dialog box.
2. Choose which type of shortcuts you want to add or change from the Shortcuts For pop-up menu. You options are Application Menus (like the File and Edit menus), Panel Menus (the menus on the program's various panels), and Tools.
3. In the list below the Shortcuts For menu, select the shortcut you want to change.
4. Enter a new shortcut in the Shortcut field and then click Accept.
5. To save your new shortcut set, click the floppy-disk icon near the top of the dialog box to the right of the Set pop-up menu. In the resulting dialog box, give your custom set of keyboard shortcuts a name and then click Save.

To help you remember the new keyboard shortcuts, Photoshop lets you print a handy chart to tack up on the wall. In the Keyboard Shortcuts and Menus dialog box, select your custom set from the Set pop-up menu and then click Summarize. In the resulting Save dialog box, give the keyboard shortcut list a name, choose where to save it, and click Save. Photoshop creates an HTML file that you can open in any Web browser and then print.

When you're finished, you can impress your colleagues by telling them that you *reprogrammed* Photoshop to do your bidding. Unless they've been in this dialog box themselves, they'll have no idea how easy this stuff is to change.

In the Keyboard Shortcuts and Menus dialog box, you can modify the program's menus by clicking the Menus tab near the top of the box. In the Menu For pop-up menu, choose Application Menus or Panel Menus, depending on which ones you want to tweak. Click the little flippy triangle next to each menu to see the items it includes. To hide a menu item, select it and then click its visibility eye; to show a hidden item, click within its Visibility column. If you want, you can colorize menu items so they're easier to spot. To do that, select the item you want to highlight, click within the Color column, and choose a color from the resulting pop-up menu. Click OK and enjoy your new customizations.

However, if you just have to tweak this setting, type a new number in the field or drag the slider below it.

The Performance category is also where you can also change the number of history states that Photoshop remembers, as explained on page 25. If your computer's hard drive is running low on space, consider adding another drive that Photoshop can use as a *scratch disk*—the place where it stashes the bazillions of temporary files it makes when you're editing images like those various history states. (If you don't have a separate scratch disk, Photoshop stores those temporary files on your computer's hard drive, taking up space you could be using for other documents.) When you add a new internal hard drive or plug in an external drive, that drive appears in the Scratch Disks list shown in Figure 1-13. You can give Photoshop the green light to use it by putting a checkmark in the disk's "Active?" column.

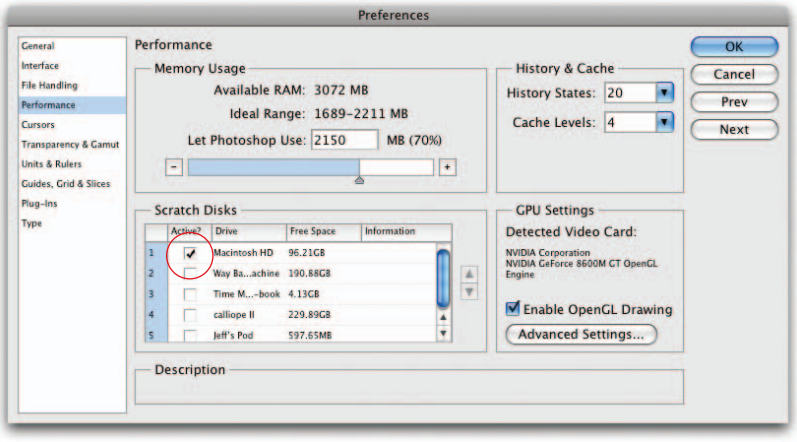


Figure 1-13: *To add one or more scratch disks (page 31), click the "Active?" column next to each hard drive you want to use. Avoid using USB-based hard drives as they tend to be sluggish and can actually make Photoshop run slower.*

If you need to squeeze a little more performance out of your machine, turn off the Enable OpenGL Drawing checkbox (see the box on page 60). The drawback to disabling this setting is that you won't be able to use features that rely on it like flick-panning (page 59) and Rotate View (page 61).

TIP When it comes to Photoshop's scratch disk, speed matters, and faster means better. Since the speed at which the disk spins plays a big role in scratch disk performance, always try to use disks rated 7200 RPM (revolutions per minute) or faster. Slower 5400 RPM disks can take a toll on Photoshop's performance, and 4200 RPM drives slow…Photoshop…to…a…crawl.

Cursors

These preferences control how your cursors look when you're working with images. There are no right or wrong choices for you to make here, so try out the different cursor styles and see what works for you. Photoshop includes two types of cursors: painting cursors and everything else. When you choose different options, Photoshop shows you a preview of what each cursor looks like. At the bottom of the dialog box is a Brush Preview color swatch that controls the color of the brush preview when you resize your brush by Ctrl-Option-dragging (Alt+right-click+dragging on a PC) to the left or right. To change the swatch's color, click the color chip, choose a new color from the Color Picker dialog box, and then click OK. (See page 464 to learn how these options affect the Brush tool.)

Transparency & Gamut

The Transparency settings let you fine-tune what the background layer looks like when part of your image is transparent. Like the cursor settings, these options are purely cosmetic, so feel free to experiment. You can learn more about transparency and the Background layer in Chapter 3. The Gamut Warning option lets you set a highlight color showing where colors in your image fall outside the safe range for the color mode you're working in or the printer you're using. (You'll learn more about all these advanced color issues in Chapter 16.)

Units & Rulers

The Units & Rulers category (see Figure 1-14) lets you determine the unit of measurement Photoshop uses. The Rulers pop-up menu, not surprisingly, controls the unit of measurement displayed in your document rulers (see page 64); your choices are pixels, inches, centimeters, millimeters, points, picas, and percent. If you work on a lot of documents destined for print, inches or picas are probably your best bet. If you create images primarily for the Web, choose pixels. Leave the Type pop-up menu set to points unless, for whatever reason, you need to work with type measured in pixels or millimeters, which can be handy if you need to align type for a Web page layout.

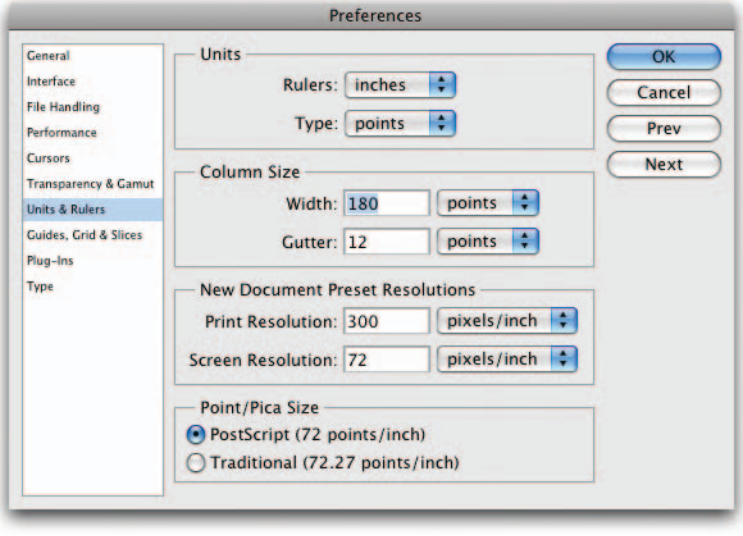


Figure 1-14: *To really save some time, take a moment to adjust the settings in the New Document Preset Resolutions section. From that point on, Photoshop automatically fills in the New Document dialog box with the settings you entered here (you'll learn about creating new documents on page 37).*

The Column Size settings are handy when you're designing graphics that need to fit into specific-sized columns in a page layout program like Adobe InDesign. Just ask the person who's designing the layout in InDesign which measurements you should use.

Guides, Grid & Slices

These preferences let you choose the colors for your guides (page 64), gridlines (page 66), and slice lines (page 679). You can also set your gridlines' spacing and the number of subdivisions that appear between each major gridline with the "Gridline every" and Subdivisions fields, respectively.

Plug-ins

You can make Photoshop do even more cool stuff by installing third-party programs called *plug-ins*. There are so many useful plug-ins that this book has an entire chapter devoted to them (Chapter 19). The preferences in this category let

you store plug-ins somewhere other than the Photoshop folder, which can help you avoid losing your plug-ins if you have to reinstall Photoshop at some point. Leave both checkboxes in the Extension Panels section turned on so Photoshop can connect to the Internet if a plug-in or panel needs to grab information from a Web site. For example, the Kuler panel (covered on page 454) lets you use color themes posted on the Web by folks in the Kuler community. If you turn off these checkboxes, Photoshop can't connect to the Internet and you can't use the Kuler panel.

