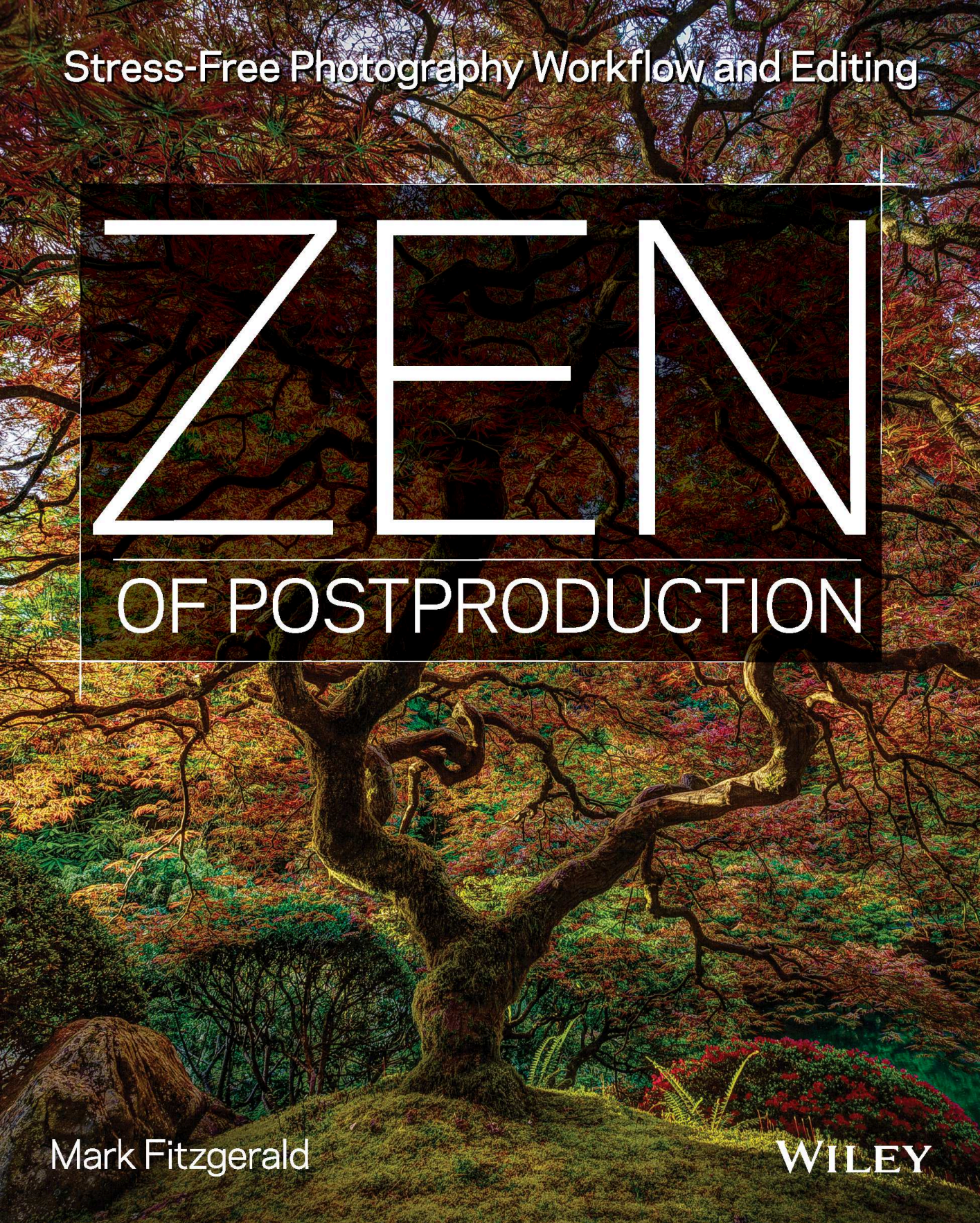
Stress-Free Photography Workflow and Editing

ZEN OF POSTPRODUCTION



Mark Fitzgerald

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Zen of Postproduction

STRESS-FREE PHOTOGRAPHY WORKFLOW AND EDITING

MARK FITZGERALD

WILEY

In memory of David Hitchcock, 1966-2013.

A talented photographer and one of the finest people I've ever known.
I miss you, my friend.

Zen of Postproduction

STRESS-FREE PHOTOGRAPHY WORKFLOW AND EDITING

Zen of Postproduction:
Stress-Free Photography Workflow and Editing

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Although I have spent my life in the photography business, I continue to learn from my students. I learn from their mistakes as well as their successes. As a group, my students have shown me just about every workflow need a photographer could have, which ultimately helped me refine the concepts taught in this book.

I also thank the selfless mentors, teachers, and caring coworkers who took me under their wings so long ago. They gave me knowledge and encouragement when I needed it most. These people didn't realize it at the time, but they inspired me to devote my life to helping other photographers.

Writing a book like this would be incredibly difficult without the help of a few special people. I thank editor Carol Person for her expert advice, constructive criticism, and patience throughout the project. Although we live far apart, she was always prompt in responding to my questions at just about any time of day. Galen Gruman served as designer and layout editor on this project, and I thank him for listening to my feedback during the design process and for designing such a great-looking book.

I also thank my friend Tom Hassler for taking the time out of his busy teaching schedule to serve as technical editor. His deep knowledge of the programs and processes covered in this book helped me tell the postproduction story as accurately as possible.

Most of all, I thank Courtney Allen, the Wiley acquisitions editor who recruited me to write for Wiley some years ago. This is our sixth book together, and it's impossible to express my deep respect for her. She has always been there when I needed her and has made me feel a part of the global Wiley family. Thank you, Courtney, for everything you've done to help me.

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ABOUT THE AUTHOR

Mark Fitzgerald cut his "photographic teeth" in the professional photo-lab business, working for one of the largest independent labs in the U.S. It was an environment rich with talented people willing to share everything they knew (and sometimes their camera gear) with a young photographer. In 1999, as the real possibilities of digital photography began to emerge, Mark left the lab business and devoted two years to exploring digital photography. He became an Adobe Certified Photoshop Expert and has been one for the last ten years.

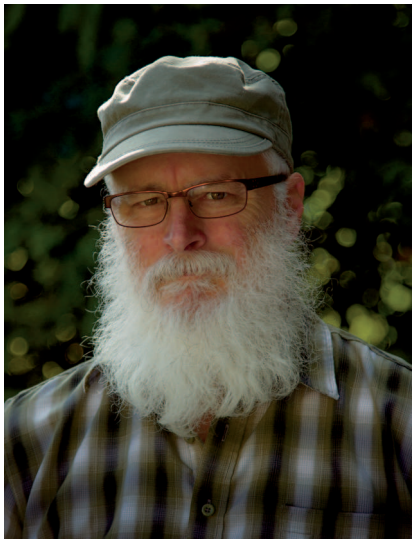


PHOTO BY JULIA FITZGERALD

Now Mark specializes in helping all sorts of photographers, ranging from established professionals to people who are just finding their passion for photography. Mark is adjunct faculty at the Portland Art Institute and teaches regularly at Newspace Center for Photography. He also specializes in private training, where he helps individual photographers solve their technical and creative problems.

In addition to being a sought-after teacher, Mark is also an active photographer. While in the lab business, he also worked as a freelance commercial photographer, photographing a range of subjects from model headshots and album covers to team photos of the San Antonio Spurs. Today, Mark's focus in on fine-art photography. His photos have won awards on the local and international levels and hung in many galleries. Mark is on the National Council of the Professional Photographers of America, and is currently president of the Portland Metropolitan Photographers Association in Portland, Oregon, where he lives with his wife, three dogs, and a cat named Chester. To learn more about Mark, visit www.ddroom.com.

Other Wiley titles by Mark Fitzgerald are *Adobe Photoshop Lightroom and Photoshop Workflow Bible*, *Adobe Photoshop CS4 after the Shoot*, and *Adobe CS5 Restoration and Retouching for Digital Photographers Only*.

CONTENTS

INTRODUCTION

Photography should be fun. But it isn't when you aren't satisfied with your photos or you can't even find them in the first place. I know how frustrating and stressful digital photography postproduction can be because I specialize in helping photographers manage today's complex workflow tools. I've sat beside countless photographers who are feeling the same stress and frustration you may feel with your workflow. I know the postproduction process can seem like an impossible maze. I also know that when someone shows you a simple path through a maze, the maze vanishes and only the path remains. My intention in writing *Zen of Postproduction* is to guide you through the photographic postproduction maze and reveal a path that works for you and your images.

About Me

As someone who's made his living in the world of photography for many years, I've had the benefit of experiencing both the traditional and digital darkrooms. In the early days, I worked in large photo labs helping professional photographers get the most from their film negatives and slides. I left the lab industry just as the digital revolution was beginning to impact photography. I dedicated myself to learning new technologies that were turning the photo world upside down. After two years of intense self-learning and discovery, I began helping other photographers learn the skills they needed to create the kinds of images they wanted. That was 12 years ago.

Now, I'm a photographer who teaches other photographers to master today's postproduction tools. I teach classes and workshops and meet with photographers for private training on an almost daily basis. Portland, Oregon, has a rich photography culture, and I'm fortunate to be part of it. I get to meet all sorts of interesting and talented photographers — from full-time pros to retired folks who are finally finding time to indulge their artistic passions. I've taught many of these photographers, and I've also learned from them. Although some call me a master, I know there is always more to learn about making great images.

What's in This Book?

Because Lightroom is at the center of the modern photographer's workflow, much of this book is devoted to explaining how to use Lightroom to organize, edit, and output photos. Many photographers can accomplish everything they desire from their postproduction using only

Lightroom. However, Lightroom does have limitations in certain situations, such as retouching, so it's necessary for some photographers to have a working knowledge of Photoshop. The central focus of *Zen of Postproduction* is on using Lightroom to create a simple workflow that every photographer can use. Additional chapters cover important Photoshop features that some photographers need to complete their postproduction workflow.

I begin by describing a few basic concepts in Chapter 1 and then jump straight into Lightroom in Chapter 2 by describing important Lightroom concepts, as well as preferences and general tips about using the Lightroom workspace. In Chapter 3. I show you how to import new and existing photos quickly and efficiently. Chapters 4 and 5 detail methods for getting organized, including colored labels, collections, and the all-important keywords. Chapters 6 and 7 move into editing photos by describing basic and advanced methods for adjusting tone and color. Then Chapters 8 and 9 take you deeper into Lightroom's Develop module and its powerful tools and techniques. Chapter 10 begins the transition to the Photoshop section of the book by describing best practices for moving photos back and forth between Lightroom and Photoshop. Chapters 11 through 14 cover key Photoshop tools and techniques, such as masking and retouching, for readers who need special tools to complete their workflows. Chapter 15 surveys over a dozen plugins (third-party programs) that can be used with Lightroom instead of Photoshop, or in addition to it. Printing and exporting files for a range of uses are covered in Chapter 16. The final chapter, Chapter 17, covers Lightroom's Book, Slideshow, and Web modules, as well as the Publish Services feature so that you'll be able to share your photos with just about anyone on the planet.

✳ TIP

I recommend you use the latest version of Lightroom to get the most from this book. However, it isn't necessary to have the latest version of Photoshop to accomplish much of what I describe in the Photoshop chapters. Photoshop CS4 or later will work for most of what I describe.

Naturally, it isn't possible to describe every interesting aspect of the software programs described in this book. As a teacher, I know it's important to focus on the core elements necessary to creating a solid foundation. Once you have that, you have the confidence to shape the workflow that fits your needs. My intention when I set out to write this book was to give you everything you need to build that workflow and tell you about it in a way that's easy to understand.

Who Should Read This Book?

Most of the students I interact with fall into one of two categories: photographers new to postproduction, and those who have a workflow but aren't sure if it's the most suitable for

their particular needs. This book is designed to help both types of photographers. It details a postproduction workflow from start to finish. You don't need prior knowledge of the programs to benefit from reading and using it. If you are familiar with these programs, it could be a bonus and speed up the learning process. But I strongly recommend that you take the time to read each chapter. I know from my own learning process that it's often that little gem of information you stumble across that opens doors conceptually as well as practically.

This book covers Lightroom, Photoshop, and a few plugins. But all these programs aren't necessary to build a successful postproduction workflow. If you are new to digital photography, I suggest you concentrate on the Lightroom chapters. When you're comfortable with Lightroom, begin to explore possibilities offered by other programs. You may find, as many photographers do, that Lightroom is all you need to create the type of images you like.

Getting the Most from This Book

This book starts at the beginning of the postproduction workflow and finishes at the end. I recommend you follow that path by working through the chapters sequentially to get the most from the material. Then use the book as a reference when you need to review a tool or technique.

When learning new software it helps to be familiar with your computer and its operating system. If you're just beginning to learn to use a computer, I strongly urge you to take a few classes on system basics for your platform (Mac or Windows) before focusing on learning specific software. This will help to drastically speed the learning process for other programs and ensure you get the most from a book like this one.

Learning digital postproduction is like learning to play an instrument: It's important to understand basic concepts and to practice, practice, practice. To get the most from this book, I suggest you follow along with your own images to practice what you read. When I describe a technique, experiment with your own images. Take as long as you need to explore and understand the concept. Then move to the next section. There is no hurry.

Conventions Used in This Book

I wrote this book using a Mac, so all screenshots are from the Mac versions of the software. If you're using a Windows PC, your screens will look a bit different, but the important elements will be present. Most of the menus are identical on both platforms, which really helps. When they differ significantly, I point it out. Note that I use the ➪ character to indicate steps within a menu command, such as "choose File ➪ Edit" to mean to choose Edit from the File menu.

Keyboard shortcuts are an important element for streamlining a workflow, but I don't stress them here because there are hundreds between Lightroom and Photoshop. With that said, I will point out some of the more useful shortcuts by listing them when I first introduce common tools and commands. The keyword will be listed in parentheses like this: "the Graduated Filter

tool (shortcut: M).” When keyboard shortcuts are different for Mac and Windows, I list the Mac version first to be consistent with the screenshots. They are followed by the Windows version. For example, press ⌥+T or Ctrl+T to hide and reveal the toolbar.

✳ TIP

If you want a complete listing of all Lightroom shortcuts, follow this Adobe link: http://helpx.adobe.com/lightroom/help/keyboard-shortcuts.html.

Products Mentioned in This Book

I mention some useful products in this book, particularly in the chapter on plugins. I want you to know I am not sponsored by any of these companies. I have been an Adobe Certified Photoshop Expert for almost ten years, but I don’t work for Adobe or receive any compensation from the company. (I don’t even get free software!) The only reason I mention any product is because I use it or I know other photographers who do and I think knowing about it will make your postproduction experience better.

Getting into the Flow

Photographic postproduction has the unfortunate name: workflow. It’s not really that bad, but the “work” part makes it sound like a job. Even if it is your job, it’s better to focus on the “flow” part of the word. When you gain proficiency with the tools and techniques I describe in this book, your editing sessions flow freely. You gain the confidence to try different tools and explore images in new ways.

You begin to develop what I call a “conscious workflow” where you are in the moment every step of the way, exploring the options for the image in front of you. Being in this flow is one of the greatest joys in my life. It’s the thing that keeps me seated in front of my computer display for hours on end.

My hope is that *Zen of Postproduction* helps take the stress out of your workflow so you can feel what it’s like to be in the flow and experience its joy while creating amazing images from your photos.

Please Review This Book

If you are like me, you depend on reader reviews when purchasing books. If you find this book useful, please take a few minutes to review it online so that others can be helped by it, too.

CHAPTER 1

Getting Grounded

As you read through this book, you'll learn about the tools and techniques that form the basic photographic postproduction workflow. By the end of the book, you'll not only have an understanding of workflow in general, you'll have a fully functioning workflow of your own. A workflow you can trust to organize, edit, and output your photos. Before you begin, though, it's prudent to take a moment to get grounded in basic concepts.

What Is Workflow?

When I worked in film labs, I never heard pro photographer clients mention the word "workflow." That's because most photographers who used our lab didn't concern themselves with their postproduction needs. We took care of it for them. Our clients would bring their film negatives to us, like the 35mm film shown in Figure 1-1, and we created finely tuned finished images.

For those of us working in the lab, the way customer orders moved through the lab was extremely important. Our system for processing and printing was efficient and reliable. All orders began in the Order Write-Up Department, where they were entered into a computerized tracking system. All finished orders completed their trip in the Shipping Department, where they were sent out for delivery. Between those two departments, orders were sent through various Processing, Printing, and Finishing departments. As with most businesses, time is money in a production environment so orders needed to proceed through the lab as quickly as possible.

FIGURE 1-1
Before digital, most photographers took their film to a lab for processing and printing.

The system we used to manage this process is called *workflow*. Ours was designed to ensure the lab produced consistent results for every customer order. Those results needed to uphold our reputation for high quality and attention to detail. For us, the perfect workflow needed to accommodate both the demands of our professional clientele and the efficiency necessary to make a profit.

Today, most digital photographers manage their own workflow for organizing, editing, and outputting their photos. Being in charge is truly liberating because it enables you to create the images you like, rather than hoping a lab will see the image the way you do.

Comparing Lightroom and Photoshop

For the last several years, Photoshop has dominated digital photographic postproduction. It's an amazing program that can be used to do just about anything to a digital image. Photoshop has changed the world for photographers. It's also changed the world of web designers, video editors, medical researchers, and 3D animators. Photoshop is an incredibly powerful program but this power leads to overwhelming complexity, particularly for new users.

Deconstructing Photoshop

Photoshop provides almost every possible editing tool in its countless panels and hundreds of menu commands. Imagine walking into your local home-improvement store and asking for one of every tool in the store and then placing the tools into the biggest toolbox you can find. Once you roll that sucker into your garage you'll have every tool you could ever possibly need. The problem is knowing where to find the tool you want when you want it, and then figuring out how to use it after you've found it.

For today's photographers, the two most important parts of Photoshop aren't really in Photoshop: Adobe Bridge and Adobe Camera Raw. These two programs are automatically installed with Photoshop.

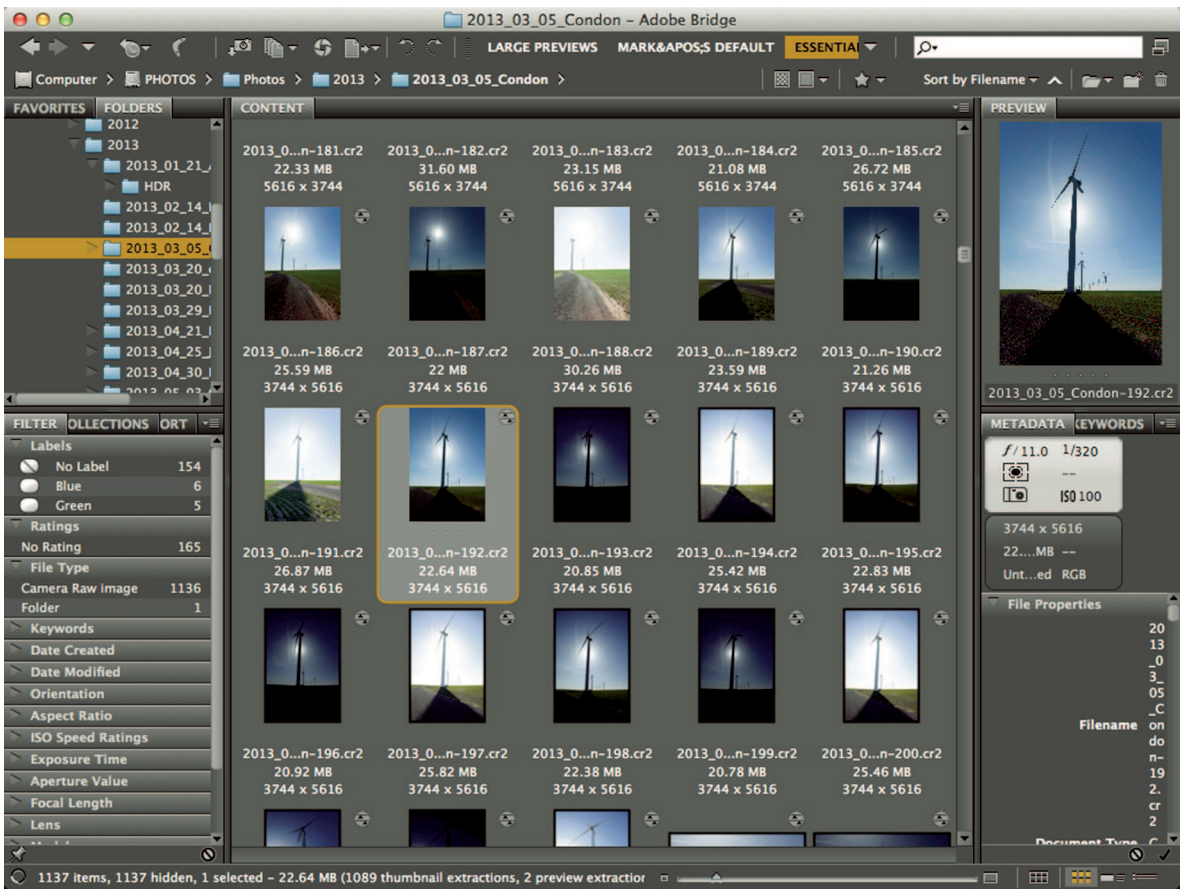


FIGURE 1-2

Adobe Bridge is a powerful file browser used with other Adobe design products. Before digital, most photographers took their film to a lab for processing and printing.

Adobe Bridge

Adobe Bridge, shown in Figure 1-2, is a powerful file browser, designed to help you see and manage your image files. It's named Bridge because it can be used with other Adobe design applications and functions as a bridge among those programs. Bridge is used to import and organize photos, as well as output them for all sorts of uses, from e-mail to printing.

Bridge first appeared in Photoshop CS. With every new version, it grew more powerful and so quickly became one of the most popular file browsers among photographers. We used it to sort and rank photos and to perform searches. Bridge made it possible to find specific photos in ways that had never been possible in Photoshop.

Adobe Camera Raw

The other key program that comes with Photoshop is Adobe Camera Raw (ACR). This program is designed specifically to work on RAW files. (I describe RAW files in Chapter 2.) For now, the important thing to know is that a RAW file cannot be opened directly in Photoshop. It must go through a process to convert its data to a format that Photoshop understands. Because there are lots of tools and options in RAW conversion programs, each has its own workflow.

Adobe Camera Raw (shown in Figure 1-3) has a row of tools at the top-left and several stacked panels on the right. You can use these tools to adjust important aspects of an image before converting it for Photoshop. When the process is handled correctly, adjustments such as basic tone and color are handled during RAW conversion on the derivative file before it opens in Photoshop.

ACR has grown more powerful with every update. As the number of photographers shooting RAW has increased, ACR has become the most widely used conversion program. Over time, photographers shifted their basic Photoshop workflow toward using Bridge and ACR to do everything needed with most images. When a special image needed heavy lifting, we'd use Photoshop for the full treatment.

Pixels versus metadata

Because Photoshop was introduced before cameras could capture images in the RAW format, it was designed to edit photos by altering their pixels. If special procedures aren't followed, any image editing becomes permanent when you close a file. For example, if you change a color photo to black-and-white and close the file, you can't restore the photo's color. This type of editing is described as *destructive,* because pixels are permanently changed.

Metadata literally means data about data. Metadata is a system of recording and organizing information. For example, when I take a photo, my camera embeds information about the photo in the RAW file, such as the time of day created, the camera settings used, and in some cases GPS data regarding the location of the photo.

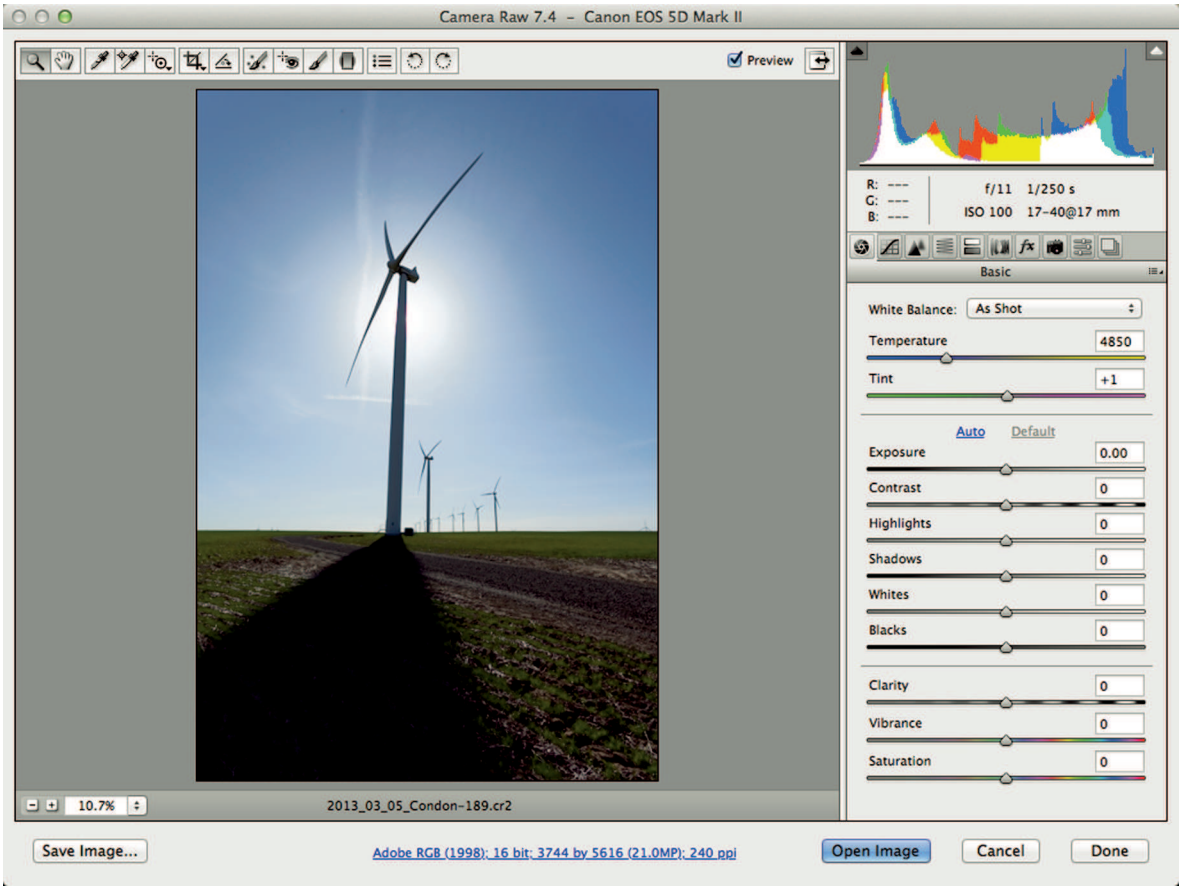


FIGURE 1-3
Adobe Camera Raw (ACR) is one of the most popular RAW processing programs.

When you edit RAW files using a RAW converter program such as ACR or Lightroom, all your changes are recorded as metadata. If you change a color photo to black-and-white, that change is recorded as a set of metadata instructions. No pixels are altered. The metadata instructions can be changed during future editing or completely removed at any time, returning the photo to its original state. This *nondestructive* editing creates a huge amount of flexibility, particularly when you're first learning. Because ACR uses metadata to track changes, editing files is much more flexible and forgiving than Photoshop.

Adobe Lightroom is born

Because photographers were mostly using Bridge and ACR, Adobe decided it made sense to combine them. That's how Adobe Lightroom was born. Lightroom is a combination of Bridge

and ACR, rearranged in a unified workspace. Lightroom has the organizational power of Bridge (and more) coupled with the editing power of ACR.

✳ NOTE

Lightroom also recognizes and works with non-RAW file formats, including JPEG, TIFF, PNG, and most movie files.

Lightroom gave Adobe a chance to rethink the editing process. The workspace was modularized to keep things simple. The finished software was just what photographers were asking for, so it didn't take long for Lightroom to take the photographic world by storm.

Finding the Balance of Power

Lightroom has become the main organizational and editing tool for today's digital photographers. Some use it for every step of their workflow. For example, when I photograph a bicycle race, such as that in Figure 1-4, I use Lightroom's Library module to sort through hundreds of photos to identify the top 30 to 40 images. I then use the Develop module to make the photos look great. Finally, I use the Web module to upload the finished files to a web gallery where I share them with the world. For this workflow, it's Lightroom all the way.

Workflow for other types of photography isn't always as clear-cut. A portrait photographer can use Lightroom for most of his or her workflow, but the photographer will eventually hit the

FIGURE 1-4

Lightroom was the only program I needed to process photos from this bicycle race.

FIGURE 1-5
This fine-art image required using a plugin to get this look.

ceiling of Lightroom's potential. For example, it isn't possible to do what's called a *head-swap* in Lightroom, where you copy a head from one photo and paste it to another to improve the expression. This type of compositing requires the full power of Photoshop.

Lightroom also lacks sophisticated retouching. Lightroom's Spot Removal tool improves with every new release, but it doesn't come close to what's possible in Photoshop. High-end portrait photographers couldn't survive without Photoshop's powerful retouching tools, but they don't always use Photoshop for their entire postproduction workflow: A full-blown Photoshop workflow is clunky next to the smoothness of a Lightroom workflow.

When I create fine-art images like the one in Figure 1-5, I usually shoot for and process *high-dynamic-range* (HDR) images, and my requirements extend beyond Photoshop's considerable capabilities. To get the look I'm after, I need to use external programs called plugins. (HDR and plugins are described in Chapter 14.) Whether I use Photoshop or a plugin, I always begin and finish with Lightroom. It's the central hub of my workflow. Sometimes it completely satisfies my needs. Other times I require the power of Photoshop or a specialized plugin.

FIGURE 1-6
The buildings look great in this evening shot of Seattle, but smoke from a nearby forest fire removed some of the dimension from the sky.

For a simple, complete workflow, it's necessary to find the right blend of Lightroom and Photoshop. The power of Lightroom lies in its relative simplicity and the flexibility it offers with nondestructive editing. Photoshop's power is in its sophisticated tool set. The trick is finding the proper balance of power between Lightroom and Photoshop for your editing needs.

Solving Problems

Another important concept to image editing is really about solving problems. When I'm working on a photo, I evaluate the image to identify what's not working visually. Then I find the best way to manage the problems I find. If I don't like the color in a photo, I change it. If an area is too dark, I lighten it. If there's something odd along the edge when cropping a photo, I find

FIGURE 1-7
The sky looks better after darkening in Lightroom, but the light on the buildings doesn't look natural.

a way to minimize it. Throughout the editing process, I continually look for problems to be solved. If one problem's solution creates another problem, I deal with it. When all problems have been solved, the editing process is complete and the photo is ready for output.

The photo at the beginning of this chapter of downtown Seattle in the moonlight is a good example of problem solving. It was shot as the sun was setting to the right of the frame. Figure 1-6 shows an early version of the image after basic Lightroom adjustments.

I was pleased with the reflections on the buildings, but the sky didn't appeal to me. Usually, Mount Rainier is just visible in the distance. This particular day, there was a forest fire on the other side of Puget Sound. The smoke in the sky yielded a dull blue that lacked the dimension I wanted.

Figure 1-7 shows the photo after additional work in Lightroom to darken the sky. The modified sky was working, but the light on the buildings didn't seem natural anymore. It was

most noticeable on the building with the green top on the right. Two days after the shoot, I was back home editing the photo and pondering this problem. I decided the buildings needed a light source in the sky behind them — the moon. I was in luck because a full moon was just rising. I went outside, photographed it, and used Photoshop to composite it and a light glow around it to the image. After I made the changes and did a few more small tweaks in Lightroom, I finally felt the image was complete because I had solved all the problems I was seeing in the image.

I entered the completed image in the 2012 Professional Photographers of America Western Regional Photo Competition in California. It won best of show and was the only image out of several hundred to receive a perfect score of 100 points.

The bottom line: Think of your postproduction workflow as a problem-solving process. Yes, it's important to create the best in-camera images possible. But there's always something that can be done to make them better. It's just a matter of learning to see the problems and knowing how to solve them.

CHAPTER 2

Finding Comfort with Lightroom

Lightroom is the gateway to a stress-free workflow. It may not seem like it when you first open the program, but after you find a comfort level with Lightroom, you'll be amazed at what you can do with it. My intention with this book is to help you find that comfort level so you are free to focus on the creative process instead of feeling lost and not knowing what to do next.

Lightroom as Your Personal Photo Lab

Lightroom is designed to accomplish three primary functions: image organization, image processing, and image output. Figure 2-1 shows Lightroom's Module Picker, located at the upper-right of the screen, listing the seven modules. The modules are designed to help with specific tasks as images move through your workflow.

Although there are seven modules, they are used for three purposes: organization, developing, and output. The Library and Map modules are used to organize photos. Develop is used to perfect photos so they look great. The Book, Slideshow, Print, and Web modules are used to output photos in various forms so they can be shared with the world.

Back before digital, I worked at a large photo lab that served demanding professional photographers. In the lab, we had a compartmentalized workflow. Employees in the Receiving Department greeted customers, entered their orders in our tracking system, and then sorted the orders for production. Orders then moved to the Production Department, where trained technicians produced high-quality processing and printing. After orders were complete, they moved to the Shipping Department for delivery via a shipping service or one of our drivers. This

FIGURE 2-1

Use Lightroom's Module Picker to select a module for organizing, editing, or outputting your photos.

compartmentalized workflow enabled us to focus on each customer order systematically and efficiently.

Lightroom functions in much the same way. It's your personal photo lab. Instead of employees managing customer orders, you are managing your photos. When you import new photos to Lightroom, you organize and sort the images using the Library module. Photos that you want to improve are moved to the Develop module where you can professionally adjust and process photos individually or in groups. You then send the processed photos to the appropriate output module for delivery as slideshows, prints, or in web galleries. After you learn the process, you'll be as comfortable in Lightroom as I was in the lab.

Working with Catalogs

Only photos imported to Lightroom are visible in its catalog. This system is very efficient but can lead to big problems if you don't properly manage photos in the catalog. Understanding the catalog concept will ensure that Lightroom always knows where your photos are and spare you hours of frustration.

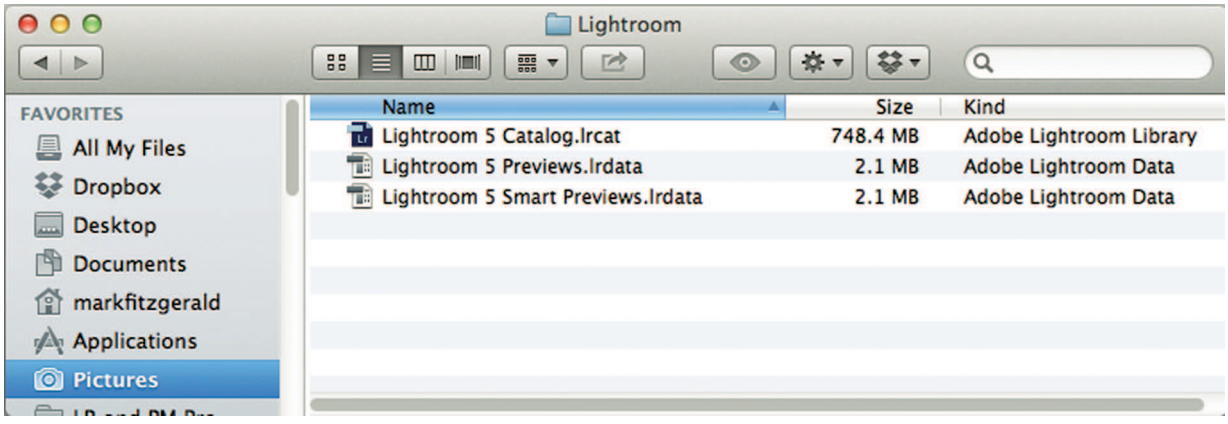


FIGURE 2-2

By default, the Lightroom folder is stored in the Pictures folder (Mac) or My Pictures folder (Windows). The file with the .lrcat extension is the Lightroom catalog.

Finding your catalog

When you install Lightroom, it creates a catalog file. The catalog is stored by default in the Lightroom folder in the Pictures folder (on the Mac) or My Pictures folder (in Windows), as shown in Figure 2-2. In the figure, the catalog is Lightroom 5 Catalog.lrcat. The .lrcat suffix indicates the file is a Lightroom catalog. You can choose to store the catalog in a different location. I suggest leaving the catalog in its default location so that if you have a problem with Lightroom and need help, your catalog can easily be found.

It's like the catalog at your public library

Most people are familiar with the library card catalog. In the old days, it sat near the side of the main room and was filled with cards for each book in the library. Today, most card catalogs are digital, which makes it easier to perform searches for books and other publications.

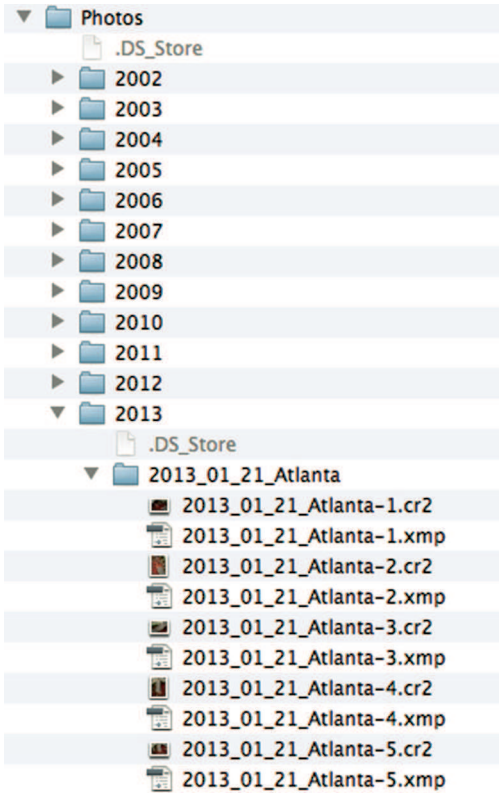


FIGURE 2-3

Just as books are stored on shelves in the library, digital files are stored in folders on your hard drive.

No matter if the card catalog in the public library is paper or digital, it exists for one purpose: to contain information about the library's books, such as publish date, author info, literary genre, and shelf location in the library. This is similar to the purpose of Lightroom's catalog. It has an entry for every photo you've imported from your photo library. These entries contain information about the photos, such as exposure information, keyword tags, colored labels and stars, and location on your hard drive.

Just as the books in the library are stored on real shelves, your photo files are stored in virtual shelves called *folders*, as shown in Figure 2-3. These folders are arranged on your hard drive, usually in other folders. The important analogy to understand is this: In the public library, books are stored on the shelf and information about them is stored in the card catalog. In Lightroom, your photos are stored on a hard drive and information about them is stored in the Lightroom catalog.

✳ NOTE

Your photos are not stored in Lightroom. They're on your hard drive. Lightroom uses its catalog file to manage your photos.

The most important thing to know about Lightroom

When someone having problems with Lightroom calls me, their problem is often caused by not fully understanding the Lightroom catalog concept. Think of the public library analogy again for a moment. If you walk into a public library and remove a book from a shelf, the catalog continues directing people to the book's original location, but the book isn't there any longer. The only way someone will find it is if they stumble across it accidentally.

The same thing happens to Lightroom's catalog if you use a program such as the Mac Finder or Windows Explorer to move or rename a photo, or to move or rename the photo's folder. If you change anything about a photo or the photo's folder outside Lightroom, the catalog loses track of it. The photo's preview will still appear in the catalog, but you're limited to what you can do to it in Lightroom because the original file is no longer available.

So, here's one of the most important things you'll read in this book: If you want to move, rename, or delete a photo or the folder it's in, always do so in Lightroom. If you don't, you run the risk of "breaking" the catalog. In Chapter 4, I describe methods you can use for finding missing photos if this happens to you.

✳ CAUTION

The most important rule in Lightroom is to always manage files from within Lightroom. If you make changes outside Lightroom, the catalog will lose track of the files.

How many catalogs should you have?

In the earliest days of Lightroom, the program would slow down with just a couple of thousand images in its catalog. So it became common for users to create lots of separate catalogs to keep Lightroom working efficiently. For example, wedding photographers tend to shoot lots of images at a wedding. In early versions of Lightroom, they would create separate catalogs for each wedding because they were concerned about overwhelming Lightroom with too many images.

✳ NOTE

Lightroom can open only one catalog at a time.

Lightroom's speed has greatly improved with each new release. Today, it can efficiently handle large numbers of files in a single catalog. I know photographers who manage hundreds of thousands of photos in single catalogs without experiencing any performance issues. So you no longer need to divide your image library into separate Lightroom catalogs for the sake of speed.

Some photographers create separate catalogs for other reasons. For example, a commercial photographer I know uses separate catalogs based on dates. Everything she shoots during the year is in a catalog just for that year. Another commercial photographer I know uses two catalogs: one for professional work and a second for personal work. I understand the thinking behind creating multiple catalogs like this, but I usually counsel photographers to use a single catalog. Using multiple catalogs severely reduces Lightroom's search capabilities when you want to find something.

✳ NOTE

A good example of someone who needs to use two catalogs would be a health care professional. Many dentists use photography in their practices. But federal law prevents storing patient photos on a personal computer. For health care professionals, having one catalog for work and one for home is necessary.

Going back to the public library analogy: We have a wonderful library system at the Multnomah County Library in Portland, Oregon, with about 20 neighborhood branches. When I search for a book using the library's online card catalog, it searches every library. It lets me know which branches have the book available or when it will be available at each branch. Imagine what a pain it would be searching 20 card catalogs looking for the book, especially if it ultimately wasn't available at any of the locations.

A large part of the power of Lightroom is its ability to search the catalog using a wide range of metadata. One of the most common searches is a keyword search, which is described in detail in Chapter 5. Keywords are alphanumeric tags that you can add to images to help identify them,

such as visual content, location, or specific occasion. For example, I have a Siberian Husky named Ruby. Whenever I import a new photo of Ruby in Lightroom, I add the "Ruby" keyword to the photo. Then by simply doing a keyword search I can find all photos of Ruby at any time, no matter where they are on my hard drives.

If I used a different catalog for each year, I would need to search each catalog one at a time using the Ruby keyword. Searching each year would be time-consuming and make it impossible to see all the Ruby photos together in one screen. Or, if I used separate catalogs for professional and personal work, I might miss the opportunity to sell a photo of Ruby as stock because it's in the personal catalog and I forgot that when I did my keyword search.

✳ KEEP IT SIMPLE

Use one Lightroom catalog unless you have a most excellent reason for doing otherwise.

Working with RAW Files

Most serious photographers shoot in RAW file format. The only other option on most cameras is the JPEG file format. Every photographer must choose a file format. Fortunately, it's an easy choice when you understand the power of RAW files and Lightroom.

✳ NOTE

Acronyms are used for most file formats. For example, JPEG is Joint Photographic Experts Group and TIFF is Tagged Image File Format. But RAW isn't an acronym. It describes the type of data in the file. It's capitalized in common usage to indicate a type of file format.

Comparing JPEG to RAW

Your camera's sensor captures a huge amount of information. When you shoot in JPEG format, the camera's processor compares all that information to your camera setup. It looks at user settings like sharpness, white balance, and color space to determine what kind of JPEG file to make from the captured data. The amount of data used in the JPEG is much smaller than the total amount of data captured. Leftover data is automatically discarded. So when shooting JPEGs, only a small amount of the captured data is used to generate the file — and the rest of the data is lost forever.

However, when you shoot in RAW file format, almost all the information captured by the sensor is preserved in the file. A RAW file gives you a huge advantage when processing photos in Lightroom's Develop module because you'll have access to everything captured by the sensor.

JPEG files are usually much smaller than RAW files. The smaller size allows you to store more JPEG photos on media cards and hard drives than equivalent RAW files. In the early days of digital photography, media cards were expensive, but today storage is quite cheap for the amount of data you can store.

Considering the loss in image quality suffered by JPEG files, any advantage to capturing your original photos in this format have all but disappeared. If you want the most flexibility when making creative decisions during post-processing, you should always use RAW.

RAW is like a time machine

There's another special feature that makes RAW files important. When you shoot JPEG, all camera settings, such as sharpness, white balance, and color space are "baked in" the JPEG. You can't change any of these in-camera settings after you take the photo. When you shoot RAW and import RAW photos to Lightroom, the camera settings are a jumping off point for postprocessing. Some settings, such as sharpness, are completely ignored and replaced with default Lightroom settings that can be altered in Lightroom. This means you can choose the settings you want after you capture the photo.

For example, when you change the white balance and color space of a RAW file in Lightroom, it will look just like it was shot with the settings you choose in Lightroom. In fact, the only camera settings you can't change during postproduction are those that control exposure: aperture, shutter speed, and ISO. You can modify settings like white balance and color space in a JPEG file after the fact, but the photo won't look as good as if it had been shot with those settings. But with RAW files, you can't tell the difference between a photo shot with specific settings and a photo with the same settings applied in Lightroom.

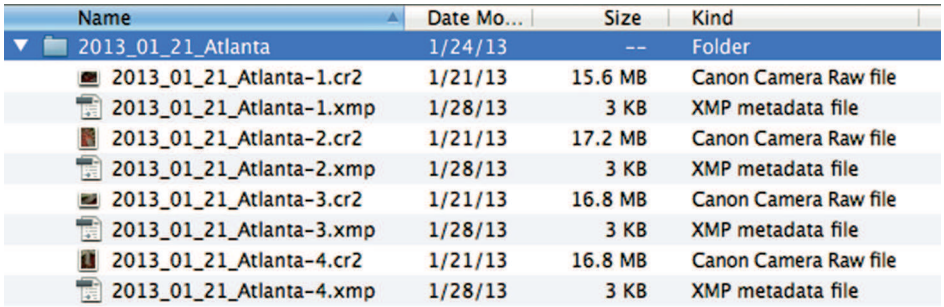
✳ KEEP IT SIMPLE

If you're using Lightroom, set your camera on RAW and leave it there!

Proprietary RAW file formats and DNG

There are many versions of RAW file formats currently in use. Every camera manufacturer has its own proprietary format. For example, Nikon uses NEF (Nikon Electronic Format) and Canon uses CR2 (Canon Raw 2). Most camera companies tend to guard their proprietary formats and aren't known for sharing the inner workings with other companies. Fortunately for us, Adobe's engineers spend considerable time learning to understand these formats well enough to support them with programs like Lightroom and Photoshop.

In Chapter 1, I describe how Lightroom uses metadata to record image adjustments. With common non-RAW file formats such as JPEG and TIFF, metadata is stored in the file.



Name	Date Mo...	Size	Kind
2013_01_21_Atlanta	1/24/13	--	Folder
2013_01_21_Atlanta-1.cr2	1/21/13	15.6 MB	Canon Camera Raw file
2013_01_21_Atlanta-1.xmp	1/28/13	3 KB	XMP metadata file
2013_01_21_Atlanta-2.cr2	1/21/13	17.2 MB	Canon Camera Raw file
2013_01_21_Atlanta-2.xmp	1/28/13	3 KB	XMP metadata file
2013_01_21_Atlanta-3.cr2	1/21/13	16.8 MB	Canon Camera Raw file
2013_01_21_Atlanta-3.xmp	1/28/13	3 KB	XMP metadata file
2013_01_21_Atlanta-4.cr2	1/21/13	16.8 MB	Canon Camera Raw file
2013_01_21_Atlanta-4.xmp	1/28/13	3 KB	XMP metadata file

FIGURE 2-4

XMP sidecar files have the same root name as the original file. You can see my RAW CR2 files with each of their much smaller XMP files next to them.

But because most RAW files are proprietary, Adobe doesn't allow its software to write data inside these files. This means the metadata must be stored outside the RAW file. That's why in Lightroom, by default, metadata for all the files in your catalog is stored in a hidden central database. Lightroom also gives you the option of storing individual metadata, in a companion file called an *XMP sidecar* (shown in Figure 2-4.) The XMP sidecar file is stored in the same folder as the original. This makes it easier to stay organized, because the metadata is with the original RAW file on your hard drive. I describe how to enable XMP sidecar files in the next section.

Proprietary RAW file formats create unnecessary complication. In 2004, Adobe released its own RAW file format named DNG (for "digital negative"). Adobe has made this format available to other companies to use as the RAW file format in their cameras. This format is open source, which means anyone can access the underlying code, making the format essentially future-proof. Manufacturers such as Hasselblad, Leica, and Pentax have taken Adobe up on their offer and let you use either their proprietary RAW format or Adobe's DNG format. Unfortunately, many companies have not.

Because DNG was developed by Adobe, it was designed so that all metadata can be stored in the file. There's no need for XMP sidecar files. With Lightroom, you can choose to convert your camera's proprietary RAW into DNG as you import them into Lightroom without losing any important data. I describe importing in Chapter 3.

Preparing Lightroom

Before you being using Lightroom, I recommend you configure its preferences and catalog settings.

Setting up preferences

Lightroom's preferences apply to all Lightroom catalogs. To open the Preferences dialog box, choose Lightroom ➪ Preferences on the Mac or Edit ➪ Preferences in Windows. When the dialog box opens, you should see options similar to Figure 2-5.

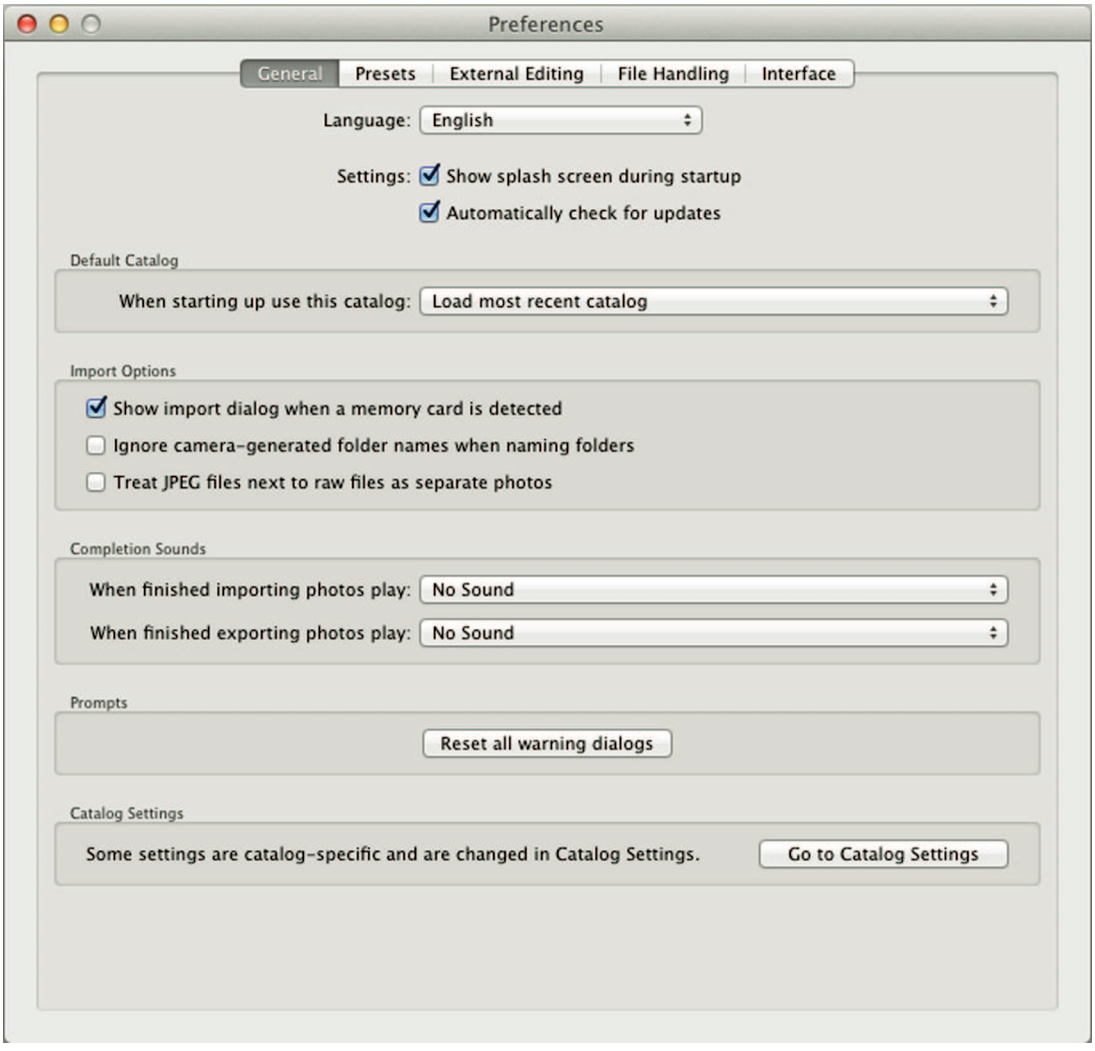


FIGURE 2-5

Lightroom's preferences are used to control the options for all your catalogs. Use the tabs at the top to select the preferences you want to modify.

Notice the five panes across the top of the dialog box. Each pane controls a set of preferences. There are lots of settings, but only a few are really important. Here's what I recommend when setting up a new Lightroom catalog:

- **General pane:** Leave the default selections in place. If you plan to use more than one catalog, use the Default Catalog menu to choose which catalog Lightroom will open

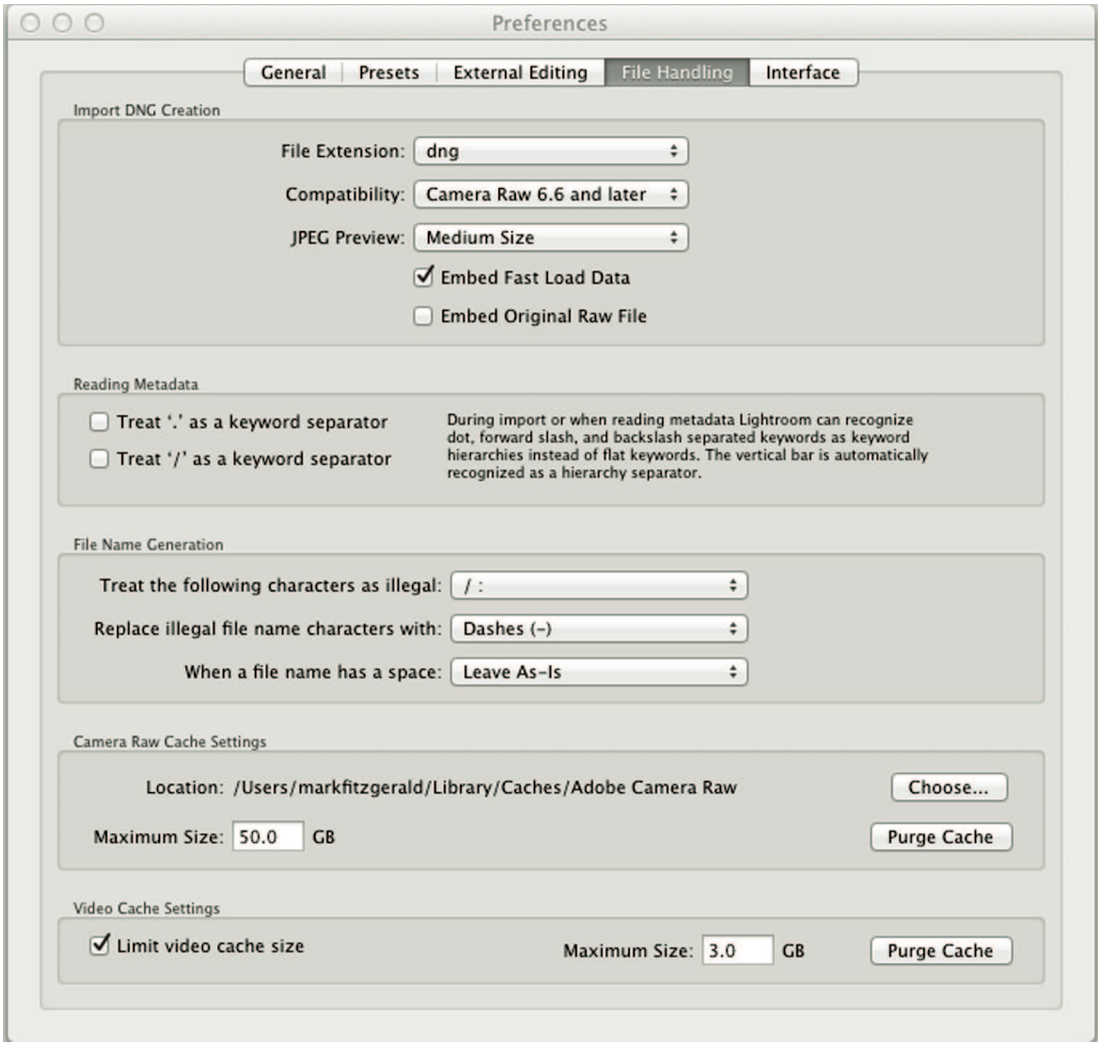


FIGURE 2-6

The File Handling preferences are used to determine what type of DNG file to create when you convert RAW files during import. I recommend you use the default settings.

when launched. If you plan to shoot JPEG and RAW and want to see both images in Lightroom, select Treat JPEG Files Next to Raw Files as Separate Photos.

- **Presets pane:** I recommend selecting Store Presets with This Catalog. Leave the other default selections as they are.
- **External Editing pane:** The preferences in this pane are used to determine what type of file opens in Photoshop when you open a RAW file directly from Lightroom. I describe RAW settings in detail in Chapter 9.
- **File Handling pane:** When you convert your RAW files to DNG, Lightroom follows the rules established in the Import DNG Creation section at the top of the pane. I recommend using the default settings shown in Figure 2-6. Additionally, if you have lots of hard drive space, I suggest increasing the size of the cache in the Camera Raw Cache Settings section. I have mine set to 50GB. Doing so increases efficiency in the Develop module when revisiting a previously developed file because it has quick access to information in the cache.
- **Interface pane:** This section is used to change the look and feel of the Lightroom user interface (UI). The modifications are limited compared to some programs such as Photoshop. I recommend you check the options here, but begin with the default settings. If you decide to change settings later, you can return to these preferences.

Choosing your catalog settings

The Catalog Settings dialog box is used to set preferences for the currently open catalog. To open the dialog box, you can click the Go to Catalog Settings button in the lower left corner of the General pane in the Preferences dialog box, shown in Figure 2-5, or you can choose Lightroom ➪ Catalog Settings on Mac or Edit ➪ Catalog Settings in Windows to open the dialog box shown in Figure 2-7.

- **General pane:** The General pane provides information about the catalog, including its size and location. You can also choose how often Lightroom asks you to make a backup of the catalog, which is triggered by closing the program. If you currently have a backup system for your entire computer, you don't need a separate backup of the catalog because it's included in your system-wide backup. If you have a backup system, choose None from the menu. If you do not have a backup system, choose Every Time Lightroom Exits. You can then decide if you've done enough work to warrant a backup every time you close Lightroom. The backups accumulate over time in the Lightroom ➪ Backups folder in the Pictures folder (on the Mac) or My Pictures folder (in Windows). Eventually these backups consume a large amount of space, so you should periodically delete older backups manually.
- **File Handling pane:** I recommend using the default settings.

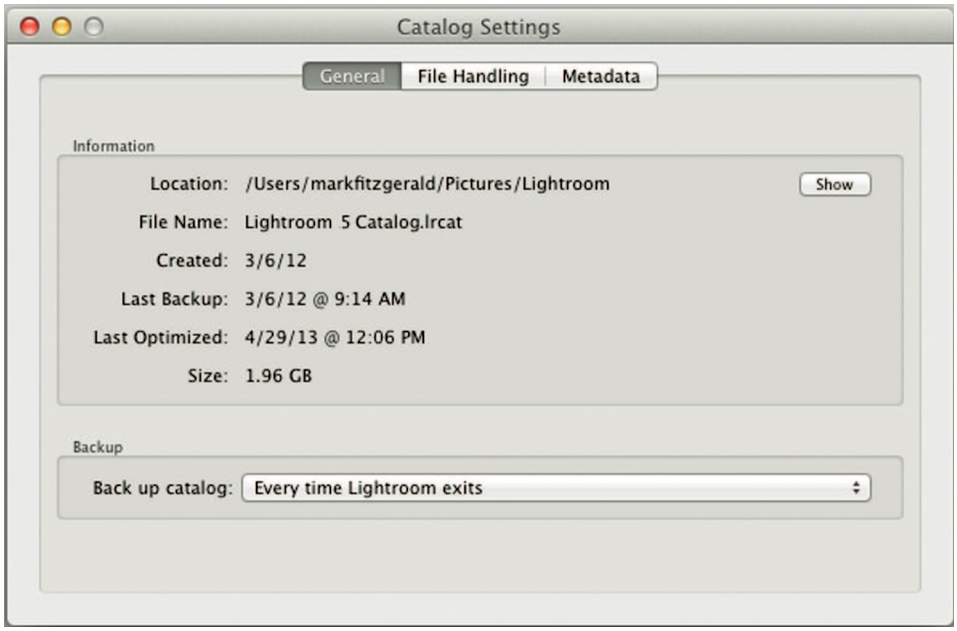


FIGURE 2-7

The Catalog Settings dialog box is used to customize the settings of the current catalog. The Information section tells you where your catalog is and its size.

- **Metadata pane:** Select Automatically Write Changes into XMP. This option ensures that when using proprietary RAW files, all their metadata will be stored next to the parent file in XMP sidecar files. Leave the other default selections as they are.

TIP

If Lightroom seems to be running slower than usual, choose File ➪ Optimize Catalog. This organizes the inner workings of the catalog to help keep things running smoothly.

Exploring the Lightroom Screen

One of the best things about Lightroom is the simplicity of its design. Figure 2-8 shows the layout of the Library module. It shares the same features as the other modules. Take a look at the main components in Figure 2-8 to see how modules are organized.

- **Module picker:** The Module picker (at the top of the screen) is visible in each module. Use it to choose the module you want to use. You begin most projects with the Library module, move to the Develop module, and then to the appropriate output module.

FIGURE 2-8

The Library module shares features common to all Lightroom modules: ① The Module Picker. ② The toolbar. ③ The Filmstrip. The triangles highlighted by yellow circles are disclosure triangles for panel areas.

- **Panels:** Every module has sets of panels on the right and left sides. These panel sets have groups of panels that are populated with information and adjustments relevant to the current module. Individual panels can be collapsed or expanded on the panel set by clicking the disclosure triangles next to their names. In Figure 2-8, all the panels, except Navigator and Histogram, are collapsed. Panels cannot be moved or relocated.
- **Filmstrip:** The Filmstrip is visible in all modules (unless you collapse it manually). Use it to view and select photos. Just above the thumbnails in the Filmstrip is information such as the number of photos in the current folder, the number of selected photos, and the name of the selected photo.

- **Toolbar:** The toolbar is visible in all modules, but the tools are specific to the current module. Clicking the small triangle on the right of the toolbar opens a menu enabling you to add and remove tools from the toolbar. Press the T key to hide or reveal the toolbar — if your toolbar disappears, remember to press the T key.

Viewing Photos

Although you can't completely reorganize the Lightroom workspace, you do have flexibility in how you can view images individually or in groups. Knowing how to zoom in and out and how to compare similar photos is important when you learn to organize photos (explained in Chapter 4).

Gaining more real estate

In Figure 2-8, you see four disclosure triangles, circled in yellow in the figure, on the perimeter of the workspace. Clicking a triangle hides or reveals its associated area. Hiding the left and right panel sets adds significant space. If you need the panel set, just hover the pointer over where it collapsed to reveal it and then hover it away when you want to conceal it. Pressing the Tab key hides or reveals both side panel sets at the same time. Press Shift+Tab to hide or reveal the sides, the top, and the Filmstrip at the same time.

Four primary viewing methods

Figure 2-9 shows a detail of the left side of the Library module's toolbar. Click one of these buttons to choose between one of four view modes.

- **Grid view** (shortcut: G) is a grid of thumbnails (shown in Figure 2-8). The Grid view is available only in the Library module. (The Filmstrip serves as an adjunct in other modules.) Change the size of the thumbnails using the Thumbnails slider on the right of the toolbar.

FIGURE 2-9

The Library module's toolbar has four viewing modes on the left. Each view mode controls how images are displayed in the main viewing area.

- **Loupe view** (shortcut: E) is any view that shows only one image at a time, whether it fits just the screen or is zoomed in to 100 percent or more. The Loupe view is the only view available in the Develop module.
- **Compare view** (shortcut: C) is used to compare two selected photos. Use the Filmstrip to select the two photos you want to compare. Click one of the photos in the Compare view to zoom both photos to the same magnification.
- **Survey view** (shortcut: N) is used to compare two or more selected photos. Although you can compare more than two photos at a time, you can't zoom in Survey view. To remove a photo from this view, hover the pointer over it and click the Close button (the small X) that appears at the bottom right.

Compare View is handy for comparing two similar photos to see which has the sharpest focus. But the Grid and Loupe views are by far the most used view modes.

TIP

To select a group of photos that are next to one another, click on the first photo and then Shift+click on the last photo. To select a group of photos that are not next to one another, ⌘+click or Ctrl+click each photo you want to select.

Zooming and panning

One of the nice things about Lightroom is that it's really easy to zoom and pan photos while in Loupe view. Take a moment to familiarize yourself with methods for changing magnification and panning the image so you're prepared to view your photos appropriately as you travel through upcoming chapters.

Using the Navigator panel

The Navigator panel is available in the Library, Develop, and Map modules. However, the Navigator functions differently in the Map module. Figure 2-10 shows the Navigator panel as it's seen in the Library and Develop modules.

There are four zoom presets located at the top right of the panel. Click to zoom the image to a preset magnification. Here's what they do:

- **Fit:** Fits the entire image in the main viewing area.
- **Fill:** Fills the entire viewing area with the image. When viewing a vertical photo, the top and bottom are not visible.
- **1:1:** Zooms the image to 100 percent. The area in the white box, shown in the Figure 2-10, is the only area visible in the viewing area. You can drag the box in the Navigator

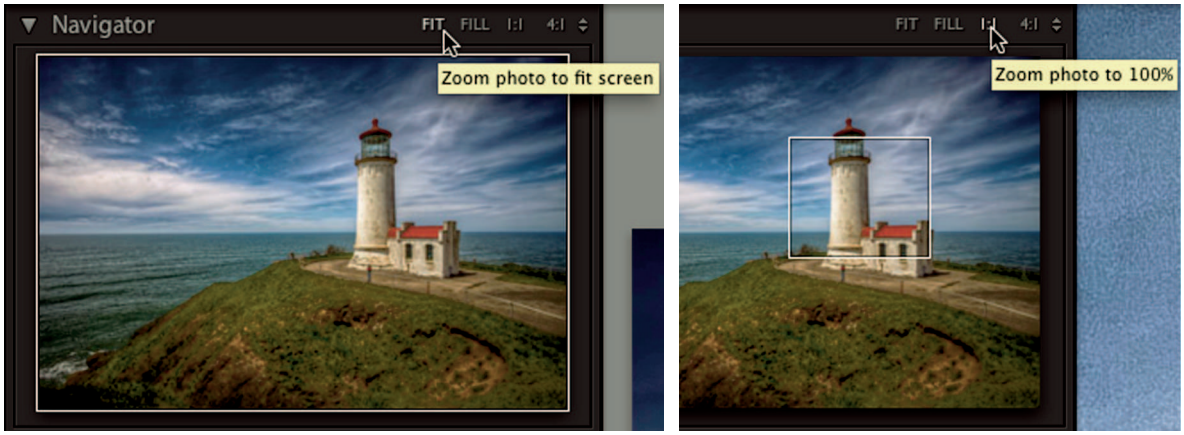


FIGURE 2-10

Use the magnification presets in the Navigator panel to zoom the Loupe view. When zoomed in, drag the rectangular overlay to pan the view.

panel to pan the zoomed image in the main area. You can also pan by dragging the image in the viewing area.

- **Additional presets:** The fourth preset can be changed by clicking the up and down triangles at the top right of the panel to open a menu with ten other presets. It's set to 4:1 in Figure 2-10, which is 400 percent. I rarely find it necessary to zoom closer than 100 percent. This menu is useful when you want to view at 25-percent (1:4) or 50-percent (1:2) magnifications.

✳ TIP

Small triangles and arrows indicate menus or other options. Look for them as you navigate the workspace.

Clicking and zooming

By far the most popular way to zoom in Lightroom is by clicking the photo in the main work area. Double-clicking a thumbnail in Grid view zooms the photo to the last Navigator zoom preset used. Double-clicking again returns to Grid view.

When in Loupe view, a single click on the image zooms to the second-to-last Navigator zoom preset used. Subsequent single-clicks in Loupe view oscillate between the last two zoom presets you selected in the Navigator panel. Because clicking on the image in the Loupe view goes back and forth between the two previous zoom presets, it's necessary to "train" the Navigator:

Click on the two presets you want to use for click-zooming and Navigator will use those settings when click-zooming.

CHAPTER 3

Importing Photos in Lightroom

Because Lightroom uses a catalog system, it's necessary to import photos to the catalog before you can use them. Lightroom uses a special Import screen to help you organize your photos during import. Understanding it and its many options is the key to developing a smooth import process. In this chapter, you learn about basic importing concepts and the two main methods for importing your photos to Lightroom's catalog.

Simplifying Folder Organization

As I describe in Chapter 2, photos imported in Lightroom are stored in folders on your hard drive. When importing, you control creating those folders and organizing them on your system. Now is a good time to think about how those folders should be organized.

Avoiding the 'Bucket System'

When we organize things in our lives, we tend to group them based on similarity. When my wife and I moved to our home several years ago, she organized the new kitchen. I do most of the family's cooking and had a hard time finding the utensils I needed. When I needed a spatula, for example, I would find it in an unexpected drawer. Finally I asked my wife how she decided which utensils went into each drawer. "It's easy," she replied, pointing at the two drawers in question. "Everything with a handle went in the top drawer and everything without a handle went in the second drawer." My organizational strategy in our previous home was to place the most

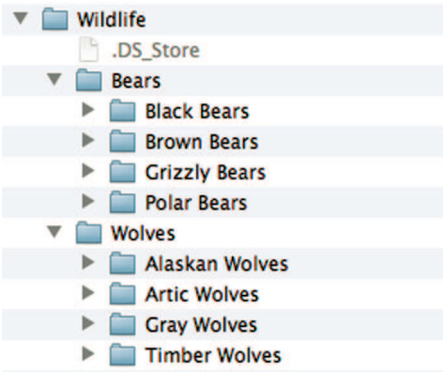


FIGURE 3-1

A folder organization based on image content: the bucket system.

used items in the top drawer, with the lesser-used items in the second drawer. No wonder I was confused!

When we organize digital assets such as photographs, it's tempting to organize them the way we're accustomed to organizing physical items, by placing similar items together. For example, I work with a client who has an amazing collection of wildlife photography. He's been shooting for a long time and has a large number of photos organized based on what is in the photos. When he has a photo of a gray wolf, he moves it to a folder named Gray Wolves, which is a subfolder of Wolves. When he has a photo of a black bear, he moves it to a folder named Black Bears. Figure 3-1 shows his folder structure.

I call this strategy the "bucket system" because you place similar items in buckets. Photos are placed in folders based on image content. This method seems sensible at first, but when you see the problems with the bucket system, you'll understand the importance of finding a better solution.

While helping this wildlife photographer, we came across an amazing photo of a gray wolf and a black bear. When I asked him which folder he planned to use, he said he was going to duplicate the file and place each image in its respective folder: one copy in Gray Wolves and the other in Black Bears.

Duplicating images can quickly become complicated and cumbersome. For example, I have four sisters. A photo of us together would require five copies to store in five folders. This approach not only wastes space, but also makes it difficult to remember which version I prepared for printing. Worse, though, using the bucket system separates photos from their original context and could spread them across several folders, making it difficult to see all the photos together.

I'm a big believer in keeping photos in the context of the shoot. Instead of moving photos to specific folders based on image elements, I keep all the original photos in one shoot folder. I then use keywords to identify aspects of each photo, such as image content (wolves and bears),

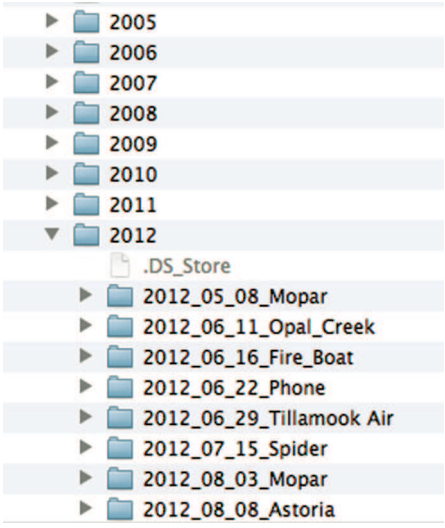


FIGURE 3-2

Organizing shoot folders by date keeps things simple. You only open one year at a time. Then each shoot is dated and has a descriptive word.

location, and events. Even when your folders are highly organized, keywording provides a more efficient method for finding photos than searching through folders. (Chapter 5 describes using keywords.)

✳ KEEP IT SIMPLE

If you already have lots of photos organized using the bucket system and you'd like to try another system, don't worry about the past. Leave the old photos in their folders and start the new system. Just be sure to keyword photos in the old folders!

Organizing and naming folders

Figure 3-2 shows how I organize my folders. I use year folders to contain every shoot for each year. It's like a filing cabinet with drawers for each year. When I open a "drawer," I can see folders for all that year's shoots. Nesting folders inside folders keeps things simple and organized. Nesting folders also takes advantage of the special way Lightroom handles subfolders.

When you select a parent folder in Lightroom, such as 2012 in my system, all photos from every shoot in that folder are displayed in the Grid view and Filmstrip. Even photos from subfolders are displayed. Figure 3-3 shows the same detail as Figure 3-2 in Lightroom's Library module's Folders panel. The number to the right of the 2012 folder is 11214, which is the total

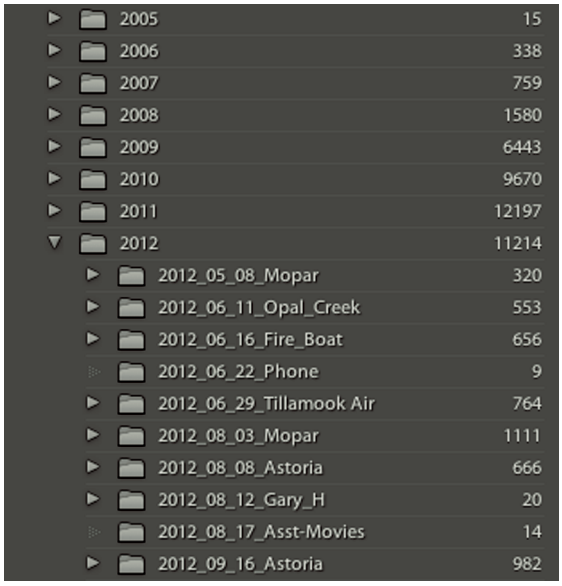


FIGURE 3-3

When you choose a folder, Lightroom by default, lists all photos in the folders subfolders.

number of photos in all the 2012 subfolders. This system gives me the ability to manage all 11,214 photos from 2012, or focus on a single shoot folder — or even a subfolder in that shoot.

When naming shoot folders, I recommend using a date followed by a descriptive word. The folders will be listed chronologically and the word helps jog your memory when necessary. When using dates in folder names be sure to use the following format: *yyyy-mm-dd*. In the U.S., we tend to express dates as *yyyy-dd-mm*, which doesn't list the folders chronologically. Also be sure to use two digits for days and months, such as 2013-09-05 for September 5, 2013.

Understanding Previews

Because Lightroom uses a catalog system to keep track of photos, it creates JPEG previews of the photos for the catalog. These previews display the photos in Lightroom. In Chapter 2, I describe zooming. When you zoom to the 1:1 magnification preset, Lightroom displays a full-dimension preview of the image. When you zoom to the Fit preset, a smaller preview is displayed. These previews, which are stored in the catalog, allow Lightroom to quickly change magnification.

FIGURE 3-4

During import, you can choose the type of initial preview you want to create. If you need other sizes later, Lightroom creates them on demand.

Determining the best preview size

When you import photos, you have the option to determine the type of preview you want to generate during the importing. Figure 3-4 shows the previews available.

- **Minimal:** Creates the least number of previews and helps keep the catalog compact. If you need to zoom in, Lightroom creates a new preview at the size you want and stores it in the catalog.
- **Embedded & Sidecar:** When you shoot a photo in RAW format, your camera embeds a JPEG preview in the photo file. Your camera displays this JPEG preview on the LCD on the back of the camera. Sometimes this preview is stored in the XMP sidecar file. When you choose Embedded & Sidecar, Lightroom uses this preview instead of creating its own.
- **Standard:** Standard size previews are used in the Filmstrip, Grid, and Output modules, as well as the Fit magnification preset.
- **1:1:** These previews are created at 100 percent of the actual image size. Smaller previews are also generated in what Adobe calls a *preview pyramid*.

Deciding which option to choose affects Lightroom's catalog size. Larger previews create larger JPEG files, which cause the catalog size to consume more hard drive space. However, if you need a preview size that isn't in the catalog (such as 1:1), Lightroom needs to pause and create it on demand, which seriously affects efficiency when you're viewing a large number of photos.

For example, when I photograph a bicycle race, there's a lot going on and everything's moving. When I review the photos in Lightroom, I need to check the focus on most photos by zooming in to 1:1. If I don't create 1:1 previews during import, Lightroom must create them when I zoom in on each image. It usually takes a few seconds for each image to snap into focus. A few seconds doesn't sound bad, but when dealing with hundreds of photos, it can really slow down the process of examining and sorting photos in the Library module.

Lightroom is set by default to delete 1:1 previews in 30 days. The thinking is that you've had a chance to evaluate a new shoot and the 1:1 previews are no longer necessary. If a 1:1 preview is deleted and you zoom to 100 percent magnification again, Lightroom creates a new 1:1 preview and stores it for 30 days.

If you think you're going to be zooming in on a large number of photos from a new shoot, I recommend generating 1:1 previews during import. If you don't think you'll need 1:1 previews, choose Standard. If you're importing older, legacy files that you probably won't be looking at any time soon, choose Minimal. My personal strategy is import with 1:1 for a new shoot. Lightroom does more work during the import and thus slows the import process, but it saves me valuable time later when I'm working with the images. I'm not concerned about catalog size because I know the 1:1 previews will be flushed from the system in 30 days.

Smart previews

In most cases, Lightroom uses previews as proxies for your photos. Under normal conditions, using previews isn't a big deal. But there are times when you require more than just a preview. For example, you can't edit photos in the Develop module without the original file because the previews don't contain enough information for the tools. When the original is needed, Lightroom manages the switchover. But when original files are not available to Lightroom, it's another story.

Imagine I store all my photos with 1:1 previews on an external hard drive. After importing the photos to Lightroom, I unplug the hard drive and put it away. Because Lightroom has previews, I can sort and add keywords using the Library module. But if I need to edit a photo in the Develop module, I can't because Lightroom can't find the original file. It will report it as being *offline* or missing. (Missing files are described in detail in Chapter 4.)

A new feature called *smart previews* was added to Lightroom 5 to solve this problem. They have enough information for editing photos in the Develop module. Smart previews are additional previews that are quite large so they increase the overall size of the catalog. I suggest you keep it simple and use smart previews only if you really need to edit offline files.

Adding Ownership Information during Import

One of the cool things you can do while importing photos is add copyright and other ownership information to all your images during import. To include this information, it's necessary to create a metadata preset. Use the following steps to create your personal metadata preset. You'll see how to apply the presets in the next section.

1. Select the Metadata ➪ Edit Metadata Presets to open the dialog box shown in Figure 3-5.
2. Navigate to the IPTC Copyright area and type your name in the Copyright field. You can add the year too, but be sure to change it at the beginning of a new year. If you've filed copyrights on your photos, select Copyrighted from the flyout menu. (You still own your photos even if you don't file copyrights, but ownership is difficult to prove in court without official documentation from the U.S. Copyright Office.)

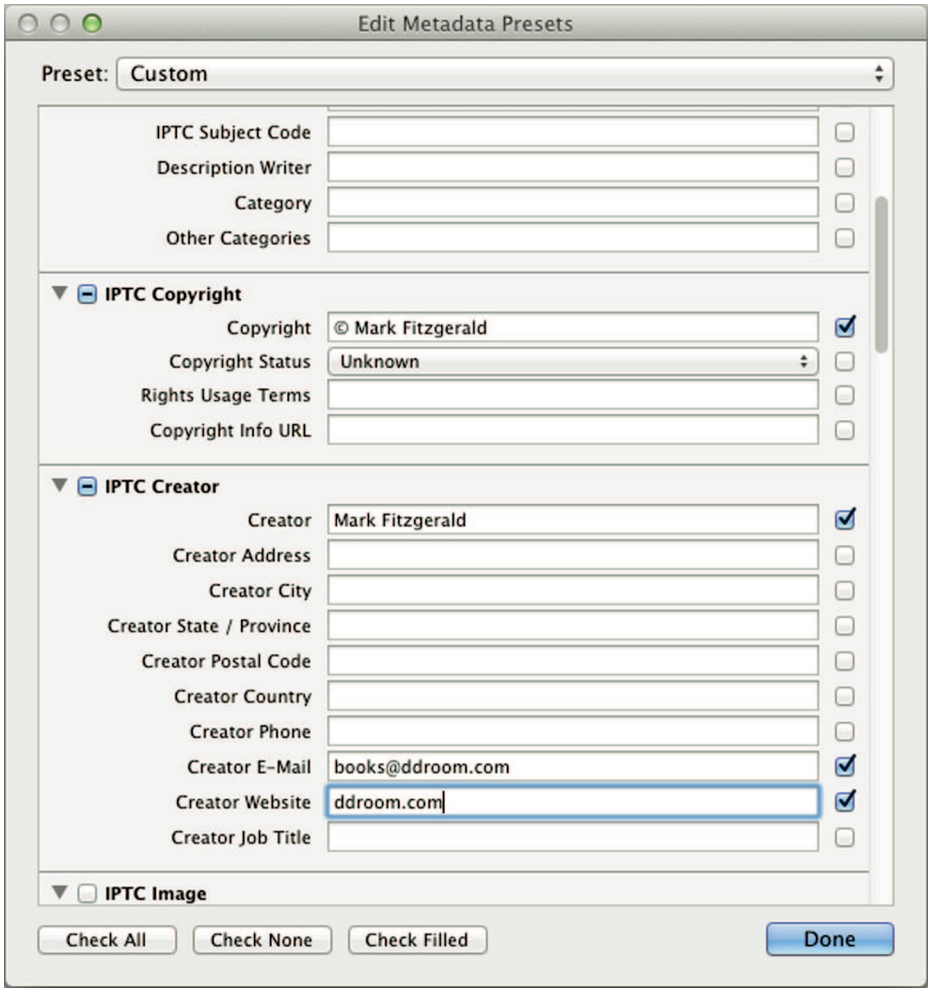


FIGURE 3-5

You can create a personal metadata preset to add your ownership information to photos as you import them.

3. In the IPTC Creator section, type your name in the Creator field.
4. Use the other options in the IPTC Creator section to add contact information you're comfortable sharing with the world, such as e-mail and phone.
5. Click the Done button. Select Save As and name the preset with your first name for your own identification purposes. If you use a year in your copyright metadata be sure to add it to the name to help you remember to update it next year.

✳ TIP

To create a © symbol on a Mac, press Option+G. To create a copyright symbol in Windows, press Alt+0169 using the keypad. (You can't use the numerals at the top of your keyboard.)

Working with the Import Screen

Lightroom has two main methods for importing photos. Which method you choose depends on where the photos are when you import them:

- If the photos are already organized on your hard drive, they only need to be added to the catalog so you can work with them in Lightroom.
- When importing new photos from the camera's memory card, the photos must be copied from the card and organized on your hard drive.

Think of the library card catalog again: If the books are properly located on the shelf, I simply need to create a catalog that references their current locations. If new books are brought into the library, they need to be cataloged and organized on the appropriate shelves.

Importing all photos with the Add option

When you first install Lightroom, it's important to add all your existing photos so they become part of your catalog. Click the Import button at the bottom left of the Library module to begin the process. Figure 3-6 shows the Lightroom Import setup.

When using the Add option, you need to make only a few choices. Explore the panels to make the process flow smoothly.

Source panel

Use the Source panel (on the left) to choose which folder to import. Most photographers use the Pictures folder (on the Mac) or My Pictures folder (in Windows) for their main photo storage. If your photos are in this folder, select it from the Source panel. Notice the folder path I used to drill down to the Pictures folder; it's a similar path in Windows. To import the photos from the subfolders of a main folder, select the Include Subfolders option at the top of the Source panel.

Main viewing area

When you choose a source folder, photos in it are displayed in the main viewing area. If you don't want to import specific photos, uncheck them. This grays them out so you know they

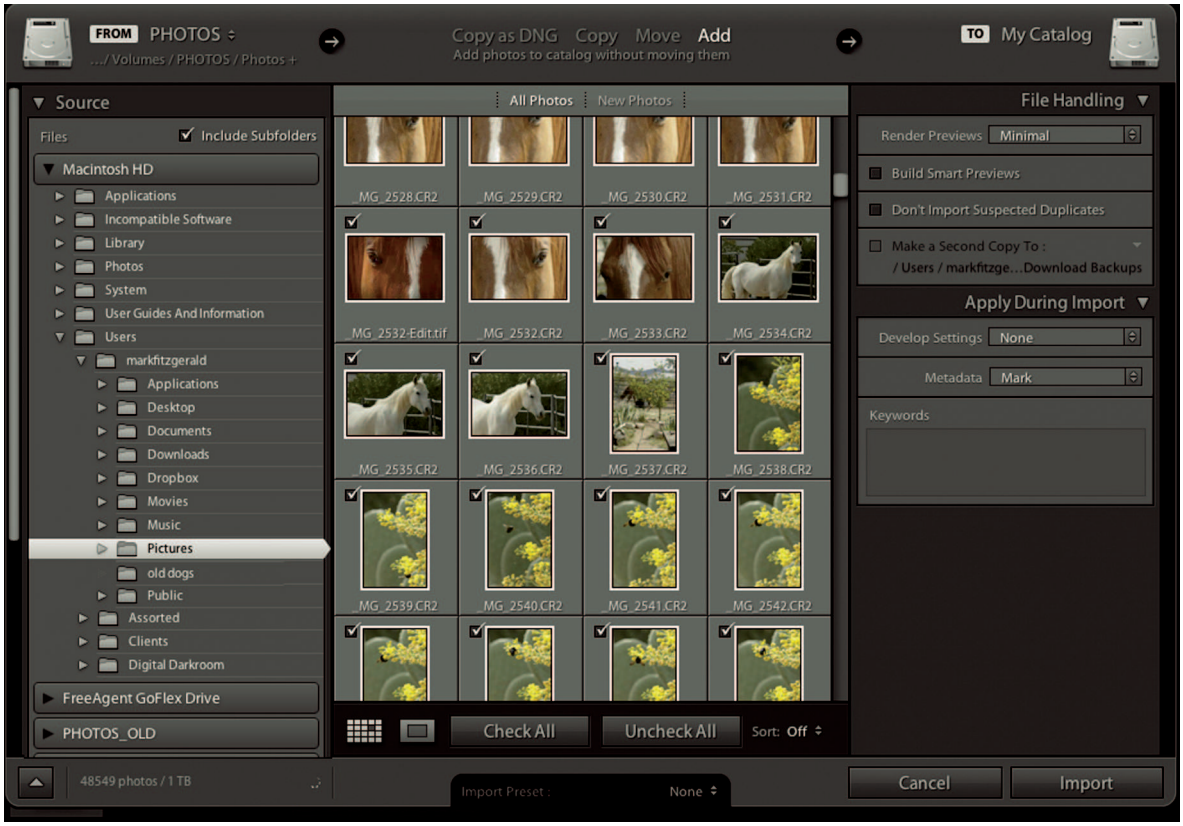


FIGURE 3-6

Lightroom's Import set up to import all photos from the Pictures folder. Notice the path to drill down to the Pictures folder.

won't be imported. If you're doing your first import of all your images, I suggest leaving all the images checked.

✳ Tip

To uncheck a group of photos, select the first photo and Shift+click on the last photo in the group. That way, unchecking one photo unchecks all the selected photos. To select multiple photos not in a contiguous group ⌘+click or Ctrl+click each one.

Import method

You have to choose whether you want to copy, move, or add photos during import using the top-center area in Lightroom. When doing your first import, click the Add option to import

your photos from their current locations with their current names to the Lightroom catalog. If your folder organization needs to be cleaned up, you can take care of it after everything's in Lightroom.

File Handling

The File Handling panel (on the right) enables you to control how files are treated during import. This panel has important options:

- **Render Previews:** This setting lets you choose the size of your initial previews. When importing older (legacy) files, it's best to choose Minimal to help manage catalog size.
- **Render Previews:** Choose this option when you think you will need to edit the photos while they are offline on an external hard drive.
- **Don't Import Suspected Duplicates:** This option is more important when importing from a camera's memory card. It prevents photos that were previously imported from being imported again. If you are doing your first import of all your existing photos, it's best to leave this option off in case you have different photos with duplicate names. Remember to turn it on later when you import from your memory card.
- **Make a Second Copy To:** This option is used to back up photos to another hard drive as you import them. It's most useful when you are on the road with a laptop, away from your usual backup drive.

✳ TIP

If you carry a backup drive while traveling, be sure to keep it in a different bag from your laptop. If the laptop bag goes missing, your backup is still safe.

Apply During Import

The Apply During Import panel gives you the ability to apply Develop presets and information to your photos as they import. Here's how these options are used.

- **Develop Settings:** Choose None to open a pop-up menu with the same Develop presets used in the Develop module. You can choose a preset from the list to apply its settings to all photos being imported. For most users, there's little value in doing this during import. If you like a particular Develop preset, you can easily apply it to all photos after importing. I generally leave this option set to None.
- **Metadata:** This is where you select the metadata preset you created earlier in this chapter. When you open the Metadata pop-up menu, you should see your preset listed. You can choose it and forget because this setting, like many in the Import dialog box, is *sticky*, which means Lightroom leaves the setting on until you change it.

- **Keywords:** This option is used to add global keywords that apply to every image being imported. (Keywords are described in Chapter 5.) Make sure the keywords you use are accurate to all photos being imported. If you are importing a variety of photos, it might be better to add the keywords after they've been imported where you'll have more control over individual photos.

When all the panels are configured the way you want, click the Import button at the bottom-right to add the photos to your catalog.

