## THE ADOBE PHOTOSHOP LIGHTROOM 3 BOOK

#### The Complete Guide for Photographers

Martin Evening

# The Adobe<sup>®</sup> Photoshop<sup>®</sup> Lightroom<sup>®</sup> 3 Book

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Martin Evening

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## Introduction

Work on the Adobe Photoshop Lightroom program began toward the end of 2003 when a small group of Adobe people, headed by Mark Hamburg, met up at photographer Jeff Schewe's studio in Chicago to discuss a new approach to raw image editing and image management. What would it take to meet the specific needs of those photographers who were now starting to shoot digitally? More specifically, what would be the best way to help photographers manage their ever-growing libraries of images? It was shortly after this that I was invited to join an early group of alpha testers and help work out what sort of program Lightroom (or Shadowland as it was known then) should become. As we began to discuss our different digital photography workflows, it became increasingly obvious why we needed a better way to manage and process our digital photos. Lightroom underwent some pretty major changes in those early stages as the team tried out different workflow ideas, but eventually we ended up with the Lightroom program you see now.

The Adobe Photoshop Lightroom 3 Book represents the culmination of over five years' work, in which I have worked actively with the Lightroom team. Basically, this book is intended to be the ultimate reference guide to Lightroom and is designed to help you get the maximum benefit out of the program. In writing this book, I have had in mind both amateur and professional photographers and have aimed to provide what I believe is the most detailed book ever on this subject. At the same time, I have wanted to make sure that equal space was given to explaining some of the fundamental aspects of digital imaging, such as white balance and exposure. The feedback I have received on previous editions of this book have all been encouraging. It seems that the newbies to Lightroom have found it easy to access and understand all the basics, while the advanced professional users have appreciated all the background detail that's provided. I have to confess that when I first started work on this project, I never imagined the book would end up being over 670 pages in length. Mark Hamburg recently joked that he must have failed in his mission to make Lightroom "unreasonably simple", if you needed a book as thick as mine in order to understand it!

So many changes have taken place since Lightroom 1.0 was released. As a result, not only has the book ended up being a lot bigger, but I have also had to rewrite almost everything that was in the original edition. Although there aren't quite so many major new features in this latest version of Lightroom, there are actually a lot of smaller, less obvious changes that deserve close attention, all of which have been documented here. Then there are the technological changes in hardware and the latest operating systems that have had to be taken into account. As always, I suggest you approach the *Adobe Photoshop Lightroom 3 Book* by reading it in chapter order, starting with Chapter 1: Introducing Photoshop Lightroom, which shows a typical studio photo shoot workflow. This is just one of the ways you can integrate Lightroom into a photography workflow, and it provides you with a good overview of what Lightroom can do.

The Lightroom catalog is a major feature of the program, which is why I have devoted almost 200 pages of the book to providing in-depth advice on how to work with the Library module, including how to import photos and manage your photos better through the use of keywords and metadata. An equal amount of space has been devoted to providing the lowdown on how to make use of all the Develop module controls. Here, I have included some great picture examples, which show how Lightroom can help you unleash your creativity.

www.thelightroombook.com

This edition of the book has a companion Web site: www.thelightroombook.com. The site contains additional resource material in the form of Lightroom movie tutorials, a few sample images, templates and PDF downloads, plus breaking news on new Lightroom features.

Overall, I am still as excited about Lightroom as I was at the beginning of the program's development, and I hope the book provides the inspiration and insight to help you get the most out of the program, too.

Martin Evening, May 2010

## Acknowledgments

I would like to thank my editor, Pamela Pfiffner, for prompting me to get started on this project and for her advice and help during the planning stage of this book. For this particular edition, Rebecca Gulick project-managed the book and has, once again, done an excellent job of making sure everything went smoothly. Other members of the publishing team included the Production Editor, Hilal Sala; Copyeditor, Elle Yoko Suzuki; Proofreader, Elizabeth Kuball; Indexer, James Minkin; and additional compositing and corrections by David Van Ness. I would also like to thank Charlene Charles-Will for her work on the cover and interior design, as well as Damon Hampson, who works on the marketing.

Lightroom is really the brainchild of Mark Hamburg, without whom none of this would have happened. Since Lightroom was developed, I have been helped a lot by the various Lightroom engineers and other members of the team. It is all thanks to them that I have managed to gather the background technical knowledge required to write this book. In particular, I would like to thank Thomas Knoll, Zalman Stern and Eric Chan (who worked on the Camera Raw engineering), as well as Lightroom engineers Troy Gaul, Melissa Gaul, Tim Gogolin, Seetha Narayanan, Eric Scouten, Kevin Tieskoetter, Andrew Rahn, Daniel Tull, Phil Clevenger (who designed the Lightroom interface), and Andrei Herasimchuck (who helped guide Lightroom through the early stages). I would also like to thank product manager Tom Hogarty, product evangelists Bryan O'Neil Hughes and Julieanne Kost, as well as previous product evangelist George Jardine for the support and help they have given me. I would especially like to thank Ian Lyons, who tech-edited the book. Thank you, Ian, for clarifying all the many technical

points and providing additional insights. Thanks, too, go to Sean McCormack who provided me with valuable feedback and assistance.

A number of photographic shoots have been carried out specifically for this book. I would like to thank the models, Lucy at Bookings, Sofia at MOT, and Yuliya and Kelly from Zone; Camilla Pascucci for makeup; Terry Calvert and James Pearce for hair; Harriet Cotterill for the clothes styling; Stuart Weston and Neil Soni for the use of their studios; and Harry Dutton for assisting me. Also a big thank-you to Jeff Schewe and George Jardine for documenting the shoots with stills and video.

It has been an interesting experience to see a new program emerge from scratch and has been a pleasure to share the development process in the company of a great group of alpha testers and fellow authors, all of whom were willing to share their knowledge about the program with each another. From this group, I would most like to pay tribute to some of the fellow testers: John Beardsworth, Matthew Campagna, Richard Earney, Katrin Eismann, Jeffrey Friedl, Peter Krogh, Karl Lang, Seth Resnick, Andrew Rodney, Jeff Schewe, and last but not least, the mighty John Hollenberg, who at times it seemed, managed to report every bug going in Lightroom! You will notice that this book is dedicated to the memory of Bruce Fraser who sadly passed away in December 2006. Bruce was one of the original core group of Lightroom alpha testers who helped shaped the program. The Lightroom capture and output sharpening are both based on Bruce's original work on Photoshop sharpening techniques. Bruce was a true genius and is deeply missed by all those who knew and worked with him.

A book like this would be rather boring to read without having some decent photographs to illustrate it with. I supplemented my own photography with that of George Jardine, Sean McCormack, Eric Richmond, and Jeff Schewe, all of whom are credited throughout the book and all of whom I would like to thank. And lastly, I would like to thank my wife, Camilla, and daughter, Angelica, for yet again being so understanding and patient while I was glued to the computer!

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Photograph: Monument Valley, Utah © 2009 Martin Evening Canon EOS 1Ds Mk III | 130 mm | 200 ISO | f/8 @ 1/400th

# Managing photos in the Library module

How to use the metadata tools in Lightroom to manage your catalogs

Lightroom is designed to help you organize and catalog your images from the very first moment you import them. From there on, Lightroom provides a flexible system of file management that can free you from the rigid process of having to organize your images within system folders. Although Lightroom does still let you manage your photos by folders, it can also manage your images globally by letting you use metadata to filter your image selections.

A good example of how such a system works is to look at the way music files are managed on an iPod or by using iTunes. If you are familiar with importing music via iTunes, you know that it doesn't really matter which folders the MP3 files are stored in, so long as iTunes knows where all your music files are located. When you select a track to play on an iPod, you use metadata, such as the song title, album title, or genre to search for the music. Lightroom works in exactly the same way by encouraging you to add keywords and other metadata to your images either at the time of import or as you edit them in the Library module. Through the use of custom metadata and keywords, you can make image searching just as fast and easy as locating music on your iPod.

# Working with metadata

With a folder-based organizational system, your file searching success will depend on your ability to memorize the folder structure of the hard drive and know where everything is stored. Anyone who is responsible for maintaining a large image archive will already be aware that this method of file management can soon become unwieldy. What is needed is a cataloging program that can help you keep track of everything. Therefore, the trend these days is to use file management by metadata, where you search for a file by searching its attributes instead of trying to remember which folders you put the pictures in.

As an image library grows, you will come to rely on the Lightroom Filter bar and Filmstrip filters to narrow selections of images. Some examples have already been given, such as the use of the Filmstrip filter to narrow a selection of photos and view only those images with ratings of 1 star or higher, 2-star images only, and so on. We have also looked at how to use the Folders panel to manage the image library. But the real power behind Lightroom is the database engine, which enables you to carry out specific searches and quickly help you find the photos you are looking for.

It is in no way mandatory that you follow all of the advice offered in this chapter, as each person will have his or her own particular image management requirements. You may, indeed, find that you just want to use the Folders panel to catalog your library images and that is enough to satisfy your needs. But one of the key things you will learn in this chapter is that the time invested in cataloging an image collection can pay huge dividends in terms of the time saved when tracking down those pictures later. The image management tools in Lightroom are far from being a complete asset management solution, but they do offer something for nearly everyone. Some people may find the cataloging tools in Lightroom insufficient. But even so, the data you input via Lightroom will be fully accessible in other image asset management programs.

## The different types of metadata

Metadata is usually described as being data about data that is used to help categorize information. For example, a typical cable TV system will allow you to search for movies in a variety of ways. You can probably search for a movie title using the standard A–Z listing, but you can also search by genre, release date, or even director. Lightroom also lets you organize your image files by metadata. For example, you can sort through images in various ways: by folder name, image rating, or favorite collections. By using the metadata information that is linked or embedded in the catalog photos, Lightroom is able to quickly search the database to help you find what you are looking for. This method of searching is far superior to searching by folder location or filename alone.

As I explained earlier, the way Lightroom uses metadata is fairly similar to the way a program like iTunes categorizes your music collection. For example, when you search for a music track on an MP3 player such as an iPod, instead of searching for specific tracks by opening named folders, you search for them using the metadata information that's embedded in the individual music files. In the case of MP3 files, when you buy a music track the necessary metadata information will already be embedded. But you can also use iTunes to automatically locate the metadata information for newly imported music CDs via an online database, or you can use iTunes to manually add or edit the tracks yourself.

The metadata used in Lightroom falls into several types. One type is informational metadata, such as the EXIF metadata that tells you things like which camera was used to take a photograph, along with other technical information such as the lens settings and image file type. In the case of Lightroom, most of the catalog information will have to be added manually by the person who took the photographs. Custom metadata is, therefore, information the user adds manually, such as who is in the photograph, where it was taken, how to contact the creator of the photograph, and the rights usages allowed. Another type of custom metadata is keywords, which again you have to enter manually. Keywords can be used to categorize the photos in your catalog, and if you are skilled at keywording, this can help you manage your photos extremely efficiently, as well as improve sales if you are in the business of supplying photos to an agency.

It is true that you will need to spend time entering all this metadata information (although there are various tips coming up in this chapter that show you how to avoid repetitively entering this data for every single image). But the trade-off is that the time invested in cataloging your images in the early stages will reap rewards later in the time saved retrieving your files. In most cases, you need to configure essential metadata only once to create a custom metadata template. You can then apply this bulk metadata automatically to a set of imported photos. You can take metadata cataloging further and assign custom metadata information to individual images. It really depends on whether this is important for the type of work you do. Basically, the effort spent adding metadata should always be proportional to how useful that information will be later.

There is a lot of detailed content coming up in this chapter about how to apply, edit, and use metadata. I thought, therefore, that the best way to introduce this subject would be to provide first a quick example of how metadata can be used to carry out a search of the Lightroom catalog.

#### NOTE

Remember, there can only be one physical copy of each image in the catalog, and a catalog image can only ever exist in one folder (or else it's unclassified).

# A quick image search using metadata

One of the key features in Lightroom is the Filter bar, which can be accessed at the top of the content area whenever you are in the Library Grid view mode. The Filter bar combines text search, file attribute, and metadata search functionality all in one. The following steps suggest just one of the ways you can use a metadata filter search to find photos quickly and save a filter search as a permanent collection. We'll be looking at keywords and collections later in this chapter, but for now let's run through a typical image search procedure and thereby demonstrate the usefulness of tagging your photos with keywords.



1. Let me begin by showing how you can search for photos quickly, without needing to refer to the folders that the images are stored in. In the example shown here, I wanted to search for photos taken in a town in Spain. Now let's say that I couldn't remember the actual name of the place I was looking for, but I did know that it was somewhere on the island of Mallorca. You need to be aware that the panels on the left define the source photos, and the Filter bar filters whatever is selected. To carry out a complete catalog filter search, I first selected All Photographs in the Catalog panel. I then went to the Filter bar, clicked the Text tab, set the text search criteria to Keywords, and typed *Mallorca*. This initial step filtered the entire catalog to display all photos that contained the keyword *Mallorca*.

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**2.** I have visited this island several times and taken over 1,700 photos there. To narrow the search, I clicked the Metadata tab. This revealed the Metadata search options, where I clicked the 2007 year date in the Date list.

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		▶ 2006	5 ▼ Spain		
		▶ 2007	41 ▼ Mallorca		
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	Import Exp	xort			

**3.** I could now see a narrowed set of keywords in the Keyword list next to the Date panel. As I expanded the Places keyword subfolders, I came across the keyword for the town of Sineu—that's the place I was looking for! I clicked the Attribute tab and then clicked the 2-star filter to narrow the selection further.



**4.** I hid the Filter bar  $(\mathbb{N})$ , applied an Edit  $\Rightarrow$  Select All to select all of the photos, and pressed the  $\mathbb{B}$  key to add the selected photos to a Quick Collection.



**5.** I pressed  $\bigcirc$  again to reveal the Filter bar and did a new search. This time, I used a text search for photos with the keyword *Malta* and with a rating of two stars and higher. I again chose Edit  $\Rightarrow$  Select All, and pressed  $\blacksquare$  to also add these to the current Quick Collection as well.

lame:	Mediterranean Towns	
Set:	Locations	•
Collect	ion Options ude selected photos Make new virtual copies	
	Make new virtual copies	

6. The Quick Collection now contained 23 selected photos and it was time to make this temporary collection more permanent. I chose Edit ⇒ Select All to select all of the photos, clicked the Add Collection button at the top of the Collections panel, selected the Create Collection option, and titled this new collection *Mediterranean Towns*.



**7.** Here is the final stored collection, which represents the combined result of the two separate Lightroom catalog searches. This quick introduction by no means covers everything you need to know about metadata searches and collections. But it does at least give you a rough idea of how and why it is useful to use keywords to tag photos in the catalog and also why you don't necessarily need to be concerned with how the photos are actually stored in the system folders.

Default :	Metadata 🔻
Preset	None 🗘
	SAfrica0501_0164.TIF
Sidecar Files	xmp
Copy Name	<b></b>
Folder	/Volumesuth Africa 🔿
	Victoria & Albert Waterfront
Caption	View from Victoria & Albert Waterfront looking out across the harbour to Table Mountain in the distance.
Copyright	© Martin Evening 2005
Copyright Status	Copyrighted #
Creator	Martin Evening
	RSA
Rating	** • • •
Label	
Capture Time	16:02:40 10 Jan 2005 →
	4064 x 2704
Cropped	4064 x 2704 🔿
	1/500 sec at f / 7.1
	70 mm
ISO Speed Rating	ISO 160
	Did not fire
Make	Canon
Model	Canon EOS-1DS
	24.0-70.0 mm

**Figure 4.1** Here is the default view of the Metadata panel information, which shows just the basic file info metadata. The action arrow buttons that appear in the Metadata panel views provide useful quick links. For example, if you click the Folder button (circled), this takes you directly to a view of the folder contents that the selected photo belongs to.

1	Default All Plug-in Metadata	Meta	data 🤍
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	Large Caption		E.
	Location	-	-
	Minimal	ica	$\rightarrow$
	Quick Describe	date	

**Figure 4.2** The Metadata view options.

# Metadata panel

Let's now look at the Metadata panel. **Figure 4.1** shows the default Metadata panel view, which displays a condensed list of file and camera information. At the top is the Metadata Preset menu with the same options as those found in the Import dialog Apply During Import panel (see page 140 for more about creating and applying metadata presets). Below this are fields that show basic information about the file such as the File Name and Folder. Underneath these are the Title, Caption, Copyright, Creator, and Location fields. These are all editable, and when you click in a blank field, you can enter custom metadata, such as the image title and copyright information. Below these are the image Rating and Label information, followed by the basic EXIF metadata items. This data is informational only and shows things like the file size dimensions, the camera used to take the photograph, camera settings, lens, and so forth.

Many of the items in the Metadata panel have action arrows or other buttons to the right of each metadata list item. These provide additional functions. For example, if you click the action arrow button next to the Folder name (circled in Figure 4.1), this takes you directly to a Grid view of the source folder contents.

# Metadata panel view modes

If the Metadata panel in your version of Lightroom looks different from the one shown in Figure 4.1, this is probably because you are using one of the ten other Metadata panel layout views. If you click the view menu shown in Figure 4.2, this lets you access the alternative Metadata panel view options (Figure 4.3 compares some of the main Metadata panel view modes). Each photo can contain a huge amount of metadata information, so if you want to see everything, you can select the EXIF and IPTC view. But if you want to work with a more manageable Metadata panel view, I suggest you select a Metadata panel view more suited to the task at hand. For example, the EXIF view mode displays all the non-editable EXIF metadata, while the IPTC view mode concentrates on displaying the IPTC custom metadata fields only, and there is now also a new IPTC Extension view for displaying additional IPTC Extension data. The Large Caption view mode displays a nice, large Caption metadata field, which gives you lots of room in which to write a text caption. (The large caption space here does at least make the Caption field easy to target—click anywhere in the Caption field and you can start typing.) While you are in data entry mode, hitting (HEnter) or (HReturn) allows you to add a carriage return in this field section instead of committing the text.

The Location panel mode offers a metadata view that is perhaps more useful for reviewing travel photographs. And finally, the Minimal and Quick Describe view modes are suited for compact Metadata panel viewing, such as when working on a small-sized screen or laptop.

EXIF	🗧 Meta	data 🔻
Preset	None	٢
File Name	SAfrica0501_0164.TIF	
Sidecar Files	xmp	
File Path	South Africa	
Dimensions	4064 x 2704	
Cropped	4064 x 2704	
Date Time Original	10/01/2005 16:02:40	
Date Time Digitized	10/01/2005 16:02:40	
Date Time	10/01/2005 16:02:40	
Exposure	1/500 sec at f / 7.1	
Focal Length	70 mm	
Exposure Bias	0 EV	
ISO Speed Rating	ISO 160	
Flash	Did not fire	
Exposure Program	Normal	
Metering Mode	Pattern	
Make	Canon	
Model	Canon EOS-1DS	
Serial Number	107498	
Lens	24.0-70.0 mm	
Artist	Martin Evening	

Location		Metadat	a 🔻		IPTC Exte
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**Figure 4.3** This shows most of the different Metadata panel view modes in Lightroom 3.

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	+44(0)20845120xxx	
	martin@martinevening.com	
	www.martinevening.com	
	Victoria & Albert Waterfront	
Caption	View from Victoria & Albert	
	Waterfront looking out across the	
	harbour to Table Mountain in the distance.	
	See newscodes.org for guidelines	
	Name of IPTC content creator	
	2005-01-10T16:02Z	
	See newscodes.org for guidelines	
	See newscodes.org for guidelines	
	Victoria & Albert Docks	
	Cape Town	
	Cape Town	
	South Africa	
	RSA	
	Victoria & Albert Waterfront	
	Use own custom reference	
	Use this field to add any special	
	instructions, such as embargoes of	
	other special instructions not	
	Name of person who should be	
	credited	
	Name of original copyright holder	
Copyright Status	Copyrighted ÷	
Copyright	Martin Evening	
Rights Usage Terms	Available for licensed usages only	
	www.martinevening.com	

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	Canon EOS-1D5 #107498	
	Victoria & Albert Waterfront	
	View from Victoria & Albert Waterfront looking out across the harbour to Table Mountai in the distance.	n
	© Martin Evening 2005	
	Martin Evening	
	RSA	

Jeffrey Friedl is an experienced software engineer and Lightroom enthusiast. He has added some useful pages to his Web site that include "Jeffrey's Lightroom Configuration Manager." This is a Web-based application that allows you to customize the Metadata panel items and fonts. To reach this page, go to http://regex. info/Lightroom/Config/.