Type

Photoshop has an amazing type engine under its hood, and you'll learn all about it in Chapter 14. The preferences here let you toggle Smart Quotes (the curly kind) on or off, as well as control the Font Preview Size used in the Options bar's font menu and in the Character panel (page 556). When you pick a size from this pop-up menu, the font names appears *in their actual typefaces*. This preview is *extremely* helpful when you're trying to choose a font. If you don't want to see typeface previews, turn off Font Preview Size to make Photoshop display only the typeface names (yawn).

If you work with Asian characters, turn on the Show Asian Text Options checkbox and make sure the Enable Missing Glyph Protection checkbox is also turned on. That way you don't end up with weird symbols or boxes if you try to use a letter or symbol that isn't installed on your machine.

The Preset Manager

Once you get comfortable in Photoshop, you can customize all kinds of stuff like brushes, color swatches, gradients, and so on. The Preset Manager handles loading, saving, and storing your personalized goodies, as well as all the presets (built-ins like brushes, color swatches, patterns, and so on) that came with the program. You can open it by choosing Edit → Preset Manager or by clicking the right-facing triangle at the top right of any tool's preset picker menu in the Options bar and then choosing Preset Manager.

Each group of settings, like a category of brushes, is called a *preset library*. To see a certain preset library, choose it from the Preset Type pop-up menu at the top of the Preset Manager dialog box (Figure 1-15).

Clicking the button that's circled in Figure 1-15 lets you set the category of presets you're viewing to the factory-fresh settings (choose "Reset [name of category]") and then click OK. You can make these same adjustments when you're using the tools themselves, but the Preset Manager gives you a bigger preview space than the individual tool's preset pickers, which makes these organizational chores a little more tolerable.

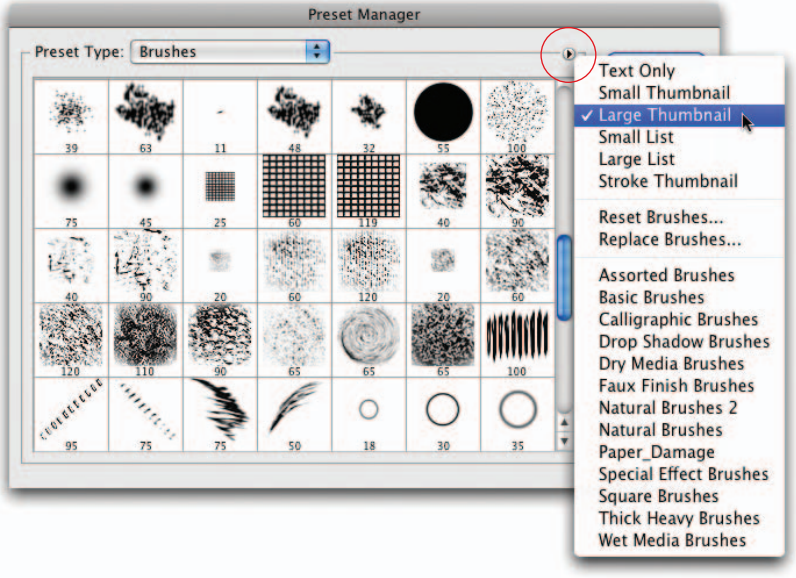


Figure 1-15: *You can open the Preset Manager's panel menu by clicking the right-facing triangle (circled). This menu lets you change the size of the previews you see in Photoshop's preset picker menus. Large thumbnails make it easier to see what your options are.*

Sharing Presets

Once you've made your own brushes, styles, or what have you, feel free to share them with the masses. You can share them with other computers (which is handy when the whole team needs to use the same color swatches or brushes), and upload them to the Web (for the whole world to download).

To create a preset library of your own, open the Preset Manager and click the Save Set button. In the resulting Save dialog box, give your custom library a name. Photoshop automatically saves it in the folders where it stores *all* custom settings unless you pick a different location on your hard drive (which is handy if you plan on sharing the library with other folks). When everything looks good, click Save.

> **TIP** If you're saving a custom preset to share with others, save it in a spot that's easy for you to find. For example, if you plan on emailing your preset library, your desktop might be a good option. If you're sharing your presets with coworkers who work in the same office, your local file server works well.

Once you've saved your custom preset library, you can email it to folks or upload it to a Web site for others to download. If you're uploading to the Web, make sure the file doesn't have any spaces in its name. For example, instead of naming your file "Dragon Scale Brushes", name it "DragonScaleBrushes".

If you're on the receiving end of a new preset library, open the Preset Manager by choosing Edit → Preset Manager and then click the Load button. Navigate to where the library lives and click Load. The next time you use a tool that has custom presets, you'll see the new library's options in the tool's preset picker menu.

To add to the fun, you can also rename preset libraries. In the Preset Manager dialog box, select the relevant library from the Preset Type pop-up menu and click Rename. Type a new name in the Name field and click OK. To delete a preset library you never use, select it from the Preset Manager's Preset Type pop-up menu and click Delete.

TIP If you've managed to mess up one of Photoshop's built-in preset libraries by adding settings that don't work the way you want, you can easily restore the original libraries. Open the Preset Manager and choose the library you want to reset. From the panel menu (click the button that's circled in Figure 1-15), choose "Reset [type of preset]". Photoshop asks if you want to replace the current brushes or append (add to) them instead. Click OK to replace the brushes and you'll be back to the factory-fresh settings.

CHAPTER
2

Opening, Viewing, and Saving Files

Chances are good that if you're holding this book, you'll be spending a lot of time in Photoshop. So the ability to shave off a minute here and there from routine stuff can really add up. Heck, if you're lucky, you'll save enough time to read a book, ride your bike, or catch an episode of *Battlestar Galactica*.

One way to steal back some of that time is to work more efficiently, and that means learning a slew of tricks for the less glamorous stuff like opening, viewing, and saving files. And since you'll be doing these things so often, it's important to form good habits up front so your documents are set up properly from the get-go. It's truly heartbreaking to find that the artwork you've spent weeks creating is too small to print, or you saved the file in such a way that you can't change it later on. Finally, since a key part of working with images is navigating around these vast pixel landscapes, tis chapter teaches you some handy ways to move around within your onscreen images.

Creating a New Document

Photoshop gives you plenty of ways to accomplish most tasks, including creating a new document. You can choose File → New, but it's faster to press ⌘-N (Crtl+N on a PC). Either way, you'll be greeted with the New dialog box shown in Figure 2-1.

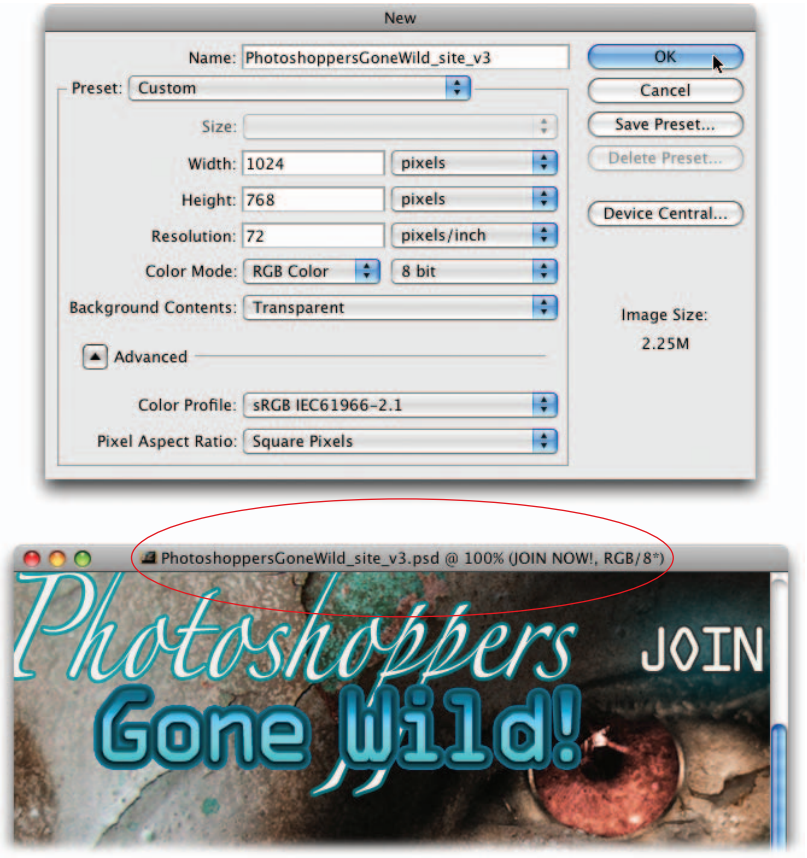


Figure 2-1: *The New dialog box (top) is where life begins for any Photoshop file you create. The settings here let you pick, among other things, your document's size, resolution, and color mode, all of which affect the quality and size of your image. You'll learn more about all these options in the following pages. Whatever you type in the Name box appears in the document's title bar (bottom).*

You'd think that naming your document would be simple: Just type something in the Name box and you're done, right? Not quite. Here are a few things to keep in mind:

- If you're working on a Mac, don't start your file names with a period. Files whose names start with periods are invisible in Mac OS X (meaning neither you nor Photoshop can see them), which makes 'em darn hard to work with.
- If folks need to open your files on both Mac and Windows machines, don't put slashes (/), colons (:), angle brackets (< >), pipes, (|), asterisks (*), or question marks (?) in the file names, either.
- Mac users need to leave *file extensions* (the period and three letters at the end of the file name, like .psd, .jpg, and so on) on the file name. The file extension tells Photoshop, Microsoft's Windows operating system, and other programs what kind of file it is.