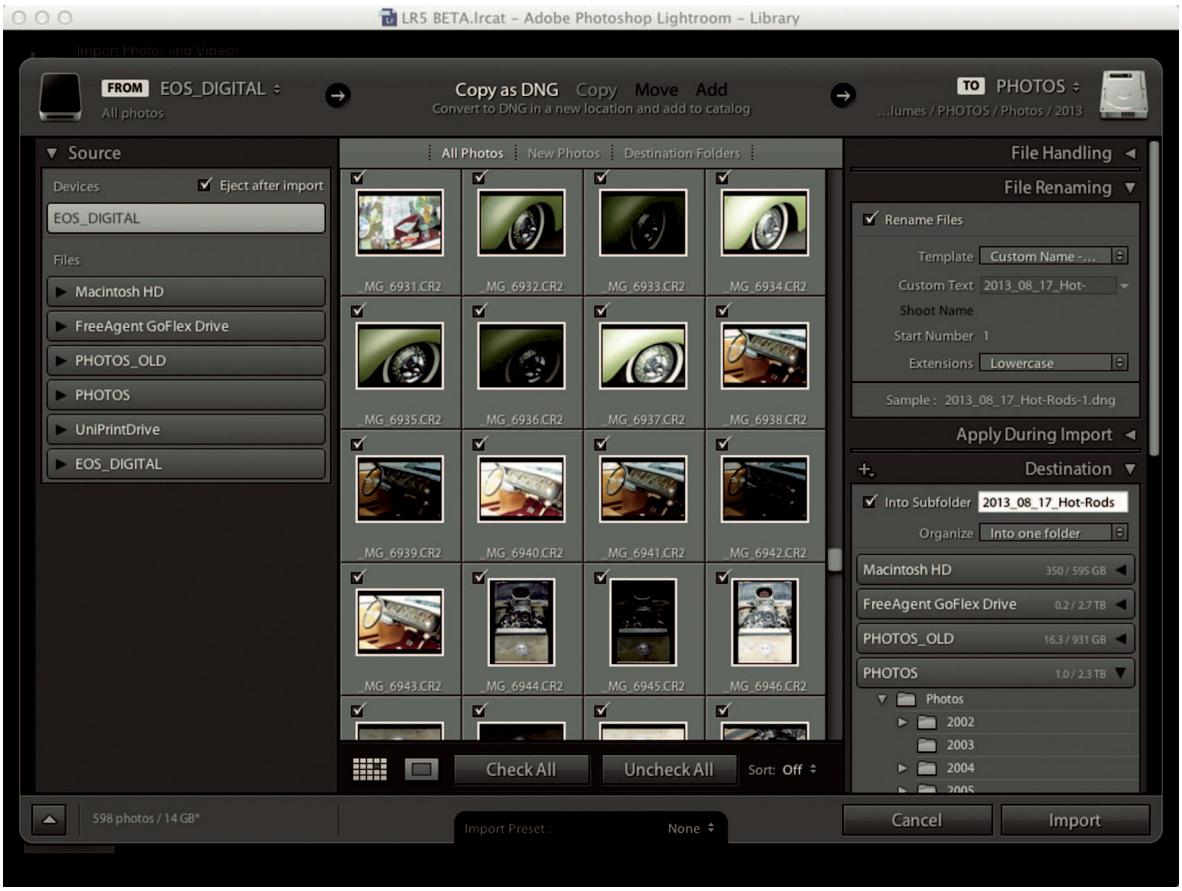


FIGURE 3-7

Lightroom should automatically detect your camera card in the Source panel. Additional panels appear on the right when importing and copying photos from a memory card.

Importing new photos

When importing and copying new photos from your camera's memory card, you have more options. Figure 3-7 shows the import options when Copy as DNG or Copy is selected as the importing method. Notice the new panels on the right.

Begin setting options at the top-left, work your way across the top, and then move down the panels on the right side until you have all the import options configured the way you want them. The File Handling and Apply During Import panels have the same options as described in the previous section. Focus on the things that are different from the process for importing existing photos.

Source

Because Lightroom recognizes memory cards, it should automatically select your card when you insert it in your computer or card reader. You can see my card listed as EOS_Digital at the top of the Source panel on the left. If Lightroom doesn't automatically find your card, choose it from the list in the Source panel. Use the Eject After Import option to eject your memory card without the need to use your operating system.

Import method

You have only two options when importing from a memory card: Copy as DNG or Copy. The Move and Add options are not available because they aren't used for importing from a card. I recommend choosing Copy as DNG to keep things simpler. (DNG is described in Chapter 2.)

To

The main difference between importing existing photos from your hard drive as opposed to importing from a camera card is that when importing new photos, it's necessary to tell Lightroom where you want the files placed on your hard drive. The default setting is the Pictures folder (Mac) or My Pictures folder (Windows). As I note earlier in this chapter, I recommend placing every shoot in a folder for the entire year. To set up a year folder, click in the To area at the top right of the screen to open a pop-up menu and choose Other Destination as shown in Figure 3-8. Create a subfolder for the year using the Choose Destination Folder dialog box. Because this is a sticky setting, Lightroom should remember your choice after you import. Your choice will also be listed in the menu the next time you click To.

✳ TIP

You create shoot subfolders using the Destination panel.

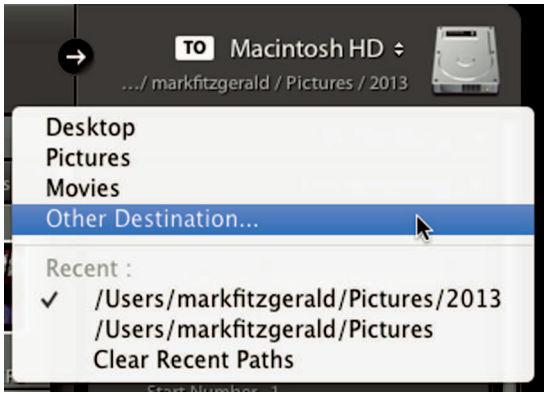


FIGURE 3-8

Use the To pop-up menu to select the main folder for your shoots. If you need to create a new folder for the year, choose Other Destination to open the Choose Destination Folder dialog box.

File Renaming

I strongly recommend you rename photos as soon as they hit your system. Renaming makes it much easier to locate a file if you can't find it on your hard drive. It's easy to rename files in Lightroom during import by choosing Rename Photos and then choosing the renaming system you want to use.

Figure 3-9 shows the Template menu. The most common choice is Custom Name – Sequence. This option enables you to type a name in the Custom Text text box. A sequence number is added to the end of each photo's name. Sequencing begins with 1 by default, but you can change the start number to a different number. A different start number is useful when you're importing two photo cards from the same shoot. Just change the number when importing the second card to continue numbering from the first card. The start number is sticky, so remember to switch it back to 1 the next time you import a new shoot.

✳ KEEP IT SIMPLE

A general naming strategy is sufficient for all photos, even if it doesn't fit a few perfectly. You can use keywords later to do the deep organization.

Earlier in this chapter, I suggested using a date and descriptive words for naming each shoot folder. This name also makes sense for individual photos in that folder. The photos imported in Figure 3-7 are named 2013_08_17_Hot-Rods. The filename doesn't fully display in the File Renaming panel in Figure 3-7 because there isn't enough room. However, the entire name does display at the bottom of the Rename Files pane.

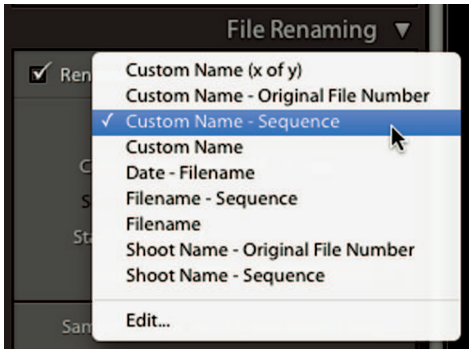


FIGURE 3-9

Of the several Lightroom options for renaming photos, I recommend Custom Name – Sequence.

✳ TIP

To see the date a photo was shot, hover the pointer over its thumbnail for a few moments to display basic information, including its capture date.

Destination

The Destination panel gives you the option to create a shoot subfolder in the master destination folder. (You set up the master folder in the To section at the top-right.) To create a shoot subfolder, select Into Subfolder. You can create subfolders by choosing Organize and then either By Date or Into One Folder in the pop-up menu.

- **By Date:** When this option is used, Lightroom inspects the dates of the selected photos and generates a shoot folder for each date. For example, if I go on vacation for two weeks and shoot every day, Lightroom creates 14 shoot folders when I import the photos.
- **Into One Folder:** This option imports all the selected photos to one folder. Type the name you want to use in the Into Subfolder text box. When you scroll down to the folder list, you'll see your new shoot folder listed below the folder you chose in the To section. The folder's icon will be grayed out, be in italics, and have the + symbol indicating it will be added in the position indicated.

✳ CAUTION

Clicking a folder in the Destination panel resets the To section to that folder. Be careful about accidental clicks on these folders.

Four things to check before importing

Most of the importing mistakes I see are caused by incorrect settings. You need to check the settings on every new import because they are specific to the shoot you're importing. If you want to keep things simple, check each of the following settings before clicking the Import button.

- **To:** Make sure to set this to the main folder you're using for the year. This setting is sticky, so it shouldn't change after you've used it once. But experience has shown me it can change on rare occasions, so it's worth keeping an eye on it.
- **File Renaming:** The Rename Files setting is sticky, but the info in the text box is cleared after every import and replaced with Untitled. If you don't enter a name in the text box, your files are sequenced with the name Untitled. If you choose Rename Files, be sure to type a name in the text box.
- **Keywords:** Earlier, I described the Apply During Import options (see Figure 3-6). It's always useful to add global keywords during import to save time when keywording later. Just remember that any keywords you use are applied to all the photos you import. Keywords are not sticky, so this field is cleared after every import.
- **Shoot folder:** The Into Subfolder setting in the Destination panel is sticky, as well as the name you enter in the text box. One of the biggest mistakes I see people make is choosing the Into Subfolder option and then forgetting to type a name for the new folder. When this happens, the photos from the new shoot end up in the shoot folder from the last import. This option is specific to the import so it should be changed with every import.

Forgetting to rename files or add keywords isn't a big deal in the grand scheme of things. But importing photos to the wrong folder is. A bit of attention to detail during import helps to keep your organization on track.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CHAPTER 4

Organizing Your Visual Life

When I started writing this book, I surveyed all sorts of photographers and asked them what was the most stressful thing about their workflows. A high percentage reported they're most stressed when culling through large numbers of photos. They find it difficult to separate the real gems from everything else. This chapter helps solve that problem. It introduces powerful organizational tools and strategies used in Lightroom that help you efficiently sort and collect photos that are important to you. By the end of this chapter, you'll be ready to quickly identify and collect your best photos.

Seeing More Information

Lightroom has elegant methods for presenting information about your photos. Some information is displayed by default, while other options are available if you know how to find them. This section shows you how to set up Lightroom the way I set it up for my daily usage.

Working with thumbnails

Lightroom's Grid view is where organization begins. By default, the thumbnail cells in the Grid view display limited information about the images they represent. This thumbnail view, shown on the left in Figure 4-1, is called Compact Cells. The only visible information about the photo is a large index number in the upper-left. The index number represents the thumbnail's

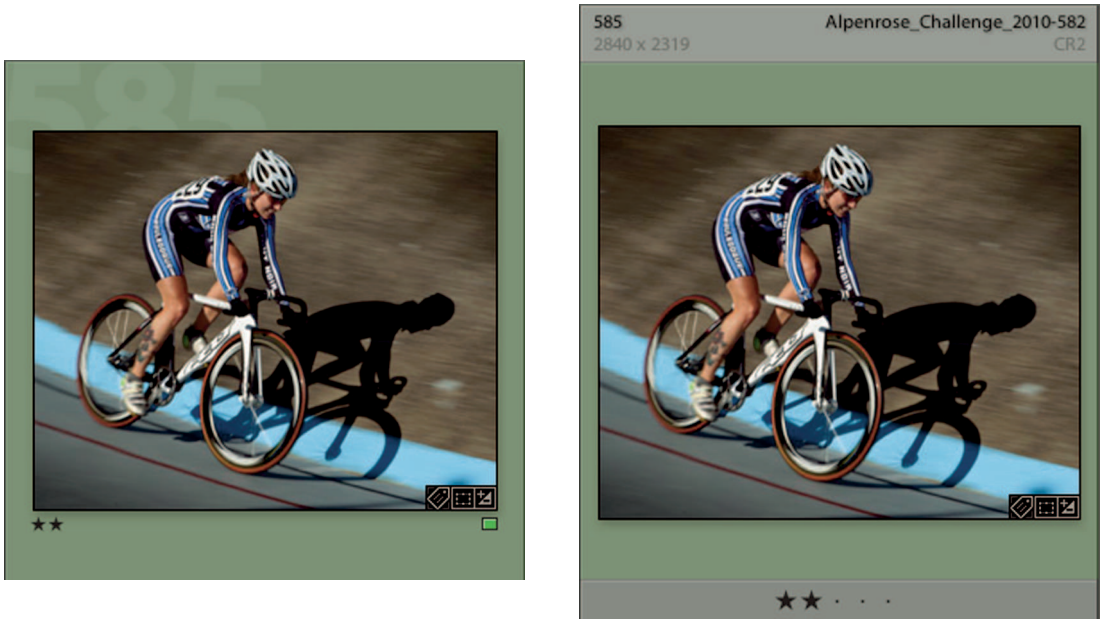


FIGURE 4-1

The thumbnail on the left shows the limited information presented in the Compact Cells view. When Expanded Cells view is chosen, you have options on what information to display.

position in the Grid view and is not permanently applied to the photo. If a different photo is moved to that position, it inherits the index number.

The thumbnail on the right of Figure 4-1 is in the Expanded Cells view. Notice the index number is much smaller and the additional information at the top of the thumbnail. In fact, there are four pieces of information: index number, file base name, cropped dimensions, and file extension.

You can change your thumbnail cells to Expanded Cells view by choosing View ➪ View Options or pressing ⌘+J on the Mac or Ctrl+J in Windows. In the Library View Options dialog box, shown in Figure 4-2, go to the Grid View pane and choose Show Grid Extras. Then choose Expanded Cells from the pop-up menu. Use the menus in the Expanded Cell Extras area near the bottom of the dialog box to choose the information label to display in each of the four cell information fields.

✳ TIP

Clicking an information field in a thumbnail cell opens a menu for changing that information label.

Thumbnails also display other information about the photo. For example, the thumbnails in Figure 4-1 have a green label and a two-star rating. Compact Cells thumbnails also have small icons called *badges* in the lower right of the image area. Badges are also visible on the thumbnails in the Filmstrip.

There are five badges. The first badge on the left in Figure 4-1 indicates keywords. The second badge indicates the photo has been cropped. The third badge shows the photo has been adjusted in the Develop module. There are two other badges. One badge indicates a photo is in a collection. The other indicates if it's been placed on the map in the Map module (described

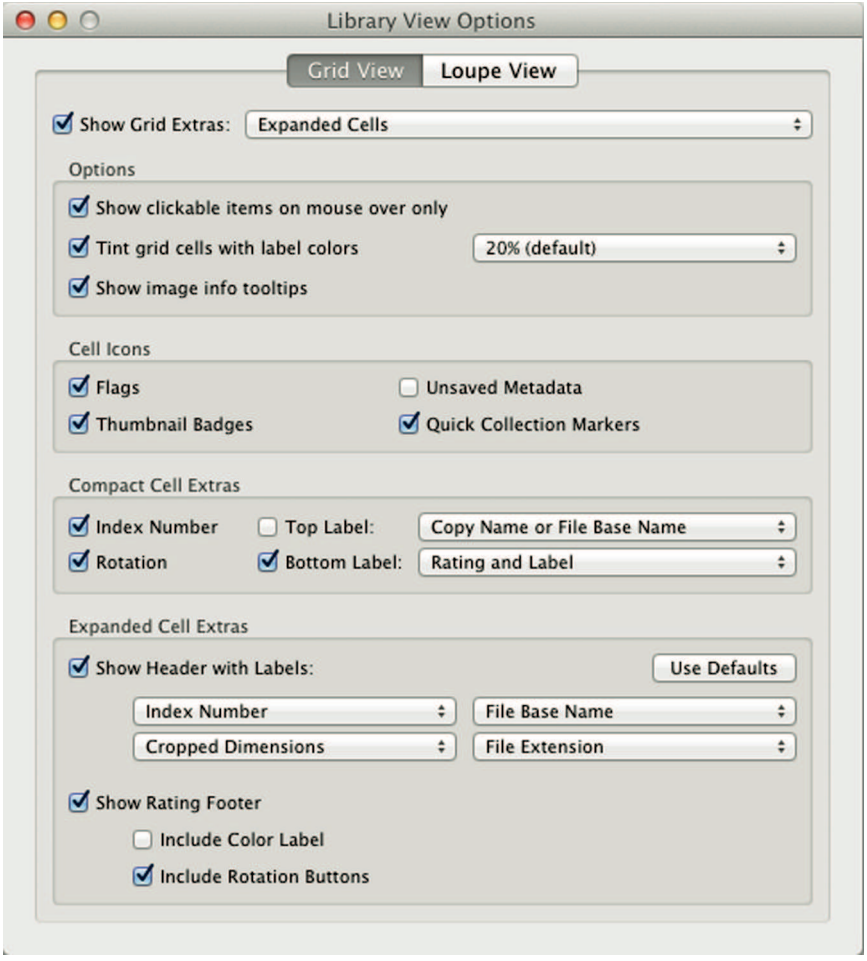


FIGURE 4-2

The Library View Options dialog box enables you to choose the type of information displayed on thumbnails.

later in this chapter). Clicking any badge takes you to the appropriate module in Lightroom and opens the associated tool or panel. For example, clicking on the cropping badge moves the photo to the Develop module and opens the Crop Overlay tool.

✳ CAUTION

Be careful not to accidentally click on a badge or you may end up in unexpected places, which can be disorienting.

Setting up Loupe view

Loupe view also has customizable information overlay, visible in the upper left of the image. Use the Loupe View pane in the Library View Options dialog box, shown in Figure 4-3, to configure two information overlays. To display an overlay, select Show Info Overlay and then choose Info 1 or Info 2 from the pop-up menu to the right.

It can be handy to see image information in Loupe view, but I don't like it being visible on a regular basis. It gets between the image and me, making it harder to evaluate the image. Fortunately, there's an easy keyboard shortcut (I) for toggling through the three Info settings, which are off, Info 1, and Info 2. Deselect Show Info Overlay and use the keyboard shortcut when you want to see an information overlay.

✳ TIP

These Loupe view overlays are also available in the Develop module.

Moving, Renaming, and Deleting Photos

In Chapter 2, I say the most important thing to know about Lightroom is that you have to move, rename, and delete files using Lightroom. That's because if you modify any photo without using Lightroom, its catalog loses track of the photo and will indicate the photo is offline or missing. When you manage photos in Lightroom, the catalog is updated as the changes are applied to the photos on your hard drive.

Moving folders and files

Moving folders and files is fairly straightforward. To move a folder in the Folders panel, drag it to the folder you want. When you do, the dialog box shown Figure 4-4 opens. It's letting you know that the action you requested is being applied to the files on your hard drive, which is exactly what you want. Its ominous warning, "If you proceed, neither this move nor any change

FIGURE 4-3

The Loupe View options in the Library View Options dialog box enables you to customize the information overlays available in Loupe view.

you've made prior to this can be undone," is misleading. Most things in Lightroom can be undone by choosing Edit ➪ Undo or pressing ⌘+Z or Ctrl+Z. When moving folders and files, this command won't undo the move, but you can move the folder back to its original location.

Moving a photo works much the same way. You can move individual photos or a group of selected photos to another folder by dragging their thumbnails. Just be certain you are using the image part of the thumbnail when you drag. Trying to drag an image by clicking the gray border around the thumbnail doesn't work.

FIGURE 4-4

This warning dialog box displays when you move a folder to let you know the action is being performed to the folder on the hard drive.

Renaming folders and files

To rename a folder, right click the folder name in the Folders panel and choose Rename from the contextual menu. To rename a folder, right-click the folder name in the Folders panel and choose Rename from the contextual menu. To rename a photo or a group of selected photos, go to the Library module and choose Library ➪ Rename Photo or press F2. This opens a renaming dialog box with settings similar to the File Renaming panel described in Chapter 3. Some pro photographers rename images after deleting unwanted photos to remove missing file numbers and keep clients from wondering what happened to missing photos.

✳ KEEP IT SIMPLE

Using the right button on your mouse is one of the fastest ways to do many things in Lightroom. When you right-click (on a Mac, you can also Control+click), a contextual menu opens with specific options. If you aren't a right-clicker, I suggest you become one because almost every program has this time-saving feature.

Deleting photos

To delete a photo, click the image and press the Delete or Backspace key to open the dialog box with two options, Delete and Remove, as shown in Figure 4-5. There's a big difference between the options. When you choose Delete, the photo is moved to the trash and is removed from the catalog.

Choosing Remove removes the photo from the catalog but leaves it intact on the hard drive. It's like going to the public library and taking a library book card out of the catalog, but leaving the book on the shelf. What's the point? If you don't want the book in the library, it should be taken off the shelf. Unlike the public library, uncataloged files left on your hard drive will come

FIGURE 4-5

This warning dialog box displays when you delete a photo. Lightroom won't delete a photo without asking this question.

back to haunt you if you ever need to synchronize folders. (I describe synchronizing folders later in this chapter.) So, if you don't want a photo, delete it from your hard drive. If you don't want to delete an image, leave it in Lightroom's catalog.

Deleting folders

There are two primary methods for removing a folder. Select the folder and click the Remove button (the – icon) at the top-right of the Folders panel. You can also right-click on the folder and choose Remove from the contextual menu. Be aware that when you remove a folder that contains photos, Lightroom removes it from the catalog but leaves it intact on your hard drive. In fact, a warning will pop up to remind you that the photos aren't being deleted. If you truly want to delete a folder, you must first select all photos by choosing Edit ➪Select All or pressing ⌘+A or Ctrl+A in the Grid view and then deleting the selected files. When you remove the empty folder, it will be deleted from the hard drive.

Sorting for Winners and Losers

Digital photographers can shoot large numbers of images. When I photograph a bicycle race, it's easy to walk away with more than a thousand photos. Sorting through these images to identify the most important ones is a two-step process: First, make a rough cut for below-average and above-average photos using color labels. Second, use rating stars to identify the best of the best from that group.

The Grid view in Figure 4-6 shows a series of thumbnails in Compact Cells view. They're from a bicycle race called the Alpenrose Challenge held every July at Alpenrose Velodrome in Portland, Oregon.

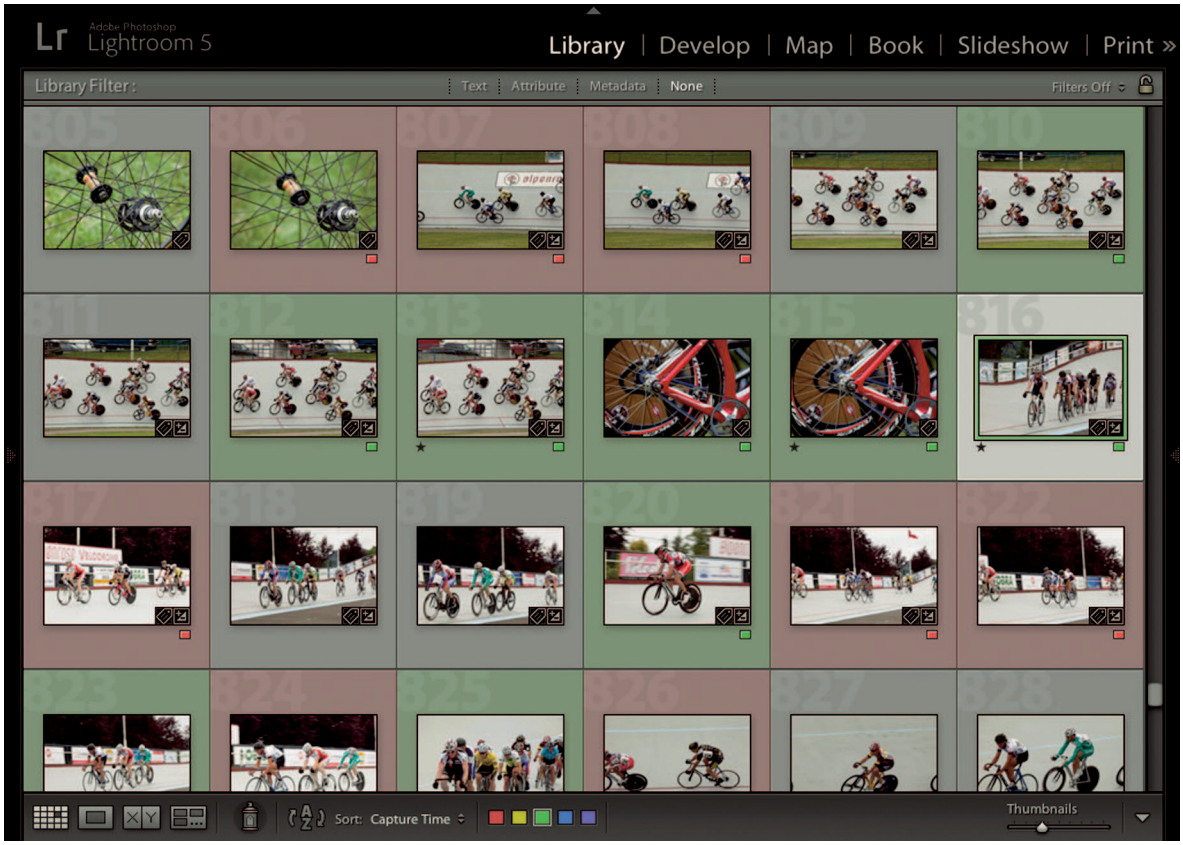


FIGURE 4-6

I use red labels to identify photos I plan to delete and green labels to identify above-average photos.

Playing Red Light, Green Light

When I make my first pass through a shoot, I view each photo in Fit or 1:1 magnification so I can see it well enough to evaluate. I add a red label to every photo I plan to delete. If a photo is above average, I give it a green label. If it's average, it doesn't get a label. At this stage of the sorting process, I'm not trying to find the best of the best just yet. My goal is to locate all photos that need to be deleted and get a general feel for all above-average photos.

I've had students ask me why I use red labels instead of simply deleting unwanted photos. I use red labels for two reasons. First, when you select a photo and press Delete or Backspace, Lightroom always asks if you want to delete the file from the hard drive or remove it from the catalog (see Figure 4-5). When going through a new shoot, it's a pain to have to answer this question every time you delete a photo. When I use red labels to identify photos I want to delete,

I can later filter using the label, select all the red-labeled images, and delete them together. I only need to answer the "delete or remove?" question once for all deleted photos.

The added benefit is I have the opportunity to see all the photos I plan to delete before deleting them. This gives me an opportunity to change my mind on some images after seeing the entire shoot. For example, if I have only one shot of my friend at a bike race, I might decide to keep it even if it's marginally out of focus.

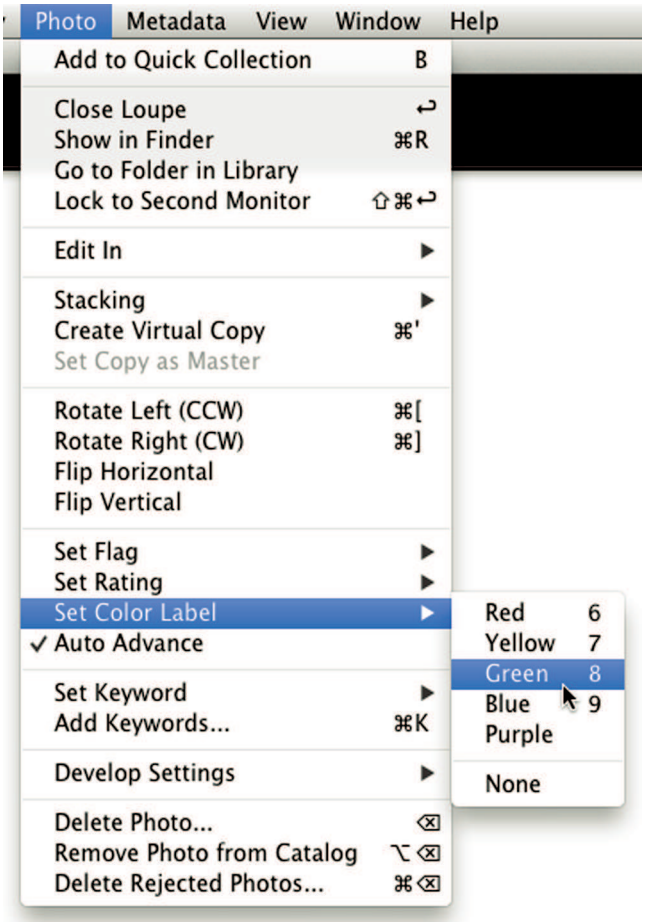


FIGURE 4-7

The Set Color Label menu shows the keyboard shortcuts for quickly applying color labels. Notice there is no shortcut for the purple label.

Applying color labels

Like many things in Lightroom, there are multiple methods for applying color labels. The most common method is to select a photo and use the color labels in the toolbar. When you click a label to apply it, it changes the gray border around the photo's thumbnail to be the label's color. When the photo is selected, the label shows as a colored border around the image of the thumbnail. To remove a label from a selected photo, click the color label in the toolbar again.

A faster way to add or remove labels is to use keyboard shortcuts. Figure 4-7 shows the Set Color Label menu (choose Photo ➪ Set Color Label). Notice the numeric shortcuts listed beside each color. To add or remove a green label, press the 8 key. To add or remove a red label, press the 6 key.

✳ TIP

Turn on Auto Advance to automatically move to the next photo after applying a label (choose Library ➪ Auto Advance).

Filtering for color labels

When labeling is complete, it's time to use filters to group similar labels. You accomplish this using the Library Filter bar located at the top of the Grid view. This bar, visible only in Grid view, offers three filtering methods represented by the Text, Attribute, and Metadata tabbed panes. To filter for color labels, go to the Attribute pane.

Figure 4-8 shows the Attribute section of the Library Filter bar. Click the red label to filter for red-labeled images only. This is your chance to give them one last once-over before selecting all the images (choose Edit ➪ Select All or press ⌘+A or Ctrl+A) and pressing the Delete or

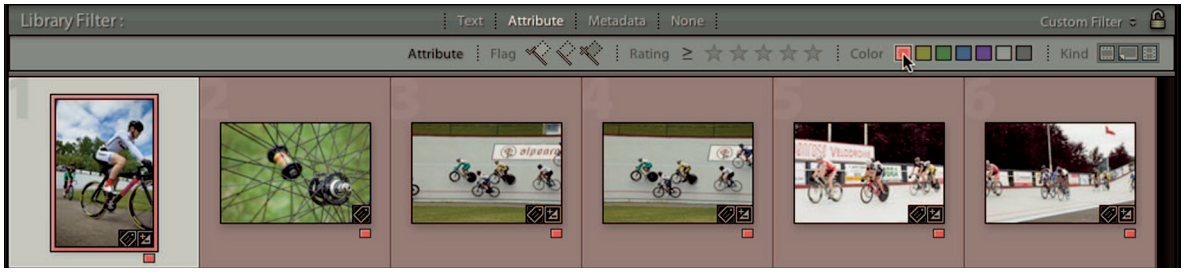


FIGURE 4-8

The Attribute section of the Library Filter bar lets you filter for color labels, rating stars, and more. Here, I'm filtering for red labels.

Backspace key. After you press Delete or Backspace, the thumbnail area becomes empty. Turn off the red filter to see the rest of your photos.

✳ CAUTION

When deleting multiple selected photos, a count is displayed in the dialog box shown in Figure 4-5. Always check this number to make sure it correlates with the number of files you want to delete. I once had a student who wasn't paying attention to this number and subsequently deleted more than 5,000 photos when she only wanted to delete a few.

Adding rating stars for two-tiered rating

After the losers are gone, it's time to focus on the winners. Select the green filter in the Attribute section of the Library Filter bar to turn on filtering for green-labeled photos. Now it's easier to focus on the quality images. Start at the beginning and go through the images one at a time to determine which are the best. Add one star to these photos using the rating stars in the toolbar or by using the keyboard shortcut shown in the Set Rating menu, shown in Figure 4-9 (choose Photo ➪ Set Rating). When you find a photo that's outstanding, give it two stars. If you see one of the best photos you've ever shot, give it three stars. Try to avoid using four- and five-star ratings for now. That way, your rating system has room to expand as your skills increase.

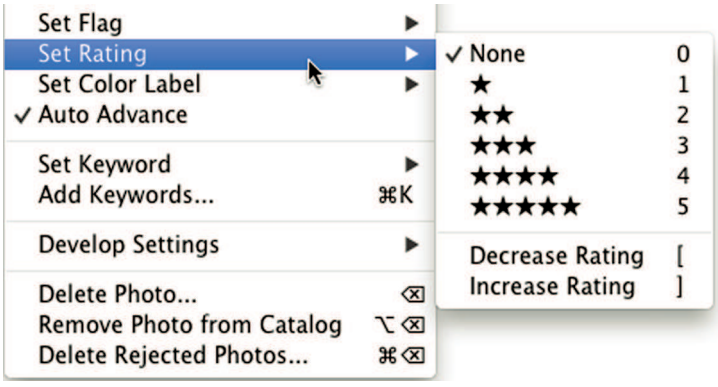


FIGURE 4-9

The Set Ratings menu shows the keyboard shortcut for applying rating stars. Note that 0 equals no stars.

✳ KEEP IT SIMPLE

Use the same rating system throughout your catalog so that labels always have the same meaning, for example, a red label always indicates a file to be deleted.

Using flags

Lightroom has a third labeling system called *flagging*. There are two types of flags: picks and rejects. Flags work similarly to how I use colored labels, but there are differences. Some people prefer flags because they're comfortable with using them in other programs. For those who understand flagging, it can offer a slight increase in productivity. However, for those who aren't familiar with them, it's possible to mistakenly remove photos from the catalog with an unintended keyboard shortcut. The combination of color labels and rating stars enables you to have a versatile rating system. I suggest you forego flags for now. They'll be there if you ever need to add a third tier to your rating system.

Other Ways to Filter Photos

The Library Filter bar enables you to perform a wide range of searches depending on the pane you choose. It's worth it to spend a few minutes exploring the possibilities of this powerful Lightroom feature.

But first, you need to know about the Library Filter bar — it searches only the currently selected folder and its subfolders. For example, you can search a particular shoot by choosing its folder in the Folders panel. Or, you can search an entire year by choosing a year folder. To search the entire catalog, select All Photographs in the Catalog panel. The ability to do multilevel searches is one of the reasons I nest shoot folders in year folders.

Doing a text search

When you go to the Text pane, you'll see the Text portion of the Library Filter bar shown in Figure 4-10. Simply type a word or series of characters in the text box on the right to perform

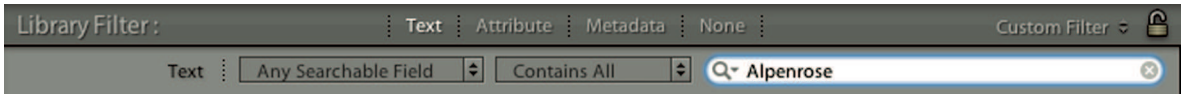


FIGURE 4-10

The Text portion of the Library Filter bar enables you to perform an array of searches based on text used with photos, such as filenames and captions.

a search. Click the Clear button (the X icon) in the text box to clear the text. Use the pop-up menus of the text box to refine your search. For example, you can use the first menu to search filenames only and the second menu to refine that search to find photos that don't match the search word or phrase. Text searches are useful when there aren't many other options and you think you may have used a word with the photo you're trying to find. It's usually my last recourse when other search options fail.

Filtering for image attributes

The Attribute pane enables you to perform searches based on flagging, color labels, and stars. You can turn on more than one filter at a time. So, for example, you can search for one-star photos that have a green label. Keep this in mind when using Attribute because it's easy to leave a filter on and forget about it. If things don't look right in a folder, you probably left a filter on. Choose None from the Library Filter bar's tabs to clear all filters.

There are a couple of cool options in the Attribute section of the Library Filter bar in the Kind section, shown in Figure 4-11. The first button in the Kind section filters for only Master photos (nonvirtual copies). The second button is used to filter for only virtual copies. (I describe *virtual copies* in Chapter 6. They're used to make copies of a photo when you want variations, such as color and black-and-white versions of the same photo.) These two buttons are useful when you have lots of virtual copies mixed with master photos and you want to view them separately.

The third button in the Kind section of the Library Filter bar is very useful. It's used to filter video files. If you want to quickly search for all your movies, select All Photographs in the Catalog panel and then click the Videos button in the Attribute section of the Library Filter bar.

Performing searches based on metadata

By far, the most powerful search option in the Library Filter bar is the Metadata pane. It displays four columns for different metadata. Click an item from a column filter to see that metadata. Figure 4-12 shows the four default metadata columns and their contents when I choose All Photographs in my Catalog panel.

FIGURE 4-11

The buttons in the Kind section of the Library Filter bar enable you to filter for master photos, virtual copies, and movies.

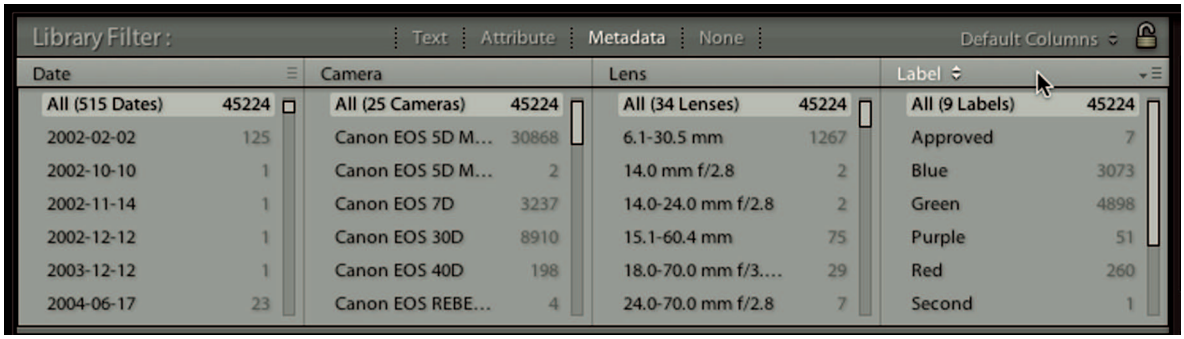


FIGURE 4-12

Hover over a column's header to reveal a flyout menu next to the name. Use the menu to change the column to a different metadata field.

When I choose an item from one column, the contents of the other columns update to reflect the filter results. For example, if I choose Canon 7D from the Camera column, the other columns update to reflect information from the 3,000-plus photos I've shot with the 7D. The Lens column updates to display only lenses used with those 3,000-plus photos.

✳ TIP

The Date column is useful when you know the approximate creation date of the photo you're searching for.

I've used the Lens column when I thought a particular lens wasn't focusing properly. If I'm filtering All Photographs, I can choose the lens in question from the Lens column to filter for photos shot with that lens — no matter which camera was used.

When you hover over a column's header, an icon with two small triangles appears next to the column's name. This icon indicates a menu is available by clicking the name. Use the menu to change the name of the column and search for other types of metadata, such as location and aspect ratio. In Chapter 5, I describe how to customize this bar for special keyword searches.

The 'secret' Attribute filter bar

There's one more thing you should know about filtering at this point. As you recall, the Library Filter bar is visible only in Grid view, which is available only in the Library module. Sometimes, though, you need to quickly filter for green labels or stars while in one of the other modules. There's a second filter bar on the right of the Filmstrip (shown later in Figure 4-17) that contains the options from the Attribute section of the Library Filter bar so you can filter for flags, labels, or stars when you're not in Grid view.

✳ CAUTION

Due to the proximity of the Filmstrip's Filter bar to the colored labels and stars in the toolbar, it's common for new users to confuse them. The features in the toolbar are for adding or removing attributes, such as color labels and stars. The Filter bar on the Filmstrip is used to filter for those attributes.

Grouping Photos in Collections

After you've identified the most important photos from a shoot, it makes sense to group them. Grouping allows easy access when you edit in the Develop module and share photos with the output modules. In the early days of digital photography, photographers created a shoot subfolder and moved their picks to it. This isn't a good workflow because it fragments the organization of the shoot, making it more difficult to see the shoot in its entirety. Lightroom solves this problem with a virtual grouping system called *collections*.

A collection is like a playlist

If you use an MP3 player, you've probably created a playlist. When you want to hear specific music, you create a grouping of songs by dragging the songs to a playlist. When you create a playlist, the songs aren't moved anywhere. Instead, a virtual listing of the songs is created. That's exactly what a collection is: a virtual grouping of photos.

I create a collection for every important shoot I do. I add all the one-star and higher photos to it. When I create a collection, the original photo remains in its folder. The version added to the collection is a virtual representation of the image. If either version is edited, the edits are reflected in both versions.

✳ TIP

You can rearrange photos in a collection by dragging them in the Grid view.

Understanding the Collections panel

The easiest way to create a new collection is to click the New Collection button (the + symbol) at the top-right of the Collections panel. This opens a pop-up menu with three options: Create Collection, Create Smart Collection, and Create Collection Set.

A collection set contains other collections. Figure 4-13 shows my Collections panel. There are six collection sets at the top. The last one, Smart Collections, comes with Lightroom by default. In Figure 4-13, it is expanded to show the collections in the collection set. The small

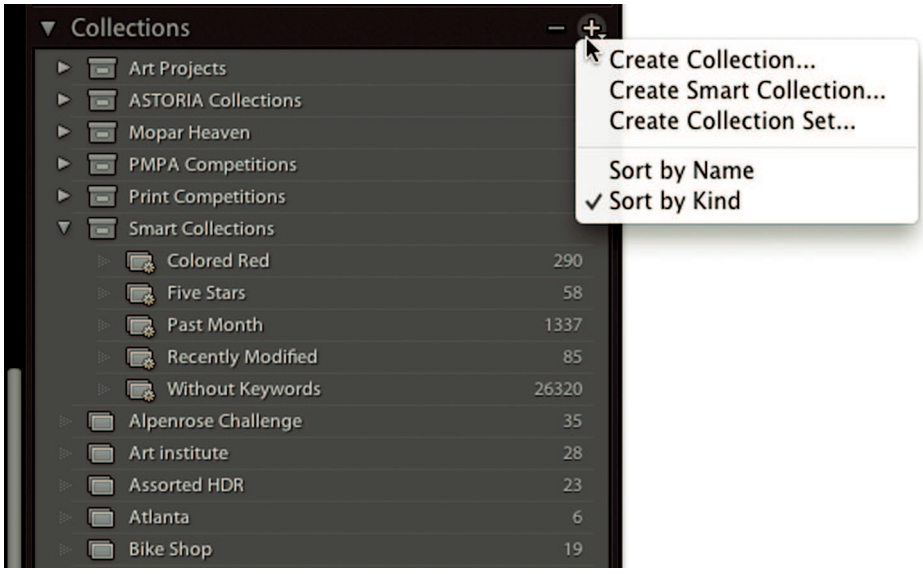


FIGURE 4-13

Collections sets are at the top of the Collections panel because it's sorting by kind. Smart Collection icons have a small gear symbol at the lower right of the folder icon.

gear icons indicate smart collections. Standard collections are listed alphabetically below the collection sets. Collections operate much like folders. Choose a collection to see its contents. You can drag a collection to add it to a collection set.

Using collections

The most common type of collection is a standard collection. To create one, click the New Collection button (the + symbol) and choose Create Collection from the pop-up menu. A dialog box opens with options for naming the collection and an option for placing it in a collection set. To add a photo or a group of photos to a collection, locate the photos using the Folders panel. Select the photos and then drag them to the collection.

To remove a photo from a collection, select the photo and press the Delete or Backspace key. When you delete a photo from a folder, Lightroom always asks if you want to delete it from your hard drive or remove the photo from the catalog. When you delete a photo from a collection, it just disappears. This is an indication the photo in the collection is a virtual representation of the original photo. No files are being deleted when you delete a photo from a collection or delete the entire collection.

To delete a collection, select it and click the Delete Selected Collection button (the – symbol) at the top-right of the Collections panel. You can also right-click on a collection and choose Delete, Rename, and other options from the contextual menu that appears.

Using smart collections

Smart collections are programmable collections. You create the rules of what to look for and smart collections automatically collect the photos. Figure 4-14 shows the Create Smart

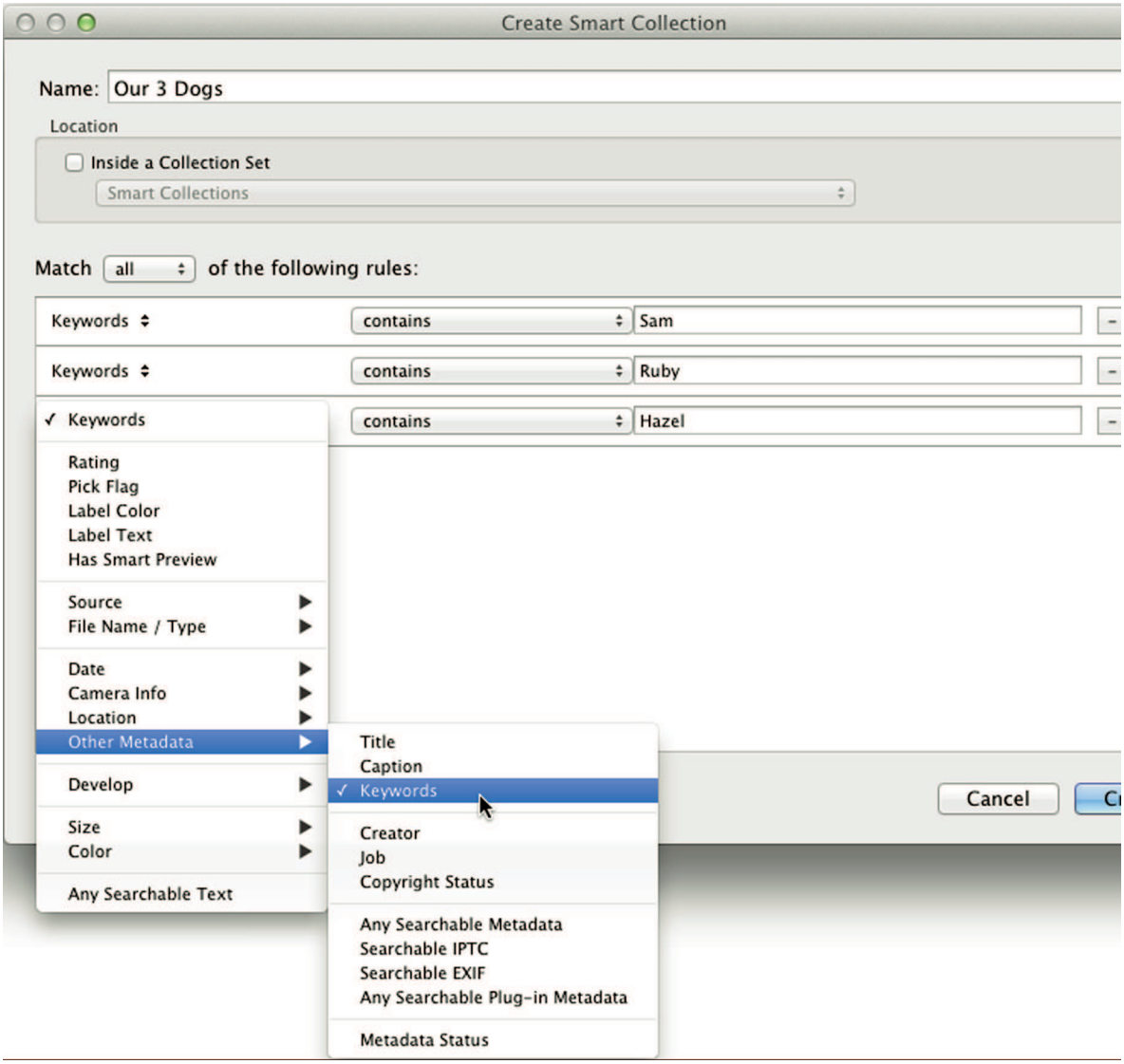


FIGURE 4-14

The Create Smart Collections dialog box for our three dogs. A smart collection programmed to collect photos tagged with keywords for each dog. If I want to see all photos that match any of the three keywords, I can change the Match menu option to Any.

Collection dialog box. In the figure, I'm creating a smart collection for photos that contain the keyword for our three dogs: Sam, Ruby, and Hazel. I can change the search criteria using the menus indicated by the double-arrow icon next to Keywords. If I want to collect only the green labeled photos that match these keywords, I can click the Add button (+) to add another row of search criteria and set it to filter for green labels. Clicking a row's Delete button (–) deletes that row.

After I've programmed my smart collection, I enter a name at the top and click the Create button. The smart collection examines the catalog and self-populates with any photos that meet the criteria. If I shoot new photos and keyword them with Sam, Ruby, and Hazel, they'll be added to the collection. The only way to remove a photo from a smart collection is to change a criteria the smart collection is looking for. For example, if I don't want a particular photo of the three dogs in my smart collection, I need to remove one of their keywords from that photo.

Finding Missing Photos

Because Lightroom uses a catalog to keep track of photos, it's important to manage the photos in Lightroom. If you need to move, rename, or delete a photo or a folder, it is necessary to make the changes in Lightroom. If, instead, these actions are performed outside of Lightroom, connections in the catalog are broken and Lightroom loses track of the photos. The photos will be labeled as missing or offline, and Lightroom places an exclamation mark (!) in the upper right of the photo's thumbnail.

✳ NOTE

An offline photo is one that's most likely on an external hard drive and isn't currently connected.

Locating individual photos

The exclamation mark in the upper-right corner of the thumbnail in Figure 4-15 is an indication the photo is missing. Clicking the ! icon opens the Locate dialog box. If you know the current location of the photo, you can click Locate and direct Lightroom to the photo. When you click the Locate button, you'll see an option to locate other nearby missing photos.

Synchronizing folders

Missing photos is one of the top problems for new Lightroom users. The old habit of using the operating system to manage files takes a while to break so it's common for photos to unexpectedly go missing. When this happens, it's difficult to use Lightroom's Locate feature

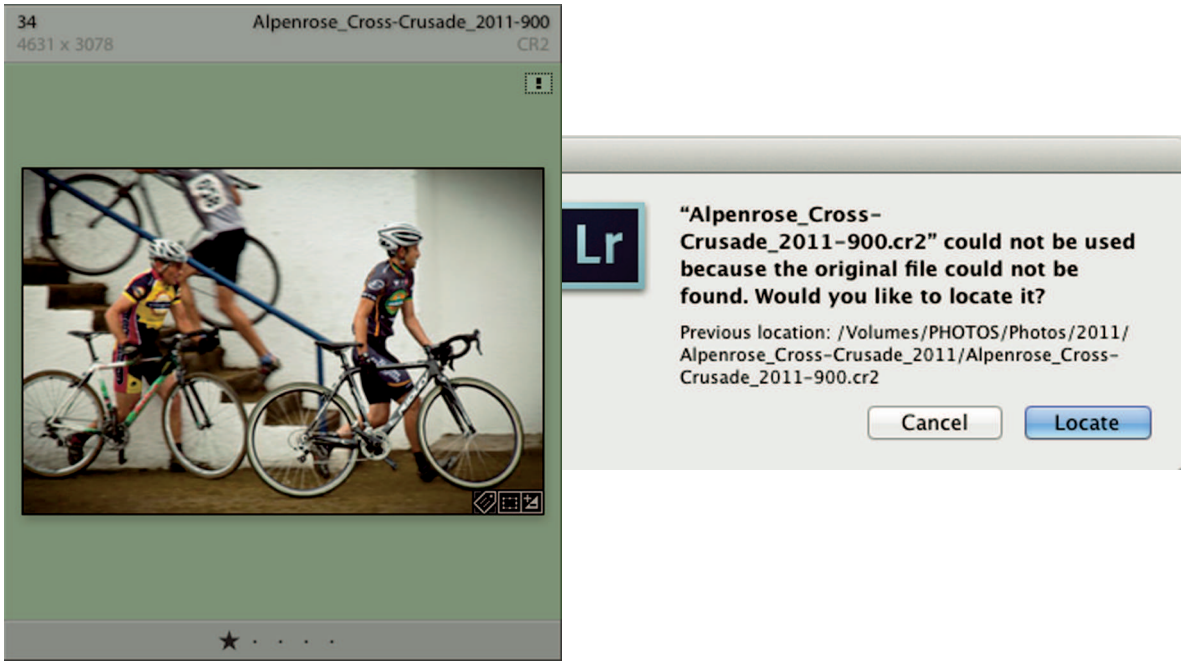


FIGURE 4-15

When a photo is offline or missing, Lightroom places a small ! icon on the thumbnail (at upper right of the image at left). Click the icon to open the Locate dialog box (shown at right).

because you have no idea where the missing photos are. Fortunately, Lightroom has a secret weapon designed to solve this problem. It's called Synchronize Folder. It compares entries in the catalog to the actual files on the hard drive. It then removes missing photos from the catalog and adds any new photos it finds, keeping the photos in their current location.

✳ KEEP IT SIMPLE

The best way to avoid missing photos is to use Lightroom for all deleting, renaming, and moving.

To synchronize a folder, right-click on the folder and choose Synchronize Folder from the contextual menu. If the folder is large, it may take a few minutes for Lightroom to compare the catalog. After it has enough information, the Synchronize Folder dialog box opens, shown in Figure 4-16. Notice that Lightroom found one new photo and one missing photo. What really happened is that I changed the name of this photo without using Lightroom. The new photo found by Synchronize Folder is the photo with the new name. The missing photo is the one with the wrong name. When I click the Synchronize button, Lightroom updates the catalog with the correct name.

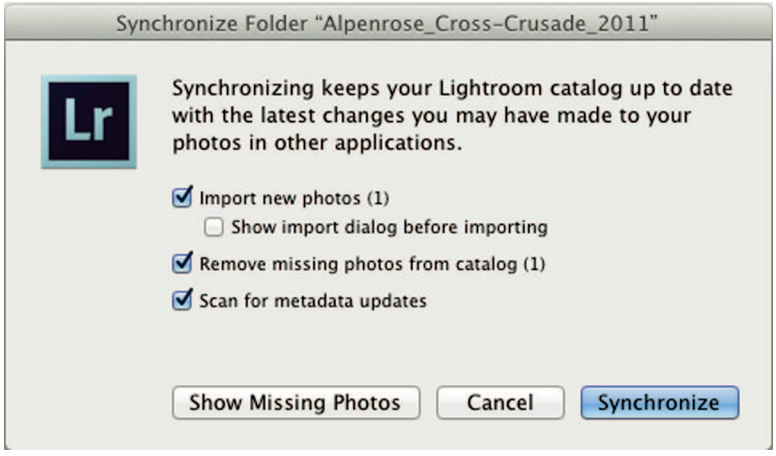


FIGURE 4-16
The Synchronize Folder dialog box

Keep in mind that when Synchronize Folder removes missing photos, it's only deleting false entries. No photos are deleted from the hard drive.

Synchronizing folders is incredibly powerful because it also synchronizes subfolders. I nest my shoot folders in year folders. I can synchronize a single shoot folder or an entire year. Additionally, because all my year folders are in a main folder named Photos, I can right-click it and synchronize the whole shebang.

It's common for Lightroom to report a high number of missing photos, but when you perform the synchronization, a smaller number of photos are actually imported. Importing a smaller number of files than initially reported is caused by Lightroom initially finding image files and realizing they don't belong in the catalog, or are a file type that can't be imported.

✳ TIP

If you're synchronizing a folder and the Synchronize Folder dialog box shows a much larger number than you're expecting, select the option to Show Import Dialog Before Importing. You then have the opportunity to look at the files before they're imported.

Seeing the World with the Map Module

The Map module, shown in Figure 4-17, was introduced in Lightroom 4. It's used to visually organize photos by location. The Map module is interesting and can be fun to use, but I have to be honest and say that I don't have any real need for it in my workflow. When I teach the Map module in workshops and classes, I try to show value in it, but most students aren't too excited.

I find it's the people who travel who like the Map module because it's a cool way for them to see where they've been. In this section, I provide an overview in case you're one of those people.

> ✳ NOTE
>
> The Map module uses the Google Maps engine to look up addresses so it's necessary to be connected to the Internet to see the map.

Adding photos to the map

There are two methods for adding photos to the map. The easiest is to use a camera with a GPS feature. For example, when I shoot a photo with my phone, it records the longitude and

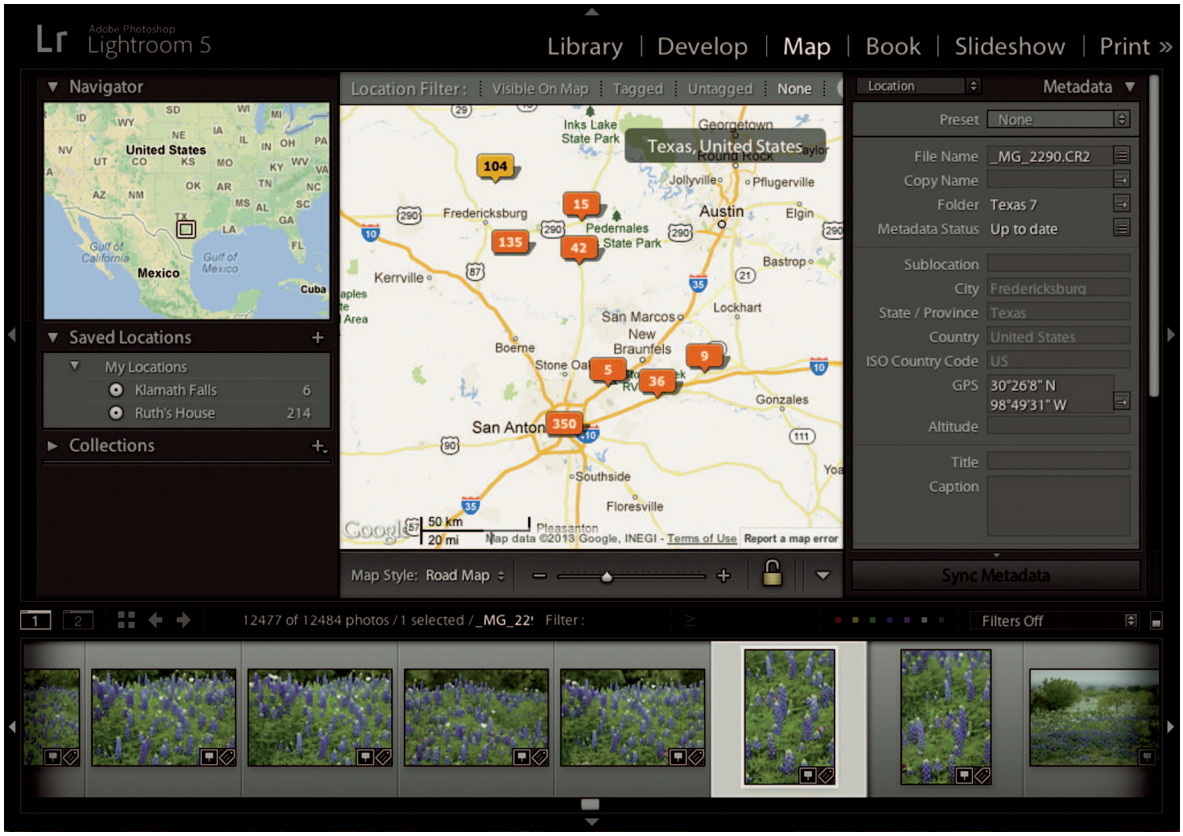


FIGURE 4-17

The Map module uses GPS metadata to arrange your photos on a world map.

latitude in the photo's metadata and automatically places the photo on the map. To add photos that don't have GPS metadata, select the images from the Filmstrip and drag them to the desired location on the map. Lightroom automatically adds the location data to the GPS metadata.

In Figure 4-17, I've selected a photo of Texas Bluebonnets, shot in the Texas Hill Country. You can see the location metadata in the GPS field in the Metadata panel on the right. The group of photos shot at this location is indicated by the yellow 104 bubble on the map. Clicking it selects those photos in the Filmstrip.

✳ TIP

The Map module, like the Library Filter bar, shows only photos from the selected folder. If you want to see all your map photos, select All Photographs from the Catalog panel.

The Saved Locations panel on the left is useful if you plan to visit the same place more than once. Click the Create New Preset button (+) at the top of the panel to save the location. You can even define a radius around the location to make it general or specific.

Concerns about location metadata

Some people are concerned about adding location metadata to their photos. For example, if I'm out of town and I export and upload a photo to Facebook, someone may be able to look at the photo's metadata and determine that I'm away from home and my house is empty. Fortunately, it's easy to strip GPS and other metadata from a photo when you export it from Lightroom. I show you how to do that in Chapter 16.

Controlling reverse geocoding

One more thing about the Map module that's useful is that you can use reverse geocoding to fill in other location metadata. The location metadata on the bluebonnet photo in Figure 4-17 shows the city and state I was closest to when I shot the photo. That information is reverse-geocoded from the GPS metadata. One way to control the level of location metadata in your photos is to turn off reverse geocoding. If that's important to you, choose Lightroom ➪ Catalog Settings on the Mac or Edit ➪ Catalog Settings in Windows to open the Catalog settings. Use the Reverse Geocoding area to manage this feature.

✳


ROYAL

CHAPTER 5

Using Keywords to Find Anything Any Time

In Chapter 4, I explain Lightroom's organizational tools for sorting and grouping photos. When it comes to finding images, though, keywords are king. They're so important that I'm dedicating this chapter to keywords. Many photographers don't understand how to use them, so they don't. In fact, I tell students that keywords are the most important thing many photographers don't do.

A Word Is Worth a Thousand Pictures

A *keyword tag* is a piece of metadata applied to a photo to identify aspects of it. For example, a fashion photographer might use keywords to identify models, makeup artists, and other talent used for a shoot. This enables him or her to filter for any of the keywords or for a combination of them. He or she can see every photo of a particular model with a single click. Or, with a few quick clicks, the photographer can find photos of a model with styling by a certain makeup artist.

NOTE

Keyword tags are usually referred to as *keywords*. The act of applying the keyword is often called *tagging*.

Keywords facilitate the world of modern stock photography. When you search a stock agency, you use keywords for the search. If I have photos of a crying baby listed with my stock agency, buyers won't find them unless they use the appropriate keyword.

I once heard a stock photographer say that he uses 50 keywords for every stock photo he submits. He would add more, but his agency limits him to 50. In some cases, he uses every permutation of a word, such as Lady, Woman, and Gal because he doesn't know which keyword a stock buyer might use.

Keywording photos isn't complicated. Applying a few choice keywords to every photo enables you to find them when you need them. For example, a good friend recently passed away unexpectedly. He was one of my main photo buddies, and I have lots of photos of him from shoots we went on together. When his family needed photos for his service, I quickly found all my photos of him by doing a keyword search for his name. It felt really good to be able to share those photos with his family.

Applying Keywords using the Keywording Panel

As described in Chapter 3, you can add global keywords to photos during import. But you must perform more comprehensive keywording on smaller groups of photos after the photos are imported. Figure 5-1 shows a photo from Astoria, Oregon, and its keywords in the Keywording panel. The Keywording panel has three sections: Keyword Tags, Keyword Suggestions, and Recent Keywords. Each section provides methods for applying keyword tags.

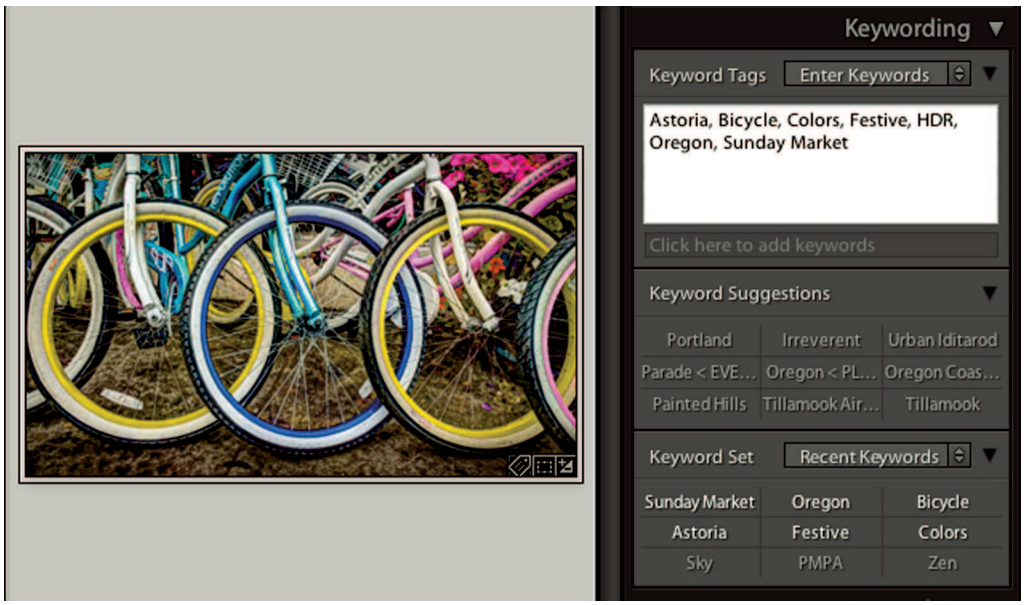


FIGURE 5-1

The Keyword Tags section of the Keywording panel shows the keywords applied to the selected photo.

Using Keyword Tags

The main window in the Keyword Tags section shows keywords applied to the currently selected photo. Notice they're listed alphabetically. Also notice the multiword keyword, Sunday Market. To add a keyword, type it in the text box labeled Type Here to Add Keywords. You can add multiword keywords by placing commas between each keyword.

✳ KEEP IT SIMPLE

The camera automatically adds the camera's captured time, so it's not necessary to use keywords for dates.

Keywords can be added to individual photos or groups. In fact, working with groups of similar photos speeds up the process.

To keyword photos from the Astoria shoot, I selected all photos from Astoria and applied the Astoria and Oregon keywords. I selected only the photos shot at the market in Astoria and applied the Sunday Market keyword as well as the Festive keyword. I then selected only photos of the bicycles and applied Bicycle and Colors.

Just remember that when you want to apply a keyword to a group of photos, do so in Grid view. If you're in Loupe view, even with multiple photos selected, the keyword is applied to only the current photo displayed in Loupe view.

✳ TIP

The number of currently selected photos is displayed on the upper-left area of the Filmstrip. Keep an eye on it when working with multiple photos in the Grid view.

When working with groups of selected photos, be sure to deselect the group after you've added your keywords because it's easy to forget you have them selected. (Click the gray border on any thumbnail to make it the only selected photo.) I was working with a client who wanted to show me his amazing photos of the Aurora Borealis. He was disappointed when his keyword search returned several thousand photos with the keyword Aurora Borealis. There should have been only a dozen photos with that keyword. Apparently, when he applied the keyword, he didn't realize thousands of photos were selected. He thought he was applying the keyword to a few photos. Because of his mistake, the keyword Aurora Borealis was useless. To fix the problem he had to delete it from all photos and then use a date search in the Library Filter bar (described in Chapter 4) to find the correct photos to reapply the keyword to just those photos.

✳ TIP

If multiple photos are selected, an asterisk next to a keyword in the Keyword Tags section indicates that keyword is applied to some of the selected photos, but not all.

FIGURE 5-2

Use the Keyword Tags menu to choose what information is displayed in its main text box. If you want to type in this box, you need to choose Enter Keywords.

Figure 5-2 shows the menu for the Keyword Tags section of the Keywording panel. These options control how the main box is used. Here's what they do:

- **Enter Keywords:** This is the default menu setting. It enables you to apply keywords by typing in the box.
- **Keywords & Containing Keywords:** This option displays applied keywords and other keywords that contain these keywords. (I describe Containing Keywords later in this chapter.) When this option is selected, you cannot type in the large text box; it displays only keywords.
- **Will Export:** This choice displays all keywords applied to exported versions of the selected photos. You can't type in the box; it is for display only.

I usually leave this menu set to Enter Keywords. I may on rare occasions change it to see what keywords will export with a specific image, but I usually prefer the ability to add or remove keywords by typing in the text box.

Using Keyword Suggestions

You can increase keywording efficiency by using the two lower sections of the Keywording panel. The Keyword Suggestions section displays keyword suggestions from photos tagged with some of the same keywords as the selected photo. In Figure 5-1, you can see suggestions of Irreverent and Urban Iditarod because Festive was used on photos from the Portland Urban Iditarod shoot. It suggests keywords such as Tillamook and Oregon Coast because other photos from Astoria have those keywords as well.

The Keyword Suggestions section can be useful, but when you use lots of keywords it's often populated with unneeded keywords. I usually collapse this section by clicking the disclosure triangle next to Keyword Suggestions so I can focus on the Keyword Set section.

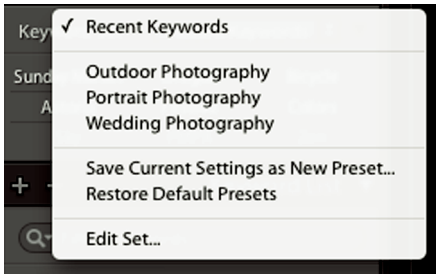


FIGURE 5-3

Use the Keyword Sets menu to choose which keyword set to work with. Use the Edit Set option to create your own custom set and choose Save Current Settings as New Preset to save it.

Using Keyword Set

The Keyword Set section is very useful. Its menu, shown in Figure 5-3, enables you to choose a keyword set or create your own custom keyword set.

By default, the Keyword Set menu is set to Recent Keywords. It lists the nine most recently used keywords, which is useful when keywording a new shoot. Click a keyword in the list to apply it to the currently selected photo. Applied keywords are white. To remove a keyword from the selected photo, click it and it turns gray.

The outdoor, portrait, and wedding keyword sets are useful for specific types of photography. For example, a wedding photographer may use the Wedding Photography preset when keywording a wedding. It displays common keywords, such as Bride, Groom, Candid, and Ceremony.

Many photographers prefer to create their own custom keyword sets. To make your set, choose Edit Set from the Keyword Sets menu, shown in Figure 5-3. When the Edit Keyword Set dialog box (shown in Figure 5-4) opens, edit the text boxes to create your custom keyword set. Then click Change to give it a descriptive name and save it to the Keyword Set menu shown in Figure 5-3.

✳ KEEP IT SIMPLE

When planning a trip to a foreign country, build a custom keyword set before you go using names of the cities you plan to visit. You can easily apply these keywords when you're on the road and specific locations are fresh in your memory.

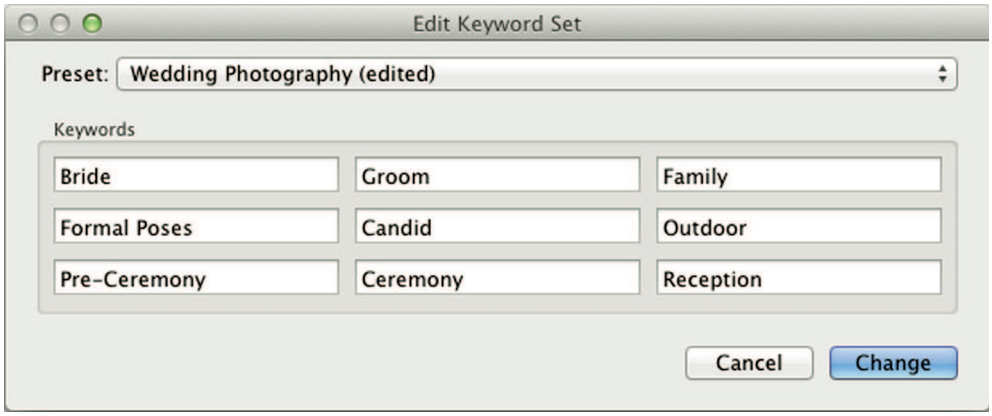


FIGURE 5-4

If you regularly do a particular type of photography, consider creating custom keyword sets for the keywords you most commonly use.

Searching for Keywords

To get the most from keywords, you need to know how to filter your photo library by performing keyword searches. There are two search methods: searching for a single keyword and searching for a combination of keywords.

Performing single-keyword searches

New keywords created in the Keywording panel are listed alphabetically in the Keyword List panel. Figure 5-5 shows a section of my Keyword List panel, which is directly below the Keywording panel. The numbers to the right of the keywords show the number of photos the

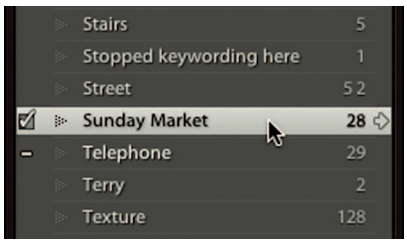


FIGURE 5-5

The check mark on the left of Sunday Market indicates the keyword is applied to all the selected photos. The hyphen next to Telephone indicates the keyword is applied to some of the selected photos, but not all of the photos.

keyword is applied to. When you hover over a keyword, as I'm doing in Figure 5-5, two options appear: a check box on the left and an arrow on the right. The check box is used to add or remove the keyword to the selected photo. If it's checked, the keyword is applied to the photo. If multiple photos are selected and a hyphen (–) is displayed in the check box, the keyword is applied to some but not all the selected photos. In Figure 5-5, you can see the keyword Telephone is applied to some of the Sunday Market photos.

The arrow on the right of the keyword is used to filter the entire library for the keyword. When you click the arrow, all photos with that keyword are displayed in Grid view. The Metadata pane in the Library Filter bar opens with the keyword selected. To cancel the search, click None at the top of the Library Filter bar. You can search only for one keyword at a time using the Keyword List, but it does search your entire library.

Performing multikeyword searches

When you need to perform a multikeyword search, use the Metadata section of the Library Filter bar. In Chapter 4, I describe how to customize the columns to change their default headings. Figure 5-6 shows the Library Filter bar with the menus at the top of each column set to Keyword. Changing the heading to Keyword enables me to do a multikeyword search. In the figure, I'm performing a search for photos with the keywords of the names of our three dogs.

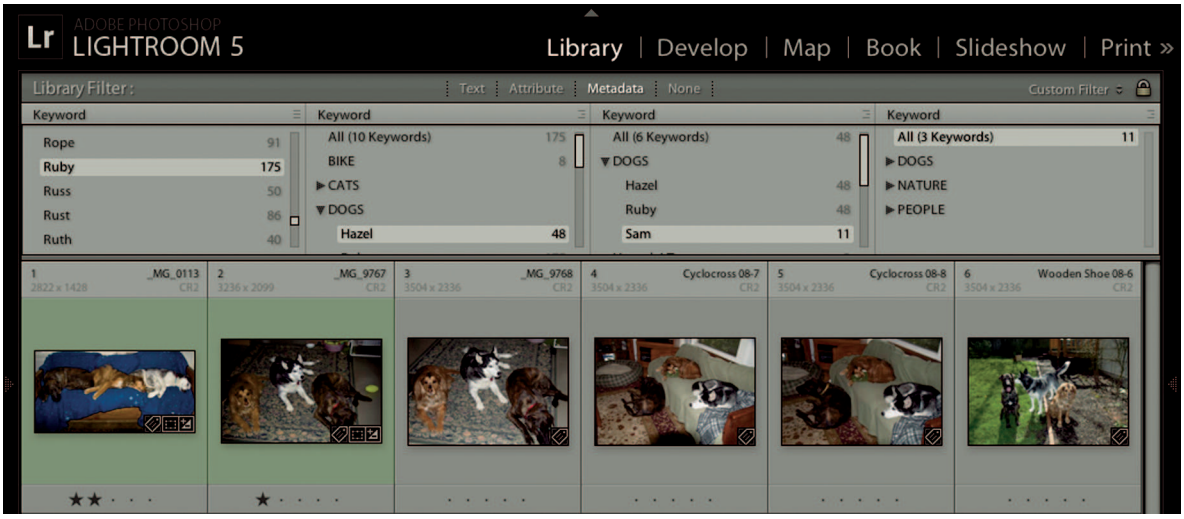


FIGURE 5-6

The Library Filter bar is set up to filter for multiple keywords. It is a good idea to save a filter preset with four keyword columns for multikeyword searches so you don't have to reconfigure the bar when you need it.

> ✳ TIP
>
> The Library Filter bar searches only the selected folder and its subfolders. To filter the entire catalog, select All Photographs from the Catalog panel.

Saving a custom filter preset

Multiple keyword searches using the Library Filter bar are common. It's a good idea to save a custom filter preset so you don't have to rearrange column headings every time you want to search for more than one keyword. Lightroom comes with default filter presets that arrange the Library Filter bar's columns for several kinds of searches, such as camera information, exposure information, and location metadata. To see the list shown in Figure 5-7, click the menu at the left of the padlock icon on the right side of the Library Filter bar. (In Figure 5-6, the menu is displaying Custom Filter.)

To create a custom preset, rearrange the column headings and choose Save Current Settings as New Preset from the Preset menu. You have the opportunity to name the preset when you save it and it will be listed in the presets menu. My custom Keywords preset is shown in Figure 5-7.

The default action of the Library Filter bar is to turn off filtering when you change source folders or collections. The padlock button on the right locks the filter so it stays on when you change sources. Locking a folder on is handy when you need to filter various folders for the same criteria. Just remember to unlock the filter when you're done.

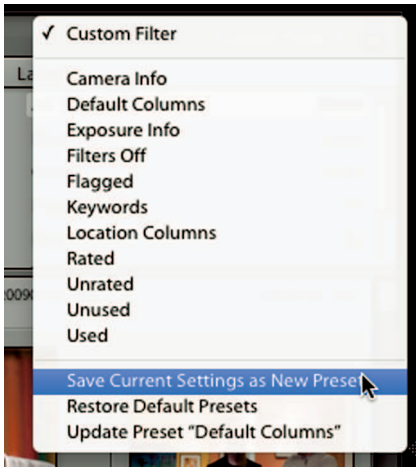


FIGURE 5-7

Use the Library Filter bar presets to quickly change its columns to the desired settings. Save your custom configuration by selecting Save Current Settings as New Preset.

Managing Your Keyword List

When you're serious about keywording, it doesn't take long for your keyword list to grow quite large and unwieldy. Confusion from the sheer number of keywords is exacerbated by the mistakes we all make as we learn the keywording process. It's important to know how to efficiently organize your keyword list and how to fix mistakes when they happen.

Organizing keywords

Figure 5-8 shows a section of my Keyword List. The main keyword named Places is open revealing other keywords nested in it. The hyphen (–) in the check box on the left of Places indicates keywords in Places are applied to the selected image. The applied subkeywords are indicated by check marks. In this case, the selected photo is tagged with Mt. Hood.

A keyword that contains other keywords is called a *container keyword*. My Places container contains keywords for places I've visited. Some locations have nested subkeywords. For example, Oregon has subkeywords for places and regions in Oregon. Some keywords, such as Oregon Coast and Portland, have more nested keywords. This nesting strategy serves two purposes:

- It's easier to work with the keyword list because nested keywords can be collapsed when they're not needed.
- It facilitates nuanced keyword searches.

With my nesting strategy, I can do a keyword search for Oregon and see all Oregon photos. I can search for just the Portland keyword, which also includes all the keywords nested in it. Or,

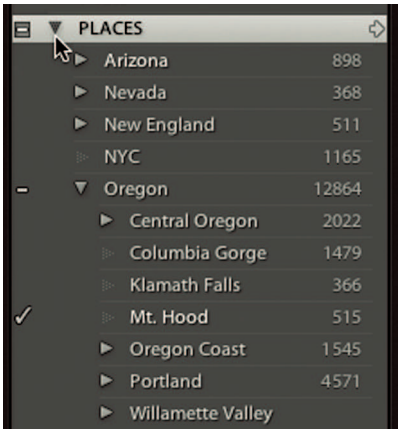


FIGURE 5-8

Keywords for U.S. states are in the container keyword Places. Each state keyword contains keywords for locations in that state. This nesting strategy helps organize keywords.

I can open Oregon and do a keyword search for a particular Oregon location. Without nesting keywords in keywords, this type of refined search would be difficult to perform.

✳ KEEP IT SIMPLE

Use all caps when creating main container keywords — such as Places — to make it easier to find them in your keyword list.

Placing keywords in other keywords is straightforward. Here are three methods you can use to nest a keyword in another keyword:

- **Click and drag:** To nest a keyword in another keyword simply drag, just as you would if you were nesting folders in the Folders panel. If the keyword you want to drag it to is not in the current view, drag the keyword to the top or the bottom of the list to get the list to scroll. It takes a bit of practice to find just the right spot.
- **Create New Keyword Tag:** You can nest a keyword in another keyword by selecting the container keyword and clicking the Create New Keyword Tag button (+) at the top of the Keyword List panel. When the dialog box opens, select the option to put the new keyword in the selected keyword.
- **Right-click:** The keyword list can grow quite long. When you're working near the bottom of the list and you need to add a new keyword, it's a pain to scroll all the way to the top of the list just to add a keyword. A much faster method is to select the keyword where you want to add another keyword and right-click to open a contextual menu. Choose Create Keyword Tag from the menu.

✳ CAUTION

When you're nesting keywords and folders in their respective panels, the Keyword List panel begins to resemble the Folders panel. It's common for new users to get them confused. Just remember that the Folders panel on the left shows the actual location of your photos. The Keyword List on the right contains information about those photos.

To unnest a keyword, drag it out of the container keyword. Hover the pointer over the line between two top-level keywords and release the mouse button or trackpad. The keyword drops in the spot between those keywords.

Deleting keywords is as easy as creating them. To delete a keyword, select it and click the Delete Selected Keyword Tag button (–) at the top of the Keyword List panel. A message pops up letting you know the keyword is being removed from the photos tagged with that keyword. You can also delete a keyword by right clicking it and choosing Delete from the contextual menu. To rename a keyword, right-click and choose Edit Keyword Tag from the contextual menu.

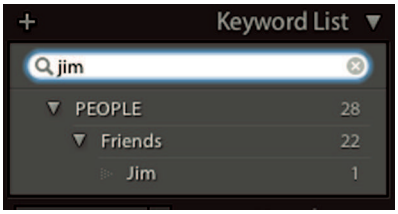


FIGURE 5-9

Typing in the search box at the top of the Keyword List panel is a quick way to locate a keyword.

✳ CAUTION

Don't use your Delete or Backspace key to delete a keyword because Lightroom will think you want to delete the photos.

Sometimes you need to work with a specific keyword in the keyword list. You know where it is, but it is nested in a couple of other keywords at the bottom of the list. A fast way to find the keyword is to type the keyword in the search field at the top of the Keywords List panel. This filters the keyword list for only keywords that match your text. In Figure 5-9, you can see the only keywords in the list relate to my typed word. Notice also that the filter isn't case-sensitive. When you're through working with the keyword, click the Clear button (the small X icon) on the right to clear the search field and bring back all your keywords.

Dealing with 'ghost' keywords

Ghost keywords are duplicate keywords that appear for a variety of reasons:

- Sometimes they show up when you import photos with keywords you entered in another program. If your current keyword organization is different from the other system, you can end up with a duplicate keyword.
- Another type of ghost keyword is a second version of a keyword that was misspelled when it was created. You'd be surprised how often this happens. It is a good idea to take advantage of Lightroom's suggestions when you are keywording to help avoid ghost keywords.
- The third type of ghost keyword is one that has the same meaning as another keyword.

In all three cases, it is necessary to eliminate the ghost keyword and apply the correct keyword.

Figure 5-10 shows two keywords with the same meaning: Bike and Bicycle. I prefer the Bicycle keyword and want to delete the Bike keyword. But I need to make sure Bicycle is applied to the Bike photos before deleting it; otherwise, it will be hard to find those photos again. Here's how to fix this problem when it happens to you:

FIGURE 5-10

At some point, I created two different keywords that are being used for the same thing. I prefer to use Bicycle, so I need to get rid of the ghost keyword Bike.

1. Click the arrow on the right of the keyword you want to delete (here, Bike) to filter for all photos associated to Bike.
2. In Grid view, choose Edit ➪ Select All or press ⌘+A or Ctrl+A.
3. Click the check box on the left of the correct keyword (here, Bicycle) to apply that keyword to all the selected photos.
4. Select the ghost keyword (here, Bike) and delete it.

Be sure to follow these steps in this order to take advantage of the ghost keyword before deleting it.

Keywording the Past

When I'm teaching a Lightroom workshop and we get to this point, students realize they should go back through their photo libraries to keyword nonkeyworded photos and reevaluate their previous keywording. If you have lots of photos, the task can seem overwhelming. My philosophy is to keep it simple by breaking the job into smaller tasks. Here's an easy system you can use to bring your keywording up to date.

1. Choose All Photographs from the Catalog panel.
2. In the Grid view toolbar, use the Sort menu to sort photos by Capture Time.
3. Begin with the first photo and sequentially keyword as many photos as you can during your keywording session.
4. When you are ready to stop keywording, create a new keyword named Stopped Keywording Here. Apply it to the last photo you keyworded. (You can see mine in Figure 5-5.)
5. When you are ready for another keywording session, repeat Steps 1 and 2. Do a keyword search for "Stopped Keywording Here" to find where you left off.
6. Remove the Stopped Keywording Here keyword from that photo and continue keywording.

7. When your keywording session is ending, add the Stopped Keywording Here keyword to the last photo you keyword.

If you use this method for an hour a week, your photos will be keyworded in no time. During this process lots of new keywords are added to the keyword list. It's a good idea to end each keywording session by quickly organizing the new keywords in your keyword list. If a keyword doesn't obviously fit in a container, leave it where it is. Not every keyword needs to be in a container.

If keywording a large number of older, legacy photos still seems overwhelming, set the task aside and focus on the now. Develop a practice of keywording new photos immediately after you import them. Doing this helps you improve your keywording system. When you have more time, you'll be ready to keyword the past.

Final Words on Keywording

The most common questions from photographers new to keywording are "What gets keyworded?" and "What keywords should I use?" The first is easy to answer: Everything should be keyworded. Keywording is the main way to find difficult to locate photos or similar photos in different folders. If a photo isn't keyworded, it won't be found. What's the point of having photos that are invisible to keyword searches when it's so easy to apply them?

As for the second question, determining which keywords to use depends on how you use your photos. If you plan to sell stock photography, keywording is extremely important. There are even companies that sell stock photography keyword lists organized with standard keywords. Although commercial keyword lists are useful for some photographers, they can be overwhelming if you don't use many of their standard keywords. I know a commercial photographer who primarily shoots for the gas and oil industry. His most commonly used keywords are specific to that industry. It's easier for him to develop his own list of keywords so that he can quickly navigate through his list.

✳ TIP

It's always better to have too many keywords on a photo than too few. If you don't need certain keywords, you can delete them from the keyword list and thus remove them from the photos.

If you're not a stock photographer, you have lots of flexibility with the keywords you use. Your keywords primarily need to match the way you think about your photos and the things that are important to you. I know a photographer who has a small gallery in his studio. Customers walk into his gallery and say something like, "My wife just remodeled her dentist office and we need three photos that are blue. We aren't too concerned about what they are. We just need blue to match the accent paint." After a couple of these conversations, my friend began

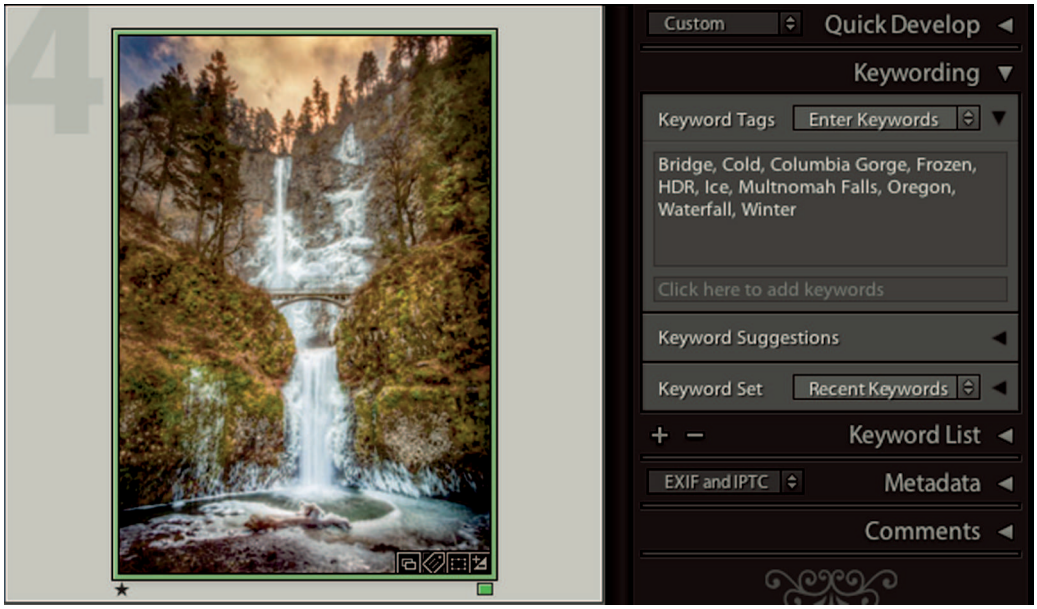


FIGURE 5-11

The keywords on this photo of Multnomah Falls will help me find it when I'm searching for photos with the qualities listed in its keywords.

using color keywords so he can quickly locate photos based on color scheme when a customer walks in.

When you're ready to keyword a photo, look at it and think about how you might try to find it in the future. What keywords should you use to accomplish a fast search? For me, these keywords always begin with words that tell me what image elements are in the photo, where it was taken, and what was going on at the time. Everything beyond that is gravy. Figure 5-11 shows a photo of Multnomah Falls during the winter. Next to it are the keywords I applied. Now when I do a keyword search for Winter, Waterfalls, Ice, or Oregon, I'll always see this photo among the filtered returns.

One final piece of advice: Try to keep your keywords generic. For example, Portland, Oregon, has an excellent streetcar service named the Portland Streetcar. It's quite famous considering it's fairly new for a streetcar system. It has been on the front of magazines and transportation planners from all over the world come to see it. But when I keyword photos of the Portland Streetcar, I use two separate keywords to describe it — Portland and Streetcar. I need a generic keyword for all streetcars to enable me to filter for every streetcar photo, such as streetcars I've photographed in San Francisco and Europe. If I need to see photos of only the Portland Streetcar, I do a two-keyword search for both keywords. Using two keywords is more efficient than having a keyword for every streetcar I photograph.

Here's a different example. Imagine I'm a landscape photographer who comes to Oregon to photograph the scenic waterfalls in the Columbia River Gorge. When I keyword the individual waterfalls, it's necessary to be specific with the keywords, such as Horsetail Falls, Bridal Veil Falls, and Multnomah Falls. When I create those keywords I place them in a generic container keyword named Waterfalls. I can use this keyword if I want to filter for all waterfalls at once.

CHAPTER 6

Adjusting Basic Color and Tone

Lightroom's Develop module is incredibly powerful. With this module, you'll be able to do just about anything you need to perfect your photos. This chapter introduces the Develop module and begins the process of explaining the editing postproduction workflow.

Exploring the Develop Module

To open a selected photo in the Develop module, choose Develop from the Module Picker or press the D key. When you select a group of photos, the first selected photo displays in the main viewing area and all selected photos are visible in the Filmstrip below.

The layout of the Develop module, shown in Figure 6-1, is similar to the Library module. Panels on the left and right surround the main viewing area. The Filmstrip, which is the same in all modules, is below the main viewing area.

The panels on the left are mostly used to manage the editing process. The panels on the right, with their sliders and switches, are where you perform the magic. The Navigator and Collections panels (on the left) are the same as in the Library module. The Histogram panel (at the top) has more functionality than its Library module counterpart. The rest of the panels are available only in the Develop module.