## **General and EXIF metadata items**

Let's now look in more detail at the items that can be displayed in the Metadata panel. **Figure 4.4** shows a complete list of what items you might see listed when using the EXIF and IPTC view mode. Many metadata items can be displayed here and most of them are fairly self-explanatory, but I've included explanations for those that are not so obvious, or that offer some interesting hidden tips and features. You might not see everything that's listed here when you compare this with what you are seeing on your copy of Lightroom; that's because certain items require the metadata to be present before it can be displayed. So, if you don't have an audio sidecar file attached or GPS metadata embedded in the file, you won't see such items listed in this panel view.

#### File Name

This displays the file name for the currently selected photo. If you need to change the name of a file, you can't do so directly in the content area, so you need to use this field in order to make any name changes. If you want to carry out a batch rename action, select the photos and click the button to the right to open the Rename Photo dialog.

#### Sidecar Files

The Sidecar Files item shows up whenever there is a sidecar file associated with an image. Sidecar files are always hidden from view, so this extra item in the Metadata panel lets you know if an .xmp sidecar is present or not.

## Copy Name

The Copy Name field refers to virtual copy images made in Lightroom. Each virtual copy image can provide an alternative version of the original master (or negative as it is sometimes described in Lightroom). By making virtual copies, you can apply different crops or color treatments. But since virtual copies all refer to the same master, they all share the same root filename. Now, whenever you create a new virtual copy, Lightroom will label each new virtual copy as *Copy 1, Copy 2*, etc. But you'll most likely want to edit this name. To explain this further, please refer to **Figure 4.5**, in which an original DNG image has been selected and three virtual copies are associated with the master. (You can tell they are virtual copies because they have a turned-up page icon in the bottom-left corner.) In **Figure 4.6**, I renamed the Copy 2 photo (second one from the right) to *Black and white*, which brings us to the Go to Master action arrow (circled in Figure 4.6). If you have a virtual copy image selected in Lightroom, you can always locate the parent master photo by clicking this button. Virtual copy images can quite often end up being separated from the master. Because you may have assigned a different star



#### 'IP

As you roll over the items listed in the Metadata panel, the tooltips now provide extended explanations of how to use each of the fields.

Figure 4.4 The Metadata panel showing the EXIF and IPTC view mode.



**Figure 4.6** If you are inspecting a virtual copy image, its copy name will appear in the Copy Name field. Click the action button next to it to locate the master image.



**Figure 4.5** Here is a view of a master photo with three virtual copies. The copy names are also shown in the Metadata panel, where you can edit them if you like.

rating to the virtual copy version, they may be grouped in a collection or removed from the master parent image. With this action button, you can quickly trace the master version of any virtual copy photo.

#### Metadata Status

If there is an issue with the metadata status of a catalog image, the Metadata Status item shows up to indicate that the metadata status is in the process of being checked (you'll see an ellipsis [...] in the Metadata Status field), or that the metadata for the photo has been changed. This message tells you that the metadata status is out of date. It could mean that the metadata, such as the metadata text, keyword, rating, or Develop setting, has been changed in Lightroom and has not yet been saved to the image's XMP space. Clicking the button to the right provides a quick answer (see **Figure 4.7**), as will a quick check to see if there is a warning icon in the photo's grid cell. Or, it could mean that the metadata has been changed by an external program such as Bridge and that you need to go to the Metadata menu in the Lightroom Library module and select Read Metadata from File. The ins and outs of metadata saving, XMP spaces, and Lightroom settings are quite a complex subject. For a more detailed explanation, please refer to pages 185–192 later in this chapter.

Default	\$	Metadata 🔻
Preset	UK Basic IPTC	e
File Name Sidecar Files	_MG_3028.CR2 .xmp	
Copy Name Folder Metadata Status	Angelica Has been changes	



**Figure 4.7** If a catalog photo's metadata appears to be out of sync, the Metadata Status item will appear in the Metadata panel to indicate it has been changed. Click the button to the right to reveal what needs to be done to get the metadata back in sync again. If there is no synchronization problem, the Metadata Status item will remain hidden.

## **Cropped** photos

If a photo has been cropped in any way, the Cropped item will appear in the Metadata panel, showing the crop dimensions in pixels. If you click the action arrow next to it, this takes you directly to the Crop Overlay mode in the Develop module.

#### Date representation

Date Time Original and Date Time Digitized means the date that a photo was captured or was first created, while the Date Time field indicates the time the file was last modified. I have used **Figures 4.8–4.11** to explain the differences between these bits of metadata information.

Next to Date Time Original is the Go to Date action arrow (note that this applies only to digital capture images). Clicking this button filters the catalog view to show only those photos that have matching capture dates. To exit this filter view, use the  $\mathfrak{RL}$  (Mac) or  $\mathfrak{Ctrl}$  (PC) shortcut, which toggles the catalog filters on or off.

Date Time Original	13/01/2005 09:57:00	$\rightarrow$
Date Time Digitized	13/01/2005 09:57:00	
Date Time	13/01/2005 09:57:00	

**Figure 4.8** In the case of camera capture files that have not been converted to DNG, the Date Time Original, Date Time Digitized, and Date Time entries will all agree.



**Figure 4.9** Where a camera capture image has been converted to DNG, the Date Time entry reflects the fact that the file was modified and resaved in a different file format. In this case, a raw file was converted to DNG a few days after the time of capture.

Date Time Original	18/09/2006 12:23:34	⇒
Date Time Digitized	18/09/2006 12:23:34	
Date Time	27/02/2007 12:59:11	

**Figure 4.10** Similarly, if I were to create an Edit copy as a TIFF, PSD, or JPEG version from the original, the Date Time would reflect that this version of the master image was created at a later date.

#### Date Time 12/06/2007 09:46:54

**Figure 4.11** And if you import a photo that was originally created as a new document in Photoshop or was originally a scanned image, only the Date Time field is displayed, showing the date that the file was first created.

#### TIP

On the Mac platform, you can use a small application called BetterFinder Attributes to reset the Date Original and Date Time Digitized back to their actual times: www.publicspace.net/ ABetterFinderAttributes/. It works with a fair range of mainstream camera raw formats.

### Capture time editing

If you know that the camera time and date settings are incorrect, you can address this by selecting Metadata  $\Rightarrow$  Edit Capture Time while working in the Library module. The Edit Capture Time dialog (**Figure 4.12**) allows you to amend the Date Time Original setting for an individual image or a group of images. If you are editing the capture time for a selection of images, the dialog preview displays the most selected image in the sequence and notifies you that the capture times for all the images in the current selection will be adjusted relative to the date and time set for this highlighted photo.

The Edit Capture Time feature is useful for a couple of reasons. One is that the internal clock on your camera may be wrong. For example, did you forget to set the internal clock correctly when you first bought your camera? For critical, time-sensitive work (such as GPS tagging via a separate GPS device), you may want to keep a regular check on your camera's internal clock to ensure that it is accurate. If this isn't the case, you can select the "Adjust to a specified date and time" option and reset the date and time accordingly.

When you travel abroad, do you always remember to set the camera for the correct new time zone? If you select the "Shift by set number of hours (time zone adjust)" option, you can compensate for the time zone differences for date and time entries that would otherwise be correct (unless, of course, you want the dates and times of all your captures to be recorded relative to a single time zone).

If you ever need to revert to the original embedded date and time, you can always select the "Change to file's creation date" option to reset everything back to the original capture date and time setting.

	Modify the capture time stored in this image by entering the correct time adjustment below. Type of Adjustment
	<ul> <li>Adjust to a specified date and time</li> <li>Shift by set number of hours (time zone adjust)</li> <li>Change to file's creation date</li> </ul>
	New Time
	Original Time: 17/07/2007 09:35:16
	Corrected Time: 17/07/2007 08:35:16
	This operation cannot be undone. (Cancel) Change

Figure 4.12 The Edit Capture Time dialog.

## Camera model and serial number

These items instantly tell you which camera model and specific serial number were used to take a particular photograph. If you shoot using more than one digital camera body or have photos in the catalog taken by other photographers using the same camera type, this data can prove really useful, especially if you want to track down exactly which camera was used. Let's say there is a problem with one of the cameras. There may be damage to the sensor or a camera focusing problem. Using this data, you can pinpoint which specific body is responsible.

#### Artist EXIF metadata

The Artist name EXIF metadata will only show up if you have uploaded it as a custom user setting to your camera. I work with the Canon EOS cameras and use the EOS Utility program (see **Figure 4.13**) to access the Camera Settings. This allows me to enter my name as the camera owner in the Artist EXIF data field. If you use a different camera system, the camera-supplied software will vary, but basically you should be able to do something similar to this by tethering the camera to the computer and using the utilities software that came with the camera to customize the camera settings (as shown below in Figure 4.13).



**Figure 4.13** This shows the Canon EOS Utility program welcome screen. Click the Camera Settings/Remote Shooting option to open the Camera Capture window shown here, and then click the Setup menu button (circled) to set the owner name for the camera.

#### TIP

Check out the section on setting default camera-specific develop settings in Chapter 6 on pages 402–403.

#### TIP

Embedding your name as the owner in the camera settings seems like a pretty good idea. This ensures you get your name embedded in the capture file data even if you forget to add your name to the custom IPTC metadata. I have vet to hear of a case where a thief has been caught this way, using a stolen camera, but I am sure it may happen one day! Just remember that if you borrow someone else's camera or rent one, always check what the owner name metadata says. Once the owner metadata is embedded in the raw capture files, you won't be able to remove it so easily! If you are feeling brave though, the Artist EXIF metadata can be changed using an EXIF editor such as ExifTool by Phil Harvey (http://www.sno.phy. queensu.ca/~phil/exiftool/), but this is a command-line-based editor and, therefore, not particularly easy to use.

OK

IPTC	🗧 🛛 Metadata 🔻	
Preset	None	
File Name	_P2E9195.CR2	
	Martin Evening	
	Photographer	
	Chambers Lane	
	London	
	London	
Postal Code	NW10	
Country	ик	
Phone	+44 (0)208 451 xxxx	
E-Mail	martin@martnevening.com	
Website	www.martinevening.com	
Headline	Sassicaia 1968	
Caption	Cabernet Sauvignon, 1968	
	vintage, Tenuta San Guido	
IPTC Subject Code	See newscode.org for guidelines	
Description Writer	Name of IPTC content creator	
Category	See newscode.org for guidelines	
Other Categories	See newscode.org for guidelines	
	Image	
Date Created	2007-11-14	
Intellectual Genre	See newscode.org for guidelines	
Scene	See newscode.org for guidelines	
Location	Willesden Green	
City	London	
State / Province	London	
Country	UK	
ISO Country Code	υκ	
Title	Sassicaia	
Job Identifier	J1001 (use any custom job reference)	
Instructions	Use this to add special instructions	
Provider	Whoever supplied image	
Source	Original copyright holder	
	Copyright	
Copyright Status	Copyrighted \$	
Copyright	© Martin Evening 2007	
Rights Usage Terms	Licensed usages only	
Copyright Info URL	www.martinevening.com	

**Figure 4.14** The Metadata panel in IPTC mode.



**Figure 4.15** To select, add, or edit a metadata preset, go to the Preset menu near the top of the Metadata panel and click the menu list.

# **Custom information metadata**

So far, I have mostly described the fixed, embedded camera metadata that is displayed in the Metadata panel. We are now going to look at working with custom metadata, which is data that is used to add image-specific information. This can broadly break down into information about the image such as the caption, headline, and location details of where the picture was shot. Also included is contact information about who created the photograph, such as your name, address, telephone number, e-mail, and Web site. This information can also include how the photo might be classified and what copyright licensing restrictions might be in force. As you start applying metadata to individual photos or groups of images, you gain the ability to differentiate them further and can reap the benefits of having a carefully cataloged image database. Applying such metadata now will help you in the future. Not only can it allow people to contact you more easily, but it can also help when you are working in Lightroom and want to make targeted image searches.

In Figure 4.14, you can see the Metadata panel in the IPTC view mode. You can see here that I have filled in the editable sections with examples of how you might use this panel to add descriptive information to a photo in the Lightroom catalog. You could, for example, select all the photos in a particular folder from the same shoot and start typing in custom information to categorize them. Most of the items in this panel, such as Creator, Job Title, and Address, are all pretty self-explanatory, and this is data you would probably want to apply to nearly every photo. However, the Headline and Caption fields can be used to add imagespecific information. The Headline field might be used to describe a photo shoot, such as Xmas catalog shoot 2009 or White-on-white fashion shoot, while the Caption field can be used to provide a brief description of a scene, such as Crowds lining the streets at local festival parade. These custom bits of information are essential when submitting images to a picture library, and are particularly useful when you take into account that the value of an individual image can be increased as more information about the photograph is added. But even with a small-scale setup, you may find it rewarding to methodically catalog your photographs with basic metadata information in the Contact and other IPTC sections.

#### Metadata presets

You certainly don't want to spend too much of your time repetitively entering the same metadata. This is where the metadata presets come in handy, because you can use them to apply the metadata information that you need to input on a regular basis. To create a new metadata preset, click the Presets menu shown in **Figure 4.15** and select Edit Presets, which opens the dialog shown in **Figure 4.16**. The fields in this dialog will be populated with any IPTC metadata that's already entered in the currently selected photo. So if you have applied custom metadata already, this will appear ready to use as a new preset. Or, you can use this as a
basis for creating a new preset by editing the fields in this dialog. Next, click the Done button at the bottom to open the Save Changes dialog where you can select Save As to save these settings as a new metadata preset.

Metadata presets provide a useful way to batch-apply informational metadata either at the import stage or later via the Metadata panel. You might, therefore, find it useful to create several metadata templates for the different types of shoots you normally do. Let's say you are a sports photographer and are often required

### NOTE

Edit Metadata Presets

Even though the Lightroom Metadata panel may not be able to display all the items applied here, other programs may be able to.

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IPIC Subject Code	See: newscodes.org for guidelines					
Description Writer	Name of IPTC content creator (self, or whoever enters			V IPTC Extension Descript	tion	
Category	A now 'deprecated' item from the IPTC schema			Person Shown in the Image	Name of person	
Other Categories	A now 'deprecated' item from the IPTC schema			Location Created	0 items	Rep
IPTC Copyright				Location Shown in the Image	0 items	Rep
Convright	© Martin Evening 2009			Name of Orgad in the Image	Name of organization or company	featured
Convright Status	Convrighted	1		Code of Orgad in the Image	Code from a controlled vocabulary	for identifyin
Rights Usage Terms	Licensed usages only			Event	Name or description of a specific e	vent
Convright Info LIRI	www.martinevening.com	1		= ef unto fotoscion Madala		
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Creator	Martin Evening			Age	Age of featured model at time phot	to was taken
Creator Address	Chambers Lane	M		Minor Model Age Disclosure	Age Unknown	
Creator City	London	M		Release Status	Limited or Incomplete Model Relea	ises
Creator State / Province	London	M		Release Id	A PLUS-ID identifying each model r	elease
Creator Postal Code	NW10 2RN	M		VIPTC Extension Rights		
Creator Country	lik .			Image Creator	0 items	Rep
Creator Phone				Copyright Owner	0 items	Rep
Creator E-Mail	martin@martinevening.com	1		Licensor	0 items	Rep
Creator E-Man				Property Release Id	A PLUS-ID identifying each propert	y release
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Scene	See: newscodes.org for guidelines	Ø				
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Figure 4.16 Edit Metadata Presets dialog.

Save As...

### NOTE

Metadata presets are also available and editable via the Import Photos dialog. You, therefore, have the choice of applying metadata presets either at the import stage or via the Metadata panel section shown in Figure 4.15. to photograph the home football team whenever the team plays a game at the local stadium. You could save yourself a lot of time by creating a template with the name of the football team and the location information and applying this template every time you photograph a home game.

### Editing and deleting metadata presets

If you want to edit an existing preset, first choose the preset you want to edit and then select Edit Presets. Apply the edit changes you want to make and click the Done button. This opens the Save Changes dialog again, where you will have to select Save As and choose a new name for the preset (it must be a new name you can't overwrite an existing preset). To remove a metadata preset, go to the Username/Library/Application Support/Adobe/Lightroom/Metadata Presets folder (Mac) or Local disk (C:)/Username/Application Data/Adobe/Lightroom/Metadata Presets folder (PC) and delete the preset. (Lightroom metadata templates will appear listed with the .*Irtemplate* suffix.)

### **IPTC** metadata

The editable items you see listed in Figure 4.16 conform with the latest International Press Telecommunications Council (IPTC) standard file information specifications, used worldwide by the stock library and publishing industries. For help in understanding how to complete some of the advanced IPTC fields (such as IPTC Subject Code), I suggest you try visiting newscodes.org.

The items listed in the Metadata Presets dialog are not as comprehensive as those found in Photoshop, Bridge, or Expression Media, but they do conform to the IPTC metadata standard. Therefore, the metadata information you input via Lightroom will be recognizable when you export a file for use in these other programs. Conversely, Lightroom is able to display only the metadata information it knows about. It won't be able to display all the data that might have been embedded via Bridge or Expression Media. Should this be a cause for concern? For those who regard this as a shortcoming of Lightroom, it may well prove to be a deal breaker. But for others, the metadata options that are available will be ample. Figure 4.16 provides a useful overview and suggestions on how to complete the Basic and IPTC fields, and **Figure 4.17** shows a practical example of a partially completed metadata preset that would be suitable for everyday use.

It is not mandatory that all the listed fields be completed; just fill in as many as you find useful. For example, the IPTC Content section can be used to enter headline information and details of who wrote the description. Note that the Description Writer field refers to the person who entered the metadata information; this might be a picture library editor, your assistant, or a work colleague. This type of information is not something that you would necessarily want to add as part of a metadata preset. However, the IPTC Copyright section can list information about

		L.
Basic Info     Conv Name		
Rating	**	
Label		
Caption		
Figure 1910 Content		
V IPTC Copyright		
Copyright	© Martin Evening 2009	
Copyright Status	Copyrighted	• •
Rights Usage Terms	Licensed usages only	
Copyright Info URL	www.martinevening.com	
▼ 🗹 IPTC Creator		
Creator	Martin Evening	
Creator Address	Chambers Lane	
Creator City	London	
Creator State / Province	London	
Creator Postal Code	NW10 2R	
Creator Country	UK	
Creator Phone	+44(0)2084512	
Creator E-Mail	martin@martinevening.com	
Creator Website	www.martinevening.com	
Creator Job Title	Photographer	
IPTC Image		
🔻 🖃 IPTC Status		
Title		0
Job Identifier		
Instructions		
Provider	Martin Evening	
Source	Martin Evening Photography Ltd	

**Figure 4.17** Here is an example of a metadata preset in which only some of the fields have been filled in and the corresponding check boxes selected.

who owns the copyright, plus Rights Usage Terms. The IPTC Creator section can also contain contact details such as your address, telephone, e-mail, and Web site. This information will most likely remain the same until you move premises or change e-mail accounts. Once you are done, you can save this template as a new basic metadata preset and apply it whenever you import new images into the catalog. This way, you can ensure that after each new import, all newly added photos will carry complete copyright and contact information.

### NOTE

The IPTC Image section allows you to enter information that is more specific to the image, such as the intellectual genre. The remaining fields can be used to describe when and where the photograph was shot, job reference (such as a client art order), and so on. In Figure 4.17, you will notice that I did not enter data into all the fields, and for those that were empty. I deliberately left the check boxes deselected. This is because a selected check box is saying "Change this metadata." When you create a metadata preset, you will often want to devise a preset that is general enough to cover certain types of shoots but without including terms that will make a preset too specific. Also, if you create a metadata preset that is designed to add metadata to specific IPTC fields, you may not want to overwrite any of the other fields that contain existing, important metadata. Going back to the Figure 4.17 example, you will notice that I only checked the boxes that contained new preset metadata. Let's say I had an image where the caption, color label, and star rating information had already been added. If I applied the metadata preset shown in Figure 4.17 but with all the boxes checked, it would overwrite these existing metadata settings with zero values, thereby erasing the caption, color label, and star rating data. So when you create a new preset, it is always worth checking to make sure that you select only those items that you intend to change; otherwise, your metadata presets can soon start messing up the photos in the catalog rather than enhancing them. Of course, you can always edit an existing preset and deliberately set the preset to erase older metadata if you think that would be useful. The overall message here is to configure these presets carefully and always test them out to make sure that they are doing exactly what you expect them to do.