Photoshop's Ready-Made Documents

After you've named your document, you need to pick a size for it. You've got two choices here: Enter the dimensions you'd like in the Width and Height boxes or pick one of Photoshop's canned choices (4"×6" landscape photo, 640×480 pixel Web page, and so on) from the Preset and Size menus (see Figure 2-2).

The advantage of picking a canned option is that, in addition to filling out the dimensions for you, Photoshop plugs in resolution and color mode settings. You'll learn more about these two options in a minute, but if you're new to the program, these *presets* (ready-to-use document settings) are a great way to make sure you're starting off with a well-configured document. Besides, the presets can be helpful even if they're not *exactly* what you need. For example, if you find one that lists the right size but the wrong resolution, just select it, adjust the resolution, and you're on your way.

NOTE Two Preset choices worth remembering: If you copy all or part of an image, Clipboard grabs that image's settings for you. This preset makes it easy to match a document's settings without having to copy them first. And if you choose 5"×7" from the Preset menu, you get a document perfectly set up for onscreen viewing.

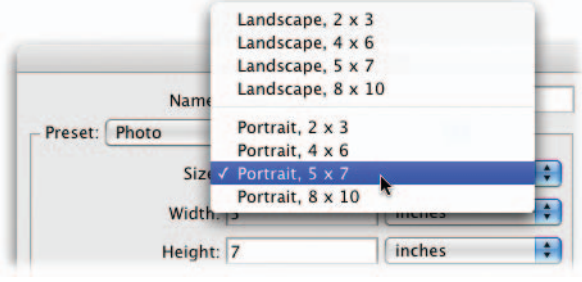


Figure 2-2:
Once you make a selection from the Preset menu (which includes different types of paper, electronic formats, and recently used document sizes), Photoshop fills the Size menu and its related fields with the appropriate settings–including Width, Height, Resolution, and Color Mode (page 40). Presets are great timesavers, and they help you avoid mistakes when you're making new documents.

Setting Size and Resolution

In Photoshop, size refers to two different things: file size (640 kilobytes or 2.4 megabytes, for example) and dimensions (like 4"×6" or 640×480 pixels). You'll find plenty of advice throughout this book on how to control file size, but here you're concerned with the size of your document's canvas.

Photoshop can measure size in pixels, inches, centimeters, millimeters, points, picas, and columns. Just pick the one that's appropriate for your project—or the easiest for you to work with—from the pop-up menus to the right of the Width and Height fields. If you're designing a piece for the Web or a slideshow presentation, pixels are your best bet. If you're going to print the image, inches are a common choice. Columns come in handy when you're making an image destined for a page-layout program like Adobe InDesign that has to fit within a specific number of columns.

NOTE Photoshop assumes you want to use the same unit (say, inches) to measure width and height, so it automatically changes both fields when you adjust one. If you really *do* need to work with different units, just hold the Shift key while you pick the second unit to make Photoshop leave the other field alone.

The Resolution fields control the number of pixels per inch or per centimeter in your document. High-resolution documents typically contain more details in the same amount of space than low-resolution documents of the same size. (You'll learn all about resolution in Chapter 6, starting on page 221.)

For now, here's some ready-to-use guidance if you haven't yet mastered the fine art of resolution: If you're designing an image that will be viewed only onscreen (in a Web browser or a slideshow presentation, for example) enter *72* in the Resolution field—it's really only the pixel dimensions that matter in this situation, but you'll learn more about that later. If you're going to print the image, set the resolution to at least 150 pixels per inch.

Once you enter values in the Width, Height, and Resolution fields, Photoshop calculates the document's *file size*—the amount of space it takes up on your hard drive—and displays it in the New dialog box's bottom-right corner (in Figure 2-1, for example, the file size is 2.25 megabytes).

TIP If you don't know the exact size your document needs to be, it's better to make it really big; you can always make it smaller later. See page 220 for more info.

Just because you make your document a certain size doesn't mean you can't have artwork that's bigger than the document's dimensions in that file. Photoshop is perfectly fine with objects that extend beyond your document's edges (also called *document boundaries*), though you can't see or print those parts. It may sound odd, but if you paste a photo or a piece of vector art (page 48) that's larger than your document, those extra bits will dangle off the edges. To resize your document so that you can see everything—even the stuff that doesn't quite fit—choose Image → Reveal All to make Photoshop modify your document's dimensions so everything fits.

Choosing a Color Mode

The New dialog box's Color Mode field (see Figure 2-1) determines which colors you can use in your document. You'll spend most of your time working in RGB mode (which stands for red, green, and blue), but you can switch modes whenever you like (see Chapter 16 for more info). The pop-up menu to the right of the Color Mode field controls your document's *bit depth*, which is explained in the box on page 43.

Unless you choose a different color mode, Photoshop automatically uses RGB mode (which is the one you'll be using most often). The Color Mode menu gives you the following choices:

UP TO SPEED

Stealing Document Settings

Need to create a document that's the same size and resolution as an existing document? No problem–just snag one file's settings and use them to make another. You can steal document settings in several ways:

- Open the existing document and press ⌘-N (Ctrl+N on a PC) to open the New dialog box. Click the Preset pop-up menu, which lists the names of all open documents. When you pick the one you want, Photoshop adjusts all the dialog box's settings to match.
- With the existing document open, press ⌘-A (Ctrl+A) to select everything in it and press ⌘-C (Ctrl+C) to copy the document's contents to your computer's memory. If you choose File → New or press ⌘-N (Ctrl+N on a PC), Photoshop automatically fills in the document's settings for you.
- If you want to base your new document on the *last* document you created, hold Option (Alt on a PC) while you choose File → New or press ⌘-Option-N (Ctrl+Alt+N).
- If you need to create a new document that's the same size and resolution as your current selection, choosing File → New or pressing ⌘-N (Ctrl+N on a PC) makes Photoshop create a document that matches your selection's dimensions. (See Chapter 4 for the full story on selections.)

- **Bitmap** restricts you to two colors: black and white. (Shades of gray aren't welcome at the Bitmap party.) This mode is useful when you're scanning high-contrast items like black-and-white text documents or when you're creating graphics for handheld devices that don't have color screens.
- **Grayscale** expands on Bitmap mode by adding shades between pure black and pure white. The higher the document's bit depth, the more shades of gray—and so the more details—your document can contain. Eight-bit documents include 256 shades of gray, 16-bit documents extend that range to over 65,000, and 32-bit documents crank it up to 16.7 million (see the box on page 43 for more on bit depth).
- **RGB Color** is the color mode you'll use most often when you're working in Photoshop, and it's also the mode your monitor and digital camera use to represent colors. This mode shows colors as a mix of red, green, and blue light (page 172), with each having a numeric value between 0 and 255 that describes the brightness of each color present (for example, fire-engine red has an RGB value of 250 for red, 5 for green, and 5 for blue). As with Grayscale mode, the higher your document's bit depth, the more details it can contain. In this mode, you can choose among 8-, 16-, and 32-bit documents. (See Chapters 5, 9, and 16 for more info on RGB.)
- **CMYK Color** simulates the colors used in printing and its name stands for cyan, magenta, yellow, and black ink. It doesn't have as many colors as RGB because it's limited to the colors a printer—whether it's an inkjet, commercial offset, or digital press—can reproduce with ink and dyes on paper (you'll learn more about CMYK in Chapters 5 and 16). Cahpter 16fs has the scoop on if and when you should switch to CMYK mode.

- **Lab Color** mode, which is based on the way humans see color, lets you use all the colors human eyes can detect. It represents how colors *should look* no matter which device they're displayed on, whereas other modes (RGB and CMYK) limit a file's colors to what's visible onscreen or in a printed document, respectively. Lab's upside is that it can handle color management—a concept you'll learn more about in Chapter 16—better than other modes. The downside is that many folks have a hard time learning to create the colors they want in Lab mode. You'll find various techniques involving Lab mode sprinkled throughout Part 2 of this book.

