THE ADOBE PHOTOSHOP LIGHTROOM CC / LIGHTROOM 6 BOOK

The Complete Guide for Photographers

Martin Evening
The Adobe Photoshop Lightroom CC / Lightroom 6 Book

The Complete Guide for Photographers

Martin Evening
Dedicated in memory of Bruce Fraser
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 all 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, until eventually we ended up with the Lightroom program you see now.

The Adobe Photoshop Lightroom CC / Lightroom 6 Book represents the culmination of more than nine years’ work in which I have been involved with Lightroom. Basically, this book is intended to be the ultimate reference guide to Lightroom and 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 there is on this subject. I also wanted to make sure space was given to explaining the background to some of the features. The feedback I have had for previous editions of this book has been encouraging. Newbies to Lightroom have found it easy to access and understand all the basics, while advanced professional users appreciate the background detail that’s provided. I have to confess, when I first started work on this project, I never imagined the book would end up being 744 pages in length. Mark Hamburg once 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 version 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. As always, I suggest you approach the book by reading it in chapter order, starting with Chapter 1: Introducing Adobe Photoshop Lightroom, which explains some of the fundamental principles behind Lightroom.

The Lightroom catalog is a major feature of the program, which is why I have devoted more than 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 through the use of keywords and metadata. Even more space is devoted to image processing and how to make use of all the Develop module controls. Here you will find some great picture examples, which show how Lightroom can help you unleash your creativity.
This edition of the book has a companion website: thelightroombook.com. It contains additional resource material in the form of Lightroom movie tutorials, templates, and PDF downloads. I know a lot of readers would like to have access to the images that appear in the book. In response to this, I have created a downloadable Lightroom catalog that contains nearly all the photos that appear here. Full instructions on how to install the catalog once you have downloaded it are contained on the website.

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 insights to help you get the most out of the program, too.

Martin Evening, March 2015

Lightroom book updates
Adobe has been known to release interim updates for the Lightroom program in which new features are added. I am proud to say that I have had a good track record in always providing readers with updated content in the form of PDFs or movies whenever this happens. So when this happens, do remember to check the book website for new content. I also have a Facebook page where readers can be kept updated: facebook.com/MartinEveningPhotoshopAndPhotography.

Acknowledgments
I would like to thank Pamela Pfiffner, for prompting me to get started on this project and for her advice and help during the planning stage of this book series. For this particular edition, Valerie Witte was my editor and has done an excellent job making sure everything has come together smoothly. Other members of the publishing team included the production editor, Tracey Croom; copy editor, Elizabeth Kuball; proofreader, Patricia J. Pane; indexer, James Minkin; and additional compositing and corrections by David Van Ness. I would also like to thank Charlene Charles-Will for the cover design, as well as Sara Jane Todd, who worked on the marketing.

Lightroom is really the brainchild of Mark Hamburg, without whom none of this would have happened. Since then 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, Eric Chan, Max Wendt, and Josh Bury (who worked on the Camera Raw engineering). I would also like to thank product manager Tom Hogarty, product evangelist Julieanne Kost, and 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 Edwards and Veronica at M&P and Kelly from Zone; Camilla Pascucci for makeup; Terry Calvert, James Pearce, and Nadia Foster for hair; Harriet Cotterill for the clothes styling; Stuart Weston and Neil Soni for the use of their studios; and Harry Dutton and Rob Cadman 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, who were all willing to share their knowledge about the program with one another. 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 through without having some decent photographs to illustrate it with. To supplement my own photography, I would, therefore, like to thank Peter Andreas, Sean McCormack, Eric Richmond, and Jeff Schewe, all of whom are individually credited throughout this book. 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!
# Contents