### **IPTC Extension metadata**

Lightroom 3 has now added the IPTC Extension Schema for XMP, which is a supplemental schema to the IPTC Core. It provides additional fields with which to input metadata that can be useful to a commercial photography business. If you refer back to the example shown in Figure 4.16 on page 141, you will see brief explanations of how each of these new fields may be utilized. Basically, the new IPTC Extension schema can provide additional information about the content of the image such as the name, organization, or event featured in a photograph. It provides you with further fields to improve administration, whereby you can apply a globally unique identifier (GUID). It offers fields for precisely defining the licensing and copyrights of a particular photograph. For example, instead of just saying, "This photo is copyright of so and so," it allows you to specify the name of the copyright holder, as well as who to contact to obtain a license. This might well be a picture library or a photo agent rather than the photographer himself. The image supplier can also be identified separately. Again, it might be a photo library that supplies the image rather than the photographer directly.

Photographers who shoot people have the opportunity to record specific model information such as the age of the model, which might be particularly relevant if the model was classed as a minor at the time a photo was shot. You can also provide a summary of the current model release status. The same thing applies to photographs of private properties, where, under some circumstances, a property release may be required.

### A more efficient way to add metadata

One of the things that continues to irk me about Adobe Bridge is that if you select a photo, make the Description field active in the Metadata panel, and enter new text, you have to press  $\underbrace{\leftarrow Enter}$  to commit, select the next image, then re-target the Description field all over again to add a new description for the next photo.

Fortunately, this process is made a lot easier in Lightroom. **Figure 4.18** shows a Library Grid view of photographs that were taken at a model casting. I tend to shoot such model castings with the camera tethered to the computer and update the Caption field with the model's name and agency as I go along. In the screen shot shown here, you can see that the Caption field is currently active and I have typed in the model's details. Instead of hitting *←*Enter) to commit this data entry, I can use the *ℜ* key (Mac) or *Ctrl* key (PC) plus a right or left arrow to progress to the next or previous image. This step commits the text entry and takes me directly to the next photo. It also keeps the metadata field active so that I am now ready to carry on typing in new information for the next selected photo.



**Figure 4.18** Here is an example of how to update the metadata for a series of photos without losing the focus on the field that's being edited in the Metadata panel.



**Figure 4.19** This shows how the metadata information displayed in Lightroom will look when more than one photo is selected and the photos all have different metadata information.

QuickDescribe	♦ Metadata ▼
Preset	None 🗘
File Name Copy Name	_MG_0643.jpg
Folder Metadata Status	/Volumes/Li…s/World Travel → Has been changed
Rating	*** • •
Dimensions Cropped Capture Time Camera	2508 x 3888 2508 x 3888 19/07/2007 15:55:30 Canon EOS 40AL #430126996
Title Caption	Longleat Safari Park The hedge maze
Copyright Creator	© Martin Evening 2008 Martin Evening
Location	Longleat, Wiltshire

**Figure 4.20** If Show Metadata for Target Photo Only is selected, the Metadata panel displays the information for the most selected (target) photo.

## Metadata editing and target photos

If you have a group of photos currently selected and go to the Metadata panel, the metadata information will display <mixed> values whenever there are varied file attributes for the selected images (see the example shown in **Figure 4.19**). Only those values that are common to all the selected photos (such as the copyright information) will be displayed here. When you are in this "default" mode of operation, you can edit individual fields in the Metadata panel to update the metadata you wish to be common to all the selected files. So, for example, if you want to apply the same title to all the selected images, you can edit the Title field, which will update all the selected images so that they share the same data.

However, if Show Metadata for Target Photo Only is selected in the Metadata menu (**Figure 4.21**), the Metadata panel display will look like the version shown in **Figure 4.20**, where it will now be possible to read the metadata information for the most selected or target photo only, even though you may have more than one photo selected in Lightroom.

To show you how this feature might be used, in the **Figure 4.22** example, I had selected all of the photos from a folder in the catalog. The Metadata panel displayed the information for the photo that was the most highlighted (the target photo). By using the  $\mathbb{H}$  + arrow keys (Mac) or  $\mathbb{Ctrl}$  + arrow keys (PC), I was able to navigate from one photo to the next without deselecting the active photo selection and read the metadata information for each individual image as I did so.

With the Show Metadata for Target Photo Only mode, the one thing you need to be aware of is that you will now be able to edit the metadata only on a per-image basis. This is a good thing because it means that you can keep an image selection active and edit the metadata for each of the individual images but without losing the selection. However, a lot of people will be accustomed to making image selections and then using the Metadata panel to edit settings globally across a selection. So, just be aware that although this menu item can prove useful (for the reasons I have just described), you probably won't want to have it enabled all the time, as it can lead to confusion if you forget you have this option enabled.

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Figure 4.21 The Show Metadata for Target Photo Only menu item.

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				+ - Keyword List	
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161MG_0263 3888 x 2592JPG	162	163 _MG_0554 2592 x 3888 JPG	164 _MG_0643 2508 x 3888 JPG	Caption	
►	***	***	***	Copyright Status Creator Martin Evening 2008 Creator Martin Evening Location Wiltshire Rating ★★★★ - Label Red Capture Time 17.06:48 19 Jul 2007	*
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1 2 # + +	/ 244 photos / 244 select	ed/_MG_0 Filter: 🧼		Custom Filter	
					Þ
					11.

**Figure 4.22** An example of the Show Metadata for Target Photo Only function in use. Note that although all the photos have been selected and the titles are different, you can now read the information for the most selected photo.

### Mail and Web links

The E-Mail field also has an action arrow next to it, which implies that another Lightroom user viewing someone else's photo can send an e-mail to the creator by simply clicking on the action arrow. Lightroom then creates a new mail message using the default mail program on the computer and if the mail program is not currently running, Lightroom launches it automatically. Similarly, if you click the action button next to the Website field, this launches the default Web browser and take you directly to the creator's Web site link.



**1.** In this view of the Metadata panel, you can see the action arrow buttons next to the E-Mail and Website items.

Send Chat Attach Address Fonts Colors Save As Draft	
Send Chat Attach Address Fonts Colors Save As Draft To: Martin Evening	_
To: Martin Evening	_
Cc:	
Bcc:	
Subject:	
E▼ Account: Martin Evening <martin_evening none="" signature:="" td="" ‡="" ‡<=""><td>! :</td></martin_evening>	! :
	1

**2.** When you click the E-Mail action arrow button, this automatically launches the default e-mail client program and prepares a new e-mail message, ready to be sent, using the e-mail address entered in the Metadata panel's E-Mail section.

## **Copyright status**

The Copyright section also has an action arrow next to the Copyright Info URL, which, when clicked, takes you directly to the Web site link. Above that, there is also a Copyright Status field (see **Figure 4.23**), where you can set the copyright status as being Unknown, Copyrighted, or Public Domain. You can edit the copyright status via the Metadata panel, or go to the Metadata panel Presets menu, choose Edit Presets, and create a new custom metadata preset via the Metadata Presets dialog where Copyrighted is switched on by default (as shown in **Figure 4.24**).

I should write a word or two here about what the term *copyrighted* means. Strictly speaking, a copyrighted image is one that has been registered with the U.S. Library of Congress, and this is a term that applies to the United States only. So, if you say an image has been copyrighted, it has an explicit meaning in the United States that does not translate to mean the exact same thing to those photographers who operate outside of the country, where U.S. copyright laws do not apply. If you operate in the United States and use this field to mark an image as being copyrighted, then you should be aware of the precise meaning of the term and get these images registered. If you choose to use the Copyright field only to indicate this is your copyright, this statement should be clearly understood in nearly all countries and is all that you need to do to enforce your ownership rights.

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Copy Name		
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Label		
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IPTC Subject Code		8
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Category		
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Copyright Status	Copyrighted	
Rights Usage Term:	Public Domain	
Copyright Info URL	www.martinevening.com	•
IPTC Creator		
Creator	Martin Evening	
Creator Address	Chambers Lane	
Creator City	London	
Creator State / Province	London	<b>⊠</b>
Creator Postal Code	NW10	2

IPTC	🗧 🛛 Metadata 🔻
Preset	None
File Name	bookshoot 090729 0454.CR2 -
Metadata Status	Up to date
Creator	Martin Evening
Job Title	Photographer
Address	Chambers Lane
City	London
State / Province	London
Postal Code	NW10
Country	UK
Phone	+44(0)2084510000
E-Mail	martin@martinevening.com →
Website	www.martinevening.com
Headline	
Caption	
IPTC Subject Code	
Description Writer	
Category	
Other Categories	
Date Created	
Intellectual Genre	
Scene	
Location	
City	
State / Province	
LEO Country	
130 Country Code	
Title	
Job Identifier	
Instructions	
Provider	
Source	
Copyright Status	Copyrighted ÷
Copyright	Martin Evening
Rights Usage Terms	Editorial PR usage only
Copyright Info URL	www.martinevening.com

**Figure 4.23** You can set the Copyright Status by clicking the menu highlighted here in the Metadata panel.

Figure 4.24 The Edit Metadata Presets dialog, showing the Copyright Status options.



+ -		Keyword List 🔻
9		
►	ARCHITECTURE	6
	Boats	6
]»+	Buildings	5
l≫	Details	17
►	Food	11
Þ	History	68
V	NATURE SUBJEC	TS
	Flowers	21
	▼ plants	
	Cactus	6
	Seascapes	6
►	People	
►	People I know	
	Places	789
	Europe	1092
	► Italy	
	Norway	174
	Bygdøy	peninsula 40
	Oslo	134
	<ul> <li>Spain</li> </ul>	7
•	Test photos	

**Figure 4.25** In this example, the Bygdøy peninsula keyword is a subset of Norway > Europe > Places and the Seascapes keyword is a subset of NATURE SUBJECTS.

## **Keywording and Keyword List panels**

The most effective way to categorize your images is to label them with keyword information so you can use the Filter bar to carry out photo searches, either by typing in a specific text phrase (such as a keyword), or by carrying out a general, filtered metadata search.

You can add keyword metadata via the Import Photos dialog as you import your images, or you can add or edit the keywords later via the Keywording panel. **Figure 4.25** shows how I have sorted some of the keywords in my Keyword List panel into a hierarchy or keyword categories (also referred to as a controlled vocabulary). In the *Places* keyword category, there is a keyword subcategory called *Europe* and within that *Norway*, and within that *Bygdøy peninsula*. So the full keyword path here is *Bygdøy peninsula* > *Norway* > *Europe* > *Places*. Note how you enter keyword metadata in this order, placing the child keyword before the parent. This photo also contains the keyword *Seascapes*, which is a child of the parent keyword *NATURE SUBJECTS*, and the full keyword path here is *Seascapes* > *NATURE SUBJECTS*. You will find that it pays to establish a proper keyword hierarchy that suits the content of your library and give some careful thought as to how you wish to structure a controlled vocabulary.

### Three ways to add new keywords

As I just mentioned, you can add keywords as you import images into the catalog (Figure 4.26) or add and edit keywords via the Keywording panel (Figure 4.27). You can also add keywords to the Keyword List panel in anticipation of the keywords that will be needed (**Figure 4.28**). Once such a controlled vocabulary has been set up, you can select an image you want to update, choose a keyword from the Keyword List panel, and click in the box to the left. This adds the chosen keyword to the selected photo (Figure 4.29). Whichever method you use, once a keyword has been added, it will from then on always appear listed in the Keyword List panel. But once the keywords are there, you can always rearrange them into a suitable hierarchy and, after a keyword has been created. Lightroom can then auto-complete keywords for you as you start typing in the first few letters for a new keyword entry. Apart from making it guicker to enter new data, this helps you avoid duplicating keyword entries through careless spelling or typos. Lightroom also auto-assigns the correct hierarchy. For example, the next time I might choose to add the keyword Seascapes, the Seascapes keyword will be automatically applied to the image using the keyword path *Seascapes > NATURE SUBJECTS*. I'll be coming back to this point later, but basically when you enter a keyword, Lightroom is able to auto-complete the keyword and at the same time knows to assign the correct keyword hierarchy. The only problem that arises is where a single keyword can have more than one hierarchy, but I'll come to this shortly.



**Figure 4.26** You can add keywords at the time of import. In this example, I entered the relevant keywords into the Keywords field. Lightroom offers to auto-complete a keyword if it recognizes that the word you are typing might belong to the keyword list.

Keywording 🔻	Keywording 🔻
Keyword Tags Enter Keywords 🗘 🔻	Keyword Tags Enter Keywords 🗘 🔻
Boats, Buildings, History, Seascapes, Winter	Boats, Buildings, <mark>Bygdøy peninsula,</mark> History, Seascapes, Winter
Bygdøy peninsula > Norway > Europe > Places	Click here to add keywords
Keyword Suggestions	Keyword Suggestions
Keyword Set Recent Keywords 🗘 ┥	Keyword Set Recent Keywords 🗘 ┥

**Figure 4.27** Alternatively, you can go directly to the Keywording panel and type in the keyword or keywords you wish to assign to a selected photo (in the box where it says, "Click here to add keywords"). In this example, I typed in "Bygdøy peninsula > Norway > Europe > Places" to add the keyword Bygdøy peninsula with the desired hierarchy.

- Funner 1073	Create Keyword Tag
<ul> <li>▼ Europe 1873</li> <li>▶ Malta 168</li> </ul>	Keyword Name: Bygdøy peninsula
Add this Keyword to Selected Photo Remove this Keyword from Selected Photo	Synonyms:
Edit Keyword Tag Rename	Keyword Tag Options
Create Keyword Tag	Include on Export  Export Containing Keywords
Create Keyword Tag inside "Norway"	S Export Synonyms
Delete	Creation Options
Put New Keywords Inside this Keyword Use this as Keyword Shortcut	Put inside "Norway"
Export these Photos as a Catalog	

**Figure 4.28** You can also add keywords in advance. In this example, I right-clicked the Norway keyword and chose Create Keyword Tag inside "Norway." This opened the Create Keyword Tag dialog. I then added "Bygdøy peninsula" as a child of Norway.



**Figure 4.29** When you roll the mouse over a keyword in the Keyword List panel, a check box appears to the left of the keyword. If you click in this box, you can add a tick mark, which means the keyword is added to the currently selected image or images. If you click the arrow to the right of the keyword count number, Lightroom filters the catalog to show all photos that share the same keyword.



**Figure 4.30** Keywords associated with a single image or group of images are listed in the Library module Keywording panel. In the example shown here, I highlighted all the images from the New York folder shown in Figures 4.32 and 4.33. The keywords marked with an asterisk indicate that these keywords apply to a sub-selection of images only. You can also add new keywords by typing them into the section that's highlighted above.



**Figure 4.31** The Edit ⇒ Spelling submenu has options for checking spelling in Lightroom, including checking spelling as you type. This can help you avoid mistakes as you add new metadata. Note: This is available in the Mac version only.

## Applying and managing existing keywords

The Keywording panel is located directly above the Keyword List panel and displays all the keywords associated with a specific image or collection of images. When you select an image in the Library module, you will see any keywords associated with the photo listed in this panel, each separated by a comma (there should be no spaces). As with the Import Photos dialog, you can add a new keyword by typing it into the space indicated in the Keywording panel, and Lightroom will attempt to auto-complete the entries as you type. If multiple images are selected, the Keywording panel displays all the keywords that are active in the image selection. Those keywords that are common to all images in the selection are displayed as normal, but those keywords that apply only to a sub-selection of the images will be marked with an asterisk (Figure 4.30). If you have a multiple selection of images and want to unify a particular keyword across all of the images in that selection, simply highlight the asterisk and press the [Delete] key. This ensures that all the selected images are now assigned with that keyword. If you want to change a particular keyword, you can always highlight it and type in a new word or press (Delete) to remove it completely from the selection.

You can apply keywords to photos in the catalog in a couple of ways. **Figure 4.32** shows how you can apply a keyword to a selection of images by dragging a keyword to the image selection. The good thing about this method is that it is easy to hit the target as you drag and drop the keyword. The other option is to make a selection first in the content area and then drag the selection to the keyword. In **Figure 4.33**, I selected the same group of images and dragged the selection to the keyword *New York*.

### Auto-complete options

As you enter metadata for keywords and other editable metadata fields, it can save time to have the "Offer suggestions from recently entered values" option checked in the Metadata Catalog Settings (see Figure 4.70 on page 187), where you can also click the Clear All Suggestion Lists button to reset the memory and clear all memorized words. If you type in a keyword where there are two or more possible sources, Lightroom will offer these as choices, displaying, in this case, the full keyword path, such as *Salisbury* > *Wiltshire* > *UK* > *Europe* > *Places*, or *Salisbury* > *Maryland* > *USA* > *Places*, assuming both are logged as keywords. (See page 156 for more about how Lightroom handles implied keywords.)

Most of the time, auto-completion is a useful thing to have active. However, there are times when it can become a pain. For example, when I do a model casting and enter the names of models in the Caption field of the Metadata panel in the Library module, I don't find auto-completion particularly helpful. What is useful, though, with the Mac version is the ability to spell-check in Lightroom. The Edit  $\Rightarrow$  Spelling submenu in the Library module contains options to Show Spelling and Grammar, Check Spelling and Check Spelling as You Type (see **Figure 4.31**).



**Figure 4.32** You can apply keywords to an image or selection of images by highlighting the images you want to apply the keyword to and then dragging a keyword from the Keyword List panel to the image selection.



**Figure 4.33** You can also apply keywords to an image or selection of images by highlighting them in the content area and dragging the selection to the relevant keyword in the Keyword List panel.

+ -		Keyword List 🔻	
Q. F	ilter Keywords		I
•	365 Hair	7	
•	Clothes stylists		
	🖻 Bob & Joe		
	IN Harriet Cotte	rill 378	
I⊳-	Details	22	
►	Events		l
₽=	Fall Foliage		l
▼	Hair stylists	389	l
	Errol Dougla	s 5	
	Terry Calvert	382	
₽	History	62	l
►	Jobs	543	I
▼	Makeup artists	419	
	💿 Camilla Pasc	ucci 414	
	Janet Francis	; 1	
	Shelley	2	
Þ	NATURE SUBJEC	TS 242	
•	People	142	
►	People I know	108	
Þ	Photo Plus		

**Figure 4.34** Keywords can be used to categorize the images in ways that are meaningful to your business. In the Keywords panel view shown here, you can see how I am able to select images based on the personnel who worked with me on commercial jobs.

### Removing keywords

It is easy enough to remove keywords. You can go to the Keyword List panel, select the keyword or keywords you want to delete, and click the minus button at the top of the panel. This deletes the keyword from the Keyword List hierarchy list and also removes it from any photos that have had that keyword assigned to them. Of course, if you remove a keyword via the Keyword List panel, you will only be deleting it from the Lightroom database. If the keyword metadata has already been saved to the file's XMP space, you may need to force-save the metadata change (the keyword deletion) back to the file's XMP space by choosing Metadata  $\Rightarrow$  Save Metadata to Files. By the same token, if keywords are removed using an external program, those keywords won't appear removed when you view the photo in Lightroom until you explicitly read the revised metadata back from the image.

As photos are removed from the catalog, keywords that were formerly associated with those pictures will consequently become unused. You can remove these by selecting and deleting as I have just described, or clear them from the Keyword List panel by going to the Metadata menu and choosing Purge Unused Keywords. Just so you don't remove these keywords by accident, a warning dialog will appear asking you to confirm this action.

### Keyword hierarchy

It is important to plan not only your keyword list but also the keyword hierarchy by using a controlled vocabulary of keywords. The keyword list can be edited in the Keyword List panel by dragging and dropping the keywords in whichever way suits your needs best. It is possible to have several tiers of subcategories. For example, you could organize place name keywords in the following order: Town/City > *State > Country > Places.* When you are working in the Keywording panel, you can enter new keywords and assign a hierarchy by including a > character after the keyword, followed by the category. So if you wanted to add a new keyword called *elephants* as a subcategory of *mammals, invertebrate,* and *ANIMALS*, you would type *elephants* > *mammals* > *invertebrate* > *ANIMALS*. When you press (-Enter), you will see the *elephants* keyword appear as a new subset keyword in the Keyword List panel. There are a few things to point out here. One is that you always enter new keywords using the reverse path directory as shown here and in the previous examples. Second, once you have established a basic hierarchy, there is no need to type a complete path each time. In other words, once you have created the above path hierarchy, to add cat as a keyword you don't have to type cat > mammals > invertebrate > ANIMALS. All you'll need to type is cat > mammals. Lightroom knows how to complete the remaining hierarchy.