The toolbar below the main viewing area is almost empty compared with the Library module's toolbar. In the earliest days of Lightroom, there were only a few tools in the toolbar. When Lightroom 2 was released with its expanded tool set, there wasn't enough room in the toolbar for all the new tools. To solve this problem, the tool strip was added below the

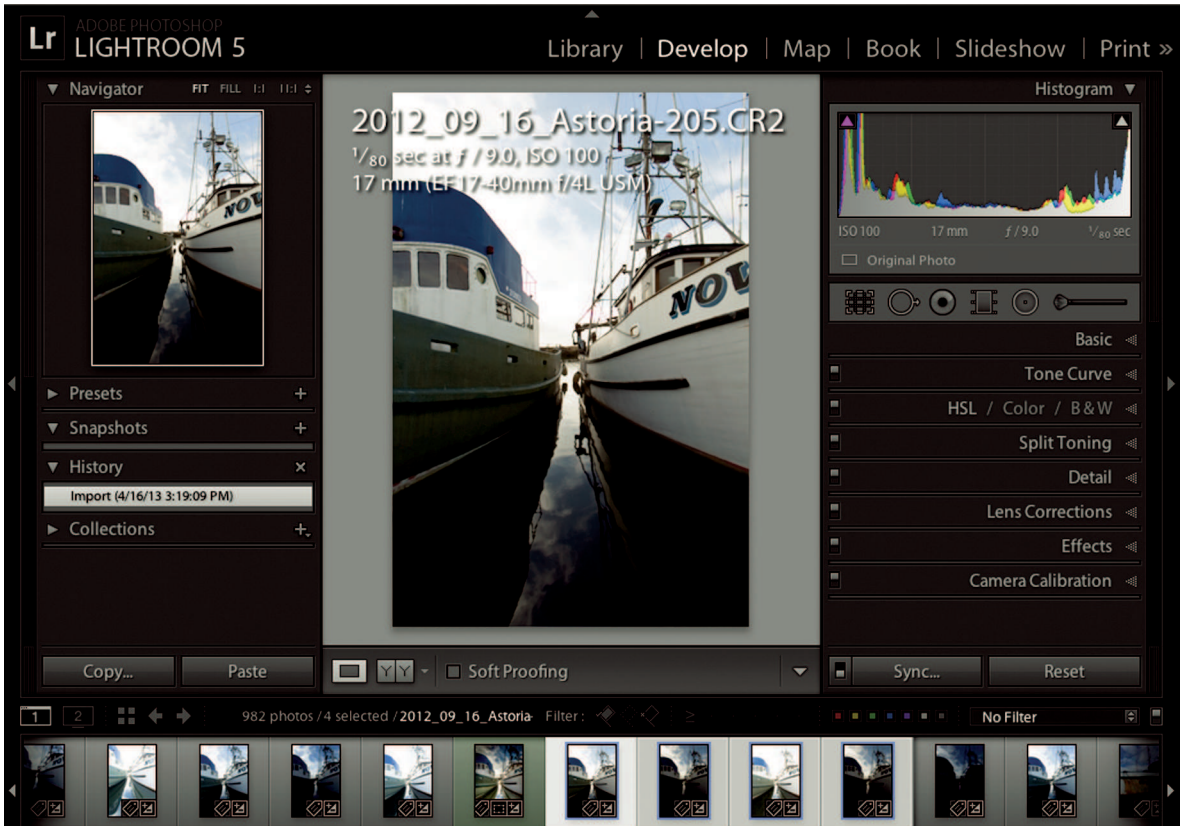


FIGURE 6-1

The Develop module workspace is similar to the Library module's layout except there is no Grid view option. Use the Filmstrip when you need to work with multiple photos.

Histogram panel. The tool strip contains six tools. Clicking a tool opens a special pop-up panel with controls for the tool. Options for using the tool are displayed in the toolbar.

✳ TIP

Press the I key once or twice to hide the information overlay. Press the I key again if you want to see it later.

Adjusting Color with White Balance

One of the first steps in the editing workflow is to adjust the overall color balance to remove any unwanted colorcast. Lightroom has a few methods for adjusting color. But when it comes to fine-tuning overall color balance, it's best to begin with white balance.

Understanding white balance

White balance is a method for removing unwanted colorcasts that are caused by the color temperature of the light illuminating a scene. Our eyes are very good at adjusting and compensating for different light sources, so we often don't notice color shifts. It's a different story with cameras. Most cameras have a White Balance menu that lets you choose the appropriate white balance for the scene you're photographing. It's called *white balance* because the intention is that when you photograph something white using the correct white balance, it appears white in the photo. Don't let the name confuse you, though: White balance refers to all colors in a photo, not just white.

If I photograph an indoor scene using fluorescent light as my light source and my camera is set on Daylight white balance, the color in my photos will have a strong yellow or greenish cast due to the color of the light. If I set the camera to the Fluorescent white-balance setting, the

FIGURE 6-2

The version of this photo at left has a daylight white balance. There's a strong yellow colorcast because the color of the fluorescent light illuminating the scene is warmer than daylight. The version at right uses the fluorescent white balance to compensate for the color of the fluorescent lights used in the workshop. As a result, most of the colorcast is gone and the colors look natural.

camera adjusts its internal color response to compensate for the color of the light, yielding the colors much closer to how they appeared to my eye.

Figure 6-2 shows photos of a scene using two of my camera's white-balance settings. It's easy to see that the fluorescent white-balance setting makes the gray on the tools look the most *neutral*, meaning those gray tones don't have an unnatural colorcast.

Adjusting white balance

Figure 6-3 shows the White Balance section of the Basic panel. It gives you three ways to adjust the global color balance of a photo. Compare each of these methods so you'll know which works best for the type of photography you do.

White Balance menu

One of the cool things about the RAW file format is that there's so much metadata in the file that camera settings such as white balance aren't permanent. Lightroom uses the camera's

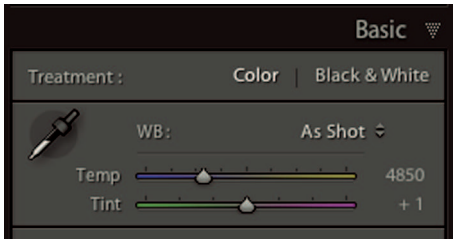


FIGURE 6-3

The White Balance section of the Basic panel offers three methods for adjusting color balance.

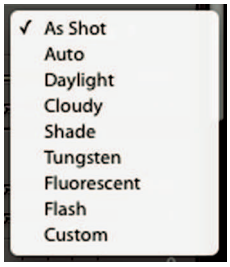


FIGURE 6-4

When working with RAW files, the White Balance menu shows the same white-balance options as the camera. This enables you to customize white balance during postproduction.

white-balance setting as a starting point, but you can change the setting and the photo will look like it was shot with the new setting.

This white-balance flexibility isn't available for non-RAW files. You can use the White Balance section in Lightroom to adjust the color of a JPEG photo, but a photo shot using the wrong white balance will never match a photo exposed correctly in camera, even after adjustment in Lightroom. This is one of the main reasons to shoot RAW. (RAW is described in Chapter 2.)

You'll notice the difference when you open the White Balance pop-up menu in Lightroom. Figure 6-4 shows the White Balance menu with presets available when a RAW file is selected. If a non-RAW file is selected, the only options in the menu are As Shot, Auto, and Custom.

✳ CAUTION

If you're not shooting RAW, it's very important to use the correct white balance in your camera.

If you're new to color correction, the White Balance menu is a good place to begin the adjustment process. Try different presets to see which setting gets you closest to accurate color.

Temp and Tint sliders

After picking the closest white balance preset, it's often necessary to tweak the color to get it just right. To manually adjust color, use the Temp and Tint sliders. The Temp slider is used to adjust the blue/yellow color channel and the Tint slider is used to adjust the green/magenta channel. Blue and yellow are opposites, as are green and magenta. If a photo looks too blue, slide the Temp slider toward yellow, away from blue. If a photo looks too green, slide the Tint slider toward magenta and away from green.

✳ TIP

Color is a science, but it's also quite personal. Experiment with color until you discover your personal preferences.

White Balance Selector tool

Getting comfortable adjusting color with the Temp and Tint sliders takes experience. Fortunately, there's a fast way to adjust white balance using the White Balance Selector tool. It looks like an eyedropper in the White Balance section. To activate the tool, select it in the Basic panel or press the W key.

The White Balance Selector tool is designed to *neutralize* the color you choose. That means it removes the colorcast from any color you click on. This process is called *click-balancing*. If the color you choose is neutral gray in the scene, using the White Balance Selector tool to make it gray in the photo brings all colors to proper alignment. If the color you choose isn't neutral gray, the tool still tries to neutralize it and make it gray, resulting in an unacceptable color balance.

✳ TIP

Outdoor photos shot in the early morning or late afternoon should have a warm colorcast. When adjusting white balance, it's okay for a neutral gray to have a bit of a warm colorcast to preserve a natural look.

Figure 6-5 shows a photo from a portrait sitting. At the start of the session, I asked the client to hold a white-balance target for custom white-balancing during postproduction. The readout below the tool indicates the percentages of red, green, and blue below the pointer. Looking at the percentages in Figure 6-5, it's easy to see that blue is the dominant color because it has the highest value. It's also easy to see the blue in the photo on the left. When I click the target, the White Balance Selector tool neutralizes the gray and sets the color to the exact white balance for the light used for the photo, which is shown in the second image.

Options for the White Balance Selector tool are displayed in the toolbar when the tool is active. Here's what these options are used for.

- **Auto Dismiss:** When this option is selected, the White Balance Selector tool is automatically placed back in its default position after you click on the photo. It's often desirable to click a few locations to see which spot yields the best color. When Auto Dismiss is on, it's necessary to retrieve the tool between uses. With Auto Dismiss turned off, you can click as many times as you like to try different locations while searching for the best color. When you're finished with the tool, click the Done button on the right of the toolbar or press keyboard shortcut W to put the White Balance Selector tool back in its well.
- **Show Loupe:** When this option is selected, a grid is displayed that magnifies the area below the pointer. This grid is useful for verifying that the pixel under the crosshairs, which is the one used by the White Balance Selector tool, is representative of the other pixels around it. If the pixel under the crosshair look different from the pixels around it, move the tool until you see more uniformity.
- **Scale:** Use this slider to increase or decrease the number of samples in the grid.

White balance in action

A white-balance target is a great way to get accurate color during postproduction when editing RAW files. But sometimes you don't have the luxury of using a target. When that

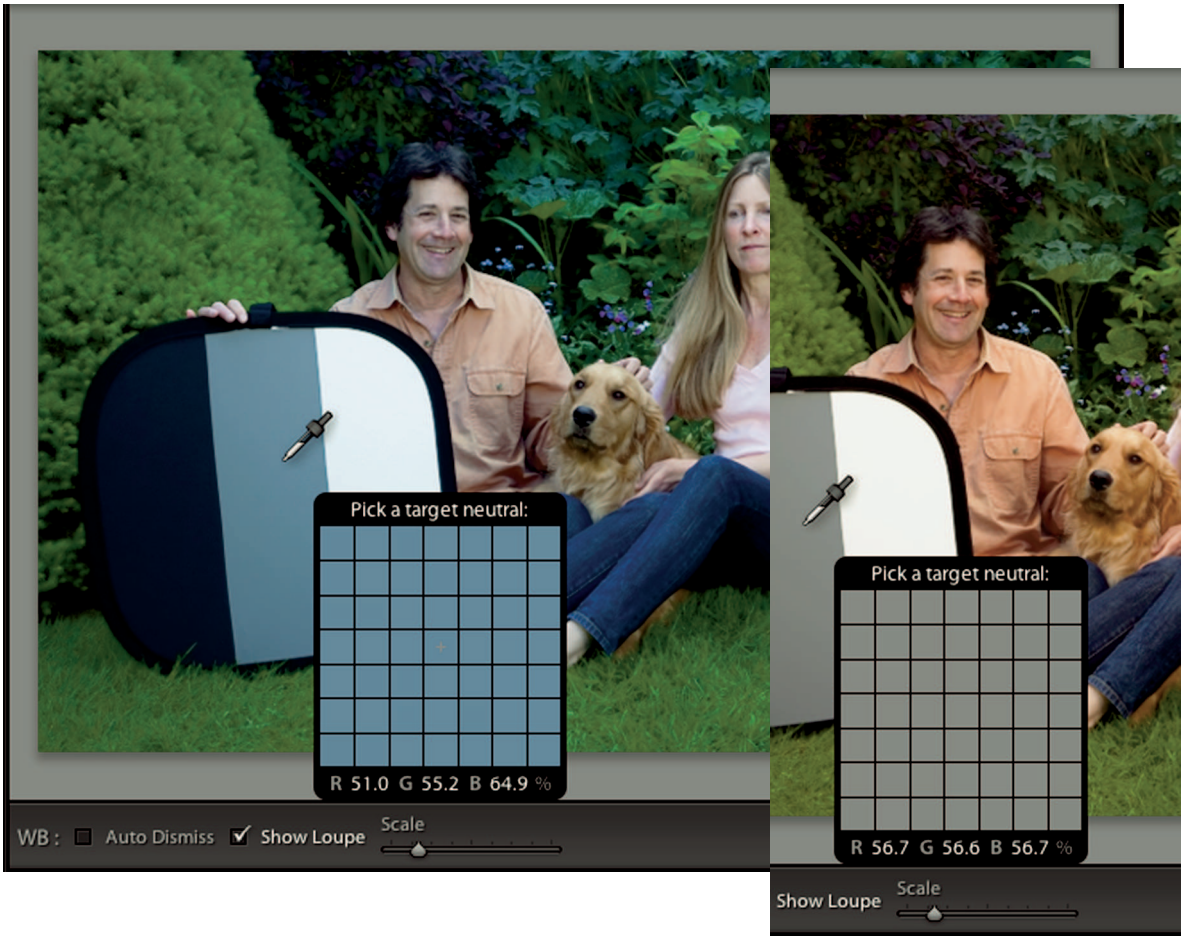


FIGURE 6-5

The original image is too blue, which is indicated by the high Blue value in the Loupe readout. Clicking the gray target with the White Balance Selector tool neutralizes the gray as shown in the image at right and brings all other colors into alignment.

happens, look for something in the photo that should be neutral, meaning any shade of gray. Click it with the White Balance Selector tool to see if you like the resulting color balance. If it gets you close to the color you like, use the Temp and Tint sliders to dial in the color. If there isn't anything in the scene that looks like it should be gray, use the White Balance menu to get as close as you can and then use Temp and Tint for fine-tuning.

In Figure 6-2, I used the Fluorescent white-balance preset to get the photo close to the correct color. When I click-balanced on the small piece of paper at top-center with the White

Balance Selector tool, I was able to get the color close to the original scene because it adjusted for the exact color of the light illuminating the subject.

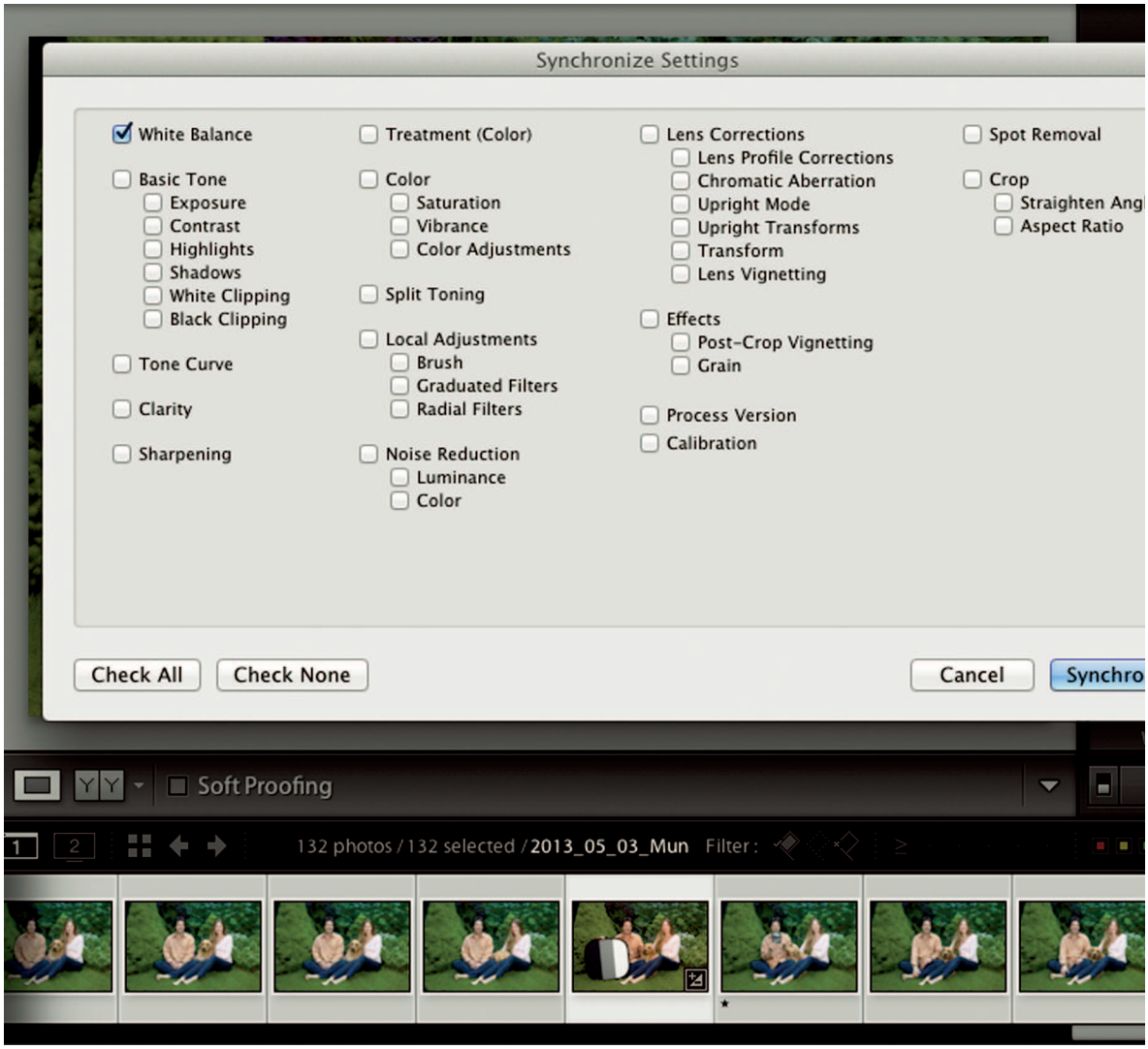


FIGURE 6-6

The Synchronize Settings dialog box enables you to adjust one photo and synchronize its adjustments with other selected photos. Deselect any settings you don't want to share.

✳ TIP

When tone is far off, it's best to evaluate color balance only after making basic tonal adjustments.

Synchronizing Develop Settings

In Figure 6-5, I click-balanced one photo from a shoot using the White Balance Selector tool. Now I'm ready to apply that white-balance adjustment to all the photos from the shoot.

Lightroom makes it easy to synchronize just about any Develop module adjustment. Select all the photos you want to synchronize while making sure the adjusted photo is in the main viewing area. When you select more than one photo, the Previous button (below the right panels) changes to Sync. Click the Sync button to open the Synchronize Settings dialog box shown in Figure 6-6. Choose the options you want to synchronize and click the Synchronize button.

Synchronizing Develop settings is the fastest way to edit similar photos. You can use it to get a group of photos to the same ballpark even when they aren't exactly the same. For a shoot like the portrait in Figure 6-5, I select all the photos and synchronize white balance. Then I select smaller groups of similar photos, pick one to adjust, and then synchronize the settings in each group. Occasionally, after all the synchronizing is done, there will be a few photos that need further adjustment. I do final tweaks on individual photos.

When you have uniformity in your photos, this process lets you edit a shoot in no time. When you have lots of diversity of subject and lighting, your opportunities for synchronizing are more limited.

Understanding Histograms

A *histogram* is a graphical representation of the tones in a photo. Pure black is represented at the left of the histogram, and pure white is on the right side. Every tone between black and white is displayed between those two endpoints of the histogram. Figure 6-7 shows three photos of the same subject with their associated histograms. The first photo is a normal exposure. The second is two-stops underexposed and the third is two-stops overexposed. Notice how the data in the histogram shifts with the exposure. When the tones are darker, the histogram's data shifts to the left. When tones are lighter, they shift to the right.

✳ NOTE

In addition to camera exposure settings, subject matter also affects the histogram. If I photograph a bride in a white dress standing in front of a white wall, I expect to see a histogram that's heavily weighted to the right because most tones in the photo are highlights.

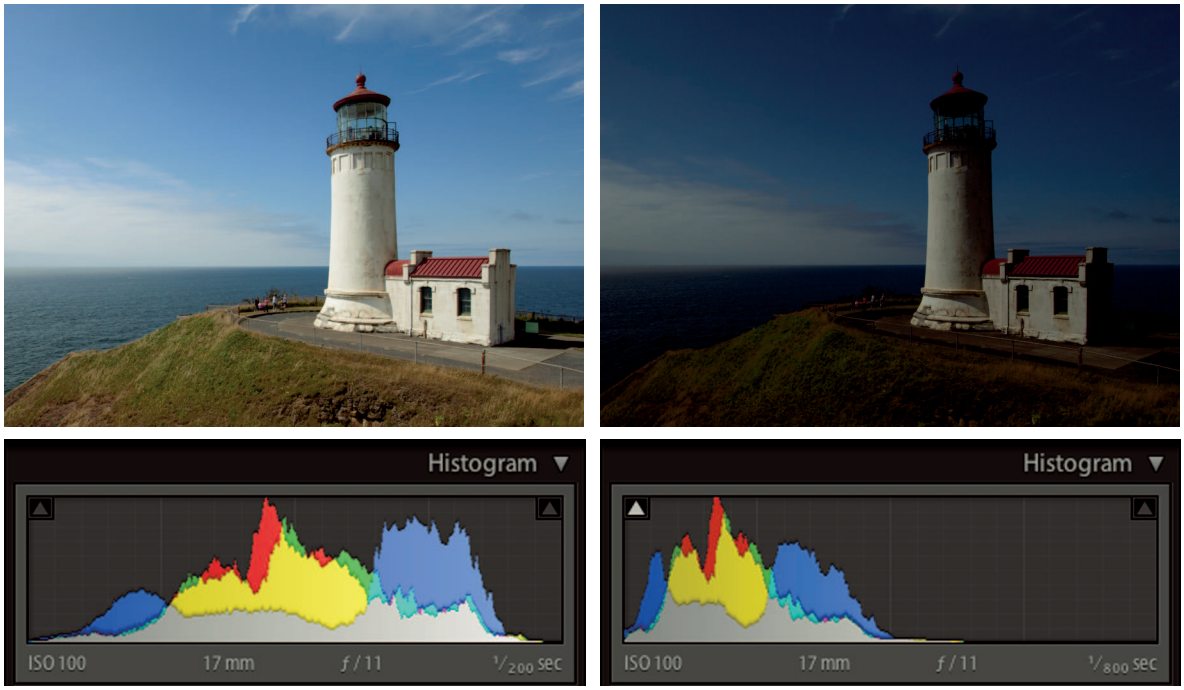


FIGURE 6-7

A histogram represents the tonal range of a photo; the image above left shows the normal exposure. When a photo is underexposed (above right), all tones are darker and weighted to the left side of the histogram. When a photo is overexposed (on opposite page), tones are weighted to the right side.

The color overlays in the histogram indicate where different color channels fall on the histogram. For example, the large blue area on the far right in the three histograms in Figure 6-7 (in the portion on the opposite page) represents the light blue tones in the sky. The yellow and red in the middle represent the yellows and reds in the midtones of the grass and building roofs. The height of these areas is an indicator of the number of pixels in the tonal region. The gray area indicates all color channels overlap in those tonal regions.

Although the histogram displays the entire tonal range of an image, the most important parts of a histogram are its endpoints. Look at the histogram (the image on the left in Figure 6-7) for the normal exposure. Most of the tonal data is spread across the middle and it isn't touching either side. This indicates there are lots of midtones, but no pure black or white. The data in the histogram for the underexposed photo (the middle image) is pushed so far to the left that some of the data was pushed off the side. This is called *clipping*. When shadows are clipped, those tones become pure black and shadow detail is lost.

The histogram for the overexposed photo (the image on the right in Figure 6-7) shows the data pushed so far to the right that highlight detail is shoved off the right side of the histogram.

These highlights are clipped to pure white. When this overexposed photo is printed, the brightest highlights will be the same color as the paper it's printed on because there's no detail in them.

✳ KEEP IT SIMPLE

Most cameras have the ability to display a histogram before and or after an exposure. Use it to check for clipping when you're shooting to ensure the best results during postproduction.

Fine-Tuning Tone with the Basic Panel

After color balance is set, it's time to use the Tone controls in the Basic panel to fine-tune tonal qualities such as brightness and contrast. For many photos, these adjustments are all that's needed to get them looking great.

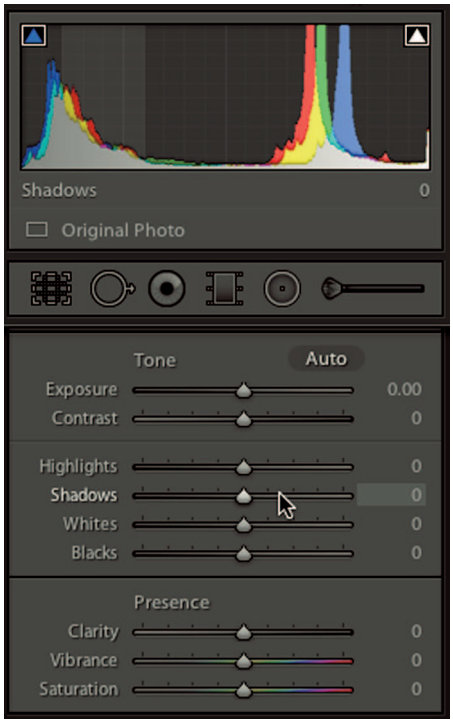


FIGURE 6-8

The six sliders in the Tone section of the Basic panel are used to adjust different tonal regions. When you hover the pointer over a slider, a light gray box displays on the histogram to indicate the region most affected by the control.

Understanding the controls

Figure 6-8 shows the Tone section of the Basic panel. These six sliders are used to control different tonal regions of the histogram. Here's how they're used.

- **Exposure:** Controls the midsection of the histogram and affects overall brightness. Increasing the value by moving the slider to the right lightens the photo. Decreasing the value by moving the slider to the left darkens the photo.
- **Contrast:** Increasing the value expands the midsection of the histogram and increases midtone contrast. Decreasing the value compresses the midsection of the histogram and decreases contrast.
- **Highlights:** Used to adjust the lighter highlights without affecting shadows. Increasing its value lightens highlights. Decreasing its value darkens highlights.
- **Shadows:** Used to adjust darker shadows without affecting highlights. Increasing its value lightens shadows. Decreasing its value darkens shadows.

- **Whites:** Used to adjust only the lightest highlights. Primarily used to control highlight clipping. Increasing its value lightens the light highlights. Decreasing its value darkens the light highlights.
- **Blacks:** Used to adjust only the darkest shadows. Primarily used to control shadow clipping. Increasing its value lightens the dark shadows. Decreasing its value darkens the dark shadows.

✳ TIP

When you hover the pointer over any slider in the Tone section other than Contrast, a light gray overlay displays over the corresponding region of the histogram. This is a great way to remember which part of the histogram and its corresponding tones are most affected by a particular slider.

When working with RAW files, you have a great deal of control over tone when using these sliders, particularly in the highlight regions due to the large amount of data in the highlights. Conversely, when highlights are seriously clipped in a JPEG file, it's impossible to recover enough highlight data to unclip them.

✳ CAUTION

The Tone section of the Basic panel received a major overhaul with the release of Lightroom 4. If you have photos processed in an earlier version of Lightroom, you won't see the updated sliders. Instead you'll see the same sliders as the version of Lightroom used to process the photo. Earlier *process versions* affect other panels as well. So it's best to use the latest process version to ensure you have access to all current features. To update the process version of selected photos, choose Settings ➪ Process ➪ 2012 (Current).

Tonal adjustment in action

The workflow for tonal adjustment is fairly straightforward. It's best to begin with the Whites and Blacks sliders, correcting any highlight or shadow clipping to set the overall contrast of the photo. Then adjust the Shadows and Highlights sliders to modify the midtones to fit your vision of the image. You adjust overall brightness as needed during the process using the Exposure slider.

Adjusting shadow and highlight clipping

Shadow and highlight clipping enables you set the lightest and darkest parts of the photo to establish the overall contrast of the image. Lightroom has a clipping preview feature that

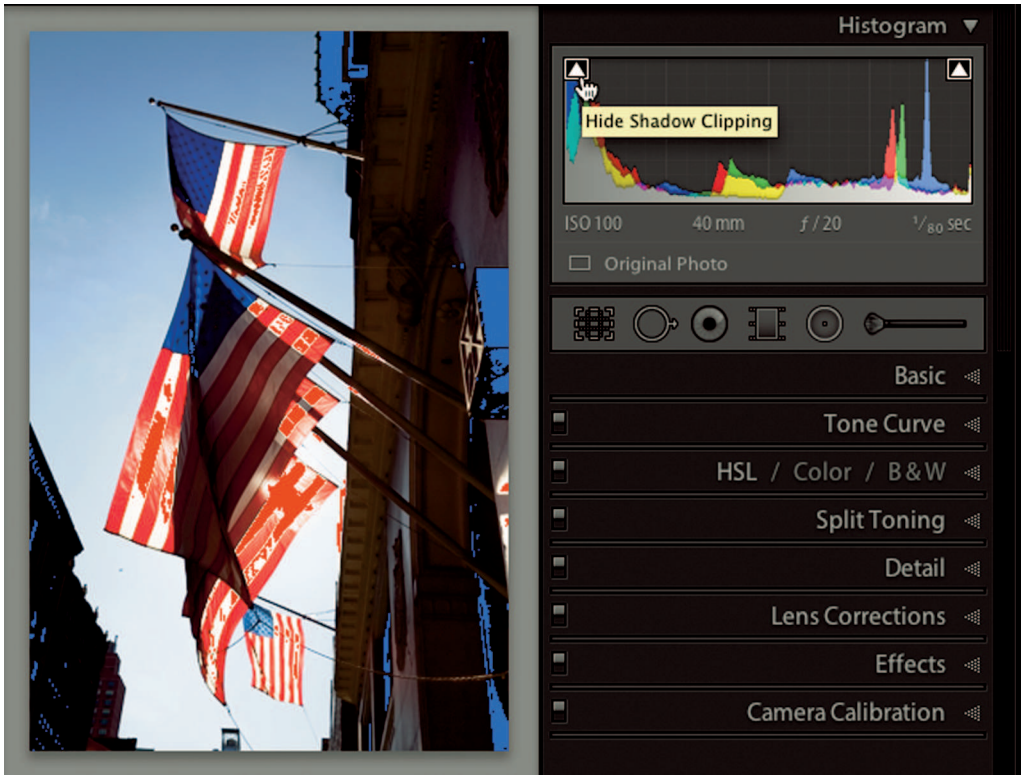


FIGURE 6-9

Click the clipping preview buttons at the top left and right of the Histogram (the small triangles) to turn on shadow and highlight clipping previews. Clipped shadows are displayed in blue, and clipped highlights are displayed in red.

lets you see exactly where clipping is occurring in the photo. Click the two small triangles at the top left and top right of the histogram to activate the preview. A white box appears around the triangle to indicate the preview is active.

Figure 6-9 shows a photo of flags hanging in front of the Empire State Building. Shadow clipping, displayed in blue, can be seen in the dark shadows of the buildings. These shadows are pure black with no detail. Highlight clipping is displayed in red and can be seen in the brightest highlight portions of the flag where highlight detail is missing because those highlights are clipped to white.

Moving the Blacks slider to the right (increasing its value) pushes the left side of the histogram data away from the left edge of the histogram. This lightens shadow tones as they move to the right in the histogram and reduces shadow clipping. The blue clipping preview diminishes as detail is recovered in previously clipped shadow areas. Conversely, moving the

Whites slider to the left, reducing its value, shifts the histogram data away from the right edge and reduces highlight clipping.

If highlights in an image are seriously clipped, you may notice the Whites slider loses its effect beyond a certain point. When this happens, try moving the slider to the point where you just notice it stopped working, Then reduce the value of the Highlights slider until all highlight clipping is gone. RAW files often contain a surprising amount of "hidden" detail that appears clipped at first, but can be recovered using the Whites and Highlights sliders.

I generally try to clip shadow tones somewhere in a photo because a deep black adds punch to the photo. But I'm careful about where the clipping occurs. For example, if I'm photographing a portrait subject outdoors and there are dark regions in the background, I may let shadows clip in those regions if it helps the overall tone of the image. But if I see shadow clipping in the main subject, such as in dark hair or clothing, I increase the Blacks value until I have full detail in the darkest portions of the subject.

It's a different story for highlights. I try to completely eliminate clipping using the Whites or Highlights sliders because I want the brightest highlights to have a small amount of detail. However, I'm careful to reduce Whites and Highlight values just to the point where clipping is eliminated and not go beyond that point. Keep in mind that in some cases, a highlight needs to clip. For example, I recently photographed a pile of old, chrome car bumpers at a junk yard. It was a sunny day so there were lots of bright reflections. Trying to remove highlight clipping from these reflections would have resulted in muddy highlights that didn't look natural. This is a case where a really strong highlight might need to remain clipped to keep the image looking correct.

✳ TIP

When a photo doesn't have any clipping, use the Blacks slider to push the shadows to barely clip. Then use the Whites slider to push the highlights to the point where they almost clip. Then you'll be using the entire tonal range available to you.

Sometimes it's difficult to see the red and blue clipping previews in a photo. You get a sense of this in the flag photo in Figure 6-9. Fortunately, there's another way to preview clipping. Press and hold the Option or Alt key while adjusting the Blacks, Whites, Highlights, and Shadows sliders. When adjusting Blacks and Shadows this way, the preview turns white and the only details that show are areas that are clipping. When adjusting the Whites and Highlights this way, the preview turns black and only clipped highlights are shown. I use this method instead of the Histogram's previews because it's easier to see exactly where clipping is occurring.

Fine-tuning midtone contrast

After you have clipping under control, fine-tune the midtones using the Highlights and Shadows sliders. These sliders can affect clipping, but because they control tones closer to the

middle of the histogram they tend to have the most effect over midtone contrast. Lightening highlights and darkening shadows adds midtone contrast. Darkening highlights and lightening shadows reduces contrast and can result in an image with flat midtone contrast.

✳ TIP

To reset any slider in Lightroom to its default setting, double-click the slider or its name.

Figure 6-10 shows two versions of a photo of a multistory home. The Highlight and Shadows values for the photo on the left are 0. The first photo has lots of midtone contrast caused by the direction of the afternoon light. One side of the building is a bit too light and the other side is a bit too dark. To better balance these tones, I reduce the Highlights value to –100 and increase the Shadows value is +100. Notice how much more detail is visible in the dark shadows of the second image in Figure 6-10. Extreme settings like these wouldn't be appropriate for photos that don't have strong contrast like this one.

FIGURE 6-10

The midtone contrast in the photo on the left is a bit too strong. Reducing the Highlights value to –100 and increasing the Shadows value to +100 helps to better balance highlight and shadow tones, as seen in the photo on the right.

When you use the Highlights and Shadows sliders, focus on what the image needs. Reducing the Highlights value often adds subtle detail to a bright highlight area, such as blue skies or bright skin tones. Conversely, if highlight detail looks flat, increasing the Highlights value brightens light tones without causing them to clip. Use the Shadows slider to lighten or darken shadow detail. This is useful for bringing attention to something in the shadows by lightening it, or hiding something by darkening. Just keep in mind that when you lighten shadows, you may reveal noise so be careful. (Noise removal is covered in Chapter 9.)

Another way to modify midtone contrast is to use the Contrast slider. Moving it to the right adds midtone contrast and moving it to the left reduces it. This slider is a crude tool because it doesn't give you the ability to modify highlights and shadows separately like the Highlights and Shadows sliders. Because of this inability, I rarely use it.

Using the Clarity slider to add midtone contrast

The Clarity slider, located in the Presence section near the bottom of the Basic panel, is used to modify midtone contrast. Positive values increase midtone contrast, causing the photo to look sharper. Negative values reduce midtone contrast and add softness to the photo. The algorithms used by the Clarity slider are quite different from the Tone controls so the results can be quite different.

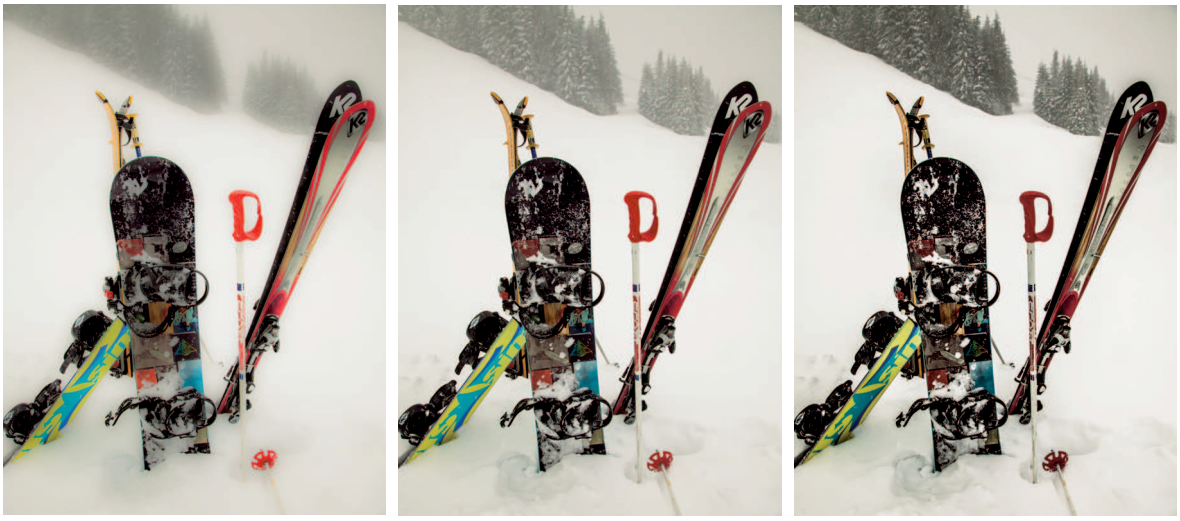


FIGURE 6-11

Clarity set to –100 in the left photo reduces midtone contrast and adds a dreamy softness to the photo when compared to the center photo with a Clarity value of 0. A Clarity value of +100 on the right photo adds strong midtone contrast compared to the middle photo.

Figure 6-11 shows three versions of a photo. The first one (on the left) has a Clarity value of –100. The second (at center) has a value of 0 and the third (on the right) has a value of +100. The photos with the extreme adjustments look completely different from one another. Notice how the positive Clarity value increases midtone contrast and helps cut through the haze in the background.

✳ TIP

When exploring control sliders, try moving them to their endpoints to get a feel for the effect these maximum and minimum values have on the photo, and then adjust to taste.

I regularly use Clarity values of +15 to +30 on my nonportrait images. I don't use positive Clarity values on portraits because it amplifies wrinkles and lines. Negative values are useful for adding a soft-focus effect to a portrait and reducing the strength of facial lines and wrinkles. This softening is an easy adjustment to make to one photo and then synchronize with the rest of the portrait shoot.

Pump Up the Color with Vibrance and Saturation

The two sliders at the bottom of the Basic panel, Vibrance and Saturation, are used to modify color saturation but they work in very different ways. The Saturation slider is a *linear* control. When the value is increased or decreased, all colors are affected equally. Modest values can help some colors, but it's easy to go too far and oversaturate more intense colors.

The Vibrance slider is a *nonlinear* control. It affects less-saturated colors more than colors that are already saturated. It is useful for adding saturation to subtle colors without oversaturating already-bright colors. The Vibrance control is also aware of skin tones and tries to protect them by not oversaturating the subtle shades. I occasionally use the Saturation slider to add a bit of overall saturation, but I regularly use the Vibrance slider with values of +15 to +30 to give the color in my photos the extra pop I like.

Comparing Different Editing Versions

At this point in the workflow, it is often useful to compare your edited photo to the unedited version. Lightroom provides a variety of ways to compare different editing states.

Using Before & After Views

The Develop module's toolbar doesn't have as many view modes as the Library module's toolbar. The toolbar does have one view that's quite useful: Before & After Views. Clicking the Before & After Views button displays the imported version of the photo on the left and the

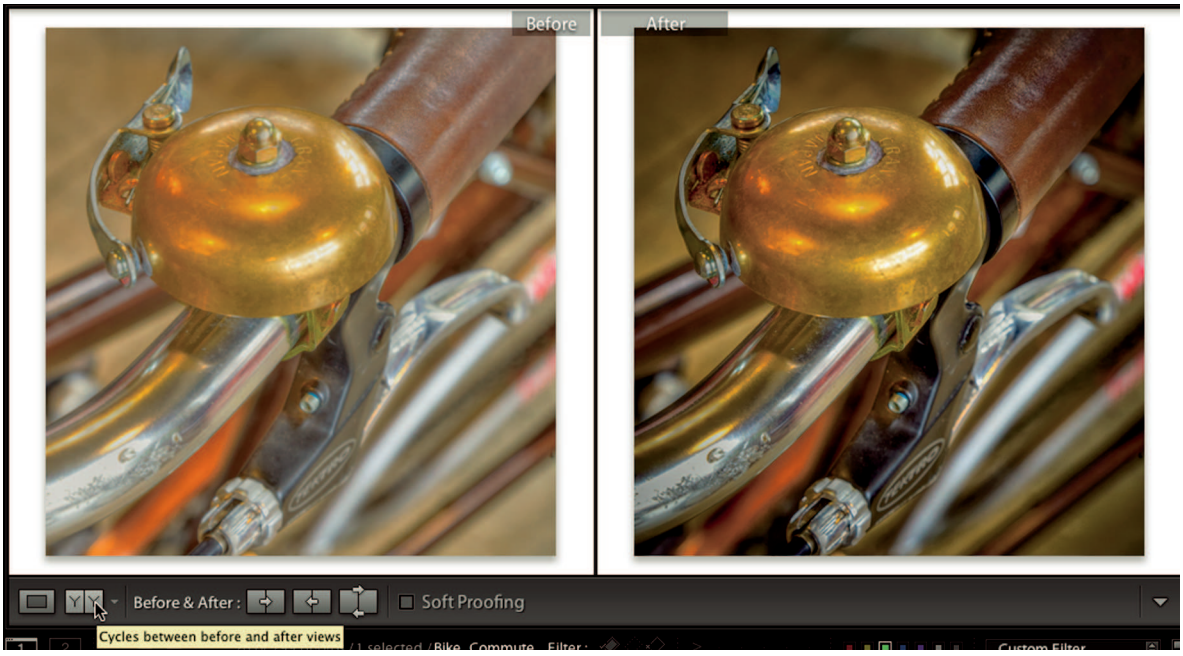


FIGURE 6-12

Before and After Views lets you compare the current editing state on the right, to the unedited photo on the left. Click the Before & After Views button to cycle through the four before and after layouts.

currently edited version on the right, as shown in Figure 6-12. The view cycles through four variations of Before & After Views every time you click the button. Click the Loupe View button at the left of the Before & After Views button, to return to the normal view.

One setting that isn't compared in these before and after views is cropping. If a photo has been cropped, the before version also shows the cropping. Maintaining the crop when comparing before and after versions is nice because different crops make it difficult to compare two versions of the same photo.

Another way to compare before and after versions of a photo is to press the \ (backslash) key. Using the \ key switches the main display to the before version and shows a small Before tag at the upper right. Pressing the key again returns the view to the edited state. I prefer this method of toggling between before and after states rather than viewing them side by side because it allows me to cycle back and forth between versions while looking at a single image instead of trying to compare them side by side.

FIGURE 6-13

The history steps of the adjustments I performed on the bicycle bell photo in Figure 6-12.

Going back in time with the History panel

The History panel, shown in Figure 6-13, is a record of every editing step performed in the Develop module. New history states are added to the top every time you make a Develop adjustment. Selecting the history step at the bottom of the History panel shows the photo as it was when it was imported. The number of history states in Lightroom's History panel is unlimited. It can contain hundreds of history states. When you select a previous history state, the settings on the photo are returned to where they were at that point in time.

Use the History panel to compare different editing states. For example, if you performed a series of editing actions, you can choose the history state previous to those adjustments to see what it looks like without them. It isn't possible to see these incremental changes using Before & After Views.

One thing to keep in mind when using the History panel, if you return to a previous history state and do any editing, all potential future steps that were in the History panel disappear and your new steps are added in their places to record your latest editing.

Exploring Your Options with Virtual Copies and Snapshots

There are a number of postproduction scenarios where it's useful to have multiple versions of the same photo. For example, after I've solved all the problems with an image, the rest of postproduction becomes an exploration into what can be done creatively. During this process, I often find more than one solution. To pick the best, I need to compare different treatments on multiple versions of the same photo. Another scenario where multiple versions of photos are useful is a wedding photographer I know. She provides a DVD for higher-paying clients with all her picks. When she prepares the photos for the disc, she creates color and black-and-white versions of each photo.

Lightroom has a really great feature, called *virtual copies,* that's used for creating versions of a photo. These copies are called *virtual* because they consist only of metadata describing what processing steps have been applied to the copy. Virtual copies are stored in Lightroom's catalog and they look and act like normal files. You can edit a virtual copy to be different from the original and then export a file with those settings. Storing virtual copies is more efficient than duplicate copies of files because the metadata consumes only a small fraction of the hard drive space a duplicate file would consume.

When my wedding-photographer friend edits a wedding shoot, she makes virtual copies of all the files she plans to give to the client and converts them to black-and-white. Then when she exports files for the DVD, she selects the original, *master photos* and the virtual copies so she can export a JPEG file from each. During export, Lightroom applies the virtual copy settings to the master photos and creates black-and-white versions while also exporting color versions of the master photos. (Exporting is covered in Chapter 16.) When the process is complete, the photographer has two sets of JPEG photos: one in color and one in black-and-white.

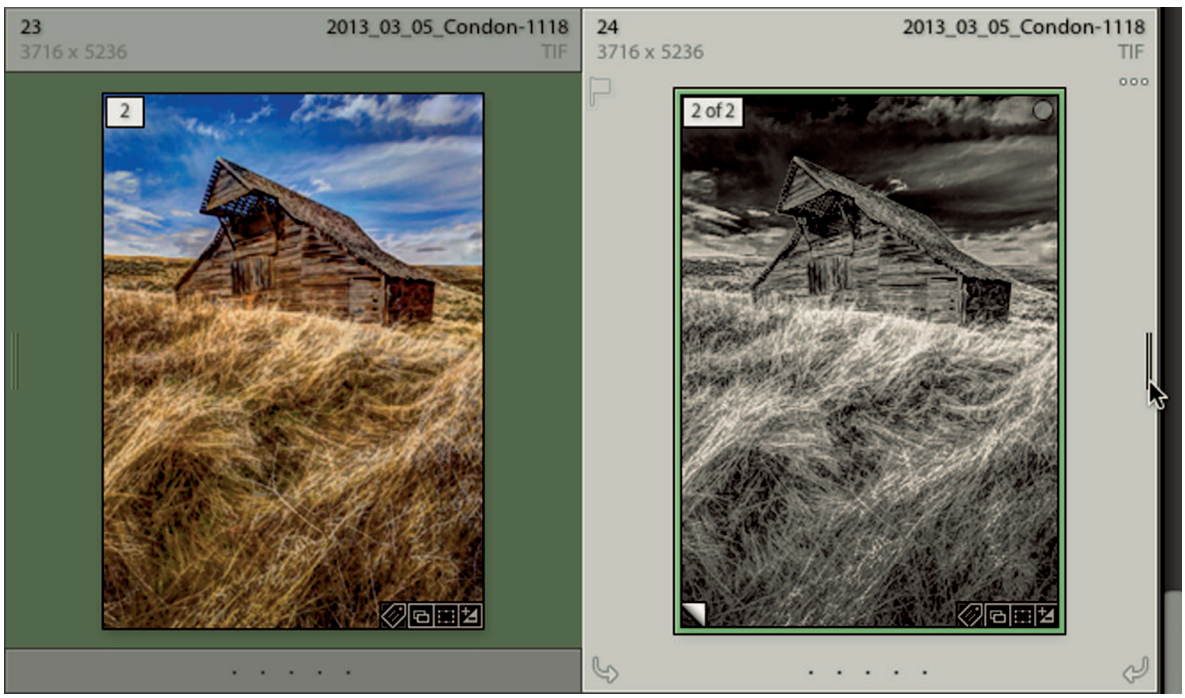


FIGURE 6-14

The black-and-white virtual copy on the right has a flipped-up corner in the lower-left. You can stack and unstack virtual copies with their master photos by clicking the vertical lines at the sides or by clicking the identification numbers at the upper-left of their thumbnails.

Working with virtual copies

To create a virtual copy, right-click a photo and choose Create Virtual Copy from the contextual menu. Or choose Photo ➪ Create Virtual Copy. When you do, a second version with the same name appears next to the master photo. It has a flipped-up corner at the lower-left of its thumbnail in the Grid view or the Filmstrip, as shown in Figure 6-14. Another indicator that a thumbnail is a virtual copy is the number appearing in the upper left of the thumbnail when you hover the pointer over it. The number indicates the version of the virtual copy. In Figure 6-14, you can see "2 of 2" on the virtual copy. The master photo thumbnail on the left has a 2, indicating a total of two versions. This number displays without hovering the pointer.

✳ NOTE

You can select a group of master photos and create virtual copies of all the photos at one time.

You can create as many virtual copies of a master photo as you'd like. They can be stacked and unstacked with the master to save room in the Grid view and Filmstrip. To stack the images, click one of the sets of vertical lines at the sides like the one I'm hovering the pointer over in Figure 6-14, or click one of the identification numbers on the thumbnails.

Stacking places virtual copies under the master photo thumbnail to save viewing space when the virtual copies aren't needed. Stacking is really great when you have several virtual copies in a project. It's also useful for projects where you're not using virtual copies. For example, a fashion photographer might photograph eight models in a day of shooting. He or she can stack each model's photos to see only eight thumbnails in Grid view instead of hundreds of photos. When it's time to work on a particular model's photos, he or she unstacks that group.

To stack photos, select them and right-click one. Then choose Stacking ➪ Group into Stack from the contextual menu. To ungroup the photos, right-click and choose Stacking ➪ Ungroup from Stack from the contextual menu.

✳ TIP

A virtual copy inherits metadata such as keyword and labels and Develop module settings, but it doesn't inherit the Develop history.

Keep virtual copies in mind when you want to try different treatments with a photo. You can reset a virtual copy to an unedited state, or you can apply new settings on top of the settings inherited from the master. Virtual copies are treated like regular files when you export, print, or open directly in Photoshop. If you ever need to see virtual copies or master photos individually, you can use the Attribute section of the Library Filter bar, as described in Chapter 4, to filter for one or the other.

FIGURE 6-15

Snapshots are useful for recording a specific point in the editing process. To create a snapshot of the selected photo, click the Create Snapshot button.

✳ NOTE

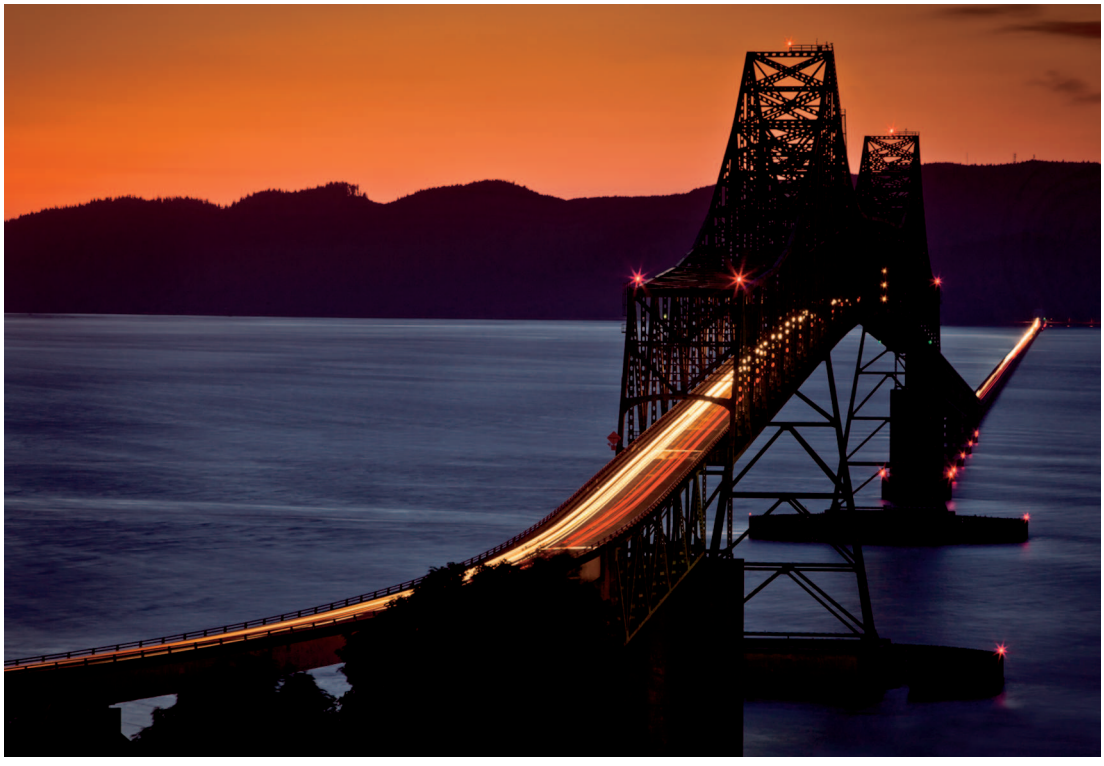
Master photos and virtual copies stay in the same folder. If you move the master, the copy goes with it.

Taking a snapshot

The Develop module's Snapshots panel uses a different method for recording Develop settings. A *snapshot* is a record of the state of the image with the current editing adjustments. You could also say it's a snapshot of the current history state. To create a snapshot of a selected photo, click the Create Snapshot (+) button at the top of the Snapshots panel, as shown in Figure 6-15. Type a name for the snapshot when the New Snapshot dialog box opens and click the Create button. To delete a snapshot, select it and click the Delete Selected Snapshot button (–).

I primarily use snapshots as teaching aids. For example, I take a snapshot of a photo without a particular type of editing applied. Then I edit the photo and take another snapshot of the edited state. Then I can flip back and forth between the two states without digging through the History panel to find the editing steps in question. When I want to see both versions at the same time, like the wedding photographer who needs both color and black-and-white versions for exporting, it's necessary to use virtual copies instead of snapshots.

✳



CHAPTER 7

Advanced Color and Tone Adjustments

Color and tone adjustments always begin with the Basic panel. It's where you set your shadow and highlight clipping and adjust overall color balance. But the Basic panel isn't the only panel for modifying color and tone. This chapter covers four more panels used to tweak tone and color in ways that aren't possible with the Basic panel. I also describe how to save your favorite developing formulas as presets so that they are available quickly when you need them.

Using the Tone Curve Panel to Modify Midtone Contrast

Photoshop's Curves adjustment has been around almost as long as Photoshop. It's a powerful tonal adjustment tool. In the early days, it was difficult to understand how to use it properly so most users used it inappropriately. When Lightroom 1 was released, it featured an updated interface for curves adjustments called Tone Curve. This panel is easier to understand and use, and it offers adjustments not possible in the Basic panel.

Understanding the Tone Curve panel

Figure 7-1 shows the Tone Curve panel located directly below the Basic panel. The information in the graph shows where tones fall on the curve. The bottom left of the graph represents pure black with a value of 0. The top right area represents pure white with a value of 100. The diagonal line connecting black-and-white represents midtones. Darker tones are lower

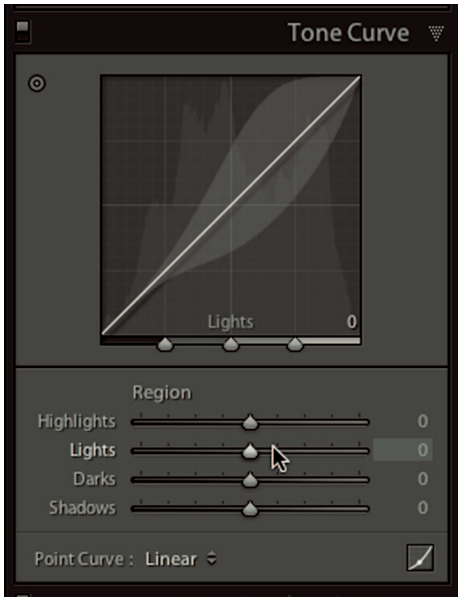


FIGURE 7-1

The Tone Curve panel is used to modify midtone contrast. An adjustment preview bubble appears on the line when you hover the pointer over a Region slider indicating the range of adjustment possible with that slider.

on the line on the bottom left. Lighter tones are higher on the right. When the four tonal region sliders are set to 0, the diagonal line is a straight 45-degree line called a *linear curve*. When a slider's value changes, the line bends to represent the change.

For example, if the Lights value is increased, the line bends upward in the area representing lighter tones. The bend in the line is where curves got its name. The adjustment is strongest at the peak of the bend. The effect of the adjustment on adjacent tones diminishes the further those tones are from the point of adjustment. A steeper section of line represents more contrast. A flatter line represents less contrast. The dotted line in the background is a reference to the linear curve so you can compare your adjustments to it.

A set of four Region sliders is located in the lower section of the panel. Each slider is used to modify tonal regions represented by the four columns in the graph. In fact, if you hover the pointer over a column in the graph, you will see the name of the slider controlling that column. The concept is similar to the Basic panel's Tone sliders that focus on different sections of the histogram.

The main difference between the Basic panel and the Tone Curve panel is that the sliders in Tone Curve aren't used for clipping control because the sliders do not control the endpoints. Instead, each slider controls its own section of the histogram — from shadows to highlights. Increasing a value by moving the slider to the right lightens the corresponding tonal range.

Decreasing a value by moving it to the left darkens the range. When you hover the pointer over a slider, a bubble appears on the diagonal line indicating the maximum and minimum amount of adjustment possible with that slider.

The three sliders directly below the graph are the Split Control sliders. They are used to modify the range of tones affected by the Region sliders. For example, if I move the right slider further to the right, I modify the split point between the Highlights and Lights adjustments. This narrows the range of tones affected by the Highlights slider and expands the range of tones affected by the Lights slider. The change can be seen in the shape of the diagonal line's preview bubble when hovering the pointer over the Highlights and Lights sliders. I suggest leaving the Split Control sliders set at their default values unless you are having problems adjusting very light or very dark tones.

Using the Tone Curve sliders

One of the most common Tone Curve adjustments is to increase midtone contrast by increasing the Lights value and decreasing the Darks value. The first panel in Figure 7-2 shows increasing Lights and decreasing Darks. Notice the diagonal line curves upward in the lighter

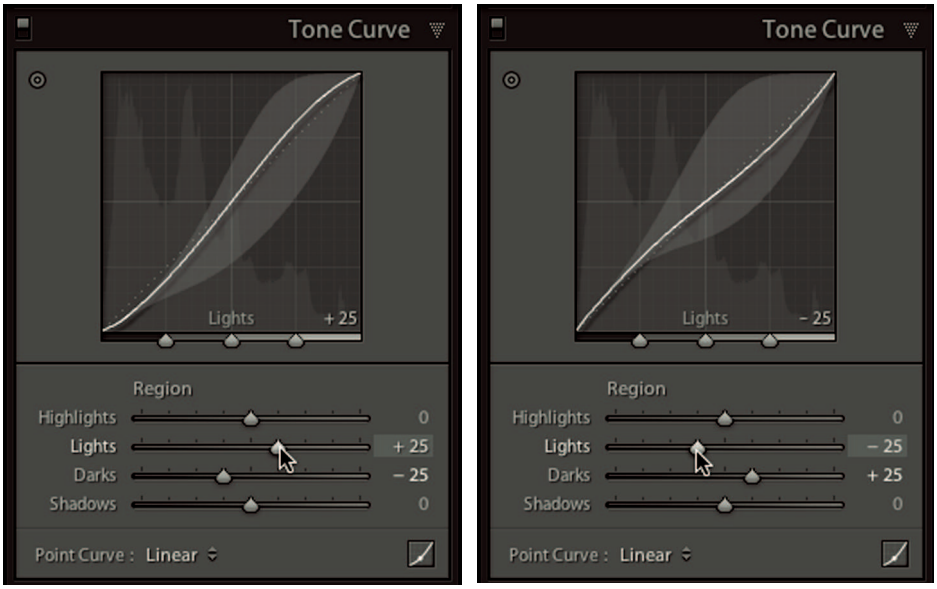


FIGURE 7-2

The adjustments in the panel at left create an S-curve that steepens the diagonal line to increase midtone contrast. The panel at right shows an inverted S-curve that flattens the line and decreases contrast.

regions and it curves downward in the darker regions, causing the line to steepen in the middle. This is an indication that more contrast has been added to the midtones. The shape of this curve is called an *S-curve* because it resembles the letter S. The second panel in Figure 7-2 shows the opposite adjustment. The diagonal line is flatter in the middle, indicating reduced midtone contrast. This is called an *inverted S-curve*.

✳ CAUTION

A little bit goes a long way in the Tone Curve panel. Take it easy until you understand the effects its tonal adjustments have on your photos.

The Targeted Adjustment tool

The Tone Curve panel has a useful tool called the Targeted Adjustment tool. You drag it on an area of a photo to make adjustments more intuitively. For example, if you click on a tone that falls in the region controlled by the Lights slider and drag the pointer upward while holding the mouse or trackpad button down, that slider's value increases. All similar tones in the photo are affected as well. A dot appears on the diagonal line as you drag, indicating the exact spot on the line that represents the tone you clicked on.

I don't find this feature useful for making Tone Curve adjustments. I'd rather move the sliders. But I do find it useful as a learning tool because it shows you where specific tones fall on the diagonal line.

✳ TIP

Curves power users can change the Tone Curve panel to a layout similar to Photoshop's Curves panel by clicking the Point Curve button at the bottom-right of the panel. The Point Curve layout doesn't have Region sliders. Instead, you drag on the diagonal line to add and modify adjustment points. You can also make curves adjustments to individual color channels when using the Point Curve layout.

Because the Basic panel's Tone sliders do such a great job for most images, you may find that you don't need the Tone Curve panel to achieve the results you want. When they won't take you far enough, use the Tone Curve panel to add the snap you need.

Previewing a panel's adjustments

In Chapter 6, I describe how to compare before and after versions of an edited photo. Sometimes, though, you need to see the before and after effects of a single panel without hiding the rest of the editing. Fortunately, all the editing panels — with the exception of the

Basic panel — have the Preview button. It looks like a small light switch at the top left of each adjustment panel. Click it to turn it off and hide the panel's adjustments. Click it again to turn the adjustments back on.

Customizing Color with the HSL Panel

The HSL, Color, and B&W panels share space directly below the Tone Curve panel. Choose a panel by clicking its name. These panels are grouped together because they work in similar ways. Learning to use the HSL panel will help you understand the two other panels.

Understanding the HSL panel

Figure 7-3 shows the HSL panel with its three sets of sliders: Hue, Saturation, and Luminance. When you choose a heading, the sliders associated with that color feature change. For example, when you choose Hue, the hue sliders are shown. If you choose All, the panel extends to display all three sets of sliders. Displaying all sliders together takes a lot of screen real estate, so I prefer to work with the slider sets individually. Here's what each slider set does:

- **Hue:** This is the spectrum color itself, such as the red of an apple compared to the orange of an apricot. Use the Hue sliders to shift the hue of a color, for example, to make red appear more orange. The colors displayed in the sliders show the hues available for that slider's color.
- **Saturation:** The intensity of the color. An oversaturated color can look unreal. A desaturated color becomes gray. Use these sliders to manage the saturation of different color ranges. Increasing the value increases saturation. Decreasing the value decreases saturation.
- **Luminance:** This is the brightness of a color, such as a light blue sky as opposed to a dark blue sky. Use these sliders to darken or lighten a specific color range. Increase the value to lighten a color. Decrease the value to darken the color.

Using the HSL sliders

The HSL panel gives you amazing control over specific colors in a photo. For example, if I want the blue in the sky to be more saturated without saturating other colors, I choose the Saturation section and increase the value of the Blue slider by dragging it to the right. If I have a portrait of a person in jeans and I think the denim's color is a little too purple, I choose the Hue section and decrease the value of the Blues, which shifts it toward aqua. However, if I have a portrait photo of a person in jeans with a blue sky, I have to be careful because these adjustments affect all the blues in the photo.

FIGURE 7-3

The HSL panel is used to adjust the hue, saturation, and luminance of various color ranges. Click a heading to load its slider set. The upper-left panel shows the Hue sliders, the upper-right panel the Saturation sliders, and the lower-left panel the Luminance sliders. The color preview on a slider indicates the range of adjustment possible with it.

✳ TIP

When adjusting a Hue slider, the maximum and minimum amount of change is limited to its two adjacent colors. For example, when the Blue value is –100, blue colors become aqua. When the Blue value is +100, the blue colors become purple. The Aqua and Purple sliders are located on each side of the Blue slider.

Using the Targeted Adjustment tool

The HSL panel has its own version of the Targeted Adjustment tool. It's used to drag a color to change its properties. If the panel is set to Saturation, the saturation of the color under

the cursor shifts as you drag. Dragging upward increases saturation of that color wherever it is in the photo. Dragging downward decreases saturation. When you drag on a color that is a combination of two colors using the Targeted Adjustment tool in the HSL panel, it shifts both colors (very cool!).

For example, when you drag on grass, it's common to see the yellow and green sliders move together. In fact, you will often see the yellow value shift more than the green value because most grass has lots of yellow. This example points out an important use of the Targeted Adjustment tool in the HSL panel: Even if I plan to use the sliders to adjust a color, I drag with the Targeted Adjustment tool to identify exactly which sliders to use for the color I want to change.

✳ NOTE

The Color panel has the same color controls as the HSL panel, but the controls are laid out differently. In the Color panel, the Hue, Saturation, and Luminance sliders are together, but you can work with only one color at a time. Additionally, the Color panel doesn't have the Targeted Adjustment tool. Because it lacks this tool, I don't use the Color panel.

Getting creative with the HSL panel

The HSL panel is one of my favorites because of the creative control it allows. If I'm working on a photo with lots of different colors, I have complete control over those colors.

Figure 7-4 shows a photo of a bicycle. In the first version of the photo, the yellows and greens from the moss on the sidewalk are distracting, as are some of the other colors, such as the

FIGURE 7-4

I desaturated all colors except for Blue and Aqua in the righthand version of this photo to eliminate distracting colors and take advantage of the blue railing as a design element. (The original image is at left.)

orange on the bike's lock. I felt there was an interesting photo in there somewhere, so I used the Saturation section of the HSL panel and reduced the values of all sliders to –100, except Aqua and Blue. I increased the value of the Aqua and Blue sliders to +100 to intensify the color of the railing. I knew I needed to adjust both the Aqua and Blue sliders because I used the Targeted Adjustment tool to identify the colors in the railing. A by-product of the adjustment was the enhancement of the blue paint on the wall, which works for me creatively. If I didn't like the blue on the wall, I would use the Adjustment Brush tool, described in Chapter 8, to selectively desaturate that area to make it blend in better.

The photo becomes more interesting when the color range is limited to two colors, especially when the remaining colors amplify a compositional element such as the railing. When you're editing a photo where color ranges are distinct, as with the blue railing in the bike photo, use the HSL panel to explore the colors to see what you can do. Play with the hue, saturation, and luminance values to make them work for you creatively.

Working with Black-and-White

Black-and-white photography has been around since the earliest days of photography. Back then, it was the only option. In today's digital world, there is still a strong appeal for black-and-

FIGURE 7-5

When a photo is converted to black-and-white, the emphasis is on form and tone. This shift causes us to focus on the subjects in a different way.

white photography. I would even argue that it is more popular than ever because of the high level of control today's photographers have over the black-and-white process.

When color is removed from a photo, shapes and tones become more dominant. Figure 7-5 shows a color version and a black-and-white version of the same photo. Notice how different the black-and-white version looks when the saturated colors are removed. The image becomes more about form and shape. The bikes become a unified design element because their individual colors no longer distinguish them from one another. Without the color, the shadows become more important and are easier to see.

✳ KEEP IT SIMPLE

Even if you're shooting RAW and set your camera to black-and-white mode, the files are in color in Lightroom. Unless you prefer the in-camera previews to be black-and-white, you might as well keep your camera set to color because you will need to convert the photos to black-and-white during postproduction anyhow.

The B&W panel, which is organized in the same panel set as HSL and Color, is used to convert color photos to black-and-white. You can also change a photo from color to black-and-white using the Treatment section at the top of the Basic panel. Both options do the same thing. Lightroom analyzes the colors in the photo and determines the best shade of gray for each. This automatic function is on by default and is great for getting you in the ballpark. You can then use the sliders in the B&W panel to fine-tune how particular colors are converted to corresponding shades of gray.

✳ TIP

To turn off the automatic black-and-white adjustment, choose Lightroom ➪ Preferences ➪ Presets on the Mac or Edit ➪ Preferences ➪ Presets in Windows and deselect Apply Auto Mix When First Converting to Black and White.

Figure 7-6 shows the B&W panel. It's stacked with the HSL and Color panels because it works in a similar way. In the B&W panel, color sliders are used to modify the gray values of various colors in the original image as they are converted to black-and-white.

For example, if you want the blue sky to be a dark gray in the black-and-white version, drag the Blue slider to the left to reduce its value. To make green leaves look lighter in black-and-white, increase the value of the greens. The result of these two adjustments is an imitation of the look of black-and-white infrared film. Other adjustments can mimic what various colored filters do with conventional black-and-white films.

A common adjustment when editing a black-and-white portrait is to lighten skin tones to give them a bit of glow. I find the orange and red sliders usually work best, but it does vary with

FIGURE 7-6

The B&W panel is used to convert color ranges to specific gray values. Increasing a color's value lightens it's corresponding gray. Decreasing the value darkens the corresponding gray.

different complexions. Fortunately, the B&W panel has the same Targeted Adjustment tool as the HSL panel, which makes it easy to click on the face and drag upward to lighten skin tones.

✳ TIP

If you don't like what you see after working with the B&W sliders, click the panel's Auto button to get back to your starting point.

The ability to adjust the tonal value of colors as they are converted to grayscale gives you a great deal of control over your black-and-white conversions. For example, the first frame of Figure 7-7 shows the original, color version of a cargo ship waiting near the mouth of the Columbia River. The second frame shows the automatic black-and-white conversion created by Lightroom. In the third version, I darkened the background by reducing the Blue and Aqua values. I also reduced the Red value to darken the lower hull of the ship to match the upper hull area. Then I increased the Yellow value to lighten the yellow structures rising above the deck to help them stand out better against the background.

FIGURE 7-7 (OPPOSITE PAGE)

The warm colors of the cargo ship (opposite page at top) against the cool colors of the background enable me to independently control the tones of the background and subject when converting to black-and-white (middle image). I reduced the Aqua and Blue values to darken the background. Then I darkened the lower hull of the ship by reducing the Red value. Finally, I lightened the upper areas of the ship by increasing the Yellow values (bottom image). All other tone and color settings are the same.


HSL / Color / B&W
Black & White Mix
Red – 10
Orange – 19
Yellow – 22
Green – 26
Aqua – 17
Blue + 10
Purple + 15
Magenta + 3
Auto
Split Toning
Detail
Lens Corrections
Effects
Camera Calibration


HSL / Color / B&W
Black & White Mix
Red – 100
Orange – 19
Yellow + 17
Green – 26
Aqua – 100
Blue – 100
Purple + 15
Magenta + 3
Auto
Split Toning
Detail
Lens Corrections
Effects
Camera Calibration

✳ CAUTION

Adjusting the gray values of a color when converting to black-and-white can cause shadow or highlight tones to clip. It's a good idea to monitor clipping while adjusting the B&W sliders.

The automatic black-and-white version in Figure 7-7 isn't bad. But why should I accept it without exploring the possibilities. Using Lightroom's automatic black-and-white conversion is a good starting point. Just be sure to spend a few minutes to see what is possible by adjusting the B&W panel's sliders.

Adding Color Effects with the Split Toning Panel

Lightroom's Split Toning panel is used to add a color tint to a photo. It's almost like laying a color filter over the top of your photo. This control is called *split toning* because it gives you control over highlight and shadow colors independently. You can tone the highlights in a photo with a different color from the shadows, which creates an interesting effect.

Split-toning color photos

When I worked in a film lab many years ago, a process called *cross-processing* was popular. Photographers would shoot one type of film and process it in chemistry intended for a different type of film. This cross-processing caused colors and tones to shift in wild and sometimes unpredictable directions. It was a difficult process because results could be hard to reproduce.

You may also have seen a split-toning effect in old slide film. As exposed film ages, colors tend to fade at different rates, causing old slides to change color. Many of the colors are almost completely gone, leaving only one or two dominant colors.

Figure 7-8 shows a photo with split toning applied and the Split Toning panel. In this example, the sliders are positioned to make the highlights yellow and the shadows blue. This gives the photo a unique look. The default setting for Saturation is 0. To see the effect that color toning has on the photo, increase the Saturation value. Then adjust the Hue slider to get the exact color you desire. Use the Balance slider to weight the effect toward either the Highlights color or the Shadows color. In the example in Figure 7-8, if I increase the Balance value, the toning is weighted to the yellow Highlights color. If I decrease the Balance value, the tone is weighted more toward the blue Shadows color.

✳ KEEP IT SIMPLE

You can choose colors by clicking the color swatch next to the Shadows and Highlights sliders to open a color picker used to visually select the color. Many people prefer this intuitive method.

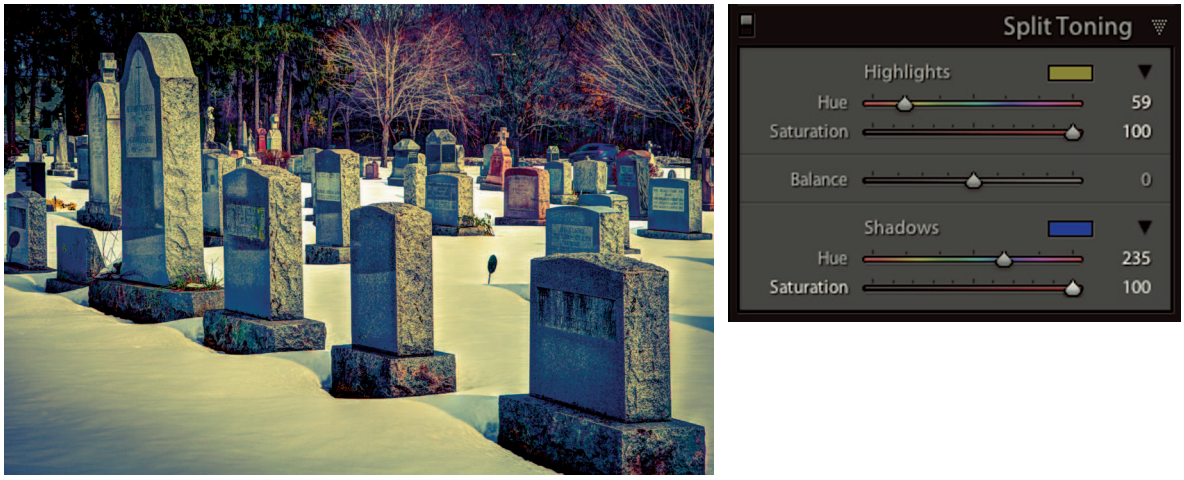


FIGURE 7-8

The unusual color in this photo was created using the Split Toning panel. I used the Highlights sliders to make the highlights warm and the Shadows sliders to make the shadows cool.

Radically splitting tones in color photos isn't for everyone. In fact, the photographers I know who regularly split tones primarily photograph high school seniors. They deal with a young crowd looking for something funky, so they embrace the unusual. However, I do know fine-art photographers who use very low levels of split toning to add subtle qualities to a photo. For example, adding warmth to the shadows in a landscape photo adds an interesting dimension. Have fun pushing these sliders to extremes. Then back off on the colors and see what subtle combinations will do. Learn what's possible and how to use it to help fulfill your creative vision.

Toning black-and-white photos

The most common use of Lightroom's Split Toning panel is to tone black-and-white photos. Figure 7-9 shows a toned black-and-white image of an artist workshop at Snow Farm in the New England Hills. The Split Toning panel beside it shows the values used. Notice the same values are used for the shadow and highlight colors. These colors result in a reddish tone that is similar to an old fashioned sepia print.

Another option when toning black-and-white photos is to tone only the highlights or shadows. The two effects look different and are subtler than toning both highlights and shadows with the same values. Try working with highlights and shadows individually and in unison to find the colors that work best for your black-and-white toning. Also experiment with different hues. A blue tone can look really great on an evening or nighttime photo.

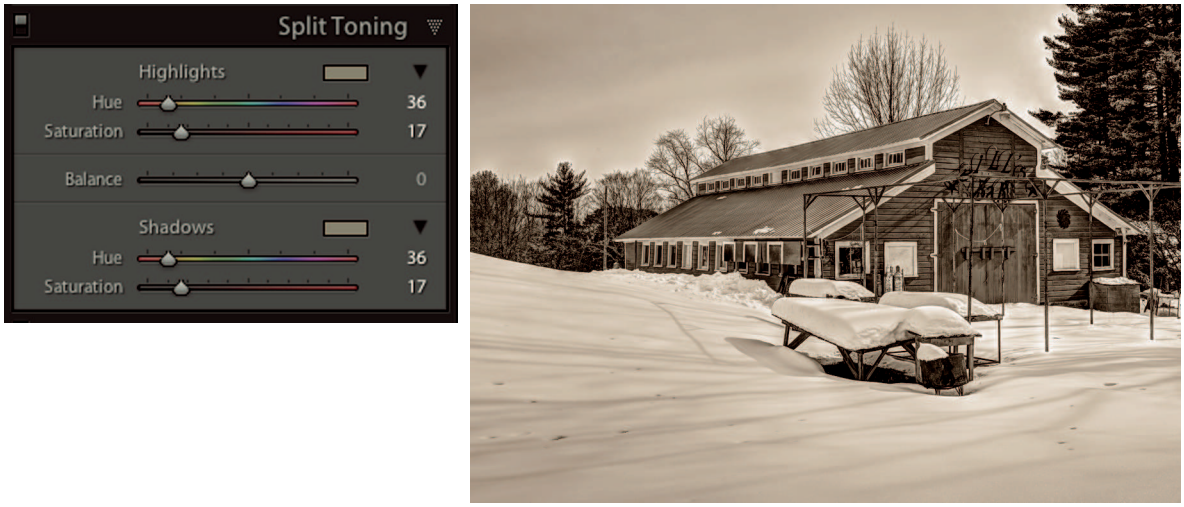


FIGURE 7-9

The Split Toning Highlights and Shadows values are the same in this black-and-white photo, giving it a nice brown tone. Decreasing the Saturation value to 0 for either the highlights or shadows yields subtle variations.

Using Develop Presets to Apply Editing Formulas

As you explore the Develop module, you'll find that you gravitate toward specific adjustments and their effects. Eventually, you'll find processing formulas that create the look you like in your photos. When that happens, it's a good idea to record these formulas as Develop presets so you can use them on other photos.

Understanding Develop presets

A Develop preset is a recording of Develop panel settings. When you select a preset, the recorded settings are applied to the selected image. Lightroom includes a large number of Develop presets in the Presets panel located on the left side of the Develop module. These presets are organized in folders. Figure 7-10 shows a section of the Presets panel. In the figure, the Lightroom Color Presets folder is expanded and I'm hovering the pointer over the Cold Tone preset. Notice that the Navigator panel displays a preview of how the photo would look like if I click the preset.

You can learn quite a bit about the Develop module by deconstructing Lightroom's Develop presets. Simply select an unedited photo and choose a preset. Then look at each of the adjustment panels on the right to see what sliders were affected. Learning what changes are applied to create a specific look is a great way to understand how the results are created. Just

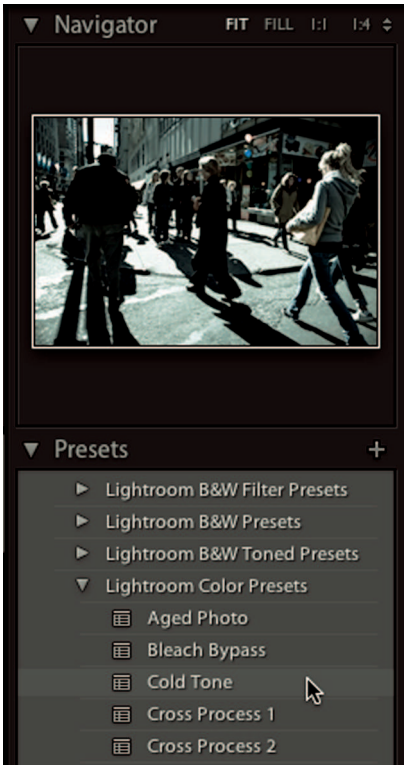


FIGURE 7-10

Lightroom comes with several sets of Develop presets. Hover the pointer over a preset to preview it in the Navigator panel.

be sure to reset your photo after each trial preset. Some presets combine with previously added presets and the combinations won't give you a true look at what the presets do individually.

Resist the urge to collect every Lightroom Develop preset you run across online. I know photographers who have hundreds of other photographer's presets. They have so many they don't know what each one does. Processing for these photographers is like being in Las Vegas. They keep clicking presets hoping to get lucky. When they do get lucky, their photo looks the same as everyone using the same preset.

Creating custom presets

As you find editing formulas you like, it's a good idea to store them as Develop presets. For example, I like the brown tone of the barn in Figure 7-9. Because I plan to use this brown tone on other photos, it would behoove me to save it as custom Develop preset. To do so, I select the barn

photo in the Develop module and click the Create New Preset button (the + symbol) at the top-right of the Presets panel. The New Develop Preset dialog box is shown in Figure 7-11.

✳ TIP

You can apply a Develop preset to all the selected photos during the import process (see Chapter 3).

The New Develop Preset dialog box enables me to name my preset and choose which processing steps to record. I named it "Browntone" and selected Check None to clear all fields. The preset I'm creating needs to do only two things: Change the photo to black-and-white and add the same split toning formula I used for the barn photo in Figure 7-9. I select Auto Black & White Mix because I want Lightroom to do its best job converting colors to gray tones. I didn't

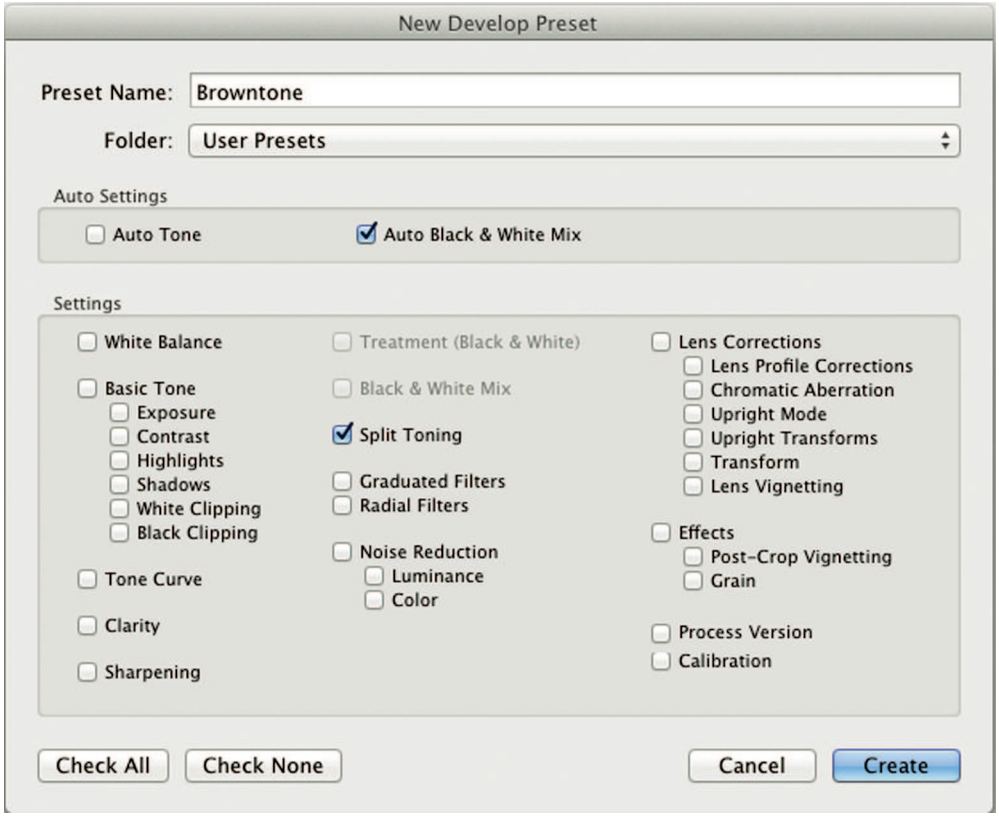


FIGURE 7-11

Use the New Develop Preset dialog box to record your favorite editing formulas. I created a preset that changes photos to black-and-white with an automatic adjustment and then adds Split Toning.

select Black & White Mix because I made custom adjustments in the B&W panel for the barn photo that aren't appropriate for every photo.

Custom presets are saved in the User Presets folder by default. You can use the Folder menu in the New Develop Preset dialog box to create other folders if you have similar presets that need to be organized.

✳ TIP

Use Lightroom's default Develop presets as a starting point for creating your own presets by customizing the settings and saving them as your own presets.

When you begin creating your own presets, it's common to tweak the preset after using it a few times. For example, I might find that every time I use my Browntone preset I end up decreasing the Split Toning Highlight and Shadows Saturation values. To update a preset, follow these steps:

1. Change the settings to what you want them to be.
2. Right-click the preset and choose Update with Current Settings from the contextual menu.
3. In the Update Develop Preset dialog box, modify any settings if necessary and click Update.

Create options by saving more than one preset for a treatment. For example, create three slightly different brown-tone presets. If you find you never use one, select it and click the Delete Selected Preset button (the – symbol) at the top of the panel.

Exporting and importing Develop presets

If you have lots of custom Develop presets on your desktop computer, you can share them with your laptop computer — or any other computer. You will need to export the presets from the Desktop and import them to the laptop. Follow these steps to export and import the presets.

1. Right-click the preset and choose Export in the contextual menu.
2. In the Export Preset dialog box, choose a folder.
3. Export any presets you want to copy to the folder.
4. Copy the folder to a USB flash drive.
5. Plug the flash drive into the laptop and open Lightroom.
6. On the laptop, in the Presets panel, right-click the User Presets folder and click Import.
7. When the Import Preset dialog box opens, navigate to the folder you copied to the USB drive in Step 4. Select the presets you want and click the Import button to add them to the User Presets folder on the laptop.

✳ NOTE

Lightroom's license allows you to install the program on two of your computers.

✳

CHAPTER 8

Mastering Lightroom's Develop Tools

The Develop module's tool strip is located between the Histogram and Basic panels. Although it occupies a small piece of screen real estate, its six powerful tools pack a mighty punch. When you know how to use these tools, you will have a huge amount of creative control over your image-editing process.

The Importance of Cropping

Cropping is one of the most important decisions you make as an image creator. Some photographers try to compose their images perfectly in the camera. This is a concept I strongly endorse. However, I also believe it's important to reevaluate cropping during postproduction to see what other options are available.

Although I was into art and photography in a big way, I majored in philosophy in college. One of the interesting concepts I learned about is called Occam's Razor created by William of Occam in the early 19th century. The basic principle of Occam's Razor is that the simplest solution is often the best solution. The metaphorical razor is used to slice away pieces of a theory or concept until further slicing fundamentally changes the concept.

Cropping a photo is a similar process to applying Occam's Razor to a philosophical theory. If an image element doesn't add to the complete image, it should be cropped. Sometimes I slice off large pieces of the photo because I have a clear idea of what I want. Other times I shave off small pieces to remove distractions from the edge of the frame. I go back and forth in the

History panel to compare subtle differences between crops. I continue until I can't crop any more without hurting the image. Then I know I'm done.

✳ TIP

Be willing to crop out that thing you love. Sometimes I have an image element that I'm in love with. Maybe I like the play of light on an object or I just like its texture. This kind of bias can hurt my final composition. The only way to know if the thing really helps or hurts is to see what the photo looks like with it cropped out. I'm often surprised at the results I get when I'm willing to let go.

Figure 8-1 shows the original frame of the water photo that opened this chapter. The flowing water was interesting, so I framed the image wide to get the most of it. But when I was processing the photo, I realized there was too much going on that was distracting from the interesting parts. Removing the distractions by cropping them out allowed me to share this special moment with the viewer.

FIGURE 8-1

This is the full frame of the opening photo. It's interesting, but it's hard to focus on a main subject. By cropping, I'm able to find the strongest image in the frame.

Understanding the Crop Overlay tool

Figure 8-2 shows the Crop Overlay tool (shortcut: R) in action. When you select the tool, the Crop & Straighten panel drops below the tool strip and an overlay opens on top of the image. The overlay indicates the area being cropped. It has handles on the corners, sides, top, and bottom. Drag one of the handles to adjust the crop.

✳ TIP

An alternate way to crop a photo is to choose the Crop Frame tool from the upper-left of the Crop & Straighten panel. This tool enables you to draw the desired crop on top of the photo.

Drag the photo if you need to reposition it. When cropping is complete, click the Done button in the toolbar or click Close in the lower-right of the Crop Overlay panel. You can also click on a tool to close its panel, or press its keyboard shortcut a second time. Any of these methods can be used to close all six tools in the tool strip. When you want to reevaluate cropping simply open the tool again. The overlay will be right where you left it.

Make adjustments or click Reset at the bottom right of the Crop Overlay panel to clear the cropping and return the image to its original crop.

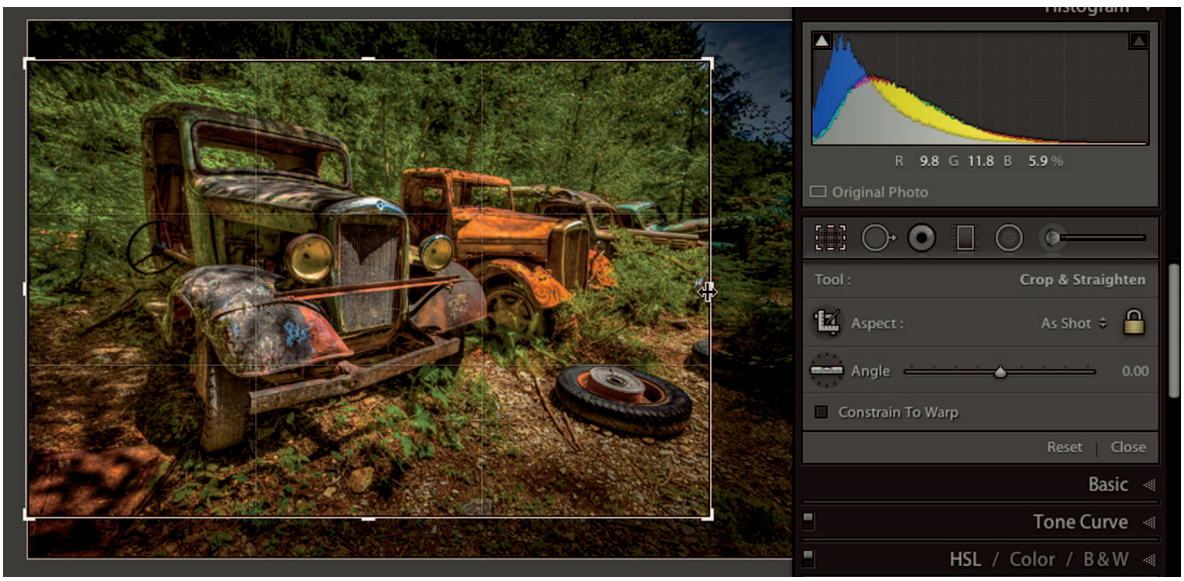


FIGURE 8-2

When you open the Crop Overlay tool, the Crop & Straighten panel opens and the cropping overlay opens on the photo. Drag the overlay's handles to adjust cropping.