Choosing Your Background

The New dialog box's Background Contents pop-up menu lets you choose what's on the Background layer—the only layer you start out with in a new document. Your choices are White, Background Color (which uses the color that the background color chip is set to [page 22]), and Transparent (which leaves the background completely empty).

What you choose here isn't that crucial—if you don't like your choice, you can simply turn off the Background layer's visibility (see page 78). Choosing a color is handy if you plan to use images that share a background color, so you can preview your artwork. In that case, you need to make sure your background color chip is set to the right color before you create your new document and then choose Background Color from this menu. The Transparent option is handy if your document is part of a bigger project where it'll be placed in front of other documents or images. When you choose this option, you see a gray-and-white checkerboard pattern in the Background layer, as explained in the box on page 44.

NOTE For more on the mysterious Background layer, see the box on page 80.

Advanced Options

A quick click of the Advanced button at the bottom of the New dialog box reveals a couple of pop-up menus:

- **Color Profile.** A *color profile* is a set of instructions that determine how computer monitors and printers display or print your document's colors. Unless you change it, this menu is set to "sRGB IEC61966-2.1". Unless you know ahead of time that you need to use a specific color profile for your project, leave this setting alone; otherwise, your colors may not look the way you expect them to on other computers or when they're printed. You'll learn about color profiles in Chapter 16.

UP TO SPEED

Understanding Bit Depth

You may have heard the terms "8-bit" and "16-bit" tossed around in graphics circles. When people use these terms, they're talking about how many colors an image file contains. Photoshop's color modes (page 40) determine whether your document is an 8- or a 16-bit image (other, less common options are 1-bit and 32-bit). Since you'll run into these labels fairly often, it helps to understand more about what these numbers mean.

A *bit* is the smallest unit of measurement that computers use to store information. Each pixel in an image has a *bit depth,* which controls how much color information that pixel can hold. So an image's bit depth determines how much color info the image contains. The higher the bit depth, the more colors the image can display. And the more colors in your image, the more info (details) you've got to play with in Photoshop.

Understanding bit depth also means you need to know a little about *channels*, where Photoshop stores your image's color info (see Chapter 5) on separate layers (see Chapter 3). For example, in an RGB image you have three channels: one each for red, green, and blue. If you combine the info contained in each channel, you can figure how many colors are in your image.

With all that in mind, here's a quick tour of your various bit choices in Photoshop:

- In Bitmap color mode, your pixels can be only black or white. Images in this mode are called **1-bit** images because each pixel can be only one color—black or white (they're also known simply as *bitmap* images).
- An **8-bit** image can hold two values in each bit, which equals 256 possible color values. Why 256? Since each of the eight bits can hold two possible values, you get 256 combinations. (For math fans: it's two to the eighth power, which equals 256). Images in Grayscale mode contain one channel, so that's 8 bits per channel, equaling 256 colors. Since images in RGB mode contain three channels (one each for red, blue, and green), folks refer to them as 24-bit images (8 bits per channel $\times 3 = 24$), but they're still really just 8-bit images. With 256 combinations for each channel (that's $2^8 \times 2^8 \times 2^8$), you can have over 16 million colors in your RGB image. Since CMYK images have four channels, folks refer to them as 32-bit images (8 bits per channel $\times 4 = 32$), but again, these are *still* 8-bit images. Over 200 combinations per channel and four channels add up to a massive number of possible color values, but since you're dealing with printed ink, your color range in CMYK is dictated by what can actually be reproduced on paper, which reduces it to about 55,000 colors.
- **16-bit** images contain 65,536 colors in a single channel and are produced by high-end digital cameras (digital single-lens reflex, or dSLR, cameras) shooting in Raw format (page 53) or by really good scanners. These files don't look any different from other images on your screen, but they take up twice as much hard drive space. Photographers really like them because the extra colors give them more flexibility when they're making Curves and Levels adjustments (see Chapter 9) though the larger file sizes can *really* slow Photoshop down. Also, not all of Photoshop's tools and filters work with 16-bit images, but that list of tools grows with each new version of the program.
- **32-bit** images, referred to as high dynamic range (HDR), contain more colors than you can shake a stick at. See the box on page 387 for more info.

For the most part, you'll be dealing with 8-bit images, but if you've got a camera that shoots at higher bit depths, by all means, take a weekend and experiment to see if the difference in quality is worth the sacrifice of hard drive space (and editing speed). And if you're restoring a really old photo, it may be helpful to scan it at a high bit depth so you have a wider range of colors to work with. (See the box on page 52 for more scanning tips.)

FREQUENTLY ASKED QUESTION

Seeing Transparency

Dude, what's up with the gray-and-white checkerboard pattern in my new document? I thought it was supposed to be blank!

When you tell Photoshop to make your background layer transparent (page 42), it fills your new document with a checkerboard pattern. Don't worry: That checkerboard is just what the program uses to represent transparency on the Background layer. In other words, the checkered pattern is just a reminder that there aren't any pixels on that layer to hide what's behind your image if you add it to another document later on.

You can change how the checkerboard pattern looks by choosing Photoshop → Preferences → Transparency & Gamut. In the Transparency Settings section, you can tweak the settings to make the squares bigger or smaller or to change their colors. If you can't stand seeing the checkered pattern no matter what it looks like, you can turn it off by setting the Grid Size field to None.

- **Pixel Aspect Ratio.** This setting determines the shape of your pixels by changing their size, or aspect ratio. This setting gets its name from the term *aspect ratio*—the relationship between an image's width and height. (For example, a widescreen television has an aspect ratio of 16:9.) Out of the box, Photoshop's pixels are set to Square. Although square pixels are fine for photos, printed images, and onscreen use, they look funky and distorted in video, which has a tendency to make everything look short and fat (including people). So if you're using Photoshop to work on a movie, try to find out which video format the filmmakers are using and then select it here.

Saving your custom settings

If you've gone to the trouble of getting your document's settings just right and you expect to create lots of similar documents, save those settings as a preset. Click the Save Preset button to open the dialog box show in Figure 2-3. If you save your settings *before* you click the New dialog box's OK button to create your new document, you can choose a descriptive name for your new preset.

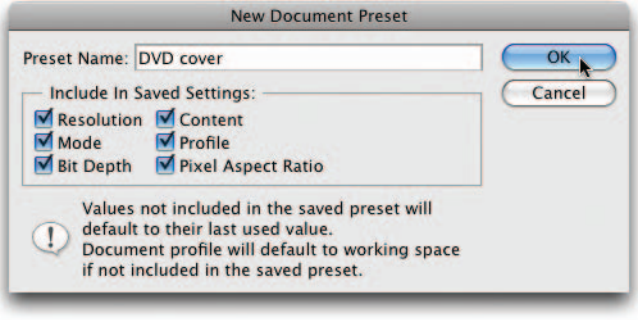


Figure 2-3:
Use these checkboxes to tell Photoshop which settings you want it to remember. When you create a new document, Photoshop grabs the settings you don't include here from the last new document you made. For example, if you don't include the color profile (by turning on the Profile checkbox shown here), Photoshop assigns the currently active color profile to your new image. See page 617 for more about color profiles.

POWER USERS' CLINIC

Going Mobile with Device Central

To see what your graphics look like on a wide range of cell phones and other portable electronic devices, you can use Device Central, a program that comes with Photoshop. (You need an active Internet connection to use it since it downloads handheld device profiles stored online.) It lets you preview all kinds of files on a bunch of different simulated gadget screens, and it even lets you test interactive elements and record videos showing how your images look on specific devices.

You can use Device Central from the get-go to make sure your file is set up properly and take the guesswork out of which size to make your images. Here's how:

1. Create a new document by choosing File → New, or by pressing ⌘-N (Ctrl+N on a PC).
2. Click the Device Central button on the right side of the New dialog box (shown in Figure 2-1).
3. Select a gadget from the Local Library list on the left side of the Device Central window (or Shift-click to choose more than one). If the device you're designing for isn't in that list, select it in the Online Library list, drag it into the Local Library list, and then select it there.
4. Click Create to open a new file in Photoshop tailored to the device(s) you picked. If you picked more than one device, the dimensions are set to best work on all of them.
5. When you're finished editing your mobile masterpiece, choose File → Save For Web & Devices (page 665). Be sure to pick a file format from the Preset pop-up menu and then click the Device Central button at the bottom of the dialog box to preview your document on the device (see the figure on page 671).

Saving Files

After you've put a ton of work into whipping up a lovely Photoshop creation, don't forget to save it or you'll never see it again. As in any program, be sure to save early and often so your efforts don't go to waste if your computer crashes or the power goes out.