How you categorize library images is entirely up to you, but if you submit work to an external photo library, you will most likely be given guidelines on the acceptable keywords and categories to use when keywording photographs for submission. These guidelines are normally supplied privately to photographers who work directly with the picture agencies. But there are online resources that you can refer to that describe how best to establish and work with a controlled vocabulary. These ensure that the keyword terms you use to describe your images conform to prescribed sets of words universally used by others working in the same branch of the industry. When you get into complex keywording (and I do know photographers who assign images with 50 keywords or more), it is important to be methodical and precise about which terms are used and the hierarchy they belong to.

Keyword categories can also be used to catalog images in ways that are helpful to your business. For commercial shoots, I find it is useful to keep a record of who has worked on which shot. Some catalog programs let you set up a custom database template with user-defined fields. In Lightroom, you can set up keyword categories for the various types of personnel and add the names of individuals as a subset, or child, of the parent keyword category. **Figure 4.34** shows how I have created keyword categories for *Clothes stylists, Hair stylists,* and *Makeup artists*. Inside these categories, I created subcategories of keywords listing the people I work with regularly. Once I have established such a keyword database, Lightroom auto-completes the keyword metadata entry in addition to correctly placing the keyword within the established hierarchy. This type of organization is also useful for separating library images by job/client names. When the keyword names are in place, you should find it fairly easy to keep your catalog of images updated.

### Keyword filtering

Because the Keyword List panel can grow to contain many thousands of keywords, you can make navigation simpler by typing the keyword you are looking for in the Filter Keywords section at the top of the panel. Even if you type just the first few letters or the keyword or keywords you are looking for, this can help narrow the selection of keywords to choose from. You can use this feature to check if a keyword exists in more than one place and edit the Keyword List accordingly.

You can also use the Keyword List panel to filter the photos that appear in the content area. As you roll the mouse over a particular keyword, you'll see an arrow appear next to the keyword count number. When you click on the arrow, this displays all the photos in the Lightroom catalog that contain this keyword, regardless of whatever photo filter view you have active.

### Importing and exporting keyword hierarchies

You can create your own keyword hierarchy from scratch or import one that has already been created (such as the example shown in **Figure 4.35**). To import keywords into Lightroom, you'll need to do so from a tab-delimited keyword file.

+		Keyword	List	•
( <b>Q</b> , F	ilter Keywords			
Þ	ACTION			
	ANATOMY			
►	ANIMALS			
►	ARCHITECTURE			
►	ART			
►	BUSINESS			
►	CLOTHING			
►	COLOR			
►	CONCEPTS			
►	DIRECTIONS			
►	DISASTER			
►	EDUCATION			
►	ENERGY			
►	ENVIRONMENT			
►	ETHNICITY			
►	EVENTS			
►	EXPRESSIONS			
►	GENDER			
•	GOVERNMENT			
•	HOLIDAY			
►	LANDFORM			
►	LIGHT			
►	MEDICAL			
Þ	MONTH			
•	NATURE SUBJEC	.TS		
Þ	OCCUPATION			
•	OCEANS			
	PETS			
	PLANTS			
•	PRIVATE METAD			
	RELATIONSHIP F	AMILY		
	RELIGION			
	SEASONS			
	SPORTS			
	SPORTS COLUMN			
	TIME OF DAY	ILIN I		
	TRANSPORTATI	ON		
Ň	TRAVEL	511		
	ТҮРЕ			
	WEATHER			
	WEDDINGS			
	WORLD LOCATI	ON		
Þ	YEAR			
1	© 2007 D-65 KEY	WORD LIST		

**Figure 4.35** This shows an imported "D-65" keyword list, that was created by Seth Resnick for attendees of his D-65 workshops.

#### TIP

David Riecks runs a Web site with tips and guidelines on how to work with a controlled vocabulary at www.controlledvocabulary.com.



**Figure 4.36** When Enter Keywords is selected in the Keywording panel, you can edit the keywords directly, but the implicit keywords will be hidden from view.

	Keywording 🔻
Keywo	Enter Keywords
Bygdø Places	Keywords & Containing Keywords Will Export
	re to add keywords

**Figure 4.37** When Keywords & Containing Keywords or Will Export is selected in the Keywording panel, the implicit keywords will be made visible so that you can see a flattened view of all the keywords applied to a photo (but you won't be able to edit them).



**Figure 4.38** In Enter Keywords mode, you won't always see the keyword hierarchy (as used when typing in a new keyword) unless there are identical keywords but with different parents. A tab-delimited file is a plain text file with a tab between each indented level in the text. Tab-delimited files are one way to import and place data that is arranged in a hierarchical format. In the tip to the left, you will see a link to David Riecks' ControlledVocabulary.com Web site, from which you can purchase a ready-made vocabulary that is compatible with Lightroom. To install this, download the file, launch Lightroom, and choose "Import keywords" from the Metadata menu. That's it—these keywords will be added to the Keyword List panel. Similarly, you can export a keyword hierarchy for sharing on other computer systems or catalogs by selecting Metadata ⇔ Export Keywords. (A keywords export is also saved as a text file using a tab-delimited format.)

### Implied keywords

The Keywording panel lists keywords that have been applied explicitly to images in the Keyword List section. But as I mentioned, some of the keywords that you enter will already have implicit keywords associated with them. So if, in the future, I apply the keyword *Bygdøy peninsula*, it will automatically include the implicit keywords *Places, Europe*, and *Norway*. I don't have to type in *Bygdøy peninsula* > *Norway* > *Europe* > *Places* if there is already a keyword with such a hierarchy in the database. It should only be necessary to type in the first few letters (such as *Byg*), and Lightroom will auto-complete the rest. If the Keyword Tags menu is set to display Enter Keywords (**Figure 4.36**), you can edit the keywords in this mode, but the implicit keywords will be hidden (although they will, nonetheless, remain effective when conducting searches). If you select Keywords & Containing Keywords or Will Export (**Figure 4.37**), you will see a flattened list of keywords that includes the implicit keywords, but you won't be able to edit them in the Keywording panel when using these two modes.

When you enter a new keyword, you use the > key to signify that this keyword is a child of the following keyword (such as *Chicago* > *Illinois* > *USA* > *Places*). This establishes the hierarchy, and as I explained, when you use the Enter Keywords mode, all you will see is the first keyword; the parent keywords will be hidden. However, if you apply a keyword that is identical to another keyword where both have different parents, you will then see the full keyword path hierarchy appear in the Keywording dialog. To give you an example of why this is the case, take a look at **Figure 4.38**, in which you see the keyword *Camilla* repeated twice. This is because I can add the keyword *Camilla* in two separate contexts. On one level, *Camilla* is a makeup artist I work with, but she's also my wife (so I had better include her in the people I know!). This is why, when you type certain keywords, you'll sometimes see more than one keyword path suggestion. It also explains why, when you click  $\leftarrow$ Enter to OK the choice, you may see a full keyword path directory in the Keywording panel rather than the single keyword (as in the Figure 4.38 example).

### Keyword suggestions

If you expand the Keyword Suggestions section, this reveals a grid of suggested keywords. You can click any of the keywords displayed here to add it to the selected photo or photos. Lightroom adapts the list of keywords that are available for use based upon the keywords that are already in that image plus those photos that are close neighbors in terms of capture time. The suggested keywords are also prioritized based on how soon before or after the current photograph they were taken. The logic system that's used here works really well when trying to guess what other keywords you might like to add to a particular photograph. In **Figure 4.39**, the selected image had the keywords *New York* and *USA*. Lightroom was able to suggest adding the other keywords shown in the Keyword set list such as *Times Square, Central Park, Manhattan*, and *Architecture*. This is because all the other photos that had *New York* and *USA* as keywords *also* had one more of these other keywords assigned to them.

### TIP

The more keywords you have in the source photo or neighboring photos, the more accurate the suggested keywords will be. The diversity of your keywording will also count. If all the keywords in a set of images are nearly identical, there is not much Lightroom can do when it comes to suggesting alternative keywords.



**Figure 4.39** Here is an example of Keyword Suggestions in use. One photograph is selected here and the Keyword Set list adapts to display a list of keywords based on an analysis of the keywords assigned to similarly keyworded photos taken around the same time.



**Figure 4.40** The Keywording panel shown here displays the Outdoor Photography keyword set. You can hold down the <u>Alt</u> key to preview the keyboard shortcut numbers and use the <u>Alt</u> key plus numbers shown here to quickly assign a Keyword Set keyword.

### **Keyword sets**

The Keywording panel can also be used to display sets of keywords. When keywording certain types of photo projects it can save you a lot of time to have commonly used keywords quickly accessible. Keyword sets offer a quick method for adding commonly used keywords to selected images. To access a Keyword Set, click the disclosure triangle (circled in **Figure 4.40**) to reveal the Set section of the Keywording panel. This will normally display the Recent Keywords keyword set, which can be useful for most keywording jobs. Or, you can select one of the supplied Keyword Set presets such as Outdoor Photography, Portrait Photography, or Wedding Photography. In Figure 4.40, the *Outdoor Photography* Keyword Set had been selected, with suitable, outdoor keyword offerings such as *Landscape* and *Wildlife*. You can also use the Alt key plus a number as a shortcut for assigning Keyword Set keywords. If you hold down the Alt key, the number shortcuts will appear next to each keyword. So, for example, if I wanted to assign a *Flowers & Plants* keyword, I would use the Alt –9 shortcut (see also **Figure 4.41**).



**Figure 4.41** Here is an example of the Outdoor Photography keyword set in use. With this loaded, you have a set of nine keywords at your disposal with which to annotate your photos.

### Creating your own custom keyword sets

If you have a lot of photos to edit from a specific trip, or if you regularly photograph certain types of events, you will most likely find it useful to create your own keyword sets for these types of shoots. To do so, follow these instructions:

Keywording 🔻			
Keyword Tags Enter Keywords 🔅 🔻			
Antarctic, Icebergs, Landscapes, Whaler's Bay	000	Edit Keyword Set	
Click here to add keywords	Preset: Antarctic		•
✓ Recent Keywords	Antarctic	Drake Passage	Akademik Shokalskiy
Antarctic Outdoor Photography Portrait Photography Wedding Photography	Deception Island	Whaler's Bay	Half Moon Island
Save Current Settings as New Preset Delete preset "Outdoor Photography" Rename preset "Outdoor Photography"	Gerlache Strait	Icebergs	Landscapes
Edit Set IPIC 💠 Metadata 🖪			Cancel Change

1. To create a custom keyword set, go to the Keyword Set section of the Keywording panel and select Edit Set. This opens the dialog shown here (using the current keyword set list), where you can edit which keywords you would use for quick access when keyword-editing a particular project. In this example, I created a keyword set that I could use when editing photographs taken in Antarctica.

Keywording 🔻							
Keyword Tags Enter Keywords 🕴 🔻							
Antarctic, Icebergs, Landscapes, Whaler's Bay							
Click here to a	dd keywords						
Keyword Sugg	estions 🛛 📲						
Keyword Set	Keyword Set Antarctic 🔋 🔻						
7 Antarctic	8 Drake Pas 9 Akademik						
4 Deceptio	5 Whaler's Bay 6 Half Moo						
1 Gerlache 3	2 Icebergs 3 Landscapes						

2. After creating a new custom keyword set, go to the Metadata menu and check out the Keyword Set submenu to see the shortcuts listed for applying keywords. (These shortcuts are toggled.) The Keywording panel shown here now also displays the new custom keyword set. You can hold down the Alt key to preview the keyboard shortcuts and use the Alt key plus a number to quickly assign any of these keywords to selected photos.

### TIP

In Keywords mode, you can enter more than one single keyword into the painter field. You will also notice in the Keyword List panel that the keywords entered will appear with a plus sign next to them (see the Keyword List panel view in Step 3 on the facing page).



cursor icon will change appearance depending on the mode you are using, to reflect the type of setting that is being applied.

## The Painter tool

The Painter tool (also referred to as the spray can) is located in the Library module toolbar. It can be activated by clicking the tool, which floats it from its docked position in the Toolbar. You can also access the Painter tool by going to the Metadata menu and choosing Enable Painting, or use the  $\Re$  (Mac) or Ctrl (Alt K (PC) shortcut. You can then select which type of settings you want to apply with the Painter tool (see **Figure 4.43**).

The Painter tool is ideal for those times when you want to repeatedly apply a keyword or combination of keywords to photos in the Library module Grid view. You can do this by clicking with the Painter tool on a photo you wish to edit, or you can click and drag over a number of photos at once. But that's not all: You can also use the Painter tool to paint using labels, flags, ratings, metadata, develop settings, rotation, or to set the target collection. It all depends on which mode you have selected in the accompanying Paint menu, and the Painter tool appearance varies according to which mode you have selected (see Figure 4.42 for examples of all the different cursor styles). As you can see, there are lots of potential uses for this tool-not just applying keywords, but other tasks such as painting with a saved Develop setting. With previous versions of the Lightroom Painter tool, some things (such as applying labels or ratings) had a toggle action where clicking or dragging over a thumbnail would either apply or remove data. Basically, it was all too easy to apply data and then undo it in a couple of keystrokes. With Lightroom 3, the toggle behavior has been removed and you now need to hold down the Alt key as you click in order to switch to eraser mode  $(\mathscr{A})$ , which will undo a setting. Also, keep in mind that you have to be careful to target the thumbnail and not just the cell area. For jobs where you are constantly applying the same instruction, like "rotate this photo 90 degrees" or "apply this set combination of keywords," the Painter tool does have its uses, but it can often be much easier to just select the photos first and then apply a setting to all the photos in one step.



**Figure 4.43** With some of the Painter tool options, such as Rotation, you will have menu options to choose from.



1. To work with the Painter tool, go to the Library module toolbar and click the tool icon to activate it (or use the **MAIL** (Mac] or **Ctrl** (Alt (K) [PC] shortcut). The Painter tool will undock itself from the Toolbar and replace the normal pointer cursor with the Painter tool icon as you move it within the Grid view area.

Paint : Keywords ÷ Antarct	ic,Icebergs,Landscap Done
Set Keyword Shortcut Keyword Shortcut: Antarctic,Icebergs,Landscapes Cancel Set	

### NOTE

When the Painter tool is set to Target Collection mode, it can be used to add photos to whatever is the current target collection. This is normally the Quick Selection in the Catalog panel, but you can change this to any other collection instead (see page 179).

2. You can enter the keyword or keywords you wish to apply in the empty field in the toolbar. (Lightroom again auto-completes the text by referencing previous or recently used keywords in the database.) Alternatively, you can choose Metadata ⇒ Set Keyword Shortcut, or use ﷺ(Alt\_Shift)K (Mac) or Ctrl (Alt\_Shift)K (PC) to open the Set Keyword Shortcut dialog and enter the keyword or combination of keywords in the dialog shown here.

C O     The Letter of the						
		*** • •				Histogram 🔺
41 V8737043 4992 x3328 DNG	42 V8737046 4992 × 3328 DNG	43 V8737069 4992 x 3328 DNG	44 V87J7085 4993 x 3328 DNG	45 V8737090 4992 x 3328 DNG	London 200 Longleat House	5 9
	-				💷 Longleat Safari Park	1
A			COLO SKIN	1011 Jack	Makeup artists	412
		Section of the	AND B	Anna Asse	Mallorca	18
	R BYER	The first of the second second	A main and and	1100000	Martin Soan	2
et i rem	FOR THE REAL PROPERTY.	Party -	No.	CONTRACTOR OF	moda	3
					h Model spencies	407
					<ul> <li>Modelagencies</li> </ul>	17
	6 9				► Models	411
46 V87J7093	47 VB7J7097	48 V87J7099	49 VB7J7100	50 VB7J7101	Nathalie Cox	2
ANA DATE				5991 X 3328 U/4U	- V NATURE SUBJECTS	240
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					Landscapes	64
					Mammals	1
				2014 ALC: A	<ul> <li>Monkeys</li> </ul>	82
51 V87J7102	52 V87J7104	53 V87J7112	54 VB7J7135	55 V87J7145	► plants	6
4992 x 3378 DNG			4992 x 3328 DNG	4992 # 3328 DNG	Seascapes	22
					Nevs	2
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	A DATE OF	and the second se			Photo Plus	31
Paint : Keywords #	Antarctic, Icebergs, Landscap			Done	Sync Settings S	ync Metadata
			.0.			10

**3.** The Painter tool is now ready for use. Basically, you just click or drag with the Painter tool anywhere in the Grid view. In this example, I used the Painter tool to "paint" the keywords entered in Step 2. When you have finished using the Painter tool and want to switch out of "paint" mode, click in the empty area of the toolbar where the Painter tool normally lives, or use the **State** (Mac) or Ctrl/Alt(K) (PC) shortcut.

000		Ta LR-080408-2.lrca	at - Adobe Photoshop Lightr	oom - Library		0
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**4.** As was pointed out in the main text, you can use the Painter tool to apply things other than just keywords. In this example, the Painter tool is currently in Settings mode. When this mode is selected, you will see a menu list of saved Develop presets. If, on the other hand, you were to select Rotation, the menu would change to let you select a specific rotation or allow you to choose a painter setting that would flip an image. If Metadata is selected, the menu list will let you choose from pre-saved metadata templates. And, likewise, if Rating, Pick, or Label is selected, you are also offered another choice of settings to use.

# Photo filtering and searches

So far, we have looked at how to manage images using folders to group the images in the catalog. Then we looked at how to rate images and separate the keepers from the rejects. Finally, we looked at how to add metadata information, including keywords to describe the image content, thus adding context, meaning, and ultimately more value to the pictures in the catalog. Now let's look at how to use the Library module tools to conduct image searches to find specific photos.

## Filter bar

One of the key features in Lightroom is the Filter bar (see Figure 4.44), which can be accessed whenever you are in the Library Grid view mode. The Filter bar replaces the Find panel and Metadata Browser that were originally in Lightroom 1 and combines the best features of these two panels with the search functionality of the old Keywording Tags panel. The Filter bar is the main place to go for making refined filter selections of photos in the catalog (although you can still use the Filmstrip controls for filtering by ratings and labels). The Filter bar, therefore, rationalizes the filter controls in order to make the filtering process more centralized and flexible. One of the important things to note in Lightroom 3 is that filters are no longer automatically sticky. Previously, you might have visited a folder or collection, applied a filter, and then forgotten you had done so the next time you again visited that particular folder or collection. A lock button (circled in Figure 4.44) has now been added to the top-right section of the Filter bar so that you can instantly turn filters on or off, this now applies to all images in the catalog. For example, if you apply a "3 stars or higher" filter, this filter remains in force everywhere in Lightroom until you switch off the filter lock.

### TIP

The most important tip of all here is to remember that the \\key toggles the Filter bar visibility on or off. Another important tip is to use \\(\mathcal{E}\)\) (Mac) or Cirr \\ (PC) to toggle the catalog filters on or off. Quite often, you will find yourself trying to work out where all your photos have disappeared to, and this is all because you forgot there was a filter active!

## NOTE

To summarize, the left panels in the Library module contain the catalog source controls such as folders and collections. The Filter bar allows you to further filter the Left panel filter view and the right panels contain the catalog edit controls, such as the Quick Develop and Keywording panels.

Library Filter :		Text Attribute Metadata None No Filter 🌘						
Text Any Searchable Field 🗘 Contains All 🗘 🔍								
Attribute   Flag 🔨 🖓 👘   Rating ≥ ☆☆☆☆☆   Color ■■■■■■■   Kind 💷 🖿								
Date	2	Keyword	3	File Type		Camera		
All (218 Dates)	7878	Photographers	3	All (5 File Types)	276	All (1 Camera)	276	
▶ 2001	16	▼ Places	854	Digital Negative (DNG)	268	Canon EOS-1Ds Mark II	276	
▶ 2002	278	China	1	JPEG	1			
▶ 2003	72	▼ Europe	1092	Photoshop Document (PSD)	1			
▶ 2004	39	▶ Norway	78	Raw	4			
▶ 2005	1596	▼ Spain	6	TIFF	2			
▶ 2006	749	▼ Mallorca	386					
▶ 2007	3510	Ca'Sa Rota	703					
▶ 2008	1596	Cancoll	276					
Unknown	22	Lloret	70					
		Senselles	344					
		Sineu	215					

**Figure 4.44** The Filter bar lets you filter the photos shown in the catalog using text, attributes (like those in the Filmstrip), metadata, or a combination of all three.