✳ CAUTION

When clearing a tool's settings, be sure to click the Reset button in the tool's panel rather than the big Reset button below all panels. The big Reset button is the mother of all resets and clears *all* Develop settings.

Working with aspect ratio

The most important section of the Crop & Straighten panel is the padlock icon and the Aspect menu to its left. When the lock is locked, the aspect ratio is locked to the dimensions in the menu. The aspect ratio is the relationship of the height to the width of the image expressed as a ratio. For example, an 8 × 10-inch print has a 4 × 5 aspect ratio because 8 divided by 2 equals 4, and 10 divided by 2 equals 5. A 16 × 20-inch print also has a 4 × 5 aspect ratio. My Canon cameras all shoot a wider 4 × 6 aspect ratio. If I enlarge full-frame photos, I get 8 × 12 inches and 16 × 24 inches instead of 8 × 10 inches and 16 × 20 inches.

Keeping the aspect ratio locked is important when you need a specific aspect ratio. Click the padlock to lock or unlock the aspect ratio. You can also use the A key to toggle the lock off and on.

✳ TIP

If you're cropping a horizontal photo and need a vertical crop, press the X key to toggle the Crop Overlay to a vertical orientation. Press the X key again to toggle back to horizontal.

The Aspect menu shows Original when a photo is uncropped. If cropping is applied with the original aspect ratio locked, the menu displays As Shot. When the aspect ratio is locked, you can't crop one side without affecting another. For example, when you drag a side crop line inward, the top and bottom crop lines move inward to maintain the aspect ratio.

If you aren't concerned with a particular aspect ratio and you want to crop only the right side, unlock the aspect ratio. When I'm preparing photos for a web gallery, I don't need to be concerned about aspect ratio. I can crop every photo differently, and they'll all display just fine. But when I'm preparing photos for printing to specific sizes at a lab, I need to be sure to use the appropriate aspect ratios for each print size.

The Aspect pop-up menu, shown in Figure 8-3, opens by clicking the flyout menu to the left of the padlock. Similar aspect ratios are grouped together on the list. The second group lists common print aspect ratios. Be aware that these ratios are not final print sizes. That's why 4 × 5 and 8 × 10 are on the same line. Final sizing is done when exporting files, which is covered in Chapter 16, and printing, which is covered in Chapter 17. The third section of the Aspect pop-up menu lists common display aspect ratios to use when cropping for video display.

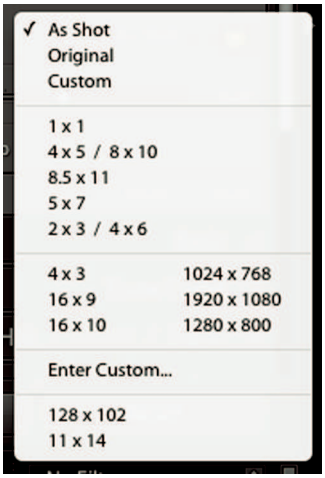


FIGURE 8-3

The Aspect pop-up menu lists a range of common aspect ratios. Choose the aspect ratio you want to use and make sure the padlock is locked. Choose Enter Custom to create other sizes, which are then listed at the bottom of the panel for future recall.

If you need an aspect ratio that isn't on the menu, choose Enter Custom. The Enter Custom Aspect Ratio dialog box opens, allowing you to create an aspect ratio with the desired dimensions. These custom aspect ratios are then listed at the bottom of the Aspect menu. You can see two of mine in Figure 8-3. The menu will list as many as five of the most recent custom aspect ratios.

✳ TIP

The default crop overlay is divided into thirds to aid with composition. You can try other overlays by choosing Tools ➪ Crop Guide Overlay. You can try Triangle or even Golden Spiral. Press the O key to cycle through these overlay styles without using the menu.

Straightening photos

When you hover the pointer outside the crop overlay, the normal arrow pointer changes to a curved pointer. Drag downward to rotate clockwise. Drag upward to rotate counterclockwise. As you rotate, a grid appears on the overlay to help with alignment. An alternate straightening method is to use the Straighten tool, which looks like a small level. It's great for straightening a crooked line, such as a horizon. Click one end of the crooked line and drag to the other end. When you let go of the mouse button, the Straighten tool automatically levels the line. It also works on vertical lines like the side of a building.

✳ NOTE

The Constrain to Warp option in the Crop & Straighten panel is used with the Lens Corrections panel, which is described in Chapter 9.

Retouching with the Spot Removal Tool

For complex retouching, there's nothing like Photoshop. You can accomplish just about anything with its array of powerful retouching tools (described in Chapter 14). The problem with using Photoshop at an early stage of the postproduction workflow, especially when working with RAW files, is that opening a file in Photoshop limits much of Lightroom's flexibility. That's why it's best to solve retouching problems in Lightroom whenever possible.

The second tool in the tool strip is the Spot Removal tool (shortcut: Q), which is a brush-based tool. It's used to "paint" locally on spots you want to affect. The Spot Removal tool was originally created to remove spots caused by sensor dust, which is comprised of dark specks in the photo produced by dust on the camera sensor.

Before Lightroom 5, the Spot Removal tool only painted circles. Circles work fine for sensor dust, but it left users wanting the ability to remove other shapes. I've had countless students try to remove electrical lines from the sky one circle at a time, for example. We could always see remnants of the work, called *retouching tracks*. With the release of Lightroom 5, new power was added to the Spot Removal tool: Now you can paint lines and shapes to accomplish retouching tasks that were impossible in Lightroom before version 5.

Understanding the Spot Removal tool

Figure 8-4 shows the Spot Removal panel. It has the following controls:

- **Size:** This controls the size of the brush.
- **Opacity:** This is used to control the density of the spot removal. When removing dust spots, Opacity should be set to its maximum of 100 because lower values leave a ghost of the spot.
- **Feather:** The Feather slider was added to Lightroom 5.2. It's used to control edge hardness at the outside of the brushstroke. The default value of 0 provides a soft edge that blends more easily with surrounding detail. Higher values create a harder edge, which is useful when working near details you don't want to affect with the brush.

Choose the most appropriate settings in the Spot Removal panel before using the tool. If the settings need to be changed, you can modify them after using the tool.

FIGURE 8-4

The Spot Removal panel is used to set up the Spot Removal tool. Size is used to change the size of the brush. Keep the Opacity value at 100 when removing dust spots.

✳ TIP

A fast way to adjust the size of a brush in Lightroom is to use the mouse's scroll wheel. Scroll upward to increase size and scroll downward to decrease brush size.

Another feature added to the Spot Removal tool in Lightroom 5 is called Visualize Spots. It's found in the toolbar below the image. The first image in Figure 8-5 shows a section of a photo with some nasty sensor dust. This is the sort of thing that happens when changing lenses in the field. Some of the dust is easy to see. The second image in Figure 8-5 shows the photo with Visualize Spots selected. It reduces the photo to black and white areas. Use the Threshold slider

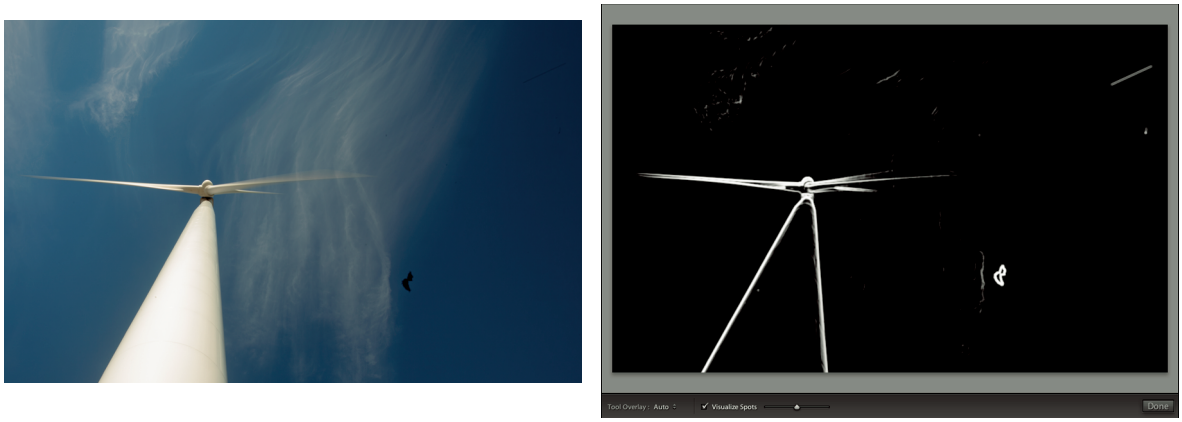


FIGURE 8-5

Choosing Visualize Spots from the toolbar when using the Spot Removal tool makes it easier to see spots, as the view at right shows. The spot on the wind turbine tower isn't obvious in the view at left. I might have missed it when spotting.

to set the contrast of the preview and eliminate subtle details. Higher values reduce the image to its strongest lines making it easier to see imperfections, like the small dot on the wind turbine tower, which isn't obvious in the first image.

✳ TIP

Don't get confused with the two similar terms being used. The *tool strip* is located below the Histogram. It contains the tools. The *toolbar* is below the main image. When a tool is selected, additional options for that tool are shown in the toolbar.

FIGURE 8-6

When you click on a spot with the Spot Removal tool, it automatically picks a sample to fill the area. The arrow between the lines points from the sample to the spotted area. Drag the sample to a different location if necessary. The other circles indicate previously spotted areas.

Removing dust spots

Using the Spot Removal tool is an intuitive process: You just click a spot to remove and the Spot Removal tool does the rest. Follow these steps to remove dust spots:

1. Hover the pointer over the spot and use the mouse's scroll wheel to increase the size of the brush so that it's a little bigger than the dust spot you want to remove.
2. Click the spot to have Lightroom automatically find a sample to replace the spot. Figure 8-6 shows a section of the wind turbine photo as it's being spotted. You can see where I clicked on the large piece of dust and Lightroom picked a sample near the bottom of the frame. The line with the arrow points from the sampled area to the area being replaced by it.
3. If the sample doesn't work, click and drag the sample to a more appropriate area, as I'm doing in Figure 8-6. You can also press the forward slash key (/) to have Lightroom automatically try another sample area.
4. Click the Done button in the toolbar or Close in the Spot Removal panel.

The small circles in Figure 8-6 indicate previous spotting. Clicking one of these spots makes it the active selection and displays the sample and spot circles associated with it. To delete spotting at one of these locations, select the circle and press the Delete or Backspace key.

✳ TIP

When there's lots of spotting on a photo, the circles make it harder to see unspotted areas. Use the Tool Overlay menu in the toolbar to change the setting from Always to Auto. Then you can hide the circles by hovering away from the image area. The other five tool-strip tools also have this feature.

✳ KEEP IT SIMPLE

Because sensor dust is almost always in the same place on each frame, you can remove it from one photo and then synchronize Spot Removal with other photos that have the same dust. Be sure to check the synchronized photos to make sure the synchronized sampled areas are appropriate.

Clone versus Heal

The most important option in the Spot Removal panel is the choice between Clone and Heal. With Clone, the selected area is filled with a duplicate of the sampled area. If the sample doesn't match the spot area exactly, subtle differences in tone and color are obvious in the spotted area. Heal uses an intelligent algorithm that blends the color and tone of the sampled

area to match the spotted area. The only thing it can't blend is the texture of the sampled area. If I'm using the Spot Removal tool to remove a blemish from a face, I can choose any part of the face as a sample provided it has a similar texture and the tone and color are blended to match the spotted area.

✳ TIP

You can switch between Clone and Heal after painting the spot.

Heal is usually the best choice when removing dust spots because it simplifies the process. However, the intelligence that enables it to blend tone and color causes problems when you sample close to a strong edge. It gets confused over which color to blend and results in a smear along the edge. When that happens, you'll need to switch to the Clone option and be careful to choose a sample that matches exactly.

Retouching larger objects

The first frame in Figure 8-7 shows a photo of a rural windmill. I like it, but my friend is in the way. Not a problem. I use the Spot Removal tool to paint over him, as shown in the second frame of Figure 8-7. When you paint a stroke, instead of clicking to create a circle, the Spot Removal tool marks the stroke with a dot, which is called a *pin*. Think of it as a pushpin that marks spot removal locations. I drag the pin, as shown in the third frame of Figure 8-7, until

FIGURE 8-7

To retouch a large area like the photographer in my way, I paint over him with the Spot Removal tool. Then I drag the automatic sample shape to the area that best covers him.

FIGURE 8-8

The image at left shows the Red Eye panel when it first opens with instructions on how to use the tool. Sliders are displayed after you use the tool to help you control the automatic adjustment, as the right image shows.

I find an appropriate sample that convincingly covers my friend. This is the same technique used to remove an electrical line from the sky.

Removing Red Eye

Red eye happens when the camera's flash is near the same axis as the lens. When the strobe fires, the light goes to the subject's eyes, reflects off the retina, and bounces back to the lens. Red eye used to be difficult to remove during postproduction. Now it's easily removed with a couple of clicks using the Red Eye Correction tool.

The first image in Figure 8-8 shows the Red Eye Correction panel when you first open it. The instructions tell you exactly what to do: Drag from the center of the eye until the red is selected. The Red Eye Correction tool automatically replaces the red in the selected area with a dark tone. After you create a selection, the panel changes to the second image in Figure 8-8. Use the Pupil Size slider if you need to increase the size of the corrected area. If the pupil isn't dark enough, decrease the value of the Darken slider to adjust it. Then do the same thing on the other eye.

Adding Dimension with the Filter Tools

My favorite Develop tools are the two Filter tools: Graduated Filter and Radial Filter. They enable you to add linear and circular gradient filters to a photo to locally control tone, color, and more. I use these tools regularly and count on them to create the look I like on my images.

Using the Graduated Filter tool

Figure 8-9 shows the Graduated Filter panel (shortcut: M). These controls are used individually or together to create gradients with a range of qualities. The Graduated Filter controls are divided into four sections.

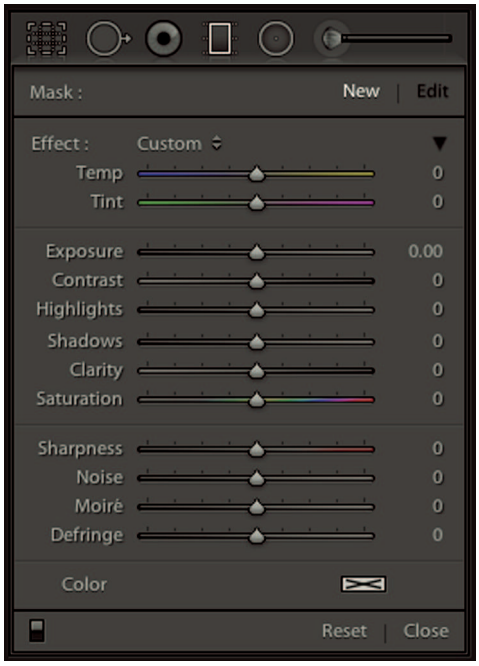


FIGURE 8-9

Use the sliders in the Graduated Filter panel to create the gradient qualities you want.

- **White Balance:** The first section at the top is for changing white balance. These sliders work the same as they do in the Basic panel, but they affect only the selected gradient.
- **Tone and saturation:** The second section has many of the same slider controls as the Basic panel, enabling you to adjust the tone and saturation of the gradient.
- **Details:** The third section contains controls that affect details. Sharpness, noise, and fringing (also called *chromatic aberration*) are described in Chapter 9. Moiré is a visual artifact that sometimes appears in patterns when they are photographed. It appears most commonly in fabrics.
- **Color:** The final section at the bottom contains a color swatch. Like all color swatches in Lightroom, clicking it opens a color picker you can use to select a specific color.

One of the most common uses of the Graduated Filter tool is to add a gradient to the sky to add dimension by darkening and saturating. The effect of this type of gradient is heaviest at the top of the photo and fades as it moves downward. It's similar to using a graduated neutral density filter on the camera. This is a special filter placed in front of the lens to add a gradient to the sky when you shoot. When film was the only option, graduated neutral density filters were popular. Now, if you're shooting RAW, which has lots of bandwidth in the highlights, it's easier to add gradients during postproduction because you have more control over qualities like tone and color.

To create a gradient for the sky follow these steps:

1. Select the Graduated Filter tool (shortcut: M) to open its panel.
2. Use the sliders to create the effect you want. You can change settings after you create the gradient, so you don't need to be exact.
3. Click at the top of the photo and drag downward. If you have trouble keeping the gradient straight, hold down the Shift key while you drag to force the gradient to be straight. The Shift key also works when creating a lateral gradient by dragging inward from a side.
4. Use the Graduated Filter panel sliders to fine-tune the gradient.
5. Repeat the process for any other gradients and then click Done.

Figure 8-10 shows a photo of the Astoria Bridge that crosses the Columbia River, connecting Oregon and Washington. I shot this photo just before sunset. I like the orange color lower in the sky, but it fades as it moves toward the top of the frame. I used the Graduated Filter tool to add a gradient to the sky to enhance the color and darken it. The tone adjustments in the gradient are –45 for Exposure to darken all tones and –30 for Highlights to add a little extra darkening to the highlights in the sky. I use the color picker to add an orange that's similar to the color closer to the horizon. This gives the sky the uniform warm color I'm looking for.

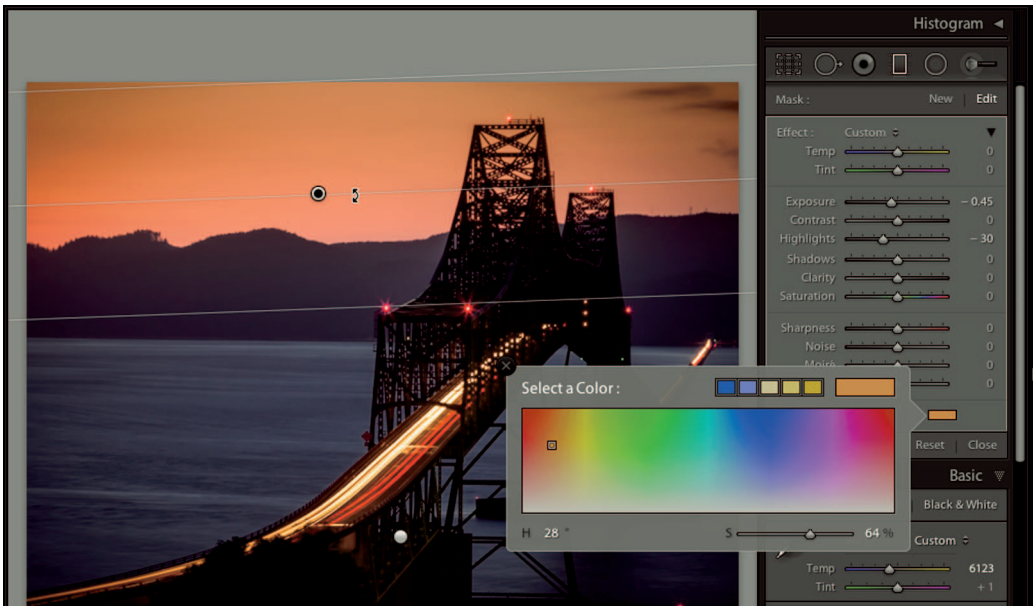


FIGURE 8-10

I used the Graduated Filter tool to darken the sky and add more orange to it. I dragged the middle line to rotate the gradient to fit the sky. The light dot at the bottom is a pin indicating an inactive gradient.

✳ TIP

To return the Color Picker to its default of no color, drag the Saturation slider at the bottom to 0. An X will appear over the white swatch indicating no color is selected.

When you draw a gradient, an overlay with three lines appears on the image, as shown in Figure 8-10. The line at the top, which is where I began drawing, has the full amount of the Graduated Filter's panel adjustments. These adjustments fade as they approach the leading line at the bottom of the gradient where I stopped drawing. Dragging the top line downward extends the full amount of the adjustments and compresses the gradient. Dragging the bottom line extends the length of the gradient, compressing or extending it depending on which way I drag. The middle line is used to adjust the rotation of the gradient. Click and drag up or down to rotate.

To create a second gradient simply drag inward from another edge of the image. When you add a second gradient, the first Graduated Filter overlay disappears and is represented by a gray pin, meaning it's no longer active. You can see one near the bottom of the photo in Figure 8-10 where I added a gradient to darken the shadows in the foreground. You can revisit a Graduated Filter adjustment at any time by opening the tool and selecting the pin of the gradient you want to adjust. To remove a gradient, select it to make it active and press the Delete or Backspace key.

✳ CAUTION

The controls in the Graduated Filter panel are sticky. When you open the panel, settings from your last session are still in place. Be sure to check every slider and neutralize effects you don't want by double-clicking those sliders.

There are numerous ways to use gradients. You can use them to darken a corner that's too light by dragging inward from the corner at an angle. You can also put a gradient on top of a gradient. For example with the image in Figure 8-10, I could add one gradient for the tone of the sky and a second gradient for the color. That way, I can grab the upper line of the color gradient's overlay and drag it closer to the lower line to fill the sky with the color instead of having it graduate at the same rate as the tonal gradient.

✳ TIP

The intended way to use the Graduated Filter tool is to draw inward from the edge of the photo. If you begin drawing away from the edge, the filter snaps to the closest edge.

FIGURE 8-11

The Radial Filter is used to create radial gradients. Its panel is the same as the Graduated Filter panel with the exception of the Feather area at the bottom.

Using the Radial Filter tool

The Radial Gradient Filter tool was added in Lightroom 5. It's used to create radial gradients and works similarly to the Graduated Filter tool. In fact the panels for the two tools are almost identical. In Figure 8-11, I'm creating a radial gradient around a glass of wine with the qualities shown in the Radial Filter panel. My intention is to darken and reduce the sharpness of everything except for the space around the glass. Because a viewer's attention is attracted to elements that are lightest and sharpest, the radial gradient helps keep the viewer's attention on the main subject.

✳ NOTE

Lightroom has a feature called Post-Crop Vignetting described in Chapter 9. It's useful for quick vignettes, but doesn't come close to what's possible with the Radial Filter tool.

Follow these steps to create a radial gradient:

1. Select the Radial Filter tool (shortcut: Shift+M) to open its panel.

2. Use the sliders to create the effect you want. You can change settings after you create the gradient, so you don't need to be exact.
3. Drag from the center of the area you want to emphasize. Draw an ellipse to create a shape that works for the subject.
4. After you draw the ellipse, handles appear around the edges. Drag a handle to change the size and shape of the ellipse. Click inside the ellipse to drag and reposition it. To rotate the ellipse, click outside it and drag up or down.
5. Use the Feather slider at the bottom of the panel to adjust the transition of the effects along the edge of the ellipse. A low value produces a more obvious transition. Higher values produce softer transitions.
6. Use the Radial Filter panel's sliders to fine-tune the gradient with the qualities you want.

One of the cool things about the Radial Filter tool is that you can combine more than one filter to emphasize different parts of a photo. In Figure 8-12, I'm adding a gradient around one of the ships in the upper-left. To do this, I draw the ellipse around the ship and choose Invert Mask at the bottom of the Radial Filter panel. This inverts the effect, producing it inside the ellipse instead of outside. Then I adjust the sliders to slightly lighten the exposure. Both gradients on this photo are marked with pins. The currently selected pin has a black dot.

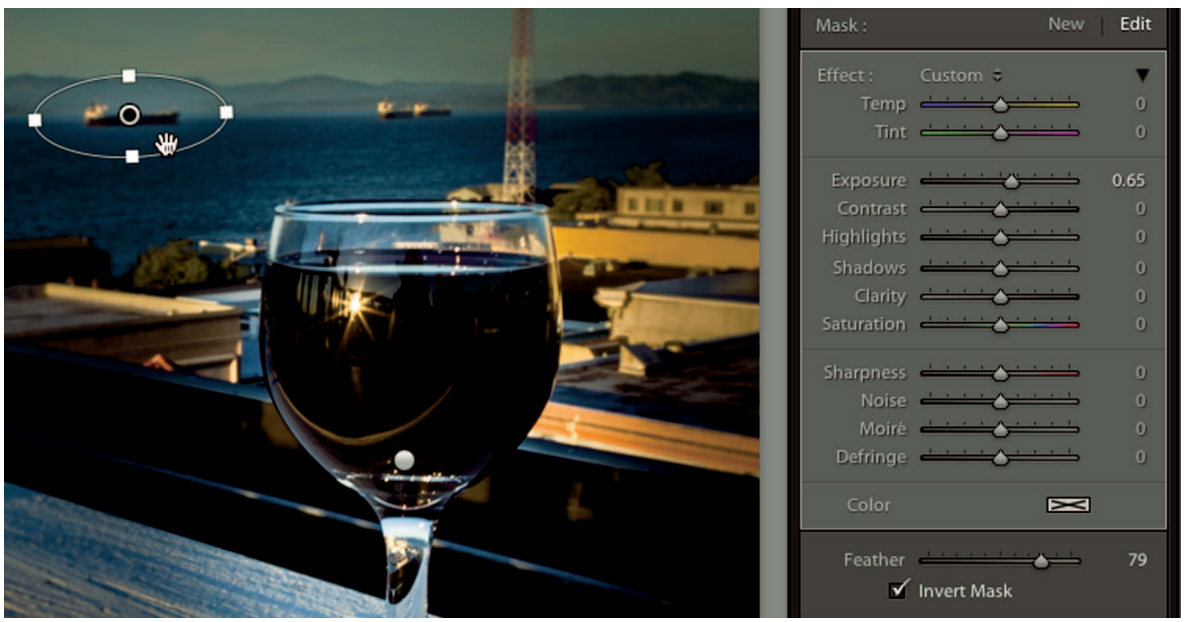


FIGURE 8-12

I add a second radial gradient to emphasize a ship in the background. It's necessary to choose Invert Mask on this gradient to contain the effect inside the gradient.

Use the Graduated Filter and Radial Filter tools to localize adjustments and draw attention to the things that count. A subtle linear gradient can add an extra dimension to a photo and emphasize the color of the sky. More complex groups of radial gradients can be used to add depth and drama. Think about how you can use gradients to shape your special images to tell their stories the way you want them told.

Using the Adjustment Brush Tool

The Adjustment Brush Tool is last in the tool strip and is the most powerful of the six tools. It combines the adjustment sliders of the Filter tools with a brush applicator. This enables you to paint tonal, color, and edge qualities anywhere in the photo.

FIGURE 8-13

The upper section of the Adjustment Brush panel has the same adjustment sliders as the Filter tools. The Brush sliders in the lower section control the brush settings used to apply the adjustment.

Figure 8-13 shows the Adjustment Brush panel. The upper Effect section has the same slider sets as the Graduated Filter and Radial Filter tools. The lower Brush section is used to manage the brush. Settings in the Effect section can be adjusted after painting. The Brush settings in the lower area must be adjusted before painting. For example, I can change the Exposure value on a brush stroke after painting it to modify its effect. But I can't change the size of a stroke after it's painted.

Controlling the brush

The settings in the Brush section give you lots of control over brush qualities. Take a moment to review what each of these controls is used for:

- **Brush presets:** The Adjustment Brush panel comes with two brush presets, labeled A and B. When you click one, the settings below are moved to saved positions. I rarely find these to be exactly what I need and have to admit that I never use them.
- **Erase:** If you paint something you didn't mean to paint, use Erase to remove it. The Erase brush shows a – on the pointer and has its own brush settings. You can also access Erase by holding down the Option or Alt key. Release the Option or Alt key to return to paining.
- **Size:** This controls the size of the circular brush. You can also use your mouse's scroll wheel to change size. Using the mouse enables you to hover the pointer over the area you're painting while changing size.
- **Feather:** This controls the edge of the brush stroke. A low value produces harder edges. A higher value produces a softer edge transition. Strokes from a hard brush are easily noticed. I prefer a soft brush most of the time because I don't want viewers to see my strokes. The only time I use a low Feather value is when I need to paint something that has a hard edge.
- **Flow:** This controls the rate of application by the brush. A value of 100 delivers 100 percent of the adjustments to the brush stroke. A Flow value of 50 delivers 50 percent of the specified values to the brush stroke.
- **Auto Mask:** This is used to confine brush strokes to similar areas. It's quite handy when you need to paint something without affecting nearby areas.
- **Density:** This controls the amount of transparency of the stroke. A value of 100 equals the full amount of the adjustments. Lower values make strokes more transparent.

Flow and Density seem similar. They both limit the amount of adjustment, but they do it in different ways. The main difference is that overlapping strokes with lower Flow values increases the adjustment where the strokes overlap. Overlapping strokes with lower Density values doesn't increase the effect. I always leave Density set to 100 because it's easy to control the overall amount of an effect by adjusting sliders. I use lower Flow values when I want to build

FIGURE 8-14

The photo at right was burned and dodged using the Adjustment Brush tool. The irises of the dog's eyes were lightened and the pupils were darkened to add dimension. Sections of his nose and snout were also selectively lightened and darkened to bring tonal balance to his face. The photo at left has just basic tone and color adjustments applied.

up an effect in certain areas by applying additional, overlapping strokes. This is common when darkening a corner; I add extra strokes at the outer edges of the corner to darken it more.

Burning and dodging with the Adjustment Brush tool

The most common use for the Adjustment Brush tool is to locally darken and lighten select areas of a photo. This is called *burning* and *dodging*. Burning is when something is darkened and dodging is when something is lightened. The intent is to balance tones and guide viewers by emphasizing what you want them to see. The eye tends to notice things that are lighter. If I darken something, I guide the viewer away from it. If I lighten an area, I guide the viewer toward it. Although the terms refer to procedures used in the darkroom, they're also used when referring to localized tone control of digital images.

Figure 8-14 shows two versions of a pet portrait. Although the first photo has had basic tone and color adjustments, it's still hard to see important details in the subject's face. Additionally, the bright background areas on the right are distracting from the main subject.

The second photo in Figure 8-14 shows the result of only a few minutes work with the Adjustment Brush tool. Notice the difference in the eyes. I used one application of the Adjustment Brush to lighten the colored irises of the eyes with a positive Exposure value. Then I used a second application to darken the pupils with a negative Exposure value. This builds contrast in the eye and draws in the viewer. I used additional applications with Exposure to

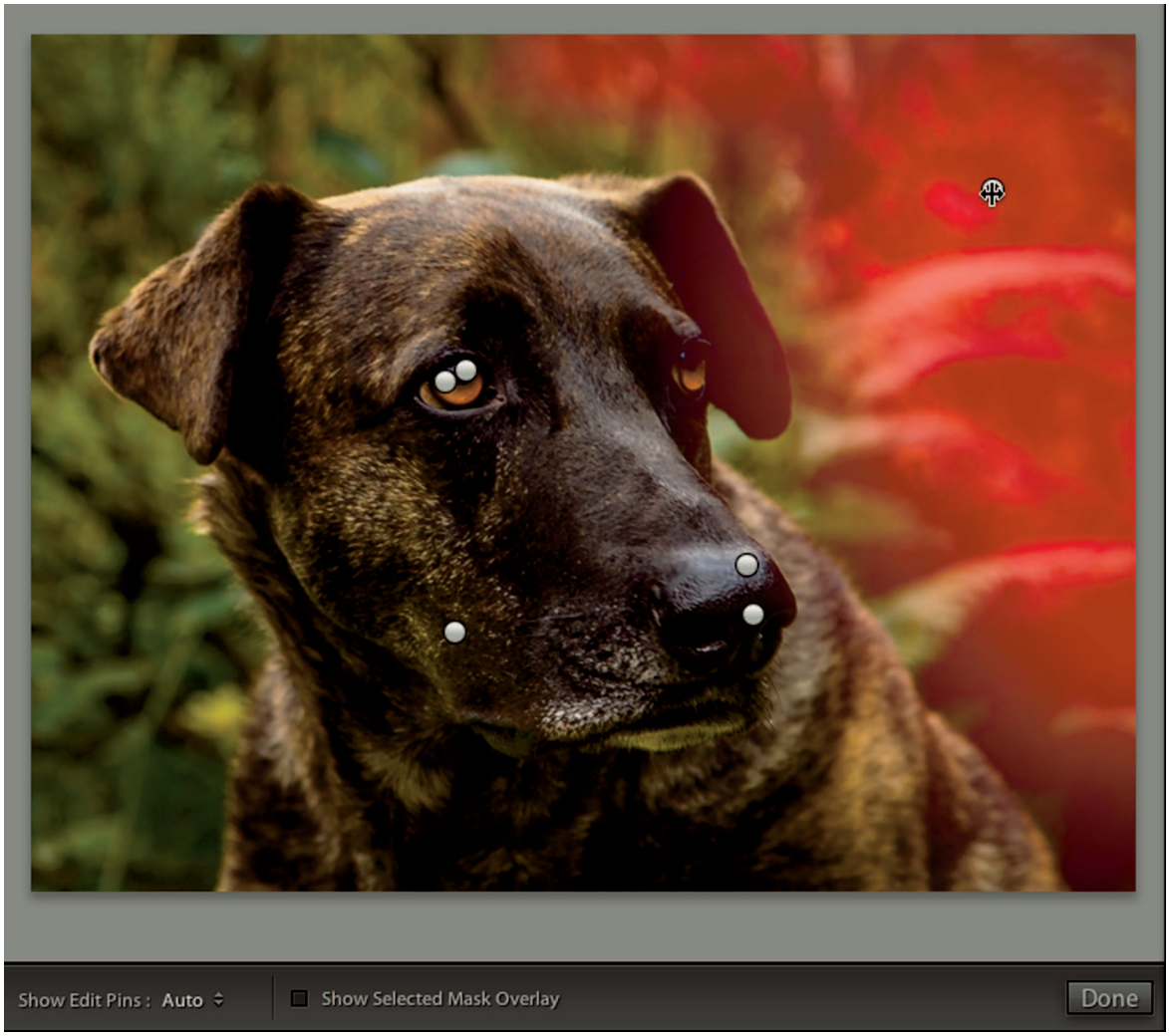


FIGURE 8-15

Pins mark the different areas I lightened and darkened using the Adjustment Brush tool. When I hover the pointer over a pin, a mask appears to indicate the areas I affected by that application of the brush.

lighten dark areas on the side of the dog's muzzle and the front tip of his nose, and to darken the shiny top of his nose. Then I used a large soft brush to darken the background on the right side.

✳ Tip

Right-click a pin to duplicate it, to remove the painting associated with it, or to delete it.

Figure 8-15 shows Adjustment Brush pins on the dog portrait. They mark each of the Adjustment Brush applications. When I hover the pointer over a pin, a red mask appears to indicate exactly where I painted. You can turn on this overlay so you don't have to hover to see it by choosing Show Selected Mask Overlay from the toolbar or pressing O. This is really useful when using the Erase feature to see exactly where you painted. Choose Tools ➪ Adjustment Brush Overlay to change the overlay to a different color, which is useful when working with a red subject.

Burning and dodging are the most common use for the Adjustment Brush tool. Follow these steps to darken and lighten areas of a photo:

1. Adjust basic tone, color, and cropping so that you have a clear idea of what's needed.
2. Select the Adjustment Brush tool. Check all settings in its panel to make sure no unwanted settings are being applied.
3. If you want to darken an area, lower the Exposure value. If you want to lighten, increase the value. You can adjust the value after you paint, so just take a guess.
4. Check the settings in the Brush area. Increase the Density value to 100. Lower the Flow value if you want to build up an effect with additional brush strokes. Choose Size and Feather values appropriate for the area you're painting. When painting the upper-right background in the dog portrait, I used a large, soft brush. When painting detailed areas like the eyes, I used smaller brushes with low Feather values to paint around detailed edges without affecting nearby areas.
5. Apply brush strokes to the area you want to affect. After you see what the effect looks like, modify the Exposure value to dial it in.

When you're ready to work on another area, choose New at the top of the panel. This turns the current pin white indicating it's no longer active. Then follow Steps 3 through 5 to treat a different area.

To return to a previous area to apply more brush strokes or modify a panel setting, click the appropriate pin to make it active and then make any adjustments.

To remove part of a brush stroke, choose Erase from the Brush section of the panel or press the Option or Alt key. Adjust the brush settings and paint to remove. Reduce the Flow setting if you want to lightly erase just part of the painting in an area.

Click Done or Close when you're finished.

✳ CAUTION

When you hover the pointer over a pin, the pointer changes from the round brush to a double-headed arrow. If you drag, Lightroom thinks you want to modify settings in the panel. Dragging to the right increases values and dragging to the left decreases. If you're painting an effect and you notice your pointer change when you cross over a pin, stop painting and move away from the pin. Resume painting after the pointer changes back to the brush. It's also a good idea to make sure you didn't accidentally change a slider value when the pointer changed.

FIGURE 8-16

Smoothing skin with a negative Clarity value is a snap when you use Auto Mask to prevent the brush from affecting areas that aren't similar to the area under the pointer. Here, the brush is clearly spilling over past the edge of the woman's cheek, yet that area is unaffected.

Smoothing skin with Auto Mask

Another common use of the Adjustment Brush tool is to quickly smooth a portrait subject's skin by painting only the skin tones with a minus value on the Clarity slider. The trick to doing this effectively is to paint only skin tones without affecting other nearby details, such as hair or clothing. The Adjustment Brush tool has a feature that helps you control the brush called Auto Mask located in the Brush section of the pop-up menu. When Auto Mask is selected, the Adjustment Brush evaluates the color and tone under the center of the pointer and only affects

similar areas as you paint. Even if the brush spills over to another area, it won't be affected unless it's the same tone and color as the area directly under the center of the pointer.

Figure 8-16 shows me using the Adjustment Brush to paint skin with a Clarity value of –44 using Auto Mask. I have the mask overlay option turned on so you can see my painting. Notice the pointer is spilling over the edge where I'm painting on the woman's jaw line, but paint isn't being applied to the spillover area. That's because the area to the right of her cheek is a different tone and color from the area under the center of the pointer. When I get close to her hair, I need to be more careful because some of those tones are similar to her skin. If hair inadvertently gets painted, I can simply erase it by choosing Erase, which has its own Auto Mask option.

✳ CAUTION

Be sure to turn off Auto Mask when you don't need it. Otherwise you'll get uneven results when painting areas that have lots of variety in tone and color.

The Adjustment Brush tool is the most powerful tool in Lightroom. Its uses are nearly unlimited. It can take a while to get used to it, but after you do, you'll be able to accomplish all sorts of image refinements that previously required a cumbersome trip to Photoshop.

✳

CHAPTER 9

Going Deeper with the Develop Module

Your journey through the Develop module is nearly complete. The panels covered in this chapter enable you to fine-tune important details, such as sharpness, noise, and perspective distortion. One of the coolest Develop module panels is the Camera Calibration panel, which gives you the ability to change how colors in a RAW file are interpreted by Lightroom. The Camera Calibration panel is one of the least understood Develop panels, so it seems like a good place to being this chapter.

Working with Camera Profiles

Camera profiles are presets that record specific color-calibration settings. They are most commonly applied in-camera while shooting. Different camera manufacturers use different terminology for camera profiles. For example, Nikon calls them *picture controls*, Olympus calls them *picture modes*, and Canon calls them *picture styles*. No matter what the profiles are called, they all do the same job: They record specific camera calibration settings that control how individual colors are interpreted. They can also contain contrast and sharpening settings. Here's a list of common Canon picture styles and their definitions from Canon's website:

- **Standard:** Provides crisp, vivid images with increased saturation, contrast, and sharpening.
- **Landscape:** Produces punchier greens and blues with stronger sharpening for crisper-edged mountain, tree, and building outlines.

- **Portrait:** Optimizes skin color tones and saturation. Reduces edge sharpening for smoother skin texture.
- **Neutral:** Has lower contrast and saturation than Standard. It is therefore ideal for images you intend to post-process by selectively adjusting the color, saturation, contrast, and sharpening of individual images.
- **Faithful:** Similar to Neutral but produces images that are colorimetrically almost identical to the actual colors when shot under standard daylight conditions (for example, an average color temperature of 5200° Kelvin.)

The intention behind using a specific camera profile is to customize the in-camera processing for the specific subject matter. If you want more saturated colors, choose the landscape profile.

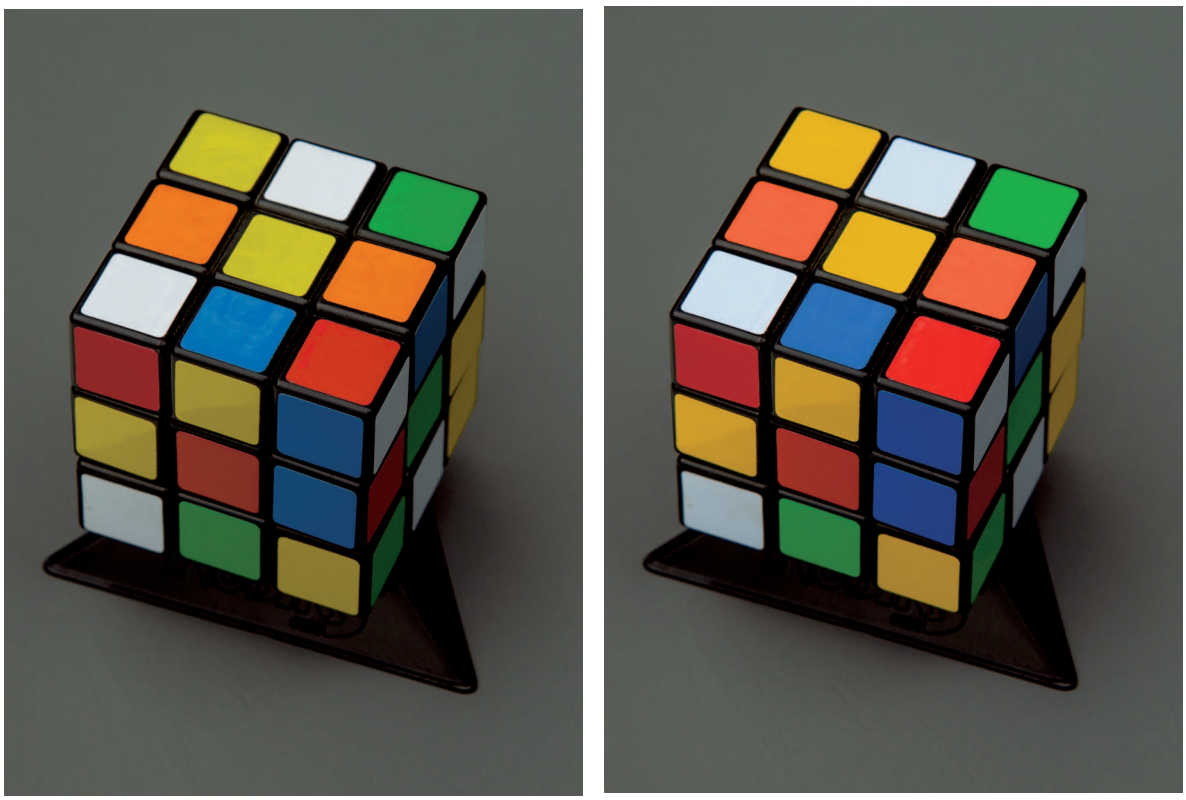


FIGURE 9-1

The photo at left has a neutral profile applied. The photo at right has a landscape profile that increases saturation and contrast. Notice that the same color appears different in each version, yet the gray background remains neutral in color.

However, the Landscape profile affects more than color saturation. It also affects how individual colors are perceived. The first photo of the Rubik's Cube in Figure 9-1 has a landscape profile. The second image has a neutral profile. The colors on the cube look different in the two photos. The yellows look greener in the photo with the neutral profile, and the oranges look redder in the photo with the saturated profile. But the neutral gray background is the same. Color adjustments created by camera profiles differ from white balance adjustments. White balance is used to adjust overall color balance. Camera profiles are used to adjust how each color is processed.

So here's the weird thing about camera profiles and Lightroom: When you're shooting RAW, it doesn't matter which profile you choose in-camera because Lightroom replaces it with a default camera profile called Adobe Standard. You can test this by shooting a series of photos of the same scene using each of your camera's profiles. Import the photos in Lightroom. Then select the photos one at a time and go to the Develop module's Calibration panel, the bottom panel on the right. Open the Profile menu shown in Figure 9-2 and you'll see each photo has the Adobe Standard profile. All your photos will look the same if the only camera setting you changed was the profile.

This can be confusing when looking at the LCD display on the back of your camera while shooting the photos. That's because the camera's display uses an embedded JPEG preview

FIGURE 9-2

The Camera Calibration panel's Profile menu lists all profiles applicable to the camera used. The profiles that begin with "Camera" are Adobe profiles that emulate the manufacturer's profiles. Here, the profiles that begin with "Canon" are custom profiles I created.

created from the RAW file for display on the back of the camera. The in-camera profile instructions are applied to this preview, but not to the RAW file imported into Lightroom.

✳ CAUTION

If you shoot JPEG, the camera profile is baked into the file. Thus, when you look at the Profile menu in Lightroom, the only option is Embedded.

✳ NOTE

The profiles shown in the Profile menu are specific to the camera used to create the photo.

When shooting RAW, don't bother to adjust in-camera profiles, because Lightroom uses a default camera profile for RAW files. If you want to use a specific profile, such as Camera Standard instead of Adobe Standard, choose it from the Calibration panel's Profile menu in Lightroom. Just be sure to readjust white balance after changing profiles, because switching profiles invalidates accurate white balance. Thus, it's best to choose the camera profile before adjusting white balance.

✳ NOTE

The color sliders in the Calibration panel are used to modify color relationships at a basic level. I have never had a need to use them in my workflow.

Creating custom camera profiles

The profiles in Figure 9-2 that begin with "Camera" are Adobe's versions of the manufacturer's profiles used by the camera. The profiles that begin with "Canon" are custom profiles I created for my camera. These custom profiles take camera profiles one step further by enabling you to profile individual cameras. For example, if you have three cameras, you can create a custom profile for each camera so the cameras match each other more closely. Or, you can create a custom profile for the specific lighting you're using, which is especially important for product photographers who require accurate color across the spectrum. For example, if you are photographing running shoes that have three predominant colors, each color must be accurate.

Only a few years ago camera profiling was best left to the experts. That changed with the introduction of a device called ColorChecker Passport by X-Rite. This $99 device is used to painlessly create custom profiles for specific cameras and lighting conditions. Figure 9-3 shows the ColorChecker Passport in a product shoot. After this photo was shot, it was processed by the ColorChecker's software to create a profile for this specific camera and lighting. It takes only a

FIGURE 9-3
The ColorChecker Passport by X-Rite offers a painless system for creating precise camera profiles.

few minutes to create a custom profile, and the result is the most accurate profile possible for these conditions. This profile is automatically added to the Camera Calibration panel's Profile menu by the Passport's software and can be applied and synchronized during postproduction.

✳ TIP

The ColorChecker software works hand in hand with Lightroom, making it simple to create your own profiles. Just be sure to relaunch Lightroom after creating new profiles so it can find them and add them to the Profile menu.

Most photographers don't need to create profiles for every lighting condition. But it is a good idea to create a general profile for each of your cameras because they are more accurate than the standard Lightroom profiles. A cool feature of the ColorChecker Passport software is creating what's called a *dual-illuminant profile*. You shoot a photo of the ColorChecker Passport under warm light, such as incandescent, and shoot a second photo under cool light, like deep shade. Then you use the ColorChecker Passport to create a profile from both photos that is accurate for light that falls in a broad range, from warm to cool. Unless you photograph products under unusual lighting conditions, a dual-illuminant profile works great for just about any light.

Changing Lightroom's default camera profile

After exploring the Calibration panel's camera profiles, you may determine you prefer a profile other than Lightroom's default Adobe Standard. This is especially true if you create your own custom dual-illuminant profile. Fortunately, it's easy to change the default profile to one of your choosing. Follow these steps to change the Develop module's default settings:

1. Select a photo in the Develop module and click the Reset button at the bottom-right. This removes all Develop setting from the photo and prevents any unwanted setting from being recorded as the new default.
2. Go to the Calibration panel's Profile menu and choose the desired camera profile.
3. Choose Develop ➪ Set Default Settings. When the Set Default Develop Settings dialog box opens, choose Update to Current Settings.
4. If you want to restore the photo processing you removed in Step 1, go to the History panel and back up to the step below Reset Settings.

Figure 9-4 shows the Set Default Develop Settings dialog box. Notice the new default settings are based on the camera used. If you have more than one camera, you need to complete

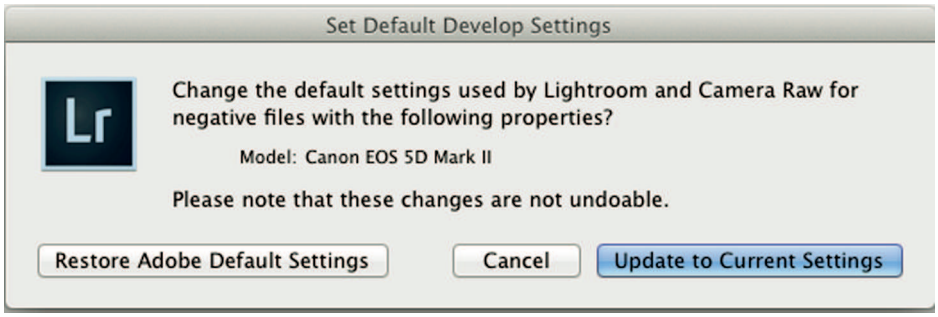


FIGURE 9-4

The Set Default Develop Setting dialog box enables you to change default settings used in the Develop module. These settings are specific to each camera.

the process for each camera. The scary warning that says the changes are not undoable is misleading: You can use the option on the left to return the settings to Adobe's defaults at any time.

Using the Lens Corrections Panel

The Lens Corrections panel is one of the most important Develop module panels. It's used to correct for lens irregularities, which are also called *aberrations*, and apply geometric adjustments. The panel consists of four subpanels: Profile, Color, Manual, and Basic. It's worth spending your time exploring each panel and how to use them to drastically improve photos.

Working with lens profiles

A lens profile is used to compensate for distortion and vignetting caused by the lens. Distortion refers to lines that should be straight but are not, and occurs mainly with wide-angle lenses. The most common type of lens distortion is *barrel distortion*. It causes parallel lines in the frame to curve outward from the center, like the sides of a wooden barrel. When you choose Enable Profile Corrections in the Profile section of the Lens Corrections panel, shown in Figure 9-5, Lightroom will try to match the lens used with its own database of built-in lens correction profiles. Lightroom reads the photo's metadata and determines which lens was used to create the photo. If a profile exists for that lens, Lightroom loads it automatically. The result is that lines

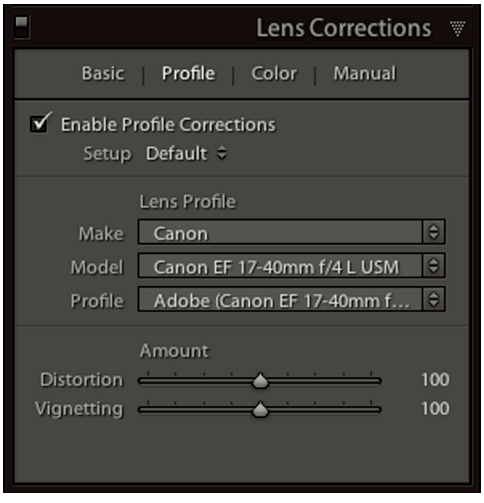


FIGURE 9-5

The Lens Corrections panel has four tabs that enable you to adjust for a range of lens aberrations and geometric issues.

that are curved by lens distortion become straight. The effect is most noticeable with wide-angle shots and is least noticeable on telephoto shots.

✳ TIP

Barrel distortion can cause people to look heavier when photographed. Correcting in postproduction can help slim a portrait subject.

The Model menu lists all lenses that Adobe has profiled for the camera make. Adobe is continually updating the available profiles for various lens manufacturers and adds new lenses with each update to Lightroom. If your lens isn't picked automatically, try to choose it from the Model list. If you're using an older lens or a brand-new model, it may not be on the list. Try to find one that's similar and see how it works. You can often get close even if your specific lens hasn't been profiled. Finally, use the Distortion slider to remove any unwanted residual distortion.

A *vignette* occurs when the corners of the image are darker than the middle. Lens vignetting, common in many lenses, is caused by the inability of the lens to deliver as much light to the corners as it can to the center of the frame. This light falloff creates corners that are slightly darker. Vignetting is often desirable for creative purposes, but when the lens causes it, it can lead to uneven edge brightness when cropping the photo. Selecting the appropriate lens profile should remove any vignette. If necessary, use the Vignetting slider to fine-tune the automatic adjustment. When you want creative vignetting, use the Post-Crop Vignetting tool covered later in this chapter.

Removing color fringing

Color fringing refers to unwanted colors appearing along detail edges in a photo; the official name is *chromatic aberration*, or *CA*, as it's commonly called. It's caused by different wavelengths of light focusing at different planes instead of precisely at the surface of the sensor. It is a characteristic of virtually all camera lenses. CA can vary from minimal to quite pronounced, depending on the lens and aperture used. It's most visible in high-key shots or when a subject has a strong backlight. You need to zoom to 1:1 to best see it. It's most obvious near the corners of the frame.

Figure 9-6 shows a photo with classic chromatic aberration around the flagpole. One side of the pole has green fringing and the other side has purple fringing. You can also see fringing on the building at the lower right and in the tree branches.

✳ KEEP IT SIMPLE

Select Remove Chromatic Aberration before saving new Lightroom default settings for each camera. The adjustment will automatically be applied to every photo you import.

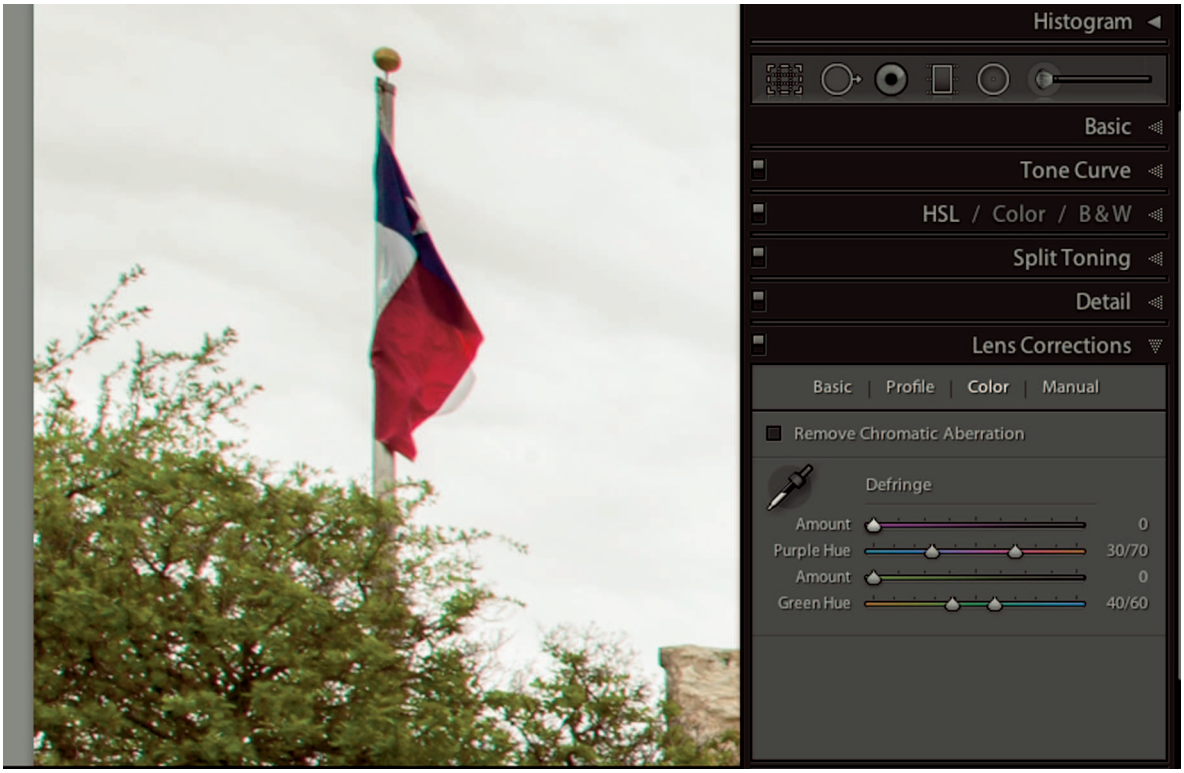


FIGURE 9-6

The green and purple color fringing in this photo is called *chromatic aberration*. It's easily removed using the Color section of the Lens Corrections panel.

To remove fringing, select Remove Chromatic Aberration from the Color section of the Lens Corrections panel. In most cases, it's all that's needed to fix the problem. If you see residual fringing, increase the value of the purple or green Amount sliders to further reduce their associated colors. If you're still having trouble, use the Purple Hue and Green Hue sliders to modify the fringe color being removed. You can also use the Fringe Color Selector tool that looks like an eyedropper to click directly on a fringe color and automatically set the sliders to the necessary values.

Manually adjusting geometry

The Profile and Color sections of the Lens Corrections panel automatically compensate for specific lens deficiencies. Sometimes, though, problems are caused by the photographer's position in relation to the subject, not by the lens. Figure 9-7 shows a photo of the Alamo in San

FIGURE 9-7
Using the correct lens profile fixed barrel distortion in this photo of the Alamo. There are still problems with the geometry of the building that were caused by my position when photographing it.

Antonio, Texas. I grew up in San Antonio but I never tire of seeing this inspirational shrine to bravery and commitment.

After applying a lens profile, the geometry of the Alamo is unacceptable for an architectural shot. The vertical lines of the building converge as they rise because the camera was pointed upward. The horizontal lines converge as they move to the right because I wasn't directly in front of the building. Because straight lines are important in architectural photography, I use the Manual section of the Lens Corrections panel to fix this photo.

✳ TIP

To see a grid overlay while making adjustments choose View ➪ Loupe Overlay ➪ Grid. Press the ⌘ or Ctrl key to display a menu near the top of the image with controls for the size and opacity of the grid.

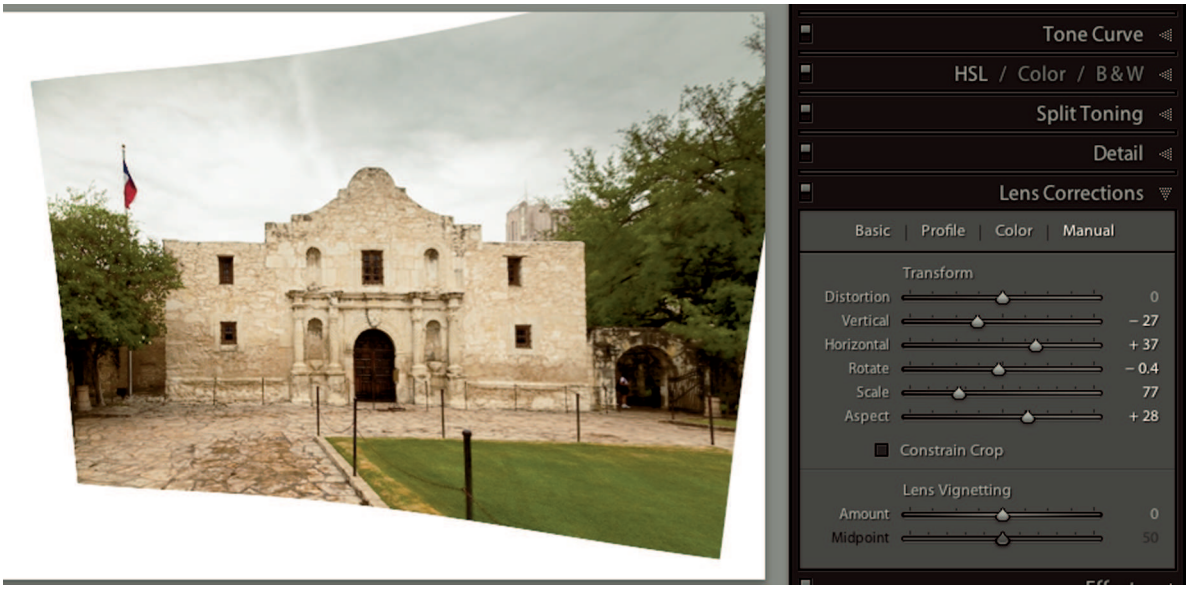


FIGURE 9-8

A few quick adjustments with the Manual section of the Lens Corrections panel makes it look like I was standing in front of the Alamo when I photographed it. (I can choose Constrain Crop to eliminate the twisted edges or I can use the Crop tool to manually crop the image.)

Figure 9-8 shows the adjusted photo next to the Manual section of the Lens Corrections panel. Notice how I used the Manual sliders to make it look like I was standing directly in front of the building. All this twisting and turning distorts the frame, making it necessary to crop the edges. Choose Constrain Crop to automatically trim the edges. You can also use the Crop tool to manually crop, which is my preference. Before cropping, I reduce the value in the Scale slider to better see all edges of the image.

✳ KEEP IT SIMPLE

When photographing architecture, leave extra room around the building to compensate for the amount of cropping necessary after perspective adjustments.

Here's a brief explanation of what the Manual sliders do. Explore them so you'll know how to handle your next architectural project.

- **Distortion:** Manually adjusts distortion. This slider is similar to the Distortion slider in the Profile section.
- **Vertical:** Corrects converging vertical parallel lines.
- **Horizontal:** Corrects converging horizontal parallel lines.

- **Rotate:** Rotates the image, which is often necessary when straightening both vertical and horizontal lines.
- **Scale:** Increases or decreases the size of the image. I like to decrease the value so I can see the entire image, as in Figure 9-8.
- **Aspect:** This slider was added to Lightroom 5. It enables you to adjust the height and width ratio of the image. Positive values stretch the sides of the photo outward. Negative values stretch the sides inward. This slider is a welcome addition because strong Vertical adjustments cause a building to look squatter. A positive value with the Aspect slider helps to return it to a more natural appearance.

TIP

Use a small positive value with Aspect slider to slim a portrait subject.

Using the Upright adjustments

The Basic section, shown in Figure 9-9, was added to the Lens Corrections panel in Lightroom 5. It's used to make quick adjustment without using the other panel sections. For example, choosing Enable Profile Corrections and Remove Chromatic Aberration in the Basic section is the same as choosing those options from the Profile and Color sections.

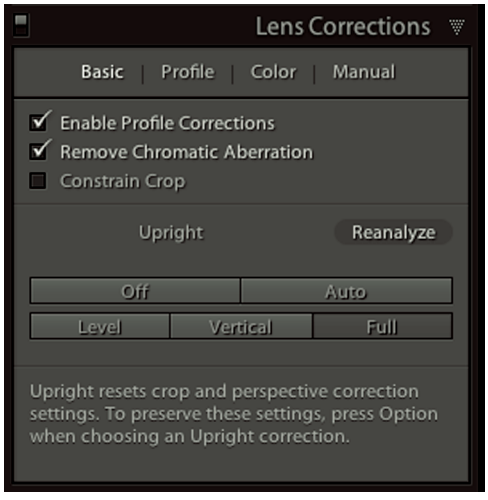


FIGURE 9-9

The Basic section of the Lens Corrections panel was added in Lightroom 5. It enables you to quickly address common issues in one place.

The mode buttons in the Upright section are useful for applying quick perspective adjustments. These modes use the photo's metadata so you'll get best results from RAW files. They perform the best when Enable Profile Corrections and Remove Chromatic Aberration are selected prior to choosing a mode. Here's what each Upright mode button is used for:

- **Off:** Turns off Upright corrections.
- **Auto:** Balances adjustments among level, aspect ratio, and perspective corrections. It usually provides a more natural perspective adjustment than Level alone.
- **Level:** Weights corrections toward horizontal lines.
- **Vertical:** Weights corrections toward vertical lines and level adjustments.
- **Full:** Combines the Level, Vertical, and Auto modes.
- **Reanalyze:** Refreshes Upright calculations, which you should do if you select or deselect the Enable Profile Corrections or Remove Chromatic Aberration options. This button lights up when recalculations are needed; use the button as a signal to click it.

If necessary, use the Manual pane to fine-tune after using one of the Upright modes. Using the Upright modes resets cropping and manual Lens Corrections panel adjustments. If you want to preserve those settings, press the Option or Alt key when selecting a mode.

Figure 9-10 shows a sunrise photo shot from the 64th floor of an Atlanta hotel. I used a 17mm wide-angle lens, which caused lots of perspective distortion. The tall building across the street appears to be leaning to the right while the buildings on the left appear to be leaning to the left. The Auto Upright mode did the best job of straightening the buildings while keeping the horizon level.

FIGURE 9-10

The image at left shows the distortion I got when shooting the Atlanta sunrise with a wide-angle lens from the 64th floor. As the image at right shows, the Auto Upright mode did a great job of straightening the geometry with a single click.

If I crop the photo with these corrections, it will be necessary to crop the top of the tall building. An alternative to cropping the building is to use Manual adjustments to add enough tilt back to the photo to include enough sky for cropping. Or, I can open the photo in Photoshop and clone sky in the empty area at the top-left. Cloning in Photoshop is described in Chapter 14.

Managing Sharpness and Noise with the Detail panel

Figure 9-11 shows the Detail panel. The preview window at the top displays a small area of the image at 1:1 magnification because it's important to always view the image at 100 percent when evaluating sharpness and noise. I prefer to zoom the main image to 1:1 and evaluate it instead of the small preview when using the Detail panel. Because I don't use the preview window, I collapse it by clicking the dark, downward-pointing disclosure triangle to its right.

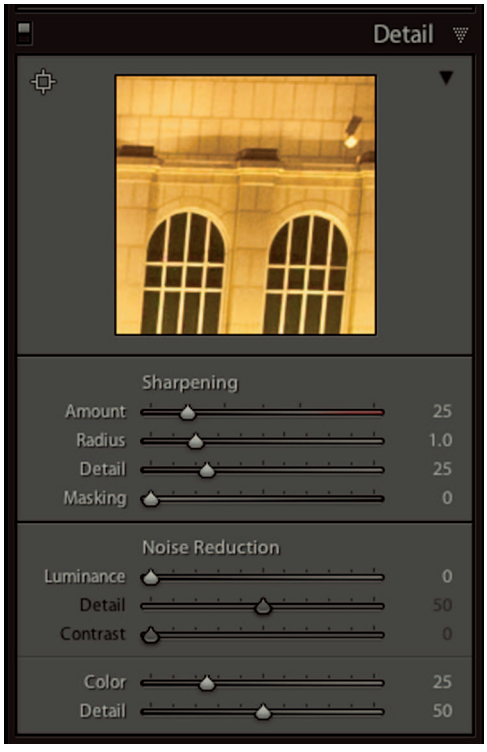


FIGURE 9-11

The Detail panel is used to adjust sharpening and reduce noise. The preview window displays a 1:1 section of the image. Drag in the preview window to choose a different area to display.

✳ TIP

Other panels share the ability to collapse panel sections. If you can't find a familiar slider, check to see if a section of the panel was inadvertently collapsed.

Adjusting sharpness

Sharpening in the Detail panel during postproduction is not intended to compensate for out-of-focus photos. It is designed to compensate for the digital capture process used by the camera. When shooting in the JPEG mode, sharpening is applied to JPEG files in-camera. This is called *capture sharpening*. When shooting RAW, sharpness settings, like most camera settings, are ignored. It's necessary for Lightroom to apply basic capture sharpening to RAW files.

The Sharpening values shown in Figure 9-11 are the default values Lightroom uses for all RAW files. Additional sharpening, called *output sharpening*, is applied when photos are exported, printed, and output in other ways. Output sharpening, described in Chapter 16, is applied as the photo is sized for its final usage.

How sharpening works

Sharpening algorithms increase local contrast along edge details. When an edge is detected, lightening one side of the edge and darkening the other side increase contrast. The combined effect creates what is called a *sharpening halo* around the edge. It is similar to the effect of the Basic panel's Clarity slider, though much more subtle. Here's how Detail panel's Sharpening sliders are used to control the characteristics of the sharpening halos.

- **Amount:** Higher values increase the amount of local contrast and apparent sharpness. Very high values cause edges to look hard and unrealistic.
- **Radius:** Controls the width of the sharpening halos. The default of 1 extends the halos to one pixel on each side of an edge. Higher values can make edges look jagged and crunchy. I typically leave this value at 1 unless I'm trying to save a photo that's marginally out of focus.
- **Detail:** Low values restrict sharpening to edges with greater contrast. Higher values apply sharpening to a greater number of details. I generally leave this set to its default of 25. Higher values can cause unwanted artifacts along edges.
- **Masking:** Use this to isolate sharpening to areas that have the most edge detail and prevent pixels in areas with little detail from being sharpened. Masking is the secret to controlling sharpening.

✳ TIP

If you want to see what sharpening halos look like, increase the Sharpening value at least halfway and then increase Radius while holding the Option or Alt key. This changes the main view to a black-and-white radius preview where halos are easy to see.

The most important Sharpening slider is the Masking slider. It enables you to *mask*, or hide, areas that don't need sharpening. For example, if I apply sharpening to a landscape photo, I want things with details, like trees and rocks to be sharpened. But I don't want to sharpen pixels in the blue sky where there isn't any detail.

When the Masking slider is set to 0, everything in the photo is sharpened. As the value increases, areas without detail are masked preventing them from being sharpened. The best

FIGURE 9-12

The Masking slider is the secret to controlled sharpening. Press the Option/Alt key while adjusting to display a preview. As value increases, areas with little detail turn black indicating they won't be sharpened.

way to work with the Masking slider is to zoom to Fit and press the Option or Alt key as you adjust the Masking slider. This displays a preview like the one shown in Figure 9-12. Areas that are masked out are black, and areas that are sharpened are white. Any area that's gray is getting a lower level of sharpening than white areas. When the Masking slider is set to 0, everything is white because it's all being sharpened. As the value is increased, areas with little detail are masked and become black. This preview lets me see exactly where sharpening is occurring.

Sharpening workflow

In my view, every important RAW photo can use additional capture sharpening beyond Lightroom's default settings. I primarily concentrate my adjustments on the Amount and Masking sliders, which makes it a two-step process:

1. Zoom to 1:1 and pan the image so you can see important details. Increase the Sharpening Amount to somewhere between 50 and 100 until you see the edges become sharper. Keep in mind that when you're zoomed to 1:1, you're seeing the image on the pixel level, which is much closer than the average viewer ever will ever see it. It's okay for the photo to look a little oversharpened when zoomed to 1:1 because no one will ever see it that close in a normal viewing environment.
2. When you're happy with the sharpening amount, zoom to Fit so you can see the entire image. Press and hold the Option or Alt key and increase the Masking value until only important details are being sharpened.

I'm more aggressive with sharpening when I know the photo will be displayed in a web gallery than I am when preparing a photo for printing because it's much smaller and details can get lost. I'm careful to avoid oversharpening with the Detail panel because additional output sharpening will be added when the photo is output for web or printing.

Reducing noise

Noise manifests in photos as unwanted artifacts that resemble the grain in photographic film. It looks like small light and dark splotches, sometimes called *salt and pepper noise*. It's usually best to remove noise when possible to get a cleaner look to the photo. There are two types of noise: luminance noise and color noise. Luminance noise is the gray noise that most of us are used to seeing. Color noise is similar to luminance noise but the splotches are in color. It's possible to have both types of noise in a photo.

Understanding noise

Three things affect the level of noise in a photo. When they all combine, noise can be a real problem.

- **Sensor size:** Smaller camera sensors have more noise. Full-frame sensors tend to have the least amount of noise.
- **ISO:** Higher ISO increases noise. Newer full-frame cameras can use somewhat-high ISO without noticeable noise issues.
- **Underexposure:** RAW files have much greater bandwidth in the highlights than in the shadows, causing noise to be most obvious in darker areas. When an underexposed photo is lightened during post-processing, the noise becomes more noticeable.

When shooting in JPEG mode, cameras manage color noise when processing the file. Lightroom applies default values to the noise section's Color slider for RAW files, which can be seen in Figure 9-11. Reducing the Color slider to 0 can give you a good look at what color noise looks like.

Noise-removal workflow

When you shoot at lower ISO and expose properly, additional noise adjustment is rarely needed. When it's necessary to use high ISO or underexpose to get the shot, you need to suppress noise as much as possible without adversely affecting sharpness. The Noise removal section of the Detail panel has sliders for luminance and color noise. Here's what the sliders do:

- **Luminance:** Controls luminance noise. Increase the value to suppress it.
- **Luminance Detail:** Controls detail. Higher values preserve edge contrast but produce noisier results. Lower values reduce noise as well as edge detail.
- **Luminance Contrast:** Controls contrast. Higher values preserve contrast in the photo but can introduce blotchy artifacts. Lower values reduce edge contrast.
- **Color:** Controls color noise. The default value of 25 for RAW files is usually sufficient to manage color noise. But sometimes color noise becomes more obvious after Luminance noise is reduced, so keep your eye out for residual color noise when adjusting Luminance noise.
- **Color Detail:** Similar to Luminance Detail. Higher values protect detailed color edges but can result in more color specks. Low values can result in colors along edges bleeding into one another.
- **Color Smoothness:** Used to reduce color mottling artifacts that occur when a high degree of color noise reduction is used.

Figure 9-13 shows a 1:1 detail of a night photo of a Manhattan taxi scene shot at 6400 ISO. The noise caused by the high ISO setting is easy to see. The second image in Figure 9-13 shows the same area after increasing the Luminance value. Adjusting the Luminance Detail and Luminance Contrast sliders didn't help, so I left them at their defaults, which is what I most commonly do. The noise is still noticeable, but not nearly as obvious as the first image. Increasing the Luminance value further blurs important details. In fact, that's how noise removal works: It blurs everything that look like noise, while trying to preserve edge detail.

FIGURE 9-13

The noise in this high-ISO photo is easy to see in the image at left. Increasing the Luminance value to 27 blurs the noise and makes it less noticeable in the image at right.

✳ CAUTION

Avoid using high Clarity values in the Basic panel when noise is an issue.

The reason Sharpening and Noise Reduction share the Detail panel is because they affect one another. Sharpening makes noise more obvious, and noise reduction reduces sharpening. If you have a photo that obviously needs noise reduction, address the noise before sharpening. Look at the photo and determine which type of noise needs to be removed. Then adjust the sliders to get the results you want.

Adding Finishing Touches with the Effects Panel

The Effects panel, shown in Figure 9-14 has two different areas: Post-Crop Vignetting and Grain. They are used to add creative effects to photos and give them special finishing touches. Of these two sections, Post-Crop Vignetting is by far the most useful.

Applying a vignette

Vignettes are used to control the brightness of the corners. Post-crop vignetting in Lightroom is vignetting that always stays inside the crop boundaries. If you change your mind about the crop, the vignette automatically adjusts with the cropping. The Post-Crop Vignetting

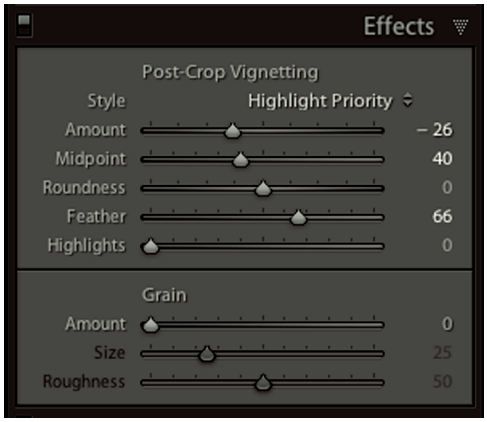


FIGURE 9-14

The Effects panel is used to add vignetting and grain to photos. I use the Post-Crop Vignetting section regularly, but rarely use the Grain section.

sliders control the characteristics of the vignette. The lower sliders are gray until you increase the Amount value above 0. Here's what the sliders are used for:

- **Amount:** Values below 0 darken the vignette. Values above 0 lighten it. Dark vignettes are most commonly used, but experiment with light vignettes. They are great for high-key photos or when you're looking for that "Hallmark greeting card" effect.
- **Midpoint:** Controls the size of the vignette. Lower values vignette a larger area and leave a smaller unvignetted area in the center. Higher values move the vignette away from the center and expand the unvignetted area at the center.
- **Roundness:** Higher values create a more-circular vignette. A value of +100 creates a perfect circle. Low values create a more rectangular vignette, which can be useful when the photo's main subject matter is rectangular.
- **Feather:** Controls the edge transition from vignetted area to nonvignetted area. High values create a softer transition. Low values create a harder, more obvious transition.
- **Highlights:** This slider is used to modify highlights in vignetted areas when the Amount value is negative. Increasing the value makes those highlights brighter. I don't believe I've ever used this slider because the last thing I want in a vignetted corner is to see a bright spot.

✳ TIP

Post-crop vignettes are always centered over the middle of the image. If you want an off-center vignette, use the Radial filter in the tool strip. Be sure to crop first so you have a good idea of where to place the filter.

Post-Crop Vignetting also has a Style menu with three options. These are used to modify the effect of the vignette. Here's what they do:

- **Highlight Priority:** Helps the highlights in vignette areas maintain brightness. It is useful when using positive Amount values and you have strong highlights in the vignetted area. If you have strong highlights near a corner when using negative Amount values, try using Color Priority instead.
- **Color Priority:** Minimizes color shifts in vignette areas without prioritizing highlights.
- **Paint Overlay:** Adds white (with a positive Amount) or black (with a negative Amount) over the vignetted areas. It usually results in a flat-looking vignette.

I usually begin with Highlight Priority unless there are bright areas near the corners. I adjust the Amount value to make it stronger than the effect I want. This helps me see the size and shape of the vignette. I fine-tune the shape using the Midpoint and Roundness sliders. Then I increase the Feather value above the default of 50 to soften the inner edge of the vignette if needed.

FIGURE 9-15

Adding grain to this photo helps give it the feel of grainy black-and-white film. The vignette and brown-tone treatment enhance the overall effect.

✳ TIP

If you use vignettes frequently, it's useful to save presets for different styles. I suggest saving at least three presets with mild, medium, and strong values.

Adding grain

The lower section of the Effects panel is used to add a simulation of film grain. When Grain was added to Lightroom 3, I didn't think I'd ever find a use for it. I don't like noise in my photos, so I couldn't imagine purposely adding something that looks like it. However, my position shifted as I explored the sliders.

The Grain section has three sliders to change the amount of grain added, its size, and roughness of its edges. Figure 9-15 shows a photo with added grain. I wanted this darkroom shot to have the feel of film. I added the following Grain adjustments to achieve this effect: Amount 63, Size 40, Roughness 85. I also added a medium vignette with the following values: Amount –30, Midpoint 44, Roundness 0, Feather 80.

Adding grain is a great way to emulate the look of grainy black-and-white film. It's also useful when you're trying to save a photo that's a little out of focus but has other redeeming qualities. Adding grain hides the missing sharpness and adds a creative look.

✳

CHAPTER 10

Traveling between Lightroom and Photoshop

The goal in my workflow is to do as much as possible in Lightroom. Its ease of use and flexibility combine to create a flexible workflow that's hard to beat. However, there are times when an editing problem is beyond Lightroom's capabilities. When that happens, it's nice to have a powerful program like Photoshop ready to handle the heavy lifting. This chapter explores the interplay between Lightroom and Photoshop and explains the nuances of moving back and forth with RAW files and non-RAW files. By the end of this chapter, you'll be ready to explore the coming chapters on Photoshop.

Opening RAW Files in Photoshop

A RAW file must be converted to a pixel-based format that Photoshop can work with before it opens. In a pure Photoshop workflow, Adobe Camera Raw (ACR) is used for the conversion process. (ACR is described in Chapter 1.) ACR and Lightroom use the same RAW processing engine, which is the technology behind RAW conversions. Both Lightroom and ACR have the same tools and panels with the same adjustment sliders. When one program is updated with new features, the other also receives the updates.

Lightroom and ACR can be configured to share the same RAW metadata by setting their preferences to record metadata changes in XMP sidecar files. This important preference is covered in Chapter 2 for Lightroom and Chapter 11 for Photoshop. When Lightroom and ACR share the same metadata, it's much easier for one program to see editing that was done in the other.

When you use Photoshop to open a RAW file, ACR handles the conversion process. When a RAW file is opened in Photoshop from Lightroom, Lightroom handles the conversion process using the rules you establish in Lightroom's External Editing preferences.

Setting up Lightroom's External Editing preferences

Lightroom's External Editing preferences are used for RAW files only. (Lightroom preferences are described in Chapter 2.) To open Lightroom's preferences, choose Lightroom ➪ Preferences (on the Mac) or Edit ➪ Preferences (in Windows) Then go to the External Editing pane to see the preferences shown in Figure 10-1.

Lightroom's External Editing preferences are used to link Lightroom to external editing programs. If you have Photoshop installed, Lightroom configures the first section for the newest version it finds on your system. You can see that it found Photoshop CC on my system. The Additional External Editor section is used to set up the second external editor. Click the Choose button to select the program you want. Then use the menus in each section to determine the file properties most commonly desired in the external program. Here's the rundown on the menus:

- **File Format:** Use this menu to choose either TIFF or PSD. These formats have similar capabilities. Both can be compressed and both can contain layers. TIFF is a popular format used by countless image-editing programs. PSD is native to Photoshop. I prefer TIFF because it offers greater compatibility options.
- **Color Space:** Choose from sRGB, AdobeRGB 1998, or ProPhoto RGB. Choose the color space that matches your Photoshop color working space, which is described in Chapter 11.
- **Bit Depth:** Choose between 8-bit and 16-bit files. The difference between these two bit depths is an 8-bit file can contain as many as 256 tones, including black-and-white. A 16-bit file can contain as many as 4,096 distinct tonal values. Because you will likely do additional editing back in Lightroom after the Photoshop work is done, I recommend choosing 16-bit so files edited in Photoshop have the largest amount of data possible.
- **Resolution:** If you have a resolution you commonly use in Photoshop, choose it here. If you don't, leave it at the default of 240.
- **Compression:** This menu option is available when choosing TIFF from the File Format menu. The options are None and Zip. None saves the file at its full size. Zip compresses the TIFF file to save space, but it uses lossless compression. No data is lost, but it does take longer to save and open compressed TIFF files. (PSD files are compressed by default using lossless compression.)
- **Stack with Original:** When this option is selected, the new file is stacked with its original, parent file. (Stacking is described in Chapter 6.)

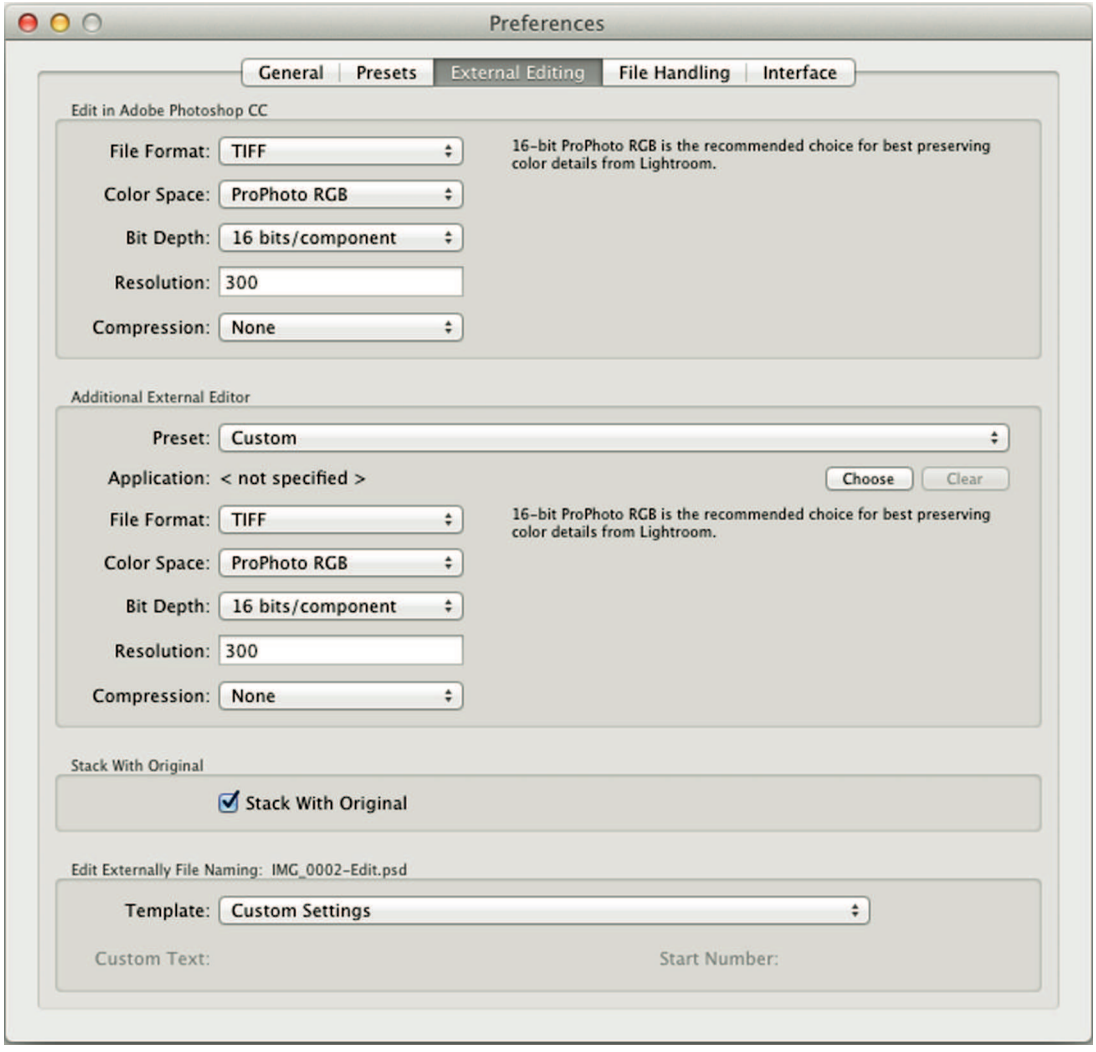


FIGURE 10-1

Lightroom's External Editing preferences enable you to configure Lightroom to interface directly with two external editing programs. Use the menus to determine how RAW files are converted when opened in each of the external programs.

- **File Naming Template:** By default the File Naming Template menu is set to Custom. The custom naming preset uses the original file name and adds *–Edit* to the end of the name to indicate it's an edited copy

If you aren't sure where to set these options, leave them at their defaults. As you get more comfortable with Photoshop, you will have a better idea of which file qualities are best for your Photoshop workflow.

✳ TIP

You can open different versions of the same RAW file in Photoshop. For example, let's say you open a black-and-white version in Photoshop. Then you go back to the original photo in Lightroom and change it back to color. Then you can open a color version in Photoshop. The second version will have *–Edit–2* at the end of its filename.

Opening RAW files from Lightroom in Photoshop

To open a photo or a group of selected photos in Photoshop from Lightroom, right-click a photo in the Library or Develop module to open the contextual menu shown in Figure 10-2. Choose the external program from the Edit In menu. An alternate method for accessing the Edit In menu is to choose Photo ➪ Edit In.

The first section of the Edit In menu lists the programs designated in Lightroom's External Editing preferences. If you designate a second external editor, you see that application's name here, too. The second section lists plugin programs that are linked to Lightroom and are used as additional external editing programs. Not all plugins use this method of interfacing with Lightroom. (Plugins are described in Chapter 15.) The three items in the last section of the Edit In menu are available when multiple photos are selected. They speed up common Photoshop processes that combine multiple photos.

When you choose Edit in Adobe Photoshop for a RAW file, one of two things happens: Either the photo opens in Photoshop or you see the dialog box shown in Figure 10-3. This dialog box is a warning that Lightroom and Photoshop's Adobe Camera Raw are not compatible. This happens when one of the programs is up to date and the other isn't. It's most common when using older versions of Photoshop. Choosing Open Anyway bypasses Lightroom's External Editing preferences and uses ACR to process the file. If you used a tool in Lightroom and you're using an older version of ACR that doesn't have that tool, the adjustment isn't applied. Choosing Render Using Lightroom enables Lightroom to use the settings in the External Editing preferences to apply all Develop edits before the file opens in Photoshop. This is the preferred method when Lightroom is newer than your version of ACR. When both Lightroom and ACR are up to date, the file automatically opens in Photoshop without any dialog boxes.

✳ TIP

To update ACR in Photoshop, choose Help ➪ Updates. If you are using an older version of Photoshop, the latest version of ACR won't be available. To get it, you need to upgrade Photoshop to the current version.

Another difference between the choices in Figure 10-3 is that when you choose Render Using Lightroom, Lightroom immediately begins keeping track of the photo. A new thumbnail opens

next to the parent RAW file with the TIFF or PSD version of the photo. The names of the two files are the same except the new, derivative file has *–Edit* added to the end to indicate it's derived from the RAW file. When you complete your editing in Photoshop and save the file, Lightroom updates the thumbnail with the latest settings.

If you choose Open Anyway instead and the RAW file is processed by ACR, the new file isn't automatically added to the Lightroom catalog. You will need to synchronize the folder for Lightroom to become aware of it. (Synchronizing folders is covered in Chapter 4.) Because it's

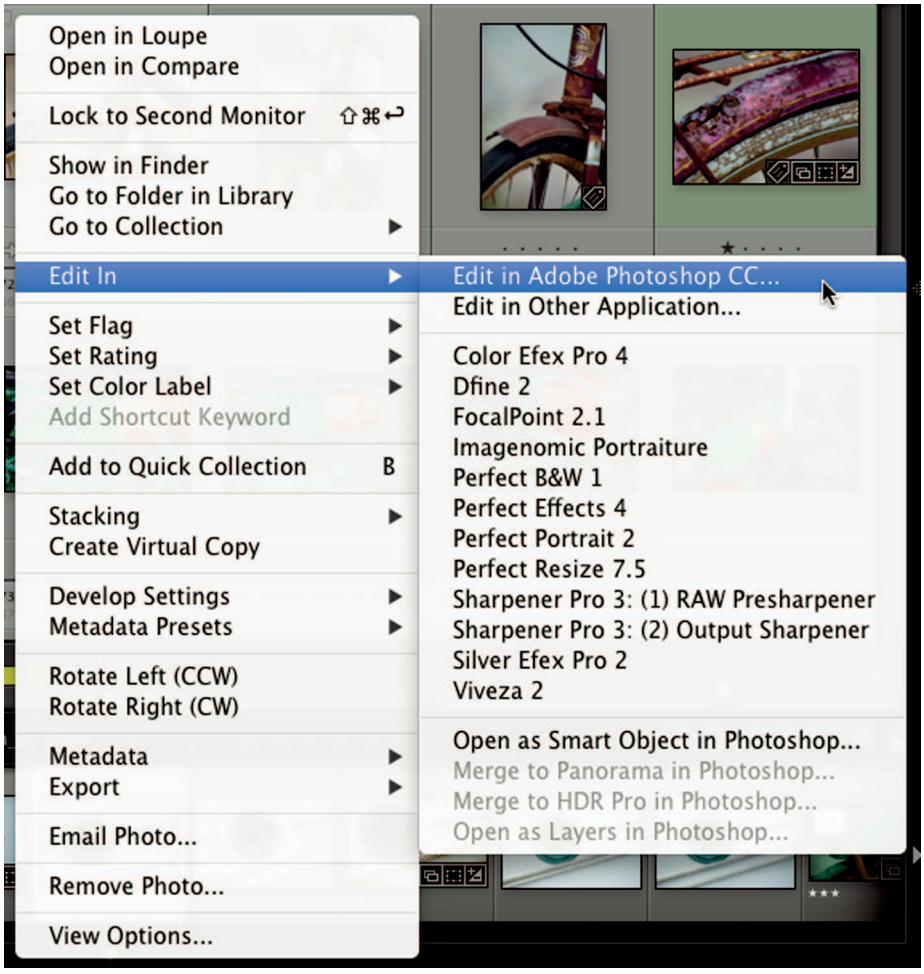


FIGURE 10-2

The upper section of the Edit In menu is used to send a file to one of the two external editing applications defined in Lightroom's External Editing preferences. The middle section lists some of your installed plugin programs. The lower section provides options specific to Photoshop.