The simplest method is to choose File → Save or press ⌘-S (Ctrl+S on a PC). If you haven't previously saved the file, Photoshop pops open the Save As dialog box where you can pick where to save the file, give it a name, and select the file format you want to save it as. If you *have* already saved the file, Photoshop replaces the previously saved version with the *current* version without asking if that's what you want to do. In some situations, that's fine, but it can be disastrous if you were planning to keep more than one version of your image around.

You can play it safe by using the Save As dialog box instead; it *always* prompts you for a new file name (see Figure 2-4), which is handy when you want to save another version of your document or save it in a different format. Choose File → Save As or press ⌘-Shift-S (Ctrl+Shift+S on a PC) to summon the dialog box. When you first use Photoshop, the Format pop-up menu is set to Photoshop, which makes sense because you're working in Photoshop. But, as the next section explains, you can save files in lots of other formats.

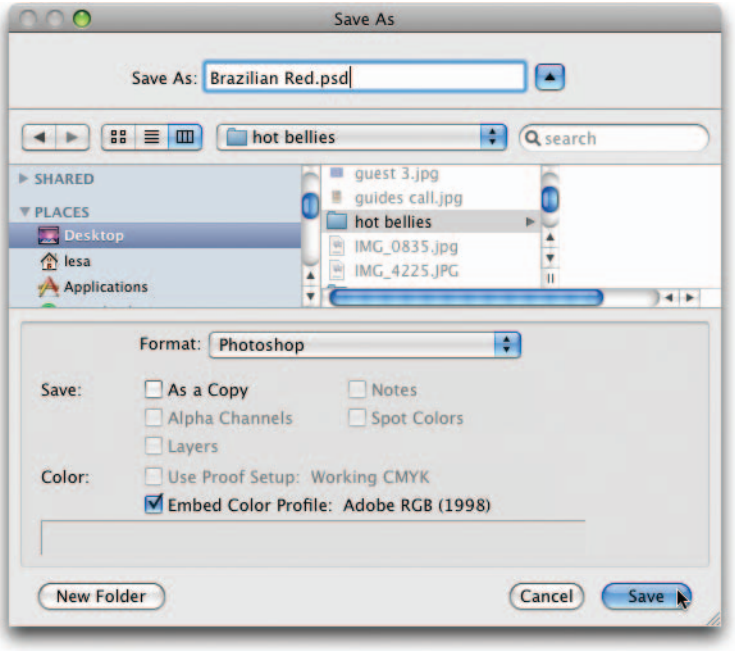


Figure 2-4:
The Save As dialog box lets you save a copy of your file with a different name in a different location and even in a different format.

File Formats

You'll learn much more about file formats in Chapters 16 and 17, but here's a quick overview. If you remember nothing else, remember to save your images as PSD files (Photoshop documents) because that's the most flexible format (see the box on page 47). That said, sometimes you need to save your document in other formats because of where the file is *headed*. For example, Adobe InDesign (a popular page-layout program) is adept at handling PSD files, but QuarkXPress is a little different. While QuarkXPress can indeed open Photoshop documents, not everyone is comfortable working *with* PSD files in Quark. In that case, try saving your document as a TIFF file because nearly every image-handling program ever invented can open TIFF files just fine.

NOTE If you need to save a Photoshop document that's bigger than two gigabytes, save it as a PSB file instead. That format lets you get past the PSD file's two GB limit on file sizes.

Graphics destined for the Web are a different animal because they're especially designed for onscreen viewing and faster downloads. Here's a quick cheat sheet to tide you over until you've got time and energy to make your way to Chapter 17:

- **JPEG** is commonly used for graphics that include a wide range of colors like photos. It compresses images so they take up less space, but the smaller file size comes at a price: loss of quality.

- **GIF** is a popular choice for graphics that include a limited number of colors (think cartoon art) or when you need to save a see-through (transparent) background.
- **PNG** is the up-and-comer because it offers true transparency and a wide range of colors. It produces a higher-quality image than a JPEG, but it generates larger files.

For more on creating and preparing images for the Web, head over to Chapter 17. If your image is headed for a professional printer, visit Chapter 18 instead.

UP TO SPEED

Save Your Master

Experimenting with your image is fine—until you accidentally ruin the original and don't have a backup. To avoid losing a critical file and having to explain to your boss, coworkers, or client why the project is behind schedule, save your master file as a PSD file so that your layers, Smart Filters (page 588), and Smart Objects (page 115) remain intact. (It's also a good idea to save a copy somewhere other than your hard drive in case something happens to your computer. Burn it onto a CD or DVD, save it on a Flash drive, or use an online storage service.) That way, if something goes wrong while you're working on the project, you've always got the original to fall back on. And if something *does* go wrong, duplicate the master file again and then work on the copy. There's no point in tempting fate!

Opening an Existing Document

In most programs, opening files is simple and that holds true in Photoshop, too. But Photoshop gives you a few more options than you'll find in some other programs because Photoshop can open files saved in its own format (PSD files), as well as a slew of other formats both common and obscure (a feature that makes Photoshop amazingly versatile at working with a wide range of images). Even better, if the program doesn't recognize a particular format, there's a good chance someone has developed a plug-in (companion program) that can (see Chapter 19 for more on plug-ins).

Photoshop knows how to open Adobe Illustrator, Camera Raw (page 53), JPEG, GIF, PNG, TIFF, EPS, and PDF files (page 620), along with Collada DAE, Google Earth 4 KMZ, Scitex CT, Targa, and several other kinds of files most folks have never even heard of.

You can open files in Photoshop in several ways, including:

- Double-clicking the document icon, no matter where it's stored on your computer.
- Dragging the document's icon onto the Photoshop program icon (the blue square with "Ps" on it).
- Ctrl-clicking (right-clicking on a PC) the document icon and choosing Open With → Photoshop from the resulting shortcut menu.

- Launching Photoshop and then choosing File → Open or pressing ⌘-O (Ctrl+O) to call up the Open dialog box, discussed in the next section.
- You can also use Adobe Bridge to preview and open your documents. Head over to Appendix C to learn all about using Bridge.

UP TO SPEED

Raster Images vs. Vector Images

The images you'll work with and create in Photoshop fall into two categories: those made from pixels and those made from paths. It's important to understand that they have different characteristics and you have to open them in different ways.

- **Raster** images are made from tiny blocks of color called *pixels*, the smallest element of a digital image. The number of pixels in an image depends on the device that captured it (a digital camera or scanner) or the settings you entered when you created the document in Photoshop (page 37). The size of the pixels depends on the image's *resolution* (see page 221), which specifies the number of pixels in an inch. Usually pixels are so small that you can't see individual ones. But if you enlarge a raster image, the pixels appear bigger, and the image starts to look like a bunch of blocks instead of a smooth image.
- **Vector** images are made up of points and paths that form shapes; these shapes are filled and stroked (outlined) with color. You can create vector images in drawing programs like Adobe Illustrator and CorelDraw. The paths are based on mathematical equations that tell monitors and printers how to draw the image. Because there aren't any pixels involved, you can make vector images as big or small you want, and they'll still look as smooth and crisp as the original. Photoshop can open vector images, but unless you open them as Smart Objects (discussed later in this chapter—see page 50), Photoshop will turn them into pixel-based raster images. (This process is called *rasterizing*.)

In the figure below, the upper image is a vector image (the right-hand version shows the paths it's made from) and the bottom image is a raster image. Vectors are handy when you're designing logos and other illustrations that you might need to make bigger at some point. But you'll end up working with rasters more often because all photos are raster images and because Photoshop is a pixel-based program (as are all image-editing and painting programs). That said, you can use some of its tools to draw vectors (see Chapter 13), and it lets you open vector files (discussed in the next section). You can also create some amazing artwork by combining raster and vector images as described on page 293.

The Open Dialog Box

When you choose File → Open (Ctrl+O on a PC) or press ⌘-O (Ctrl+O), Photoshop brings up the dialog box shown in Figure 2-5. All you need to do is navigate to the file on your hard drive and then click the Open button. In addition to helping hunt through the murky depths of your hard drive, the dialog box sports the ability to limit the files you can open via the Enable pop-up menu. If you use this menu to select just the format you want to see, Photoshop will dutifully dim everything else (dimmed items aren't selectable), which is handy when you've saved a file in several different formats—like PSD, JPEG, and TIFF files of the same image.

NOTE PC users don't get as many options in the Open dialog box as Mac users do. Instead of the Enable pop-up menu, PC folks get a "Files of type" menu, and the Format pop-up menu doesn't appear at all. Also, the PC version of the Open dialog box hides files that you can't select.