### The Filter bar layout

There are three components to the Filter bar: Text, Attribute, and Metadata. These can be used to make a filter search of the entire catalog, or a subset of catalog images. This is an important point to remember, because if you want to conduct a search of the entire catalog, you must remember to go to the Catalog panel and select All Photographs first. This then allows you to carry out a global search. For speedier, targeted searches, make a sub-selection of photos first before using the Filter bar. It is so easy forget this important rule; many times, I go to the Filter bar with the intention of carrying out a global search yet forget that I have a sub-selection of photos active! So if a Filter bar search doesn't seem to be working properly, check that you have All Photographs selected. If you wish to undo a Filter bar search or toggle a Filter bar search on or off, use the Enable Filters shortcut: **(WL)** (Mac) or **Ctrl** (PC).

### **Text filter searches**

To carry out a text search you can choose Library  $\Rightarrow$  Find, click the Text tab in the Filter bar and click in the Search field, or you can use the KIF (Mac) or Ctrl F (PC) shortcut to enable a text search and at the same time highlight the Search field in the Filter bar. From there, you can type in a text term that will be used to filter the photos in the current catalog view, looking for terms that match (Figure 4.45). The problem with this approach is that a general search for a term like ann could yield any number of matches—probably too many to be really useful. But there are ways you can limit a search and restrict the number of results you get when filtering the catalog contents. To start with, you can select an appropriate search target. Rather than search Any Searchable Field, which will mean searching everything, you can narrow the search target by choosing one of the following options: Filename, Copy Name, Title, Caption, Keywords, Searchable Metadata, Searchable IPTC data, or Searchable EXIF data. A Filename search is fairly obvious. I often search specifically by Filename using a Contains rule and type the filename I am looking for in the search field. I use this filter method when clients have made their final image selection and send me a list of filenames for the photos they wish me to retouch. All I need to do then is make a general selection of the client's photos and type in the last four digits of the selected filenames. This is usually enough to guickly locate each of the photos I am looking for. I discussed Copy Name more fully in the Metadata panel section earlier. Basically, you can use this to search the copy names that have been used for all your virtual copy images. All the other types of searches enable you to narrow the range of a text search to concentrate on the selected metadata type, such as Caption only or Keywords only. If you are unsure precisely where to search, the easiest option is to revert to using the more general Any Searchable Field approach, but as I have said, doing so might mean you end up with too many matches to choose from.



**Figure 4.45** Filter bar text searches can be carried out by searching Any Searchable Field (as shown here) or by searching specific library criteria only, such as keywords, filenames, or captions.

### Search rules

You can further limit a filter search via the Rule menu in the Text filter section (**Figure 4.46**). Here you can choose rules such as Contains. This carries out a search for text that partially matches anywhere in a text phrase. So, in the Figure 4.46 example, a search for *ann* could yield results such as *Ann*, *Anniversary*, and *Banner*. A Contains All rule looks for an exact match, such as *Ann*. The Doesn't Contain rule excludes files that match the text that's entered, while a Starts With rule could yield results where only words like *Ann* or *Anniversary* are filtered, and an Ends With search will yield results for anything ending with *ann* like *Portmann* or *ann*. These further search refinements can again make all the difference in ensuring that you have full control over the filtering process and that you don't end up with too many text filter matches.

Library Filter :	Text	Attribute Metadat	a None	Custom Filter 🗧 🔒
	Text Any Searchable Field	✓ Contains Contains All Contains Words Doesn't Contain	Q- ann	Click the X to clear the
		Starts With Ends With		current search term.

**Figure 4.46** Here is an example of the Filter bar being used to search for a term that contains the letter sequence ann. You can use any of the rules shown here to further limit the search results and attain a more focussed filter result.

### **Combined search rules**

If you click the search field icon circled in **Figure 4.47**, this opens a combined menu containing all the Search Target and Search Rules options. You can navigate this single menu to choose the desired settings. Note that if you click the X on the right, you can clear a text filter term and undo the current text filter.



Figure 4.47 The combined Search Target and Search Rule menu.

### Fine-tuned text searches

You could apply the Start With rule when searching, but it is handy to know that you can conduct a search for anything that begins with a specific search term by typing + at the beginning. If in my version of Lightroom, I were to type +*cape* in the search field, this would display photos with any keywords that begin with *cape*, such as *Cape Point* or *Cape Town*, and exclude keywords like *Landscape* (see **Figure 4.48**). Inverse searches can be made by typing an exclamation mark before the search term. If I want to search for keyworded photos that were shot on location but not include *Jobs*, *Europe*, or *USA*, I can type *Places !Europe !USA !Jobs* in the Find panel search field (also shown in Figure 4.48).

To further illustrate the points made here, you can use a search term like +*cape* to search for all terms that start with the word *cape* and combine this with *!USA* to also exclude any U.S. locations that start with the word *cape*. So you could end up with search results that included *Cape Town* in South Africa but excluded *Cape Canaveral* in Florida.

Library Filter: Text Attribute Metadata None	Custom Filter 🗧 🤷
Text Any Searchable Field 🛊 Contains 🛊 Q++cape	8
Library Filter : Text Attribute Metadata None	Custom Filter 🗧 🔒
Text Keywords Contain C Q- Places !Europe !USA !Jobs	8

**Figure 4.48** *Examples of refined text searches using a* + or ! in the search field.

## Attribute filter searches

The Attribute filter tools are something that I touched on earlier in the previous chapter when discussing the Filmstrip filter controls. The Filter bar offers the exact same set of tools, except they can be accessed directly in the Filter bar alongside the other filter items (**Figure 4.49**). It is, therefore, simply a case of it being easier to integrate a refined filter search based on criteria such as the flag status, star rating, color label, or whether you wish to filter the master images or copy images only. Everything is the same here; you can click the buttons to apply a filter and click the star rating options to specify whether to filter for photos with a star rating that is the same and higher, the same and lower, or the same rating only.



Figure 4.49 The Attribute section of the Filter bar showing the rating options menu.

## Metadata filter searches

The Metadata section integrates some of the Keyword filter functionality of the Keyword List panel but goes further by allowing you to access a wide range of metadata attributes (not just keywords) and combine these to accomplish different kinds of metadata information searches. The Metadata filter section (**Figure 4.50**) provides customizable columns that can be adapted in an almost infinite number of ways to carry out different kinds of filter searches. In the example below, you can see how it is possible to combine a metadata search by date combined with a search that includes keywords, file type, and camera data criteria. Personally, I don't think there are that many instances where you would want or need to combine quite so many search criteria in a single search, but the functionality is there to allow you to do this (and more).

#### Metadata 2 Date Keyword File Type Camera Model agencies All (5 File Types) All (1 Camera) 833 > 2002 Models **Digital Negative (DNG)** Canon EOS 400D DIGITAL > 2003 ▶ NATURE SUBJECTS JPEG > 2004 ▶ Objects Photoshop Document (PSD) > 2005 1596 People Raw 833 749 ► 2006 People I know Drag the bottom bar to adjust the TIFE height of the Metadata lists. 2007 Photo Plus 3510 > 2008 Photographers Places 810 Unknown

Figure 4.50 The Metadata section of the Filter bar.

### NOTE

Not included in the Filter bar is an option to filter for images by process version. If you go to the Library menu you can select Find Previous Process Version Photos. This creates a temporary collection in the Catalog panel, which you can then filter using the Filter bar tools shown here.



**Figure 4.51** This shows the expanded list of options for a Filter bar Metadata search.

### Metadata filter options

The Metadata section can be adjusted in height by dragging the bar at the bottom up or down. When the metadata panels are expanded in height, they can consume a lot of valuable space in the Grid view content area, which is a problem if all you are interested in doing is applying a filter using one panel only. This is another reason why it is important to remember the () keyboard shortcut, which toggles hiding and showing the Filter bar. It is unfortunate that the screen animation for this is rather jerky and slow compared to the speed with which the side panels and toolbar appear and disappear from the screen, but you do at least have the convenience to move the Filter bar out of the way when it is not needed.

The individual panels can be customized by clicking the panel name and selecting one of the many metadata search criteria that are available (**Figure 4.51**). Because you are able to customize the layout of the panels, this provides lots of opportunities for you to filter the catalog photos in different ways. Basically, you can use the AShift or the key (Mac) or Ctrl key (PC) to select more than one search term in a single panel. And because you can customize each panel by metadata filter type, you can have more than one panel used to filter by, say, Keyword (or whatever else it is you may wish to duplicate). The default view gives you four panels to work with, but you can customize this layout by clicking the button in the top-right corner of each panel (**Figure 4.52**) to either add extra columns (up to eight in total) or remove columns. Selecting multiple items within a single panel will add photos to a filter selection, while selecting items from other panels will "intersect" with the photo filter selection to further narrow a search.

	Metadata None		Custom Filte	er 🗢 🂾	
11	File Type	-	Camera 🗧	$\sim$	Add Column
1596	All (5 File Types)	1596	All (5 Cameras)	1596	Remove this Column
1	Digital Negative (DNG)	33	Canon EOS 400D DI	29	Keniove this Column
2	JPEG	707	Canon EOS DIGITAL	10	
2	Photoshop Docume	17	Canon EOS-1Ds Mark II	362	

**Figure 4.52** Adding or removing a column in the Filter bar Metadata section.

Library Filter :		Metadata None	Custom Filter 🗧 🔒
Keyword	=	Keyword	
Colorado	297	All (3 Keywords)	297
Colorchecker chart	4	T ARCHITECTURE	
Computers	21	> architectural detail	
Congo	185	Treople I know	
Cookham	695	Jeff Schewe	6
Copley Square	49	▼ Places	
Copra	5	<b>▼USA</b>	
Corfe Castle	132		
Courtenay	256	Georgetown	36
Courtney	524	Independence Pass	49
crab > crustacean	1	Leadville	23



### Metadata filter categories

The Date categories allow you to progressively filter by date. For example, you can search first by year date, and then expand the year folders to search by month and then by day.

The File Type section can be used to separate images by file format and make it easy for you to quickly filter out images, such as the PSD masters or the raw DNG images. The Keyword category is one that you will probably want to use all the time when searching the catalog, and in **Figure 4.53**, you can see an example where I used two Keyword filter columns to narrow a keyword search.

The Label category (**Figure 4.54**) almost amounts to the same thing as clicking a color label swatch in the Filters section of the Filmstrip. The main difference is that the Label filters used here allow you to distinguish between the color of a label and any text associated with that label. To understand what I mean by this, please refer to the section on sorting Color labels coming up on page 197.

**Figure 4.55** shows an example of a Filter bar search that achieves the same filter result as the two-step approach described at the beginning of this chapter. The Filter bar search applied here was based on a 1-star filter for photographs taken from 2005 to 2007, using the keywords *Mallorca* or *Malta*, and a further keyword filter for photos with the keywords *Sineu* and *Valletta*.

The Camera section lets you filter by both camera model and serial number. Suppose, for example, you suspected that a fault was developing with one of your camera bodies. Inspecting the images by camera type can let you filter out the images that were shot using that specific camera. The Lens section (**Figure 4.56**) is great for filtering the catalog by lens type, which can be really handy when you are searching for, say, shots that were taken with an ultra-wide-angle lens. Flash State refers to whether the on-camera flash was fired. The Shutter Speed section allows you to filter photos according to the shutter speed the photos were shot at. Likewise, the Aperture section lists every aperture setting that has been used,

Label	
All (10 Labels)	5924
Blue	40
Color Correction N	2
Green	109
Purple	1
Red	304
Retouching Needed	1
Unedited metadata	151
yellow	2
Yellow	117
No Label	5197

**Figure 4.54** The Color Label category allows you to filter labels by swatch color, as well as by the color label text description.

Library Filter :		Text	t Attribute	Metadata None			Custom Filter 🗧 🔒
Date	3	Keyword	3	Keyword	3	None	The second s
All (218 Dates)	7878	▶ Malta	168	Valletta	168		
▶ 2001	16	▶ Norway	79	▼ Spain	19		
▶ 2002	278	<b>▼</b> Spain	19	▼ Mallorca	650		
▶ 2003	72	▶ Mallorca	650	Ca'Sa Rota	703		
▶ 2004	39	▶ Sweden	86	Cancoll	294		
2005	1596	▶ South Africa	15	Lloret	70		
2006	749	▶ UK	731	Senselles	344		
> 2007	3510	▶ USA	800	Sineu	215		

**Figure 4.55** By repeating the keyword across two or more panels, you have more flexible options when filtering by keyword to carry out OR- and AND-type searches. Here, I used the Shift key to make contiguous selections of Metadata items and the  $\mathfrak{K}$  key (Mac) or Ctrl key (PC) to add discontiguous items to a filter list.

Lens	
All (20 Lenses)	7878
7.4-22.2 mm	2
10.0-22.0 mm	6
12.0-24.0 mm	174
24.0 mm	4
24.0-70.0 mm	1335
28.0-70.0 mm	1
28.0-135.0 mm	320
70.0-200.0 mm	741
70.0-300.0 mm	135
EF-S10-22mm f/3.5-4.5 USM	1269
EF15mm f/2.8 Fisheye	1
EF16-35mm f/2.8L II USM	81
EF24-70mm f/2.8L USM	374

Figure 4.56 The Lens filter category.

Develop Preset	
All (10 Develop Presets)	7878
Canon EOS 1Ds MkIII 125 ISO	1
Default Settings	7465
EOS1DsMkII calibration	1
General - Auto Tone	138
Sharpen - Landscapes	2
Sharpen - Portraits	1
Tone-Burn corners	1
Unavailable Preset	2
Unavailable Preset	39
Custom	238



▼ Catalog	
All Photographs	5495
Quick Collection +	
Previous Import	17
Missing Photographs	25

## **Figure 4.58** *Missing Photographs are shown.*

which might be useful for short-listing pictures shot at the widest lens aperture and, therefore, with the shallowest depth of field. With ISO Speed Rating, you can quickly filter the high ISO speed shots from all the rest, and the GPS filter allows you to filter according to whether GPS data is embedded.

The next few sections require that you have entered custom metadata in the catalog photos. The Location and Creator categories can be useful if you are in the habit of editing the associated IPTC fields via the Metadata panel. If so, you can quickly filter the catalog photos by any of the IPTC metadata items you see here. Location, City, State/Province, and Country all refer to the Location IPTC metadata used to describe where a photo was shot (you may use keywords to do this as well, of course, but only the IPTC data is referenced here). The Creator section filters the photos by the creator of the photograph. With some camera systems, you can configure the camera settings so that the creator name is always embedded at the capture stage for each and every shot. The Copyright Status and Job reference are also further examples of IPTC metadata that first has to be entered by the user.

The Aspect Ratio category lets you filter according to whether the photos are landscape, portrait, or square. Treatment refers to whether the photos are in color or have received a black-and-white conversion treatment via Lightroom (i.e., a photo that has been edited using the Black & White panel controls rather than a photo that has been merely desaturated using, say, the HSL panel Saturation sliders). And finally, the Develop Preset category (**Figure 4.57**), which filters according to the Develop module presets that may have been applied to the photos in the catalog, including those that have just had the default settings applied. This is a useful filter for tracking down photos that have had a particular type of treatment, such as a favorite grayscale conversion or split-toning technique. Are you looking for inspiration? You could select All Photographs to view the entire catalog and use this filter category to check out certain Develop preset effects as applied to various images. You could then copy the Develop setting from one of these filtered photos or make a note to apply this particular Develop preset to other images.

## Locating missing photos

It is inevitable that photos in the catalog will become misplaced. This is where folders may appear grayed out in the Folders panel or individual files will show exclamation point badges. In either case, this indicates that the photos are either off-line or missing. It may be a simple matter of checking to reconnect a missing hard drive volume, or it could be because you have deleted or moved the original photos at the system level. If you need to locate all the currently missing files in the catalog, you can do so by going to the Library menu in the Library module and choosing Find Missing Photos. This gathers together all the missing files and groups them as an impromptu collection in the Catalog panel (see **Figure 4.58**).

## **Custom filter settings**

We touched on working with custom filters in the previous chapter, where I showed how you can save custom filter settings via the Filmstrip. Such custom Filter settings are also accessible via the Filter bar, where you can save more detailed filter settings that make additional use of Metadata filter terms, which, in turn, can be accessed via the Filmstrip. In **Figure 4.59**, I created a filter search for photos that matched the keyword *Jobs* (to select all client job photos), where the File type was a PSD file (which is what I often use when editing retouched master images), that had a star rating of 2 stars or higher. I then clicked the Custom Filters menu to save this as a new preset setting, named it *Client select masters*, and clicked Create. I was then able to use this custom filter whenever I needed to access a shortlist of all my client retouched master images.



**Figure 4.59** This shows the Custom Filters menu options, where you can save a Filter bar setting as a new preset.

## Empty field searches

Let's go back now to the Text filter section of the Filter bar, where in the Search Target section you can choose to search by caption. In the accompanying Rules section, you will find rules such as Is Empty and Isn't Empty and, for keyword searches, Are Empty and Aren't Empty. The purpose of these rules is to let you search for photos where no caption or keywords have been added, or alternatively you can select only those photos that *do* have captions titles or keywords. (Note that when either of these rules is selected, the field search is overridden and the search field box dimmed.) Let's now look at how and why you would want to use an "Empty field" search. TIP

Color labels are specific to the color label set used. See page 110 in Chapter 3 for information on working with different color label sets.

### No content searches

The idea of using Lightroom to search for nothing may sound strange, but trust me, there is method in such madness. The Is Empty and Are Empty rules can be used to filter out photos that have yet to be metadata edited. This housekeeping tip suggests a quick way to filter out all the photos that still need keywording or caption editing.



**1.** The Is Empty and Are Empty rules can be applied to keyword or caption searches only. For this example, I made a selection of All Photographs and made a Keywords, Are Empty Filter bar text search. This action filtered all the photos in the library that had yet to have keywords added.

2. Now, you can (if you like) apply a color label that can act as a semipermanent marker for all the photos in the catalog that have empty keyword metadata. To show you what I mean, I went to the Metadata menu and chose Color Label Set ⇒ Edit. I then selected the Review Status preset, and changed the purple label so that instead of saying "To Print" it said "Unedited metadata," since I felt it might make better use of this lesser-used label. I then saved this as a new color label set titled "Review Status – (modified)."



**3.** With the new color label set active, I applied a purple (Unedited metadata) label to the selected, empty keyword images.



**4.** I only suggest the use of color labels as a helpful reminder. Here I am showing the photos that were selected at Step 1 (without the color label) and with the "Keywords are empty" filter in force. I could now add keyword metadata, and as I did so, the photos automatically removed themselves from the filtered selection.

### Advanced searches

Let's finish this section with an example of a complex search where several different types of search criteria are combined together to create a precise, targeted catalog filter. All the tools you need to do this are located in the Filter bar, and the following step-by-step example will hopefully provide guidance and inspiration to help you get the most out of Lightroom's search abilities. Just to remind you once more: After a Filter search has been made, you can use **HC** (Mac) or **Ctrl** (PC) to toggle switching the image filter on or off.



1. I first selected All Photographs in the Catalog panel. Then I went to the Filter bar, checked the Text tab, and chose to search by keywords only using the Contain All rule. I then typed in the name of one of my clients, *Antoni*, to initiate a catalog search for photos that were keyworded with the word *Antoni*. As I began typing in the first few letters, the search started narrowing the selection of images in the Grid to show all the photos where the keywords metadata contained this same sequence of letters. As you can see, the Filter bar search filtered the photos in the grid to show over 1,500 photos that had been shot for this client. This included everything—the raw files as well as the PSD masters. The next task was to whittle down this selection to something more specific.



2. I clicked the Attribute tab and applied a 2-star filter to show only the 2-star or higher images. I also clicked the Metadata tab to reveal the Metadata filter options and used a Date panel to search for photos that had been shot in 2007 only. Finally, I used a File Type panel to search for the Photoshop Document (PSD) file types. This resulted in a filter selection that showed only the PSD file format photos that had been shot during 2007 that had been rated with 2 or more stars.