FIGURE 10-3

This dialog box indicates your versions of Lightroom and Adobe Camera Raw are not both up to date. Choose Open Anyway to use ACR to process the RAW file or choose Render Using Lightroom to process the file with Lightroom.

easy to forget to synchronize folders, I recommend you choose Render Using Lightroom when you see the dialog box in Figure 10-3.

Figure 10-4 shows three files. The first is the uncropped RAW file with the .cr2 filename extension. The second is a version of the RAW file that was cropped and converted to black-and-white in Lightroom before opening in Photoshop. The last photo is a cropped color version of the RAW file opened from Lightroom in Photoshop. It has *–2* added to the end of the filename to

FIGURE 10-4

When Lightroom renders a file as it is opened in Photoshop, Lightroom automatically adds it to the catalog. Here, two versions of the original RAW file were opened in Photoshop. Notice that Lightroom appends the file name to indicate which copy it is. All three files are stackable.

indicate it's a second copy of the original RAW file. The version numbers at the upper-left of the thumbnails indicate the three photos are stackable.

Opening non-RAW files in Photoshop with Lightroom

When you use the Edit in Photoshop menu to open a non-RAW file, such as a TIFF or PSD, the External Editing preferences are bypassed. Instead, the Edit Photo With dialog box shown in Figure 10-5 opens, giving you three options:

- **Edit a Copy with Lightroom Adjustments:** A new copy opens in Photoshop with the Lightroom Develop settings applied.
- **Edit a Copy:** A new copy opens in Photoshop without Develop settings applied.
- **Edit Original:** The original opens without Develop settings applied.

NOTE

Copy files created for Photoshop inherit metadata such as keywords, labels, and stars.

When you choose one of the copy options, Lightroom automatically adds the photo to the catalog and the new copy has the same name as its parent with *–Edit* appended to the file name. If the original file has layers created in Photoshop, the layers are intact in the copy when it opens in Photoshop.

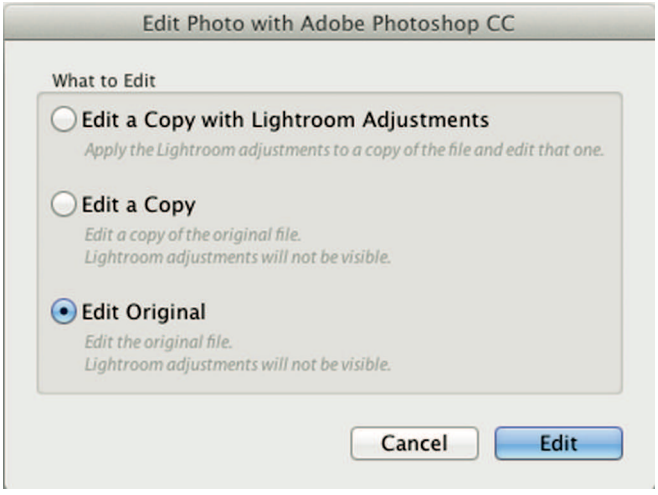


FIGURE 10-5

This dialog box enables you to choose to open a copy of a non-RAW file or open the original file.

✳ NOTE

Lightroom keeps track of the copy you open in Photoshop from Lightroom, but it doesn't keep track of changes made in Photoshop until the file is saved.

Saving Files in Photoshop

When you create a copy, Lightroom saves the copy in the same folder as the parent as soon as it opens in Photoshop. If you close the file in Photoshop without saving it, the file Lightroom created stays the same as it was when it was created. If you save the file with a different name or to a different location, Photoshop creates another version of the photo that's invisible to Lightroom because it was created outside the Lightroom catalog. It gets even more confusing when you use the same name but save to a different folder, because both versions have the same name but the photo in Lightroom's catalog doesn't reflect changes you made in Photoshop.

When you want to save a Photoshop file with a different file name or to a different location from the original, you have to inform Lightroom about the new file. The easiest way is to synchronize the folder in Lightroom and then delete the unnecessary duplicates. (Synchronizing folders is described in Chapter 4.)

✳ TIP

When saving as PSD in Photoshop, it's important to turn on Maximize Compatibility in Photoshop's File Handling preferences. This embeds a preview in the PSD file that Lightroom needs to see what's in the file. If you don't maximize compatibility, the file is invisible to Lightroom. (Setting up Photoshop preferences is described in Chapter 11.)

✳ TIP

When you edit and save an original file opened from Lightroom, the catalog keeps track of saved changes unless you change the name or location of the file when you save it.

Resolving Metadata Conflicts

When you are using both Lightroom and Photoshop to edit RAW files, metadata conflicts can occur. One common problem happens when you make changes using Adobe Bridge to add metadata, such as keyword or labels, or when using Adobe Camera Raw (ACR) to edit a RAW file. Another problem occurs when you open a non-RAW photo directly in Photoshop, edit it, and then save it. In both cases, Lightroom notices that changes have occurred, but it doesn't

automatically accept them. Instead, it indicates there's a conflict and gives you a choice of how to resolve it.

✳ NOTE

Unlike RAW files, metadata created in Lightroom is saved in the original file with the PSD, TIFF, and JPEG formats. When you bypass Lightroom and use Photoshop to open the file, Photoshop sees the metadata and opens ACR to enable you to make changes before opening the file.

Figure 10-6 shows two thumbnails with metadata conflict warnings. The up-pointing arrow, the Metadata Had Conflict icon, indicates metadata was changed by an external program but those changes have not been updated in Lightroom's catalog. The exclamation point, which is the Metadata Was Changed Externally icon, indicates Lightroom had an error when saving metadata. This occurs when the same metadata, such as keywords or develop settings, was changed by Lightroom and an external program; for example, a RAW file that's edited in Lightroom and ACR. A third icon with a down-pointing arrow (not shown in Figure 10-5) indicates Lightroom has made metadata changes that haven't been saved yet. Because most saving in Lightroom is automatic, this icon is less common. It's typical for it to appear momentarily when synchronizing settings to a large number of files.

To resolve the metadata conflict, click the Metadata Has Conflict icon or the Metadata Was Changed Externally icon. A dialog box opens enabling you to determine how you would like

FIGURE 10-6

This composite image shows two of Lightroom's metadata conflict warnings. Click the icon to open a dialog box to help resolve the conflict.

FIGURE 10-7

When resolving metadata conflicts, Lightroom gives you the opportunity to accept external edits or overwrite them with Lightroom's settings.

to handle the conflict. Figure 10-7 shows the dialog box I got when clicking the Error Saving Metadata icon. The options are the same when clicking the Metadata Was Changed Externally icon. Choose Overwrite Settings to overwrite externally changed metadata with Lightroom's metadata. Or choose Import Settings from Disk to overwrite Lightroom's metadata with metadata created externally.

If you handle your RAW conversions using Lightroom instead of ACR, and manage metadata, such as keywords and labels in Lightroom instead of Bridge, which is what I strongly recommend, you shouldn't see these dialogs boxes.

✳ TIP

You can press ⌘+S on the Mac or Ctrl+S in Windows to save metadata and overwrite external settings for the selected files without clicking the icon.

Choosing the Right Path

The main difference between Lightroom and Photoshop is the very nature of their workflow. Lightroom is a nondestructive workflow. Anything done in Lightroom can be undone at any time. With Photoshop, it's a different story. Unless special precautions are taken, such as using layers and masks, most edits in Photoshop are not reversible after the file is closed. This is important to Lightroom users because opening a photo in Photoshop with Lightroom editing applied causes those edits to become permanent in the Photoshop version.

For example, if I change a photo to black-and-white in Lightroom, I can change it back to color at any time. But if I open a black-and-white version in Photoshop, I'll never be able to change that version back to color. If I spend an hour retouching it in Photoshop and then decide I need a retouched color version too, I will need to start all over with a color version and redo

my retouching. Being mindful of your timing and the settings applied when opening a file in Photoshop can save you from this kind of frustration.

Choosing the right time

I try to determine if a photo needs Photoshop's help as early in the process as possible. When a trip to Photoshop is necessary, if it's a RAW file, I make basic color and tone adjustments before opening in Photoshop. This is important because a RAW file contains a large amount of data, particularly in the highlights. If I open the file in Photoshop without managing highlight clipping, I may not be able to unclip the highlights when the file comes back to Lightroom. Lightroom adjustments such as cropping, vignettes, and Adjustment Brush touch-ups can wait until Photoshop editing is complete and the photo is back in Lightroom.

Choosing the right settings

Sometimes the decision to work on a photo in Photoshop is made after extensive editing in Lightroom. When this happens, it's necessary to consciously choose the best settings to take to Photoshop. I've made the mistake of not doing this before, and the result was quite painful.

Figure 10-8 shows an aircraft photo from the Evergreen Aviation and Space Museum in McMinnville, Oregon. It's one of the finest aviation museums in the country and a must-see for aviation enthusiasts. The large plane behind the central subject is the infamous Spruce Goose, built by Howard Hughes and flown only once.

When preparing this photo for competition for a local photography association, I decided to crop the landing gear because I didn't like the empty space below the plane. During the competition critique one of the judges who liked the photo made a valid point that it would be a stronger image if the landing gear were visible. Because I planned to enter the image in the upcoming Professional Photographers of America International Photographic Competition, I decided to redo the image. When I was performing my advanced Photoshop editing on the first version, I opened it with the gear cropped out in Lightroom. Because of that mistake, it was necessary to begin again in Lightroom with an uncropped version and redo about six hours of Photoshop editing. It would have been much easier if I had left my options open the first time by uncropping the photo before editing it in Photoshop. I could then have easily recropped it in Lightroom with the landing gear out if I wanted to. (In Chapter 12, I show you the Photoshop masking techniques used on this photo.)

✳ TIP

Use the panel preview button to easily turn off a Develop module panel's settings before editing in Photoshop. Then you can later reactivate settings by turning on the preview.

FIGURE 10-8

I made the mistake of editing a version of this photo in Photoshop with the landing gear cropped out in Lightroom. When I decided later to re-edit the photo with the landing gear in the frame, I had to start over, requiring six hours of detailed Photoshop editing. It would have been much better to remove the Lightroom cropping before opening the first version in Photoshop.

Workflow for editing original non-RAW files

If you have a non-RAW photo with Lightroom Develop settings applied and you want to edit in Photoshop, you have two choices: Edit the original or edit a copy with Lightroom settings. If you edit the original, Photoshop opens the photo without Lightroom settings applied. If you edit a copy with Lightroom setting, it's a good idea to turn off most of those settings beforehand so they don't get baked in to the Photoshop version. The problem is that when the Photoshop editing is complete and the photo is back in Lightroom, you won't be able to just turn on the Lightroom settings used on the original because it's a new copy photo. Fortunately there's an easy way to solve this dilemma. When you have a non-RAW file that was edited in Lightroom and now needs editing in Photoshop, follow these steps:

1. Right-click the photo and choose Edit In ➪ Edit in Photoshop from the contextual menu. When the dialog box opens, select Edit a Copy.
2. When editing in Photoshop is complete choose File ➪ Save in Photoshop.
3. Go back to Lightroom's Develop module and find the copy, which should be next to the original photo. Then select both the original and the new copy.
4. Make sure the original photo is the most selected photo and then synchronize the desired Develop settings (as described in Chapter 6) from the original to the new copy to apply them to it.
5. Fine-tune the restored Lightroom settings to fit the newly edited file if necessary.

Following this process helps to keep the largest number of options on the table when that unanticipated trip from Lightroom to Photoshop arises with a non-RAW file.

CHAPTER 11

Understanding the Photoshop Way

Lightroom shares much of Photoshop's DNA, but you barely notice that fact when viewing the programs side by side. That's because most of Lightroom's features come from Adobe Bridge and Adobe Camera Raw (ACR) — programs that are part of Photoshop but operate outside it. As a Lightroom user, it isn't important to understand every nuance of Photoshop because most of your workflow is centered in Lightroom. But it is important to understand basic Photoshop concepts and how to prepare Photoshop to work seamlessly with Lightroom.

Understanding Photoshop CC

The latest version of Photoshop is called Photoshop CC (Creative Cloud). It was released in spring 2013 along with Adobe's other design programs as part of the Creative Cloud Suite. Photoshop CC is different from every previous version because it requires users to have a monthly Creative Cloud subscription instead of purchasing the software license as in the past.

The use of the word "cloud" is confusing in this case. Normally, *cloud computing* implies the user is leasing software hosted on a remote computer server instead of being installed on his or her computer. In this normal cloud scenario, you need to log in to access the software. This isn't the case with Adobe's Creative Cloud programs. The software is installed on the user's computer just like previous releases. All user photos are also stored on the user's computer, and it isn't necessary to be online to use the program or access the photos. Adobe periodically connects to the user's computer to see if the subscription is current. If the bill hasn't been paid, the software

is disabled. Photos are still accessible using other editing programs, such as older versions of Photoshop.

✳ TIP

Lightroom is part of the Creative Cloud Suite, but it can also be rented separately from the suite.

✳ NOTE

The latest version of Photoshop is Photoshop CC that requires a monthly subscription. You will be able to accomplish everything I show you in the following chapters using Photoshop CS6, CS5, or even CS4.

When Adobe transitioned its Creative Suite products to the new Creative Cloud, all its major design programs were switched to subscription-only. This means to stay current with the latest versions, it's necessary to subscribe to Adobe's Creative Cloud. However, Adobe made an exception for Photoshop CS6: It decided to continue offering the software for purchase and will continue to support it with minor fixes and updates. But Photoshop CS6 will not receive the new features added to Photoshop CC. That means, as of this writing, you can still purchase the non-cloud Photoshop CS6 and use it without subscribing to the Creative Cloud. This gives photographers and other Photoshop users the choice to use dependable stand-alone software or rent the latest on a monthly basis.

✳ NOTE

Most of the Photoshop CC improvements important to photographers were added to Adobe Camera Raw 8, which means they were also added to Lightroom 5. If you continue to stay current with the latest Lightroom version, you'll be up to date with the important RAW editing updates added to ACR 8.

For creative professionals who use multiple Adobe design programs or collaborate with other designers, the Creative Cloud makes sense. But it doesn't make as much sense for photographers like me who depend on Lightroom for the majority of their postproduction needs. There are times when I go long stretches without using Photoshop. When I do need it to solve a problem, the tools I use are rarely the latest and greatest additions.

I stay up to date with the latest version because I need to professionally. Yes, it's fun to play with the new bells and whistles, but most of the time they aren't necessary to solve the problem in front of me. The Photoshop material I cover in this book can be accomplished with several versions of Photoshop. My advice to photographers is to stay current with Lightroom. If you

have Photoshop CS6, CS5, or even CS4, continue using it until Adobe offers a compelling reason to upgrade and begin paying a monthly fee to use Photoshop.

✳ TIP

Adobe's Creative Cloud offers other cloud features, such as online storage and a portfolio-sharing feature called Behance. More Creative Cloud features attractive to photographers are promised for the future.

Exploring the Photoshop Landscape

Photoshop's user interface (UI) is extraordinarily flexible and can be configured to suit any user. To help get you started, Photoshop comes with basic workspace presets. These are arrangements of panels designed for different types of users. You can access the Workspace menu by choosing Window ➪ Workspace or by clicking the Workspace Switcher at the top-right, above the panels. Choose Photography from the menu to get the same panel layout shown in Figure 11-1. This workspace is laid out with the panels most important to photographers. However all workspaces share the same general features.

✳ TIP

If your Photography workspace looks different from Figure 11-1, try choosing Window ➪ Workspace ➪ Reset Photography to restore it to the default Photography workspace layout.

- **Document window:** This is the main workspace where images are displayed. When multiple images are open, they stack on top of one another. Click a photo's tab (where its name is shown) to make it the active photo. In Figure 11-1, you can see I have two images open. The image on the right is the active photo shown in the Document window.
- **Menu bar:** Don't let the simplicity of the menu bar at the top fool you. Several hundred commands are buried in these menus. Fortunately, as a Lightroom user, you'll only need a handful of these commands for special Photoshop projects. Note that some menu commands don't work with 16-bit files, so they are grayed out when you're working on a 16-bit file.
- **Tools panel:** The Tools panel on the left contains Photoshop's tools. Hover the pointer over a tool to see its name and keyboard shortcut. Most tool icons in the Tools panel have a small triangle at the bottom right indicating similar tools are stacked together. Click and hold on a tool to reveal the stacked tools, as I'm doing with the Brush tool in Figure 11-1.
- **Control panel:** The Control panel is located below the menu bar. When a tool is selected from the Tools panel, options for the tool are shown in the Control panel. In Figure

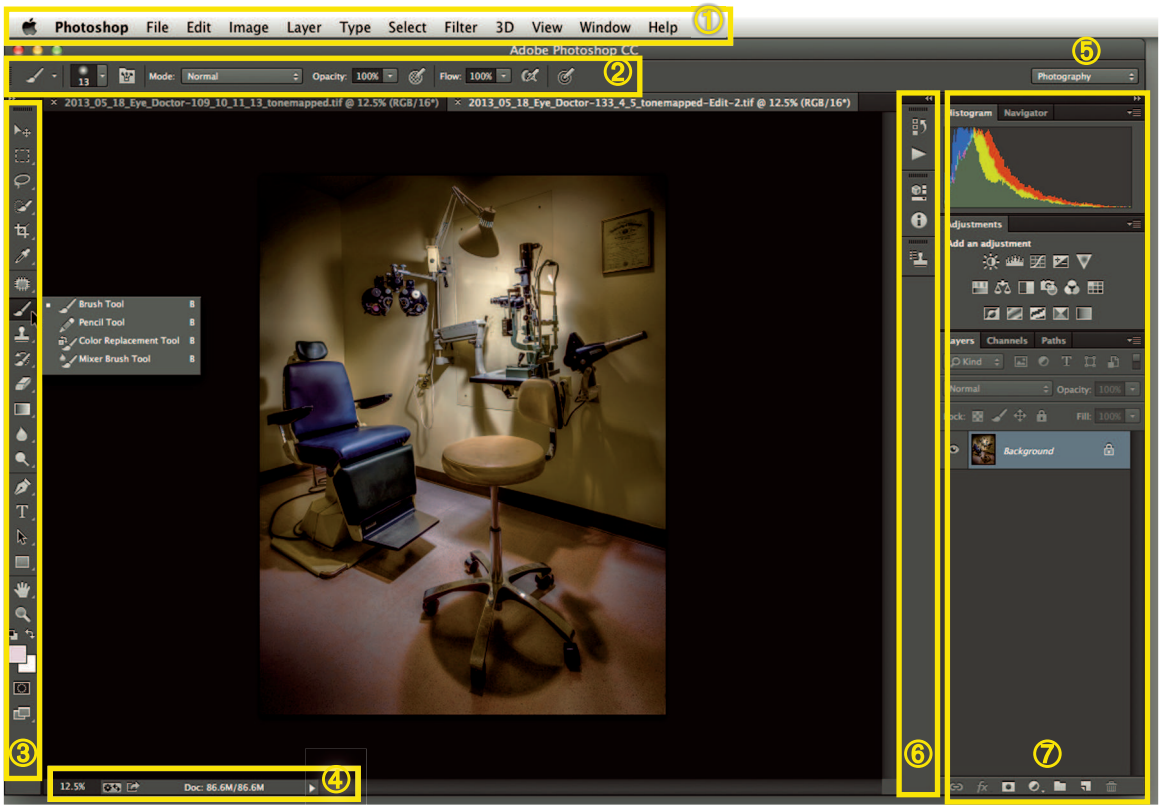


FIGURE 11-1

The Mac version of Photoshop CC's Photography workspace. All workspaces share the same general elements shown here. ① The menu bar. ② The Control panel. ③ The Tools panel. ④ The status bar. ⑤ The workspace switcher. ⑥ Collapsed panels. ⑦ Expanded panels.

11-1, I have the Crop tool selected from the Tools panel. Options for using the Crop tool are shown on the Control panel.

- **Panels:** The panels in Figure 11-1 are arranged in panel groups in a vertical dock. The group on the right is expanded horizontally, showing its panel sets. The second panel group to the left is collapsed to a narrow column. Panels can be dragged from a group and become free-floating.
- **Status bar:** Information about a document is displayed in the status bar at the lower left below the Document window. You can change the information displayed by clicking the arrow on the right to open a menu of options.

✳ NOTE

The screenshots in this book are from Photoshop CC. If you are using Photoshop CS5 or later, your version will look similar.

Working with Panels

Like Lightroom, Photoshop has loads of panels. But there is a lot more flexibility with Photoshop's panels. They can be opened and closed using the Window menu and be configured and grouped in countless ways. My intention with the Photoshop section of this book is to guide you on a simple path through this complicated software. Instead of describing everything you can possible do with a panel, I focus on using the Photography workspace that will serve your needs well.

✳ TIP

Press the Tab key to hide or reveal all panels.

Figure 11-2 shows a detail of the two panel groups docked on the right side of the workspace. The panel group on the right is expanded. You can see the Histogram and Navigator panels stacked together in a panel set. Click a panel's tab to bring it forward in its set. The second panel group on the left is collapsed. Icons are displayed to represent each panel. When you click a panel's icon, the panel pops out, as shown in Figure 11-2. Click the icon again to collapse the panel back to its icon. You can open only one panel at a time. Clicking a second panel icon opens its panel and closes the first panel. To expand the entire column, click the double-arrow icon at the top. Click the double-arrow again to collapse the group back to icons.

✳ TIP

Panels are selectively opened using the Window menu. For example, if I don't see the History panel, I choose Window ➪ History to add it to the workspace. I can then drop it on one of my panel groups.

Most panels have an options menu that's accessed by clicking the Panel Options icon at the panel's top-right. Figure 11-3 shows the Panel Options menu for the History panel. This menu contains shortcuts associated with the panel and saves you from digging through the main menus looking for a command.

FIGURE 11-2

Click a panel's icon in a collapsed panel group to open a panel. Click the icon again to close the panel.

Setting up Preferences

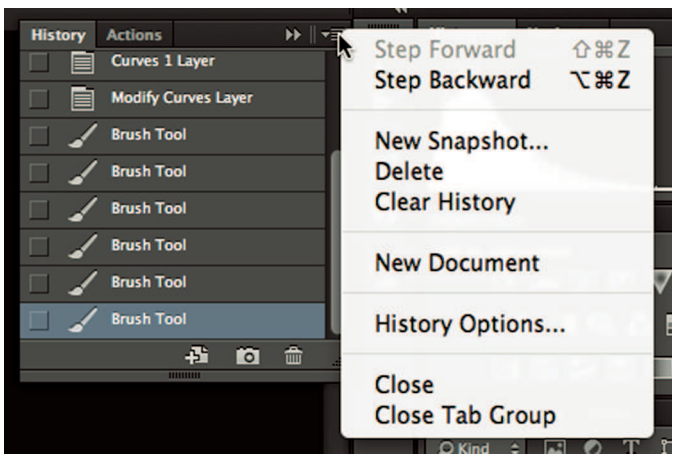


FIGURE 11-3

Click the Panel Options icon to open a panel's Panel Options menu. Each panel has its own menu with options and time-saving shortcuts.

It's best to set up Photoshop's preferences before you begin editing photos. In this section, I cover the Photoshop preferences that are most important to photographers who use Lightroom. The preferences described are for Photoshop CC. Most apply to Photoshop CS4 and later. To open preferences, choose Photoshop ➪ Preferences ➪ General (on the Mac) or Edit ➪ Preferences ➪ General (in Windows). When the dialog box opens, choose from the preference sets in the left column to work those preferences.

General preferences

Figure 11-4 shows the default selections for the general preferences. These settings are a great starting point. Three areas to notice are:

- **Zoom with Scroll Wheel:** Some people like to use their mouse scrolling to zoom in and out. This can be handy, but if you use an Apple Magic Mouse it takes some getting used to. The scrolling mechanism is very sensitive on these mice and can cause unexpected zooming. I show you an alternative method for zooming later in this chapter.
- **Zoom Clicked Point to Center:** This option does exactly what it says. When you click with the Zoom tool, the point you click on is oriented to the center of the screen. This is similar to how Lightroom's Loupe view zooming functions.
- **History Log:** Unlike Lightroom, Photoshop's editing history is *volatile*, meaning it is erased when the file is closed. It is possible to record history as metadata by choosing History Log. This is most useful in a legal setting where it's necessary to show that a photo has not been edited inappropriately. For example, photos of a crime scene cannot be admitted as evidence if they have been retouched. To view a photo's editing history, choose File ➪ File Info and go to the History pane. The History Log does not give you the ability to use the history to back up in time the same way you can in Lightroom. It's for information only.

✳ TIP

To restore Photoshop's default settings, relaunch the program while holding down Option+Shift+⌘ (on the Mac) or Ctrl+Alt+Shift (in Windows) when launching the program. Then click Yes after the dialog box opens.

Interface preferences

Interface preferences enable you to personalize the look and feel of Photoshop. If you don't like the dark gray interface, click one of the lighter grays in the Color Theme area to brighten it. When you do, all the fonts switch from white to black to maintain legibility against the lighter background. Something else that helps with readability is to change the UI Font Size menu to

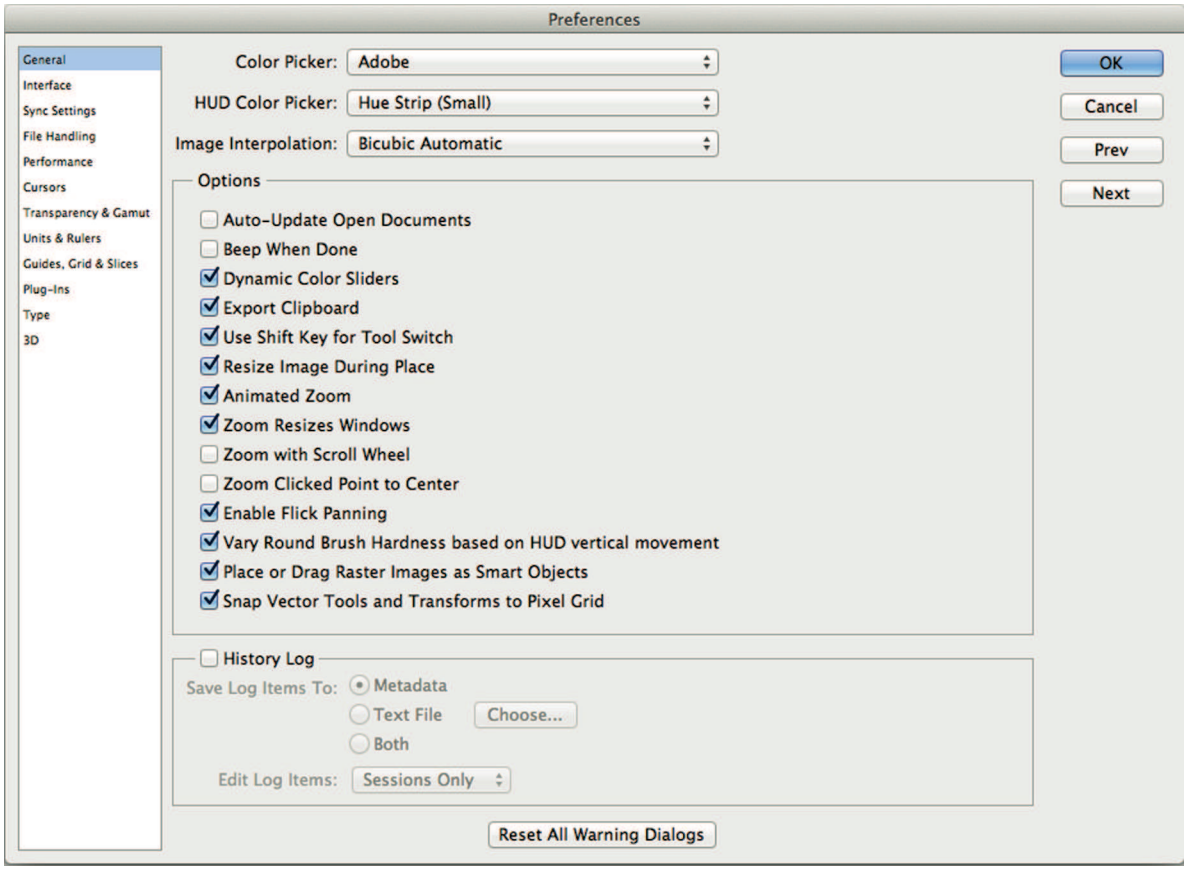


FIGURE 11-4

The General preferences for Photoshop CC. Use the column on the left to navigate to other preference sets.

Medium or Large. Be aware that you won't see this change until you restart Photoshop. This need to restart the application is true of some other preference settings as well.

Sync Settings preferences

The Sync Settings feature was added to Photoshop CC. It uses Adobe's Creative Cloud to synchronize preferences and presets from one computer to another. For example, if you have a desktop and a laptop, you can synchronize selected settings from the desktop to the laptop. Use the When Conflicts Occur menu to determine how setting conflicts are handled. I suggest you leave it set to Always Ask so you can resolve conflicts on an individual basis. Settings cannot be synchronized automatically nor can they be scheduled. To manually synchronize settings,

choose Photoshop ➪ *your Adobe ID* ➪ Sync Settings Now (on the Mac) or Edit ➪ *your Adobe ID* ➪ Sync Settings Now (in Windows).

✳ TIP

Photoshop's license enables you to install on two of your computers. The same is true with Lightroom.

File Handling preferences

The File Handling preferences are shown in Figure 11-5. Two sections, File Saving Options and File Compatibility, have important settings. Take a look at them so you know how to best configure Photoshop for working with Lightroom.

File Saving Options

A new file saving feature called Background Save was added to Photoshop CS6. In previous versions of Photoshop, when saving a file it wasn't possible to do anything while the file was being saved. Saving large files on my system consumed so many resources that I couldn't even check e-mail while waiting for a file to save. Now with Background Save, you can continue working while the file is being saved. A progress readout displays in the status bar so you can see the file-saving status. If you are using an older computer with limited memory or processing capabilities, you may need to disable Save in Background to keep things running smoothly.

Auto Save was also added in Photoshop CS6. It's something Photoshop users have wanted for many years. Auto Save enables Photoshop to recover unsaved files when the program unexpectedly crashes. I suggest selecting Automatically Save Recovery Information Every _ Minutes and choosing 5 in the menu so auto-save occurs every five minutes. Doing so will ensure the most up-to-date recovery if Photoshop comes crashing down.

File Compatibility

The File Compatibility section has one of the most important preferences for Lightroom users who use Photoshop's PSD format instead of TIFF for saving files. For Lightroom to catalog a PSD file, the PSD file must have an image preview embedded in it. Maximizing file compatibility embeds a preview in the PSD file so other programs like Lightroom can read the file. The default setting for Maximize PSD and PSD File Compatibility menu is Ask. With this setting, every time you save a new PSD file you will be asked if you want to maximize file compatibility. Because you are a Lightroom user, you should change the selection to Always so you don't need to answer the question every time you save a new PSD file.

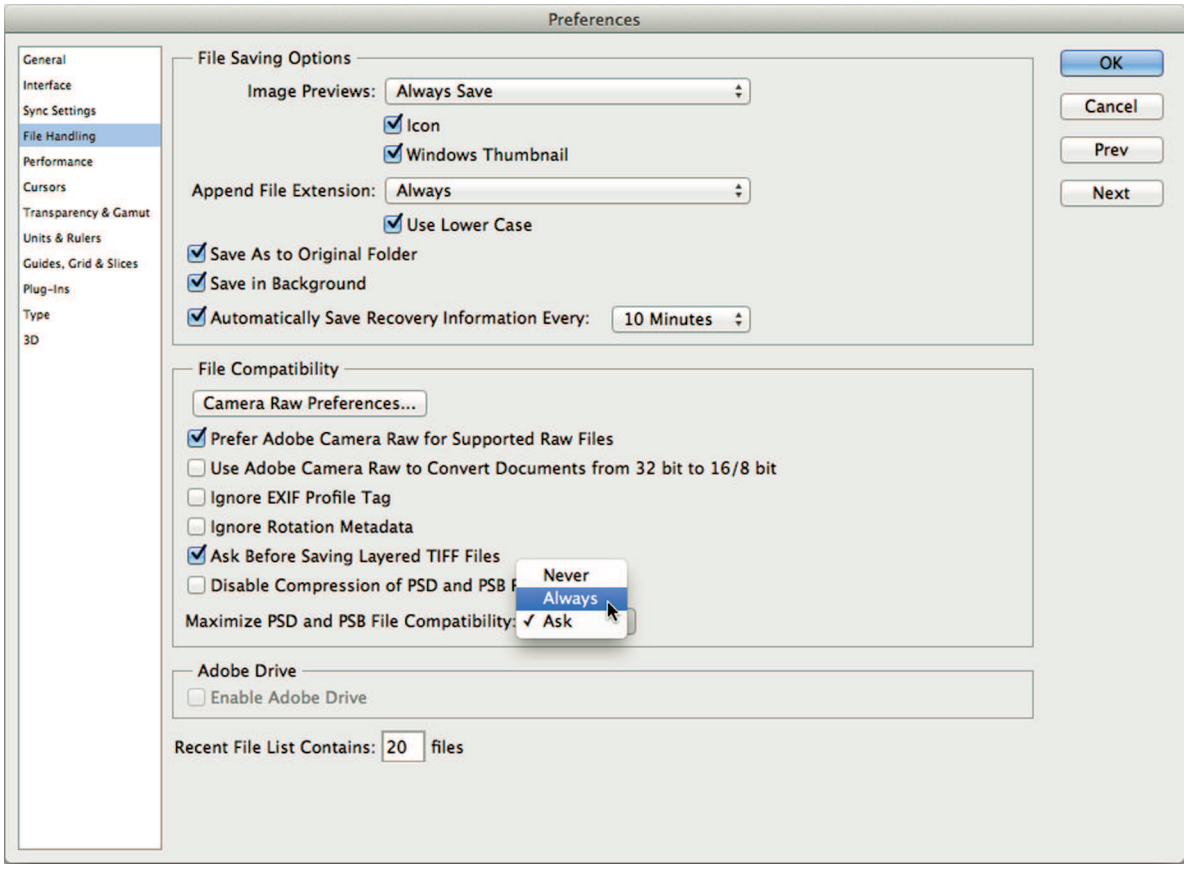


FIGURE 11-5

Photoshop's File Handling preferences consists of two main areas: File Saving Options and File Compatibility.

✳ TIP

If you have older PSD files that won't import in Lightroom, open and resave them with Maximize File Compatibility and try importing them in Lightroom again.

Performance preferences

The Performance preferences shown in Figure 11-6 help you optimize Photoshop for the computer hardware you are using. When you hover the pointer over an area, a description displays at the bottom of the dialog box. This feature helps to understand these important preferences.

Memory Usage

The Memory Usage area is used to allocate Photoshop's portion of the system memory (RAM). The Available RAM listed does not include memory allocated to the operating system. Photoshop is memory-intensive and should have access to as much memory as possible. However, other programs, including your operating system, may suffer if there isn't enough for them to function when Photoshop is open. The default setting of 70 percent is a good starting point. If you have lots of RAM in your system, consider increasing it to 80 percent.

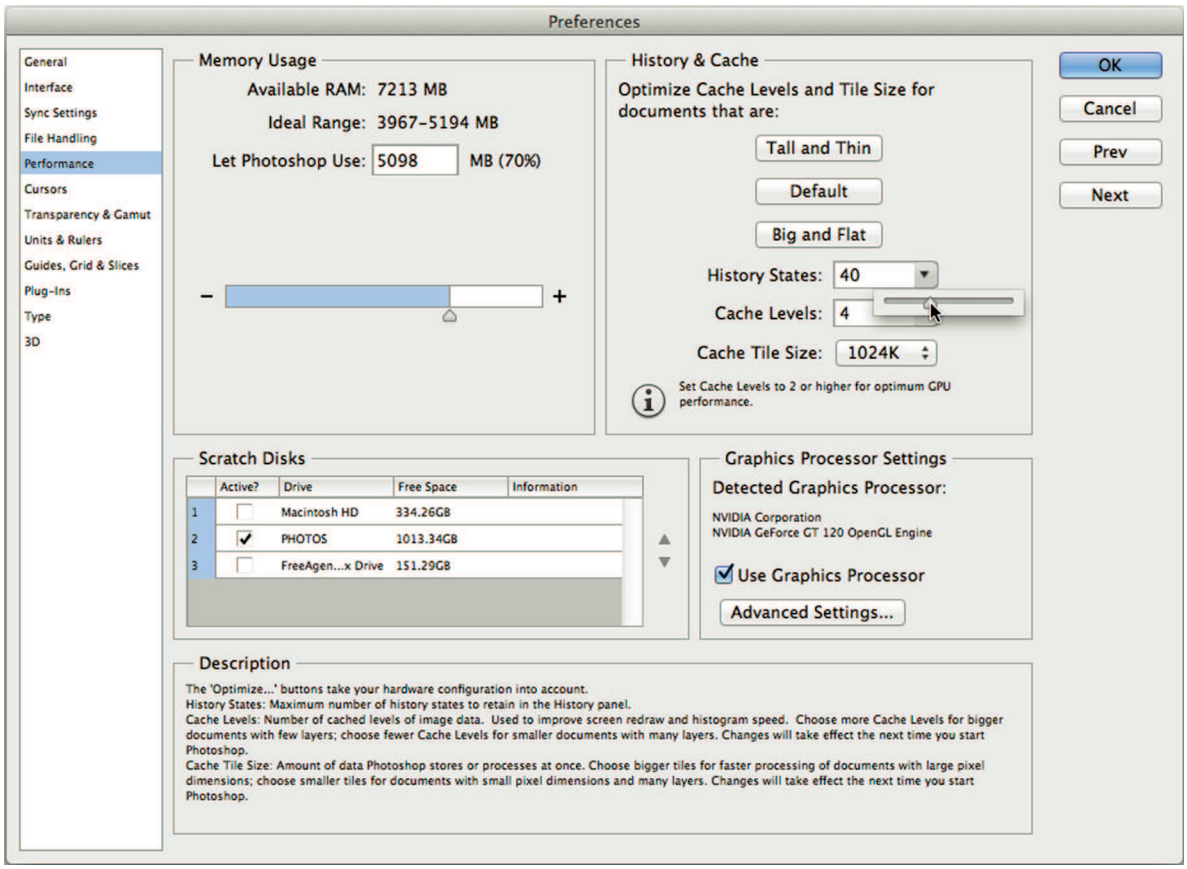


FIGURE 11-6

Photoshop's Performance preferences enable you to control how Photoshop uses system resources, such as memory, hard drive, scratch disks, and the graphics processor. Fine-tuning these settings can improve Photoshop's performance.

✳ TIP

If your system has less than 8GB of RAM, consider adding more. Lightroom and Photoshop function best when they have access to plenty of RAM, especially when you are using both programs at the same time.

History & Cache

A series of images in the *image cache* are used to speed up redrawing of the onscreen image. Each image in the image cache saves a version of the file. A larger number of cache levels makes Photoshop more responsive while you are editing. But image files with a large number of cache levels takes longer to open. Fewer cache level numbers allow images to open quickly, but performance may suffer. The default value of 4 works fine for most users. If you have a computer with fast solid-state drives (SSDs), consider increasing it to the maximum of 8.

By default, Photoshop keeps only the 20 most recent editing steps available in its history. Each history state is a full version of the file held in the system memory. This is one of the reasons Photoshop is a memory hog. If you have at least 8GB of RAM, consider increasing the History States value to 40 so you'll be able to go back further when necessary. If you have lots more RAM and don't tend to work on very large files, consider increasing it even more. Just remember those history steps vanish from the History panel as soon as you close the file.

Scratch disks

If Photoshop consumes all available memory, it begins using a section of a hard drive called a *scratch disk* to temporarily hold data while it performs calculations. If the hard drive Photoshop uses for a scratch disk is the same drive the operating system and the Photoshop program are using, Photoshop's performance will suffer. Other programs accessing the hard drive cause Photoshop to wait for access when it needs the scratch disk. If you have a second internal hard drive, it's a good idea to select it as your scratch disk. Then deselect the system drive. This is one of the best things you can do to speed up Photoshop when your system won't allow you to add more RAM. External drives aren't a good choice for scratch disks because their access speeds are typically too slow, though a Thunderbolt drive may be fast enough.

✳ TIP

A scratch disk isn't as fast as RAM so more RAM is a better performance solution when possible.

Graphics processor settings

Enhanced graphics processor support was introduced in Photoshop CS4. It uses the system's graphics processing unit (GPU) instead of the computer's main chip, the central processing unit (CPU), to speed up screen-drawing functions. This support also makes panning and zooming smoother. If you are using a computer built in the last five years, you should see your GPU listed. If the area is grayed out, try selecting Use Graphics Processor. If it won't let you select it, your GPU may not be compatible with Photoshop. It isn't a big deal if that's the case. Many of the GPU-related improvements are mostly eye candy. You'll still be able to do everything you need when editing photos.

Cursors preferences

The Cursors preferences, shown in Figure 11-7, are used to control how cursors (pointers) appear onscreen. It has two main sections: Painting Cursors and Other Cursors. Painting cursors are used for tools that are applied with a brush. I suggest choosing Full Size Brush Tip and Show Crosshair in Brush Tip. This gives you the best preview and makes the tool look similar to Lightroom's Adjustment Brush tool.

The Other Cursors section is used to control cursors for tools that don't use a brush. Choosing Standard displays an icon of the tool on the cursor. Choosing Precise shows only a crosshair. I used to recommend Precise in Photoshop CS4 and earlier because it was difficult to see where the center of action was when using standard cursors. But the standard cursors were updated in Photoshop CS5 with additional crosshairs and pointers, making it easier to

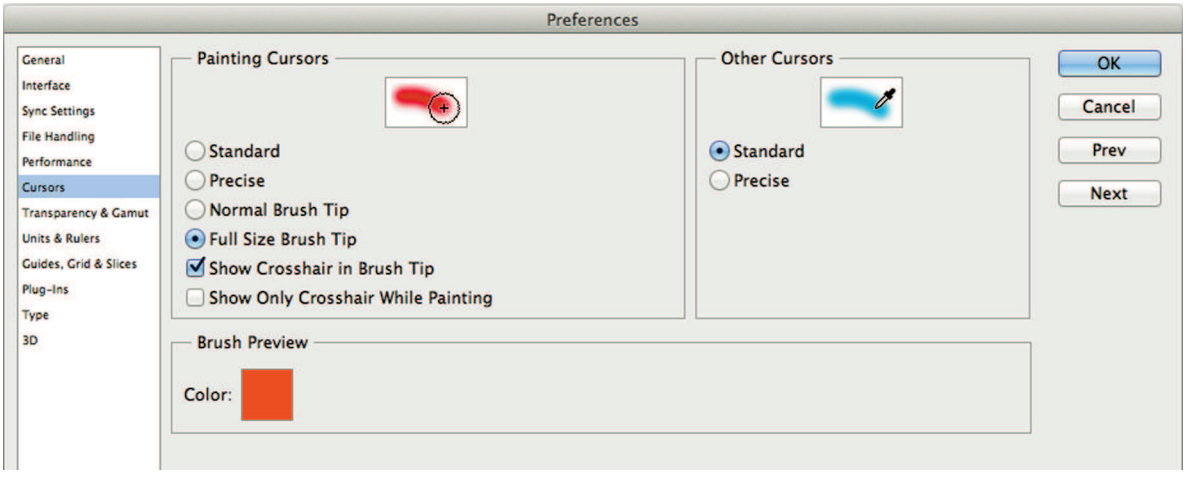


FIGURE 11-7

Use the Cursors preferences to control the cursor display when using standard cursors and special tool cursors.

use them. In Photoshop CS5 and later, I prefer standard cursors, especially when working with black-and-white where the small, gray precise cursor blends in and is difficult to see.

✳ NOTE

The final six Photoshop preference sets in the main preferences area don't have any bearing on what's covered in this book. I suggest leaving them at their default settings.

Camera Raw preferences

The Camera Raw preferences controls how Adobe Camera Raw handles RAW files and how ACR interacts with JPEG and TIFF files that have Lightroom Develop adjustments. To open the dialog box shown in Figure 11-8, choose Photoshop ➪ Preferences ➪ Camera Raw (on the Mac) or Edit ➪ Preferences ➪ Camera Raw (in Windows).

Lightroom users bypass ACR by opening directly in Lightroom. But some options are still important for Lightroom users. Here's a rundown of these settings:

- **General:** Be sure Save Image Settings In is set to Sidecar .xmp files. If this preference is also selected in Lightroom's Catalog Settings, both programs access and share the same metadata. This is how Lightroom sees RAW file adjustments made in ACR, and vice versa.
- **Default Image Settings:** These settings are the same as Lightroom's Default Develop Settings in the Presets preferences.
- **Camera Raw Cache:** This section is the same as the Camera Raw Cache Settings section of Lightroom's File Handling preferences. In fact, changing the settings in one program affects the other programs preferences similarly.
- **DNG File Handling:** I suggest you leave these at their default setting of unselected.
- **JPEG and TIFF Handling:** Determines how ACR behaves when JPEG and TIFF files are opened.

The JPEG and TIFF Handling section determines how files with Lightroom Develop adjustments are handled when opening them directly in Photoshop and bypassing Lightroom. When a JPEG or TIFF file is edited in Lightroom's Develop module, those edits are written as metadata in the file. When you open the photo directly in Photoshop, the JPEG and TIFF Handling section determines if the photo opens in ACR, giving you the ability to accept or modify the Lightroom adjustments prior to opening in Photoshop. The JPEG and TIFF menus have three options. Here's what they do:

- **Disable Support:** ACR doesn't open when a file contains Develop metadata. The file opens directly into Photoshop without applying the Lightroom Develop settings.

- **Automatically Open with Settings:** If the file has Develop metadata, it opens in ACR before opening in Photoshop. Click Open Image in ACR to open the photo with the previously applied Lightroom adjustments.
- **Automatically Open All Supported:** Opens the file types in ACR whether they have Develop metadata or not. This is useful for non-Lightroom users who want the same workflow capabilities Lightroom offers using ACR with non-RAW file types.

If you open JPEG and TIFF files from Lightroom to Photoshop, these Camera Raw settings don't come into play. I suggest choosing Automatically Open with Settings in case you decide to

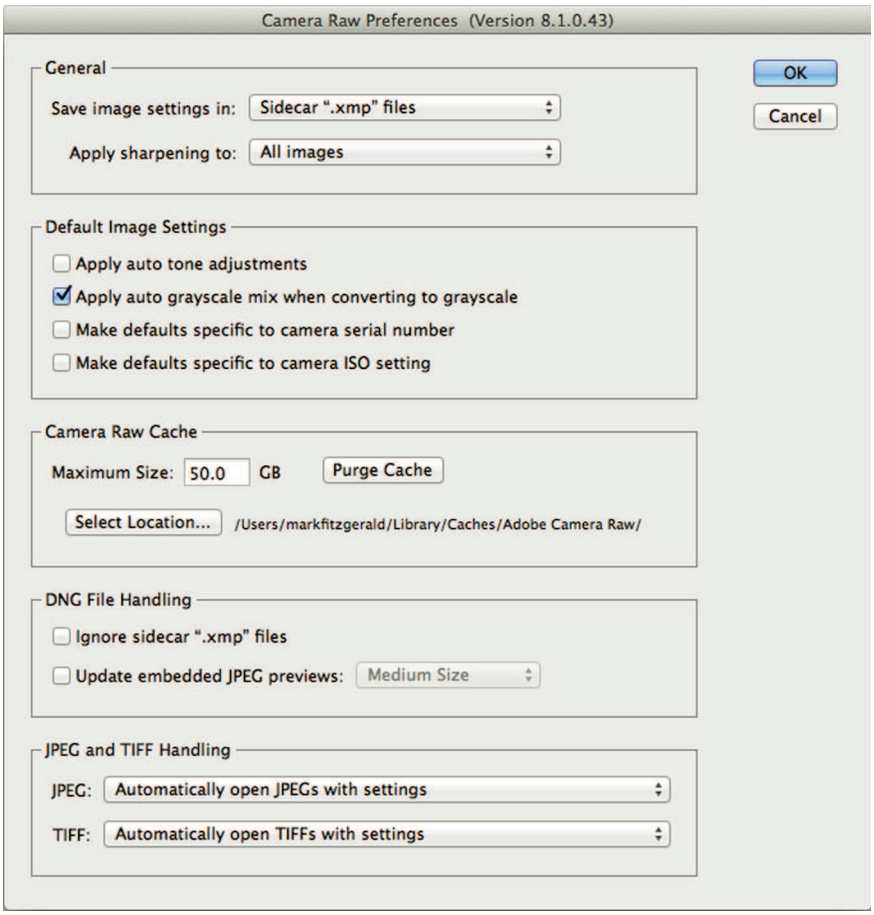


FIGURE 11-8

Photoshop's Camera Raw preferences are bypassed when opening files directly in Lightroom. However, Lightroom users need to pay attention to the JPEG and TIFF Handling section and how non-RAW files with Lightroom Develop settings are treated when files are opened outside of Lightroom.

bypass Lightroom to quickly open a photo. That way you'll see the photo in ACR as you saw it in Lightroom and be able to apply or modify the settings before the photo opens in Photoshop.

Managing Color Spaces

A *color space* is a defined range of colors. A box of crayons has a color space. If I draw a picture using a 40-count box of crayons, I'm limited to 40 colors to record the scene. If I make another drawing of the same scene using a box of 100 crayons, I can more accurately reproduce color nuances that weren't possible with the first drawing because the larger box has a larger color *gamut*, or range of colors. My printers also have color spaces with limited color gamuts. The inkjet printer has a much larger gamut than my color laser printer. These are called *device-dependent* color spaces because they specify the color gamut of a particular device.

Photo-editing programs work in defined color spaces that are called *device-independent*. These are more general color spaces designed for different types of uses. The three most common editing color spaces used by photographers are:

- **sRGB:** Standard RGB was developed to be a universal color space. It is used for web display because most computer monitors have a limited gamut. sRGB has the smallest gamut of these three color spaces.
- **AdobeRGB 1998:** This color space was developed by Adobe to provide a larger color space for documents intended for offset printing where it is possible to reproduce a larger color gamut.
- **ProPhotoRGB:** This very large color space encompasses the range of colors perceptible to the average human eye. This color space is used for processing RAW files because of the large amount of data in those files.

Figure 11-9 shows plots of these three-color spaces using a program called ColorThink created by Chromix The smaller graph is sRGB. The largest graph is ProPhotoRGB. And the mid-size graph is AdobeRGB 1998. Notice that all three color spaces overlap on many of the core colors. But the larger color spaces have colors that are outside the sRGB gamut.

Choosing an appropriate color space is important when it's time to output a photo. If the photo is intended for web usage, it's best to use sRGB. Most photo labs use equipment designed to work with the sRGB color space. In both cases if photos are output using AdobeRGB 1998, color will not reproduce correctly. On the other hand, if printing will be done with an inkjet printer, it's important to use a larger color space because modern inkjet printers are capable of reproducing very large gamuts. My Epson 4900 can reproduce yellows that are well beyond the gamut of AdobeRGB 1998.

Lightroom and Photoshop use different methods for managing color. Lightroom is designed to primarily work with RAW files that use very large color spaces. To accommodate these RAW files, Lightroom uses a color space that's similar to ProPhotoRGB. Decisions about

changing to a smaller, device appropriate color space in Lightroom aren't made until it is time to output a photo.

✳ NOTE

Lightroom uses the embedded color space of non-RAW files.

Photoshop handles color spaces differently. By default, it is setup to use the sRGB color space as its working space. But it is also configured by default to preserve and use the embedded color space of photo when it's opened. Because you will primarily be opening photos from Lightroom and then applying finishing touches back in Lightroom, it makes sense to use a large

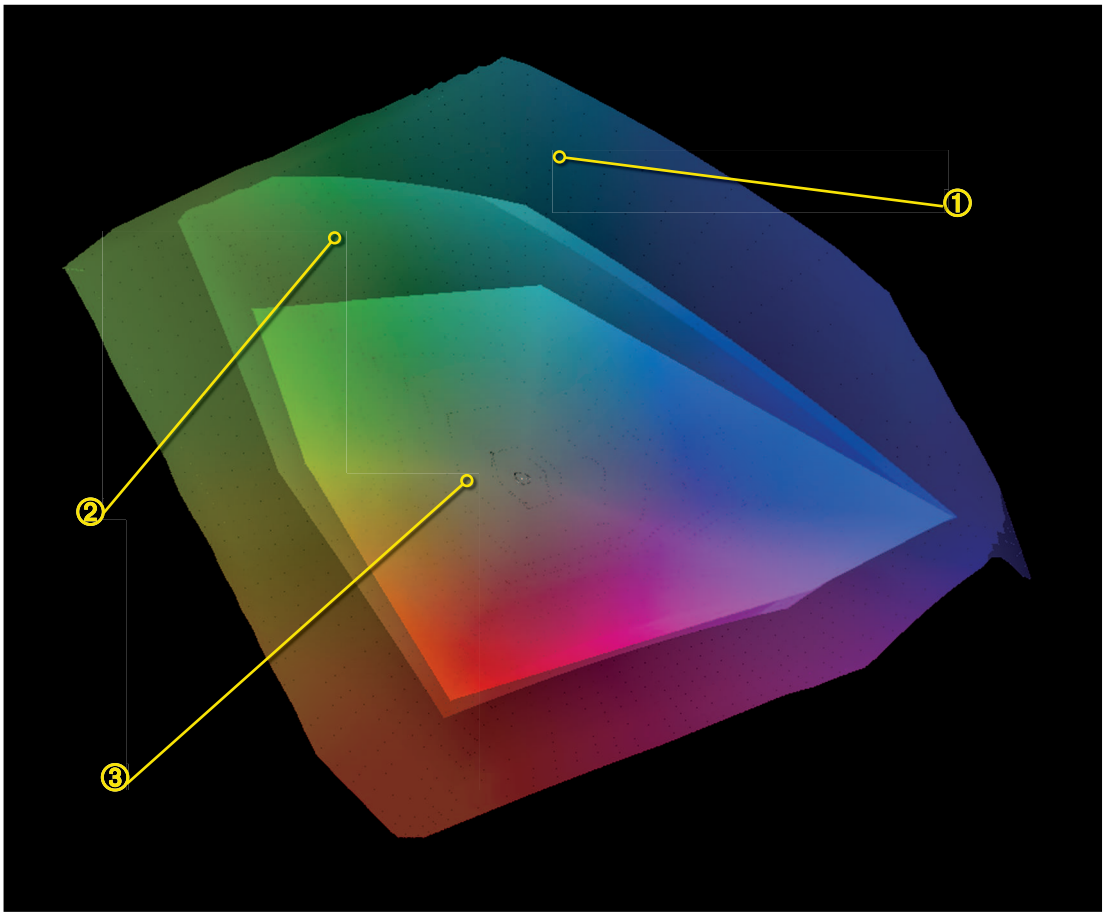


FIGURE 11-9

Color spaces have different gamuts. Here you can see that ② AdobeRGB 1998 is larger than ③ sRGB, but smaller than ① ProPhotoRGB.

color space in Photoshop as well. If you convert to a smaller color space in Photoshop, this color space is embedded in the file and limits editing possibilities later in Lightroom.

Figure 11-10 shows Photoshop's Color Settings dialog box with its default settings. Open this dialog box by choosing Edit ➪ Color Settings. The RGB menu in the Working Spaces area is used to determine your primary color working space. If you set up Lightroom's External Editing preferences to use ProPhotoRGB, it's best to change Photoshop to match it.

✳ KEEP IT SIMPLE

Set Lightroom's External Editing preferences and Photoshop's color settings to ProPhotoRGB.

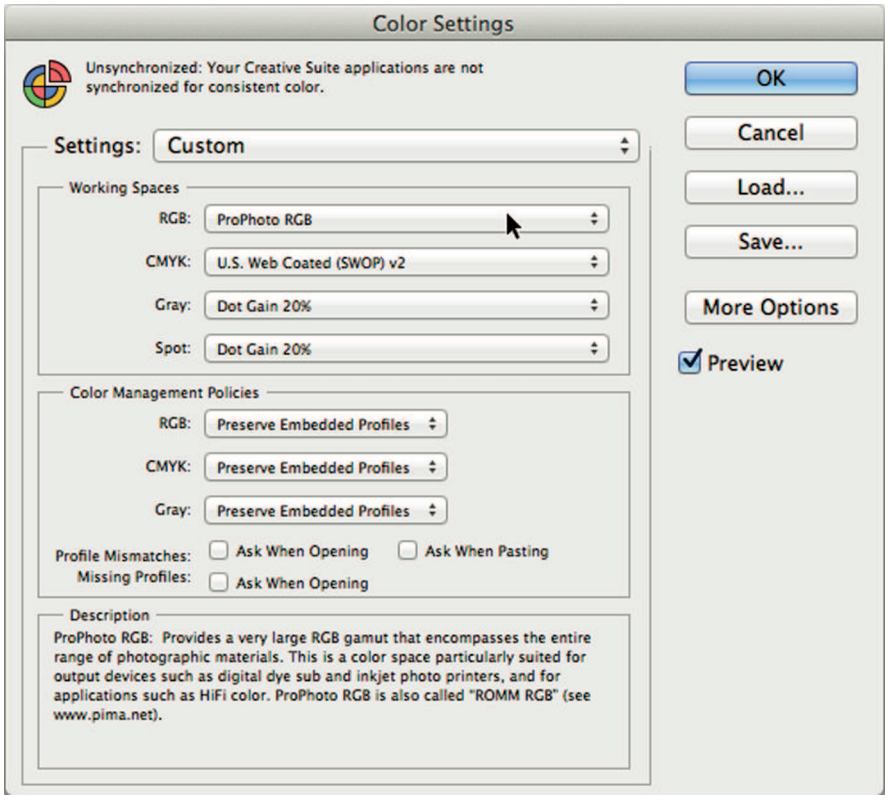


FIGURE 11-10

The Color Settings dialog box enables you to choose an RGB working space. When you hover the pointer over an option, a description of it displays below. The unsynchronized warning at the top indicates I have other Adobe applications that have color settings.

The menus in the Color Management Policies area are used to determine how Photoshop handles *color profile mismatches*. A profile mismatch occurs when the profile attached to a photo you are opening doesn't match the profile you selected in Photoshop's Color Settings. I recommend leaving the RGB menu set to Preserve Embedded Profile. That way if you open a file that was previously saved with a different color space, the embedded color space will be used in Photoshop.

Zooming and Panning Photos

Although they are conceptually similar in both programs, zooming and panning work much differently in Lightroom and Photoshop. Zooming and panning are built into Lightroom's design. Both functions are accessible at any time in the Library and Develop modules with a click or two. Photoshop is a tool-oriented program; individual tools are used to perform various functions. The Zoom tool is used for zooming and the Hand tool is used for panning. This often seems clunky to Lightroom users. But if you know a few shortcuts you'll be able to zoom and pan an image in Photoshop just as easily as you can in Lightroom.

Zooming

The Zoom tool (shortcut: Z) has an icon that looks like a magnifying glass and is located in the lower section of the Tools panel. Figure 11-11 shows the Control panel when the Zoom tool is selected with the Zoom tool's options. By default, the tool is set to zoom in and increase magnification. Every time you click, the tool zooms to a magnification preset. The current magnification is displayed in the status bar below the document window.

To zoom out, it's necessary to change the tool's settings in the Control panel. Click the Zoom Out icon, which has a minus sign (–), to switch the tool to zooming out. To change the tool back to zooming in, click the Zoom In icon, which has the plus symbol (+). To quickly jump to 1:1 magnification, click the 100% button.

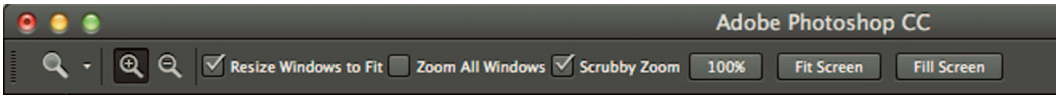


FIGURE 11-11

The Control panel is used to configure the current tool. This figure shows the settings for the Zoom tool. Use the Zoom In and Zoom Out buttons on the left to change the behavior of the tool.

✳ TIP

The keyboard shortcuts for zooming are found in the View menu. They are ⌘+= and Ctrl+= to zoom in, ⌘+– and Ctrl+– to zoom out, ⌘+0 and Ctrl+0 to fit onscreen, and ⌘+1 and Ctrl+1 to zoom to 100 percent. (It helps to remember the ⌘+= and Ctrl+= shortcuts as ⌘++ and Ctrl++, which is how the View menu displays them, but remember that you don't press Shift, as you would to get an actual + symbol.)

The Scrubby Zoom option, which is called Zoom Continuously in Photoshop CS5, enables you to zoom in and out by clicking and dragging. Select the option to turn it on. Then drag to the right with the Zoom tool to zoom in. Drag to the left to zoom out. Scrubby Zoom is one of Photoshop's features that uses your computer's graphics processor (GPU), so if Use Graphics Processor in Photoshop's Performance preferences isn't selected, the Scrubby Zoom option is grayed out in the Control panel.

Scrubby Zoom offers an intuitive method for zooming, but you need to select the Zoom tool to use it. Switching tools to change magnification can be inconvenient when you're working with a different tool. Fortunately, Photoshop has a cool feature called *hot keys*. Normally you can switch tools using their keyboard commands. For example, if you need to zoom, press the Z key to switch to it. Then you need to switch back to the tool you were using before zooming. A faster way to quickly zoom is to press and hold the Z key to temporarily access the Zoom tool. When you release the key after changing the magnification, you automatically return to the tool you were using before holding the Z key.

Panning

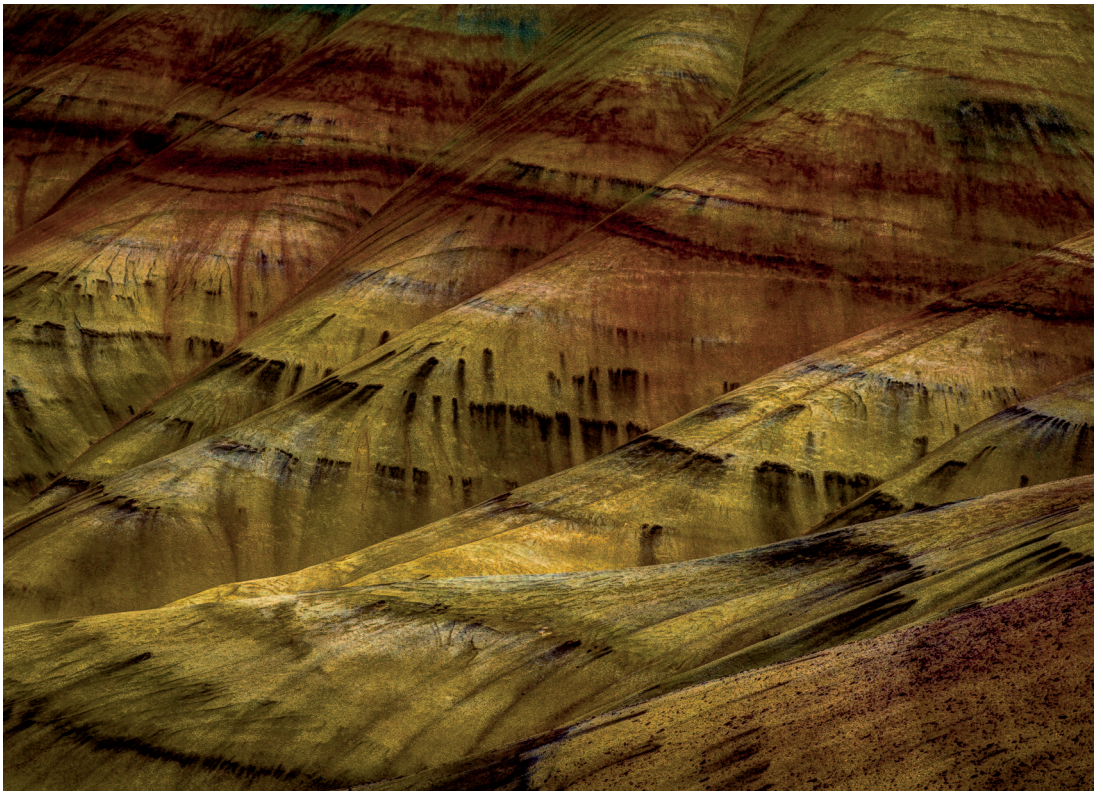
To pan a magnified photo, use the Hand tool (shortcut: H), which is located in the Tools panel directly above the Zoom tool. Click and drag the photo to pan. If your GPU is enabled in Photoshop's Performance preferences, you can do what's called *flick panning*. It is similar to panning a photo on a smartphone or tablet. To flick-pan, grab the photo and give it a quick flick as you release the mouse button. Flick panning is useful when you're zoomed in quite a bit and you need to pan a long distance to get to the desired area.

Something to be aware of is the Hand tool's shortcut works differently from the Zoom tool's. If you are zoomed in and press and hold the H key, Photoshop switches to what's called *birds-eye view*. When you hold the H key and click, the image zooms out and a white overlay box displays to indicate the screen magnification you are using. Drag the overlay to the desired area and release the mouse to zoom in to that area.

✳ TIP

If you prefer to get quick access to the Hand tool instead of bird's-eye view, press the spacebar to use the Hand tool at any time.

✳



CHAPTER 12

Using Layers for a Nondestructive Workflow

Photographers who use Lightroom for their primary postproduction workflow are accustomed to a nondestructive environment, where it isn't necessary to worry about undoing edits. It's a different story in Photoshop. When you make an edit in Photoshop, that edit can permanently alter pixels. This destructive nature makes it important to understand how to use layers to create a non-destructive Photoshop workflow to protect your files and maintain the greatest amount of flexibility in the future.

Understanding Layers

When a group of musicians records a song in a sound studio, each instrument is recorded on an individual sound track. Each vocalist is also recorded on an individual track. Sometimes, the musicians aren't even in the studio at the same time while recording their tracks. When the individual tracks are completed, a producer and a sound engineer combine the tracks and blend them to build the finished song. If an instrument is too loud, its track is turned down. If a vocalist doesn't sound just right, tweaks are made to his or her track. When the mixing is complete, all the instruments and vocals are layered on top of one another to create the final mix of the musical piece. A master recording is saved with the individual tracks in case the musicians want to remix the song later for a different sound.

It's the same concept in Photoshop. *Layers* are used to control various image elements, such as tone and color. When these adjustments are isolated to their own layers, they don't have a permanent effect on the overall image. A *flattened* version of the file is created when it's necessary

to merge the individual layers for output, such as printing at a lab. This flattened file is like the final mix of a song being burned on a CD. But just like the musicians recording in the studio, a master of the layered Photoshop file is saved in case future adjustments are desired.

Types of Photoshop layers

Photoshop uses different kinds of layers to hold specific types of content. Most layers function in the same way, although one type has restricted capabilities. It's important to understand how layer types vary when editing in Photoshop so that you know which layer type to use for a particular purpose.

Background layer

When a photo is first opened in Photoshop, it opens as a single layer named Background. Additional new layers are added above the Background layer and are named automatically. The "Background" name is reserved in Photoshop. Background layers are automatically locked to prevent certain types of changes, such as moving. This is a safety feature to help prevent accidental adjustments that cause big problems if they go unnoticed.

If you need to make an edit that's forbidden on a Background layer, you can unlock the layer. To unlock a Background layer, double-click its name in the Layers panel. When the New Layer dialog box opens, type a new name in the text box or use the new name suggested in the dialog box and click OK. The lock is removed from the layer as soon as the name changes. I recommend leaving the Background layer locked unless you have a specific reason for unlocking it.

Transparent layer

It's possible to have a layer that's completely empty. For example, you can create a new empty layer by choosing Layer ➪ New ➪ Layer. You can also delete parts of a layer and leave empty areas. Empty space in a layer is called *transparency*. Photoshop uses a gray and white checkerboard to indicate transparency when there are no other layers beneath the transparent layer. In Figure 12-1, you can see where I erased part of an unlocked Background layer. If another layer were beneath it, the lower layer would be visible through the transparent part of the upper layer instead of the checkerboard.

✳ TIP

You can double-click any layer's name to rename it. When you have lots of layers in a project, specific names can be very useful.

FIGURE 12-1

Photoshop uses a checkerboard to indicate transparency. You can see where I erased part of an unlocked Background layer.

Pixel layer

Photos are composed of pixels. Pixel layers are layers that contain pixel data. A Background layer is a pixel layer. The editing of these pixels is what causes Photoshop editing to be destructive. Pixel layers can consist of an entire layer of pixels, such as a Background layer, or just a small section of pixels. For example, to add another bird to the sky, I copy a bird and place it on its own layer. Most of the bird's layer remains transparent with the exception of a small group of pixels that are the bird.

✳ NOTE

Photoshop also supports type layers and vector layers that are used to contain vector data for graphics, such as logos, rather than pixels. As a photographer, I have never used a vector layer with any of my image projects.

Adjustment layer

Standard tonal and color adjustments are typically applied using Photoshop's Adjustments options. For example, if I want to adjust color, I choose Image ➪ Adjustments ➪ Hue/Saturation. When I do, the Hue/Saturation dialog box, shown in Figure 12-2, opens with controls to modify various color settings. The problem with this method is that using the Adjustments submenu alters the pixels in the current layer. If I make this adjustment to a Background layer and close the photo, I won't be able to undo the Hue/Saturation adjustment in the future.

An alternate method for making tone and color adjustments is to use what's called an *adjustment layer*. These layers contain adjustments, such as Hue/Saturation, and are positioned above pixel layers in the Layers panel. An adjustment layer affects all the layers beneath it. It's like looking at the photo through a filter with a tonal or color adjustment. An adjustment layer not only isolates the adjustment to an individual layer, it also remembers the last settings used. This enables you to modify those settings at any time, which is a really important feature because you can make countless tweaks to an adjustment layer without harming any pixels.

Figure 12-3 shows the Layers panel with two adjustment layers: Curves 1 and Hue/Saturation 1. The Curves layer is used to apply a tonal adjustment and the Hue/Saturation

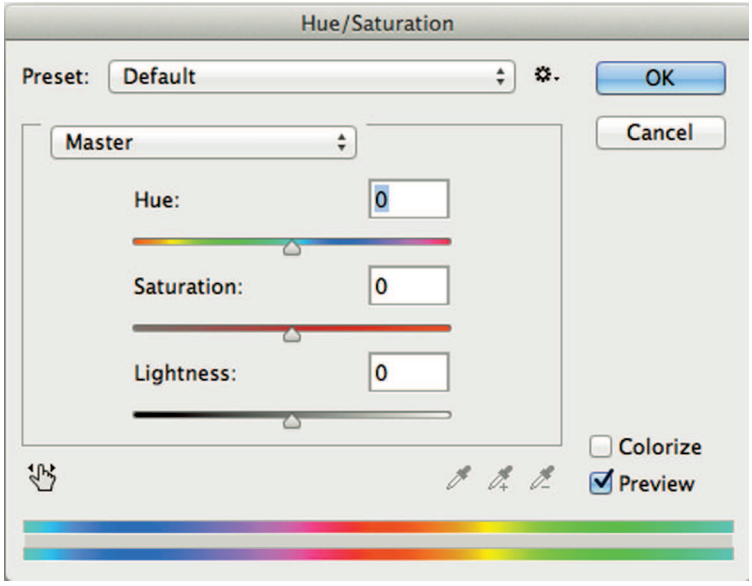


FIGURE 12-2

The standard Hue/Saturation dialog box opens by choosing Image ➪ Adjustments ➪ Hue/Saturation. The commands in the Adjustments submenu function on the currently selected layer and permanently change its pixels.

layer, which is the selected layer in blue, is used to modify color. These layers are completely transparent in all other regards.

> ✳ NOTE
>
> Some menu commands are grayed out when an adjustment layer is the currently selected layer because those commands cannot be used with adjustment layers.

Working with the Layers Panel

The Layers panel is the main control center when working with layers. Click a layer to select it and make it the active layer. The blue highlight on the Hue/Saturation 1 layer in Figure 12-3 indicates it's the active layer. A layer's visibility can be turned off and on using the eyeball icon to the left of the layer. Layers can be moved up and down in the layer stack by dragging them. For example, the Curves 1 Layer can be repositioned above the Hue/Saturation layer. However, because the Background layer is locked in Figure 12-3, other layers cannot be positioned below it.

The Layer menu is used to access all layer commands. Digging through menus is inconvenient so you can also access many of the most important commands using the Layers panel. Some commands are displayed as buttons at the bottom of the panel. For example, you

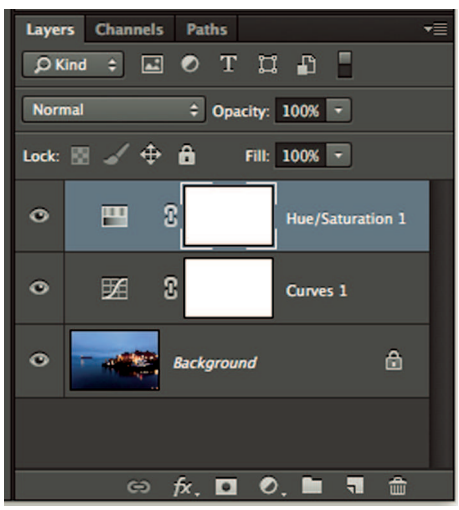


FIGURE 12-3

Layers are controlled with the Layers panel. The Background layer is the pixel layer with the photo. The adjustment layers on this image are used to nondestructively modify tone and color. Click the eyeball icon next to a layer to toggle the layer's visibility.

can delete a layer by selecting it and clicking the Delete Layer button (it looks like a trash can). You can create a new empty layer using the Create New Layer button (the turned-page icon) directly to the left of the trash can.

Other commands, such as Flatten Image, are located in the Layers panel menu, which is a much faster method than finding the command at the bottom of the Layer menu. (Panel menus are described in Chapter 11.)

When working with layers, it's important to pay attention to which layer is the currently selected layer. A common occurrence is to be on the wrong layer when trying to make an adjustment. Either the adjustment isn't having the expected result, or the menu you want to use is grayed out. Both are signs that you're on the wrong layer. The takeaway is that whenever things aren't doing what you expect them to do, stop and check the Layers panel to make sure the correct layer is selected.

✳ TIP

Some menu commands work only with 8-bit files. If you are using 16-bit files, those commands are grayed out. You can convert a 16-bit file to an 8-bit file by choosing Image ➪ Mode ➪ 8-Bits/Channel.

Adjustment Layers for Lightroom Users

As a Lightroom user, most of your editing adjustments are applied in Lightroom, either before or after working on a photo in Photoshop. However, it is useful to know how to work with tone and color in Photoshop because Photoshop has much more powerful capabilities than Lightroom for making localized adjustments, which I describe later in this chapter. Photoshop's most powerful tonal adjustment tool is Curves and its most powerful color adjustment tool is Hue/Saturation.

There are multiple methods for creating a new adjustment layer in Photoshop. You can choose Layer ➪ New Adjustment Layers to see the New Adjustment Layer submenu options. You can also access this menu using the New Fill or Adjustment Layer button that looks like a yin-yang symbol at the bottom of the Layers panel. But the easiest method for creating adjustment layers is to use the Adjustments panel shown in Figure 12-4. The Adjustments panel was added in Photoshop CS4, though the CS4 version looks different from the Photoshop CC version shown in the figure. The panel doesn't have every adjustment layer option that the New Adjustment Layer submenu does, but it has those that are important to photographers. I suggest you use the Adjustments panel because it's easy to work with and should already be visible in the Photography workspace (described in Chapter 11). If you don't see the Adjustments panel, choose Window ➪ Adjustments to open it.

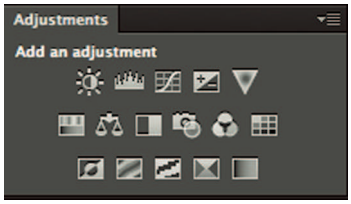


FIGURE 12-4

The Adjustments panel is a convenient way to create new adjustment layers. Hover the pointer over a button to see its description. Click a button to add an adjustment layer above the currently selected layer.

✳ NOTE

Photoshop CC and CS6 use the Properties panel to display adjustment layer information. Photoshop CS5 uses an Adjustments panel that is stacked with the Masks panel.

Adjustment layers are useful for adjusting tone and color in Photoshop. But keep in mind when editing a layered file in Lightroom that you can't access the layers. Instead, Lightroom works with a composite view of the layered file and uses metadata to track changes. If you reopen a layered file in Photoshop from Lightroom and choose Edit Original from the Edit Photo with Adobe Photoshop command, the original layered file opens without the Lightroom edits. If you choose to open a copy with Lightroom adjustments, a flattened version of the layered file opens with the Lightroom adjustments.

Fine-tuning color with Hue/Saturation

To add a Hue/Saturation adjustment, click the Hue/Saturation button, the first button on the left in the middle row of the Adjustments panel. When you do, two things happen: a Hue/Saturation layer is added above the selected layer and the Properties panel opens. The Properties panel is used to manage an adjustment layer's properties. In Figure 12-5, the Properties panel displays the Hue/Saturation adjustments because a Hue/Saturation adjustment layer is selected. If I click on a Curves adjustment layer, the panel changes contextually to display the settings for that layer. If you don't see the Properties panel, choose Window ➪ Properties.

Although each type of adjustment layer has its own style of properties, the buttons on the bottom of the Properties panel are the same for every adjustment layer. Here's what the buttons are for, starting from the left:

- **Clip Layer:** An adjustment layer affects all layers beneath it. Sometimes it's desirable to have the adjustment affect one layer without affecting others. For example, when swapping a head in a family portrait, I may want to use Curves to adjust the layer with the head, but not the Background layer beneath it. I can make that tonal adjustment to

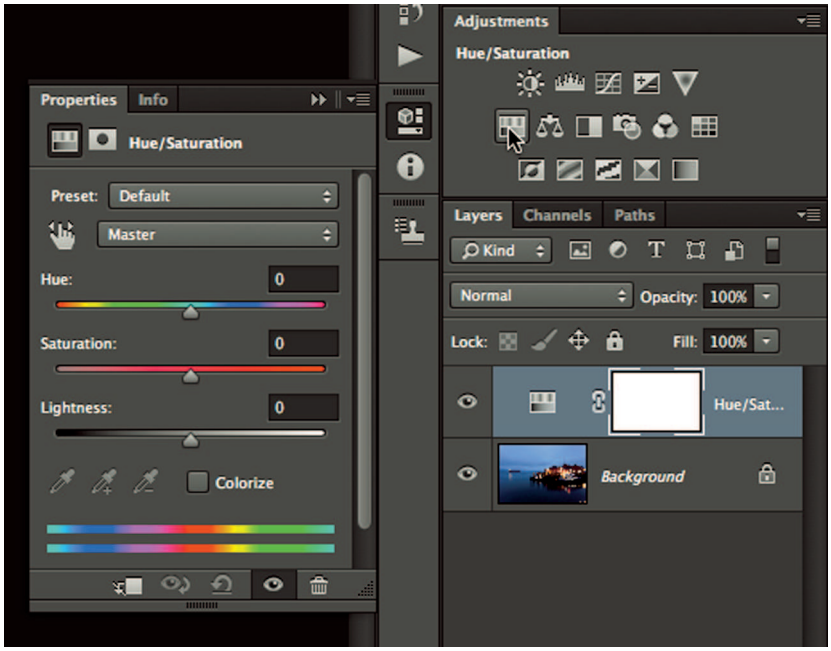


FIGURE 12-5

When you click the Hue/Saturation button in the Adjustments panel, a new adjustment layer is added to the Layers panel and the Properties panel opens with properties for the layer.

just the head layer by placing a Curves layer above the other layers and using the Clip Layer button.

- **View Previous State:** This enables you to hide the current adjustment and see the settings you used the last time you worked with the panel.
- **Reset to Defaults:** Resets the panel's adjustments to default settings. Resetting is useful when you get off course with a complicated adjustment and decide to start over.
- **Toggle Layer Visibility:** Clicking this button is the same as clicking the eyeball icon next to the layer in the Layers panel.
- **Delete Layer:** Used to delete the current adjustment layer.

Hue/Saturation works similarly to the HSL panel in Lightroom, described in Chapter 7. Its sliders have the same functions and almost the same names: Hue, Saturation, and Lightness (called Luminance on the HSL panel).

✳ TIP

Place color adjustment layers above tonal adjustment layers. If the tonal layer is above the color layer, strong tonal adjustments affect the color adjustments layer below.

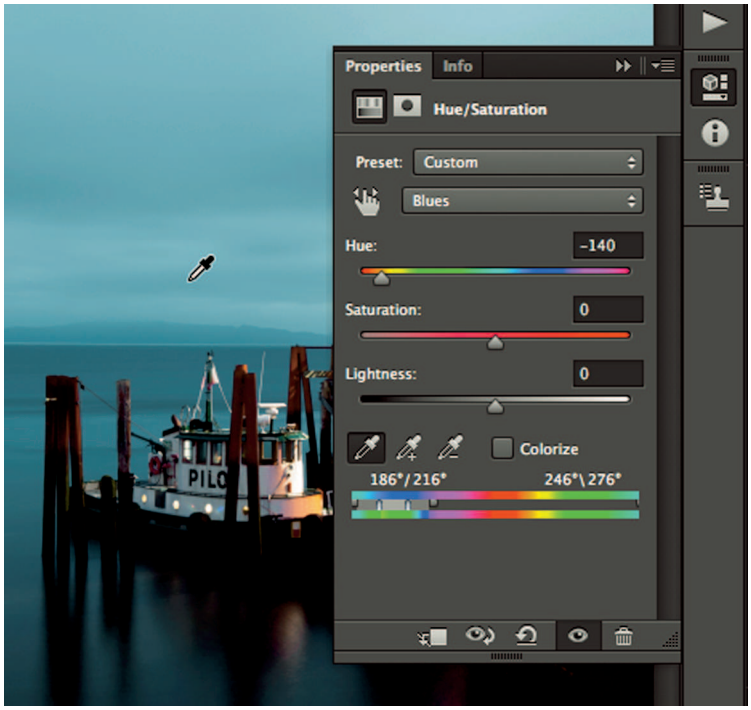


FIGURE 12-6

When Blue channel's Hue is adjusted to –140, the blues in the photo become more aqua without affecting other color channels.

The Hue/Saturation panel also has the Color Channel menu for adjusting a specific color range. Its channels are similar to the color channels in the HSL panel in Lightroom, though they aren't identical. In Figure 12-6, you can see that I chose the Blues channel. Then I adjusted the Hue slider to –140, causing the blue sky and water in the photo to become aqua without affecting other colors.

A really cool feature in Hue/Saturation is the eyedropper set. When you select a color from the Color Channel menu, the eyedroppers light up and become available. (They are grayed out when the Master channel is selected.) Use the first eyedropper to click the image to identify the exact color you want to modify. In Figure 12-6, I clicked on the sky to modify the range being affected by the Hue adjustment so that it exactly matches the blue color of the sky. If I want to add other blue areas, I use the Add to Sample eyedropper to add them to the color range. If I want to remove a similar color that's being affected by the Hue/Saturation adjustment, I use the Subtract from Sample eyedropper. These eyedroppers enable you to identify very specific color ranges in a way that isn't possible in Lightroom.

Other features of the Hue/Saturation panel are:

- **Presets menu:** It contains a few Hue/Saturation presets. It's interesting to explore them and deconstruct how they work, but Lightroom should handle these adjustments.
- **On-Image Adjustment tool:** This is similar to the Targeted Adjustment tool in Lightroom's HSL panel except that it only affects saturation. Click and drag laterally on the image to increase or decrease the saturation of the color you click on.
- **Colorize:** Use this option to add a color filter. It's often used with black-and-white images to create a sepia or brown tone.

Adjusting tone with Curves

The Curves panel in Photoshop looks different from Tone Curve in Lightroom but works in a similar way. Figure 12-7 shows the Properties panel for a Curves adjustment layer. The main difference in adjusting midtone contrast with Curves is that you drag the diagonal line up and down to make adjustments instead of using the four sliders found in Tone Curve. Dragging upward lightens the corresponding tonal region and dragging downward darkens it. In Figure 12-7, I'm dragging downward in the shadow regions at the lower left of the graph to darken the shadows. Before that I dragged a point upward in the highlight area to lighten the highlights. These two adjustments create the familiar S-curve described in Chapter 7. When you click the

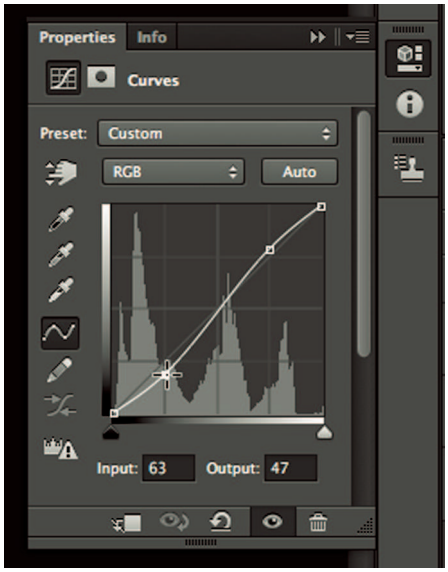


FIGURE 12-7

The Curves panel is different from the Tone Curve panel in Lightroom. Click on the diagonal line and drag upward to lighten or drag downward to darken, as I am doing here. The White Point and Black Point sliders below the graph are used to clip shadows and highlights.

line, a control point is added to that spot. Use it to update the settings or move it to another part of the line. Remove a control point by dragging it off the graph.

The diagonal Curves line can contain as many as 14 adjustment points. Most of the time, all you need is one or two adjustment points. Drag the middle of the line up or down to lighten or darkened overall lightness brightness. Use an S-curve like the one in Figure 12-7 to add midtone contrast.

The Curves controls in Photoshop have two sliders that aren't in the Tone Curve panel in Lightroom. They are the Black Point slider at the left and the White Point slider at the right. These sliders are used to clip shadows and highlights. Moving the Black Point slider inward (toward the center) clips shadows. Moving the White Point slider inward clips highlights. You can hold down the Option or Alt key while moving the White Point and Black Point sliders to see a clipping preview. If you are managing clipping in Lightroom, which is what I recommend, it's highly unlikely you'll use these two Photoshop sliders. I recommend you leave them set at their default settings.

Other things to know about the Curves panel:

- **On-Image Adjustment tool:** The tool in the upper left that looks like a hand is used for modifying curves by clicking and dragging on the image. It works similarly to the Targeted Adjustment tool in Lightroom.
- **Eyedroppers:** The eyedroppers are used to automatically set the black point, neutral gray, and the white point by clicking on the image. I've never found the black point and white point eyedroppers to be useful. The gray point slider works much like the White Balance Selector tool in Lightroom where you click on gray to remove a colorcast. It's best to make an overall color balance using Lightroom before opening the photo in Photoshop, so it's unlikely you'll use this slider.
- **Curve Presets menu:** This menu contains presets of various curve adjustments.
- **Color Channel menu:** Use the menu to apply adjustments to a specific color channel. Some users swear by this menu for color adjustments, but I've never found it useful.
- **Update Histogram:** Use this control to ensure the displayed histogram is using the most current data instead of cached data.

As a Lightroom user, most of your color and tonal adjustment should be handled before opening the photo in Photoshop. If additional global adjustments become necessary when editing in Photoshop, it's best to wait to do those adjustments until after the photo is back in Lightroom.

At this point, you're probably wondering why I bothered to spend so much space describing adjustment layers if I recommend you forgo using them for global color and tone adjustments. The reason I want you to know how to use adjustment layers is that they become incredibly powerful when combined with layer masks.

Using Layer Masks to Get the Most Power from Adjustment Layers

Layer masking is one of the most important Photoshop features for Lightroom users. A layer mask is used to selectively hide or reveal parts of a layer. By combining layer masks with adjustment layers, you can make localized adjustments that are more precise than what's possible with Lightroom's Adjustment Brush tool.

Black conceals, white reveals

Masking in Photoshop is a straightforward process: Black paint on a mask is used to conceal layer content, and white paint is used to reveal it. When part of a layer is concealed with a black area on the mask, that area becomes transparent and the layer below is visible. Every new adjustment layer is automatically supplied with a white *reveal-all* mask. It's represented by the white box to the right of the adjustment layer's icon in the Layers panel.

FIGURE 12-8

I used a Hue/Saturation adjustment layer and a layer mask to desaturate and darken all but the central sunflower in this image.

In the photo of flowers in Figure 12-8, I decreased the saturation of every flower except the large sunflower. I did this by adding a Hue/Saturation adjustment layer to desaturate everything and lower the brightness a tad. Then I masked out the flower to "conceal" the desaturation of the Hue/Saturation layer. This technique is great for drawing attention to a subject. Figure 12-9 shows the Layers and Hue/Saturation panels used for the flower photo in Figure 12-8. Notice the Saturation and Lightness adjustments in the Hue/Saturation panel and the shape of the mask in the Layers panel.

✳ TIP

Painting with gray on a mask partly conceals the layer. The amount of concealment is determined by how dark the gray is.