## 1 Introducing Adobe Photoshop Lightroom

- What is Adobe Photoshop Lightroom? ................................................. 2
- Keeping things simple .............................................................. 2
- Modular design ......................................................................... 2
- Lightroom performance .............................................................. 4
  - Adobe Camera Raw processing .................................................. 4
  - Color controls ....................................................................... 5
  - Managing the image library ...................................................... 5
  - Where does Photoshop fit in? .................................................... 6
  - Integrating Lightroom with Photoshop .................................... 7
  - If your Lightroom subscription should come to an end .......... 7
- What you need ........................................................................... 8
- Installing Lightroom .................................................................. 9
  - 64-bit processing ..................................................................... 10
  - Sleep protection ....................................................................... 10
- Upgrading from an older Lightroom catalog .............................. 11
- Using Lightroom for the first time ............................................ 13
- Lightroom preferences essentials .............................................. 14
- Performance preferences .......................................................... 18
  - Graphics card compatibility .................................................... 19
- Managing Lightroom mobile via Lightroom .............................. 20
  - Lightroom mobile preferences .................................................. 20
- History panel ............................................................................ 21
  - Customizing the identity plate and interface .......................... 22
- Getting help ............................................................................... 24
- Introducing the Lightroom interface ....................................... 25
- Working through the book .......................................................... 27

## 2 Importing photos ................................................................. 29

- The main Import dialog ............................................................ 30
  - Copy as DNG, Copy, Move, or Add? ....................................... 32
  - Converting to DNG after import ............................................. 32
  - Updating DNG previews for third-party viewing .................... 33
- Importing files from a card ....................................................... 34
- Activity Center ........................................................................ 38
- Source panel ........................................................................... 40
- Content area ............................................................................ 41
  - Content area segmenting options ........................................ 42
3 The Library module ........................................... 67

About Lightroom catalogs ........................................ 68
Back up the catalog file .......................................... 69
Backup strategies .................................................. 71
Backup software ................................................... 71
Catalog corruption ................................................ 72
Creating and opening catalogs .................................... 73
Creating a new catalog ............................................ 73
Opening an existing catalog ....................................... 74
Exporting catalogs .................................................. 75
Exporting with negatives ......................................... 75
Exporting without negatives ..................................... 76
Including Smart Previews ......................................... 76
Including available previews ..................................... 77
Opening and importing catalogs ................................... 77
Limitations when excluding negatives ......................... 79
Changed Existing Photos section ............................... 79
Export and import summary ....................................... 79
Working with Smart Previews .................................... 80
How to create Smart Previews ................................... 80
Making the catalog portable ...................................... 81
The Library Module panels .............................................. 84
The Navigator panel ....................................................... 86
The Catalog panel .......................................................... 86
The Library module Toolbar .............................................. 86
The Folders panel ............................................................ 87
  The Folders panel/system folders relationship ............... 88
  Locating a folder at the system level ....................... 89
  Maintaining links between Lightroom and folders ....... 91
  Synchronizing folders ................................................ 92
  Adding new folders via the Folders panel ............... 94
  Finding the link from the catalog to a folder ........... 95
  Organizing your folders ............................................. 97
The Filter bar ............................................................... 99
Exploring the Library module ........................................ 100
Grid view options .......................................................... 100
Library Grid navigation ................................................ 102
Working in Loupe view ................................................... 104
  Loupe view options ..................................................... 105
  Working with photos in both Grid and Loupe views .... 106
  Loupe view navigation ............................................... 108
  Loupe zoom views ...................................................... 109
  Loupe view shortcuts ................................................ 109
Loupe Overlay view ....................................................... 110
  Grid and Guides ......................................................... 110
  Layout Image .............................................................. 112
  The Layout Overlay feature in use ....................... 112
Previews and preview appearance ..................................... 114
  Initial Import Photos dialog preview building options . 114
  How Lightroom previews are generated ............... 115
  Camera embedded previews vs. Lightroom previews .... 116
  Missing previews .......................................................... 117
  Preview size and quality ............................................ 117
Working in Survey view .................................................. 118
Working in Compare view ............................................... 120
  Compare view mode in action ...................................... 122
Navigating photos via the Filmstrip ................................. 124
Working with a dual-display setup ................................... 126
  How to get the most out of working with two displays . 128
Rating images using flags ................................................. 130
  Refine Photos command ............................................. 131
Rating images using numbered star ratings ..................... 132
Rating images using color labels .................................................. 134
  Color label sets ................................................................. 134
  Other ways you can use color labels ....................................... 135
Grouping photos into stacks ..................................................... 136
  Automatic stacking ............................................................. 136
Making image selections .......................................................... 138
Quick Collections ................................................................. 139
Collections ............................................................................. 140
  Module collections .............................................................. 141
  The module collections in use ................................................. 144
  Editing collections ............................................................... 144
  Target collection .................................................................. 145
Collection sets ......................................................................... 146
  Smart Collections .................................................................. 146
Removing and deleting photos ................................................... 149