**3.** Even so, I still had 86 images to choose from. I used a Keyword panel to select *Southern*, which is an awards entry category keyword. This now filtered the catalog to show photos taken for the specified client that had been shot during 2007 that had a rating of 2 stars or more, that were PSD files only, and that also had the keyword *Southern* > *Awards categories* > *Jobs*.



**Figure 4.60** To view a Quick Collection, click the Quick Collection item in the Photo Catalog panel.

_	Save Quick Collection
Collection Name:	Seascapes
	Clear Quick Collection After Saving
	Cancel Save

**Figure 4.61** Press **EARL** (Mac) or Ctri AIL (PC) to save a Quick Collection as a permanent collection to add to the Collections panel.

## **Quick Collections**

When it comes to combining search results, it is good to familiarize yourself with the Collections features in Lightroom. A selection offers only a temporary way of linking images in a group, and as soon as you deselect a selection or select a different folder in the library, the selection vanishes. Of course, you can still choose Edit  $\Rightarrow$  Undo, or use the keyboard shortcut  $\Re[Z]$  (Mac) or Ctrl[Z] (PC) to recover a selection, but the main point is that selections offer only a temporary means for grouping images together. If you want to make a picture selection more lasting, you can convert a selection to a Ouick Collection by choosing Photo  $\Rightarrow$  Add to Quick Collection or by pressing the (B) key. Although note that in Lightroom 3 it is now possible to make other collections the "target collection" instead of the Quick Selection (see page 179). Any images that have been added to a Quick Collection will be marked with a filled circle in the top-right corner in both the Library Grid and Filmstrip views. Note that you can have only one Quick Collection at a time, but you can make further selections and keep adding fresh images to the Quick Collection. The other advantage is that a Quick Collection is always remembered even after you guit Lightroom—no saving or naming is necessary—and the images remain grouped this way until you decide to remove them from the Quick Collection.

Quick Collections can be accessed by clicking Quick Collection in the Catalog panel (**Figure 4.60**). You can also choose File  $\Rightarrow$  Show Quick Collection or use **#B** (Mac) or **Ctrl B** (PC) to display the Quick Collection images only (**Figure 4.62**) and use File  $\Rightarrow$  Return to Previous Content (or press **#B** or **Ctrl B** again) to return to the previous Library module view. With Quick Collections, you can make selections of photos from separate sources and group them in what is effectively a temporary collection. Quick Collections remain "sticky" for however long you find it useful to keep images grouped this way. If you want to save a Quick Collection as a permanent collection, you can do so by using **#Att B** (Mac) or **Ctrl Att B** (PC). This opens the Save Quick Collection Once you have done this, it is usually good housekeeping practice to clear the Quick Collection, which you can do by choosing File  $\Rightarrow$  Clear Quick Collection or use **# Chift B** (Mac) or **Ctrl** Ashift **B** (PC).

## Collections

As I just explained, a Quick Collection can be converted into a collection, or you can convert any selection directly into a collection via the Collections panel. Whereas a catalog image can be assigned to only one folder at a time, you can use collections to create multiple references of the master photos. Collections are, therefore, useful for grouping images together from different folders in meaningful ways. For example, **Figure 4.64** shows a collection I made after filtering *UK* and *Travel* photos. As you conduct various catalog searches, you can


**Figure 4.62** With Quick Collections, you can group images from different source locations (i.e., different folders) and then select Quick Collection to view all the selected images at once. In the example shown here, I have highlighted the source folder locations in the Folders panel for the photos that make up this current Quick Collection. Note the new Collection badge highlighted here. You can click this to go directly to a parent collection.



**Figure 4.63** This shows the Collections panel, now common to the Library, Slideshow, Print, and Web modules with the different kinds of Collections icons that can be nested in Collections sets. save the results as general collections  $(\square)$ . However, since the Collections panel is now accessible in the Slideshow, Print, and Web modules, you can also save module-linked collections. Figure 4.63 shows examples of the different collection types, which are distinguished by the Collection icon appearance: Slideshow (III), Print (), and Web (). The way this works is that you can create a modulespecific collection while working in any of the above modules, and have the collection be associated with the module where it was created. Figure 4.65 shows the Create Collection dialog for a Slideshow collection that was created within the Slideshow module, which then appears in all the other module Collections panels with the Slideshow collection icon (
). When you click a module-specific collection, this selects the collection photos from the catalog (regardless of what filters are applied, what collection type it is, or which module you are in). But if you double-click a module-specific collection, it selects the photos from the catalog and takes you directly to the module the collection was created in. To give you an example of how this works, having created a Stockholm trip Slideshow collection, if I click this, it filters the collection photos that appear in the Grid and/or Filmstrip. If I double-click the Stockholm trip Slideshow collection, it filters the collection photos and takes me directly to the Slideshow module and previews them using whatever Slideshow settings happen to be associated with this particular collection. See also Figure 4.66, which explains how to rename collections.



**Figure 4.64** To create the collection shown here, I filtered the photos in the Library module to show photos that matched the keywords UK and Travel. I then clicked the Add Collection plus icon and chose Create Collection, which opened the dialog shown here, where I made this new collection a child of the Locations collections set.

#### **Target collection**

By default, the Quick Collection is always the target collection, but you can promote any other collection to be the target collection in its place and use the **(#)** Alt **()** Shift) **(**Mac) or **(**Ctrl **(**Alt **()** Shift) **()** (PC) shortcut to reset the Quick Collection as the target collection. You can assign a collection as a target collection by choosing Set as Target Collection via the contextual menu, as shown in Figure 4.66. When a collection has been promoted in this way, you'll see a + appear after the name. You can then select photos in the Library Grid or Filmstrip and press the **(B)** key to toggle adding/removing them to the target collection. (You'll see a message flash up on the screen to remind you which Collection the photo is being added to.) You can also use the Painter tool to select photos and add them to the current target collection (see page 161 for more about working with the Painter tool).

#### NOTE

You can't set a Smart Collection as the target collection.

▼ Collections	Create Slideshow	▼ Collectio
Create Sildeshow Create Collection Set	Name: Stockholm trip	⊨ 🖬 2.s
Sort by Name ✓ ✓ Sort by Kind	Stideshow Options	
Mallorca 1732	Include selected photos     Make new virtual copies	
Mulberry Tree 32		
Smart Collections	Cancel	Pol
vignettes 7		



**Figure 4.65** You can create a Slideshow collection by clicking the + button and choosing the Create Slideshow option. You can then enter a name and set location and choose to include photos from the Filmstrip. You can also add more new photos by dragging them from the Filmstrip to the collection in that module's Collections panel.

v Collections − +, v ■ Clients	
Create Collection Create Smart Collection Create Collection Set Set as Target Collection	
Delete	Rename Slideshow
Export this Collection as a Catalog	Slideshow: Stockholm trip
Import Smart Collection Settings	Cancel Rename
vignettes 7 Angelica 28	

**Figure 4.66** To rename a collection, use a right mouse click to access the contextual menu and choose Rename. This opens the Rename Slideshow dialog shown here.



**Figure 4.67** Click the + button in the Collections panel to choose Create Collection Set and create a new collection set in the Collections panel.

▼ Co	ollec	tions	- +,
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V		Locations	
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		Stockholm trip	
		Smart Collections	
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		Colored Red	
		Five Stars	
		📷 Past Month	
		Recently Modified	
		📷 Without Keywords	
≽		Retouched images: 2009	82
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30		Angelica	
		Angelica-Web	

# **Collections sets**

To help organize your collections, you can choose Create Collection Set. This adds a new collection folder ( ) allowing you to create folder groups for your collections (as shown in Figure 4.63). These are container folders for managing hierarchies of collections. To add a new collection set, click the + button in the Collections panel header (**Figure 4.67**), or right-click anywhere in the Collections panel to access the contextual menu. Choose Create Collection Set, name the set, and drag and drop to manage the collections as you wish.

#### **Smart Collections**

Smart Collections can be used to establish rules for how photos should be grouped as a collection, and Lightroom automatically updates the photos that should be included in a Smart Collection. To do this, you need to click the + button or use the contextual menu to select Create Smart Collection. This opens the Edit Smart Collection dialog shown in **Figure 4.68**, where you can set up a series of rules to determine which photos will go into a particular Smart Collection. In this example, I used a Keywords filter to select photos with the keyword *Jobs*, a File Type filter to select TIFFs, and a Capture Date filter to select images that were captured throughout the year 2009. Note in the Match section that "all" was used. This means that photos will have to match the combined rules before being added. An "any" match can be used where you want to select photos that match multiple terms, but not exclusively so. You could create a Smart Collection with an "any" match to group photos that had both red labels and yellow labels taken in the date range of 2007–2008. In Lightroom 3, you can now even create smart collections based on whether the camera flash fired.

Гуре	is	tiff tiff	- +
ure Date	is in the range	2009-01-01 to 2010-01-01	- +

**Figure 4.68** The Edit Smart Collection dialog and, to the left, the Smart Collection, as it appears in the Collections panel.

# **Publishing photos via Lightroom**

The new Publish Services panel allows you to publish collections of photos to sites such as Flickr. When photos are published in this way, there remains a constant link between Lightroom and the hosting Web site so that any subsequent changes you make to a photo in Lightroom are propagated to the server hosting the images online. Here is how to establish a publishing link.

#### NOTE

At the time of writing, Flickr is the only external publishing site option that is available in Lightroom 3, but more will undoubtedly become available after Lightroom 3 ships.

Hard Drive	▼ Publish Service
Portfolio publish work	Description: ME Photos
ME Photos	V Flickr Account
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maturcevening	V Flickr Title
	Set Flickr Title Using: IPTC Title If Empty, Use: Filename If When Updating Photos: Replace Existing Title
	► File Naming 0
	▶ File Settings J)
	▼ Image Sizing
	Resize to Fit: Width & Height     Don't Enlarge     W: 700 H: 700 pixels
	▼ Output Sharpening
	Sharpen For: Screen Amount: Standard
	▶ Metadata Iy
	V Watermarking
	Watermark: ME Copyright
	V Privacy and Safety
	Privacy: O Private Safey: Safe  Family Hide from public site areas Friends Type: Photo
Add Domain	Public

1. To start with, I clicked the Set Up button in the Flickr header in the Publish Services panel. This opened the Lightroom Publishing Manager dialog shown here (or, you can click the + button in the Publish Services panel and choose Manage Publish Connections). The first thing that's needed is a personal Flickr account. If you already have one, then click the Log In button and simply enter your Flickr account details. If you don't have an account, you'll be taken to the Flickr Web site where you can create a new account profile. Here, I configured the remaining Export settings in this dialog to establish what size I would like the large images to be and whether to add a watermark (see page 489–491). You can also set the privacy settings for your photostream images. Private means only your family and/ or invited friends will be able to see your photos, or you can make them publicly available. Plus, you will need to authorize allowing Lightroom to communicate with Flickr before completing this process.

# Publish Services Files on Disk: Portfolio publis... Files Files Betrage Automation of the service of the se

The File Settings section also allows you to set a file size limit for the photos you generate to go up on Flickr.

#### NOTE

The Flickr Title section allows you to choose the current image filename or the IPTC Title field as the image title that appears on Flickr and, if the Title field is blank, substitute the filename anyway. You can also choose to update the image titles with each update, or leave as is. If you plan to use the Title field as the image title, this allows you to manage the image naming on Flickr via the Lightroom Metadata panel.



2. I was now ready to start adding photographs to my Flickr photostream. I clicked the Flickr header in the Publish Services panel to expand the Flickr panel contents. This revealed the Flickr photostream, and it was now a simple matter of using the Library module to search for the photos I wished to add and then dragging and dropping these onto the photostream. Here, I selected a group of selected photos and dragged these across to my Flickr phootstream in the Publish Services panel.



3. Having done that, I could now check the current status of my Flickr photostream. In the example shown here, I had already uploaded some photographs to my flickr page and these appeared under the filter grouping labeled "Published photos." The photos that I had recently added in Step 2 showed up under the "New photos to publish" filter grouping. This meant that, although I had used Lightroom to assign these photos to my Flickr photostream, they had yet to be uploaded to the Flickr page. To do this, I needed to click the Publish button at the bottom of the screen. This instructed Lightroom to upload the photos to my Flickr page. As the photos were added, they emptied from the "New photos to publish" group and joined the "Published photos" group below. And there they would remain until I decided to do anything else to them. For example, if I were to edit the IPTC metadata or the develop settings for any one of these images, this would move the image out from the "Published photos" group and to a "Modified photos to re-publish" group at the top of the content area. This mechanism allows you to keep close tabs on which photos have been published and which ones have been modified in some way or have yet to be published. Lightroom, therefore, always keeps you informed whenever you need to update the photos to be published on your Flickr page.

#### NOTE

You can also publish photos to a hard drive directory on the computer. Why would you need this? Well, if you were designing a book, you could use the Publish panel to generate the resized TIFF files used in the book and publish these to the folder that's linked to by the page layout program. This means that if changes need to be made to any of the images, you can edit them in Lightroom and then simply republish them to generate new TIFF masters that remain automatically linked in the page layout program. You could also use this mechanism to maintain off-site backups of important original images.



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No Connection
Sean McCormack 6 days age
Elephants are actually one of my
favourite creatures. The whole set
look like you enjoyed yourself.

🔊 🏠 🔹 🕻 Google q Flickr: Your Photostream + Signed in as Martin Evening Sign (1 new) Help Sign Out flickr You - Organize -Contacts -Groups - Explore -Search -Search your photostream Slideshow 🚊 Share This 🍎 Your photostream PO 93 Items / 85 views ctions Sets Tags Archives Favorites Popular Profile W1BY1709.jpg W1BY1712.jpg Wildlife 35 photos | Edi click here to add a description C Anvone can see this photo (edit) re to add a de Uploaded on Aug 12, 2009 | Delete 🔘 🔲 Anyone can see this photo (e aded on Aug 12, 2009 | Delete 0 comments New York 2007 W1BY1715.jpg W1BY1741.jpg 8 photos | Edit Photoshop click here to add a description **Book banners** click here to add a descri 9 photos | Edit C Anyone can see this photo (edit) C Anvone can see this photo (edit) Uploaded on Aug 12, 2009 | Delete Uploaded on Aug 12, 2009 | Delete 1 view / 0 comme -

Flickr: Your Photostream

4. Having clicked the Publish button, I needed to wait a minute or two while Lightroom rendered and uploaded the JPEG files to the Flickr server. Once this was complete, I could go to my Flickr page and check how the photostream appeared online. To do this, I used the contextual menu (right mouse clicked) in the photostream and selected Go to Published Collection. This opened my Flickr page directly via Lightroom. Those who are familiar with the way Flickr works will know how you can use the site to manage your photos into collections and click the italicized text that appears below each image to add descriptions. If your photos are made available for anyone to view (see Step 1 for more information on privacy settings). Once your photos are on view, anyone visiting these pages can add comments. Because Flickr and Lightroom are able to communicate with one another, as you browse the photos contained in the photostream, these comments are also updated in the Lightroom Comments panel. This allows you to see comment messages such as the one posted here by my friend and colleague Sean McCormack. The Comments panel also tells you how many times a photo has been marked as someone's favorite.

# Saving and reading metadata

Another pain point for newcomers to Lightroom has been the question of how to save images. In your very first computer lesson, you learned how important it is to always save your work before you close a program. Some Lightroom users have been confused by the fact that there is no "save" menu item—they wonder if they will lose all their work after they quit the program. There is no need to worry here because, in the case of Lightroom, your editing work is always saved automatically. Even if Lightroom suffers a crash or there is a power failure, you should never lose any of your data.

It is important to remember that as you carry out any kind of work in Lightroom whether you are adjusting the Develop settings, applying a color label or star rating, or editing keywords or other metadata—such edits are initially stored in the Lightroom catalog. For simplicity's sake, we can summarize these actions by grouping them under the term metadata edits. Whenever you alter a photo in Lightroom, you are not changing anything in the actual image file. This is because Lightroom is built around the principle that the imported images are the master negatives, which should never be edited directly. Lightroom, therefore, records the changes as metadata information, and these changes are initially stored at a central location in the Lightroom catalog. This is also the reason why Lightroom is much faster at searching images compared to a browser program like Bridge. You can add, search, and read metadata information more quickly because the metadata information is all stored in a database. However, it is possible to have the metadata information stored in the individual picture files as well. In the case of JPEG, TIFF, PSD, or DNG images, there is a dedicated XMP space within the file's header that can be used to store the metadata. With proprietary raw files, the metadata has to be stored separately, in what is known as an .xmp sidecar file.

The good thing about having all the metadata information stored in a single database file is that it is lightweight. When it comes to backing up essential catalog data to another hard drive, the backup process can take only a few minutes. On the other hand, saving metadata to the file can be seen as adding an extra level of security and allows the metadata entered via Lightroom to be shared when viewed in browser programs. But this security does come at a cost. When you export the metadata to the files, the whole file has to be backed up. Do this and all DNG, TIFF, PSD, and JPEG files will have to be copied as complete files during the backup process. What would otherwise take a few minutes can start taking hours to complete. Interestingly, you could argue that this is a good reason for not converting raw files to DNG, since backing up .xmp sidecar files is a lot quicker than backing up self-contained DNG files where the XMP metadata is embedded.

If you work on an image in the Lightroom catalog using another program, such as Photoshop or Bridge, and you make any changes to the metadata, the metadata edit changes are always made to the file itself. When such an image is opened via Lightroom, you have to decide whether the "truth is in the database" (the Lightroom catalog) or the "truth is in the file." I'll return to this question a little later.

#### Saving metadata to the file

For most of the time that you are working in Lightroom it should not really matter if the metadata information is stored only in the catalog. Of course, it feels kind of risky to trust everything to a single database file, but that is why Lightroom has a built-in catalog backup feature as well as a diagnostics and a self-repair function to help keep your catalog file protected (see **Figure 4.69**). Plus, I highly recommend that you back up your data regularly anyway. Despite all that, it is still important to save the metadata edits to the files so that the "truth is in both the catalog and the file." By doing this you can maintain better compatibility between the work you do in Lightroom and the work carried out using external programs.

om catalog "Lightroom Database" is corrupt and cannot be used or backets repaired.
eration may take several minutes to complete and should not be interrupted while in
th further instructions will be displayed when the repair process is complete.
e TechNote ) (Show in Finder ) (Quit ) (Repair Catalog
The catalog "Lightroom Database" has been successfully repaired.

**Figure 4.69** If Lightroom detects that the catalog database file has become corrupted, there is an option to Repair Catalog. But click the See Adobe TechNote button to read more about such file corruptions before you do so.

So what is the best way to save metadata to the files? If you go to the File menu and choose Catalog Settings, you will see the dialog shown in **Figure 4.70**, where there is an option called "Automatically write changes into XMP." In the first edition of this book, I recommended that you keep this option switched off. This was because it could affect Lightroom's performance. However, since the version 1.3 update, it has been OK to leave this switched on, because Lightroom now only automatically writes to the files' XMP space when it is convenient to do so, without affecting the program's performance. Checking this option ensures that all the files in the Lightroom catalog will eventually get updated. However, if you want to be sure that a file's XMP space gets



Figure 4.70 The Metadata Catalog Settings.

updated right away or you have "Automatically write changes into XMP" switched off, then you can use the Metadata  $\Rightarrow$  Save Metadata to Files command in the Library module or the Photo  $\Rightarrow$  Save Metadata to Files command in the Develop module. This forces an immediate export of the metadata information from the Lightroom catalog to the image file's XMP space. In practice, I recommend using the  $\Re$  (Mac) or Ctrl) (PC) shortcut anyway every time you wish to immediately update any metadata changes made to a photo or group of selected photos.

#### Tracking metadata changes

In order to keep track of which files have been updated and which have not, Lightroom does offer some visual clues. If you go to the View menu and open the View Options dialog ( $\mathbb{R}$ ,  $\mathbb{Q}$  [Mac],  $\mathbb{Ctrr}$ ,  $\mathbb{Q}$  [PC]), there is a check box in the Cell Icons section called Unsaved Metadata. **Figure 4.74** shows the Library View Options dialog with the Unsaved Metadata option circled. When this is checked, you may see a "calculating metadata" icon ( $\mathbb{R}$ ) in the top-right corner of the Grid cells as Lightroom scans the photos in the catalog, checking to see if the metadata is in need of an update. You will also see this icon when Lightroom is in the process of saving or reading metadata from a file. If the metadata in the catalog and the file are in sync, the icon soon disappears. If there is a "metadata status conflict," you will see either a down arrow (**Figure 4.71**) or an up arrow (**Figure 4.72**). The down arrow indicates that the metadata information embedded in the photo's XMP space is now out of date compared to the current Lightroom catalog file and that now would be a good time to choose Metadata  $\Rightarrow$  Save Metadata to File ( $\mathbb{R}$ ) [Mac],  $\mathbb{Ctrr}$ ) [PC]).