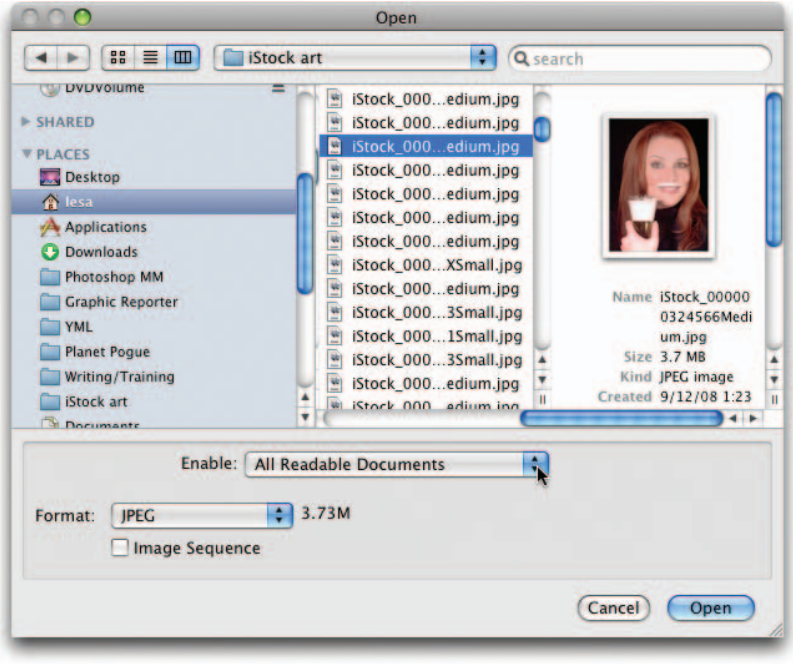


Figure 2-5: *The Open dialog box lets you navigate to the image you want to open. The Format pop-up menu at the bottom left automatically changes to match the format of the document you select.*

TIP To open more than one file, ⌘-click (Ctrl-click) to select files that aren't next to each other or Shift-click to select files that are. When you click Open, Photoshop opens each file in a separate tab if you're using the new CS4 Application Frame (page 47).

If you leave the Enable pop-up menu set to All Readable Documents (set the "Files of type" menu to All Formats on a PC), you tell Photoshop that it's okay to open *any* file format it recognizes. If you try to open a format Photoshop should know how to open but for some mysterious reason thinks it doesn't (see page 47 for a list

of formats Photoshop recognizes), someone may have saved the document with the wrong file extension. (Since all programs, including Photoshop, rely on the file extension to figure out which type of document they're looking at, be careful not to change these multi-letter codes that appear after a document's name.) If you run into this problem, Mac users can use the Format pop-up menu (PC users can choose File → Open As instead) to tell Photoshop which format the document *should* be, and the program will ignore the file's extension and try to open it based on the format you picked.

TIP If you're looking for a specific image but can't remember its name, try using Bridge (Appendix C) to find it. Bridge shows you a preview of each image along with a ton of other info like keywords, ratings, and more. It also gives you filtering and search options to help hunt down the image you want.

Opening Files as Smart Objects

Smart Objects are one of those glorious features that make Photoshop truly amazing. You'll learn a lot more about Smart Objects in Chapter 3, but here's a quick overview: Smart Objects are basically containers that can store raster, vector, or Camera Raw files (page 53) in their original formats. Smart Objects keep track of the original file so you can undo any changes you make to them (this process, called *nondestructive* editing, is discussed at length in Chapter 3). In addition to the image types just mentioned, you can also import TIFF, PDF, and JPEG files as Smart Objects.

To open an image as a Smart Object, choose File → "Open as Smart Object". In the resulting dialog box, choose the file you want to open. When you click Open, Photoshop opens it as a Smart Object layer in a new document. See Chapter 3 for more about layers and page 238 for the skinny on resizing Smart Objects.

Opening Recent Files

This one's a real timesaver. Like many programs, Photoshop keeps track of the documents you've recently opened. Choose File → Open Recent to see a list of the last ten documents you worked on, with the latest one at the top of the list (see Figure 2-6). If you've moved or renamed the file since you last opened it in Photoshop (put it in a different folder on your hard drive, say), the program will try to find it for you when you select it from this list. If the document isn't on your hard drive anymore, Photoshop displays a message box with a considerate message telling you it can't find the file.

TIP If you want Photoshop to remember more or fewer than 10 files, choose File → Preferences → File Handling (Edit → Preferences → File Handling on PCs) and change the number in the "Recent file list contains" field at the bottom of the Preferences dialog box. You can set it as low as 2 or as high as 30. Just remember that a higher number means a longer list of recent documents to search through.

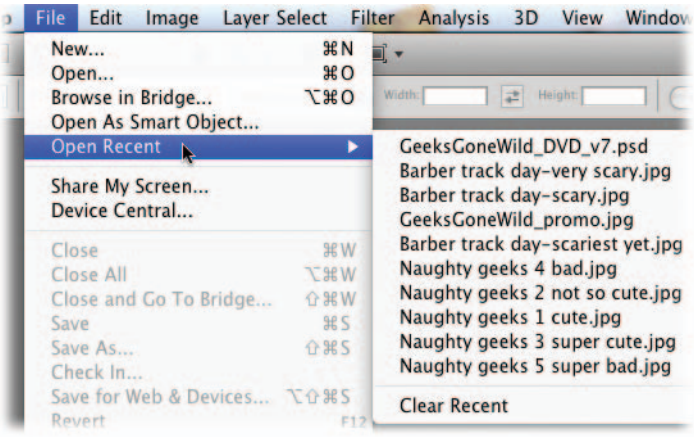


Figure 2-6: *The Open Recent menu option is a handy shortcut for getting at files without traipsing through the Open dialog box. If you want to erase the list, click Clear Recent.*

Working with PDFs

Saving a document as a PDF file is kind of like taking a picture of it so others can open the file without needing the program you used to create it. They just need the free Adobe Reader (or any other PDF-viewing program like Preview on the Mac). PDFs can store text, images, and even video at a variety of quality settings. PDFs are also *cross-platform*, which means they play nice with both Macs and PCs. It's an amazingly useful file format that will only become more common (see Chapter 16 for a peek into the future).

You can open PDFs the same way you open any file: by choosing File → Open, selecting the PDF you want, and then clicking the Open button. If someone created the PDF in Photoshop, it opens right up. If someone created it in another program, Photoshop displays the Import PDF dialog box (Figure 2-7) where you can choose which parts of the document you want to import (full pages or just the images) and set resolution, dimensions, and so on.

Working with Scanned Images

The Open dialog box isn't the only way to get images into Photoshop. If you have a scanner that knows how to talk to Photoshop, you can use it to import images straight into the program. But, first, you need to install your scanner's software *and* the Photoshop plug-in for your scanner. (Check the owner's manual to learn how to install the software, and then flip to Chapter 19, which covers plug-ins in detail. To find the plug-in for your scanner, check the manufacturer's Web site for the most recent version.) Once everything is all set, you can start importing scanned documents.

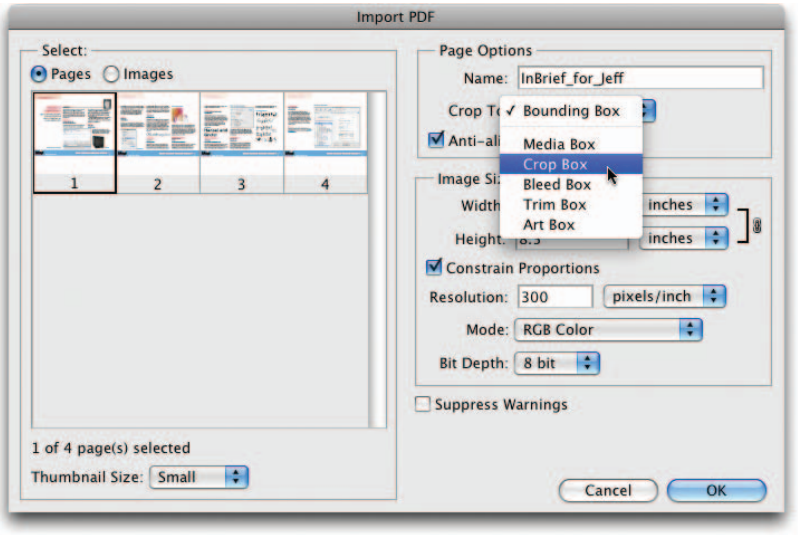


Figure 2-7:
If you decide to import multiple pages (as shown here), Photoshop creates a new document for each one.