4 Develop module image editing ............................................. 151
  Image editing in Lightroom ..................................................... 152
  Smarter image processing ...................................................... 152
Steps for getting accurate color ............................................... 153
  Calibrating the display .......................................................... 153
  Choosing a display ................................................................ 153
  Calibrating and profiling the display ...................................... 153
  White point and gamma ......................................................... 154
    Matching white balances .................................................. 154
    Steps to successful calibration and profiling ....................... 155
  Process versions ................................................................... 158
    Upgrading to Process 2012 ................................................ 159
    Camera Raw compatibility .................................................. 160
The Develop module interface ................................................ 162
  Develop view options .......................................................... 164
  Develop module cropping ..................................................... 164
    Rotating a crop ................................................................ 164
    Constrain to warp cropping ................................................. 168
    Auto straightening ................................................................ 168
    Crop aspect ratios ............................................................ 170
    Crop to same aspect ratio .................................................. 171
  Repositioning a crop ............................................................. 171
  Crop guide overlays ............................................................ 171
  Crop guide orientation ........................................................ 171
  Canceling a crop .................................................................. 172
  Tool Overlay menu ............................................................... 172
The Tool Overlay options .................................................. 172
Quick Develop cropping ............................................... 173
The Basic panel .............................................................. 174
White Balance tool ......................................................... 174
  White Balance corrections ............................................ 176
  Creative white balance adjustments .............................. 177
  Taking into account localized adjustments .................... 178
  Independent auto white balance adjustments ................. 179
The Basic panel tone-editing controls .............................. 180
  Exposure ................................................................. 180
  Contrast ................................................................. 181
  Highlights and Shadows ............................................ 181
  Whites and Blacks .................................................... 182
  Auto Whites and Blacks adjustments .......................... 183
  General Auto Tone adjustments ................................. 184
  Basic panel adjustments workflow .............................. 185
Histogram panel ............................................................. 189
  The Histogram panel and image adjustments ............... 190
Navigating the Basic panel via the keyboard .................... 191
Correcting an overexposed image .................................. 192
Correcting an underexposed image ............................... 194
Creating HDR photos using Photo Merge ....................... 196
  Photo Merge DNGs ................................................... 197
  Deghost Amount options ......................................... 200
Creating panorama photos using Photo Merge .................. 200
  Panorama projection options .................................... 201
Match Total Exposures ............................................... 204
Highlight clipping and Exposure settings ....................... 206
Clipping the blacks ..................................................... 206
Clarity slider ............................................................. 208
  Using Clarity to decompress the levels ....................... 209
  Negative Clarity adjustments .................................. 210
Vibrance and Saturation ............................................. 212
Quick Develop panel tone adjustments ......................... 214
  Process version conflicts ....................................... 215
  The other tone controls ....................................... 215
  A typical Quick Develop workflow ............................ 216
Editing video files in Quick Develop ............................. 219
The Tone Curve panel ................................................... 224
  Point Curve editing mode ....................................... 226
  RGB curves .......................................................... 228
  The Tone Curve regions .......................................... 230
Combining Basic and Tone Curve adjustments .......................... 232
Tone range split point adjustments ......................................... 236
HSL / Color / B&W panel ......................................................... 238
Selective color darkening ...................................................... 240
False color hue adjustments .................................................. 241
Using the HSL controls to reduce gamut clipping ..................... 242
Lens Corrections panel .......................................................... 244
Lens profile corrections ......................................................... 244
Accessing and creating custom camera lens profiles .................. 245
Profile lens corrections in use ................................................. 245
In-camera lens corrections ..................................................... 248
Removing chromatic aberration .............................................. 248
Defringe adjustments .......................................................... 250
The Defringe controls in use ................................................... 251
Eyedropper tool ................................................................. 251
Applying a global Defringe adjustment .................................... 252
Applying a localized Defringe adjustment ................................. 255
Upright adjustments ............................................................ 257
How Upright adjustments work .............................................. 257
Suggested order for Upright adjustments ................................ 258
Synchronizing Upright settings .............................................. 259
Perspective transform corrections ......................................... 263
Lens Vignetting ................................................................. 263
Effects panel ........................................................................ 266
Post-Crop vignettes ............................................................. 266
Post-Crop vignette options .................................................... 266
Adding Grain ....................................................................... 270
Camera Calibration panel ...................................................... 272
Camera profiles ................................................................. 272
Creating a custom calibration with DNG Profile Editor ............. 274
Creative uses of the Camera Calibration panel ......................... 277
Assessing your images .......................................................... 278
Comparing before and after versions ...................................... 278
Managing the Before and After previews ................................. 280
Image retouching ............................................................... 284
Spot Removal tool .............................................................. 284
Visualizing spots ................................................................. 286
Creating brush spots ......................................................... 287
Clone or Heal ................................................................. 291
Editing circle and brush spots .............................................. 291
Tool Overlay options .......................................................... 291
Undoing/deleting spots ....................................................... 291
Auto-find behavior ............................................................ 292
Spot Removal tool feathering ........................................... 292
Synchronized spotting ............................................... 293
   Auto Sync spotting ............................................. 294
   Red Eye Correction tool ...................................... 295
   Adjusting the cursor size ..................................... 295
   Pet Eye mode ..................................................... 297
Localized adjustments .............................................. 298
   Initial Adjustment Brush options ............................ 298
   Editing the Adjustment Brush strokes ...................... 300
   Saving effect settings ....................................... 300
   Localized adjustment position and editing ................ 300
   Automasking ...................................................... 302
   Previewing the brush stroke areas .......................... 304
   Beauty retouching with negative clarity ................... 304
   Hand-coloring in Color mode ................................ 306
   Localized Temperature slider adjustments ................ 308
   Localized Shadows adjustments ............................... 310
   Clarity and Sharpness adjustments ........................... 312
Graduated Filter tool ................................................. 314
   Brush editing a graduated filter effect .................... 317
Radial Filter tool ..................................................... 319
   Correcting edge sharpness with the Radial Filter ........ 321
History panel .......................................................... 323
Snapshots panel ........................................................ 324
   How to synchronize snapshots ............................... 326
Easing the workflow .................................................. 328
Making virtual copies ................................................. 328
   Making a virtual copy the new master ...................... 328
Synchronizing Develop settings ................................. 330
   Auto Sync mode .................................................. 330
Lightroom and Camera Raw ......................................... 332
   Viewing Lightroom edits in Camera Raw .................. 332
   Viewing Camera Raw edits in Lightroom ................. 332
   Keeping Lightroom edits in sync ............................ 333
   Synchronizing Lightroom with Camera Raw ............... 334
Copying and pasting Develop settings ......................... 336
   Applying a previous Develop setting ...................... 336
Saving Develop settings as presets ............................ 338
   Auto Tone preset adjustments ............................... 339
   The art of creating Develop presets ....................... 339
   Creating a new Develop preset ............................. 340
   Understanding how presets work ........................... 341
5 The art of black and white .......................... 349
Black-and-white conversions .......................... 350
Black-and-white Develop controls ...................... 350
Black-and-white conversion options .................. 352
How not to convert ................................... 352
Temperature slider conversions ......................... 354
Manual black-and-white adjustments .................. 356
Black-and-white infrared effect ......................... 359
Fine-tuning black-and-white images .................... 362
Split Toning panel ................................... 362
Split-toning a color image .............................. 364
HSL panel: Desaturated color adjustments .............. 366
The HSL black-and-white method ...................... 367
Camera Calibration adjustments ...................... 367