**Figure 4.71** When the Unsaved metadata icon is enabled in the Library View Grid options, the icon in the top-right corner indicates that the metadata status has changed. A down arrow indicates that Lightroom settings need to be saved to the file.



**Figure 4.72** An up arrow indicates that settings have been edited externally and that the file metadata settings may need to be read in order to update the Lightroom catalog.



**Figure 4.73** The Metadata Status item in the Metadata panel will also alert you if the file metadata is out of sync.

	Grid View L	oupe View	
Show Grid Extras:	Expanded Cells		٥
Show clickable it Tint grid cells wi Show image info	ems on mouse over th label colors tooltips	only	
Cell Icons			
Flags		Unsaved Metadata	
Thumbnail Badge	25	Quick Collection Marker	rs
Compact Cell Extras			
🗹 Index Number	Top Label:	File Name	•
Rotation	Sottom Label:	Rating and Label	•
Expanded Cell Extra	5		
Show Header wit	h Labels:	Use	Defaults
Index Num	ber 🗘	File Base Name	•
Cropped D	imensions	File Extension	•
Show Rating Foo	ter		
	olor Label		
Include C			

Figure 4.74 The Library View Options.

In the Metadata panel (**Figure 4.73**) is an item called Metadata Status, which will say "Has been changed" if anything has been done to edit the photo metadata settings since the last time the metadata was saved to the file. This is basically telling you the same thing as the metadata status icon that appears in the Library Grid cells.

Choosing Save Metadata to File will make the metadata status icon in the Library Grid cells disappear, but if you are uncertain what to do, you can click the icon in the grid to open the dialog shown in **Figure 4.75**. This dialog asks if you want to save the changes to disk (better described as "Do you wish to confirm saving the metadata changes to the photo's XMP space?").



Figure 4.75 This dialog will appear to confirm if you wish to save changes to disk.

The up arrow shown in Figure 4.72 indicates that the metadata information embedded in the image file's XMP space is out of sync and more recent than the current Lightroom catalog file. This will most likely occur when you have edited a Lightroom catalog file in Camera Raw and the externally edited image has a more recently modified XMP than the Lightroom catalog. To resolve this, choose Metadata  $\Rightarrow$  Read Metadata from file.

The other possibility is that a Lightroom catalog photo may have been modified in Lightroom (without saving the metadata to the file) and has also been edited by an external program, resulting in two possible "truths" for the file. Is the truth now in the Lightroom catalog, or is the truth in the externally edited file XMP metadata? If you see the icon shown in **Figure 4.76**, you can click it to open the dialog in **Figure 4.77** where you can choose either Import Settings from Disk if you think the external settings are right, or Overwrite Settings if you think the Lightroom catalog settings are the most truthful and up to date.

Lr	The metadata for this photo has been changed by another application. How should Lightroom synchronize this data?			
	(Import Settings from Disk )	Cancel Overwrite Settings		

Figure 4.77 The Metadata status conflict dialog.

#### XMP read/write options

Let's now take a closer look at what this XMP settings business is all about. The XMP space is the hidden space in an image document (such as a JPEG, TIFF, PSD, or DNG file) that the metadata settings are written to. In the case of proprietary raw files, it would be unsafe for Lightroom to write to the internal file header, so .xmp sidecar files are used instead to store the XMP metadata. The XMP metadata includes everything that is applied in Lightroom, such as the IPTC information, keywords, file ratings, flags, and color labels, as well as the Develop settings that are applied via the Quick Develop panel or Develop module.

In the Metadata section of the Catalog Settings (Figure 4.70), the "Include Develop settings in metadata inside JPEG, TIFF, and PSD files" option lets Lightroom distinguish between writing the Develop settings metadata to the XMP space for all files including JPEGs, TIFFs, and PSDs, or to raw and DNG files only. This is a preference that predetermines what gets written to the XMP space when you explicitly save the metadata to the file. The ability to save Develop settings with the file can be a mixed blessing. If you are sharing images that are exported from Lightroom as individual images (or as an exported catalog) with another Lightroom user, you will most definitely want to share the Develop settings for all the images that are in the catalog. But if you are sharing files from Lightroom



**Figure 4.76** If there is a metadata status conflict where the settings have been modified both in Lightroom and another external program, you will see the warning icon shown here (circled).

#### NOTE

If you are working with the latest version of Lightroom and the latest version of Photoshop, everything will work seamlessly. If you are working with Lightroom 3 and an earlier version of Photoshop, such as CS3 or CS4, then there are limitations you need to be aware of. Edits carried out using Process Version 2010 in Lightroom 3 will not be recognized in versions of Camera Raw prior to version 5.7. For example, if you make adjustments using the new improved noise-reduction sliders, apply a postcrop vignette effect, and save the settings to the image, it will open in Photoshop CS3 but not as expected, since the post-crop vignetting won't be recognized. The Sharpening and Color Noise slider settings will register, but these won't use the latest Version 2010 processing and, therefore, won't recognize any of the new noise reduction settings. If opened in CS4 using a version of Camera Raw prior to version 5.7, you will also see incomplete Version 2003 Detail processing. However, postcrop vignettes will be recognized, but only the Process Version 2003 Paint Overlay style effect will be recognized. The Highlight Priority and Color Priority styles will default to the Paint Overlay style.

with Bridge CS4 or later, this can lead to some unexpected file behavior when you open non-raw files via Bridge. Basically, what will happen is that raw and DNG images that have had their Develop settings modified via Lightroom will open in Camera Raw via Bridge exactly as you expect to see them, since Bridge is able to read the settings that were created in Lightroom. However, where you have non-raw files, such as JPEGs, TIFFs, or PSDs, that have been edited using the Develop settings in Lightroom, and the Develop settings have been written to the files' XMP space. Bridge may now consider such files to be like raw files and open them via Camera Raw rather than directly in Photoshop. That's what I mean by mixed blessings. If you want Lightroom to retain the ability to modify the XMP space of non-raw files for data such as file ratings, keywords, and labels but exclude storing the Develop settings, you should uncheck the "Include Develop settings in metadata inside JPEG, TIFF, and PSD files" option. Do this and the Lightroom Develop settings for non-raw files will get written only to the catalog and they won't get exported to the files when you choose Save Metadata. But raw and DNG files will be handled as expected. On the plus side, you will never be faced with the confusion of seeing your non-raw images such as JPEGs unexpectedly default to open via Camera Raw when you had expected them to open in Photoshop. The downside is that if you modify a non-raw image in Lightroom using the Develop module, these changes will be seen only by Lightroom and not by Bridge. For these reasons, my advice is to turn off "Include Develop settings in metadata inside JPEG, TIFF, and PSD files." To help explain the settings and how they affect image files after being modified in Lightroom, I have summarized below how these options affect the way different file formats will be handled. Please note that these steps do assume that you are using Photoshop CS4 with Bridge CS4 (or later) and have updated Camera Raw to version 5.7 or later.

If a photo in Lightroom is modified using the settings shown in **Figure 4.78** with "Automatically write changes into XMP" and "Include Develop settings in metadata inside JPEG, TIFF, and PSD files" switched on, then all the adjustments that are made to the image will automatically be saved to the Lightroom catalog and also saved to the original image file. In the case of proprietary raw files, the XMP metadata will be written to an .xmp sidecar file and, when opened via Bridge, will (as you would expect) open via the Camera Raw dialog with the same Develop settings that were applied in Lightroom. In the case of DNG files, the XMP metadata will be written internally to the file and these, too, will open in Camera Raw. In the case of JPEG, TIFF, and PSD files, because you are including the Lightroom Develop settings in the export to the XMP space, they will default to opening in Bridge via the Adobe Camera Raw dialog.

If the "Automatically write changes into XMP" option is disabled, as shown in **Figure 4.79**, the metadata edits will now be saved only to the Lightroom catalog. If you were to open a JPEG, TIFF, or PSD image from Bridge that had been edited in Lightroom, it would open directly in Photoshop and not open via the Camera Raw dialog. But at the same time, any image ratings, metadata keywords, or other

0	Catalog Settings
	General File Handling Metadata
Editing	
Offer sugges	tions from recently entered values Clear All Suggestion Lists
🗹 Include Deve	lop settings in metadata inside JPEG, TIFF, and PSD files
Automatical	y write changes into XMP
EXIF	
Urite date or	time changes into proprietary raw files.

**Figure 4.78** This shows the Catalog Settings where all the metadata editing options have been checked.

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is.

**Figure 4.79** In this example, "Automatically write changes into XMP" has been disabled.

) (	Catalog Settings
Editing	General File Handling Metadata
Offer suggesti     Include Develo     Automatically	ons from recently entered values Clear All Suggestion Lists op settings in metadata inside JPEG, TIFF, and PSD files write changes into XMP
EXIF	time changes into proprietary raw files
_ mile date of	and changes not proprietary ran mes.

**Figure 4.80** In this example, "Include Develop settings in metadata inside JPEG, TIFF, and PSD files" has been disabled. information that has been entered while working in Lightroom will not be visible to Bridge or any other external editing program either. (This assumes that you are not manually saving the metadata to the file, as described below.) In this example, the "Include Develop settings in metadata inside JPEG, TIFF, and PSD files" option is still switched on, so if you did want the metadata edits to be saved to the files' XMP metadata space, you would have to do so manually using a Save Metadata command (**BES** [Mac], **Ctrl S** [PC]). But, in doing so, the problem with a Save Metadata command is that you would again be saving all the Lightroom settings to the files' metadata space (including the Develop settings), and we are back to the same scenario as in Step 1, where non-raw files may default to opening via Camera Raw, which is perhaps not what the customer wanted!

Now let's look at what happens when "Include Develop settings in metadata inside JPEG, TIFF, and PSD files" is disabled and "Automatically write changes into XMP" is switched on (Figure 4.80). Any edits made in Lightroom will automatically get saved to the Lightroom catalog as well as to the files' XMP metadata space—all the settings, that is, except for the Develop settings, which are saved to the proprietary raw and DNG files, but not to the JPEG, TIFF, or PSD files. In this scenario, all metadata information will be saved to all types of files (with the exception of the Develop settings not being written to JPEG, TIFF, or PSD files that have been edited in Lightroom). Proprietary raw and DNG files that have been edited in Lightroom will preserve their appearance when viewed in Bridge and open as expected via the Bridge Camera Raw dialog. But with JPEG, TIFF, or PSD files, the Develop settings won't be transferred, so they will open from Bridge directly into Photoshop without opening via the Camera Raw dialog. The downside is that such images may not always look the same in other programs as they did in Lightroom. It all depends on whether you want to use the Develop module to modify the JPEG, TIFF, or PSD images as you would do with the raw images. Overall, this is probably the most useful configuration because it preserves the informational metadata in non-raw files that have been modified in Lightroom and avoids non-raw files opening via the Camera Raw dialog when working in Bridge and Photoshop.

#### Where is the truth?

The main point to learn here is that the most up-to-date or "truthful" settings can reside either in the Lightroom catalog or in the files themselves. If you work only in Lightroom, the answer is simple: The truth will always be in the catalog. But if you adopt a more complicated workflow where the files' Develop settings and other metadata can be edited externally, the truth will sometimes be in the file. To summarize, the "Automatically write changes to XMP," Save Metadata to Files, and Read Metadata to Files options allow you to precisely control how the metadata is updated between the Lightroom catalog and the image files.

# Synchronizing IPTC metadata settings

You will often want to apply or synchronize metadata settings from one photo to other photos in the catalog. To do this, make a selection of images and click the Sync Metadata button, which opens the Synchronize Metadata dialog (**Figure 4.81**). The check boxes in this dialog can help you select which items you want to synchronize. You can then click the Synchronize button to synchronize the IPTC metadata information (including the keyword metadata) in the most selected image with all the others in the selection. You can also select an image and press (**\***)Alt( Shift)C (Mac) or (Ctrl(Alt)(Shift)C (PC) to use the "Copy Metadata settings" command and then use **\***(Alt)(Shift)V (Mac) or (Ctrl(Alt)(Shift)V (PC) to paste those settings to another selected image or group of images.

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Copyright	© Martin Evening 2009	✓	State / Province	London	
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Copyright Info URL	www.martinevening.com		Phone	+44(0)2084500000	
			E-Mail Website	martin@martinevening.com	om n
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Creator City	London				
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Creator Postal Code	NW10				
Creator Country	UK				
Creator Phone	+44(0)20845100000				
Creator E-Mail	martin@martinevening.com				
Creator Website	www.martinevening.com				
Creator Job Title	Photographer	2			
d.m.		¥			

**Figure 4.81** If you make a selection of images and click the Sync Metadata button in the Metadata panel (right), this opens the Synchronize Metadata dialog. Here you can check the individual IPTC items that you wish to synchronize with the other photos in the selection.



**Figure 4.82** If the name of the folder linked to in the Lightroom Folders panel has been altered at the system level, the Lightroom folder will appear dimmed with a question mark above it. If you right mouse click on the folder, you'll see the options shown here. Choose Find Missing Folder, and then navigate to relocate the original, renamed folder.

#### Synchronizing folders

Some folder synchronization will happen automatically in Lightroom. For example, if you change a folder name in Lightroom, the system folder name should update too. But if the folder linked to in the Lightroom Folders panel happens to have been renamed at the system level, then you'll need to use a right mouse click to access the contextual menu shown in **Figure 4.82** to relocate the missing folder. Once this is done, Lightroom will quickly relink all the photos that are in that folder.

When it comes to synchronizing the folder contents, this requires an explicit Lightroom command to check and compare the folder contents in Lightroom with what's in the system folder. What sometimes happens is that you import a folder at the start of a project and as you continue working with that folder between Lightroom and Bridge (or in the Finder/Explorer), new subfolders get added, files may get moved into these subfolders, and some photos can get deleted or new ones added. All this can lead to a situation where the Folder view in Lightroom is no longer an accurate representation of what is in the real system folder.

The Synchronize Folder command, located in the Library menu, can be used to interrogate the system folder that the Lightroom folder refers to. **Figure 4.83** shows the Synchronize Folder dialog, which as you can see, provides initial information about what differences there are between the two, such as whether there are any new photos to import, whether any photos in the Lightroom catalog are missing their master images, and whether any metadata changes have been made externally where the Lightroom database will need to be updated.

If you check the "Import new photos" option in the Synchronize Folder dialog, you can choose to simply import and update the catalog. The default settings for the Synchronize Folder dialog automatically imports the files to the same folder as they are in currently. It does this without showing the Import dialog and without modifying the filename, Develop settings, metadata, or keywords. However, you

-	Synchronize Folder "Antarctica"
Lr	Synchronizing keeps your Lightroom catalog up to date with the latest changes you may have made to your photos in other applications.
	<ul> <li>✓ Import new photos (60)</li> <li>✓ Show import dialog before importing</li> </ul>
	✓ Remove missing photos from catalog (0)
	Scan for metadata updates
	Show Missing Photos Cancel Synchronize

Figure 4.83 The Synchronize Folder dialog.



**Figure 4.84** The Import Photos dialog, shown here ready to add new photos to the current catalog (where it always defaults to selecting the New Photos option).

can also choose "Show import dialog before importing," which will open the Import Photos dialog shown in **Figure 4.84**. The main reason for choosing to show the Import Photos dialog when synchronizing a folder is so that you can adjust any of the settings as you carry out an import and update the Lightroom catalog. Note that if you have removed any photos from the folder at the system level, Synchronize Folder can also remove these files from the catalog, thereby keeping the Lightroom catalog completely updated for new additions as well as any photos that are no longer located in the original system folder.

"Scan for metadata updates" works exactly the same as the "Read metadata from Files" option in the Library module Metadata menu (see page 189). For example, if you have edited the metadata in any of the catalog images in an external program such as Bridge or another program where the metadata edits you make are saved back to the file's XMP header space (or saved to an .xmp sidecar file), you can use the Synchronize Folder dialog to synchronize such metadata changes to the Lightroom catalog.

#### NOTE

The sort order is numerically sensitive. This means that Lightroom will reorder number sequences correctly: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13.... Previously, Lightroom would have reordered the numbers like this: 1, 10, 11, 12, 13, 2, 3, 4, 5, 6, 7, 8, 9.



**Figure 4.85** The Library module toolbar sort order buttons.

# Sorting images

You have the option of sorting images in Lightroom by Capture Time, Added Order, Edit Time, Edit Count (for sorting Edit versions of master images in the order in which they were created), Rating, Pick, Label Text, Label Color, File Name, File Extension, File Type, or Aspect Ratio. You can set the sort order by selecting the View menu and highlighting an item in the Sort submenu, but an easier method is to use the Sort drop-down menu in the Toolbar (Figure 4.85). Next to the Sort menu is the Sort Direction button, which allows you to guickly toggle between ordering the images in an ascending or descending sort order (Figure 4.86). For example, if you come back from a shoot with several cards full of images, there is a high probability that the order in which you imported the photos may not match the order in which they were shot. If the files are renamed at the time of import, you may want to correct this later by re-sorting the capture files by Capture Time and then apply a batch rename by selecting Library  $\Rightarrow$ Rename Photos. The descending sort order can also be useful when shooting in tethered mode, where you want the most recent images to always appear at the top of the filter view in the content area.



**Figure 4.86** The image sort order is, by default, set to photo Capture Time. This is probably the most useful sort order setting. In the View menu, you can choose to sort the images by say, Added Order or by Rating.

#### Sort functions

If you are viewing a folder, a filtered folder view, or a collection, you can manually adjust the image sort order by dragging and dropping photos either in the Grid view or via the Filmstrip. Manually sorting the photos defaults the sort order menu to a User Order sort setting, and the User Order sort will remain in force after you have exited a particular Folder or Collection view. But as soon as you switch to any other sort order menu option, such as Capture Time, the previous User Order sorting will become lost. However, you should note that it is only possible to drag and drop photos in the Grid or Filmstrip view when a single folder view or a collection is selected. You cannot drag and drop grouped folder views or filter views that span more than one folder.

The Sort menu can also help resolve some of the possible contradictions in the way color labels are identified in Bridge and Lightroom. This is because instead of having a single sort option for sorting by color labels, there are, in fact, two options: sort by Label Color and sort by Label Text. The reason for this is as follows:

Red	6
fellow	7
Green	8
Blue	9
Purple	
Purple ou wish to maintain compatibil th applications.	lity with labels in Adobe Bridge, use the same names in

#### NOTE

Just to add further confusion, the implication of having more than one type of color label and text set at your disposal means that the Color Label Set choice determines which color labels are visible in Lightroom as color shaded labels.

Let me explain: If you use the default color label set shown at Step 1, all the color labels you apply will work as expected, with Grid cells appearing with shaded borders or color swatch tags in the cells. However, if you switch color label sets and use one that matches the Bridge set shown in Step 2, or an alternative set like the one shown in Step 4, all the color labels that you had applied previously will appear to have vanished. This is because you are using a new color label scheme. But if you use the filter method shown in Step 3, or look closely at the Label text status in the Metadata panel, you will still see evidence of the color label tags that you had applied previously. The moral of this story is to think carefully about how you intend to work with color labels and color label sets before you start carrying out any major editing work in Lightroom.

1. In Lightroom, the default color label set uses the following text descriptions alongside each label: Red, Yellow, Green, Blue, Purple. (To access the dialog shown here, go to the Library module Metadata menu ⇒ Color Label Set ⇒ Edit.) OK, this is not a particularly imaginative approach, but the label text that is used here did at least match the label text descriptions that were used in Bridge CS2 (as included with the CS2 Creative Suite). Note that the Lightroom dialog shown here says, "If you wish to maintain compatibility with labels in Adobe Bridge, use the same names in both applications." So far, so good. If you follow this advice, Lightroom can be compatible with the CS2 version of Bridge because both programs use identical color label text descriptions.