The two main methods for applying paint to a layer mask are painting on the mask with the Brush tool and combining selections with adjustment layers. Chapter 13 introduces Photoshop's selection tools and describes how to use them to create very accurate masks. Although selections

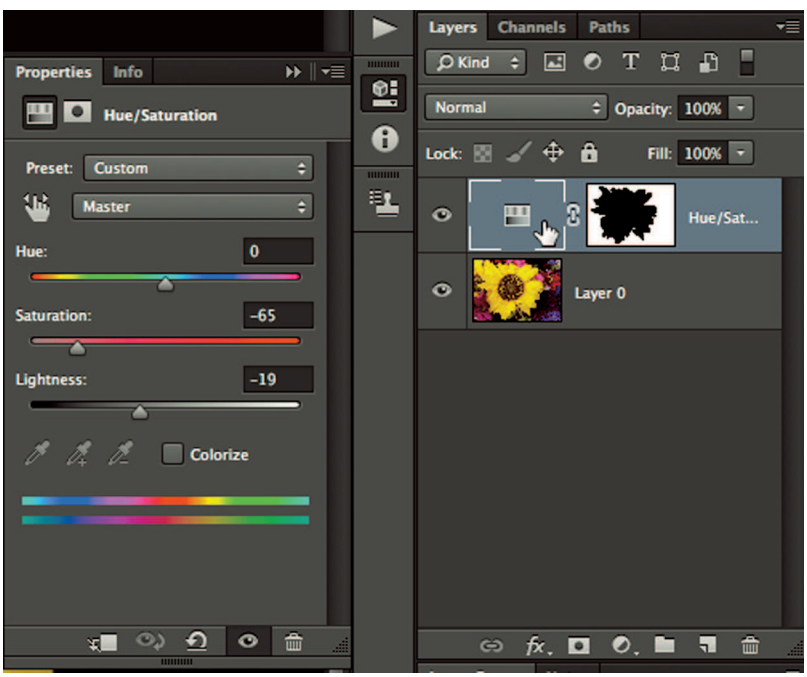


FIGURE 12-9

The box to the right of the Hue/Saturation icon in the Layers panel is a layer mask. The black on it conceals the adjustments made by the Hue/Saturation adjustment layer.

can speed up the masking process, it's still important to know how to use the Brush tool to clean up irregularities in a mask when they occur.

✳ TIP

Because masks are on layers, you can revisit a mask at any time to fine-tune it with additional black or white paint.

Using the Brush tool with a mask

Several Photoshop tools use a brush to apply the tool's settings. Two of the newer examples are the Quick Selection tool described in Chapter 13 and the Healing Brush tool described in Chapter 14. The method these recent additions use to apply edits is derived from the Brush tool (shortcut: B), which has been part of Photoshop's tool set since its earliest days.

The Brush tool is the eighth tool from the top in the Tools panel. It's stacked with other tools, so make sure you have the correct tool. When the Brush tool is selected, the tool's options are displayed in the Control panel, shown in Figure 12-10. The right side of the panel has four settings for controlling the brush. Here's how they're used:

- **Opacity:** This works much like the Flow setting in Lightroom's Adjustment Brush tool. Reducing the value applies less "paint." Overlapping strokes have an additive effect.
- **Flow**: This controls the rate at which paint is applied as you move the brush. The amount of paint will not exceed the Opacity setting. A low Flow value is most noticeable at the start and end of a brush stroke. I always leave the Flow value set to 100 and use the Opacity slider when I need to control the amount of paint being applied.
- **Enable Air Brush Style:** Selecting this option causes paint to continue to be delivered as long as the mouse button is pressed. It's useful for creating a buildup of paint when creating stylized art with the Brush tool, but it is not useful when painting masks. I leave it off.
- **Use Pressure for Opacity** and **Use Pressure for Size:** Some Photoshop users use a stylus and tablet instead of a mouse for detailed work. Many of these tablets use styli that are pressure-sensitive. The Brush tool pressure settings enable you to use the pressure of the stylus to adjust Opacity and Size. Again, this is useful for some

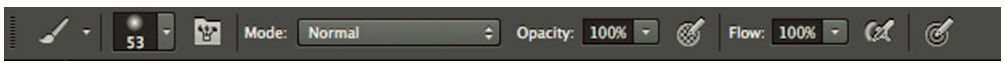


FIGURE 12-10

When the Brush tool is selected, its options are available in the Control panel. These options are slightly different in older versions of Photoshop.

Photoshop artists, but it's not very useful for masking. I use a tablet, but I leave these options deselected.

Size and hardness of the brush is controlled using the Brush Presets panel, shown in Figure 12-11. You access it by clicking its icon on the left side of the Control panel. The Size slider controls the diameter of the brush. The Hardness slider controls the hardness of the brush's edge. Its effect is similar to the Feather slider on the Adjustment Brush tool in Lightroom. I generally use a soft brush with a low Hardness value unless I need to paint something that requires more accurate control on a subject that has well-defined edges.

The preset area at the bottom of the Brush Presets panel has presets for all sorts of brushes. Click a preset to load its settings in the Brush tool. The first row consists of various combinations of size and hardness. I find it easier to manually adjust these settings so I can get exactly what I need so I rarely use one of these presets.

✳ CAUTION

Choosing one of the exotic brush presets from the Brush Presets panel can really make a mess of your brush settings. When that happens and you want to return to a more normal brush, choose the first preset, Soft Round, to reset the brush to standard settings.

Using the Brush Presets panel is an inefficient method for adjusting brush size and hardness so it's great to know some shortcuts. Here's are three useful keyboard shortcuts:

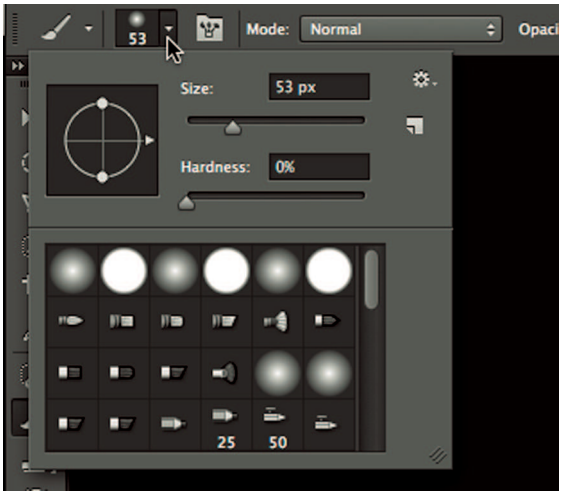


FIGURE 12-11

You open the Brush Presets panel by clicking its icon on the left of the Control panel. It can be used to change size and hardness of the current brush, or to pick a brush from the presets in the lower section.

- **Size:** To increase the size of the brush press the] key. To decrease the size, press the [key.
- **Hardness:** To increase hardness in 25-percent increments, press Shift+]. To decrease hardness, press Shift+[.
- **Opacity:** Use the numeral keys to change opacity. Press 3 to set it to 30. Press 33 to set opacity to 33.

TIP

You can right-click when using a brush-based tool to quickly open a pop-up version of the Brush Presets panel. The panel will automatically close when you begin painting again. If the panel is in the way of where want to paint, press Esc to close it.

The paint color the Brush tool uses is selected using the swatches at the bottom of the Tools panel. Figure 12-12 shows two large squares that indicate the current foreground and background colors. The upper swatch is the Foreground color, and the lower swatch is the Background color. Clicking either swatch opens the Color Picker dialog box where you can choose a different color. The icon with the small squares is used to set the swatches to their default settings of black over white (shortcut: D). The curved arrow icon is used to swap the Foreground and Background colors (shortcut: X). It's useful when you're masking and you accidentally paint something you didn't mean to paint. Press the X key to switch colors and repaint the problem area.

TIP

When you are painting on a mask, the only foreground colors available are white, black, and all shades of gray. Color cannot be applied to a mask.

CAUTION

One of those weird things about Photoshop is that the default colors for the Foreground and Background colors are the opposite when you're painting a mask. Normally it's black over white. But when you're on a mask, the default colors are white over black.

FIGURE 12-12

Use the color swatches to change the Foreground and Background colors. Click the small swatches to reset the large swatches to their defaults. Click the Swap button (the curved-arrow icon) to swap the Foreground and Background colors.

FIGURE 12-13

Option+click or Alt+click the layer mask thumbnail in the Layers panel to display the mask in the main image area. This is a great way to check your work. If you see an area you missed, add the paint while in this preview mode.

When masking, it can be difficult to see exactly where you've painted. It's common for users to miss an area and not notice the irregularity. So it's a good idea to check your mask. The layer mask thumbnail in the Layers panel is too small to see useful detail. Fortunately, there's an easy way to check your mask. Option+click or Alt+click the layer mask thumbnail in the Layers panel to display the mask in a larger preview. Figure 12-13 shows my mask for the flower photo and reveals that I missed a couple of spots near the middle. If you see areas missing black paint, go ahead and paint them while the preview is displayed. When all is well, Option+click or Alt+click the mask thumbnail in the Layers panel to return the document view to normal.

A Simple Masking Workflow

The best way to understand how the concepts in this chapter relate so far is to do a quick masking project. Follow the steps below to put the pieces together with one of your photos.

1. Find a photo similar to the flower photo in Figure 12-8. It doesn't need to be a flower photo. Look for one that has lots of color and a central subject with well-defined edges, which makes them easier to paint. (I show you how to work with complicated edges in Chapter 13.)
2. Open the photo in Photoshop.
3. Use the Adjustments panel to add a Hue/Saturation adjustment layer. Reduce the Saturation and Lightness values similar to what's shown in Figure 12-9. Find values that work best for the photo. The goal is to desaturate all colors and darken them a bit.
4. Select the Brush tool (shortcut: B) and set its Opacity value to 100%. Set the Brush Hardness value to at least 90% because of the well-defined edges. Choose a Size value appropriate for painting large areas of the subject. You can always reduce the size of the Brush tool when working near edges.
5. Check the Foreground Color swatch to make sure black is the current color. If you aren't sure if it's black or a dark gray, press D, then X to set it to black.
6. Start near the center of the subject and begin painting. You should see the subject's original color begin to come through. If you don't see a change, make sure you have black paint and the Brush tool Opacity is 100%.
7. Zoom in closer when working along the edges. Reduce the brush size to an appropriate value and increase the Brush tool hardness if necessary. If you accidentally overpaint an edge, press the X key to switch to white and clean up the overpainting. Be sure to press X again to switch back to black before resuming your masking.
8. Continue until the area of the subject has been masked and you can see the subject's full color. Do your best, but don't stress if the edges of the mask aren't perfect. I describe how to fine-tune mask edges in Chapter 13.
9. Option+click or Alt+click the layer mask thumbnail to display the mask view on the photo. Use the Brush tool to do any necessary cleanup. Then Option+click or Alt+click the mask thumbnail to return the view to normal.

✳ TIP

A twist on this exercise is to try it with a Black & White adjustment layer. Its controls work similarly to the B&W panel sliders in Lightroom.

Knowing how to paint a mask is just part of the masking process. You also need to know how to control and refine a mask to suit the subject. That's done with the Properties panel.

Fine-tuning a mask with the Properties panel

When you double-click the layer mask thumbnail in the Layers panel, the Properties panel opens with the mask properties. Clicking the adjustment layer's icon in the Layers panel switches

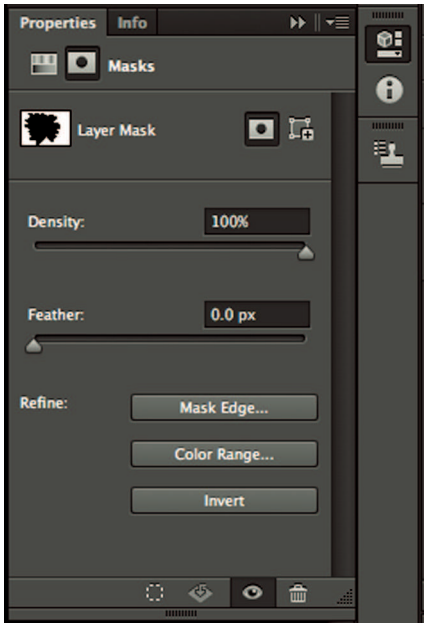


FIGURE 12-14

When you click the mask icon in the Layers panel, the Properties panel displays options for the mask. Use the two buttons below the Properties title to switch between an adjustment layer's settings and its mask.

the Properties panel back to the adjustment layer's settings. You can also toggle between an adjustment layer's properties and its mask's properties by clicking one of the two buttons below the Properties title. The button on the left is used to access the adjustment layer's properties. The Mask button on the right is used to access the adjustment layer's mask properties.

✳ NOTE

Photoshop CC and CS6 use the Properties panel to display mask information. Photoshop CS5 uses a Masks panel that is nearly identical.

Figure 12-14 shows the mask properties for the mask on my flower photo. The panel has several cool features. Take a moment to review them:

- **Density:** This slider is used to control the opacity of the mask. Reducing Density to 50% causes 50 percent of the adjustment layer to be visible in the masked area. The result is similar to painting with a 50-percent gray on a mask with 100-percent density.
- **Feather:** This control is used to soften the edge of a mask. In Lightroom, you need to choose a feather value before you paint with the Adjustment brush. In Photoshop, you can use a hard brush to paint an edge and then feather the edge using Mask properties.

- **Mask Edge:** The most important feature in this panel is Mask Edge, whose true power is revealed when you use it with masks you created using selections, which is detailed in Chapter 13.
- **Color Range:** This option enables you to create a mask by selecting specific colors in the image. Color Range is one of Photoshop's standard selection tools and is detailed in Chapter 13. Using it here makes it easy to combine the selection with a mask.
- **Invert:** This handy feature lets you invert a mask to swap white and black. Invert is a useful feature when using selections to create masks. Sometimes it's easier to select the thing you don't want to mask than it is to select the thing you do want to mask. Invert enables you to mask the easy thing and then flip the mask so everything else is masked instead.

Keep the mask properties in mind when working with masks. It gives you the ability to create just the right mask for the job, especially after you learn to use Mask Edge in Chapter 13.

✳ CAUTION

When the Properties panel is displaying adjustment layer properties, you won't be able to paint on the mask. You need to click the Mask icon to switch the Properties panel to the mask properties before painting.

Saving Edited Files

The best part about a mask is that you can return any time to fine-tune it as long as you save your image with layers. When editing in Lightroom, it isn't necessary to think about saving files because Lightroom updates your changes while you work. It's a different story when working with Photoshop: Edits must be saved before or when closing a file. (If you try to close an unsaved file, Photoshop prompts you to save it.) Photoshop has two save commands: Save and Save As.

Using Save

If you open a RAW file directly from Lightroom and let Lightroom render the file for Photoshop, you can choose File ➪ Save to save the image. The file is saved in the format Lightroom used to open it in Photoshop, either TIFF or PSD. You can see the Photoshop edits, but if the photo has layers, you can't access the layers in Lightroom. You can see the effects of adjustment layers, but you can't edit them without reopening the photo in Photoshop.

However — and this is really important — if you want to re-edit a layered image in Photoshop and you decide to reopen it in Lightroom, be sure to choose Edit Original when the Edit with Photoshop dialog box opens (detailed in Chapter 10). If you choose to open a copy instead, the

new file is a flattened version of the layered file. All the individual layers and their content are merged into a single background layer. If you open the original, all layers are intact.

Using Save As

Sometimes you can't use the Save command in the normal way with a file you open from Lightroom. For example, if you open a JPEG and you create layers while editing, Photoshop

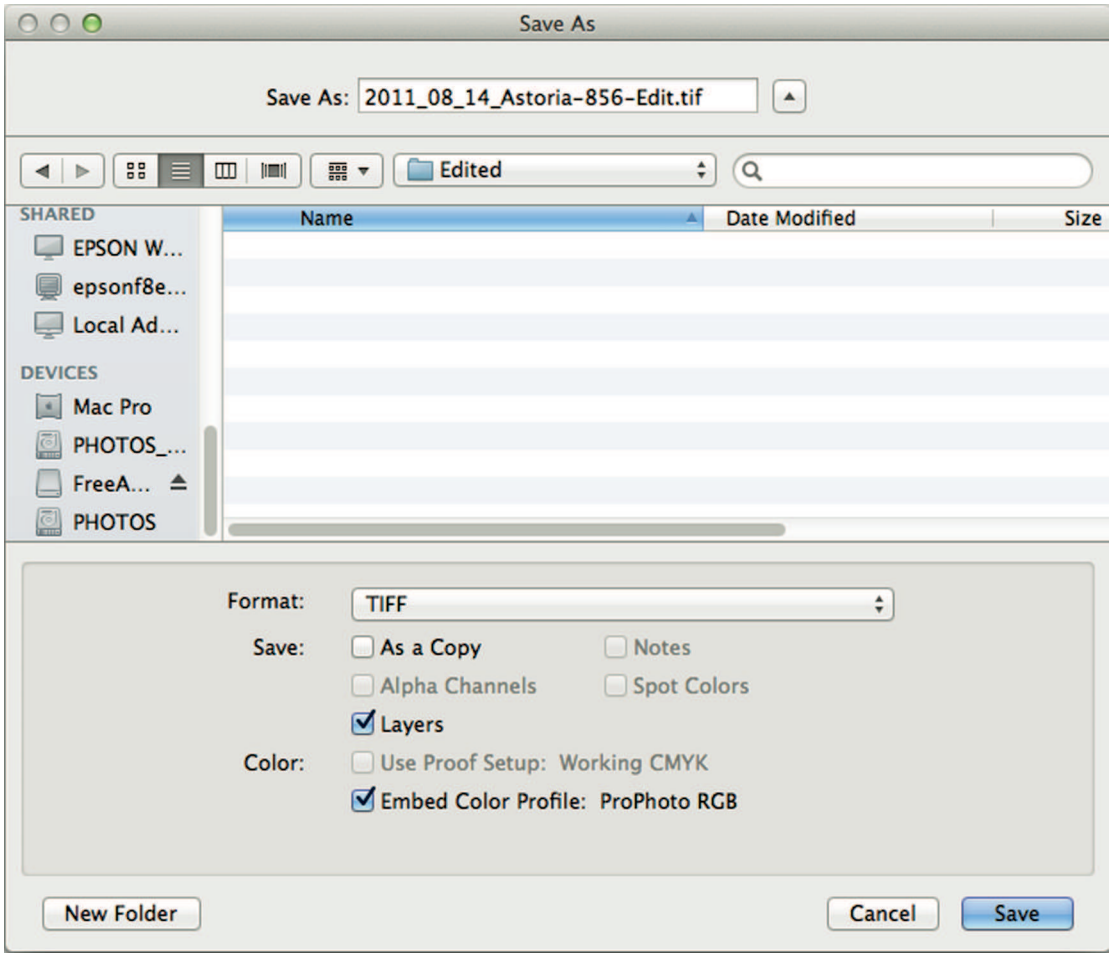


FIGURE 12-15

The Save As dialog box (the Mac version is shown here) enables you to control the saved file format and where the file is saved. The Windows version has the same features, though its dialog box is configured differently.

opens the Save As dialog box when you choose File ➪ Save. That's because the JPEG format doesn't support layers. You can choose to save the photo as a JPEG, but then all layers are flattened. The Save As command is Photoshop's way of advising you to retain the layers by choosing to save it as a PSD or TIFF file instead.

Another reason to use Save As instead of Save is when you want to save the edited file in a separate folder. For example, I save edited versions of photos in a subfolder named Edited, which is in the shoot folder. That way, all edited photos from a shoot are in one convenient place instead of mixed with the originals. Just remember that after using Save As, you need to synchronize the parent folder in Lightroom to add the newly saved photo to the catalog.

✳ TIP

Something that can be confusing in Lightroom is photos in a subfolder show next to photos in the main folder in the Grid view when they have the same root name. It makes it look like they are in the same file.

✳ CAUTION

One of the file formats in the Format menu of the Save As dialog box is Photoshop Raw. Be advised that this format is not a camera RAW version like the RAW files described in this book. It's a much older file type that was created long ago to save in a format for esoteric computer systems that aren't used much today.

Figure 12-15 shows the Mac version of Photoshop's Save As dialog box. The Windows version looks quite different, although it has the same features. Use the New Folder button to create the Edited folder. Then choose either TIFF or Photoshop from the Format menu. If you choose Photoshop, a PSD file is saved and the Save As dialog box closes. If you choose TIFF, the TIFF Options dialog box shown in Figure 12-16 opens. Use it to determine the type of TIFF file you want to save. Here's what each section's options are used for:

- **Image Compression:** TIFF files can be compressed without losing any information. Some people choose compression to save storage space. Compressing a file takes a little longer to save. LZW is the fastest option and it's also more widely supported than Zip.
- **Pixel Order:** This controls how color channels are organized. According to Adobe, the Per Channel option is theoretically faster than Interleaved. In the early days of Photoshop, we needed every speed advantage available. With modern computers and software, the speed differential is so small today that it doesn't matter which you choose.
- **Byte Order:** This is another relic from the early days of digital. Modern computers don't make a distinction between these two formats, so it doesn't matter which you choose.

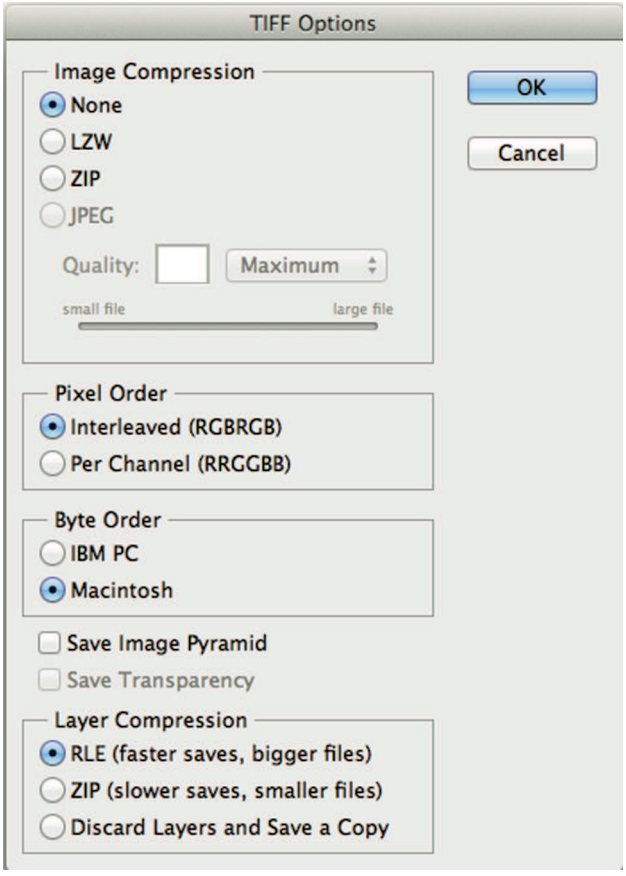
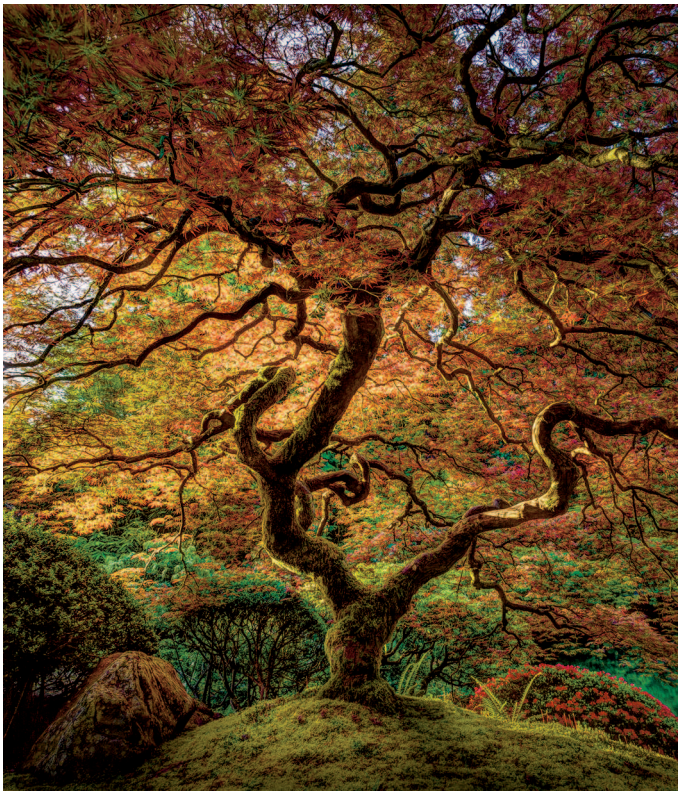


FIGURE 12-16

The TIFF Options dialog box lets you choose to compress a TIFF file and its layers.

- **Save Image Pyramid:** This option is used when saving files for other programs that support multiple embedded pixel resolutions. Photoshop does not support opening these multiresolution files. It only saves the format for other systems to use.
- **Layer Compression:** Compressing layers saves storage space but it takes longer to save and open a file with compressed layers. Choose RLE if you're interested in speed. Choose Zip if storage space is a bigger concern. Choosing Discard Layers and Save a Copy saves a flattened version of the file.

When you click OK to close the TIFF Options dialog box, you may see a warning that saving layered files increases file size. Choose Don't Show Again if you don't want to see the warning again. (You can reactivate the warning in Photoshop's File Handling preferences.)



CHAPTER 13

Using Selections to Create Complex Masks

Adjustment layers and layer masks are a powerful combination in Photoshop. But creating accurate masks with the Brush tool can be challenging, if not impossible, when masking areas with complicated edges. Fortunately, it's possible to use one of Photoshop's selection tools to quickly isolate image elements for masking. Selection tools have been part of Photoshop since the earliest days. Knowing how to use a few of these tools will turn masking headaches into masking adventures and save hours of detail work with the Brush tool when working on complicated masking projects.

Following the 'Marching Ants'

There are almost a dozen selection tools in Photoshop. Each works in its own way to isolate part of the image, but every selection shares a common feature: When you create a selection, an animated dashed line moves around the selection indicating the selected area. This moving line is sometimes called *marching ants*.

The best way to gain an understanding of selections is to do a short exercise with one of the most common selection tools, the Lasso tool (shortcut: L). The Lasso tool is used to draw freeform selections. Follow these steps to explore a selection with the Lasso tool:

1. Open a new document by choosing File ➪ New. When the New dialog box opens, choose Default Photoshop Size from the Preset menu near the top. Make sure the Background Contents menu is set to White and then click OK.

2. When the new document opens, zoom to fit the screen (press ⌘+0 or Ctrl+0) so you have lots of white space to work with.
3. The Lasso tool is third from the top in the Tools panel. It's stacked with two variations of the Lasso tool, so be sure to choose the top tool in the stack.
4. Use the Lasso tool to draw a large, circular shape in the middle of the white area. Drag to create the selection, holding the mouse button down until you complete the selection. If you let go before you complete the selection, Photoshop will close the selection using the shortest route. When you do let go, the ants begin to march indicating your selection.

✳ TIP

If you don't like your selection and want to try again, choose Select ➪ Deselect or press ⌘+D or Ctrl+D.

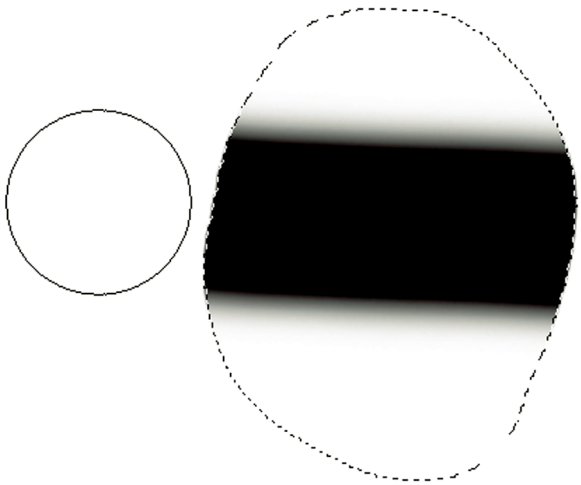


FIGURE 13-1

When part of an image is selected, it becomes the only area affected by changes, such as painting with the paintbrush. Here, I drew a brush stroke from right to left, but paint wasn't applied in nonselected areas.

5. Choose the Brush tool (shortcut: B) and set the foreground color to black. Then set the Size of the brush to 100 px and the Hardness to 50%.
6. Use the Brush tool to paint a stroke from one side of the canvas to the other side, passing through the selected area. Notice that paint is applied only in the selected area. In Figure 13-1, I painted from right to left, but the paint was applied only in the selected area.
7. Choose Select ➪ Inverse to invert the selection. The marching ants are now moving around the outside of the canvas as well as the area you originally selected. This indicates that everything except the original selection is selected.
8. Paint again and notice that paint can be applied only outside the originally selected area, which is no longer selected.

This exercise demonstrates two fundamental selection concepts:

- ✳ When an area is selected, it's the only area in the image affected by changes.
- ✳ Any selection can be inverted. Inverting is useful when it's easier to select the thing you don't want selected than it is to select the thing you want to select.

Using Intelligent Selection Tools to Simplify Selecting

The Lasso tool is a very flexible tool. It will select anything you can draw. The problem is it's often difficult to draw the exact selection you need. Fortunately, Photoshop has a collection of intelligent selection tools that create selections based on things like color and boundary contrast. These tools make it easy to select areas with complicated edges.

The first tool you should become familiar with is the Magnetic Lasso tool.

The Magnetic Lasso tool

The Magnetic Lasso tool (shortcut: L) is stacked with the Lasso tool. Although it's from the Lasso family, it works a little differently from the Lasso tool. It is similar to the Lasso tool in that you draw a selection by hand. However, the Magnetic Lasso tool is designed to follow edges in the photo. Its "magnetic" properties enable the selection to snap to an edge as you draw even if you don't draw perfectly along the edge.

✳ TIP

The Lasso and Magnetic Lasso tools share the same keyboard shortcut because they are stacked together. Press Shift plus a tool's shortcut to quickly cycle through stacked tools.

Figure 13-2 shows the Magnetic Lasso tool in action. In this case, I needed to select the orange traffic cone. Drawing an accurate, straight line on these hard edges is very difficult to accomplish with the Lasso tool. But the Magnetic Lasso tool sees the edge and as long as I stay

FIGURE 13-2
With the Magnetic Lasso tool, you don't need to draw perfect selections. When you draw near an edge, the tool automatically snaps the selection to it.

close to it, the tool snaps the selection to the edge using anchor points, indicated by the small squares.

Figure 13-3 shows the Control panel options for the Magnetic Lasso tool. Take a moment to explore the settings so you understand how to use these options to prepare the Magnetic Lasso tool for different types of subject edges. The options are:

- **Feather:** This works much like using Feather with the Adjustment Brush tool in Lightroom. A value of 0 produces a hard selection edge. Higher values soften the selection boundary. When drawing a selection, it's difficult to see how the value actually affects the selection by looking at the marching ants. Because you can feather selections

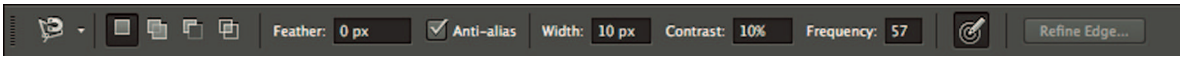


FIGURE 13-3

Magnetic Lasso tool options in the Control Panel. Leave Feather at 0 and Anti-alias turned on. Use the other settings to help the tool find the edge you need to select.

and masks precisely after you create them, I prefer to always leave the Feather value set to 0 for all selection tools.

- **Anti-alias:** Photos are composed of square pixels. Selections that follow the edges of these pixels can result in a selection with a jagged edge. This jaggedness is called *aliasing*. When Anti-alias is selected, the selection tool is able to select part of a pixel instead of the whole pixel. I recommend you always select Anti-alias when it is available.
- **Width:** The Width value controls the Magnetic Lasso tool's sensing distance from the cursor point. A value of 10 px indicates that you can be within 10 pixels of an edge and the Magnetic Lasso tool will see it. A higher value enables the tool to see an edge further away, but it can also cause the tool to snap to the wrong edge.
- **Contrast:** Use this to specify the contrast difference between pixels required to define an edge. The default value of 10 works fine for a high-contrast image like the traffic cone in Figure 13-2. For images that have lower-contrast edges, use higher Contrast values to help the tool find the edges.
- **Frequency:** This value determines the rate at which the Magnetic Lasso tool attaches selection anchor points to the edge as you draw. Higher values yield a greater number of anchor points and are useful when selecting complex edges with lots of twists and turns.

The best way to get a feel for the Magnetic Lasso tool is to take it for a test drive. Don't worry about making perfect selections just yet. Focus on the tool for now; I show you how to fine-tune selections later in this chapter. Follow these steps to get a feel for this smart selection tool:

1. Find a photo with a subject that has strong edges and open it in Photoshop. Zoom to a magnification that enables you to see the entire subject you want to select. If you zoom in too far and can't see the entire object you want to select, the Magnetic Lasso tool will fail and you'll have to start over.
2. Choose the Magnetic Lasso tool and set its options to the values shown in Figure 13-3.
3. Pick a spot on the edge of the subject you want to select and click to set the first anchor point. Release the mouse button and begin tracing the line as best you can. As you move the pointer, the Magnetic Lasso tool automatically attaches anchor points along the edge, as shown in the Figure 13-4.
4. If an anchor is attached in the wrong place, press Delete to remove the anchor. If several anchor points need to be deleted, retrace your drawing and press Delete every time you encounter an anchor point that need to be removed. If an anchor point doesn't

FIGURE 13-4

A small icon appears (inside the yellow highlight) when you get back to your starting point. Click to complete the selection and set the marching ants in motion.

get attached at a point where you want one, click the mouse on that point to manually attach the anchor point. I had to do this on the left edge of the traffic cone base because that edge isn't well defined. When I drew in that area, the Magnetic Lasso tool kept trying to snap to the nearby line in the brick paving instead.

5. Continue tracing the edge of the subject until you've made it back to the beginning of your selection. When you do, a small circle icon appears next to the pointer to indicate you're back to the starting spot. You can see it at the top of the cone in Figure 13-4. Click to close the selection. If you don't see the circle icon, double-click to close the

selection. (If you accidentally click too many times, the selection may disappear. Press ⌘+Z and Ctrl+Z to back up one history step and undo the errant click.)

✳ TIP

Because the selection follows the pointer, it's easy to get lost when using the Magnetic Lasso tool. If you lose control of your selection, press Esc to cancel the current selection and try again.

I use the Magnetic Lasso tool frequently. I suggest you become comfortable with using it because it's incredibly handy when you need to select something that has well-defined edges.

The Magic Wand tool

The Magic Wand tool (shortcut: M) is another smart selection tool that's been in Photoshop since the early days. It works in a completely different way from the Lasso tools. Instead of drawing a selection, you click on a color with the Magic Wand tool to select other pixels in that color range. You can control the breadth of the color range as well as which similar pixels are selected. Figure 13-5 shows the Magic Wand options in the Control panel. Notice how different they are from the Magnetic Lasso tool's options. Take a moment to understand these options:

- **Sample Size:** This is used to determine how many pixels are sampled when you click a color. The default setting of Point Sample samples a single pixel directly under the pointer. Other settings are used to average a grid of pixels. For example 5 × 5 Average is used to find the average color of a five-by-five-pixel grid under the pointer. There are times when averaging a sample is a good idea in Photoshop, but I prefer Point Sample when using the Magic Wand tool to get more precise color selections.
- **Tolerance:** Use this value to specify the color range of selected pixels. Low values are used to limit selected colors to colors most similar to the sampled color. Higher values include colors that are less similar, but still in the sampled color range.
- **Contiguous:** This is one of the most important options for the Magic Wand tool. It controls whether pixels must be touching (contiguous) to be selected when you click the sample point. When Contiguous is on, similar pixels must be adjacent to the sample

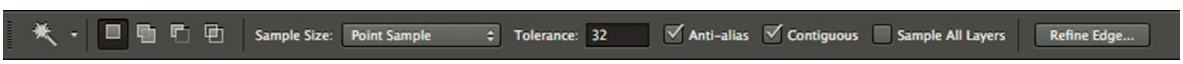


FIGURE 13-5

The Magic Wand tool options control the tool's sensitivity and whether all similar pixels are selected throughout the image, or only contiguous pixels.

point or one another to be selected. When the setting is off, similar pixels are selected no matter where they are in the image.

- **Sample All Layers:** When this option is selected, similar pixels are selected on every layer where they are present. With the option off, similar pixels are selected on the current layer only.

TIP

Sample Size was added to the Magic Wand tool's options in Photoshop CS6. In previous versions, use the Sample Size menu in the tool options of the Eyedropper tool (shortcut: I) to control sampling for the Magic Wand and Quick Selection tools.

FIGURE 13-6

Because the three umbrellas in this Manhattan street scene are red, I was able to select all three with a single click of the Magic Wand tool. Notice that other red areas were also selected, such as the red on the woman's shoes.

In Figure 13-6, I selected all three red umbrellas in this Manhattan street scene by clicking once on the umbrella at the upper-left with the Magic Wand tool. I turned off the Contiguous option so that red would be selected throughout the image. I had to try a few times, increasing the Tolerance value until all reds in all three umbrellas were selected. I ended up with a value of 85. The high Tolerance value combined with Contiguous turned off caused other reds in the scene to be selected, such as the red on the shoes of the woman in the upper left and something red in the hands of the woman below her. A tiny bit of red on the curb was also selected because it was within the range of the tool's Tolerance setting.

✳ TIP

To move a selection, position a selection tool's pointer inside the selection. Notice the pointer's icon changes; this is an indication that you can move the selection by dragging it.

Like the Magnetic Lasso tool, the Magic Wand tool is a powerful selection tool. Each has its strengths for quickly creating selections. The main downside to using them is that it often takes lots of trial and error to get them to perform perfectly.

Adding to and subtracting from a selection

The method I used to select the red umbrellas with the Magic Wand tool in Figure 13-6 worked pretty well, but it was inefficient. I spent way too much time trying to find the perfect Tolerance setting. I also ended up with other red tones outside the umbrellas being selected. A much faster method would have been to work with the Contiguous option on and a lower Tolerance value. Then I could build up a large selection by quickly adding a bunch of smaller selections.

Figure 13-7 shows the left side of the Magic Wand tool options in the Control panel. Hover the pointer over a button, to display its name. These four buttons are in the Control panel for all the selection tools covered in this chapter. Here's how these buttons are used to modify how the selection tool functions, starting from the left:

- **New Selection:** This is the default setting for most selection tools. After an initial selection is made, an additional click outside the selected area deselects the selected area.

FIGURE 13-7

These four buttons are on the left side of the Control panel when a selection tool is active. Use them to control the behavior of the tool.

- **Add to Selection:** With this option, additional clicks outside the selected area add to the initial selection.
- **Subtract from Selection:** Use this option to remove part of a selection.
- **Intersect Selection:** This option is used to create a selection from the overlap of two selections. The overlapping area becomes the only selected area. I've made countless Photoshop selections, but I have to admit I've never used this option.

✳ TIP

Instead of clicking the Add to Selection and Subtract from Selection buttons, you can hold the Shift key to change a selection tool to Add mode. A small plus symbol (+) is displayed next to the pointer. Hold the Option or Alt key to see a minus symbol (–) next to the cursor, which indicates you use the tool to remove part of a selection.

Now that you know about adding to and subtracting from selections, I can show you a more controlled method for selecting the three umbrellas in Figure 13-6. Here are the steps I take to select the three umbrellas without selecting any other red elements in the scene:

1. I select the Magic Wand tool and lower its Tolerance value to a value of 50.
2. Then I choose Add to Selection from the Control panel so that I can build up the selection with multiple clicks.
3. I also choose Contiguous in the Control panel so only touching pixels are selected when I click. This prevents things like the red on the woman's shoes from being selected.
4. Then I begin clicking on umbrellas. With the lower tolerance value, it takes more than one click to select an umbrella. I continue clicking on unselected areas of an umbrella, as shown in Figure 13-8, until the only marching ants are at the edges of the umbrella.
5. When one umbrella is completely selected, I move to the next and repeat the process until all three are selected.

✳ TIP

Sometimes a contiguous area is selected with the Magic Wand tool when you didn't want it selected. Simply switch to the Lasso tool and choose Subtract from Selection from the Control panel. Then draw a loose shape around the area you want to deselect.

This second method for selecting the three umbrellas needed more total clicks than when I selected the umbrellas with Contiguous turned off. But it took less time to complete the selection process because I didn't need to fiddle with settings through trial and error.

The takeaway is that you don't need to find the perfect Tolerance value for the Magic Wand tool to make it perform the way you want it to. This is true for other selection tools as well. Often it's easier to use Add to Selection and Subtract from Selection to build the perfect selection from several, combined selections.

FIGURE 13-8

I select Add to Selection and turn on Contiguous in the Magic Wand tool's options to make it easier to select the umbrellas without selecting any other red in the photo. I create the final selection through a series of clicks to build up the selected area.

The Quick Selection tool

The Quick Selection tool (shortcut: W) is another smart selection tool. It was introduced in Photoshop CS3 and is stacked with the Magic Wand tool. Although they are stacked together, the Quick Selection tool is very different from the Magic Wand tool because with it you use a brush to paint in selections. Figure 13-9 shows the Quick Selection tool's options in the Control panel. I have the Brush pop-up menu expanded, which looks different from the Brush tool panel (shown in Chapter 12's Figure 12-11). The biggest difference between these two Brush panels is the Quick Selection tool's Brush menu doesn't have brush presets buttons at the bottom. That's fine because this tool needs only a simple brush.

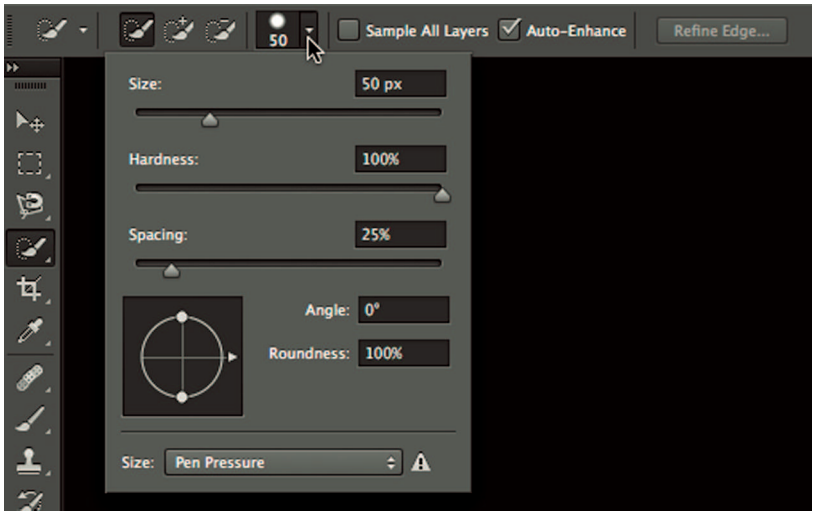


FIGURE 13-9

The Quick Selection tool uses a brush to apply selections. The Brush pop-up menu enables you to control the size and hardness of its brush.

Another setting in the Quick Selection tool's Brush menu that's different from the Brush tool's menu is Spacing. The Spacing value controls the distance between the marks in a brush stroke. Low values result in a continuous application of the brush. Higher values cause the brush to skip creating a brush stroke that's like a dashed line. I prefer to use a Spacing value of 0 instead of the default 25 value to get a more continuous stroke when I paint.

✳ TIP

Choose Window ➪ Brush to see the main panel for the Brush tool. This panel is where brush power users go to create all sorts of custom brushes.

Instead of basing its selections on color tone like the Magic Wand tool, the Quick Selection tool bases selections on edges. To select an area with well-defined edges using the Quick Selection tool, drag to paint. As you do, the tool's selection snaps to edges to create the selection boundary. The Quick Selection tool first opens in the New selection mode, but switches to Add to Selection after the first application. This automatic switching is useful because the most common way to use the tool is to build up a selection with a series of brush strokes.

✳ TIP

The Quick Selection tool's brush size is changed using the same keyboard shortcuts the Brush tool uses, which are described in Chapter 12.

FIGURE 13-10

The Quick Selection tool uses a brush to apply the selection. The selection snaps to the edges the tool finds as you paint. Here, you can see it does a good job of snapping to the edges of the flower with a single stroke.

Remember the photo of the yellow flower with the mask in Chapter 12's Figure 12-8? Well, I have a confession to make: I didn't really paint that selection with the Brush tool. Instead, I used the Quick Selection tool to select the main flower with a few quick strokes. In Figure 13-10, you can see me selecting the sunflower with the Quick Selection tool. I began at the upper-right and painted across the center with a single brush stroke, using a brush with a Size value of 600 px. Notice that the small twig in front of one of the flower pedals was inadvertently included in the selection. The other yellow flower in the upper-left was also selected when I got to that side of the main flower. Not a problem. I switch the tool's selection option to Subtract from Selection and carefully click on the parts I want to deselect. It works surprisingly well when I click the second yellow flower on the left to remove it from the selection without affecting the main flower.

The Quick Selection tool's Auto Enhance option is used to smooth a selection's boundary and help the brush flow more easily toward edges. This option helps the tool make more

intelligent selection choices in most cases, so I leave Auto Enhance turned on. If you have trouble with the tool flowing over an important boundary, try turning off Auto Enhance to see if it behaves better.

Which selection tool is the best?

The best selection tool depends on the job at hand. It also depends on your familiarity with the various selection tools. When you're comfortable with a particular tool, it becomes your go-to tool on most occasions. If you have a good comfort level with the four tools described in this chapter, you'll have lots of options when you need to make a selection. The best selection workflow is to use a smart tool to quickly create a selection that's 90-percent good. Then switch to whichever selection tool is most appropriate for adding to or subtracting from the original selection until its complete.

Converting a Selection to a Mask

One of the fastest and easiest methods for creating an accurate mask is to create a detailed selection and then convert it to a mask. Because a new adjustment layer automatically comes with a mask, if a selection is in place, the new mask uses it to determine how to mask the adjustments being applied by the layer. The new mask reveals the layer's adjustments inside the original selection and conceals the effect in unselected areas. For the mask icon in the Layers panel, the area inside the selection remains white while the area outside the selection becomes black.

✳ TIP

If the resulting mask needs fine-tuning the Brush tool can be used to clean it up with black and white paint, as described in Chapter 12.

Here's how I used a selection on the flower photo to create a mask:

1. I use the Quick Selection tool to quickly create a selection, as described in the previous set of steps.
2. If I have a problem subtracting small areas using Subtract from Selection in the Quick Selection tool, I switch to the Lasso tool for precise control.
3. When the selection looks good, I use the Adjustments panel to add a Hue/Saturation adjustment layer. Because the flower was selected, the new mask is revealing the adjustment on the flower and hiding it on the background, which is the opposite of what I want.
4. I click the Mask icon near the top of the Properties panel to switch the panel to the Mask properties. (I could also double-click the mask thumbnail in the Layers panel.)

I then click the Invert button near the bottom of the panel to invert the mask so the flower is now masked out instead of the background. I could also invert the selection before adding the adjustment layer to solve the problem. Both methods yield the same result.

✳ TIP

If you don't see the Invert button in the Mask portion of the Properties panel, drag the bottom of the panel downward to expand it and reveal the button.

Sometimes it's necessary to create a mask by hand using the Brush tool. For example, when the subject you need to mask doesn't lend itself to quick selections with smart selection tools. But when a subject is appropriate for the selection, it's always faster to use a selection to get the mask as close as possible to what you need and then use the Brush tool for additional adjustments that weren't possible with a selection tool.

✳ TIP

You can use a mask to create a selection by clicking the Load Selection from Mask button at the bottom-left of the Mask properties panel, or by ⌘+clicking or Ctrl+clicking the mask thumbnail in the Layers or Properties panels.

Using Refine Mask

Whether you paint a mask or use a selection to create one, it's important to fine-tune the edge of the mask after it's in place because a mask is only as good as its edge. A mask's boundary must not only be accurate in shape, the edge qualities also need to blend appropriately with adjacent non-masked areas. If a mask has a hard edge, its effects can be easy to see in the image. If viewers notice masks on my final images, I haven't succeeded as an image-maker.

A very powerful masking feature, called Refine Mask, was introduce in Photoshop CS4. Click the Mask Edge button in the Properties panel to open the Refine Mask dialog box shown in Figure 13-11. Refine Mask changed Photoshop masking by giving us much greater control over mask-edge qualities. The Refine Mask dialog box has undergone a few changes since it's introduction; Figure 13-11 shows the configuration in Photoshop CC and CS6 with the default settings.

The Refine Mask dialog box has several important moving parts. It's worth taking time to understand how each section functions so that you'll have everything you need to create high-quality masks.

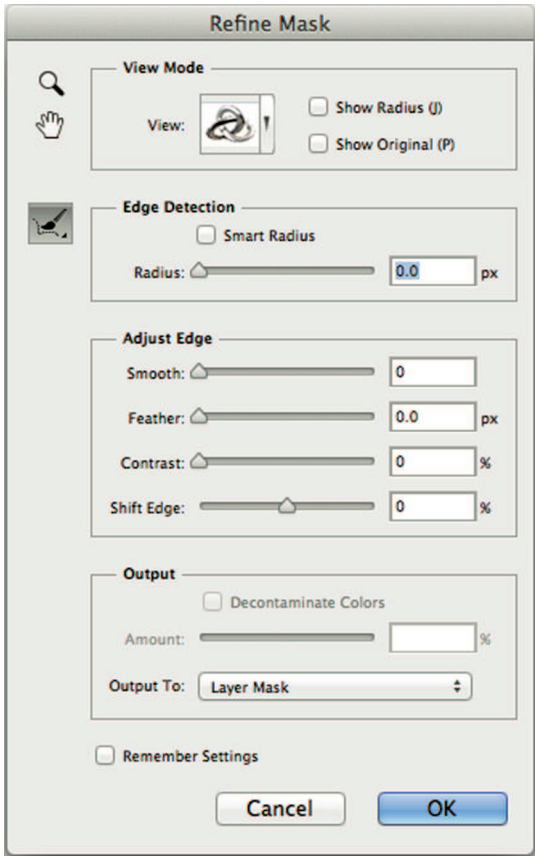


FIGURE 13-11

The Refine Mask dialog box opens when you click the Mask Edge button in the Properties panel. Use the View Mode to change the onscreen preview. Then use the Edge Detection and Adjust Edge areas to fine-tune the mask's boundary.

✳ TIP

Refine Mask can also be used on a selection by clicking the Refine Edge button in the Control panel when a selection tool is active.

View Mode

When you choose Mask Edge, a mask preview is displayed on the main image. The View Mode enables you to change the preview style. Figure 13-12 shows the View menu with previews of each style. Hover over a style to see its description. I prefer to use On White or Black & White because those views enable me to best see the mask edge under most conditions.

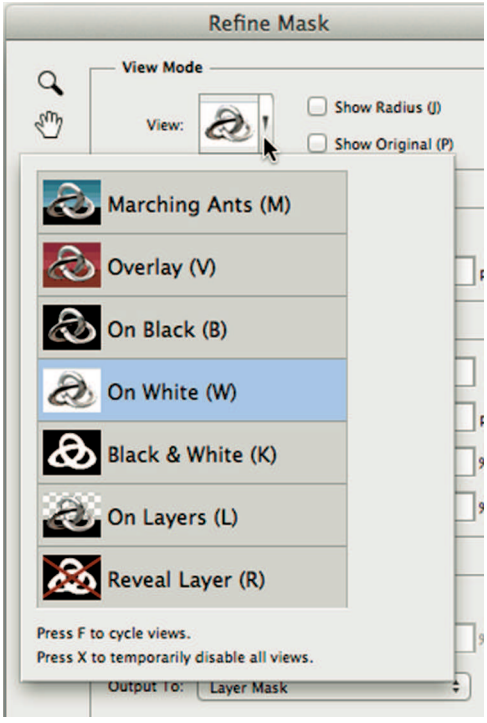


FIGURE 13-12

The View pop-up menu enables you to change the on-image mask preview mode. Hover the pointer over a mode to see a description.

Choosing the Show Radius option displays the border of the selection to help you see image refinements created using the Edge Detection area. You won't see any changes to the radius preview until Radius adjustments are applied. The Show Original option enables you to view the unaltered mask for comparison. Think of it as a preview button.

Edge Detection

The Edge Detection section is the most important section of the Refine Mask dialog box. It provides you with an incredible amount of control over a mask's edge. The Radius slider is used to define the width of the selection boundary where refinements occur. When you're creating a mask that has sharp edges, use a lower value to keep the adjustments close to the edge. When masking something that has softer edges, consider using a higher value to help blend the mask to its surroundings.

The Smart Radius option is used to let Photoshop automatically determine the best Radius value based on image content near the mask boundary. It's useful when you're masking an area

FIGURE 13-13
I want to mask Hazel so that my color adjustments affect her without affecting the snow. Her wispy fur has the potential to make this a very complicated masking process

with edges that have a combination of hard and soft edges. If the edges are uniformly hard or soft, it's best to use the Radius slider without the Smart Radius option to give you better control over mask edge refinement using the Radius slider.

Figure 13-13 shows a photo of Hazel. I want to mask her out from the snowy background so I can make some color adjustments to her without adding a colorcast to the snow.

I used the Magic Wand tool to select the snow around Hazel. It did a much better job than the Quick Selection tool, but it still had problems accurately selecting the wispy strands of fur that stick out around Hazel. I went ahead and created a Hue/Saturation adjustment layer which resulted in the mask shown in the first image in Figure 13-14. Then I increased the Radius value to 20, which resulted in the mask shown in the second frame of Figure 13-14. Notice what a nice job it did finding Hazel's wispy hair that extends into the expanded radius area.

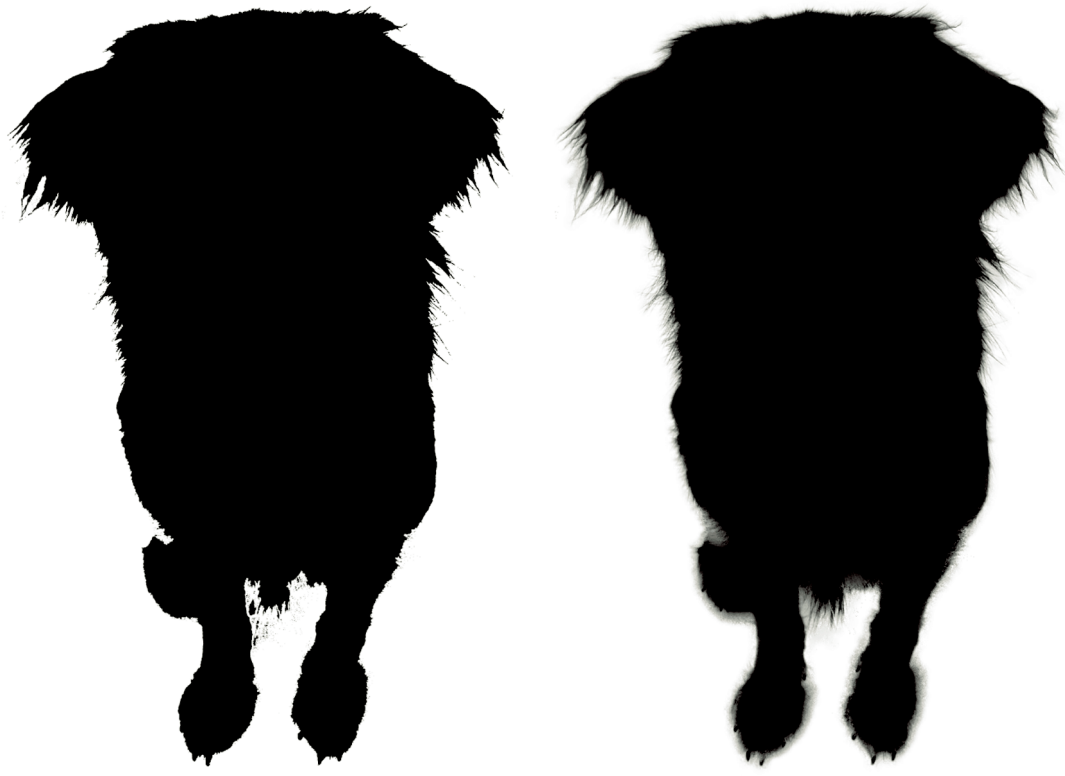


FIGURE 13-14

The mask in the image at left is the original mask created using the Magic Wand tool to select the snow. The image at right shows the amazing refinements to the mask edge accomplished by simply increasing the Radius value to 20.

There are still a few minor problems with Hazel's mask. A little too much is being masked in the lower sections near her front paws. You can see the fuzziness that extends beyond her fur. The Refine Radius tool, indicated by the brush icon to the left of the Edge Detection area, enables you to paint on the image in areas where you want to expand or contract the masked area. By default it's used to expand the area. However, if you hold the Option or Alt key down while you paint, it switches to contraction mode, which is indicated by a minus symbol (–) in the brush cursor. I use the Refine Radius tool in this mode to paint around the outside of Hazel's paw to contract the mask toward her.

Although the Refine Radius tool uses a brush application system, it doesn't have a brush panel. You'll need to use the Brush tool keyboard shortcuts, described in Chapter 12, to decrease and increase size. Hardness and opacity are fixed and cannot be changed.

✳ CAUTION

Mask Edge does not retain its settings. If you make adjustments and click OK, the next time you open the dialog box all settings will be at their defaults. Because Mask Edge does not keep the settings, it's good to take the time to get it right the first time.

Adjust Edge

The Adjust Edge section has four sliders used to apply adjustments within the radius area. Here's what they are used for:

- **Smooth:** Used to create a smoother outline by reducing irregularities that Adobe refers to as "hills and valleys." Increasing the Smooth value is a good thing to do when you have a selection with jagged edges.
- **Feather:** Used to soften and blur the edge of the mask. It does the same thing as the Feather slider in the Mask section of the Properties panel.
- **Contrast:** Used for increasing the hardness of a mask's edge boundary. It's like the opposite of Feather.
- **Shift Edge:** Used to shift the edge of the mask outward with negative values and inward with positive values. Shifting a mask outward is a good way to cover slight irregularities between masked and unmasked areas where a color fringe can otherwise occur due to inaccurate masking.

Use the Adjust Edge area to fine-tune the boundary of the mask after using Edge Detection to define a masking radius. I often use the Feather slider to soften a mask's edge with a low value of 1 or 2 pixels.

Output

The Output area is used to determine how you want to output the newly refined mask. Use the Output menu to output the mask as a selection, a mask, or a new document. When working with a mask on an adjustment layer, there are only two options: Layer Mask and Selection. Because the goal is to create a mask, leave this setting as Layer Mask.

The Decontaminate Colors option is used to remove any residual color fringing around a masked area. It isn't an option when working with adjustment layers because color contamination isn't an issue.

A Masking Case Study

Figure 13-15 shows a photo of an airplane from the Evergreen Aviation Museum in McMinnville, Oregon. It was photographed in the shadow of the gigantic Spruce Goose, an

historic wooden airplane built by millionaire Howard Hughes and flown only once. This photo did well when I entered it in competition, but it took a lot of work with adjustment layers and masks to get it looking this way.

The editing journey for this image began in Lightroom. I made a few minor adjustments and then used HDR software (described in Chapter 15) to create my base image. I imported the HDR in Lightroom and then opened it in Photoshop. Figure 13-16 shows what it looked like at that point. Some of the problems in this photo are obvious. For example, the wheel blocks, the pads on the floor, and the red lettering on the yellow plane in the background are very distracting.

Other flaws in the plane photos aren't as obvious and may even be considered subjective. For example, there's too much light and detail in the background. The red and yellow planes distract from the main subject of the photo. Their reflections on the big, shiny wing behind the central subject are as distracting as the planes themselves. My job with this project was to

FIGURE 13-15

This photo, "History's Wingman" received a high score in the 2011 PPA International Photographic Competition. I was able to make this image work by using several masked layers to control localized tonal and color adjustments.

FIGURE 13-16

The plane shot before any adjustments are made. Distractions on the floor need to be removed and details in the background need to be minimized.

create a viewing environment that makes it easy for the viewer to focus on the main subject by minimizing these distractions.

Figure 13-17 shows the Layers panel for the plane image. Each layer is used to control some aspect of the photo nondestructively. Here's a description of each layer and how I created the various masks by repurposing a primary mask. Pay attention to the workflow as well as the thought process behind it:

- **Retouching:** The first thing I did was to duplicate the Background layer and rename it Retouching. Then I used Photoshop's retouching tools, which are detailed in Chapter 14, to remove the distractions on the floor. That alone made a big difference with this image.
- **Curves 1:** After retouching was completed, I added the Curves 1 adjustment layer to apply global tone and contrast to the image. Normally, I wait until the photo is back in Lightroom for this step, but because there are so many layers in this project, I was able to get better control by using a Curves layer in Photoshop.

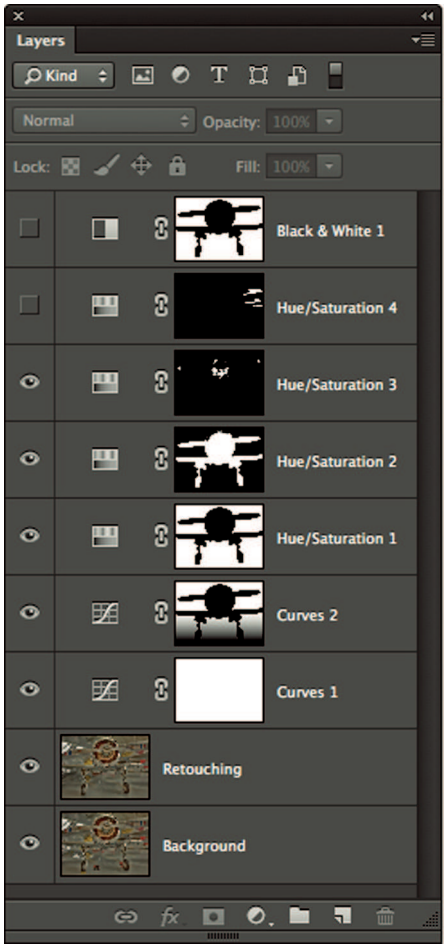


FIGURE 13-17

These nine layers were used to create the finished image. Each layer does its own part to create the final look I was after.

- **Curves 2:** Even with global tone under control, the background was still too light because of the large windows in the building. I wanted to darken the background without affecting the plane, so I used the Magnetic Lasso tool to select the plane for masking. The Magnetic Lasso tool was the obvious choice due to the hard edges that define the plane. The Magic Wand and Quick Selection tools didn't perform well for this subject. When the selection was perfect, I added the Curves 2 adjustment layer, which created a mask from the plane. I used the Options panel to invert the mask so the background was affected instead of the plane. I came back later in the workflow, after creating the Hue/Saturation 1 layer, and used a large brush to paint the foreground

with black to remove the darkening from the foreground where it wasn't needed. I then lowered the opacity of the brush and painted more of the floor in the middle ground to fade the darkening of Curves 2 between the foreground and the background.

- **Hue/Saturation 1:** With tone under control, I was able to start focusing on color. The distracting colors in the background needed to be desaturated and the colors in the plane needed to be more saturated. To accomplish that, it was necessary to create two Hue/Saturation layers with opposite masks. One to mask out the plane for the background adjustment and another layer to mask out the background for the plane adjustment. I didn't want to take the time to reselect the plane for the mask so I simply ⌘+clicked or Ctrl+clicked on the mask in the Curves 1 layer to load its mask as a selection. (This was before I added the dark paint to the foreground of the Curves 1 mask.) Then I added Hue/Saturation 1, which created a mask identical to the mask on Curves 1. I used the Saturation slider to reduce the saturation of everything except for the masked plane.
- **Hue/Saturation 2:** Creating the second Hue/Saturation layer for the plane was easy. I ⌘+clicked or Ctrl+clicked on the mask on Hue/Saturation 1 to load it as a selection. When I added the second Hue/Saturation adjustment layer for the plane, the mask was a duplicate of the mask on Hue/Saturation 1, which was the opposite of what I needed. I clicked the Invert button in the Properties panel to invert it so that the background was masked instead of the plane. Then I increased the Saturation value to give the colors in the plane some extra "pop." I had to be careful to not go too far because the neutral silver of the plane tended to oversaturate easily and show an undesirable colorcast. If the plane already had a heavily saturated area, I would have used a Vibrance adjustment layer instead of the Hue/Saturation layer to better work with the more subtle colors.
- **Hue/Saturation 3:** I liked the saturation on the plane after the Hue/Saturation 2 layer was added, but I wanted the copper-colored area around the propeller to be even more saturated. I created a third Hue/Saturation adjustment layer without any selections in place. I increased the Saturation value to get the copper color to look the way I wanted it. Everything in the photo was being affected by the increased saturation because the mask that came with the Hue/Saturation 3 layer was a white, reveal-all mask. I clicked the Invert Mask button in the Properties panel to switch it to a black, conceal-all mask that completely concealed the saturation adjustment. I then chose the Brush tool and used white paint to reveal just the areas on the mask I wanted to saturate with Hue/Saturation 3. I also painted the red tips on the propeller to add the additional saturation to them as well.
- **Hue/Saturation 4:** The red plane in the right background, as well as its reflection on the underside of the large wing in the background was still too saturated and distracting. Both areas needed to be desaturated a bit. I used the Magic Wand with a very low tolerance and Contiguous turned on to select the red areas I wanted to affect. When I added the Hue/Saturation 4 adjustment layer, the selection is converted to a mask.

I reduced the saturation of the Red color channel until the red plane is under control. Then I used the Brush tool to fine-tune a couple of areas where the Magic Wand tool didn't create a perfect selection. Then I used Refine Edge to soften the mask with a low Feathering value. I could have used the Feather slider in the Properties panel as well.

- **Black & White 1:** I liked the photo a lot at this point, but the background still wasn't working due to the distractions. I started thinking about the image title, "History's Wingman," and decided to add a sepia effect to the background. I ⌘+clicked or Ctrl+clicked the mask on Hue Saturation 1 to load it as a selection. I then added a Black & White adjustment layer at the top of the layer stack. The selection became a mask that protected the plane and turned the background black-and-white. The Black & White adjustment layer has a feature called Tint. When I choose it, a sepia color is added to the layer. Then I used the Tint color swatch to modify the color to one that fit the image. I didn't want the background to be completely black-and-white, so I reduced the layer's opacity to 60% to get the look I was after.

KEEP IT SIMPLE

If you plan to repurpose a mask to make other masks, make sure the original mask is perfect. It's really annoying to have duplicates of an imperfect mask because each needs to be fixed individually. Take the time to get it right the first time and avoid frustration later.

I make every effort to confine my postproduction workflow to Lightroom. But the level of editing precision I achieved on this image isn't possible in Lightroom. When you have an important, complicated project like this one, it's nice to be able to rely on Photoshop's comprehensive toolset to help you transform a good image into a great image.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CHAPTER 14

Perfecting Your Photos with Retouching

Image retouching is probably the one thing Photoshop is most known for. When you hear people say a photo has been "Photoshopped," they are referring to image alterations that change the "reality" of the photo. Photoshop earned the distinction of being used as a verb because it's the world champion when it comes to image retouching. A skilled retoucher can do just about anything using its powerful tools. Some of those tools and the techniques used with them are complicated. Entire books have been written about them. In fact, I've written a couple myself. My goal in this chapter is to introduce you to Photoshop's main retouching tools and basic techniques. That way if you're up against the wall with a retouching problem in Lightroom, you'll have options for dealing with it in Photoshop.

What Is Retouching?

Fifteen years ago when I was in the professional photo lab business, the most common retouching a lab like ours offered was portrait retouching. Retouching with brushes and dyes was applied directly to film negatives. When prints were made from the negatives, additional artwork using dyes and colored pencils were often required on each print to blend the negative retouching because it was extremely difficult to accurately paint dyes on small negatives. The employees who did the retouching in our lab were some of the most skilled workers in the building. Even so, they could only do so much with the technology at their disposal. They were mostly limited to removing blemishes and smoothing wrinkles for portrait subjects.

FIGURE 14-1

Because I was preparing this photo for the news, I couldn't retouch any of it, including the distracting line in the lower left.

In today's digital world, retouching is a completely different critter. Now we work with pixels that can be manipulated in countless ways on a computer. I can remove a pimple from someone's face, or I can completely replace his entire head to fix a bad expression. The options are truly endless.

Another commonly asked question asked about retouching is "Is it ethical to retouch a photo?" The answer to that question depends on what type of photography you do. Retouching in the modern sense is strictly forbidden in photojournalism. The public depends on journalists to represent the truth. If we have reason to believe news photos were retouched, we can't believe

them. I was in the right place at the right time to capture the bicycle crash in Figure 14-1. I caught these riders crashing into another fallen rider's bike, and then sliding down the steeply banked curves of the track. When I prepared the photo for the local paper, I knew retouching was forbidden. I couldn't even remove the dark line at the lower left, which would have taken only a few seconds.

Photographers such as real estate and medical photographers are also expected to forgo retouching images because people who use their photos have an expectation that they are viewing unedited images. Wedding and portrait photographers, on the other hand, are expected to retouch images to help their clients look good. Commercial photographers are also expected to retouch images for the same reason. Why shouldn't these photographers take advantage of modern technology to make their clients happy? As a fine-arts photographer, the only person I have to satisfy is myself. I'll do whatever it takes to accomplish that.

Understanding Photoshop's Retouching Tools

The basic premise of digital retouching is to pick up a sample from a good part of the image and use it to cover up a flaw. Photoshop has an array of retouching tools and techniques used to accomplish that task. In this section, I cover the three retouching tools every photographer should know how to use: the Clone Stamp tool, Healing Brush tool, and Patch tool. Each tool has its own strengths and weaknesses. Choosing the right tool for a specific problem is as important as knowing how to use the tools themselves.

Literal retouching with the Clone Stamp tool

The Clone Stamp tool (shortcut: S) is one of the earliest digital retouching tools. The Clone option in Lightroom's Spot Removal tool is based on it. The Clone Stamp tool is the ninth tool from the top in the Tools panel and is stacked with the Pattern Stamp tool. Make sure you have the Clone Stamp selected instead of the Pattern Stamp to avoid odd behavior.

The Clone Stamp tool uses a brush to apply retouching. Figure 14-2 shows the Clone Stamp tool's options in the Control panel. Most of these options are the same as the Brush tool's options shown in Chapter 12's Figure 12-10. For example, both have the same Brush tool panel for selecting size, hardness, and brush presets. The Opacity and Flow options are also the same in the Clone Stamp options as they are with the Brush tool. This is true as well with the pen pressure options and the Airbrush button. The Clone Stamp tool's brush behaves just like the Brush tool except that instead of applying paint, the Clone Stamp tool applies sampled image content as you paint.

The main difference between the Clone Stamp tool and Lightroom's Spot Removal tool is you need to sample the area you want to clone before painting the target area you want to cover. This may sound awkward when compared to the automatic sampling of the Spot Removal tool,

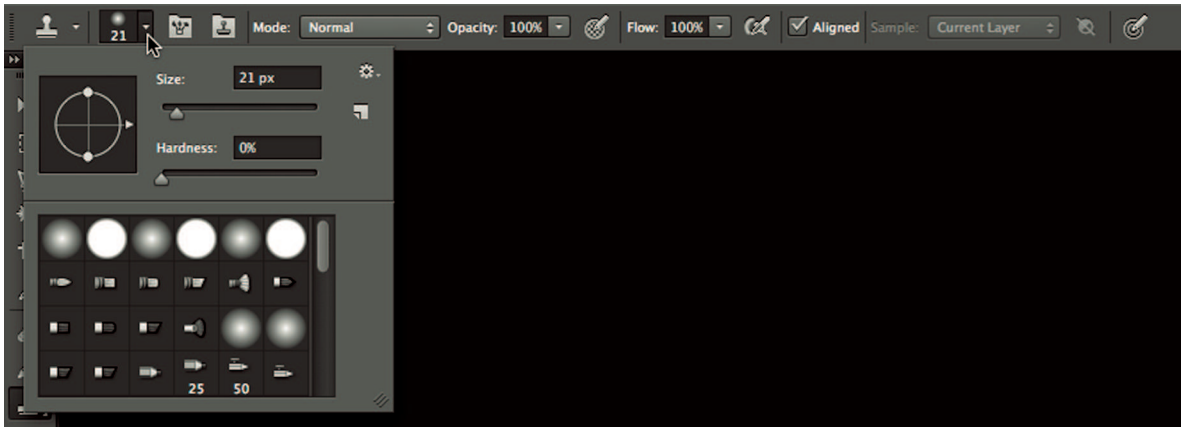


FIGURE 14-2

Clone Stamp tool options are very similar to the Brush tool options because it uses a brush to apply sampled content for retouching.

but manual sampling is easy and it gives you greater control over the retouching process. With the Clone Stamp tool, you can sample multiple areas when covering a single target area, which is useful for breaking up patterns. This type of flexibility isn't possible with Lightroom's Spot Removal tool.

To use the Clone Stamp tool, hold down the Option or Alt key and click to sample the area you want to use to cover the target area. Release the key and the mouse button and begin painting the target area. As you do, notice that a crosshair pointer follows the brush in alignment with the sampled area. You can see it in the first image in Figure 14-3, to the right where I sampled the ground to cover the tree. Notice I sampled on the horizon line and then began painting exactly were the horizon should be. As I paint, the sample pointer stays in alignment so that when I paint the upper part of the tree, the sample moves to the corresponding sky area, as shown in the second image in Figure 14-3. In the third image, you can see where I'm finishing the cloning, which was all done with a single, extended brush stroke. At first glance it looks convincing. But a closer inspection of the sky reveals duplicated areas in the clouds that are a clue that retouching has taken place. These repetitive marks are called cloning tracks. I can avoid cloning tracks when cloning out the tree by occasionally changing my sample point while retouching the sky area.

✳ TIP

If you see an odd overlay on the Clone Stamp tool's pointer, ignore it for now. I explain later in this chapter how to address that.

FIGURE 14-3

In the top image, you can see where I sampled the horizon line and began painting where the horizon should be. This established the alignment of the sample and target pointers. They stay in alignment as I continue to paint, as shown in the middle image. Using a single sample point for covering this tree results in a too literal copy of the large dark cloud in the bottom image.

The alignment of the Clone Stamp tool's sample and painting pointers is controlled with the Aligned setting in the Control panel options. It's selected by default. Deselecting the Aligned option causes the tool to continue sampling from the same area you sampled with the first brush stroke every time you paint. It's usually best to keep Aligned selected to get the most varied sampling.

One other feature of the Clone Stamp tool (and the Healing Brush tool) is that if you're using layers, you can sample content on one layer and paint it into a target area on a different layer. This behavior is determined by the Sample menu in the tool's options in the Control panel. The menu options are Current Layer, Current and Below, and All Layers.

When you choose Current and Below or All Layers, the Ignore Adjustment Layers button to the right of the menu becomes available. It's important to choose this option because sampling adjustment layers along with other image content causes the adjustment layers' effects to be amplified within the target area. For example, if I have a Curves adjustment layer that's used to darkened the overall image, sampling it along with other content causes my retouching to come out even darker.

✳ TIP

You can also sample content from one image and paint it into the target area on a different image.

The Healing Brush tool

The Clone Stamp tool is a useful tool for many situations. But because it's so literal, it can be hard to manage when you don't have similar areas to sample. As you may recall from Chapter 8, Lightroom's Spot Removal tool can change from the literal Clone setting to the Heal setting that blends color and tone. That Lightroom feature is named after one of Photoshop's newer retouching tools, the Healing Brush tool (shortcut: J). It's seventh from the top in the Tools panel and not to be confused with the Spot Healing Brush tool that's stacked with it. Both tools use similar Band-Aid icons, so they are easy to confuse.

The Healing Brush tool works similarly to the Clone Stamp tool. It has a brush and you press the Option or Alt key to choose the sample. When you paint with the Healing Brush tool, sampled color and tone blend with the target. This blending gives you more flexibility when sampling than the Clone Stamp tool because sampled tone and color don't need to be a perfect match to the target area.

However, the Healing Brush cannot blend the texture of the target area, so it's important to sample similar textures. For example, I can't sample the grass to retouch the sky. Even though the color and tone will try to blend to match the sky, the texture of the grass will still be visible.

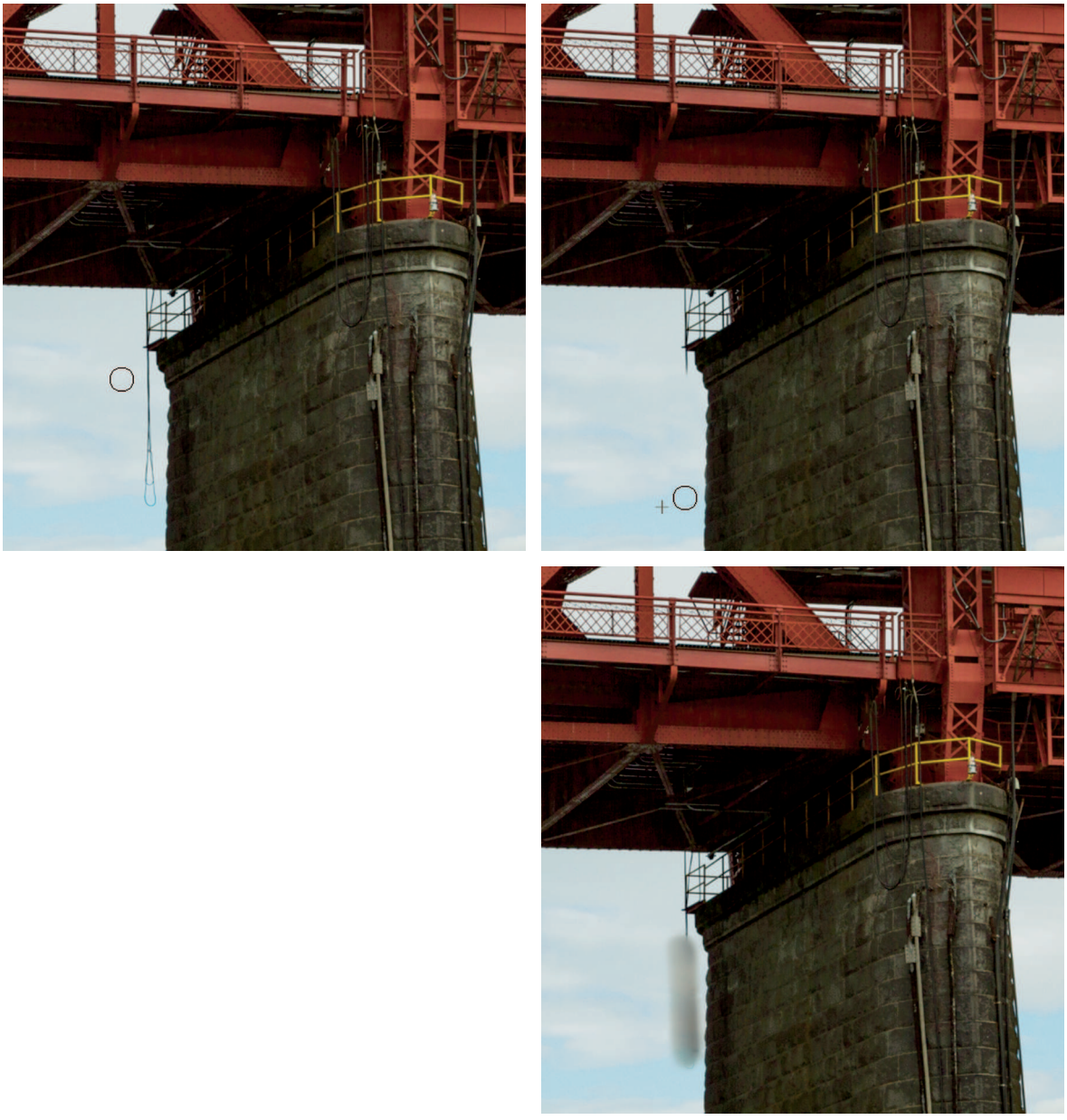


FIGURE 14-4

When you paint along an edge with the Healing Brush tool (shown in the top two images), it gets confused because it doesn't know which color to use when blending tone and color. The result is almost always a smear, as shown in the image at lower right.

The main thing to keep in mind with the Healing Brush tool, like the Heal feature in Lightroom's Spot Removal tool, is that it doesn't perform well when you paint near an edge. I wanted to use the Healing Brush tool to remove the rope hanging from the bridge shown in the first image in Figure 14-4. I sampled to the left and carefully painted out the rope. Everything looked fine, as shown in the second image, until I release the mouse button. As soon as I did, I got the smear shown in the third image of Figure 14-4.

The Healing Brush tool will fail every time you use it to retouch near an edge with strong contrast. The Clone Stamp tool is the best tool to use when faced with a scenario like the rope in Figure 14-4. You just need to be careful to sample an area that best matches the target area's tone and color.

Using the Clone Source panel

The Clone Source panel, shown in Figure 14-5, is part of Photoshop's Photography Workspace. (See Chapter 11 for the workspace's description.) Click its icon to open the panel. You can also open it by using the Toggle Clone Source Panel button on the left of the Control panel when either the Clone Stamp or Healing Brush tools are selected.

The Clone Source panel is used to manage samples taken with the Clone Stamp and Healing Brush tools and the preview overlay both tools use. The upper area with the row of Clone Source icons gives you the ability to store as many as five unique sample source points. This is useful when you need to return to an exact sample. Simply click one of the icons to store the current

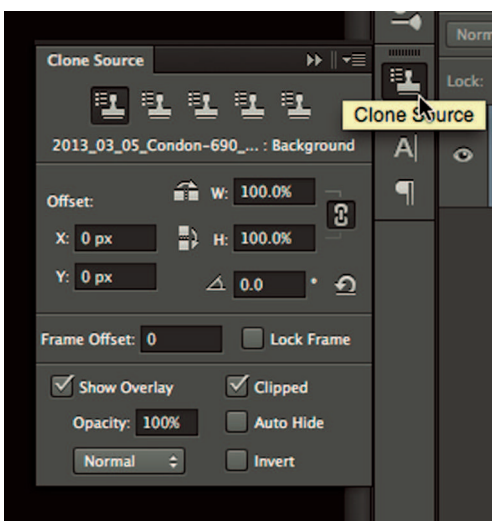


FIGURE 14-5

The Clone Source panel is used to save particular sample points, control how samples are applied, and to control the overlay used by the Clone Stamp and Healing Brush tools.

sample source point. I rarely use this feature, but I can see where it might be useful for someone who retouches lots of similar images, such as product shots.

The Transform section in the middle enables you to scale and rotate sampled content as it's applied to the target area. For example, you can rotate or scale sampled content before brushing it in the image. To scale source content, enter percentage values in the W (width) and H (height) text boxes. To rotate sampled content, enter a value in the Rotate text box below the H text box. Use the Offset area to paint a specific location relative to the source sample point either vertically or horizontally. Click the Reset Transform button (circular arrow) to reset all the boxes in the Transform area.

The Frame Offset section below the Transform area is used to lock a source frame when retouching video frames. This option is useful for maintaining a relative source point or the same source point when retouching consecutive video.

The Clone Source panel features described so far are interesting, but I rarely need to resort to them because my retouching needs generally aren't complicated enough for these types of tweaks. However, the Source Overlay options at the bottom of the panel is an area every Photoshop user should be familiar with because this is where you control the preview overlay that appears on the pointer when using the Clone Stamp and Healing Brush tools. This overlay is used to help you preview painting before you apply it, which is very useful when it's necessary to align details in the sample and target areas.

Take a look at the different things you can do with the source overlay preview:

- **Show Overlay:** Deselect this option to turn off the overlay.
- **Opacity:** Use this option to reduce the opacity of the overlay so you can see through it. This helps when you need important details to line up from the sample to the target areas.
- **Blending Mode:** Use this menu to change how the preview overlay blends with the target area.
- **Clipped:** Choose this option to cause the overlay to show only inside the brush pointer, which is the default behavior. When this option is deselected, the entire image is used as an overlay. I suggest you leave Clipped selected because it's difficult to retouch an image with an overlay that completely obscures it.
- **Auto Hide:** Use this option to automatically hide the overlay when you paint.
- **Invert:** Use this option to invert tones and colors in the overlay so it's the opposite of the sampled area — black becomes white, and white becomes black. The Invert option is useful when trying to align important details because it's easy to see when the inverted source is in alignment with details in the target. Using Invert is similar to choosing Difference from the Layer panel's Blending Mode menu.

✳ TIP

Some people don't like the overlay, so they turn it off by deselecting Show Overlay. If you turn off the overlay, you can temporarily display it when using the Healing Brush or Healing Brush tools by pressing Option+Shift or Alt+Shift. But you won't be able to paint until you release the keys.

The source overly is incredibly useful when it's necessary to match details exactly while retouching. For example, when removing graffiti from a brick wall, it's important that sampled bricks line up with the target bricks. To help the tool perform optimally for this kind of work, set the Opacity value to about 50 percent and select Invert. You'll know when matching details are in alignment because they turn gray.

Using the Patch Tool to Retouch with a Selection

The Patch tool (shortcut: J) is stacked with the Healing Brush. Unlike the Clone Stamp and Healing Brush tools, the Patch tool does not use a brush. Instead, it uses a selection to define the target area. Then drag the selection to the area you want to sample. When you release the mouse button, the sample selection is dropped into the target area and blended with the content. The blended result is similar to results achieved using the Healing Brush tool. Tone and color blend with tone and color of the target area, but texture from the sample does not blend.

✳ TIP

You can use any selection tool to create a selection for the Patch tool.

Figure 14-6 shows an early morning photo from the tulip fields at Wooden Shoe Tulips in Woodburn, Oregon. These fields are usually crawling with photographers during blooming season. I got this shot of the first photographer in the field at sunup and wanted to enter it in competition. But the distracting structures in the middle of the frame are unacceptable because they destroy the compositional balance of the shot. There was no way to avoid them when I took the photo, but I knew I could easily remove them during postproduction.

Both the Clone Stamp and the Healing Brush tools could have been used to accomplish what I needed with this photo. But it was faster and easier to use the Patch tool. In the first frame of Figure 14-7, you can see where I drew a loose selection around the main group of buildings. Then I dragged the selection to the left to sample an area with some trees. I had to be careful to make sure the horizon line on the field stayed constant between the target and sample selections. The second frame shows me using a second Patch tool selection around the remaining pole and dragging it to the right to sample a foggy area.

FIGURE 14-6

I wanted to enter this early morning photo in print competition, but I needed to remove the man-made distractions from the middle of it first.

✳ CAUTION

When you use the Patch tool close to an edge, it suffers from the same smearing problems as the Healing Brush tool. If you need to work near an edge, try drawing your selection to encompass the edge as I did with the horizon line when selecting the structures in Figure 14-6. If you keep the edge aligned between the sample and target areas, smearing shouldn't be a problem.

The Patch tool's Control panel options are shown in Figure 14-8. The four selection-mode buttons on the left are the same as used by the selection tools described in Chapter 13 to control the tool's selection mode. I find it's rare for me to need to add or subtract from a selection made with the Patch tool, so I leave the mode menu set to New. That way the tool creates a new selection every time I use it.

The Patch tool has three unique options that aren't in the options for any selection or retouching tools: Source, Destination, and Transparent. Here's what they do:

- **Source:** With this option, you select the target area and drag the selection to the area you want to sample. This is the default mode and the one I use.

FIGURE 14-7

In the image at top, I selected a group of buildings and dragged the selection to sample trees to the left. I was careful to keep the horizon constant in both selections to ensure proper alignment. Then I did the same thing to the remaining structure, as shown in the image at bottom.

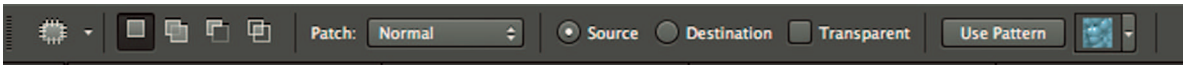


FIGURE 14-8

The Patch tool options are fairly simple. The four selection-mode buttons on the left are the same buttons used by other selection tools.

- **Destination:** This option works the opposite of Source. Select the area you want to sample and drag to the area you want to patch.
- **Transparent:** Use this option to sample texture with a transparent background. This is more useful for graphics with solid backgrounds. I've never found it useful for retouching photos.

The Patch menu determines how the source material is blended into the target area. The Normal mode blends the sample as it is. The Content-Aware option adds the sampled area into the target but doesn't blend it in the same way; instead, it uses details surrounding the target selection to blend a literal version of the sample into the target area rather than blending the sample itself. When you choose the Content-Aware mode, the Adaptation menu appears in the Control panel, as shown in the in Figure 14-9. The options in the Adaptation menu determine how closely the sampled material matches existing patterns in the image as they blend. The options range from Very Strict to Very Loose. Try selecting different options after patching to see which works best.

TIP

Unfortunately, the Patch tool doesn't have an opacity option. However, you can fade an application of the Patch tool (or any other tool) by choosing Edit ➪ Fade. When the Fade dialog box opens, use the slider to determine how much fade to apply. Be aware that Fade must be done immediately after patching. If you do anything else, such as deselect, the Fade command will be grayed out.

The Patch tool is my favorite Photoshop retouching tool. It's fast, easy to use, and capable of amazing results under the right conditions. Sometimes it's necessary to do a bit of cleanup around patched edges using the Patch tool or the Clone Stamp tool. But patching a larger area

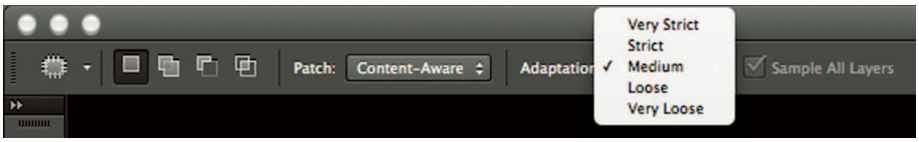


FIGURE 14-9

When using the Content-Aware mode with the Patch tool, use the Adaptation menu to determine how sampled content blends with the target content.

and then cleaning up a bit is still faster than working on a large area with the Clone Stamp or Healing Brush tools. Working with Photoshop's retouching tools is similar to working with its selection tools: Use an intelligent tool to get in the ballpark, and then do any cleanup with the Clone Stamp.

A Retouching Case Study

Figure 14-10 shows a photo of a kayaker on the White Salmon River in Washington state. It's a nice action shot, but much of the writing is distracting, especially the writing on the yellow paddle and the word "TEST" on the front of the boat. Both these areas are constrained with edge details near the writing. Using the Healing Brush tool or the Clone Stamp tool in these tight spaces isn't an option because both tools will smear. Therefore, it's necessary to use the Clone Stamp to cover the writing on the paddle and the large lettering on the front of the boat.

FIGURE 14-10

I like this action shot of the kayaker, but there are several distractions that take away from the impact of the image. The worst offenders are the writing on the paddle and the front of the boat.

✳ NOTE

When submitting photos for stock sale, it's necessary to remove all logos, which can be a daunting task when working with sports photography.

Removing the writing from the paddle will be straightforward because there is lots of yellow on the other side of the oar that is similar to the yellow area I need to cover. The "TEST" writing won't be as easy. There isn't much clean green around it to sample. If I sample green in other parts of the boat, it won't match the green in the target area closely enough. I'll need to build up a larger target area by beginning with small samples.

When I have a complicated retouching project, my workflow is to begin by tackling the most difficult problems first. That way, if I realize I can't resolve them sufficiently and decide to abandon the project, I didn't waste time on other issues that become moot.

Here's how I use the Clone Stamp tool to get this project started and then use the Patch tool to quickly fix some of the easier to fix issues:

1. I open the RAW file from Lightroom with basic color and tonal adjustments. I'll take care of cropping, vignetting, and other fine-tuning in Lightroom after I complete the retouching in Photoshop.
2. I duplicate the Background layer (choose Layer ➪ Duplicate Layer) before beginning retouching so that all retouching is on the duplicate. This serves two purposes: It isolates the retouching to its own layer, and it enables me to check my work by turning off visibility of the retouching layer to compare the retouched version to the untouched Background layer.
3. After opening the file, I zoom in so I can work closely with the "TEST" writing. I begin by fixing small areas because there isn't much clean green area that matches the color for sampling. I use several small samples to build up a larger clean area.
4. I use a small, soft brush at 100-percent opacity. One of the tricks to cloning in tight quarters is to sample close enough to get an accurate sample, but not getting too close. One of the weird things about the clone stamp is that when you sample too close, the tool remembers what it saw. If you begin removing something and the target pointer tracks on top of the thing you were removing, it still sees it and begins to copy it. To solve this problem, do a series of short strokes to let the tool update. But be sure to make strokes. A series of clicks without strokes can make the retouching visible by leaving what are called *cloning tracks*. Cloning tracks are repetitive patterns that are a sure sign retouching has taken place.
5. The image at top in Figure 14-11 shows where I've begun to remove the first "T" by sampling different areas around it. It's necessary to sample different areas as I build up a larger green area because continuing to sample a single spot usually leads to cloning tracks. After the first "T" is covered I have a larger, more continuous area to sample as I begin covering the other letters, as shown in the bottom image in Figure 14-11.