6 Sharpening and noise reduction .................... 371
Capture sharpen for a sharp start ...................... 372
Improved Lightroom raw image processing .......... 373
Output sharpening ................................... 375
Default Detail panel settings .......................... 375
Sharpen preset settings ................................ 375
Sharpen – Faces ...................................... 376
Sharpen – Scenic ...................................... 377
Sample sharpening image .............................. 378
Evaluate at a 1:1 view ................................ 379
Luminance targeted sharpening ......................... 379
The sharpening effect sliders .......................... 379
Amount slider ...................................... 380
Radius slider ...................................... 382
The modifying controls ................................ 384
Detail slider ...................................... 384
Interpreting the grayscale sharpening preview ........ 387
Masking slider ...................................... 387
Masking slider preview mode .......................... 388
Applying sharpening adjustments ..................... 390
Creative sharpening with the adjustment tools ........................... 392
Applying localized blurring ................................................. 394
Noise reduction ............................................................... 396
Luminance noise reduction .................................................. 396
Color noise reduction .......................................................... 398
Noise-reduction tips ........................................................... 398
Color noise corrections ......................................................... 399
Color Smoothness slider ....................................................... 400
Selective noise reduction ....................................................... 402
Selective moiré reduction ....................................................... 403
Moiré removal on non-raw images ........................................ 405