	Preferences	
General Thumbnails Playback Metadata Keywords	Labels Require the Comman Select	nd Key to Apply Labels and Ratings
Labels File Type Associations Cache Startup Scripts Advanced Output	<ul> <li>Second</li> <li>Approved</li> <li>Review</li> <li>To Do</li> </ul>	X + 7       X + 8       X + 9
	-	Cancel OK

2. However, in Bridge CS3 and CS4, the Color Label text naming was changed to a new default setting. Shown here is how the default label text appears in the Bridge CS3/CS4 program's Labels preferences. If you install Bridge CS3 or later and use the default color label settings in both Bridge and Lightroom, the label text descriptions will differ. This has led to problems such as white labels appearing in Bridge CS3 or later where Bridge is unable to read Lightroom's color label metadata correctly. In these specific instances, Bridge can "see" that a color label has been applied, but it does not know how to interpret the metadata correctly. Bridge can read the color label text description and display this in the Bridge Filter panel, but it does not know how to apply the label color part.



**3.** Lightroom faces a similar problem in not knowing how to manage mismatched color labels where the label color and label description text differ. But at least in Lightroom, you can use the Custom Label filter (circled here in the Filter bar) to filter those photos that have a color label but where the text descriptions don't match the current color label set.

To Delete	6
Color Correction Needed	7
Good to Use	8
Retouching Needed	9
To Print	
you wish to maintain compatibility with lo oth applications.	ibels in Adobe Bridge, use the same names in

**4.** If you were to choose an alternative color label set in Lightroom such as the Review Status set shown here, the problem between Lightroom and Bridge would persist because the descriptive terms used in both programs will again be different. Furthermore, subsequent Bridge updates have not necessarily managed to resolve this conflict, and the message remains the same. If you want to be absolutely consistent between applications when applying color labels, then make sure the color label text system adopted in both programs matches.

#### The sort by label text solution

If you edit a photo's color label setting in Bridge and then use the Lightroom Library module Metadata ⇒ Read Metadata from File command, a similar conflict can occur. But instead of showing a white label, Lightroom will not display any color labels in the Grid or Filmstrip views. However, if you go to the Metadata panel (**Figure 4.87**), you will notice that the Metadata panel does at least display the color label text data. This means that although Lightroom won't necessarily be able to display any of the color labels that might have been applied in Bridge, you still have a means to filter and sort them based on the color label text metadata. Therefore, the Sort by Label Color option allows you to sort photos by color labels that have been applied in Lightroom (and where the Bridge color label text matches). The Sort by Label Text option is a catch-all option that allows you to sort *all* color labeled photos regardless of whether the color label settings match in Lightroom and Bridge (but you'll still need to check the Metadata panel to identify the color label text).

On the subject of label colors and label color text, you might want to return to page 110 in Chapter 3, which discusses working with specific color label sets. It is important to note here that the Color Label filters can select only the color label photos that match the current, active color label set.

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litle		
Caption		
Copyright	© Martin Evening	
Copyright Status	Copyrighted \$	
Creator	Martin Evening	
Location		
Rating	**	
Label	Retouching needed	
Capture Time	18:06:10	
	10 Mar 2008	-
Dimensions	3744 x 5616	
Cropped	3744 x 5616	
Exposure	1/125 sec at f / 5.0	
Focal Length	160 mm	
ISO Speed Rating	ISO 800	
Flash	Did not fire	
Make	Canon	
Model	Canon EOS-1Ds Mark III	
Lens	EF70-200mm f/2.8L IS USM	

**Figure 4.87** The Metadata panel displays the color label information using the color label text data.

#### TIP

In a moment, we'll be looking at how to embed and use GPS metadata in Lightroom, where you can use the GPS metadata to find out exactly where a photo was taken. But audio note making can also offer a way to conveniently record the name of a site you have just photographed or record other useful information that you might want to include in a caption later, such as the date an important building was constructed.

# Extra tips for advanced users

# Audio file playback

It was thanks to lan Lyons that I discovered this little gem. Lightroom can recognize and play back an audio sidecar file that is associated with a photo. The following steps show you how this would work using a Canon EOS 1Ds Mark II camera.



1. If your camera has the facility to record audio notes, you can do so as you review the pictures that have just been shot. The method will vary from camera to camera, but with this particular camera, you press the record button and speak into the microphone on the back.

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**2.** After importing the files to Lightroom, if an audio sidecar file is present, it will appear as a metadata item just below Metadata Status. All you have to do is click the action button next to the audio filename to play back and listen to the audio annotation.

# GPS metadata and linking to Google Earth™

If you have GPS metadata embedded in an image file, Lightroom will let you link directly to the Google Maps<sup>™</sup> Web site and locate exactly where that photograph had been taken. But in order to pull off this trick, you will need to find a way to embed GPS metadata in your image capture files. This is not as difficult as you might imagine, since there are now quite a few GPS devices capable of capturing the GPS coordinates at the time of capture and then synchronizing the GPS data with your capture images via post-processing software. For example, according to John Nack's blog, JOBO AG has announced photoGPS, a \$155 device that sits in the hot shoe (the mounting point for a flash) of a digital SLR. Post-processing software synchronizes data captured by the device with the corresponding images. In the following steps, I have used an image with embedded GPS metadata to demonstrate how Lightroom can use such metadata to link to Google Maps as well as how to view the location using the Google Earth program.

#### NOTE

John Nack is product manager for Photoshop and Bridge and writes a blog called "John Nack on Adobe" (http://blogs.adobe.com/jnack). It is full of lots of interesting background information on what is going on at Adobe. It also offers off-topic posts such as links to interesting photography Web sites.



**1.** Here is a Library view of photographs shot around Dorset, including a highlighted photograph that was shot looking toward Ballard Point near Swanage, England.



2. In this Library module view, you can see the Metadata panel is in the All view mode. If GPS metadata is associated with a photograph in the catalog, the GPS coordinates are displayed with an action arrow Map Location button next to the item in the Metadata panel. Note: If no GPS data is associated with a selected photo, this GPS field remains hidden.



**3.** Clicking the Map Location button takes you directly to the Google Maps Web site, pinpointing exactly where the photograph was taken (providing you have a live Internet connection). If Google Maps allows, you may be able to zoom in to get a closer look at the location where the photograph was taken.



**4.** If you have the Google Earth program installed on your computer, you can copy and paste the GPS coordinates and use the program's extensive navigation tools to explore the scene where the photograph was taken. Here, I tilted the preview to show a ground-level view from where the photograph was shot.

#### TIP

Recording GPS metadata is not as straightforward as it sounds. First, the camera time setting must be accurate and match the computer system clock time setting. If they don't agree, the GPS points can end up being inaccurate.

Like many of the GPS devices out there, the AMOD AGL3080 has a rather low-sensitivity cell and can, therefore, fail to work when cloud cover is heavy or you are inside a building. Devices like this can also consume a lot of battery power and the batteries can die quite quickly, so it may be a good idea to consider using rechargeable batteries and to always carry a spare set when out on location. Having said that, I have found the AMOD to be reasonably good at conserving battery power.



**Figure 4.88** The AMOD AGL3080 GPS Photo Tracker is a small, lightweight device which can be used to record GPS coordinates that can be read by the appropriate software. It is easily attached to a camera bag strap.

### How to embed GPS metadata in a photo

OK, now that I have shown you how GPS metadata can be useful, let's see how you can capture and embed GPS metadata in a series of photos. Lightroom does not have any mechanism that will allow you to import or edit GPS metadata. In fact, it will only display the GPS field in the EXIF Metadata panel if GPS metadata is actually present in the catalog image files. The following steps show how I was able to import the GPX data from an AMOD AGL3080 unit (see **Figure 4.88**) and merge the GPX data with the camera-captured images. This small device can record the GPS time-stamped trackpoints to a log file. When you get back to the computer, you'll need to use one of the suggested programs described here to read the GPS log data and merge the data with the imported photos.

There are a number of software solutions you can use, and when you purchase a GPS geotagging device, you may well find it comes with software that is supplied free for Mac or PC. The problem here is that many of these programs are designed to write GPS data to JPEG capture images only. What's really needed is software that can write GPS data to .xmp sidecar files, from which you can read the updated metadata via Lightroom. For this edition of the book, I thought I would update things by highlighting two popular programs: one that's suitable for PC users and one that's for Mac only.

#### GeoTagging with GeoSetter for PC

The following steps show how I used GeoSetter to tag raw images with GPS coordinates recorded using the AMOD GPS tracker device. GeoSetter is available free from www.geosetter.de/en/, but don't forget to make a donation if you find this software useful.

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Favorite Links	Name	Date modified	Туре	Size	
E Deserverte	GPS_20090723_060303	01/01/1980 01:00	Text Document	2,763 KB	
Documents	GPS_20090723_150657	01/01/1980 01:00	Text Document	1,351 KB	
More »	GPS_20090723_165348	01/01/1980 01:00	Text Document	1,007 KB	
Folders	<ul> <li>GPS_20090724_083322</li> <li>GPS_20090724_140651</li> </ul>	01/01/1980 01:00	Text Document	3,899 KB	

1. I connected the AMOD GPS device via the USB cable that came with the unit. The AMOD device has room to store lots of GPS data, but it makes sense to back these up to the main computer as soon as you can. Once the GPS log files have been copied and backed up, it is safe to delete them from the device.



2. Next, I launched the GeoSetter program for Windows Vista. I targeted a folder of images and loaded the copied GPS files that were associated with this particular folder. (You can see here, outlined in red, some of the routes that were recorded by the AMOD GPS device.) Normally, you can select all of the photos from a shoot and add GPS data to all the selected photos, but in this instance, I wanted to show what happens when a single photo is processed. So I selected just the one photo shown here and used the Ctrl G command to add GPS data to the selected image.

	th GPS Data	Files				23
Synchronize	with Tracks in	n Current Dire	ectory			
Synchronize	with Visible Tr	racks				
Synchronize	with Data File	2:				
Synchronize	with a Directo	ory containin	g Data Files:			
C:\Users\Ma	rtin Documer	nts				
Assignment of	Found Positio	ons				
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Since track file	s recorded by	y GPS receive	ers contain the	e date and	time in UTC format (nearly Greenwich Mean Time, GMT), possibly the date time of your images have to	
e adjusted by	y adding or su	ubtracting a t	ime value dep	ending for	r example on the time zone in which the images were taken. Furthermore the images maybe were taken	
vnile daylight	saving time w	inich you hav	e considered	when adju	usting the clock of your camera.	
lease use 1 o	f the followin	g 4 options b	elow to adjus	t the date	time of your images:	
A CALLER RULE AND A DEC	lindows Cot	tinge			•	
Use Local W	indows set	ungs				
Use Local W	indows Set	ungs				
Use this optio	on when your	images were	taken in the	same time	zone as specified in your Windows settings (+1:00 GMT Daylight Time).	
Use this optio	n when your Zone "+1:00	images were ) GMT Dayligh	taken in the s	same time to Taken D	zone as specified in your Windows settings (+1:00 GMT Daylight Time). Date	
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Use this optic Take time Additional Take a look requires a p Days: 0 Add Offe	n when your Zone "+1:00 I Time Adju: at your came roperly adjus Hours: Autor of the set values to	images were 0 GMT Dayligh stment ers's date tim sted Window: Minutes: 0 v Taken Date	taken in the : tt Time" over 1 e settings and s system clock Seconds: 0 v	same time to Taken D d adjust th ): Reset	zone as specified in your Windows settings (+1:00 GMT Daylight Time). Date the following values until the same date and time is shown below as it is set on your camera (this Camera Date Time: 06/08/2009 11:14:39	Ok Cancel Help

**3.** Here, you can see the Synchronize with GPS Data Files dialog. This allowed me to fine-tune the time settings before applying the GPS data. For example, I selected the Interpolate option, and GeoSetter read the previous and next track-points and calculated where between these two points the photo was most likely shot. Are you sure that the camera's time setting is accurate? You can compensate for any time difference between the time recorded by the GPS device and the time embedded by the camera's internal clock, whether there is a simple error of a few minutes or the time zone is incorrect.

Synchroniz	e with GPS Data F	iles	23
?	GPS data has Wo <mark>u</mark> ld you like	been found for all to continue with	1 images. this result?
Show	Synchronized Trad	s in Map	
Yes	No	Cancel	Report

**4.** When I was happy with the synchronize GPS settings, I clicked OK. This opened the dialog shown here, where I could click Yes to apply the GPS data to the selected image.



**5.** The GPS data had been synchronized in GeoSetter using the nearest trackpoint recorded by the GPS device, and you can see the GPS coordinates in red just below the image thumbnail. The estimated position the photo was taken from is also represented with a pin icon in the Map view panel section. At this stage, I needed to save the GPS data to the file's metadata so that the GPS coordinates could also be read by Lightroom. To do this, I highlighted the photo and used the Ctrl)S command shortcut. Here you can see that I had to click OK in a dialog asking me to confirm that I wished to use the current system date zone setting.

The image "W 18Y 1386.)	CR2* contains date time value	s without a time zone.
Due to the specification the time zone to use be	n for date time values, a time z slow.	one is mandatory. Please select
. Use System Setting	g (GMT Daylight Time (+1:00))	
O Use Following Time	zone:	
(UTC-11:00) Pacif	fic / Apia	

#### TIR

Please read the cautionary note on page 210 regarding metadata saves and EXIF lens data.



#### TIP

I recommend you consider carrying out a Metadata Save of all the images you are about to process before you open the files in GeoSetter (or the HoudahGeo program that's described in the next section). Select all the photos first and use  $\Re$  (Mac) or Ctrl S (PC) to save the current file metadata settings. Then you'll be ready to process them in a GPS linking program. 6. I now needed to synchronize the file metadata in Lightroom. To do this, I went to the Library module and chose the Metadata ⇒ Read Metadata from Files menu option. At this point, Lightroom realized that this step might lead to a potential conflict in which, under some circumstances, you might end up overwriting important metadata information. For example, suppose you had edited one or more of your photos in Camera Raw via Photoshop or Bridge. If you were to choose to read metadata from files, this might mean overwriting some or all of the edits you had applied in Lightroom (see sidebar). In this example, I knew that it would be safe to read the metadata, knowing that all this would be the recently updated GPS metadata. Once this last step had been completed, the Map Location link appeared in the Metadata panel EXIF metadata list, and I could click the Map Location button (described on page 203) to view the Google Maps Web page.

#### GeoTagging with HoudahGeo for Mac

Mac users will find HoudahGeo (www.houdah.com/houdahGeo) is an easy geotagging program to work with. In demo mode, you can use this software to process up to five images at a time, but to batch process any more than this, you will need to purchase the full licence.

#### TIP

If, for any reason, you are unable to drag and drop as described here, you can use the HoudahGeo "Add images from files" button to manually add the photos instead.



1. In this first step, I opened both HoudahGeo and Lightroom and, with the Library catalog in Grid view mode, simply dragged a selection of imported photos across to the main HoudahGeo window. At this point, it is worth cross-checking the time shown here with the time shown on your camera to make sure they are in sync and to compensate for any time difference so as to achieve a more accurate syncing of your photos with the recorded GPS data log.

#### TIP

A note of caution here. Editing the EXIF metadata in either HoudahGeo or GeoSetter can cause problems for the EXIF lens data information. You'll also notice that the Lightroom metadata update procedure for HoudahGeo on the Mac is slightly different from that suggested for GeoSetter. At the time of writing, there is the potential problem that if you don't follow these particular steps correctly, you may inadvertently hose the Lens EXIF metadata. By this, I mean that EXIF data such as "EF 24-70mm f/2.8L USM" may become truncated to "24-70mm." This isn't necessarily the end of the world, but I mention it because later versions of these programs may address this bug and you may, therefore, need to revise the steps described here. I always suggest you practice with one selected image before you batch process a whole bunch of images. As I say, the rules may change with later versions of these software programs.



000	Houda	hGeo Europe,	/London*
	Loading 15 track log file(s)		
Step 2: Import trad	ck logs and	and generate	
Name	Loaded 5	Stop Altitude	
W18Y9763.CR2	22/(		ñ
W18Y9769.CR2	22/07/2009 14:27:24		
W18Y9772.CR2	22/07/2009 14:27:55		
W18Y9773.CR2	22/07/2009 14:28:18		2
W18Y9776.CR2	22/07/2009 14:28:48		
W18Y9777.CR2	22/07/2009 14:28:54		
W1BY9787.CR2	22/07/2009 14:33:29		
W18Y9790.CR2	22/07/2009 14:34:23		
W18Y9813.CR2	22/07/2009 14:48:18		
W18Y9856.CR2	22/07/2009 16:14:07		
W18Y9905.CR2	22/07/2009 17:01:50		_
W18Y9906.CR2	22/07/2009 17:02:03		
W18Y9915.CR2	22/07/2009 17:39:42		
W18Y9916.CR2	22/07/2009 17:40:17		
W18Y9917.CR2	22/07/2009 17:40:40		_
W18Y9921.CR2	22/07/2009 17:41:31		
W18Y9926.CR2	22/07/2009 17:43:06		_
W18Y9943.CR2	22/07/2009 17:58:21		
W18Y9945.CR2	22/07/2009 17:59:59		
W18Y9946.CR2	22/07/2009 18:00:02		
W18Y9947.CR2	22/07/2009 18:00:06		Ă
W18Y9948.CR2	22/07/2009 18:00:14		
W18Y9969 CR2	22/07/2009 18:46:36		11.

**2.** Here you can see a list of the camera files that had just been imported. I then clicked the "Load GPS data from file" button and browsed to locate the GPS log to link with the images. (I discussed copying the GPS logs from the GPS device on page 204.)

000			HoudahGeo		Europe/L	ondon*
	🙆 🕻	Export metadata	for 132 (mage(s))		2	
Step 3: Export. Wr	ite to EXIF/	Selected images	only ogle Earon Upl			
Name		Georoded image	as only:	tongitude	Altitude	
W18Y0341.CR2	23/1	Ceocodeo image			26.300000	r
WIBY0350.CR2	23/1	Tag masters / o	riginals: 💌		15.500000	
W18Y0358.CR2	23/1	Create copies:			15.500000	
W18Y0368.CR2	23/5	Always write XM	P sidecar:		15.500000	_
W1BY0373.CR2	23/4	runays mile nin	, sidecuri,		15.500000	_
W18Y0396.CR2	23/0	Write:			18.100000	_
W1BY0447.CR2	23/0	Coordinates			8.422000	
W1BY0459.CR2	23/0	Altitude		N.	-1.400000	
W1BY0484.CR2	23/6	City		M		
W18Y0511.CR2	23/(	Province / State		M		1
W1BY0514.CR2	23/(	Country		1		
W18Y0523.CR2	23/(	Timestamp		1		
W18Y0545.CR2	24/(	Comment / Car	ation	1	-4.000000	1
W1BY0546.CR2	24/(	Description / H	eadline	1	-4.000000	
W1BY0556.CR2	24/(	Artist	eaunne	2	-4.000000	
W1BY0594.CR2	24/(	Spotlight Comp	antr	2	3.700000	
W1BY0610.CR2	24/(	Spotlight Comm	ients		3.700000	
W1BY0628.CR2	24/6				2.200000	
W1BY0643.CR2	24/6	Parat	C	Cancel OK	2.200000	
W1BY0654.CR2	24/(	( meser	C		-3.400000	
W1BY0687.CR2	24/0	7/2009 10:46:19	50.610052	-1.961270	6.000000	Ă
W1BY0701.CR2	24/0	7/2009 10:54:38	50.610023	-1.960950	-1.300000	4
W1BY0702.CR2	24/0	7/2009 10:54:43	50.610023	-1.960950	-1.300000	11.

**3.** The unlinked image files remained colored orange, but the updated image files now appeared in black. At this stage, I needed to click the "Write EXIF/ XMP/IPTC tags" button (circled) to sync the GPS data with the image files. In this dialog, all I really needed to do was to ensure that the "Tag masters / originals" option was checked.



4. Meanwhile, in Lightroom, it was essential that I kept the exact same image selection active and chose Metadata ⇒ "Save metadata to file" (ﷺ) before I went to the Metadata menu again and chose Read Metadata from Files. It appears that an initial "Save metadata" command is necessary to ensure that the HoudahGeo-edited data is updated to the files before you read from them again in Lightroom.



**5.** Finally, I checked to see if the metadata information had been updated correctly by selecting one of the images and checking the status of the Metadata panel. If the geotagging had been successful, I would have seen the GPS data appear directly below the EXIF Lens data and Artist items.

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