If you're lucky and the person who created the document was a PDF pro, she may have included size-specification goodies like crop size, bleed area, trim, and art size (you'll learn about most of these terms in Chapter 16). If so, you can eliminate some resizing work on imported files by choosing one of the size elements from the Crop To pop-up menu (shown here, right).

To import an image from your scanner into Photoshop, choose File → Import and then select your scanner from the resulting list. Each scanner has its own software, so there's no standard set of steps to work through—they're all different. Unfortunately, that means you have to read the documentation that came with your scanner to figure out how to import files from it. The box below has some advice on scanning images.

UP TO SPEED

Scanning 101

Just because all scanning software is different doesn't mean there aren't a few guidelines you can follow to produce good scans. Keep these things in mind when you scan:

- Scan at a higher bit depth than you need for the edited image. This means your files will be larger, but they'll contain lots of color info you can work with when you're editing them. (See the box on page 43 for more on bit depth.)
- Scan at a higher resolution than you need for the finished image to make your files larger and include more details. You can always lower the resolution later, but you can't increase it…or, rather, you *shouldn't* increase it without knowing the trick (see page 221 to learn about resolution).
- If you can use your scanner software to adjust your image's color *before* you import the file into Photoshop, take the time to use it. Making adjustments before you import the image lets you take advantage of all of the info your scanner picked up. The amount of information that your scanner passes along to Photoshop when you import the file is almost *always* less than the amount of info in the original image.

Working with Raw Files

Of all the file formats Photoshop can understand, *Raw* is the most useful and flexible. Professional-grade digital cameras (and many high-end consumer cameras, too) use this format. The info in a Raw file is the exact same information your camera recorded when you took the picture; it's uncompressed and unchanged. (Other file formats, like JPEG, compress images and in the process slightly reduce the image's quality.) Raw files contain the most detailed information you can get from a digital camera, including what's known as *metadata* (info on all the settings your camera used to capture the image like shutter speed, aperture, and so on). You can edit Raw files using a Photoshop plug-in called *Adobe Camera Raw* (shown in Figure 2-8), which you'll learn more about in Chapter 9.

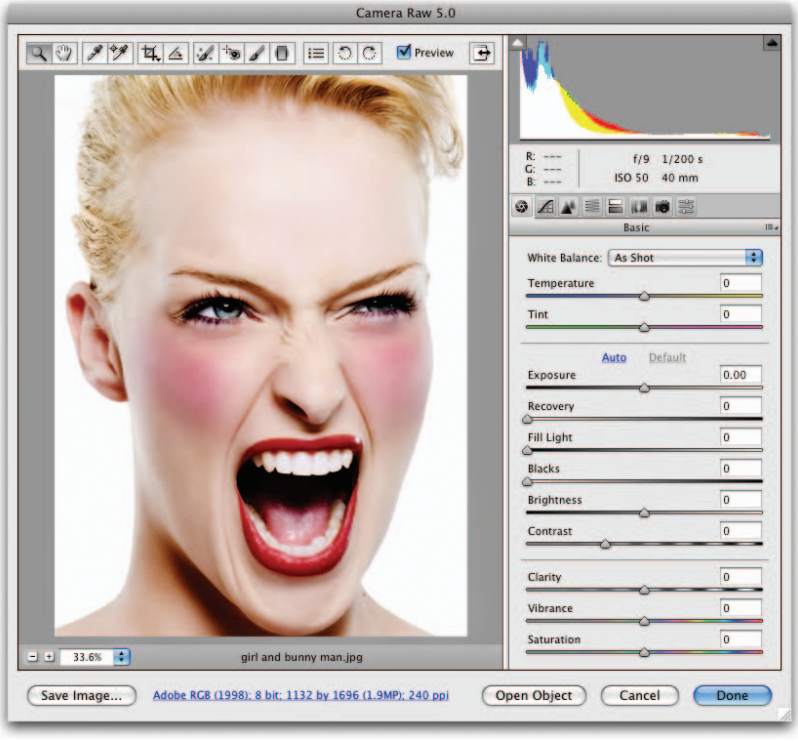


Figure 2-8: *Raw files get their own separate editing program called Camera Raw, which launches automatically when you open a Raw file in Photoshop.*

NOTE Camera Raw is one of the most frequently updated plug-ins known to man–which is good because manufacturers release new camera models faster than photographers can buy them. If you've got a sparkling new camera, you may have to update the Camera Raw plug-in before you can open your file, which means it's time for a trip to the Adobe Updater program. To run it, choose Help → Updates (Appendix A–online at *www.missingmanuals.com*–has more about checking for updates). If there's a newer version of Camera Raw, Photoshop lets you know so you can install it.

Opening Raw files

Opening a Raw file in Photoshop is no different from opening any other kind of image except that it opens in the Camera Raw window instead of the main Photoshop window. You can open Raw files by:

- Double-clicking the Raw file's icon. Your computer launches Photoshop (if it wasn't running already) and then opens the Camera Raw window.
- Ctrl-clicking (right-clicking on a PC) the Raw file's icon and choosing Open With → Photoshop. (Since Camera Raw is a plug-in that runs inside Photoshop and Bridge, it doesn't get listed separately, but your computer knows to open the file in Camera Raw.)
- Using Bridge (see Appendix C) to select the file you want to open and then choosing File → "Open in Camera Raw" or pressing ⌘-R (Ctrl+R on a PC). You can also Ctrl-click (right-click) the file in Bridge and then choose "Open in Camera Raw" from the resulting shortcut menu.

TIP If you've got a bunch of Raw images that need similar edits (cropping, color-correcting, and so on), you can open them all at once by Shift or ⌘-clicking (Ctrl-clicking on a PC) them in Bridge or by selecting multiple files on your desktop and then double-clicking or dragging them onto the Photoshop icon. When you click the Select All button in the top-left corner of the Camera Raw window, any edits you make afterwards affect all your open images. See the box on page 390 for more on editing multiple files.

POWER USERS' CLINIC

Opening Images as a Stack

If you sprang for Photoshop CS4 Extended (page 1), you've got a bonus feature called *Stacks* that lets you open multiple images on separate layers in the same document. It's a *huge* timesaver when you need to combine several images–like when you want to make several group shots into one perfect shot where everyone's eyes are open and they're all smiling–or when you're editing individual frames of a video.

To open a group of images as a Stack, choose File → Scripts → Load Files into Stack. In the resulting Load Layers dialog box, tell Photoshop where the images are stored on your hard drive and click OK.

The Load Layers dialog box's Use pop-up menu lets you choose what you want to open: individual images or whole folders of images. If you're combining several shots into one, turn on the "Attempt to Automatically Align Source Images" checkbox. To convert all the layers into a single Smart Object (page 117) so you can resize the image later, turn on the "Create Smart Object after Loading Layers" checkbox.

Duplicating Files

If your client or boss asks you to alter an image and you suspect they'll change their mind later, it's wise to edit a *copy* of the image instead of the original file. That way, when they ask you to change everything back, you don't have to sweat bullets hunting for a backup of the original or try to recreate the earlier version.

Duplicating files is also handy when you want to experiment with a variety of different effects.

You can duplicate a file by choosing File → Save As and renaming the image, but there's a faster way: Make sure the file you want to copy is in the currently active window (just click the window to activate it), and then choose Image → Duplicate. In the Duplicate Image dialog box (Figure 2-9), give your file a new name and click OK. You've just set yourself up to be the office hero.

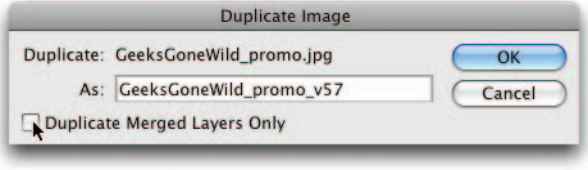


Figure 2-9: *A duplicate file has everything in the original, including layers, Layer styles, and so on. If you need to create a single-layer (flattened) version of your file, turn on the Duplicate Merged Layers Only checkbox. Page 104 has more about flattening files.*

Changing Your Image View

Photoshop gives you a variety of ways to look at your images; different views are better for doing different things. For example, you can get rid of the Application Frame (page 11), view images full screen, zoom in and out, or rotate your canvas to view images at an angle (that last one is new in Photoshop CS4). This section teaches you how to do all that and more.

Zooming In and Out

Being able to zoom in on your image is crucial; it makes fixing imperfections, doing detailed clean-up work, and drawing accurate selections a hundred times easier. One way to zoom is to click with the Zoom tool, which looks like a magnifying glass. You can find it at the bottom of the Tools panel or the top of your screen in the Application bar, or you can grab it by pressing Z (see Figure 2-10). Simply click repeatedly to get as close to your pixels as you want. When you're ready to zoom back out, just Option-click (Alt-click on a PC) instead. You can also zoom using your keyboard: press ⌘ and the + or – key (Ctrl + or –). To zoom in on a specific area, drag with the Zoom tool to draw a box around the pixels you want to look at. As soon as you let go of your mouse button, Photoshop zooms in until the area you selected fills your document window.