FIGURE 14-11

When quarters are tight and there aren't any large areas to sample, I begin by using multiple samples to clean up an area, as shown in the image at top. After I establish that area, I can sample it when retouching other areas, as shown in the image at bottom.

6. The second "T" is the most difficult letter to remove because of the white streaks in the artwork next to it. I use a small brush to work around the white and try to avoid covering any of it while I cover the "T."
7. When all the "TEST" letters are covered, I use the Clone Stamp tool with a small brush to clone some of the white and blue streaks into the retouched area, as shown in the first image in Figure 14-12 so it doesn't look oddly blank. Then I use a 50-percent Opacity value with the Clone Stamp tool, as shown in the second image, to keep the cloned streaks low key and preventing them from looking like exact clones of the streaks I sample. I also sample parts of different streaks to create a new streak to avoid repetition.
8. When everything looks good, I check my work by hiding the visibility of the retouching layer to compare it to the unretouched Background layer. This is the moment of truth on a retouching project. If I see any problems, I make the layer visible again and fix them.
9. I use similar techniques to remove the obvious writing on the back of the boat.
10. When I'm satisfied with the retouching on the front and back of the boat, I know I can do what is necessary to fix this photo so I turn my attention to the oar. I need to use the Clone Stamp on it also because the writing is so close to the edge of the oar and the line down the middle. Using the Patch tool or the Healing Brush tool near these edges would cause smearing. I increase my opacity back to 100 percent and increase the size of the brush. Then I clone the clean area on the left side of the oar to cover the writing on the right.
11. After the oar is done, I move to the inside of the boat to remove the three obvious logos. I use the Patch tool to deal with each logo individually. The Patch tool may not seem like the obvious choice because of the bubbles in the area. But I use them to my advantage by sampling the water, as shown in Figure 14-13. In the first image, I sample the water with the Patch tool and drag it on top of the logo on the right. The color and tone blends, but the texture of the water remains adding to the bubbles in the scene. Then I sample the retouched area and use it to cover the other logos one at a time, as shown in the second image in Figure 14-13.
12. Finally I use the Patch tool to quickly remove the logos on the man's helmet and sleeve.

The kayak and the guy in it look great now, so it's time to back out and take a look at the rest of the image. I really like everything except the large boulder in the upper-left. Its dominant shape competes with the main subject for the viewer's attention, especially with the yellow oar pointing at it. I try the Patch tool in Normal mode and get a smeary mess, so I press ⌘+Z and Ctrl+Z to back up and try again with the Patch tool set to the Content-Aware mode, but it doesn't perform any better in this case. I could try the Clone Stamp tool but it would be hard to make the coverup look convincing without taking lots of time. Fortunately, Photoshop has a pretty cool solution for just this kind of scenario, called Content-Aware Fill.

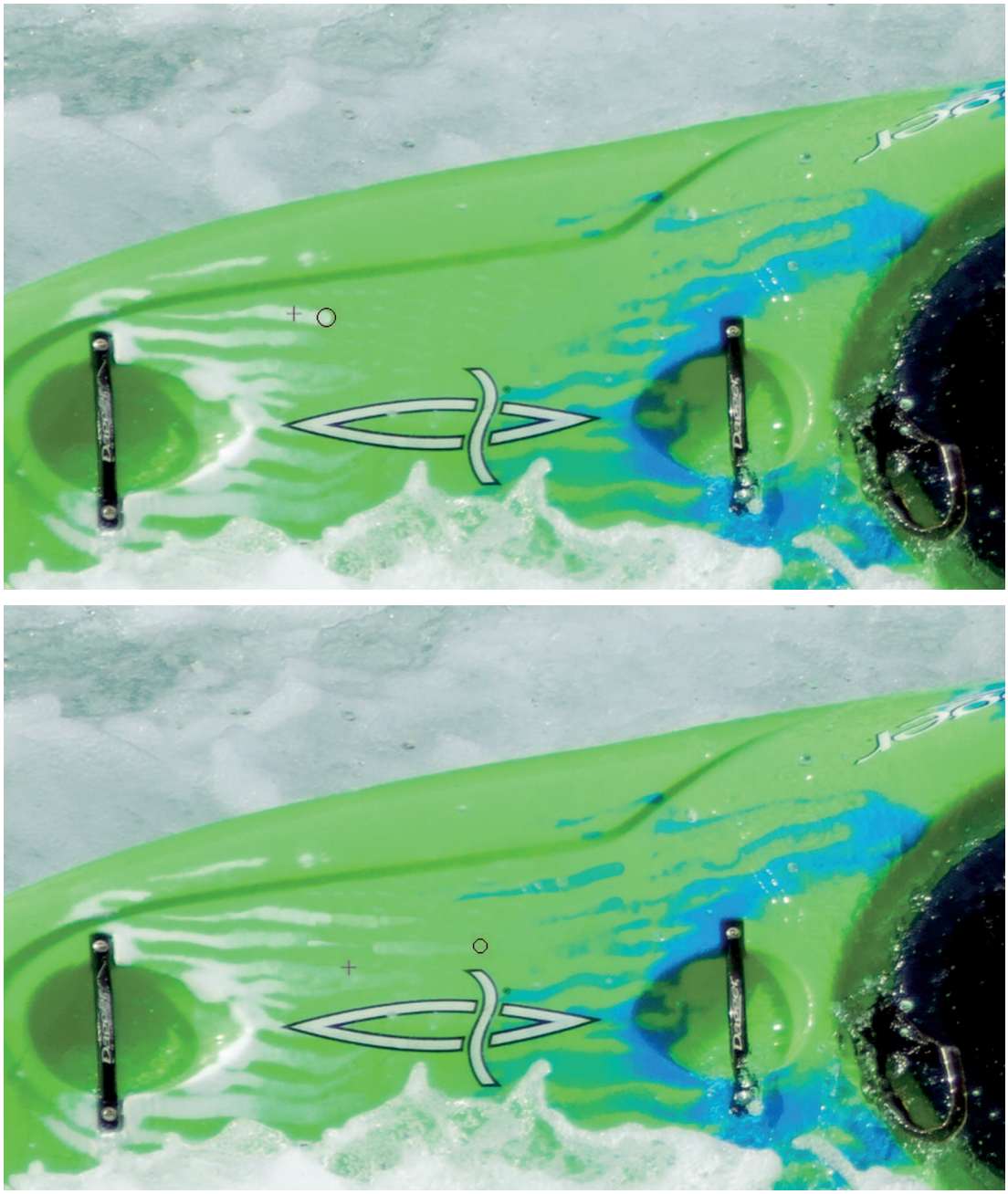


FIGURE 14-12

After the writing is covered, I'm left with a large green area. I use a small brush in the first image to extend some of the white and blue lines in the artwork, as shown in the top image. Then I lower the opacity and sample different lines, as shown in the bottom image, to vary the retouching so that my extension of the lines isn't obvious.

FIGURE 14-13

I use the Patch tool to remove the logos inside the boat. In the image at top, I sample the water to cover the first logo. The Patch tool blends the color but leaves the texture of the water, which works well here. Then I sample the retouched area to remove the other logos in the image at bottom.

✳ TIP

Using ⌘+Z or Ctrl+Z to undo and back up in history works differently in Photoshop from Lightroom. In Lightroom, like most other programs, each consecutive undo continues to back up in the history. In Photoshop, pressing ⌘+Z or Ctrl+Z backs up only one step. Using the shortcut again causes it to redo instead of undo. Repeatedly using the shortcut is great for toggling the last step off and on, but if you want to continue to back up, press Option+⌘+Z or Ctrl+Alt+Z instead.

Automated Retouching with Content-Aware Features

Because retouching can be time-consuming, Adobe is always looking for ways to automate the process. Adobe began adding content-aware features to Photoshop with the release of CS4. You encountered one of them earlier in this chapter when exploring the Patch menu's mode options for the Patch tool. Two other content-aware features retouchers should know about are Content-Aware Fill and Content-Aware Move.

Using Content-Aware Fill

Content-Aware Fill was added to Photoshop CS5. It enables you to create a selection around something you want to cover and then automatically fill the selection with a combination of nearby image content. The results can be hit-or-miss. Much of the time it's necessary to follow up with other retouching tools to blend the fill. But when Content-Aware Fill performs at its best, it's like magic.

To use it, create a loose selection with any selection tool. Make the selection loose enough so it extends slightly into the area you want Content-Aware Fill to sample. You can see the selection I used around the rock in the kayak photo in the first image in Figure 14-14. When the selection was in place, I chose Edit ➪ Fill to open the Fill dialog box. I selected Content-Aware Fill from the Contents menu and clicked OK. This was one of those cases where the results worked like magic. The second image in Figure 14-14 shows how well the samples blend to create water in the area around the boulder. It's possible to see repeated patterns, but you really have to look closely for them.

✳ TIP

You can also access the Fill menu by right-clicking when you have a selection in place.

A nice feature about Content-Aware Fill is if the results are close, but don't quite hit the mark, you can try filling the selection again. Content-Aware Fill will generate a slightly different result. I tried filing the selection in Figure 14-14 two more times and then went back through my

FIGURE 14-14

Content-Aware Fill does a great job of removing the boulder in the upper-left. I use the Lasso tool to draw a very loose selection, as shown in the first image. When I fill it, surrounding content is automatically blended into the selected target area.

FIGURE 14-15

This retouched project is now ready for final touches in Lightroom. Notice how different it looks from Figure 14-10 after a few minutes of retouching.

last three history steps in the History panel to see which had the best result. I chose the second fill application because it looked most convincing and I liked the shape of the waves the most. Figure 14-15 shows the completed kayak photo ready to be saved and finalized in Lightroom. No one would notice the retouched upper-left unless they were looking for it.

Using Content-Aware Move

Content-Aware Move was added with the release of Photoshop CS6. It works similarly to Content-Aware Fill, but is used for moving something in an image instead of covering it. The Content-Aware Move tool (shortcut: J) is stacked with the Healing Brush and Patch tools. You use it to draw a selection around the element you want to move. When you drag the selection to a new location, the old location is covered using Content-Aware Fill. The Content-Aware Move tool's options have the same Adaptation menu as the Patch tool when it's in Content-Aware mode.

FIGURE 14-16

To use Content-Aware Move, select the area to move, as shown in the image at left. Then drag it to the location where you want to move it to. When you do, the original location is automatically filled with nearby image content, as shown in the image at right.

✳ TIP

You can use any selection tool to select content and then switch to the Content-Aware Move tool to move it.

Figure 14-16 shows me moving the numbers on the side of a train locomotive from the upper area. I drew a selection and dragged it, as shown in the first image. When I release the mouse, the content in the selected area is placed in the new location and the upper area is automatically filled with surrounding image content, as shown in the second image in Figure 14-14. The Content Aware Move tool does a convincing job in this simple scenario. But like Content-Aware Fill, results can be hit-or-miss.

✳

CHAPTER 15

Expanding Your Horizons with Plugins

A plugin is an add-on program that works with a host program. Think of plugins like the apps you download for your phone to help you do the many things we never expected to do with our phones. Lightroom and Photoshop plugins are apps designed to work with Lightroom and Photoshop. They help you accomplish things that aren't possible with the programs, or they help you do something the host program can do but not as easily as the plugin can. Plugins are available as individual standalone programs or can be grouped in a suite of plugins. The range of plugin for Lightroom and Photoshop is truly huge. My goal with this chapter is to orient you to the plugin concept and provide an overview of popular plugins you should know about.

NOTE

I am not sponsored by any of the companies mentioned in this chapter. My sole purpose, as in the rest of this book, is to expose you to options and help you find what works best for your postproduction workflow.

NOTE

If you don't have Photoshop, or aren't willing to move to Adobe's Creative Cloud, a workflow comprised of Lightroom and a handful of select plugins can yield a powerful postproduction solution.

Working with Plugins in Lightroom

Plugins have been a part of Photoshop since the earliest days. One of the first, Kai's Power Tools, was introduced in 1992. It was very popular because it featured several effects that weren't possible in Photoshop at the time. The plugin market has continued to grow and mature ever since. Today, there are numerous companies that provide Photoshop plugins to accomplish a huge number of tasks.

✳ TIP

A Lightroom preset is a set of recorded settings. For example, a Develop preset records adjustment slider settings so you can use them again. A plugin is a separate program that functions outside a host program such as Lightroom.

Now that most photographers are using Lightroom for much of their workflow, most plugin manufacturers offer plugins for Lightroom or, more commonly, provide a method for Lightroom to link to their Photoshop plugins. This gives you the ability to access the plugins from either host program. When you use a plugin, your photo is opened in the plugin software. The "plugging in" part of a plugin is more about linking the plugin to the host program to facilitate seamlessly moving photos in and out of the plugin program.

With a Lightroom-centric workflow, you'll find it easiest to use plugins with Lightroom instead of Photoshop. But there's something important you need to understand about using plugins with Lightroom: Opening a photo in a plugin is just like opening a photo from Lightroom in Photoshop. All Lightroom adjustments are baked into the file and cannot be undone after plugin editing. Because of this, you need to manage the plugin workflow much as you would manage moving photos in and out of Photoshop, as described in Chapter 10.

Lightroom plugins have different ways of plugging into Lightroom. Some use the Edit In command (choose Photo ➪Edit In), while other plugins integrate with Lightroom's Export feature, which is described in Chapter 16. A third way plugins connect with Lightroom is through the Plug-in Extras menu. Some plugin manufacturers even provide multiple methods for accessing their plugins in Lightroom.

Figure 15-1 shows the Edit In menu with most of my plugins listed. At the top is the current version of Photoshop, which is always selected by default if Photoshop is installed on the system. Next is the only way to integrate with the Topaz Labs plugins, which is described later in this chapter. The middle section of the menu is an alphabetical list of plugins from OnOne Software, Nik Software, and Imagenomic.

Figure 15-2 shows plugins listed in the Plug-in Extras menu. Photomatix Pro is at the top. Below it are plugins from the OnOne Perfect Photo Suite. Notice that some plugins in the External Editing menu are also available through the Edit In menu, but not all of them.

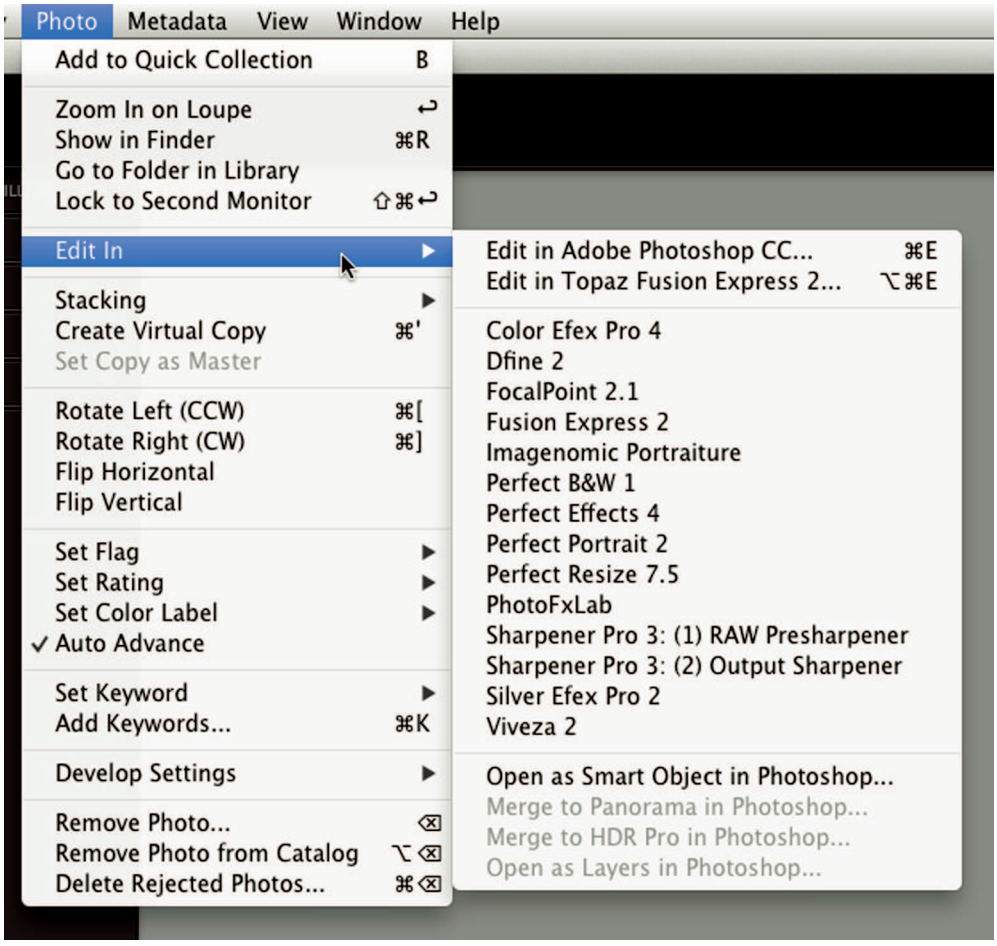


FIGURE 15-1

One of the common methods for accessing plugins in Lightroom is through the Edit In command you access from the Photo menu or by right-clicking on a photo.

Installing plugins

Most plugin manufacturers have learned that users don't like to manage the software installation process any more than they have to. Most of us just want to install the software and have it link to the necessary programs. But there are still plugin programs that require you to use Lightroom's Plug-in Manager to connect the plugin to Lightroom after the plugin has been installed on your system.

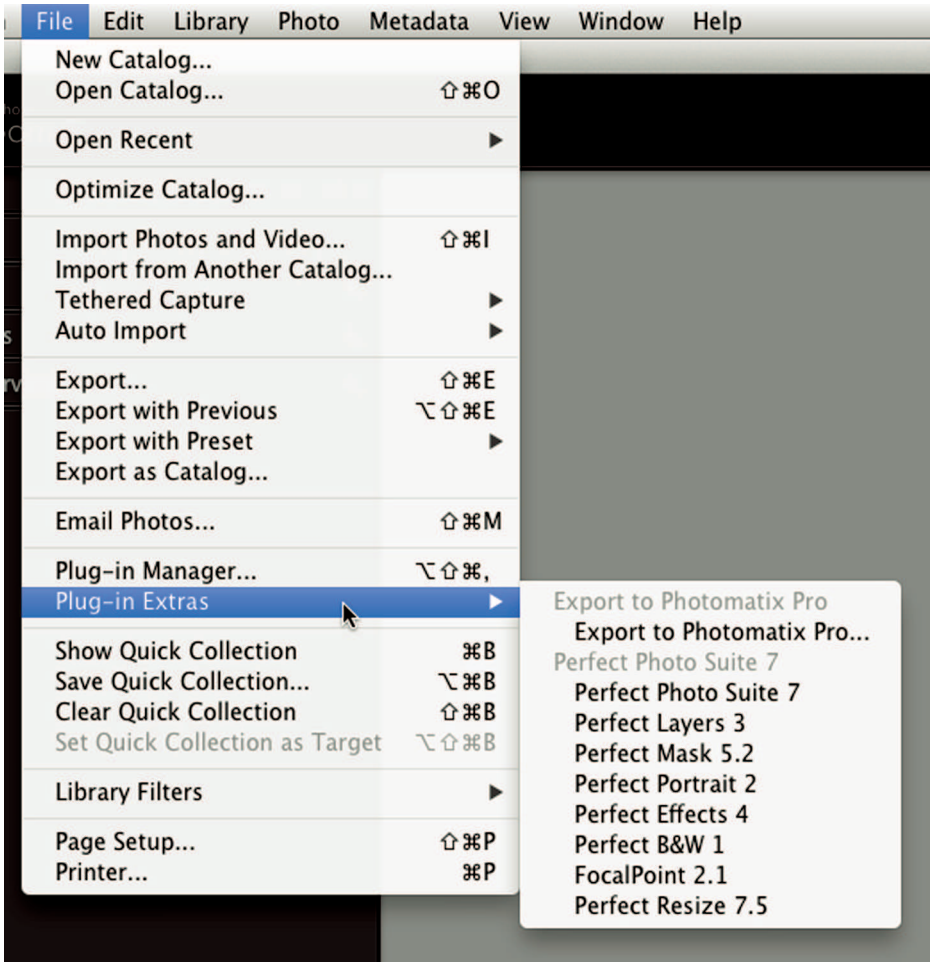


FIGURE 15-2

The External Editing menu is another way to access plugins, although not all plugins are visible in both the Edit In menu and the External Editing menu.

✳ TIP

Because there are multiple methods for installing plugins, be sure to closely follow the installation instructions supplied by the plugin maker.

Figure 15-3 shows the Plug-in Manager dialog box that's accessed by choosing File ➪ Plug-in Manager. The left column lists most, but not all, installed plugins. Click a plugin from the column to see a description on the right, or to disable it. If you need to remove a plugin, which happens occasionally when installing a newer version of the plugin, select the plugin and

click Remove. If it's necessary to add the plugin manually, use the Add button to navigate to the plugin on your hard drive and add it to the list of installed plugins.

✳ TIP

The coolest feature in the Plug-in Manager dialog box is the Plug-in Exchange button. Clicking it takes you to a website with lots of Lightroom plugins and presets.

Most Lightroom plugins automatically reimport processed files to Lightroom's catalog when you save them. If you decide to change the name of the file or its location when you save, it may not be seen by Lightroom. When that happens, synchronize the folder in Lightroom to pick up the missing file as described in Chapter 4.

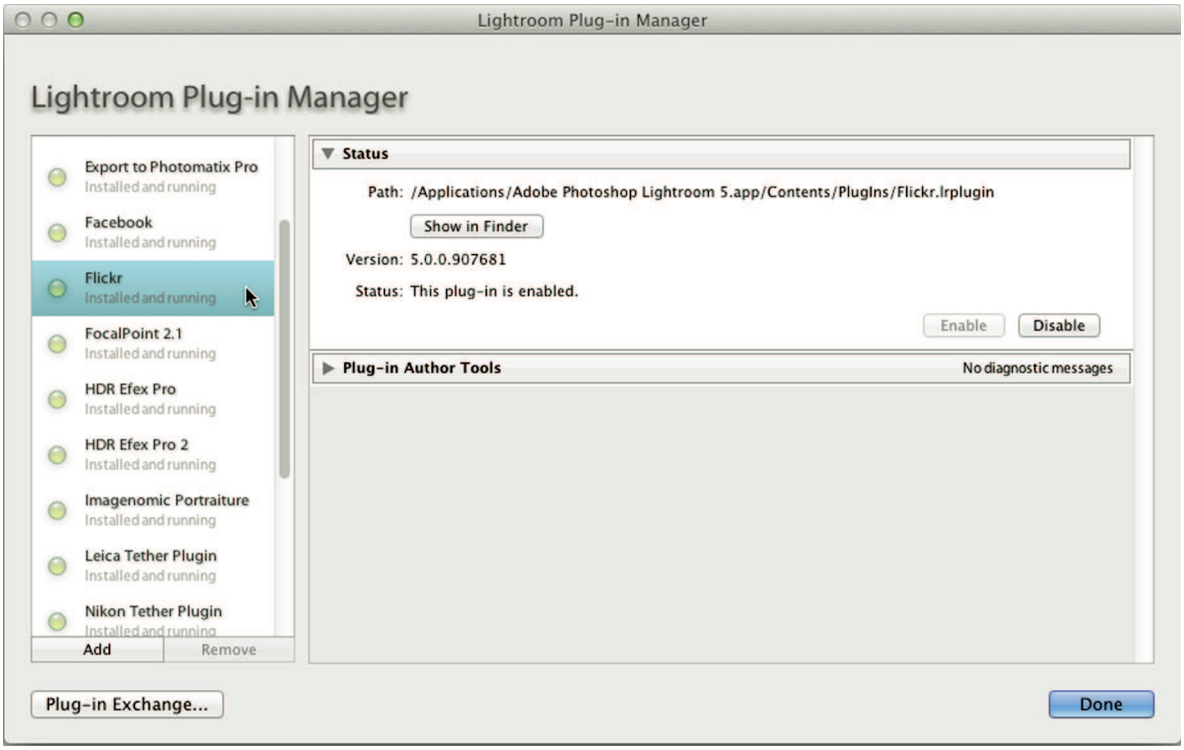


FIGURE 15-3

Lightroom's Plug-in Manager is used to manage plugins. Some plugins, like the Flickr plugin, are installed by default with Lightroom. Others can be added and removed using the buttons at the bottom of the left column.

Editing HDR with Photomatix Pro

A popular style of photography right now is HDR. It uses special processing to create one image from a group of source images. Photoshop has an HDR feature called HDR Pro, but it leaves something to be desired for photographers (like myself) who are deep into HDR. Other companies offer really great HDR plugins for Lightroom and Photoshop that have become very popular.

What is HDR?

HDR is an acronym for *high dynamic range*. The dynamic range of a scene is the ratio of the lightest detail to the darkest detail. High dynamic range photography is a method for recording the entire range of a scene. Although there have been major advances in camera sensor technology in recent years, most cameras don't come close to capturing the dynamic range a human can see, much less anything beyond that. When a photographer shoots for HDR, he or she shoots a series of exposures of the same scene. For example, the photographer might shoot one photo that is underexposed by two stops, a second photo that's shot with no exposure bias, and a third photo that's overexposed by two stops. When these three photos are combined in HDR software, the entire range of the three exposures is combined into a single image.

✳ TIP

Because it's necessary to shoot multiple photos for each HDR scene, it's best to use a tripod to help the plugin register details in the images as it combines them.

Figure 15-4 shows an HDR image of my wife enjoying a West Coast sunset. To record this scene it was necessary to take a series of exposures. The first was a normal exposure. The second shot was an overexposure to get detail in the shadows in the log and the blanket. The third shot was underexposed to get detail in the bright sky. I used Photomatix Pro to combine the source photos. After HDR processing, I brought the file back to Lightroom for final polishing.

Using Photomatix Pro

Photomatix Pro, created by HDRSoft (www.hdrsoft.com) is the primary HDR software being used by the photographers I know. My HDR workflow is to do very basic Lightroom Develop editing to white-balance and lens corrections of the source files before sending them to the HDR plugin. After processing the HDR photo, I reimport it back in Lightroom to add final touches.

To open source photos in Photomatix Pro, I select them and choose File ➪ Plug-in Extras ➪ Export to Photomatix Pro. A dialog box opens with options on how the files are combined. After

FIGURE 15-4

The only way to get detail in the bright sky and the dark shadows of this high-dynamic-range scene was to combine multiple exposures with an HDR plugin.

checking those settings and clicking OK, Photomatix Pro opens as shown in Figure 15-5 with the HDR photo composite of the combined source photos.

Although the Photomatix Pro user interface shown in Figure 15-5 is unique to Photomatix Pro, it contains several features common to most plugins. For example, when options are selected from the Process and Method section at the top-left, specific adjustment panels are loaded below. Some Process and Method combinations have several adjustment panels, while a few, believe it or not, have no panels because they function automatically.

Another common feature is the Presets panel that runs horizontally across the bottom of the screen. It contains a wide range of presets with previews of what the current image would look like if you use the preset. In Figure 15-5, I clicked the Enhanced preset, which loaded the appropriate Process and Method settings, as well as saved settings on the adjustments panels. Then the main preview image updated to show the results.

FIGURE 15-5

When you click a preset in the Presets panel, Photomatix Pro loads the preset's settings into the adjustment panels and updates the main viewing area with the adjustments.

TIP

In Photomatix Pro, choose the Exposure Fusion process with the Fusion/Natural method to get the most-realistic results. To get more surrealistic results, choose the Tone Mapping process and the Details Enhancer method.

A plugin's presets offer a great way to explore the program and see what's possible. Each time you use a preset you have the opportunity to deconstruct it by looking at the adjustment settings used to create it. This gives you real insight into how different adjustment combinations result in specific looks. After you understand how a plugin's adjustments work, you can use

presets as jumping off points, rather than final results. Just find the preset that comes closest to what you want from a specific image and go from there.

Just be careful about using a preset that may limit your options when you're back in Lightroom. For example, Photomatix Pro has a set of black-and-white presets. Black and white can look really cool on HDR photos, but I'd rather wait to convert a photo to black-and-white until after it's back in Lightroom. I not only have much more control over the black-and-white conversion process in Lightroom, I also have the ability to make a virtual copy so I can have both a color version and a black-and-white version. This is also true for localized adjustments and actions like vignetting that are easily managed in Lightroom.

Something else to be careful about when working with a plugin like Photomatix Pro is highlight and shadow clipping. Some presets clip highlights or shadows. Photomatix Pro does have a histogram, but it doesn't have sophisticated clipping previews like Lightroom does. I'm always careful to maintain full shadow and highlight detail in Photomatix Pro even if the resulting photo looks flat in contrast. I'll get the photo's tones adjusted exactly the way I want them after it's back in Lightroom.

Exploring the Nik Collection by Google

Plugins from Nik were popular in Photoshop long before Lightroom was born. When Lightroom was released, the plugins were updated to work with it. Nik was purchased by Google in September 2012 and the plugin suite was rereleased in 2013 with the new name, the Nik Collection by Google (www.niksoftware.com). The suite contains six plugins that can also be purchased individually. Each plugin has its own specialty.

Color Efex Pro

Color Efex Pro consists of filters and presets designed to create all sorts of adjustments and effects. Filters are grouped into six sets in the Filterlist panel: Landscape, Wedding, Architecture, Nature, Portrait, and Travel. Each set has a large number of filters that show in the list below the filter sets. When a filter is selected, its adjustment panel loads on the right. Below the filters is the Recipes panel that contains presets for specific looks created by using combinations of filters. You can create and save your own recipes and add them to the panel. The History panel keeps a history of the editing steps enabling you to back up if you get off-course when exploring a particular filter.

In Figure 15-6, I chose the Dynamic Skin Softener preset from the Portrait filter set. This filter is one of the most useful presets in the Nik Collection. It enables you to soften skin tones without affecting other colors. The Dynamic Skin Softener panel is at the top of the panel column on the right. The eyedropper at the top left is used to sample skin color, which is how

the filter determines which colors to soften and which to ignore. Then the panel's adjustment sliders are used to control the level of softening to different levels of detail and color range.

With a portrait like the one in Figure 15-6, selecting the correct color is important. The default color was close to the dog's color, so it was being blurred by the filter. When I sample the woman's forehead (shown in Figure 15-6), the color swatch updated to the sample color and the softness issue on the dog was eliminated.

✳ TIP

If you're a portrait photographer looking for an industrial-strength skin smoothing plugin, be sure to check out Portraiture by Imagenomic (www.imagenomic.com). I use this plugin when retouching portraits, and I have several professional clients who swear by it.

FIGURE 15-6

The Dynamic Skin Softener from the Nik Collection by Google offers an easy to use method for automatically smoothing skin tones.

Many of the Nik plugins and filters use a technology called U-Point that enables you to define an area and make localized adjustments to it. It's an easy to use system that designates an area for special treatment. For example, if I was still having problems with the dog's fur being softened, I could use a control point in that area to eliminate the effect on the fur. Normally I don't like to make localized adjustments in a plugin, but this is a case where it's a good idea because it would be difficult to manage the softness on the dog back in Lightroom.

Dfine

Dfine 2 is a noise-reduction plugin. It has been around for quite a while and has proven to be one of the top noise-removal programs on the market. Dfine 2 does a great job of removing noise while maintaining image details. It has a fairly simple interface that enables you to reduce noise using Contrast Noise and Color Noise sliders. When you first open a photo in Dfine 2, the program automatically analyzes the photo to determine which parts of the image contain noise. You can also manually identify these areas if you prefer. Before I was shooting RAW, I used Dfine on a regular basis. Now I prefer to manage noise in Lightroom on the RAW file. But when noise becomes a bigger issue than Lightroom can handle, I turn to Define 2 to manage it.

HDR Efex Pro 2

HDR Efex Pro 2 is another excellent HDR program. It and Photomatix Pro are my two main HDR tools. Each has its own strengths and weakness. In Figure 15-7, I'm processing a series of three night photos from Times Square in New York City. When I processed the same source photos in Photomatix Pro, I had trouble getting sufficient detail in the highlights of the illuminated signs. HDR Efex Pro 2 does a much better job with these signs.

The Preset Library in HDR Efex Pro 2 is similar to the Presets panel in Photomatix Pro. When you click one, its settings are loaded into the panels on the right. Use the various panels to get the HDR look you're after. Just be sure to leave finishing touches, such as clipping, vignetting, and graduated neutral density filters, for later in Lightroom.

Because I shoot lots of HDR, I like to have more than one HDR processing plugin. In the case of the taxi shot in Figure 15-7, HDR Efex Pro 2 did a better job with the signs. However, Photomatix Pro did a better job yielding a realistic look, which I also desired with this image. I processed the source photos in both programs before determining which to enter in competition.

Sharpener Pro 3

Sharpener Pro 3 is used for sophisticated sharpening. You can apply presharpening to a RAW file before opening a version of it in the plugin. Then you can sharpen the photo for a

FIGURE 15-7

HDR Efex Pro 2 is Nik's HDR processing plugin. It did a much better job rendering highlight detail than what I got when I processed the same source files in Photomatix Pro.

specific output scenario, such as inkjet or onscreen. As Chapter 16 explains, Lightroom has the ability to apply output sharpening when you export or print photos. I have to be honest and say I'm quite happy with the sharpening that Lightroom applies. I've had photo-competition judges comment on the sharpness of my images numerous times. But I know fine artists who use Sharpener Pro 3 as part of their workflow when preparing to make large prints. They swear by its ability to produce "razor-sharp" images.

One caution I have about this plugin and other sharpening plugins is to be careful about oversharpening your photos. It's one of those things that's tempting for a new user, but is seen as a rookie mistake by more advanced users.

Silver Efex Pro 2

Silver Efex Pro has been one of the most popular black-and-white conversion plugins for quite some time. It was one of the primary methods photographers used to convert color to black-and-white before RAW conversions became so common. Most of the basic adjustments in Silver Efex Pro 2 are easily accomplished using Lightroom, which is a better environment for editing because of its nondestructive nature. However, lots of photographers still like Silver Efex Pro 2 because it has presets designed to emulate different types of black-and-white film. These presets are found in the Film Types menu, shown in Figure 15-8. I find that the people who use these film types the most are photographers who shot film in the past and want to mimic the look they got then in the wet darkroom.

The Finishing Adjustments panel enables you to tone, vignette, and burn edges, which are all best left for Lightroom later on. But the panel does have one cool menu that lets you do

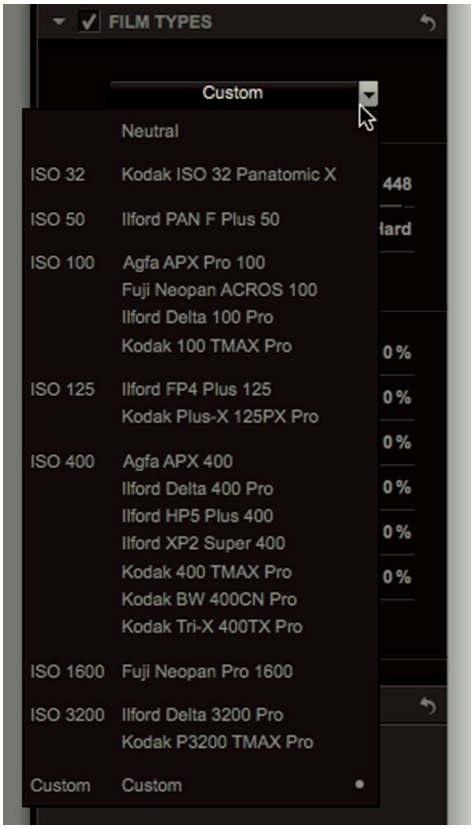


FIGURE 15-8

Film types in Silver Efex Pro 2 enable you to emulate classic film styles.

something you can't do in Lightroom: The Borders menu has several presets, including a few for sloppy and emulsion-style borders.

Viveza 2

Viveza 2 is a basic image-editing program. It gives you the ability to adjust tone and color globally, or locally using U-Point technology. But as a Lightroom user, I prefer to do this type of editing in Lightroom's flexible environment instead of making permanent changes with a plugin. U-Point technology is cool, but when you need to make local adjustments, Lightroom's Adjustment Brush tool works just fine.

OnOne Perfect Photo Suite 7

OnOne Software (www.ononesoftware.com) is a software company based in Portland, Oregon. Although it's one of the newer plugin makers, its Perfect Photo Suite is quite popular with Lightroom users. OnOne works hard to not only seamlessly integrate its plugins into Lightroom, but to also offer features attractive to Lightroom users.

Perfect B&W

Perfect B&W is the OnOne version of a black-and-white conversion program. Like Silver Efex Pro 2, Perfect B&W enables you to control the black-and-white conversion and make tonal adjustments, as well as other global and local refinements.

Figure 15-9 shows the Perfect B&W interface. The presets in the left panel are designed to match photographic styles as well as types of film processing. There are a huge number of presets buried in these categories with lots of look and style choices. The Film Grain panel on the left has a Film Type menu that's similar to the Film Types menu in Silver Efex Pro 2. The Border panel contains lots of cool border options like the sloppy border I selected in Figure 15-9. If you're into black-and-white photography, you definitely want to take a look at this plugin.

Perfect Effects 4

This plugin is packed with effects for color, contrast, texture, borders, and more. The Effects panel is so huge I can't do it justice in a screenshot. Effects can be combined and stacked to create unique combinations. Most of these effects can be accomplished in Photoshop. But even for a skilled user who knows how to create such effects, using a plugin like Perfect Effects 4 is much faster and offers just about any effect you could want.

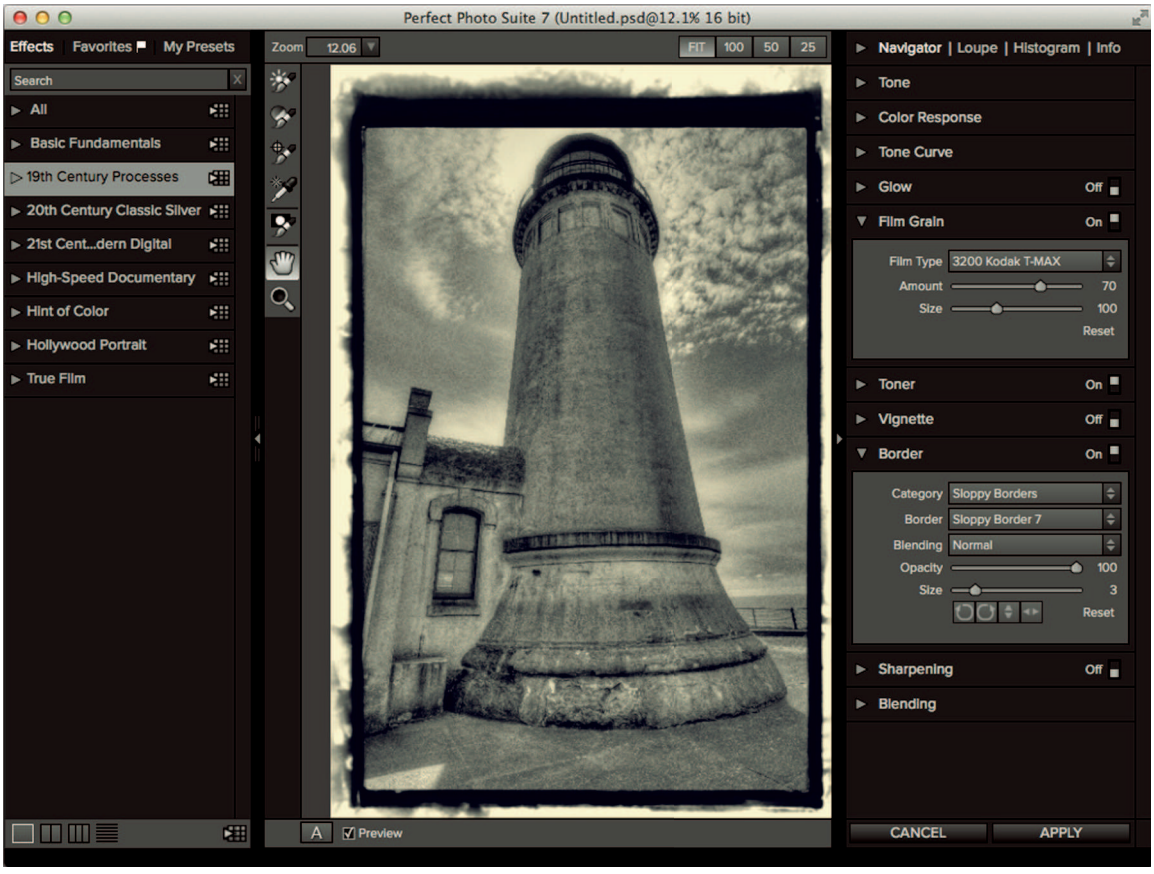


FIGURE 15-9
OnOne's Perfect B&W

Perfect Layers 3

One of the things that Lightroom users ask for is the ability to use layers within the program. Perfect Layers was created to solve that problem. However, like all plugins, when a photo is opened in Perfect Layers, it leaves the flexible Lightroom environment, so it's not quite the same as having layers in Lightroom. With that said, there's a lot you can accomplish with Perfect Layers 3. Photos can be stacked and intelligently masked together to create a composite image. This type of compositing is possible in Photoshop, so if you're a Photoshop user, it's probably better to learn to do it there so you focus your efforts on a single program. But if you don't have Photoshop, Perfect Layers is a good solution when you need to use layers.

Perfect Mask 5

As Chapter 12 and Chapter 13 demonstrate, Photoshop can create detailed masks that provide creative control not possible in Lightroom. Learning to create masks in Photoshop requires mastering selection and masking tools and techniques. Perfect Mask 5 takes the hassles out of mask making by intelligently combining smart selections and masking. It features the Keep Brush and Drop Brush tools for intelligent masking and a regular Brush tool for manual masking. The Keep and Drop Brush tools function much like Photoshop's Quick Selection tool. In some cases, it's possible to mask an area with a single click.

In addition to other brushes, Perfect Mask 5 also features a Refine Brush tool to quickly clean up mask edges. A cool feature for photographers who shoot objects against a solid background is the Remove Background button. It identifies the solid color and automatically masks it.

The interface is customizable and offers several mask-preview modes to help you see your mask. The best thing about Perfect Mask 5 is that masks created in it are editable in Photoshop.

It's one of the best masking plugins on the market. It's a no-brainer for commercial and portrait photographers whose work requires lots of detailed masking when preparing images for compositing.

Perfect Portrait 2

Perfect Portrait 2 is another useful plugin from OnOne. It's designed to help photographers retouch and fine-tune portraits. Figure 15-10 shows the portrait shot of my friends with their dog in Perfect Portrait 2. The plugin automatically found their faces and was smart enough to not select the dog's face. Preset groups (on the left) offer a wide range of starting points for different types of portrait subjects. After selecting a preset for a subject, use the adjustment panels on the right to get the look you want for skin smoothing and details such as eyes and mouth. Then use the Retouch Brush tool to clean up any remaining wrinkles or blemishes.

Perfect Portrait 2 comes in two versions: Premium Edition and Standard Edition. The Standard version doesn't integrate with Lightroom. If you want to use this plugin with Lightroom, you need the Premium edition.

Perfect Resize 7

Perfect Resize was originally named Genuine Fractals, which was developed by Altamira Group in 1996. OnOne acquired Genuine Fractals in 2005. The product's name was eventually changed to Perfect Resize to rebrand it as part of the Perfect Photo Suite. The presets on the left are used to inform Perfect Resize 7 of your intended output method. This helps the program use the best algorithm for resizing and sharpening the original photo. Panels on the right are used

FIGURE 15-10

Perfect Portrait is designed to help you quickly retouch portraits. After it identifies faces, you can apply adjustments to just the face or the entire subject.

to determine the output size and apply appropriate output sharpening, as well as prepare an image for printing, including options for printing as a group of tiles or a canvas gallery wrap.

I had my doubts about Perfect Resize because Lightroom and Photoshop do a decent job of increasing image size to double the original size. But one day I sat down with a friend who prints lots of large prints and we did some tests with Perfect Resize and Photoshop. When we were done, we were both convinced Perfect Resize easily outperformed Photoshop and that it is a top-of-the-line image-resizing plugin.

FocalPoint 2

FocalPoint is one of the newer OnOne plugins. It's mainly designed to compress the focus in an image to a particular area by blurring everything else. You can easily create a shallow depth of field that's usually found in lenses with very large apertures or in tilt/shift lenses. There are options for adjusting the blur, as well as vignetting and grain. You can also use the FocusBrush

to manually adjust focus by painting on the image. FocalPoint 2 has a cool feature called FocusBug that is an adjustable overlay enabling you to modify settings by dragging the bug's "legs."

Topaz Labs

Topaz Labs (www.topazlabs.com) is the maker of numerous photographic plugins. These plugins integrate with Lightroom differently from the plugins covered thus far. The only way I was able to send photos from Lightroom to Topaz plugins was by installing the free PhotoFXlab plugin. Then I had to set it as my Additional External Editor in Lightroom's

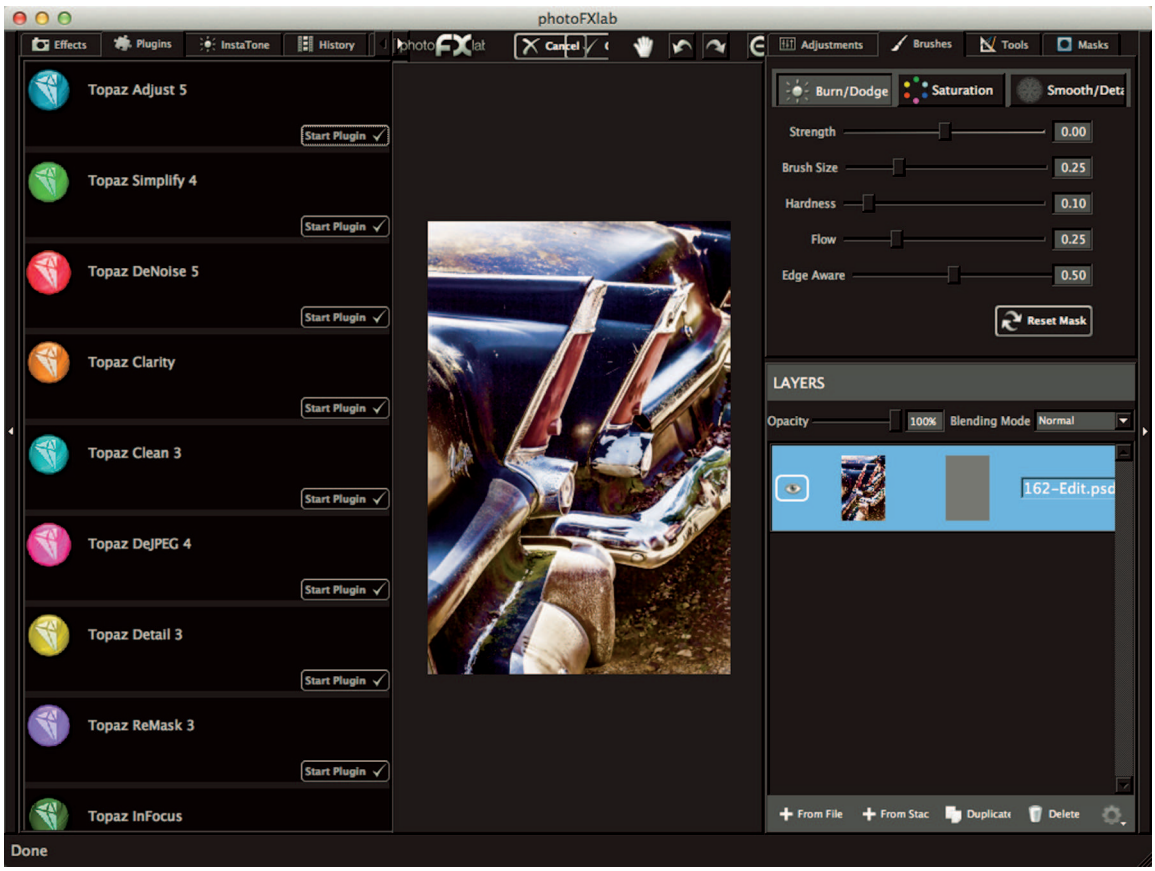


FIGURE 15-11

If you use Lightroom with Topaz plugins, you need to install PhotoFXlab to integrate Topaz plugins with Lightroom. Then you can easily open a photo in PhotoFXlab and send it to any of the Topaz plugins.

External Editing preferences. This is a bit clunky in my opinion, especially for people who already have a different program designated as their secondary editing program.

PhotoFXlab

PhotoFXlab functions as the central hub for the various Topaz plugins. Figure 15-11 shows PhotoFXlab. Although the integration with Lightroom leaves something to be desired, once the photo is in PhotoFXlab, it's easy to send it to any of the plugins listed on the left. When you do, the photo opens in the specific plugin. When you save adjustments and close the plugin, the photo in PhotoFXlab updates to the edited version. Then you can send it to another of the Topaz plugins.

Another cool feature about PhotoFXlab is the Layers panel on the right. You can use it to duplicate a layer before editing it in a plugin. Then when you save the edits, they are applied to only that layer. You can use the Opacity slider and Blending Mode menu to modify how a layer blends with the layers below to get some interesting looks.

The Brushes panel at the top is used to apply localized adjustments. Brush strokes are recorded on a mask, shown next to the image thumbnail in the Layers panel. Naturally, each layer can have its own mask, which offers lots of creative possibilities.

Topaz Adjust 5

Topaz Adjust 5 is Topaz Labs' flagship product. I know lots of photographers who use it as one of the ingredients of their special creative "secret sauce." Figure 15-12 shows Topaz Adjust 5. The upper panel on the left lists collections of effects. Each collection has many choices. In Figure 15-12, I applied the Dramatic 2 preset from the Vibrant Collection. The three panels on the right — Global Adjustment, Local Adjustments, and Finishing Touches — enable you to fine-tune settings to get just the look you want. Each menu shown in the Global Adjustments panel can be expanded to show more adjustment settings.

You can get really cool effects with Topaz Adjust 5, but it can be hard to know where to start when you first install the program. Try the I Feel Lucky! button at the bottom-right to randomly explore settings.

Other Topaz Labs Plugins

Because Topaz Labs has 12 photographic plugins, I can't described them all in depth. Here are short descriptions of what the other Topaz Labs plugins do. A few are very interesting and worth investigating.

- **Topaz Simplify:** This is one of the cooler Topaz Labs plugins. It enables you to create all sorts of artistic effects, like painting and drawing. The options are nearly endless. Its

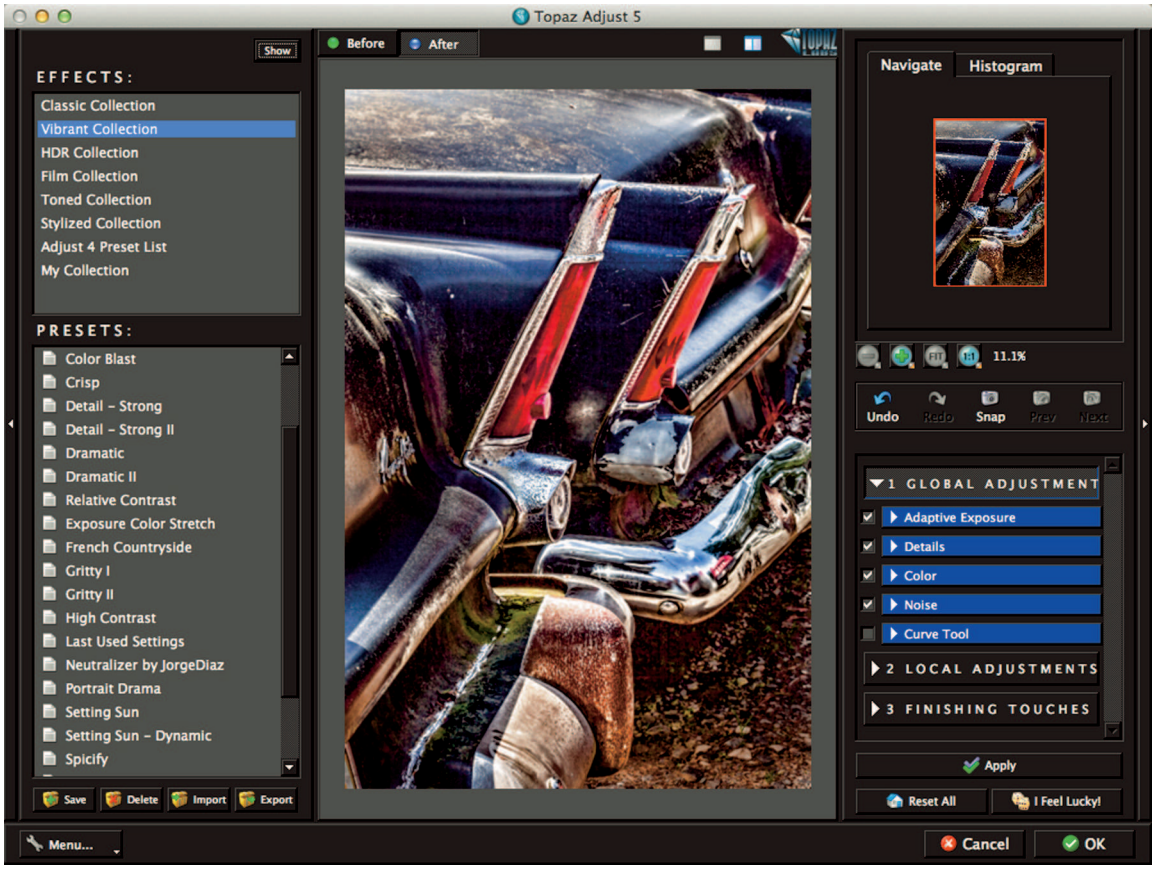


FIGURE 15-12

Topaz Adjust 5 has a huge number of effects and presets that can be combined to create highly stylized images.

interface is similar to Topaz Adjust 5, with collections and presets on the left and the same three adjustment panels on the right.

- **Topaz DeNoise:** DeNoise is a powerful noise-removal program. It does a very good job removing noise while maintaining detail sharpness and shadow tones. It comes loaded with presets for RAW and JPEG file types.
- **Topaz Clarity:** This plugin is like Lightroom's Clarity slider on steroids. It has the Masks panel that lets you create fairly sophisticated masks to locally control where Clarity adjustments affect the image. The Masks panel features two intelligent masking tools called Magic Brush and Smart Feather that help speed the masking process.
- **Topaz Clean:** This plugin is built on the same technology used in skin-smoothing programs. But in typical Topaz style, the adjustments can be used to create interesting

results. Presets like CrispStyle and Curly Smooth get you started and then you use Clean, Edges, and Texture panels to dial in the look you want.

- **Topaz DeJPEG:** This plugin is used to recover quality in JPEG files. It features intelligent color and line enhancement and the ability to eliminate JPEG artifacts. I hope you're shooting RAW so you won't encounter JPEG artifacts in your normal work. However, if you have older digital photos from the early days, they'll most likely benefit from a trip to DeJPEG.
- **Topaz Detail:** Detail is a sharpening plugin, but it also enables you to blur details instead of sharpening them. You can choose to emphasize small details while deemphasizing large details. You also have the ability to work with different color channels and create masks.
- **Topaz ReMask 3:** ReMask is a masking program designed to help you quickly create masks. It's not as full featured as other masking programs, though it is easier to learn.
- **Topaz InFocus:** This is a true image-sharpening plugin. Its controls are simple and easy to understand and it produces great results.
- **Topaz Lens Effects:** Lens Effects is like having virtual filters for your camera. With filters like Bokeh, Tilt-Shift, and Motion Blur, you'll be able to create effects in postproduction that weren't possible with the lens you used when you captured the photo.
- **Topaz BW Effects:** This is a black-and-white conversion program with tons of presets and the ability to add local adjustments and add color toning.
- **Topaz Star Effects:** This interesting plugin is used to add starburst and lighting effects. It's a great way to enhance a light source and draw attention to part of the photo. For example, Jewel Sparkle II finds the highlights in the image and adds reflective-style starbursts to them, while Dew Drops II adds more bubbly accents to the highlights. Then adjustment panels are used to modify the look of the accents.

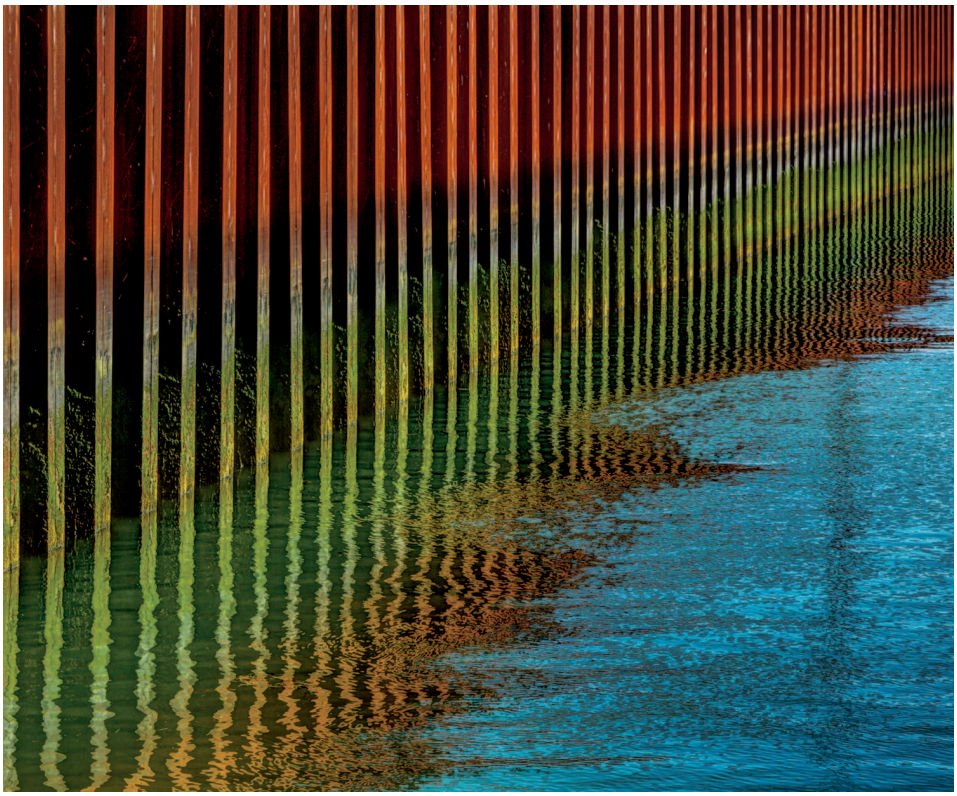
Summing up Plugins

Each of the plugins described in this chapter has many features I wasn't able to mention due to space constraints. I hope, though, you have a better idea of how plugins can fit into a postproduction workflow and where they might help you. There are lots of great plugins available for Lightroom and Photoshop. Many do the same types of things, such as reduce noise, but they have different ways of doing it. Other plugins, like Topaz Adjust, are unique. Several of the plugins detailed in this chapter do things that can already be done in Photoshop. But sometimes they help you do it more easily.

Photographers who process lots of images can quickly benefit from plugins because of the efficiency they offer. Photographers who are looking for expanded creative outlets like HDR also benefit from plugins. The downside to plugins is each requires its own learning curve. When you

are first learning Lightroom and Photoshop, adding more learning is often counterproductive. My advice is to get comfortable first with Lightroom and Photoshop and the tools and techniques in this book. Then begin exploring plugins a few at a time to see if any help you express your creativity in new ways or get normal editing chores done more quickly.

Almost every plugin company offers free trials. Use these offers to evaluate the programs and determine if they fit your needs and your workflow. Just be careful not to download too many plugins at a time, because it can be difficult to find time to explore them before the free trials runs out. One more bit of advice: Many plugin manufacturers have excellent training videos on their websites. Be sure to take advantage of the videos to shorten your plugin learning curve.



CHAPTER 16

Exporting and Printing Your Photos

The two most common methods photographers use to output photos from Lightroom are exporting new files for uses such as e-mail and web, and printing directly from Lightroom using an inkjet printer. Each process gives you lots of options to help you create the right file or print to suit your needs. But before you begin exporting and printing photos, it's worth spending a few minutes to create a couple of custom watermarks to use during those processes.

Creating Custom Watermarks

A watermark is an identifier placed directly on an image. Watermarks typically display the name of the image-maker or copyright holder. In the early days of Lightroom, watermarking was very limited. With the release of Lightroom 3 and the Watermark Editor shown in Figure 16-1, all that changed. Open the Watermark Editor dialog box by choosing Lightroom ➪ Edit Watermarks (on the Mac) or Edit ➪ Edit Watermarks (in Windows). If the photo has copyright metadata, that information is automatically added to the image and the text box below it. Use the text box to edit the text for your watermark if necessary.

You can use text for the watermark or a logo graphic using the Watermark Style options at the top-right. If you choose Graphic, use the Image Options panel to choose the logo file. The file must be either a PNG or JPEG image file. When you use a graphic, most of the options in the other panels are disabled.

✳ TIP

Try to keep your watermark fairly small and unobtrusive. Placing large copyright symbols in the middle of web gallery images is a sure way to irritate viewers and prevent them from really seeing your images.

Text Options panel

Use the upper section of the Text Options panel to choose text qualities such as typeface and color. The lower section is used to create a drop shadow that displays behind the text. In Figure

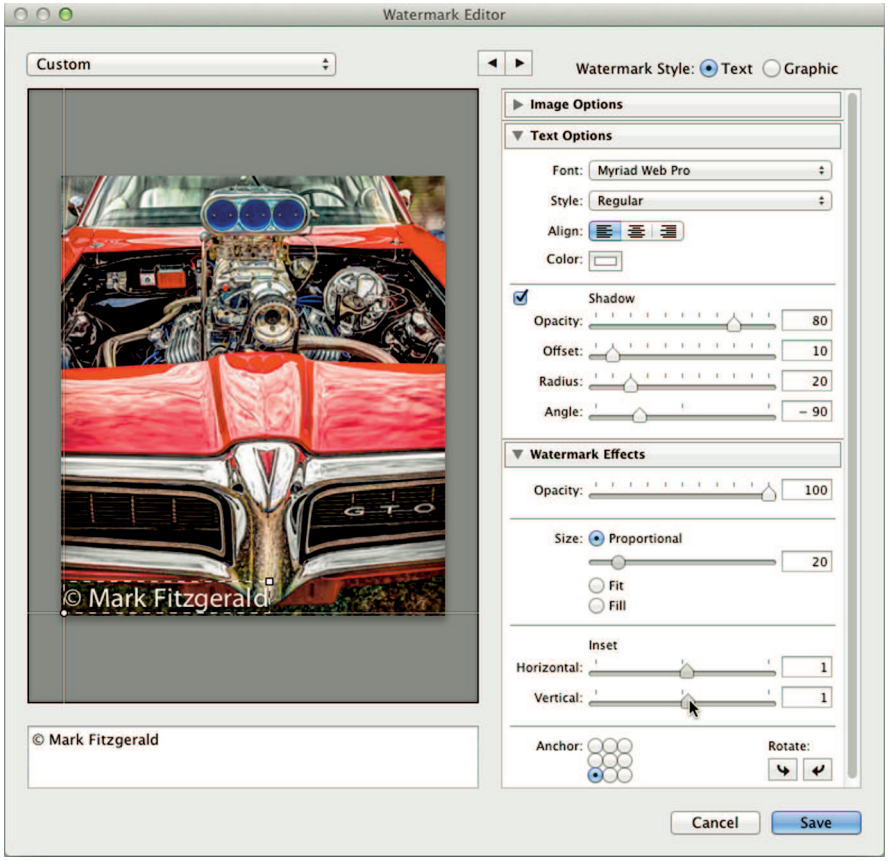


FIGURE 16-1

The Watermark Editor is used to design custom watermarks. Type your info in the text box and then use the panels to create the look you like. Save a few different varieties and experiment to see which design fits you the best.

16-1, it's hard to see the shadow, but if the photo were a bright high-key shot, the shadow would make it possible to read white text on a light background.

Watermark Effects panel

The Watermark Effects panel is used to control important aspects of the watermark. Here's what they do:

- **Opacity:** This lowers the opacity of the watermark to create a see-through look. This is a great way to make a watermark less intrusive.
- **Size:** Because exported file sizes vary, it isn't possible to specify an exact size for a watermark. Choose Proportional to automatically size the watermark proportionally to the size of the photo; use the slider to choose a proportional size. Choosing Fit causes the watermark to fit the image from side to side horizontally. The Fill option tries to fill the entire frame with a small section of the watermark.
- **Inset:** Use the Horizontal and Vertical sliders to offset the watermark from the edges. I typically choose a value of 1 for both settings so the watermark doesn't touch the edge of the image.
- **Anchor:** Click one of the anchor points to change the watermark's anchor point. Use the Rotate arrows to turn the watermark on its side so you can place it on the side of the image instead of at the bottom.

Saving and updating watermarks

After you take the time to design a new watermark, it's a good idea to save two versions of it: one for the left side and one for the right side. That way you can choose the best location for the photo you're exporting. Follow these steps to save right and left versions of your watermark.

1. Create a watermark for the bottom-left of the image. When you get the watermark looking the way you like it, instead of clicking the Save button, go to the Custom menu at the top-left and choose Save Current Settings as New Preset, as shown in Figure 16-2. Give the preset a descriptive name with the word "left" in the name when the New Preset dialog box opens.
2. With the Watermark Editor still open, go to the Anchor section of the Watermark Effects panel and change the anchor point to the right side of the image.
3. Save the current settings as a new preset with the word "right" in the name. Then close the Watermark Editor.

You can also use the Watermark Editor pop-up menu to update a watermark by choosing it, modifying its settings, and then choosing Update Preset. To delete a watermark, choose it from the menu. Then open the menu again and choose Delete Preset. Create a few watermarks

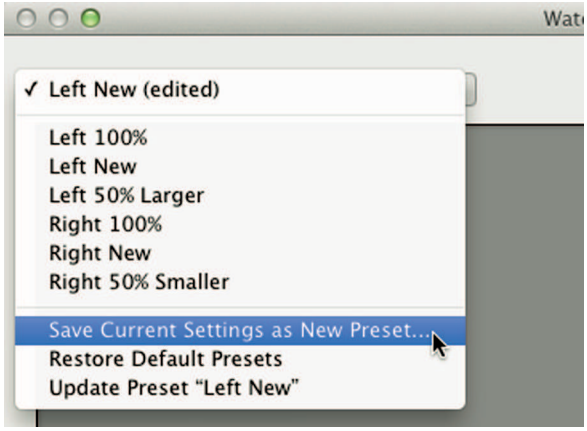


FIGURE 16-2

The Watermark Editor's Preset menu enables you to save the current settings as a new watermark. To delete a watermark, select it from the menu and then return to the menu and choose Delete Preset.

to try out. After a while you'll see which watermark you gravitate to; then delete any unused watermarks.

Exporting Photos from Lightroom

Lightroom's Export feature enables you to create new files from photos in your catalog. For example, I can export a small JPEG file for e-mail, a large JPEG for the photo lab, or an exact duplicate of the original file — even if it's a RAW file. If the photo you select is a virtual copy, Lightroom treats it like a real file and applies the virtual settings to the master file to export the new file.

✳ NOTE

When you export a proprietary RAW file, an XMP sidecar file is also created to contain editing and other metadata. XMP sidecar files are described in Chapter 2.

Using the Export dialog box

To create a new file, select a photo or a group of photos and click the Export button at the bottom-left, or choose File ➪ Export. The Export dialog box is shown in Figure 16-3. The column on the left lists sets of export presets. The set at the top (named Lightroom Presets) comes with Lightroom by default. Below it are collapsed folders with other sets of presets that

were installed by plugins. When possible, I prefer to use the Edit in Menu or the Plugin Extras menu instead of the Export dialog box because the menus are faster.

✳ TIP

You can also right-click and choose Export to see a menu of Export options, including presets.

When you choose an export preset, it loads predetermined settings in the panels on the right. Those preset settings can often be used as they are. If they don't fit your needs, you can use the panels to modify settings and then save your own user presets. Understanding how to export photos is just as important as knowing how to import them. Take a moment to explore the export panels before learning how to use them for specific export scenarios.

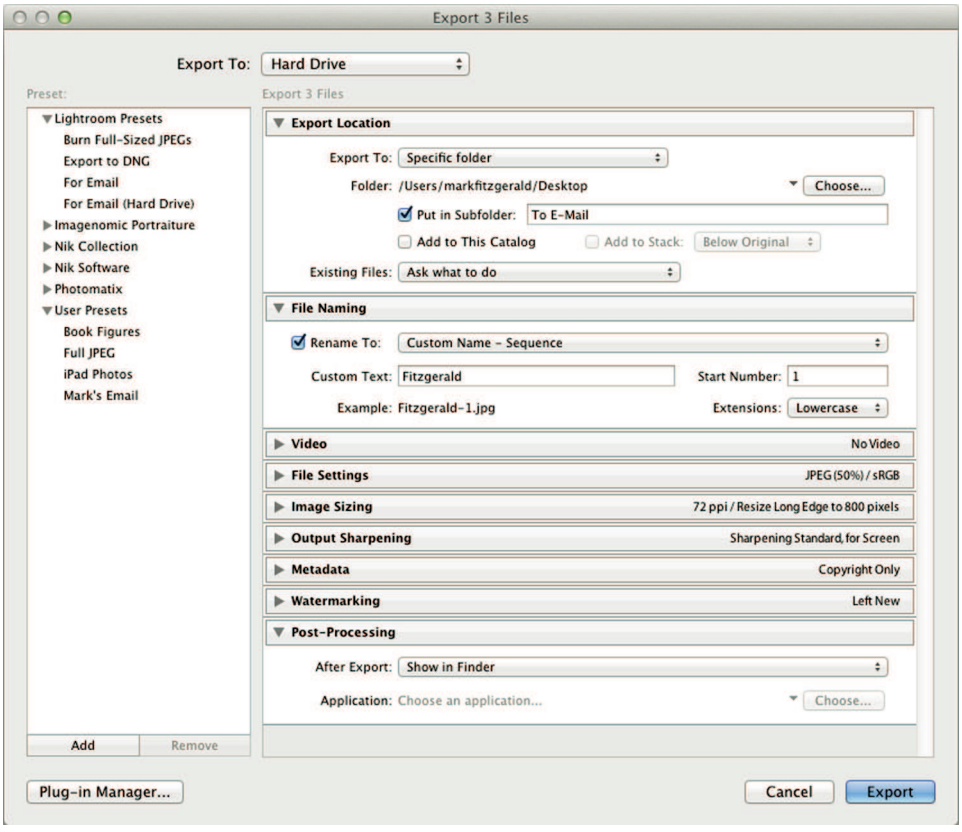


FIGURE 16-3

The Export dialog box is used to manage the exporting process. Use a preset from the column on the left and then use the panels to fine-tune settings for the kind of file your need.

Export Location

The Export Location panel is used to determine where the newly exported file will be saved. Use the Export To pop-up menu to choose the folder. It has three options:

- **Specific Folder:** Use this option when you know exactly where you want to save the new files.
- **Same Folder as Original Photo:** When using this option, consider selecting Put in Subfolder so the new derivative files don't get mixed with the originals.
- **Choose Folder Later:** This gives you the option to pick a folder at the beginning of the export process. It's useful when you are creating a preset that will be used with different folders at different times When the Choose Folder Later is selected, the other options in the Export Location panel are grayed out.

The Existing Files menu lets you determine what happens if you export a file to a folder that already contains a file with the identical name. The options are: Choose a New Name for the Exported File, Overwrite without Warning, and Ask What to Do. I prefer to know when there is a conflict so I always set this to Ask What to Do. I then have the option of creating a unique name for the new file, overwriting the preexisting file with the new one, or skipping the export. Other options in the Export Location panel enable you to add the exported photo to the catalog or stack it with the original.

File Naming

The File Naming panel gives you the option to rename the new files as they export. The Rename To menu has the same renaming options as the Import screen's File Renaming panel described in Chapter 3. I usually rename files when exporting for e-mail or Facebook. The long names the originals often have might confuse the recipient and are unnecessary on social media sites. Something shorter like my last name and a random sequence number is good enough.

✳ NOTE

The Video panel is used to control the export of videos.

File Settings

The File Settings panel, shown in Figure 16-4, provides control over exactly what type of file is created. The Image Format menu has five file types. When a file type is selected, options for that file type are shown in the panel. Here are the main file types:

- **JPEG:** Choose JPEG when preparing photos for web, e-mail, or printing at a lab. Lower the Quality value to around 50 when the files are for web or e-mail. Use 100 when sending files to the lab.

- **TIFF:** TIFF files have more data than JPEG files, so it's useful to be able to export TIFFs when you need them for custom fine-art printing or commercial printing. I used this option when exporting figures for this book.
- **PSD:** Used to save the file in Photoshop's native format. I don't believe I've ever used this option because I've never had the need to export PSD files.
- **DNG:** If the file being exported is a proprietary RAW format, this option can be used to create a DNG version that contains editing information and other metadata.
- **Original:** This makes an exact duplicate of the original with all your Lightroom editing. If you export a proprietary RAW file, an XMP sidecar file is also generated that contains editing and other metadata.

The Color Space pop-up menu lets you choose the appropriate color space when exporting files. Use sRGB for files destined for e-mail, web, or photo-lab printing to ensure the photo looks good in those environments. When saving TIFF and PSD files, use the larger AdobeRGB 1998 unless the person you are delivering the file to tells you to use a different color space. (Color spaces are described in Chapter 11.)

Image Sizing

The Image Sizing panel, shown in Figure 16-4, enables you to resize the new file to create the exact size you need. If you cropped the file and want a specific output size, be sure to choose it here. The Resize to Fit menu has options for ways to express the dimensions you desire. I prefer to choose Long Edge because it lets me define one edge and let the other fall into proportion. For example, if I'm exporting a photo that is cropped in the 4 × 5 aspect ratio and I want a file sized to 8 × 10, I choose 10 inches for the long edge. The short edge is automatically sized to 8 inches due to the aspect ratio.

Be sure to specify the proper resolution in the Resolution text box. If you're exporting for e-mail or web, choose 72 pixels per inch. If you're exporting for a photo lab, it's best to check with the lab to see what resolution they want. Most prefer 300 pixels per inch, although I do use a lab that prefers 250.

Output Sharpening

Output sharpening is necessary to add the final sharpening touches to a photo after it has been sized for output. The Sharpen For menu, shown in Figure 16-4, has three options: Screen, Glossy Paper, and Matte Paper. Choose whichever is correct for your intended output. Then use the Amount menu to choose Low, Standard, or High to control the level of sharpening. I recommend beginning with Standard and then evaluating exported images or prints to determine if you need to change to Low or High.

✳ CAUTION

Lightroom 5.0 has a bug that prevents sharpening from being applied to images being exported to one third original size or smaller. Be sure you are using Lightroom 5.2 or later. (To update, choose Help ➪ Check for Updates.)

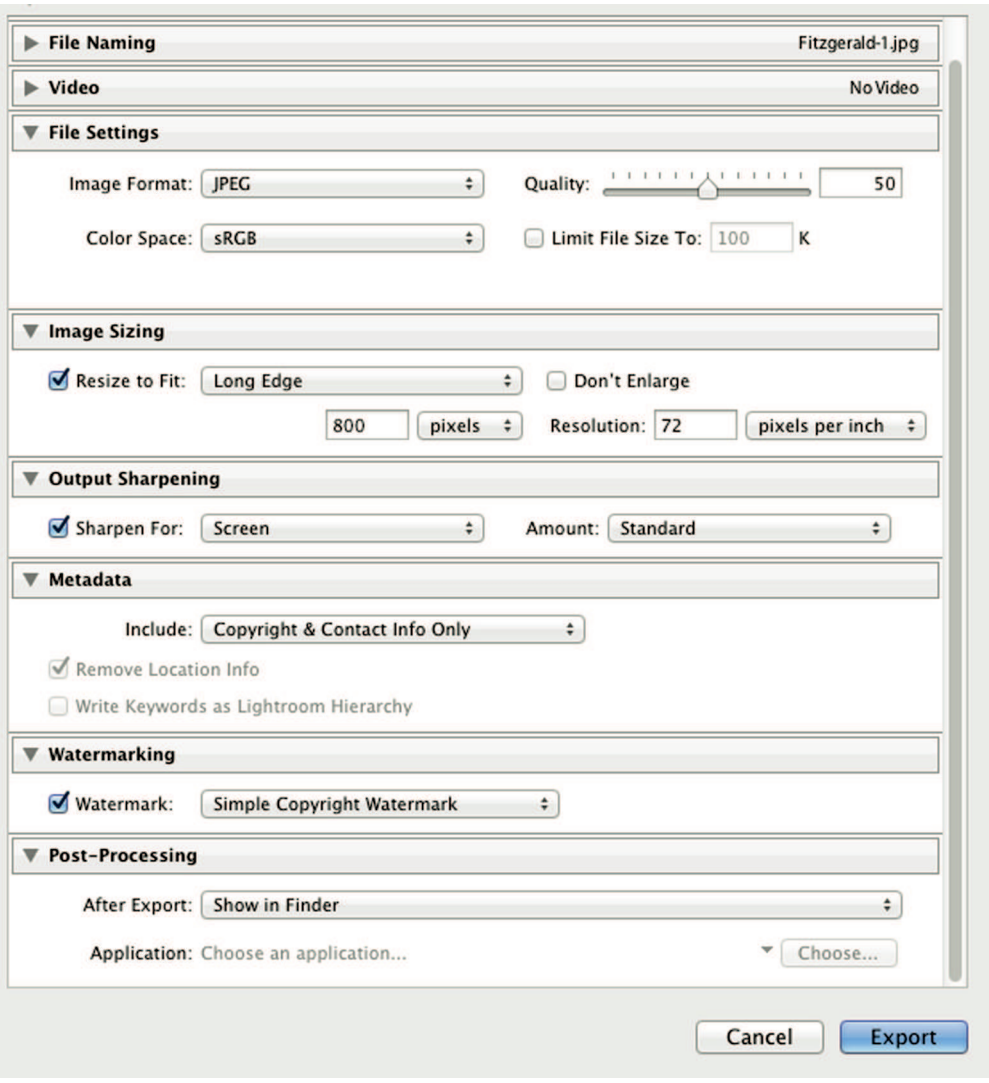


FIGURE 16-4

Here are the rest of the expanded Export panels. Notice the two collapsed panels at the top show summaries of their settings.

Metadata

When you export photos, metadata attached to the original file is also attached to the exported file. Use the Metadata panel, shown in Figure 16-4, to control how much of the original file's metadata remains in the exported file. The menu has four options: Copyright Only, Copyright & Contact Info Only, All Except Camera & Camera Raw Info, and All Metadata. I usually choose Copyright & Contact Info unless I'm exporting photos for stock. Then I choose All Except Camera & Camera Raw Info so keywords are not removed from exported photos. Someone who's exporting photos for a photo-sharing website might prefer to choose All Metadata to share camera settings with others on the site.

✳ TIP

If you have privacy concerns, when selecting All Metadata or All Except Camera & Camera Raw Info, choose Remove Location Info to remove GPS and other location metadata.

Watermarking

Use the Watermarking menu, shown in Figure 16-4, to choose a watermark or deselect the option to turn the feature off. I almost always watermark photos I e-mail or upload to social networking sites. I do so because I want anyone who encounters the image to know who made it. I rarely watermark prints unless I'm donating small prints to someone as a thank-you for letting me shoot on their property. I watermark those prints because I want their friends to know who shot the photos.

Post-Processing

The Post-Processing panel is used to tell Lightroom what to do after the Export is complete. You can choose to do nothing, have the exported photo open in another program for additional editing, or choose to have Finder (Mac) or Windows Explorer (Windows) open to show the exported file. I prefer to have Finder open with the photo so I can make sure everything is copacetic before moving to the next project.

Exporting for e-mail and web

One of the most common exports I do is for e-mail. Lightroom gives you two options when exporting for e-mail. You can export a file to a folder on your hard drive and then attach it to an e-mail. Or, you can let Lightroom link to your e-mail program to automatically open it and attach the photo to a new e-mail message. Use the Export To menu, shown in Figure 16-5, to

choose to export to the hard drive, attach to a message in your e-mail program, or burn directly do a disc. There are advantages to each method.

Exporting to a folder

My preferred method for exporting photos for e-mail is to export JPEG files to a folder on my desktop named For Email. Then when I want to send a photo to someone, I create an e-mail and attach the file I want to send from that folder. I like having the ready to mail images in the folder because it's easy to grab one when I want it. Follow these steps to create a preset for exporting e-mail files to a desktop folder.

1. Choose the photos you want to export and click the Export button in the Library module.
2. When the Export dialog box opens (shown in Figure 16-5), click the Hard Drive preset under Lightroom presets. This configures the Export To menu to Hard Drive and loads the Export panels with preset settings. These settings are close, but you just need to modify a few.
3. In the Export Location panel, choose Specific Folder from the Export To menu, then select Put in Subfolder and type the name of the folder you want to use. Lightroom will create the folder when you export if it doesn't already exist. In Figure 16-6, I typed "For Email."
4. Rename file in the File Naming panel is deselected by default with this preset. Because this is going to be a preset, it's best to keep it generic by leaving it deselected. You can always choose to rename on a case-by-case basis after choosing the preset.

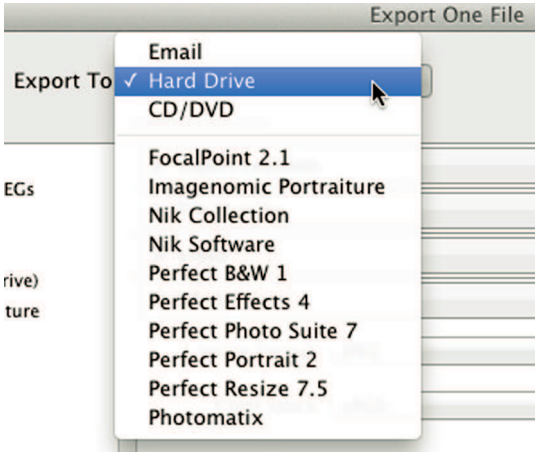


FIGURE 16-5

The Export dialog box is where you choose the export preset.

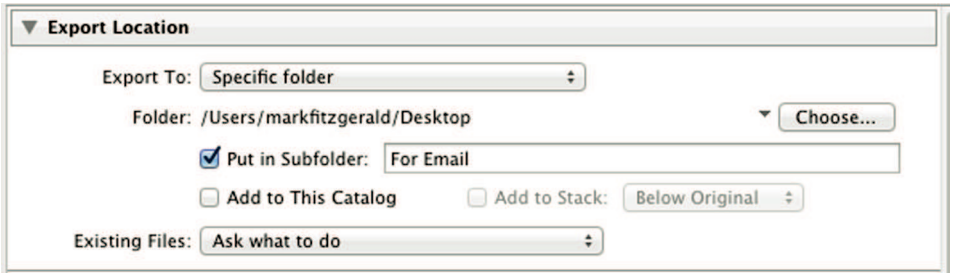


FIGURE 16-6

The Export Location panel is used to determine where exported files are saved. Lightroom creates a new folder if the one you specify in Put in Subfolder does not already exist.

5. The default settings in the Image Sizing panel are shown in Figure 16-7. Identical dimensions in the W (width) and H (height) boxes does not mean Lightroom will export a square file. Instead it means that if the photo is horizontal, Lightroom will make it 640 pixels wide and let the height fall in place according to the photo's aspect ratio. If the photo is vertical, Lightroom will make it 640 pixels tall and let the width fall into place. Many people have large monitors today, so 640 is too small to be useful. I prefer 800 pixels as a standard size. But before you enter a new value, change the Resize to Fit menu to Long Dimension, which will accomplish the same sizing as Width & Height but be simpler to work with because it has only one text box.
6. Go to the Output Sharpening panel and select Sharpen For. Then choose Screen from the menu and Standard from the Amount menu.
7. Select Watermark from the Watermarking panel and choose one of your custom watermarks from the menu.
8. Go to the Post-Processing panel and choose Show in Finder (on the Mac) or Show in Explorer (in Windows) from the After Export menu. This opens your computer's file browser after the import so you can verify the export and inspect the file if you want to.
9. Now that everything is set up, it's a good idea to capture the settings as a preset. That way you won't need to bother again with setting up for e-mail. To create the preset, click

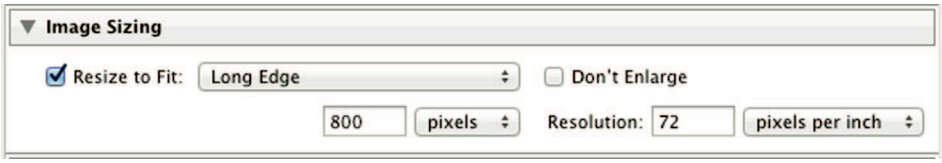


FIGURE 16-7

Change the Resize to Fit menu to Long Edge to specify the long edge for horizontal and vertical images.

the Add button at the bottom-left. When the New Preset dialog box opens, give the preset a descriptive name and click Create. Now it will be listed in the User Presets set like my "Mark's Email" in Figure 16-3.

Now that you have a preset, you won't need to bother with all this setup for e-mail again. Simply choose the preset when you open the Export dialog box to load the basic settings. Make any changes, such as filename or size, or just click the Export button to create the file with your defaults and open your file browser with the new file in it — ready to e-mail now or later.

It's easy to create these small files when needed so I consider them to be disposable. Every once in a while I delete all the photos from the For Email folder to keep things tidy.

✳ TIP

I use this same setup when exporting photos for Facebook or other social media sites.

Exporting directly to e-mail

Follow these steps to export directly to your e-mail program:

1. Choose the For Email Lightroom preset to set up the Export dialog box panels with the basic configuration for linking to your e-mail program. The main difference to notice is the Export To menu at the top of the dialog box changes to Email, linking Lightroom directly to your e-mail program. The second thing to notice is that the Export Location

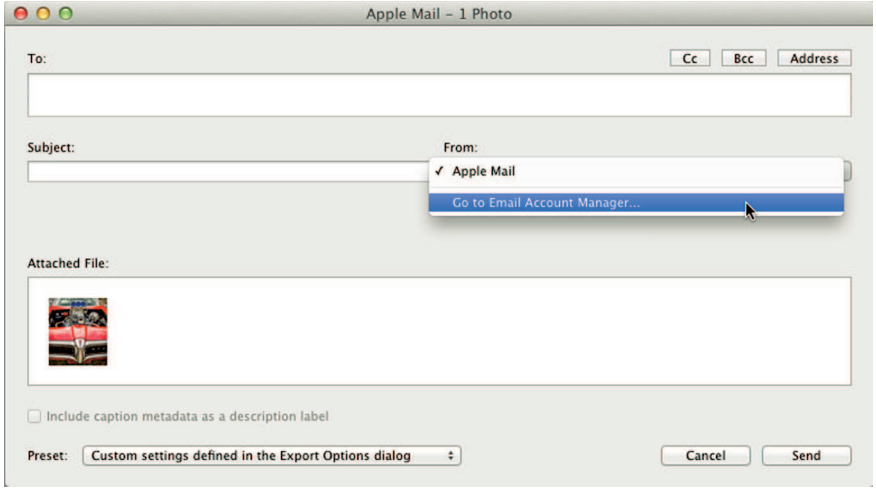


FIGURE 16-8

Use the From menu in the Mail dialog box to choose which e-mail program to link to the Export module.

panel is gone. It's not needed because the exported file is sent directly to the e-mail program. A copy isn't being stored on the hard drive.

2. The preset image size in the Image Sizing panel is 500 pixels on the long side. It's a good idea to increase this for most e-mail uses. Sharpening and watermarking are also turned off. The Post-Processing panel is also missing because the file is going straight to the e-mail program.
3. When you click the Export button, the Mail dialog box opens. Type the recipient's address, if you know it, in the To text box. If you don't know the address, you will have a chance to use the address book in your e-mail program after clicking the Send button. Using the Address button in the Mail dialog box opens Lightroom's Address Book, which is empty. I don't see much sense in populating a second address book so I don't use this option.
4. In Figure 16-8, you can see Lightroom found my Apple Mail program and selected it as the e-mail client. If you use a different program from the one Lightroom selects, choose Go to Email Account Manager from the From menu to add account information for your e-mail program.

Exporting for the photo lab

Exporting photos for printing at a photo lab is similar to exporting for e-mail. The main difference is that JPEG files need to be larger and higher quality for lab printing. Here's a quick rundown of the settings I use to prepare full-sized JPEG files for the lab:

- **Export Location:** I use a folder on my desktop to hold files for printing much the same way I handle files for e-mail. Some photographers save files for printing in a subfolder in the original parent folder. Many of these people add the photos to the catalog during export so they can better keep track of them in case a client reorders prints.
- **File Naming:** When sending files to the lab, I prefer to use the original filenames for the exported photos. This helps me keep track of images if the lab calls with a question.
- **File Settings:** Choose JPEG format with the sRGB color space and a Quality value of 100.
- **Image Sizing:** Deselect Resize to Fit so the exported JPEG files are at their full dimensions. Then choose 300 for the resolution.
- **Output Sharpening:** You'll need to experiment with this setting and your particular lab. I suggest using the Standard amount and evaluating a few prints to determine if you need to use less or more sharpening with the lab.
- **Watermarking:** I rarely watermark images sent to the lab.
- **Post-Processing:** I choose Show in Finder or Show in Explorer so I can check the files as soon as they export. If there's a problem, I can fix it right away.

✳ TIP

Always check with your lab to see exactly what settings it prefers, especially for color space and resolution. Knowing the correct settings helps avoid surprises when your prints are delivered.

After everything is set up the way you like it, create a preset. Later, if you need to modify the preset's settings, make the needed changes to the panels and then right-click the preset and choose Update with Current Settings.

Previewing Output Color with Soft Proofing

Earlier in this chapter, I suggested using the sRGB color space when exporting photos for printing at a lab. That's because most photo lab equipment is limited to the smaller sRGB color

FIGURE 16-9

The Soft Proofing panel replaces the Histogram panel. When you choose a profile from the Profile menu, the Soft Proofing histogram updates to show the histogram with the selected profile.

space and can't accurately reproduce colors outside that color gamut. When I describe color spaces in Chapter 11, I note that Lightroom uses a color space similar to the very large ProPhoto RGB color space. Because of this, some of the rich colors you see in the original RAW file in Lightroom may not be visible in the exported file because those colors are outside the gamut of sRGB and cannot be reproduced. The out-of-gamut colors are reproduced with the closest in-gamut colors. For example, if some of the blue tones in the sky are out of gamut, they get printed with the closest possible color. If I compare the histogram of the exported JPEG file to the histogram of the RAW file, they will be slightly different.