NOTE In older versions of Photoshop, zooming in to certain percentages made your image look jagged and blocky. In Photoshop CS4, you see a smooth image no matter which magnification level you choose (though you do need OpenGL [see the box on page 60]).

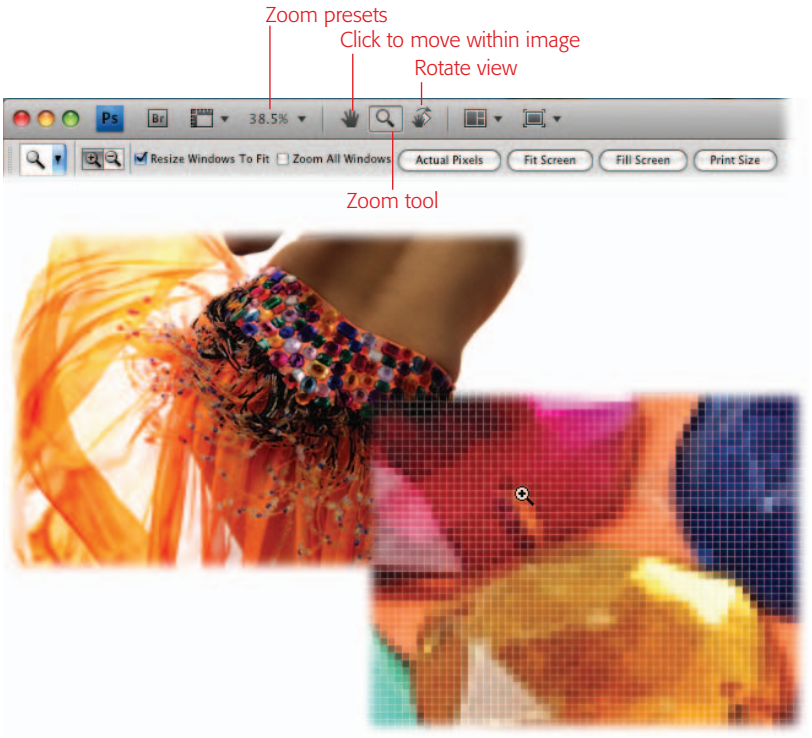


Figure 2-10:
Top: You can grab the Zoom tool from the Tools panel or the Application bar at the top of your screen. You can also zoom by selecting an item from the Zoom preset menu or typing a percentage into the lower-left corner of your document window (not shown).

Bottom: If you zoom in to 501 percent or closer in CS4, you'll get this handy pixel-grid view that lets you edit precisely, pixel by pixel (it also makes it easy to see whether pixels are perfectly aligned horizontally and vertically).

If your computer can handle *OpenGL* (see the box on page 60), Photoshop CS4 lets you hold down your mouse button—while the Zoom tool is active—or hold ⌘-+ (Ctrl-+) to *fly* into your image, zooming to up to 3,200 percent. Then simply Option-click (Alt-click) and hold down your mouse button or hold ⌘-– (that's ⌘ plus the minus sign) or Ctrl-– on a PC to zoom back out. This animated zooming makes you feel like you're flying into and out of your image—and it saves you several mouse clicks along the way.

When you have the Zoom tool active, the Options bar gives you the following choices:

- **Resize Windows To Fit.** If you want Photoshop to resize your document window to accomodate the current magnification level, turn on this checkbox. You can also access it by choosing Photoshop → Preferences → General (Edit → Preferences → General on a PC) and turning on the Zoom Resizes Window checkbox though as of this writing the two settings cancel each other out.

GEM IN THE ROUGH

The Status Bar: Document Info Central

At the bottom of each document window is the *status bar,* shown in the figure below, which gives you a quick peek at important info about your document. When you first start using Photoshop, the status bar shows the size of your document (K stands for kilobytes and M for megabytes). If you don't see any status information, your document window may be too small. Just drag outward from the lower-right edge of the window so it's big enough for you to see it.

Click the little triangle to the status bar's right (circled) and you get a menu that lets you control which information the bar displays. Here's what you can choose from:

- If you're using Adobe Version Cue (see the box on page 58), choose **Show Versions** to see a list of older or newer versions of the file if any are available on the Version Cue server.
- Choose **Reveal in Bridge** to make Photoshop display the file and its metadata in Bridge (see Appendix C).
- If you select **Show**, Photoshop presents you with a bunch of other options. The submenu that appears lets you pick from all kinds of info about the file you're working on:

  –Version Cue shows whether the Version Cue workgroup thinks your document is open, unsaved, or unmanaged.

  –Document Size displays the approximate size of your image for printing (on the left) and the approximate saved size of your image (on the right).

  –Document Profile shows the color profile (page 617) for your image.

  –Document Dimensions displays the dimensions (width and height) of your image.

  –In Photoshop CS4 Extended, Measurement Scale shows the scale of pixels compared with other units of measurement. For example, an image from a microscope can measure objects in microns, and each micron can equal a certain number of pixels.

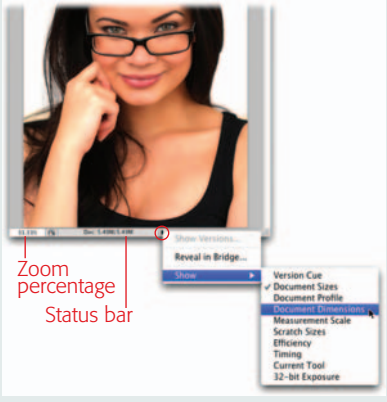
  –Scratch Sizes tells you how much memory and hard disk space is being used to display your open images.

  –Efficiency lets you know if Photoshop is performing tasks as fast as it possibly can. A number below 100 percent means Photoshop is running slowly because it's relying on scratch disk (page 30) space.

  –Timing shows how long it took Photoshop to perform the most recent activity.

  –Current Tool displays the name of the selected tool.

  –32-bit Exposure lets you adjust the preview image for HDR images (see the box on page 387).



UP TO SPEED

Version Cue and You

Photoshop is packed with other little programs that can help you get things done quicker, faster, and better. One of those programs is *Version Cue CS4*. If you work with other folks who use Photoshop or Adobe's Creative Suite and exchange files with them, Version Cue can keep track of the changes each person makes to each file (technically called *asset management*). Version Cue acts like a librarian, letting you check out files when you need to work on them. It also organizes documents and records other important bits of information about the files you use.

To let Version Cue manage files, you need to save them on a shared computer, which Version Cue calls the *Adobe Drive* (for best performance, this computer should be dedicated to Version Cue, not a coworker's design computer). It looks and acts like a regular hard drive, which means you can easily open files stored on it and save files to it. When you open a shared document with Photoshop or Bridge CS4, Version Cue automatically locks that file so your coworkers can't open it and overwrite your edits with theirs.

A great resource for learning more about Version Cue is Lynda.com's *Bridge and Version Cue Essential Training*, a video-based training course available online and on DVD.

- **Zoom All Windows.** Turn on this checkbox to use the Zoom tool to zoom in on all open windows by the same amount simultaneously. This checkbox is helpful if you've opened a duplicate of your image as described on page 54. You can also use the Window → Arrange menu to do pretty much the same thing. Your options there include:

  — **Match Zoom.** Zooms all open windows to the same magnification level.

  — **Match Location.** Zooms to the same spot in each window.

  — **Match Rotation.** Rotates the canvas of each window to the same angle.

  — **Match All.** Does all of the above.

- **Actual Pixels.** Click this button to see your image at 100 percent magnification. You can do the same thing by pressing ⌘-1 (Ctrl+1 on a PC), by double-clicking the Zoom tool, by entering *100* into the zoom percentage field at the bottom-left corner of the document window, or by choosing View → Actual Pixels.

- **Fit Screen.** Clicking this button makes Photoshop resize the active image window to fit the available space on your screen and fit the image inside the document window. You can also press ⌘-0 (Ctrl+0) or choose View → "Fit on Screen".

- **Fill Screen.** This button enlarges your image to the largest possible dimensions within the window. Clicking Fill Screen makes your image a little bigger than it gets when you use Fit Screen because it uses all the available vertical space.

- **Print Size.** If you click this button, Photoshop makes your image the size it will be when you print it; you can do the same thing by choosing View → Print Size. Keep in mind that the resolution settings for your monitor can make the print size sample look bigger or smaller than it really will be, so use this feature only as an approximation.