Although you can't do much to increase the color gamut of a printer, it is important to know which colors will clip when exporting or outputting a file. To help, a feature called *soft proofing* was added to Lightroom 4. Soft proofing enables Lightroom to perform an onscreen emulation of various output scenarios to help you visualize output color and make necessary adjustments before exporting or printing.

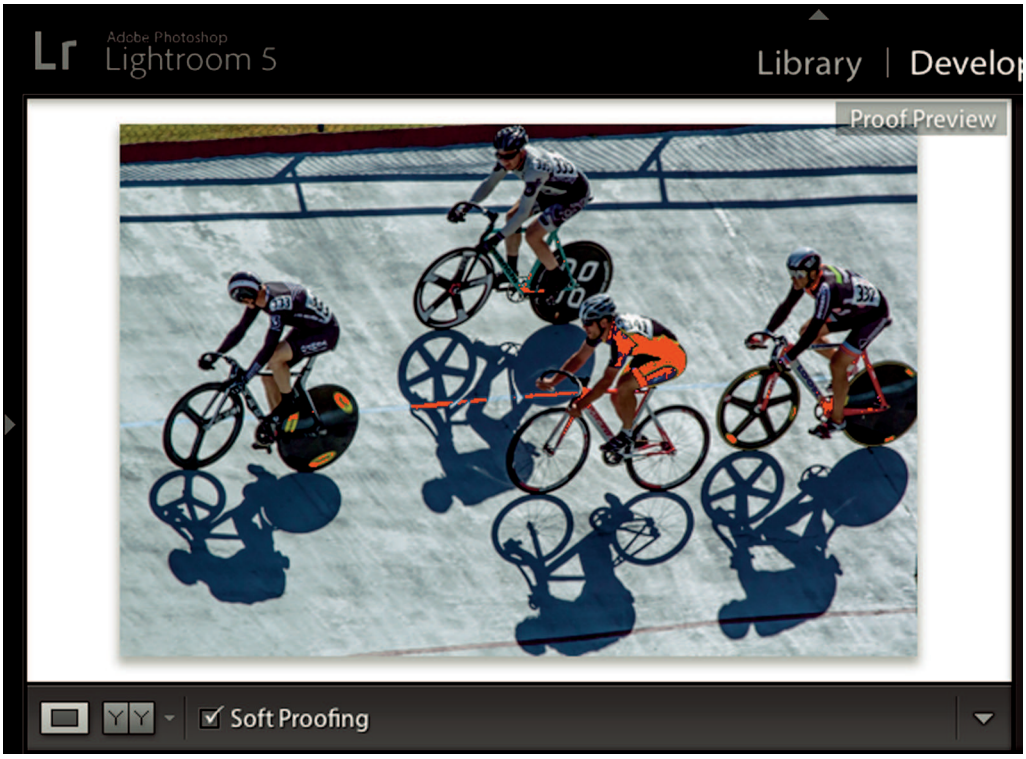


FIGURE 16-10

When Show Destination Gamut Warning is selected, a red overlay indicates colors that cannot be reproduced with the selected profile.

FIGURE 16-11

It's a good idea to create a proof copy when making adjustments while soft proofing. That way you don't disturb the original file adjustments.

Soft-proofing for web

To activate the soft-proofing view, select Soft Proofing from the toolbar when in the Develop module. You can also choose View ➪ Soft Proofing to open the dialog box. When you do, the Soft Proofing panel, shown in Figure 16-9, drops above the tool strip and replaces the usual Histogram panel. I chose sRGB from the Profile menu because I'm exporting for web. The updated histogram on the Soft Proofing panel displays a histogram for the sRGB profile, which is different from the original RAW histogram.

The two preview buttons at the top-left and top-right of the histogram function differently from the clipping preview buttons in the Histogram panel. The Show Monitor Gamut Warning button on the left is used to highlight colors that are outside the gamut of the monitor and can't be seen correctly. A blue overlay indicates colors, much like the shadow clipping preview in the Histogram panel. It's good to know if you aren't accurately seeing color, but the only thing you can do to solve this problem is to buy a monitor with a larger gamut. There are several monitors on the market today that use all or almost all the AdobeRGB 1998 color space. But they still can't display some very saturated colors that can be reproduced by high-end inkjet printers.

The Show Destination Gamut Warning button on the right is used to highlight in red any colors that are outside the gamut of the selected profile. Figure 16-10 shows a photo with red highlights on colors that cannot be reproduced in the sRGB color space. These problem colors are mostly saturated yellows and blues. I have limited options at this point. I can go to the HSL panel and desaturate the yellows and blues until they come into gamut, but that doesn't solve the problem. The print will still look the same. I just made the screen match it. This is useful when it comes to expectations, but doesn't really fix the out-of-gamut color issue.

Because the Soft Proofing view is used to emulate a specific output scenario, it's not a good idea to make adjustments to the master file based on that particular output. For example, my inkjet printer has a much wider gamut than sRGB. I wouldn't want to make permanent changes to the RAW file when exporting a JPEG file for the web. When you're in Soft Proofing view and you make any adjustments, the dialog box shown in Figure 16-11 opens to suggest you create a

virtual copy for soft proofing by choosing Create Proof Copy. The new virtual copy is then used whenever you need to output using the selected profile. The profile name is appended to the end of the virtual copy's filename so you know what output scenario you proofed it for. If you switch the soft-proofing profile on the Proof Copy to a different profile, the file name is updated. How cool is that?

Soft-proofing for inkjet printing

Like every output device, inkjet printers work within a specific color gamut. But the gamut of an individual printer depends on the ink and paper combination being used. Some inkjet papers can reproduce a broader gamut than others. For example, coated papers tend to have a larger gamut than absorbent matte papers. Because of the variability with papers, it's necessary for inkjet printer manufacturers to create *printer profiles* for each of the paper stocks they supply for their printers. These profiles are installed on your system when you install the printer's software.

✳ TIP

Most printer and inkjet paper manufacturers post printer profiles for download on their websites.

The first time you open the Soft Proofing panel's Profile menu, the only options are sRGB, AdobeRGB 1998, and Other. Choose Other to open the Choose Profiles dialog box shown in the top image in Figure 16-12. Select only the profiles you plan to use and then click OK. The selected profiles are then added to the Profile menu, as shown in the bottom image in Figure 16-12. This method of adding only the profiles you need is more elegant than Photoshop's profile dialog box that displays every color profile on your system for every output device from displays to printers.

✳ NOTE

Some printer manufacturers use cryptic names to describe their profiles. You may need to go to the manufacturers website to understand the nomenclature they use.

When you choose a printer profile from the Profile menu, the background area behind the image changes to white to help you preview the image as it would look on paper. This really helps because a dark background behind a photo makes the photo look lighter than it is due to a visual effect called *simultaneous contrast*. This is one of the reasons photographers complain that prints come out too dark. Using a white background helps you view the image properly when preparing it for inkjet printing.

✳ TIP

When editing for inkjet output, you can change the background color to white at any time by right-clicking on the background and choosing White.

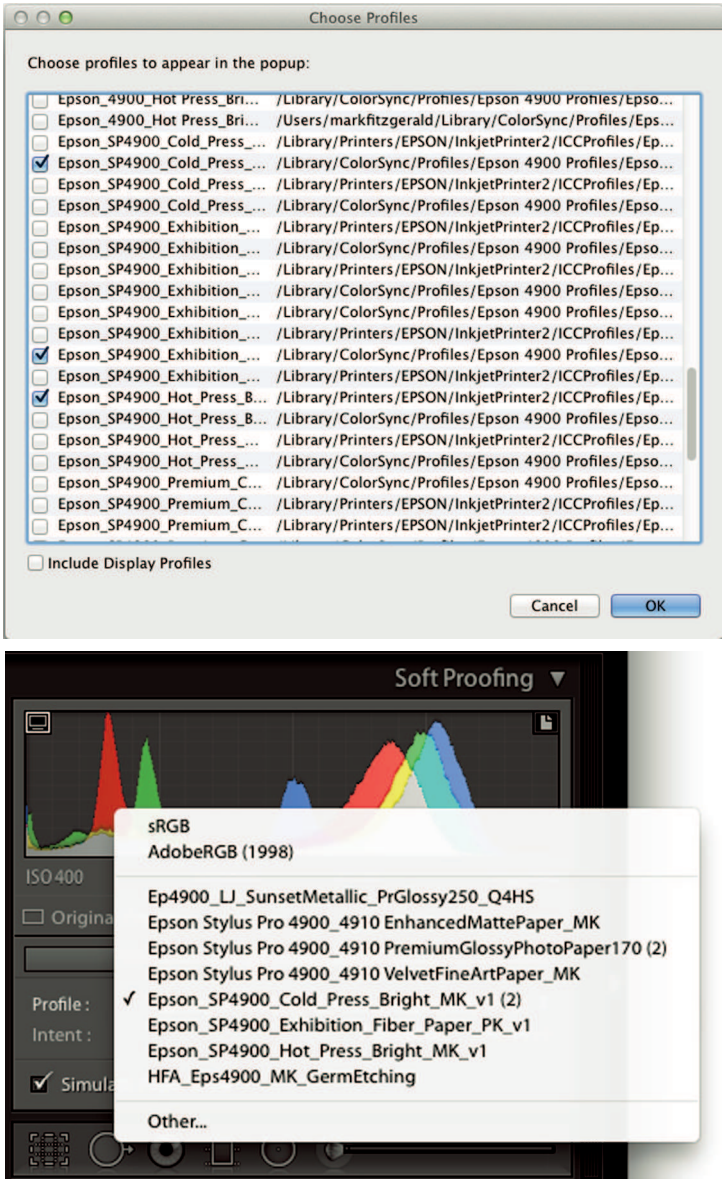


FIGURE 16-12

Choose Other from the Profile menu to open the Choose Profiles dialog box shown in the top image. Select the profiles you plan to use and click OK to add them to the Profile menu, as shown in the bottom image.

When you choose a printer profile, the Simulate Paper & Ink option becomes active. Simulate Paper & Ink does just what it says. With some papers, especially uncoated matte papers, the results can look disappointing compared to the full color of the image under normal screen viewing conditions. But if you make a print and compare it to the Soft Proofing view with Simulate Paper & Ink selected, you'll find they come pretty close.

The Intent section of the Soft Proofing dialog box enables you to choose the best *rendering intent* for the printer profile. A rendering intent is used to manage image colors that are out-of-gamut for the profile in use. These colors must be clipped to the closest reproducible color. Lightroom's two rendering intents determine how in-gamut colors are treated when out-of-gamut colors are brought into gamut.

- **Perceptual** preserves the relationship between colors as it clips out-of-gamut colors to the closest possible reproducible color. In-gamut colors may shift as a result.
- **Relative** preserves the color of in-gamut colors as out-of-gamut colors are clipped.

The best rendering intent depends on the image and the printer and paper in use. Most of the time, you won't see much of a visual difference when switching back and forth. When soft-proofing a photo, try changing the intent to see if one choice does a better job managing color than the other. Then you'll know which one to choose when it's time to make a print.

Although you can't use soft proofing to make an inkjet printer reproduce a color that is outside its gamut, there is a valuable advantage to soft proofing. When I have a printing job that doesn't require a specific paper, I use soft proofing to determine which paper has the appropriate gamut for the job. Figure 16-13 shows the Destination Gamut Warning preview for two paper profiles. I used the Relative intent with Simulate Paper & Ink selected. The top image shows the preview for Epson's Velvet Fine Art paper, which is a matte paper. The bottom image is the preview for Epson's Exhibition Fiber paper, which is a coated, soft-gloss paper. Notice how little color clipping is occurring with the fiber paper. The contrast also looks better with darker shadows and brighter highlights. The choice here is easy. This photo needs to be printed on the fiber paper to take advantage of that paper's wider gamut.

Inkjet Printing with Lightroom

I began using Lightroom as soon as it was released. I used it to organize and edit photos, but when it came to printing I used Photoshop because I felt it did a better job. I no longer believe that. In fact, I do almost all my inkjet printing directly from RAW files in Lightroom. I've printed fine-art images for clients and myself and have had several Lightroom prints hang in galleries.

FIGURE 16-13

The first image is a soft proof of Epson's Velvet Fine Art paper, which is a matte paper. The second profile is for Epson's Exhibition Fiber paper, which is a coated, soft gloss paper. The printer can reproduce a larger color gamut with fiber paper than it can with the matte paper.

Exploring the Print module

Figure 16-14 shows the Print module. The Preview panel replaces the Navigator panel found in the Library, Develop, and Map modules. The Preview panel shows a layout preview of templates as you hover over them in the Template panel. Templates are just like Develop presets. They record settings used to create a variety of printing layouts for single images and groups of images. Lightroom has several default templates. You can also save your special layouts as custom templates just as you can save custom Develop presets.

The panels on the right are used to control the layout process. The Layout Style panel at the top controls the three main print-layout styles. When you choose a layout style, the appropriate panels are loaded below. The three layout styles are:

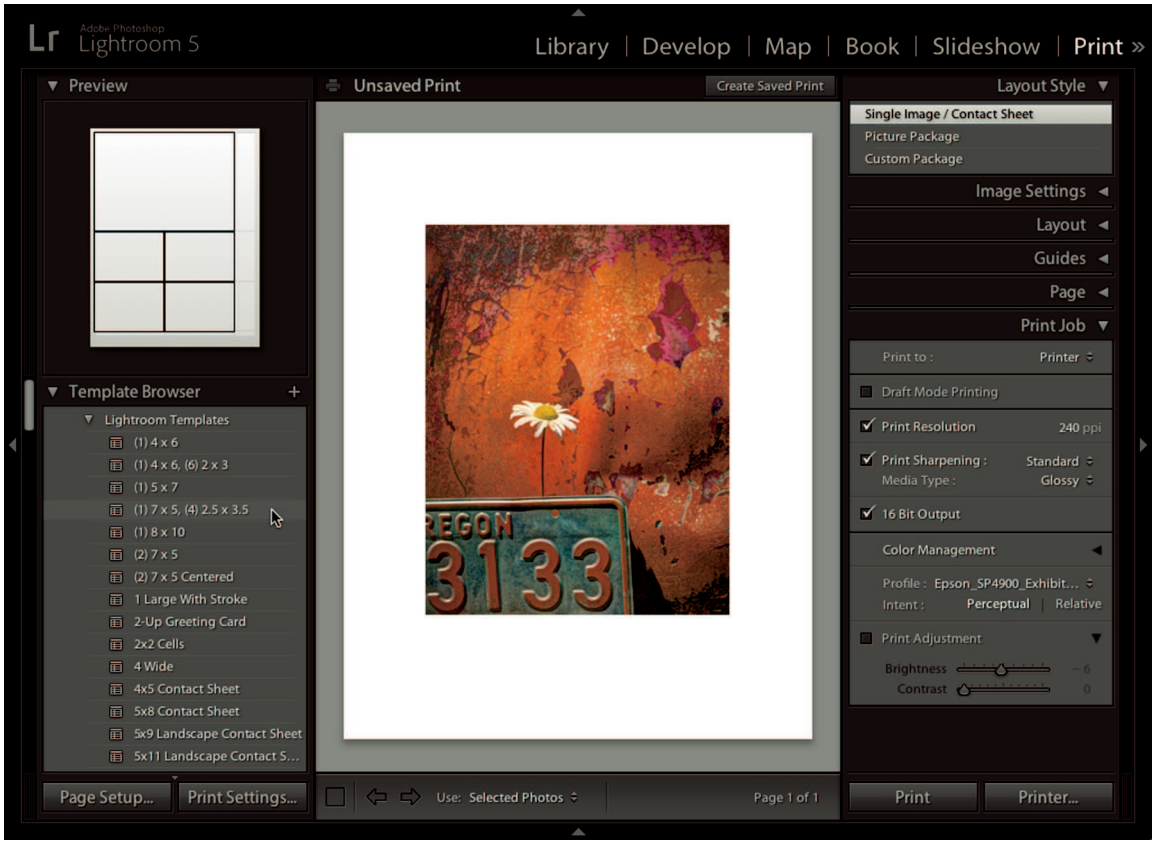


FIGURE 16-14

When you hover over a template in the Print module, a preview is displayed in the Preview panel. After choosing a template, use the panels on the right to fine-tune the layout for your needs.

- **Single Image/Contact Sheet:** This is used to print a single image on a sheet of paper or to lay out rows and columns of images on a single sheet. A 5 × 8 contact sheet is five rows by eight columns. This creates 40 small image cells per page.
- **Picture Package:** A picture package is an assortment of sizes of a single image laid out on a sheet, much like the package prints children receive when getting school photos taken. The selected photo is automatically added to the package. If you select multiple photos, one sheet is printed for each photo.
- **Custom Package:** This is similar to a picture package, but it gives you the ability to place different images in the cells. Images are dragged from the Filmstrip to add them to the layout.

Printing workflow is fairly straightforward. Select a template from the Template Browser and then use the panels and other adjustments to lay out the print job the way you want it. Naturally, there are countless options for print layout. The best way to get a handle on the Print dialog box is to take a look at one of the most common printing jobs, the fine-art print.

CAUTION

An important feature of the Print module is the Use menu in the toolbar. Its menu has three options: All Filmstrip Photos, Selected Photos, and Flagged Photos. When printing a single image, be sure to set the menu to Selected Photos. Otherwise you may get a whole bunch of prints instead of a single print when you click the Print button.

Making a fine-art print

Printing single images is the most common need most Lightroom users have. Begin by choosing Fine Art Mat from the Template Browser. This sets up the Print module to print a vertical image (portrait orientation) on an 8.5 × 11 sheet of paper. To change the size of the paper or to a horizontal orientation (landscape) click the Page Setup button. Then use the Page Setup panels to choose the paper size and orientation.

Image Settings

The Image Settings panel, shown in Figure 16-15, is used to establish basic settings. Here's what they do:

- **Zoom to Fill:** When selected, this causes the photo to fill the image cell, which is defined in the Layout panel. Choosing Zoom to Fill can cause parts of the image to be cropped and isn't appropriate when printing a single image.
- **Rotate to Fit:** Causes the image to rotate to fit the cell. If the cell is portrait orientation and the photo is landscape orientation, the photo is rotated ninety degrees to make it

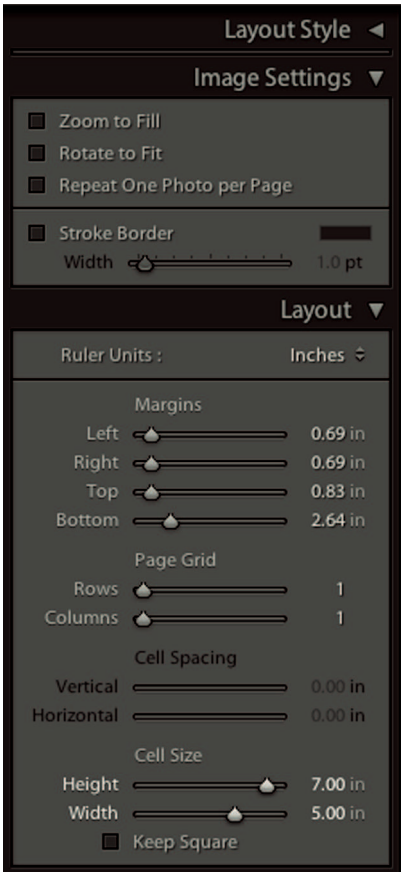


FIGURE 16-15

The Image Settings and Layout panels are used to layout cells on the page and control how photos fit in those cells. When making a fine-art inkjet print, I deselect all options in the Image Settings panel.

best fit the cell. When making a fine-art print, it's usually better to rotate the orientation of the paper using the Page Setup dialog box instead of rotating the image.

- **Repeat One Photo per Page:** Choosing this when the page has multiple cells causes every cell to contain the same image. For example, you could create a 5 × 8 contact sheet with the same photo in each cell.
- **Stroke Border:** Adding a stroke places a border around each image. Strokes can add to the presentation value of an image. When entering photos in PPA-style competitions, I always place a thin stroke around the image. But I seldom use stoked borders when printing a fine-art photo floated on white paper.

Layout

The Layout panel controls page margins and cells. For a fine-art mat presentation, it's common to make the bottom margin larger than the top. This leaves room for a title and

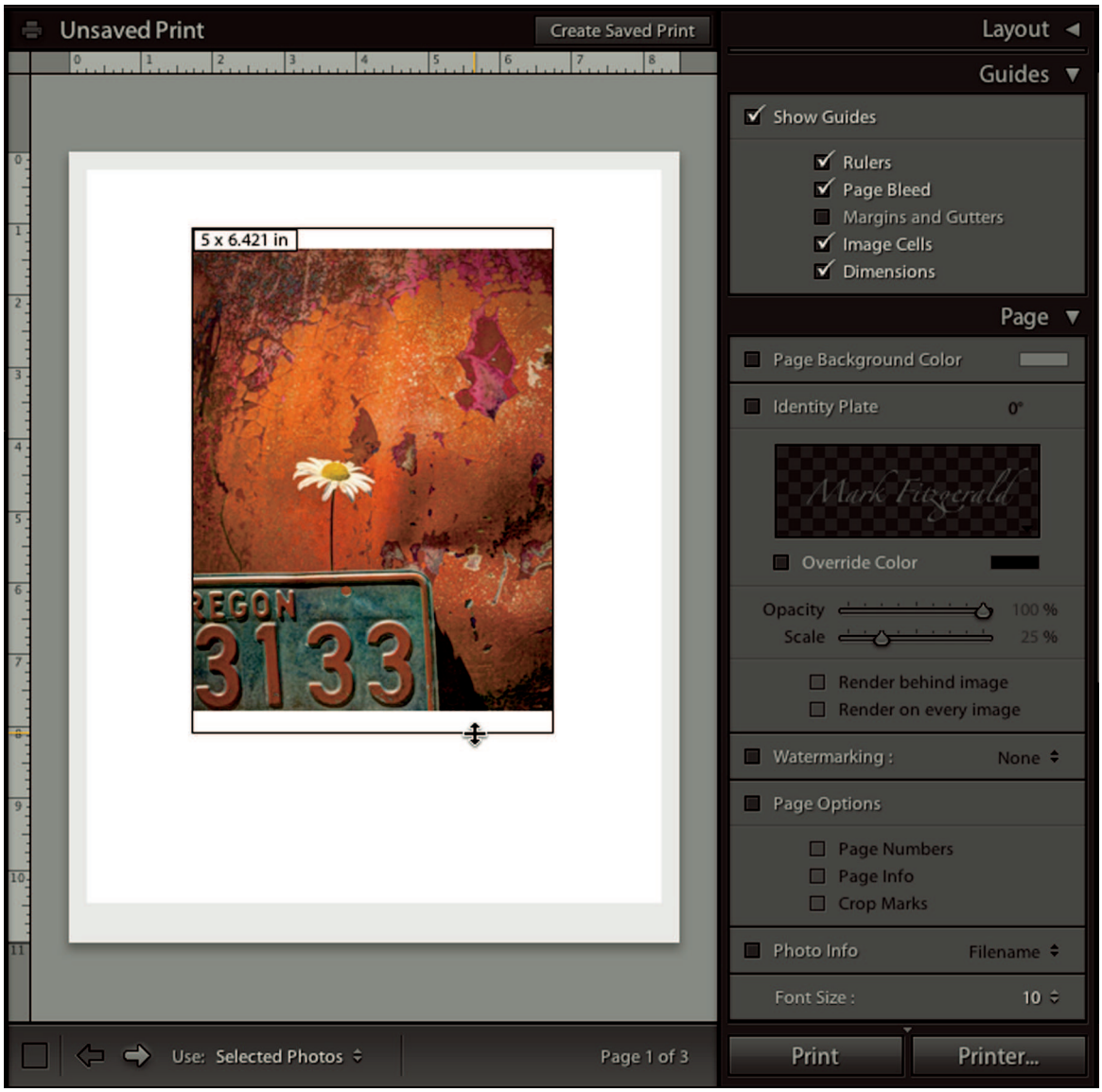


FIGURE 16-16

The Image Cells and Dimensions guides are useful when sizing an image cell. You can drag cell boundaries to resize a cell.

signature below the image. The Left and Right margins should have the same value to keep the image cell in the center of the page.

✳ TIP

If you want to print borderless but you can't reduce the margins to 0, go to Page Setup and select a borderless page size from the Page Size menu.

The Page Grid sliders are used to format the page for rows and columns. When working with multicell layouts, use the Cell Spacing sliders to control the vertical and horizontal distances between cells. You can also type numbers directly in the number fields for exact sizing.

The Cell Size sliders determine the size of the cell. If the photo's aspect ratio doesn't match the aspect ratio of the cell, the image fits the cell on the longest dimension so no image details are lost. For example, if I have a square image in a rectangular cell, the entire square fits into the cell on the shortest dimension of the cell. The remaining cell space on the long dimension goes unfilled.

Guides

The Guides panel enables you to show or hide layout guides. In Figure 16-16, I have all but the Page Bleed and Margins and Gutters selected because Page Bleed and Margin and Gutters guides are mostly intended for laying out pages for books or other bound publications. They aren't helpful for most print jobs. Turning these previews off reduces visual clutter.

It can be useful to display the Image Cells and Dimensions guides to help visualize how the image fits the cell. You can drag the cell boundaries to change dimension, which changes the appropriate Cell Size Height or Width value in the Layout panel. Once I have the cell sized the way I like it, I deselect Show Guides so I can better evaluate the layout.

Page

The Page panel has several options, though most aren't useful when printing a fine-art print. However, you may want to use some options for a different type of printing job so take a moment to review them.

- **Page Background Color:** When this is selected, you can click the color swatch next to it to open the color picker. I use a background color when preparing images for PPA competition because white is generally not preferred for that type of competition.
- **Identity Plate:** This gives you the ability to add your personal identity plate as an overlay. Create an identity plate by choosing Lightroom ➪ Identity Plate Setup (on the Mac) or Edit ➪ Identity Plate Setup (in Windows). Or you can click in the small window in the Page panel to open the identity plate editor to create a custom identity plate for

the job. Then use the Override color and other identity plate controls to customize it for the job at hand.

- **Watermarking:** This has the same menu as the Watermarking section of the Export dialog box. Use it to add a watermark to each cell if desired.
- **Page Options:** This is used to add specialized information to pages. These are most useful for multipage documents.
- **Photo Info:** This displays information at the bottom of each cell. Use the menu to the right to choose which metadata information to display. Then adjust the Font Size setting to make it appropriate for the cell. When printing contact sheets, it's common to use Photo Info to display filenames for each image.

Print Job

The Print Job panel, shown in Figure 16-17, is the most important panel in the Print module because it controls color management. Be sure to understand how these options are used:

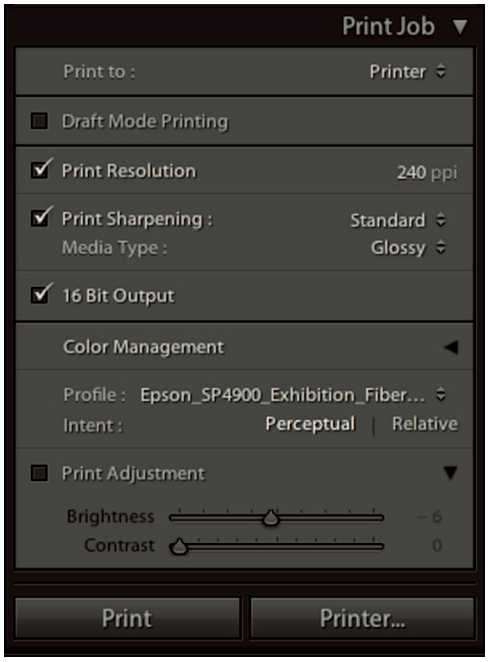


FIGURE 16-17

Use the Print Job panel to apply output sharpening and configure color management settings. If prints consistently come out too dark or too light, use the Print Adjustment sliders to compensate.

- **Print Resolution:** This setting determines how close the pixels are to one another. Modern inkjet printer driver software is really great at managing resolution, so the default of 240 works just fine, especially when printing from a RAW file.
- **Print Sharpening:** This is where you apply output sharpening. Choose the appropriate media type, Glossy or Matte, then choose an amount. I suggest beginning with Standard and then evaluating prints to see if you need to increase or decrease the amount.
- **16-Bit Output:** Most modern photo inkjet printers can process 16-bit information. Because RAW files have such a large amount of information, it's a good idea to use this option to make sure you're sending the largest amount of useful data to the printer.
- **Color Management:** Use the Profile menu to choose the appropriate paper profile for the paper you are using. The menu has the same profiles as the Soft Proofing Profile menu. Then choose the same rendering intent you used when soft proofing.
- **Print Adjustment:** This is a cool feature added to Lightroom 4. It lets you add a fudge factor to your brightness and contrast that doesn't show on the image. If your prints are consistently too dark, increase the Brightness value and make another print. Continue doing so until you find the value that matches your display. Lightroom remembers the Print Adjustment settings for each paper profile.

After you get the panels set up the way you want them, click the Printer button to open your printer's driver software. Make sure to choose the paper that matches the profile you selected in the Color Management area of the Print Job panel.

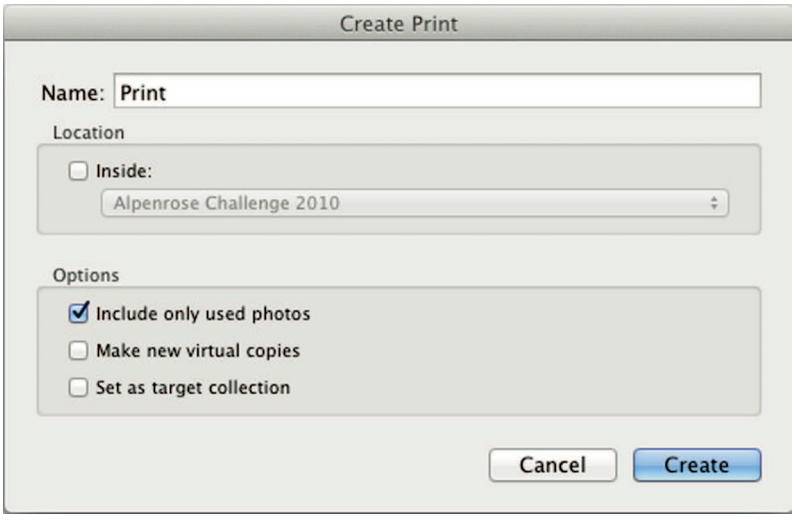


FIGURE 16-18

When creating a saved print you have the option of storing the saved print in a collection.

✳ CAUTION

If you don't have the correct profile or don't select the correct paper in the printer's driver, you probably won't get accurate color. Make sure both these settings match each other and the paper you're using.

Saving a print

A useful feature added to Lightroom 4 enables you to save a print layout with the images in it. This differs from a template that saves design information only. In earlier versions of Lightroom, it was easy to lose design settings for one photo while preparing a different photo for printing. When you create a saved print, it's added to the Collections folder. Saved prints have a slightly different icon to indicate they're prints not collections. The saved print feature is incredibly useful because it enables you to return to a print job at any time and see the layout exactly the way you left it.

To save a print instead of printing it, click the Create Saved Print button at the top-right of the main area. You can also choose Print ➪ Create Saved Print. When you do, the Create Print dialog box shown in Figure 16-18 opens. Give the saved print a descriptive name and click Create. You can use the Location section to save the print inside a collection, which is handy when you're preparing several prints for a project. You can even create a "Printing" collection for saved prints only.

Saving a JPEG file instead of printing

A nice feature of the Print Module is that you can save your layout as a JPEG file instead of printing it. This is useful when you want a photo lab to print your layouts or when you need a digital file for presentation instead of a print. For example, many photo competitions now accept digital files. Using the Print module gives me the ability to layout the digital image with matting and stroked borders much the same way I did when preparing a competition print.

To choose to save a file instead of making a print, choose JPEG File from the Print To menu in the Print Job panel, as shown in Figure 16-19. Then use the File Resolution to choose the appropriate resolution, JPEG Quality, and profile, as described in the exporting section earlier in this chapter. The Custom File Dimensions section is used to determine the page size in inches.

When you click the Print to File button, the Save File dialog box opens so you can choose a saving destination. These new files will not be part of the Lightroom catalog unless you import them or synchronize their folder.

FIGURE 16-19

Choose JPEG File from the Print To menu to save a file instead of making a print. Use the Print Job panel to determine file qualities for the JPEG and then click Print to File to determine where the file is saved.

Overview of the inkjet printing workflow

Now that I've described the various moving parts, here's how they fit together to form a general inkjet printing workflow. Follow these steps when printing to get the most consistent results from your inkjet printer:

1. **Soft-proof photos to be printed:** Make sure to take a moment to soft-proof and pick the best paper and intent for the print job. Remember to use the same settings in the Print Job panel.
2. **Begin with a template:** Choose a template that gets you close to the layout you want. Then use the design panels to fine-tune the layout if necessary. If you change the layout and think you may want to use it again, be sure to save it as a new Template.
3. **Go to Page Setup:** Click the Page Setup button to open the Page Setup dialog box. Use it to choose paper size and orientation.

4. **Go to Print Settings:** Click the Print Settings button to open the Print dialog box. This is the same printer driver dialog box that opens when you click the Printer button on the bottom-right. Use the Print Settings dialog box to choose the paper you are using and other printer settings that apply. Be sure to turn off high-speed printing because it severely reduces quality. If you plan to specify 16-bit output in the Print Module's Print Job panel, go ahead and select it in the Print dialog box, too.
5. **Check the Use menu:** Make sure the Use menu has the correct setting. It's annoying to think you're printing a single selected image, only to find out you printed one of each filmstrip photo.
6. **Configure the Print Job panel:** Setup the Print Job panel with the correct profile for the printer and rendering intent used for soft proofing. Apply sharpening and any print adjustments to the Print Adjustment sliders.
7. **Save a preset:** Now's a good time to save a new preset because all the settings are in place.
8. **Click Print or Printer:** If you used the Print dialog box in Step 4 to set up the printer, you can simply click Print to begin printing. If you haven't already set up the printer, click Printer to open the Print dialog box to configure the printer now. Then click the Print button in the dialog box to begin printing.

When evaluating the print be sure to view it in appropriate light. The normal intended light source for viewing prints is daylight balanced. If you use indoor incandescent or tungsten light as an illuminant, the color on the print will look wrong. A source for inexpensive daylight balance lamps and bulbs is OTTLite (www.ott-lite.com), which makes lighting for artists and craftspeople.

Also be sure to view the print under a sufficient amount of light. This is one of the biggest reasons people complain that their prints are too dark. They view their photos in dim lighting and blame the printer. I use an OTTLite desk lamp with the bulb about 16 inches above my desk, which works great for evaluating prints.

CHAPTER 17

Sharing Your Photos with the World

Not very long ago, prints were all most photographer had to show for their work. In the digital world, that's all changed. Now you can use Lightroom's output modules — the Book, Slideshow, and Web modules — to present your photos to different audiences. Each of these output modules gives you the ability to customize your designs in countless ways. But before I describe the output modules, I want to tell you about one of Lightroom's coolest photo-sharing methods that isn't part of the output modules. It's the Publish Services panel in the Library module.

Using Lightroom's Publish Services

Photo-sharing websites such as Flickr and SmugMug are very popular with photographers. You can upload photo galleries to share with friends and family or the entire world. People comment on one another's photos and collect their favorite images from other photographers. If you use a photo-sharing website, you'll love how easy it is to use the Publish Services panel to set up publish services to manage your galleries at photo-sharing websites.

The Publish Services panel is shown in Figure 17-1. It's located just below the Collections panel. That's appropriate because Lightroom's publish services work much like collections. After creating a new publish service, you collect photos by dragging them into it. Then you publish them (upload) to the photo-sharing service. Behance, Facebook, and Flickr are loaded in the panel by default. Click the Find More Services button to go online to Adobe Exchange and download other publish services, such as SmugMug.

FIGURE 17-1

The Publish Services panel is used to manage publish services for photo-sharing websites. Click the Set Up button of a service to set up your account information.

✳ TIP

Adobe Exchange has an assortment of Lightroom plugins and presets. You can browse by category and even sign up for alerts about new plugins and presets.

Setting up a new publish service

Behance was introduced as part of Adobe's Creative Cloud service in 2013. It's intended as a portfolio sharing website, as well as a community gathering place for photographers. I was anxious to try it out, so I'm using here it as an example.

To begin the setup process, click Set Up on the right of the Behance publishing service. You can also create a new publishing service by clicking the New Published Collection button (the + symbol) at the top of the Publish Services panel. When the Lightroom Publishing Manager dialog box shown in Figure 17-2 opens, use the panels on the right to setup the publishing service. Notice how similar it is to the Export dialog box described in Chapter 16 (see Figure 16-3). That's because a publish service can automatically export photos as you publish them. Most of the Publish Services panels are the same as the Export panels described in Chapter 16 so I focus here on those that are different. Be advised that each publish service has some panels that are unique to that service.

- **Publish Service:** All publish services have a panel for titling the service. This title is shown on the service in the Publish Services panel.
- **Behance:** Pure advertising. Click the link to learn more. Other setups, such as Flickr and Facebook, don't have this type of panel.

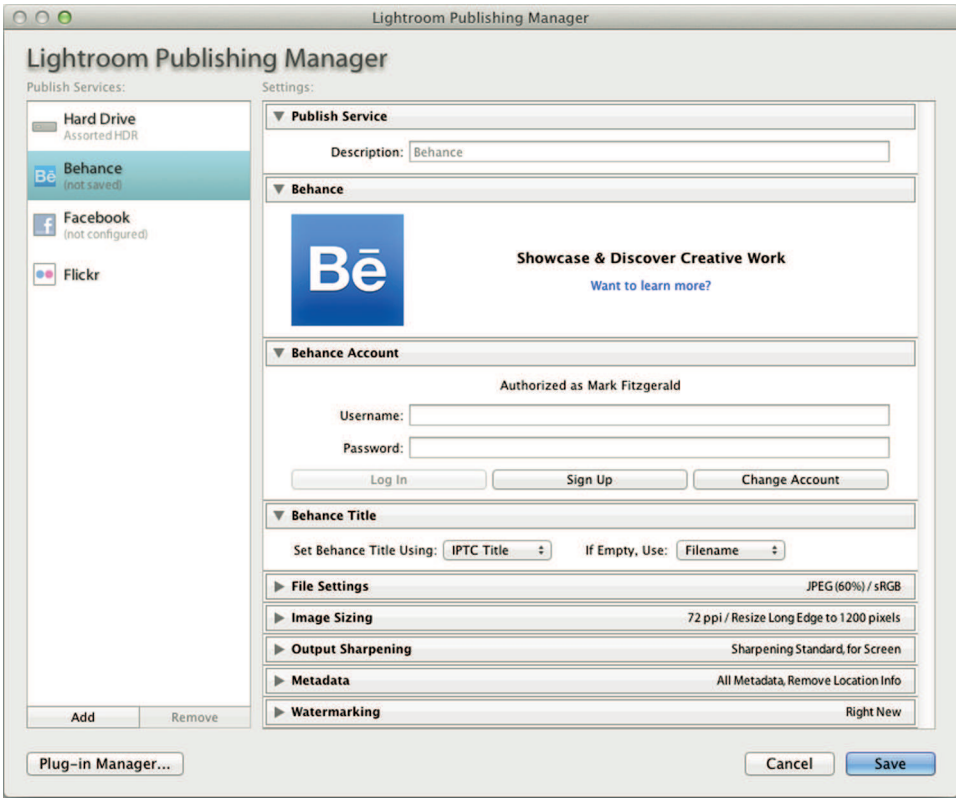


FIGURE 17-2

The Publish panel looks a lot like the Export dialog box. That's because a publish service is a lot like a collection with built-in exporting.

- **Behance Account:** This is where the publish service is connected to the account. Add your information and click Log In on Behance or Authorize on other services.
- **Behance Title:** Use this panel to control how images are titled. Use the first menu to tell the service which metadata field to use: the filename, IPTC metadata for the title, or None for no title. If you want to use IPTC Title, that information must first be entered in the Title field in the Library module's Metadata panel. Use the second menu in the Behance Title panel to determine which field to use if your first choice is blank. Other publish services have similar title panels.

After the account is set up, use the remaining panels to determine how you want your photo files handled. Setup is similar to the Export dialog box panels, described in Chapter 16. You can see my choices listed on the summaries on the right of each of the collapsed panels' headers. When everything is set, click the Save button. You'll see the description or title you gave the service in the Publish Services panel.

> **✳ TIP**
>
> To edit a publish service, double-click the service name and choose Edit from the Edit Published Collection dialog box.

Using a publish service

Drag photos from the Grid view or the Filmstrip to the publish service to add them, much the same way you add photos to a collection. Click the service to see them and arrange them in the desired order. To remove a photo from the publish service, select it and press the Delete or Backspace key. This doesn't delete the photo from its original folder. When you have the images arranged the way you like, click the Publish button at the bottom of the Publish panel.

When you click Publish, the Publish dialog box opens. The options vary depending on the service you're using. Figure 17-3 shows the Publish on Behance dialog box when I publish photos from one of my fine-art projects, "Mopar Heaven." The Publish dialog box gives you the ability to edit information for each photo as you publish it. You need to click Publish for each image, which is a pain when using Behance, but it does give you the chance to review keywords and add additional information. Click the Skip button to avoid publishing the current photo.

Here's the really cool part about using Lightroom's publish services: After the initial publishing, it's easy to add new photos to the photo-sharing site or to remove previously published photos. To add a photo, drag it to the publish service. When you do, it's added to a new section at the top of the publish service called New Photos to Publish. When you select

FIGURE 17-3

When you click the Publish button, the Publish on Behance dialog box opens. Use the text boxes to review and edit information. Then use the Visible To menu to determine who can see the photo.

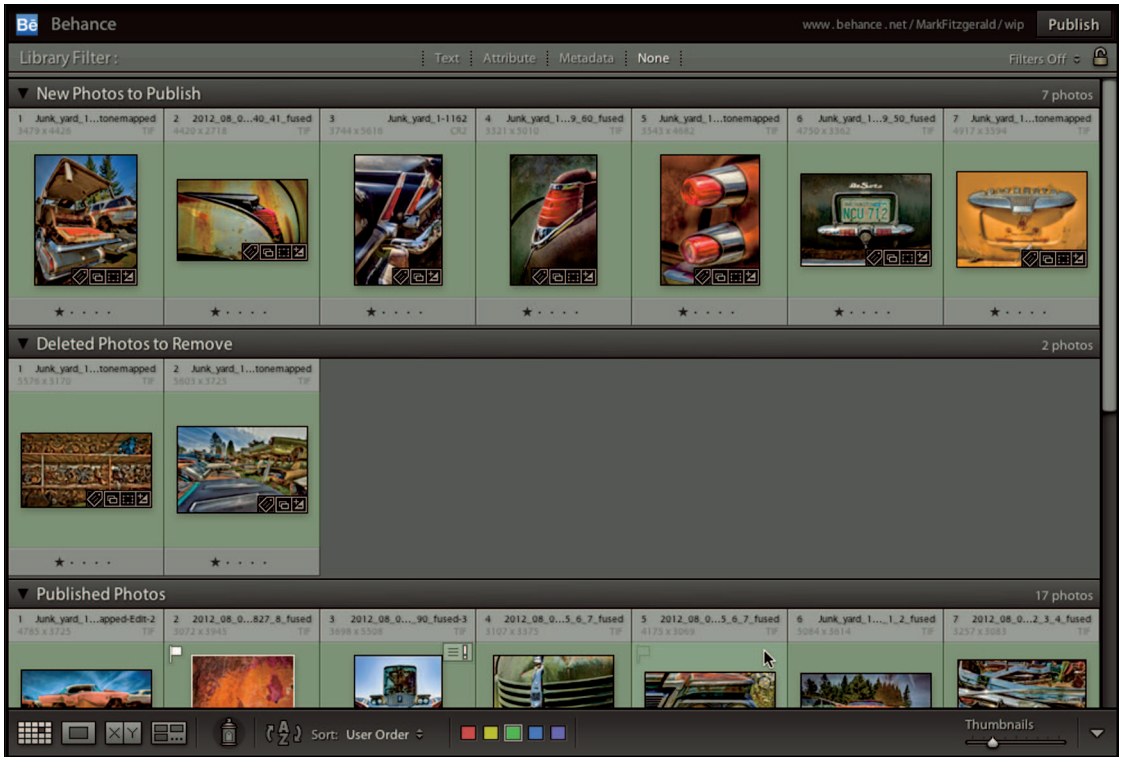


FIGURE 17-4

After the initial publishing, add photos to the publish service or delete them. The next time you click Publish the online gallery is updated with the changes.

a photo and press the Delete or Backspace key, the photo is added to a section titled Deleted Photos to Remove. Figure 17-4 shows my Behance publish service after I added new photos and deleted two previously published photos. The next time I click Publish, the new photos are added to the online gallery and the deleted photos are removed.

One other interesting thing you can do with the Publish Services panel is use the Hard Drive publish service to publish files to a folder on your computer instead of online. This is really useful when you're gathering images for a project where you would normally be using a collection and the Export dialog box to save exported files to a folder. Using a publish service is a much more elegant way to do the same thing, and it lets you easily remove previously published photos from within Lightroom.

Designing Photo Books

Although it's easy to share digital files with the world, there's still something special about seeing your photos in a book. Only a few years ago it was necessary to order at least several

hundred books to get a quality photo book. Now, in the digital age, we can get a single high-quality book printed and delivered to just about anywhere in the world.

The Book module is used to design photo books and was added with the release of Lightroom 4. It received updates in Lightroom 5 to add more paper choices and layout flexibility. The Book module can link directly to Blurb (www.blurb.com), one of the premier U.S. photo-book companies. You can have one or more books printed and list your book on Blurb's website for others to purchase. The best part is that Blurb ships your book directly to buyers without your involvement. You can also sell or give away digital versions of your photo books using the Blurb website.

Before laying out your first book I suggest you browse other photo books to find out which design styles and layout resonate with you. Borrow books from your friends or visit your local library. Another great way to see other people's books is to browse Blurb's bookstore. Many people who create Blurb books make them available to the public. Most of them allow you to

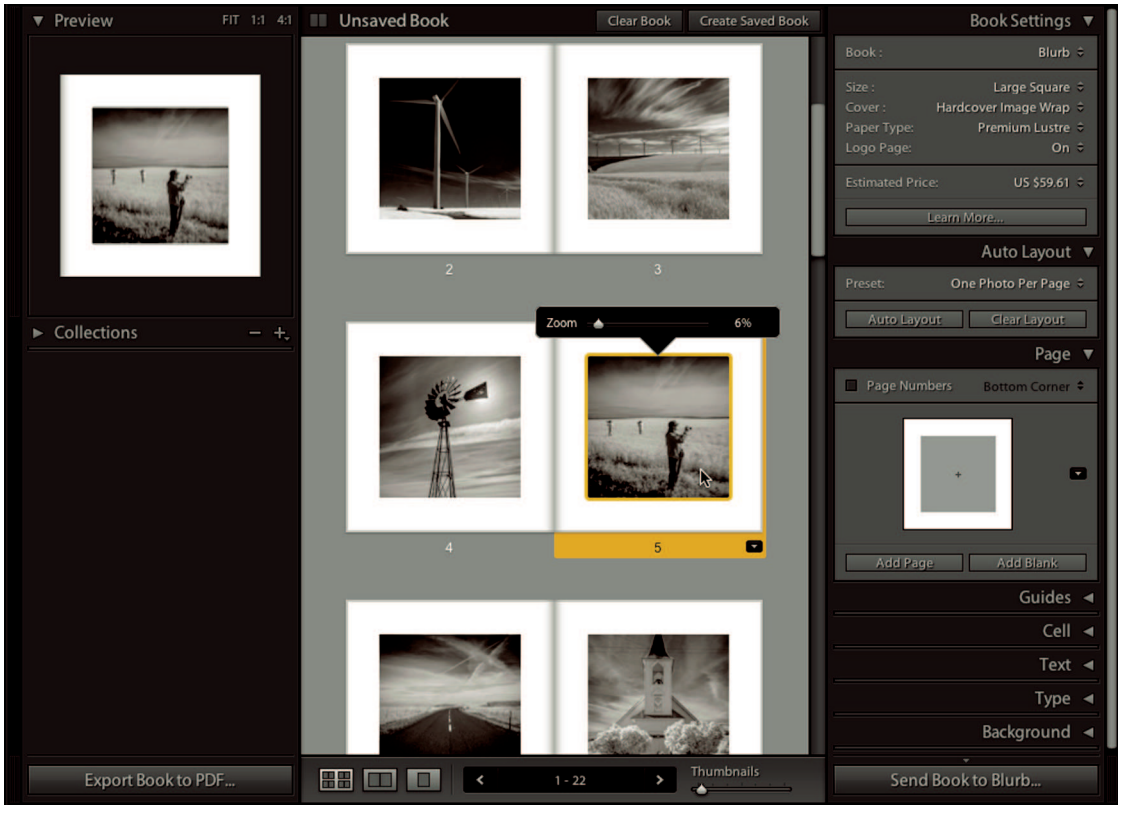


FIGURE 17-5

The Multi-Page view in the Book panel shows the layout of my photo book. Click a page to display the button for the Change Page Layout menu at the bottom right. Use the button to open the menu shown in Figure 17-6.

preview the books, which is a great way to see what works and what doesn't work with Blurb designs.

Figure 17-5 shows the Book module with a series of infrared photos I shot in the high desert of Central Oregon. The Preview panel in the upper-left shows a preview of the selected page. Three view modes in the toolbar let you view multiple pages, a single two-page spread of facing page, or a single page.

✳ TIP

You can double-click and click on pages to zoom between page views, much like clicking and zooming in the Library module.

When you select a page, the Change Page Layout menu button displays in the lower-right corner of the page. Click the button to open the menu shown in Figure 17-6. Choose one of the page sets at the top to display page templates in that set. Click a template to change the layout of the current page. There are dozens of layout options. Some layouts feature cells for text and

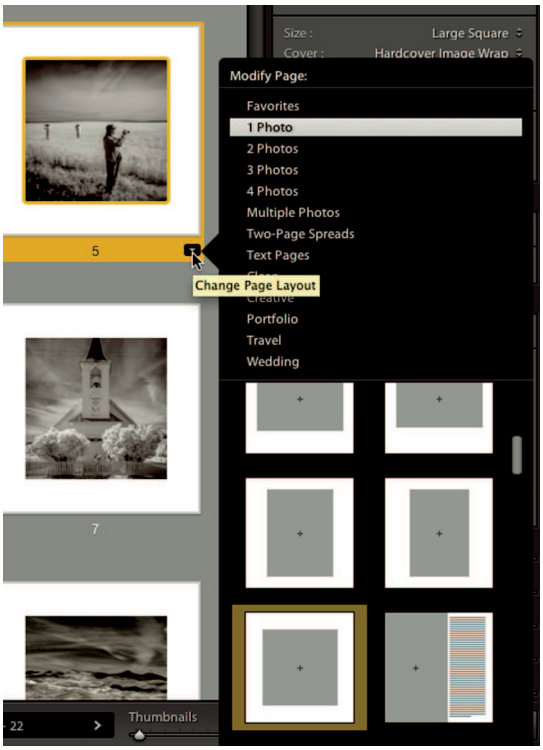


FIGURE 17-6

The Change Page Layout menu has several sets of page layouts. Use the menu to change a single page, or several selected pages together.

photos, while other have photo cells only. To change multiple page layouts, select the pages and change one. All selected pages will change to the new layout. I chose a layout with square cells, but only a few of my photos are in the square aspect ratio. I can drag photos to reposition them in their cells.

The main panels to understand in the Book module are Book Settings, Auto Layout, and Page. Take a few minutes to understand these panels before beginning your first layout.

Book Settings

The Book Settings panel is where you determine the type of book you'll be making. Use the Book menu to determine if you want to send you book directly to Blurb or to save the page layouts as PDF or JPEG files. These two file options are useful when you want to use a different book manufacturer to print your books. PDF is especially useful when you're planning to create

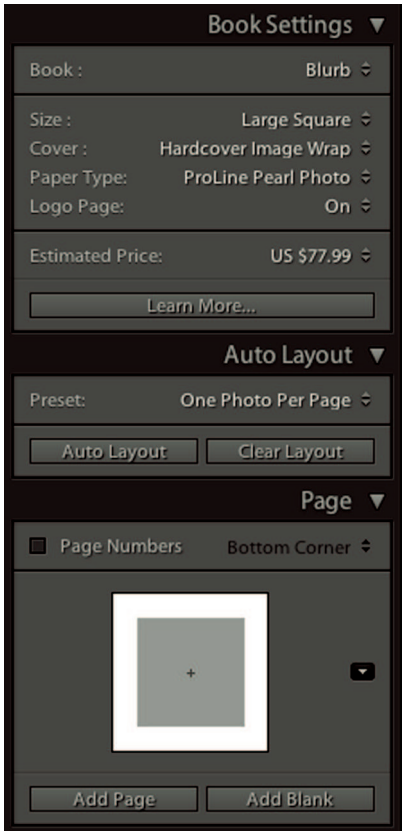


FIGURE 17-7

Book Settings, Auto Layout, and Page panels are used to determine the type of book you create and page design layouts for each page.

an e-book for somewhere other than Blurb. When you choose a file type from the Book menu, adjustments for file saving parameters are shown in the Book Settings menu.

When you choose Blurb, settings for various Blurb book styles are displayed, as shown in Figure 17-7. Use the menus to choose page size, cover style, and paper type. I suggest using the ProLine papers because they have larger color gamuts than the standard papers. Choosing On in the Logo Page menu adds a blank page with a Blurb logo to the end of your book. Choosing None removes the page, but increases the price of the book by about 15 percent. If you're connected to the Internet, you'll see the updated price in the Estimated Price menu. I like the fact that Blurb not only gives you an option about the logo, but it also rewards you for helping advertise by reducing the cost of the book.

Auto Layout

Use the Auto Layout panel's Preset menu to choose a layout style for all facing-page sets. After choosing a page preset, click the Clear Layout button and then click the Auto Layout button to modify the pages with the new layout. A popular page-layout option for photo books is Left Blank, Right One Photo. The price of the book is a little more because you use more pages, but the presentation allows the reader to concentrate on one photo at a time.

Page

The Page panel is used to layout individual pages or groups of selected pages. However, the Page Numbers option affects all pages. To add page numbers, select Page Numbers and then use the menu to choose where to place the page number on the page. The preview in the Page panel shows the layout of the currently selected page. Click the arrow button next to it to open the same Change Page Layout menu shown in Figure 17-6. Use the Add Page button to add another photo or text page. Use the Add Blank to add a blank page.

✳ TIP

When working on a complex project, be sure to save your book by clicking the Create Saved Book button at the top, by choosing Book ➪ Create Saved Book, or pressing ⌘+S or Ctrl+S.

Other panels

The rest of the panels are similar to the layout panels in the Print dialog box described in Chapter 16. Here's a quick rundown of their options:

- **Guides:** This shows guides for page bleed, safe areas where it's okay to place text, photo cell guides, and filler text that is used to indicate text boxes.

- **Cell:** The only option in this panel is Padding. Use the Amount slider to increase or decrease padding in the selected cell. Padding is the distance from the image boundary or text box to the inside edge of the cell. Increasing the value adds more room around the text or image inside the cell and makes the text box or image smaller.
- **Text:** The Text panel is used to add a caption to the currently selected photo or to the page. To add a caption, select Photo Text and then choose from the menu to add custom text or use metadata, such as file name or caption. Choose Align with Photo to make the text box fit the photo rather than the cell, which is useful when you've specified Padding in the Cell panel. Use the Alignment buttons at the bottom of the panel to choose where to position the text box and then use the Offset slider to offset the text from the image. Choose Page Text to add a caption to the page instead of, or in addition to, individual photos.
- **Type:** When using text, you have lots of formatting options. The Type panel lets you choose from all your system's installed typefaces and then set type characteristics like color, size, opacity, and character and line spacing. Use the Type panel to format any text in your book, from text boxes to captions. You can even change the characteristics of page numbers by selecting a page number text box and changing its characteristics on the Type panel.
- **Background:** The Background panel is used to add background graphics or colors. Click the arrow button to open a menu of background images. There are a few nice presets for travel and wedding books. You can also add photos as backgrounds. Choose to add backgrounds to individual pages or choose Apply Background Globally to affect all pages.

After the book is laid out and you've saved your design, click Send Book to Blurb to place your book order. If you designed a book for a different manufacturer, click the Export Book to PDF button on the left side.

✳ TIP

Photos look different in books than they do onscreen. Begin with a small book to get a feel for how your images will look. If you plan to order several copies of your new book, get one copy first to see if you need to make any changes before ordering the rest of your copies.

Creating Slideshows

The Slideshow module is used to create slideshows that can be shown in Lightroom or exported as video files to display online or on computers and TVs. The Slideshow module isn't as fully featured as most dedicated slideshow programs, but it is possible to quickly create a very nice slideshow.

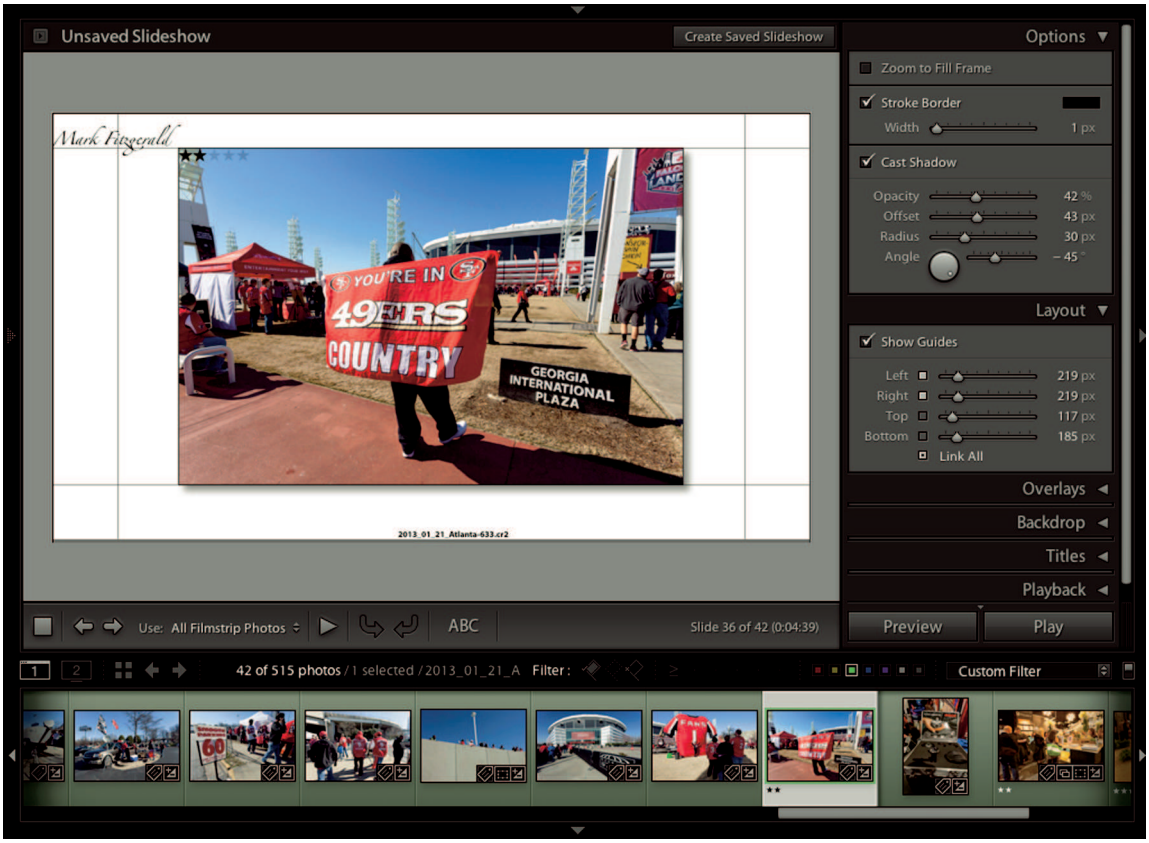


FIGURE 17-8

The Slideshow module is used to design simple slideshows. The left panel set is collapsed so you can better see the layout. Notice the identity plate in the upper-left and the small writing in the bottom-center of the slide. I show you how to manage these using the Overlays and Titles panels.

✳ NOTE

Lightroom 5 added the ability to combine video with stills when making a slideshow.

In January 2013, I was in Atlanta for the ImagingUSA convention. It just so happened that on the same weekend the Atlanta Falcons were playing the San Francisco 49ers in an NFL playoff game to determine who was going to the Super Bowl. The stadium was right next door to the convention, so we went to check out one of the most epic tailgate parties I've ever seen. When I got home, I put together a slideshow to share with West Coast friends who are 49er fans. Figure 17-8 shows the Slideshow module with my photos. The left panel set with the Preview, Template Browser, and Collections panels is collapsed. These panels are the same as the left panels in the Print module. When you hover the pointer over a template, it's previewed in the Preview panel.

The central area shows the current layout for all slides. The panels on the right are used to customize the layout and control the slideshow timing. Keep in mind that panel adjustments affect all slides. For example, when I changed the background color to white, the backgrounds on all slides were changed to white.

✳ TIP

Begin designing a slideshow by choosing a template from the Template Browser and then use the panels on the right to customize it until you have the type of slideshow you want.

Options

There are three main settings in the Options panel. Use them to establish a basic look for your slideshow. The options are:

- **Zoom to Fill Frame:** Choosing this option causes the photo to fill the image cell. If the photo's aspect ratio is different from the cell, part of the image will not be visible.
- **Stroke Border:** This adds a stroked border to every image. Use the color swatch to change the color of the stroke.
- **Cast Shadow:** Choosing this option adds a drop shadow beneath each slide. If the slide background is dark, the shadow isn't visible. Background color is changed using the Backdrop panel. If you choose a lighter background color, revisit Cast Shadow and use the sliders to adjust the shadow to your liking.

Choose an option and then use the other panels to fine-tune the slideshow.

Layout

The Layout panel controls the margins that ultimately determine the image cell size. Use the sliders to adjust the margins of the sides, top, and bottom. When Link All is selected, moving one slider moves the others proportionally. You can link two by checking the boxes next to them, as I did with the Left and Right in Figure 17-8, to move them together. Uncheck Link All and increase the value of the Bottom slider if you want to leave space for a caption.

Overlays

The Overlays panel, shown in Figure 17-9, controls various types of overlay information shown on the slides. It has four sections used to control different types of overlays.

- **Identity Plate:** The Identity Plate area is similar to the Identity Plate section of the Print module's Page panel. When I chose the Default + slideshow template to begin my layout, the Identity Plate option was selected as part of that preset. You can see it as my name in

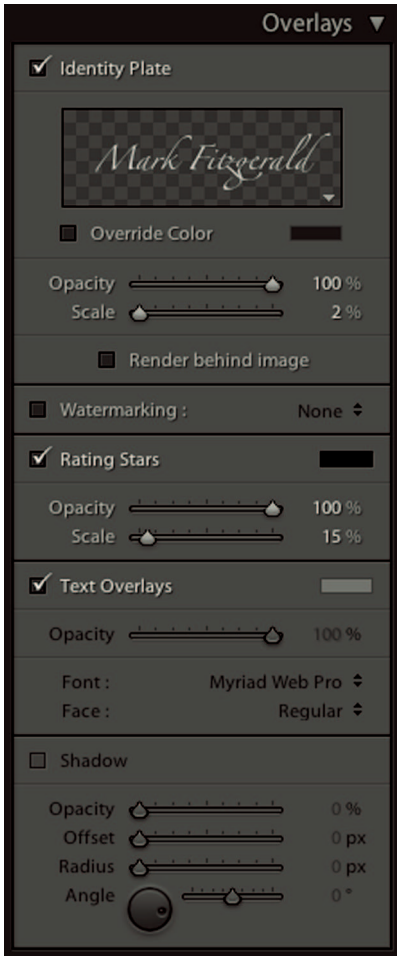


FIGURE 17-9

Use the Overlays panel to control the different types of overlays available for slideshows.

Figure 17-8 in the upper-left of the image area. I can click the Identity Plate box in the Overlays panel to customize the identity plate for this specific show, or I can deselect it which I usually do. I don't like having lots of type between the viewer and the image, so I don't use identity plates on slideshows.

- **Watermarking:** Choose to add one of your custom watermarks to each slide. I prefer not to do this because it isn't necessary in a slideshow. If the slideshow leaves my possession, as when I upload one to YouTube, I add my branding to the show using the Titles panel.
- **Rating Stars:** This option was also selected when I chose the Default + template. It adds an overlay at the top left of the image area indicating how many rating stars are applied to the current photo. This option is useful when using a slideshow for a client

presentation because the client can see which photos are your picks. You can also use the usual keyboard shortcuts for rating stars (covered in Chapter 4) to change star ratings during the slideshow when viewing it in Lightroom. That way if the client really likes one of the photos, you can press the 3 key to give it a three-star rating during the show.

- **Text Overlays:** I show you how to add text overlays later in this section. The Text Overlays panel lets you modify type opacity, type font and face, and add a drop shadow behind the type in a text overlay. This section is grayed-out until you add a new text overlay or select an existing text overlay.

Keep in mind that all changes in the Overlays panel, just like the Options and Layout panels, affect all slides.

Backdrop

The Backdrop panel is used to control the background area behind the slides. You have three options.

- **Color Wash:** Choose a color to combine with the Background color to create a wash from one color to the other. This option is turned on with the Default + template, but the Color Wash color and the Background color are both black so the effect is unseen. Click the color swatch to change the color so you can see the effect.
- **Background Image:** Use this to add an image that displays behind all slides. I can see the usefulness for this with a specially designed logo background image, but not for photos. I've never used this option.
- **Background Color:** If you want a solid background color, deselect Color Wash and then choose a Background color by clicking on the color swatch.

My personal preference with slideshows is to keep the background simple by choosing a neutral color, such as black, dark gray, or white.

Titles

Lightroom doesn't have the ability to insert text slides inside the slideshow. But you can use the Titles panel to create custom opening and closing slides, which are a great way of branding the slideshow and yourself. Each title slide has an Identity plate area that enables you to customize the identity plates on each title slide. To see the type on the title slides, drag the Scale slider. The title slide displays for a moment after you release the mouse and then the view goes back to the regular Slideshow view. The default Scale value is 10%, so be sure to increase the Scale values to make the size of the type appropriate.

I suggest taking advantage of the Intro and Ending Screen options to personalize your slideshows. Use the Intro Screen to introduce the show or welcome the people who are viewing

it. Then use the Ending Screen to thank the viewers and remind them of who you are by showing your name and contact information.

Playback

The Playback panel, shown in Figure 17-10, is used to add music and control playback features of the slideshow. To add music, select Audio and then click Select Music to locate music on your hard drive. Use the Fit to Music option to adjust slideshow timing to fit the length of the song. Use the Audio Balance slider when combining video with photos in your slideshow to balance the music with audio from the video. Then use the other sections to setup slideshow playback.

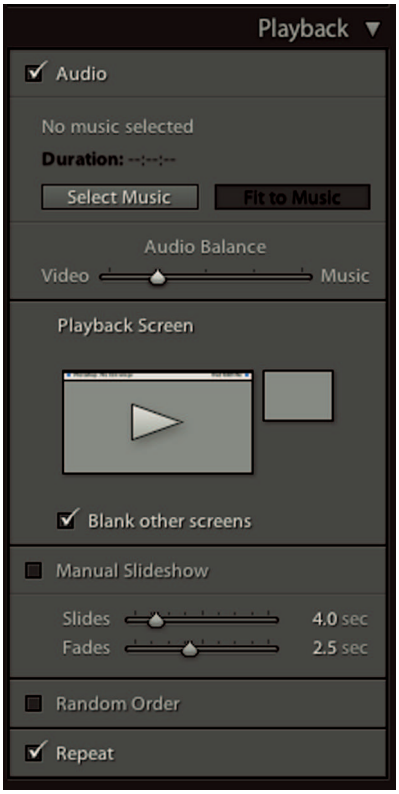


FIGURE 17-10

Use the Playback panel to control music and timing. If you use multiple displays, you can choose which screen to show the slideshow on.

FIGURE 17-11

When adding a text overlay, the Custom Text option lets you type information into the text box to display on every slide. Use the menu to display metadata specific to each slide.

✳ CAUTION

Remember that most commercial music is copyrighted. Just as we photographers don't want musicians misappropriating our images, we should also be respectful of musicians' rights. If you use music in your slideshow, be sure to use royalty-free music or get permission from the musician.

- **Playback Screen:** When using multiple monitors, you have the choice of which screen to display the slideshow on. This is useful when using a projector or large screen for client viewing.
- **Manual Slideshow:** When this is selected, you use the right arrow key or a mouse click to manually advance to the next slide. When Manual Slideshow is deselected, use the Slides slider to control the duration of each slide. Then use the Fades slider to control the amount of time the fade takes to transition from the current slide to the next one. Unfortunately, fade is the only transition available in Lightroom's Slideshow module.
- **Random Order:** This shows slides in random order. This can be great when showing a large number of slides as background at a party.
- **Repeat:** Select this to cause the slideshow to begin playing again every time it completes.

Adding custom text

One of the trickier things with slideshows is adding text. The Overlays panel has text options, but the method for adding text isn't obvious because it isn't in the Overlays panel. It's in the toolbar. Click the Add Text to Slide button (the ABC icon) in the toolbar to display a menu and text box next to it, as shown in the left image of Figure 17-11. The default menu

setting is Custom Text. You can add custom text to every slide by typing in the text box. However, your custom text is added to every slide.

To add information specific to each slide, choose a metadata field from the Add Text to Slide menu shown in the right image of Figure 17-11. In Figure 17-8, the filename is visible at the bottom of the slide. This overlay was added as part of the Default + template I used to begin my design. Because the type is black, it wasn't visible until I used the Backdrops panel to change the background color. Click a type overlay to select it. Drag a corner handle on the overlay to resize the text. Then use the adjustments in the Text Overlays section of the Overlays panel to change font, face, opacity, color, and add a drop shadow. You can add multiple text overlays to a slideshow. If you want to delete one, select it and press the Delete or Backspace.

✳ TIP

The default text color in new overlays is white. If you have a white background, you won't be able to see the text until you change the Text Overlays color in the Overlays panel.

When I chose Caption from the text overlay menu, a large text overlay with displaying metadata from the photo's Caption field was added to the lower-left corner of the slide. In Figure 17-12, I'm dragging the text box to the bottom center of the image. The text box automatically anchors to different parts of the slide as you drag it. In Figure 17-12, the anchor snaps to the bottom-center as I drag it. Anchoring the overlay keeps the text box in the same relative position on every slide. When the text box is in place, I adjust the size and use the Text Overlays section of the Overlays panel to adjust the font, color, and opacity of the type.

Be sure to save your slideshow by choosing Slideshow ➪ Create Saved Slideshow or by clicking the Create Saved Slideshow button at the top-right. When the Create Slideshow dialog

FIGURE 17-12

New text overlays are anchored to the bottom-left corner of the slide. Drag an overlay to reposition it and anchor it to a different area of the slide. Here, I'm choosing to anchor it to the bottom-center of the slide.

box opens, use it to name the slideshow and determine if you want to save it in a collection. In the future, when you're ready to edit the slideshow, choose it from the Collections panel to continue working on your design. Lightroom automatically updates changes to the saved slideshow. The saved slideshow's icon has a graphic of a play button with a triangular arrow on it.

✳ TIP

If you think you'll use the layout for other slideshows, be sure to save the design template in the User Templates in the Templates panel.

Playing and saving your slideshow

Use the Preview button to show a quick preview in the main viewing area. Click the Play button to play the slideshow. When you do, the Preparing Slideshow dialog box opens with a status bar indicating that it's processing and preparing the files for the slideshow. Doing so is a good idea because the slideshow runs more smoothly after it begins if it's rendered first.

✳ TIP

You can pause a slideshow by pressing the spacebar. Press the spacebar again to resume play. Manually advance and back up using the right and left arrows on your keyboard. Press the Esc key to stop the slideshow at any time.

The best way to show a slideshow is to play it from Lightroom's Slideshow module. But sometimes that isn't an option. Lightroom provides two methods for saving your slideshow in file formats you can share. The first method is to save it as a PDF slideshow by clicking the Export PDF button. This opens the Export Slideshow to PDF dialog box that lets you choose where to save the slideshow, as well as size and quality settings for the PDF file. PDF slideshows in Lightroom are a bit lame. You can't save music and PDF slideshows don't support adjustable transition speeds.

A much better way to save a slideshow is to click the Export Video button, which opens the Export Slideshow to Video dialog box. The lower section of the dialog box has the Video Preset menu shown in Figure 17-13. When you choose a setting, a description is displayed below it with suggestions for best uses. Sizes range from small 480 pixels by 270 pixels for mobile devices to 1080p for HD video that can be shown on a computer or TV. Keep in mind that larger sizes create much bigger files. Choose the appropriate size and click Export to create a video slideshow that's ready for sharing.

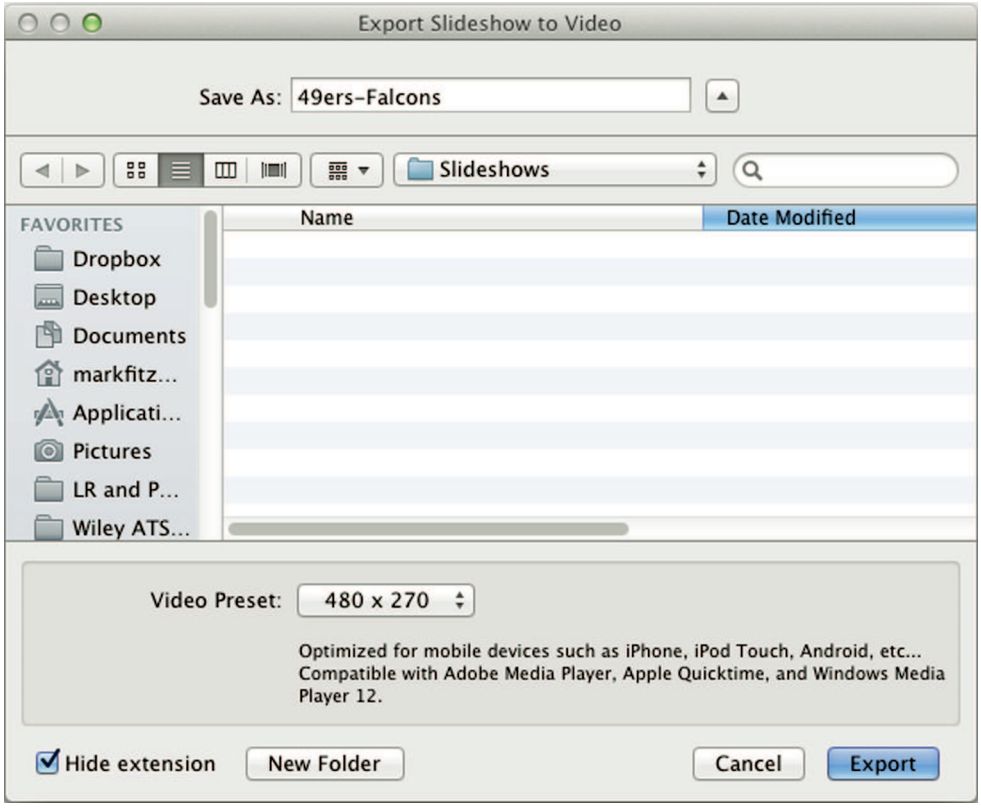


FIGURE 17-13

Use the Video Preset menu in the Export Slideshow to Video dialog box to choose the best size for the video file.

Building Web Galleries

Lightroom's Web module provides you with everything you need to create and upload web galleries that can be viewed by anyone. I use web galleries as one of my main methods for sharing photos from a new shoot. To get the best use from the Web module, it's necessary to have a place on the web to upload the galleries to, such as a personal or professional website.

Flash galleries versus HTML galleries

Figure 17-14 shows the Web module. The layout is similar to the Print and Slideshow modules. I have the panel set on the left with Preview, Template Browser, and Collections panels collapsed to help you see the web gallery layout. The Template browser has many templates to choose from. When you hover the pointer over one, a preview is displayed in the Preview panel. Choose one and then use the design panels on the right to fine-tune your design.

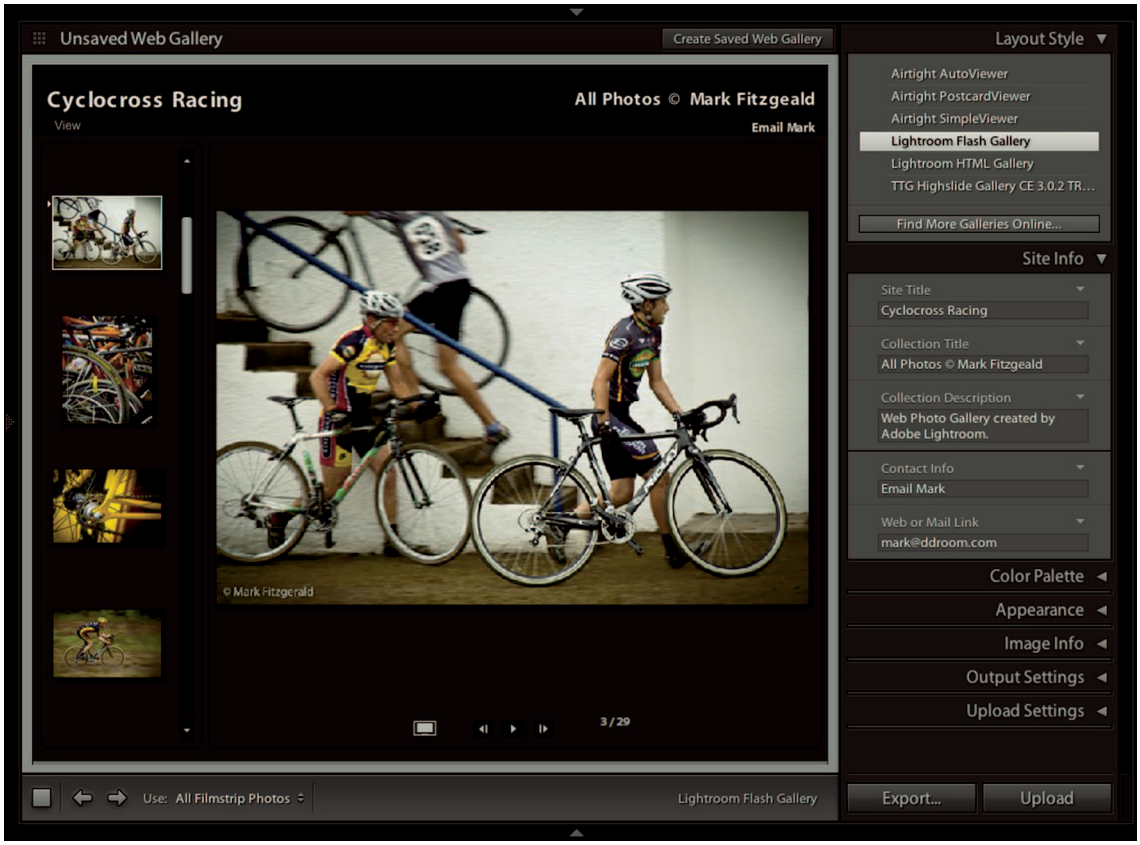


FIGURE 17-14

The Web module lets you create Flash and HTML web galleries. The panel set on the left is collapsed in this view to better show the Web module.

Although the templates offer a range of layout options, they come in two distinct styles: HTML and Flash. Templates are identified in the Preview panel with an "F" appearing in the lower left of the preview for Flash layouts and "HTML" for HTML layouts. It's important to understand the difference in how these two programing languages affect web galleries:

- **HTML:** The acronym stands for Hypertext Markup Language. HTML is the main programming language used for website construction. In the early days almost all websites were created using HTML code. Many websites still use it.
- **Flash:** Adobe Flash is one of the newer programming languages that has lots of power and more layout flexibility. It's useful for websites with images because it allows animation and a slicker design. A Flash plugin for your browser is required for viewing Flash web content; most mobile devices cannot display Flash content.

The choice between HTML and Flash is about more than animation and layout options. Apple decided some years back to block Flash content from their mobile devices because of

concerns over security issues with Flash. Because of that, Flash galleries can't be viewed on iPhones and iPads. Flash support has also been removed from Google's Android, and has limited support in Microsoft's Windows phones and tablets. HTML galleries work just fine on mobile devices and don't require a plugin. But there's a downside to HTML: Anyone can easily copy a photo from an HTML gallery by right-clicking it and choosing to save it. Swiping photos from a Flash gallery isn't as easy. In fact the only real way to do so is to do a screen capture, which is low quality.

You need to decide if you want to use Flash or HTML when you begin designing your web gallery because the contents of the design panels are contextual to the style of website you're building. When you choose a preset from the Templates panel, the Layout Style panel is set to the appropriate setting: Lightroom Flash Gallery or Lightroom HTML Gallery. Then settings for the template are loaded into the remaining design panels. You can switch between Flash and HTML using the Layout Style panel, or you can try one of the special layout styles from Airtight or the TTG Highslide Gallery, which is a more sophisticated gallery layout using a gallery plugin from the Turning Gate (http://theturninggate.net). The Turning Gate (TTG) specializes in Lightroom plugins for building web galleries. You can even use some of the TTG plugins to build a complete photographer's website using Lightroom.

Site Info

The Site Info panel, shown in Figure 17-14, is used to add information to the header area of the web gallery. Edit the Site Title to change the name displayed at the top-left. The site title is also shown in the title bar of the web page when it's displayed in a web browser. Edit the Collection Title to display information about the photos or yourself. I usually use the Site Title to name the gallery. Then I use the Collection title to add a copyright notice that says, "All Photos © Mark Fitzgerald." The Collection Description is displayed when the web gallery viewer clicks the View button, located below the Site Title in the web gallery. You can edit it to say something about the web gallery as a whole, leave the Adobe blurb, or delete the default text and leave it blank.

The Contact Info section is used to add an e-mail address or link to a website so visitors can contact you or see more of your work. Type your name in the Contact Info text box and then add your e-mail address to the Web or Mail Link text box. The HTML version of the Site Info panel has an Identity Plate section with the option of adding a link to the identity plate as well.

Color Palette

The Color Palette panel, also shown in Figure 17-15, is used to change the color of various design elements, such as text and background. Click the swatches to open the Color Picker for

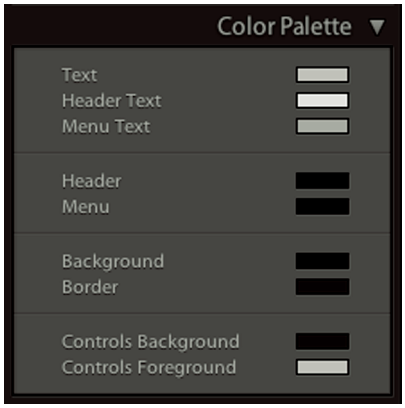


FIGURE 17-15

The Color Palette panel for a Flash gallery enables you to change the color of various design elements. Options in the HTML version of the Color Palette panel are similar.

each element. The Flash and HTML options are similar to one another, though they work with different design elements.

Appearance

The left image in Figure 17-16 shows the Appearance panel for Flash galleries. Use the Layout menu to determine where to position the thumbnails. I prefer Left to place the thumbnails on the left side instead of Scrolling, which places them on the bottom of the screen, because Left provides more screen real estate for vertical images. Use the sizing options at the bottom of the panel to determine the size of the gallery thumbnails and full-size images.

The right image in Figure 17-16 shows the Appearance panel for HTML galleries. Use the upper section to add drop shadows behind large photos and borders to the thumbnail grid. Click on the Grid Pages chart to determine the layout of the thumbnail grid. In Figure 17-16, it's set to a 3 × 3 grid. Use the Image Pages Size slider to control the size of the large photos that display when a thumbnail is clicked. Keep in mind that it's easy for someone to right-click and steal your photos on an HTML website, so don't go too large. I suggest limiting the size to 800 pixels. Choosing Photo Borders adds a border around the large photos. Use the color swatch and Width slider to control the color and size of the border.

Image Info

The Image Info panel is shown in Figure 17-17. Select Title or Caption to display metadata information when large photos display. Use the menus beside each option to display other metadata information instead of title or caption, or deselect the options to create a cleaner

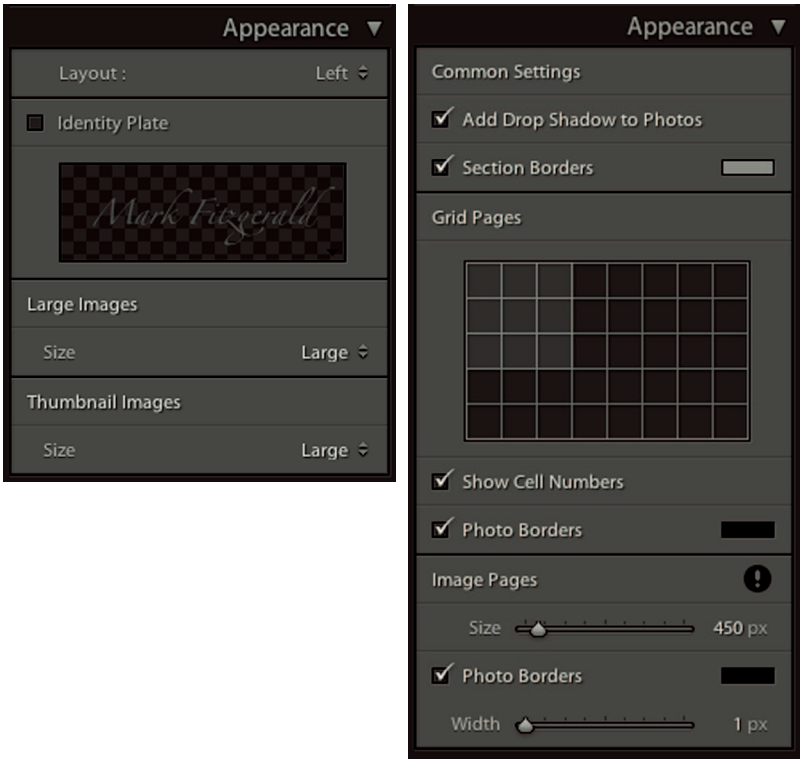


FIGURE 17-16

The Appearance panel is different for Flash and HTML galleries. The left image shows the Flash version, while the right image shows the HTML version.

gallery with fewer distractions. The Image Info panel is the same in both Flash and HTML layouts.

Output Settings

The Output Settings dialog box is also identical in both Flash and HTML layouts. Use the Quality Slider to determine the JPEG quality level of the large images. If you're creating an HTML gallery, keep the Quality level around 60 to help reduce the quality of files in case they are stolen. The medium quality won't be evident onscreen but will make a difference if someone tries to reproduce a copied file from your website. You can use higher quality levels for Flash galleries, but if your gallery has lots of images, it's best to limit Quality to around 75 to help with image-loading times. Use the other settings in the Output Settings panel to add your watermark and to apply output sharpening. I suggest you begin with Standard sharpening and then evaluate your photos after you upload them.

FIGURE 17-17

The Image Info panel is used to add text overlays to large photos. These overlays can't be repositioned as they can in the Slideshow module. The Output settings panel is used to control image sizes, watermarking, and output sharpening.

Upload Settings

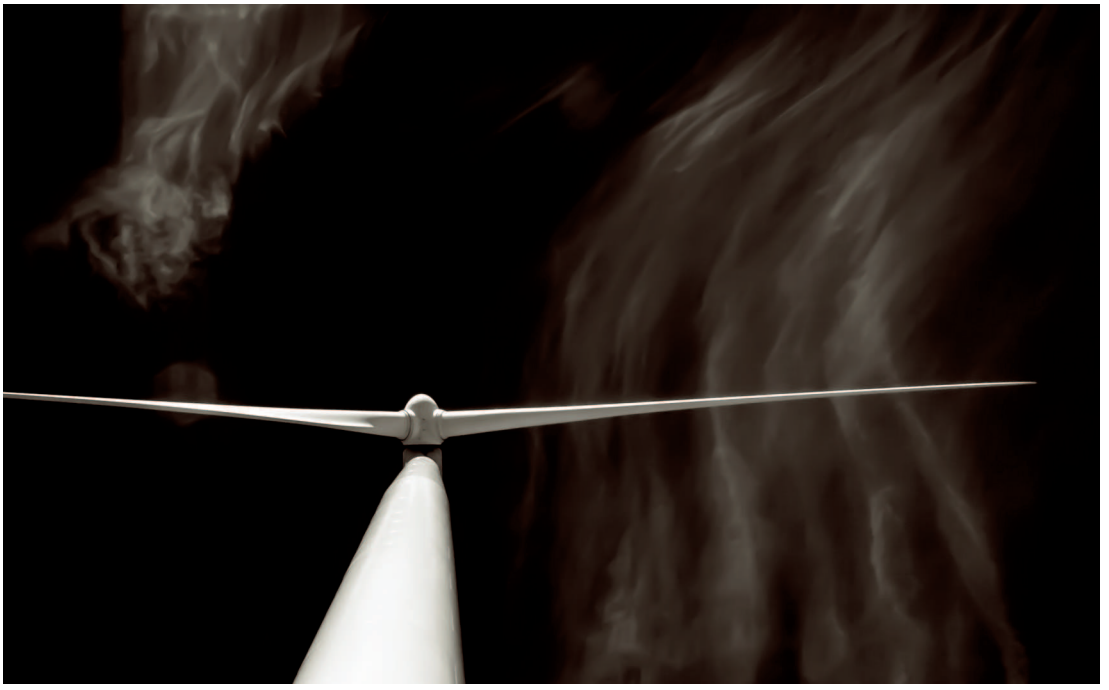
The Upload Settings panel is used to configure Lightroom to upload directly to your website. It's a very nice feature that eliminates the need for an external FTP (File Transfer Protocol) program for uploading web galleries. Choose Edit from the FTP Server menu to open the Configure FTP File Transfer dialog box. You need to know the server address as well as your username and password for the website you're uploading to. You can indicate a server path to a particular folder on your website. I upload all my web galleries to a folder named Web_Galleries that resides on my website, so I add this folder name as the Server Path. When I upload, I specify a subfolder for the gallery by choosing Put in Subfolder and typing a name into the text box. If the folder isn't already in my Web_Galleries folder, Lightroom creates one for me when it uploads the web gallery.

When everything is configured, click Upload to begin the process. It takes a few minutes, depending on your connection speed. After the gallery is uploaded, it's necessary to go to your website and add a link to the gallery if you want the world to be able to find it. Or you can simply send a link to your friends so they can go directly to it without needing an external link.

Some websites don't play well with Lightroom's upload feature. If that happens to you, choose Export instead of Upload. Lightroom exports all folders and files necessary to build the website and saves them in the location of your choice. This is a great way to share a website with someone who doesn't have Internet or has a slow connection. I had a student whose son was

deployed in the Middle East with the military. She wanted to send a web gallery of family photos to him. He had a laptop, but the forward operating base where he was stationed had a very slow Internet connection for personal use. My student exported the web gallery to her desktop and burned it to a DVD, which she sent to her son.

There are numerous ways to share your photos. So get out there and start shooting. Take the time to learn Lightroom's powerful editing tools and then find your favorite ways to share your growth process with friends and family.



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