7  Exporting from Lightroom ................................................. 407
Opening images in Photoshop .............................................. 408
The Edit in Photoshop options .............................................. 408
Edit in Adobe Photoshop ..................................................... 409
Edit in additional external editing program ............................. 410
Opening non-raw images in an external editing program ............ 411
Creating additional external editor presets ............................... 411
External editing file-naming options ....................................... 412
The file format and other file settings options ......................... 412
Camera Raw compatibility .................................................... 413
How to use the external edit feature .................................... 414
Going from Lightroom to Photoshop to Lightroom .................... 416
Extended editing in Photoshop .............................................. 420
Linking Lightroom photos from Photoshop as Smart Objects ....... 423
Exporting from Lightroom ..................................................... 424
Export presets ................................................................. 424
Export Location ............................................................... 424
Exporting to the same folder ............................................... 426
File Naming ................................................................. 428
File Settings ................................................................. 428
Image Sizing ................................................................. 429
DNG export size options ..................................................... 430
When to interpolate .......................................................... 431
Output Sharpening .......................................................... 432
Metadata ................................................................. 432
Watermarking ............................................................... 433
Creating new watermark settings ......................................... 434
Post-Processing .......................................................... 435
Adding export actions in Lightroom ........................................... 436
Exporting catalog images to a CD or DVD ................................. 440
Exporting catalog images as email attachments ......................... 441
Third-party Export plug-ins ...................................................... 444
Exporting video files ............................................................... 445

8 Printing .................................................................................. 447
The Print module .................................................................. 448
Layout Style panel ................................................................. 450
Image Settings panel ............................................................. 450
Layout panel ...................................................................... 453
  Margins and Page Grid ....................................................... 454
Guides panel ....................................................................... 455
Multiple cell printing .............................................................. 456
Page panel ......................................................................... 458
  Adding a photographic border to a print ............................. 460
  Page Options .................................................................. 462
  Photo Info ...................................................................... 463
Picture Package and Custom Package .................................... 464
  Image Settings panel ......................................................... 464
  Rulers, Grid & Guides panel .............................................. 464
  Cells panel ..................................................................... 464
  Custom Package layout style ............................................. 468
  Picture Package/Custom Package Page panel ..................... 471
Page Setup ......................................................................... 472
  Print resolution ............................................................... 473
Print Job panel ................................................................. 474
  Print job color management ............................................ 474
  The Lightroom printing procedure .................................... 474
  Managed by printer print settings (Mac) ......................... 475
  Managed by printer print settings (PC) ......................... 476
  Print Adjustment controls ............................................... 477
  Print ............................................................................... 478
  Printing modes ............................................................... 479
  Print sharpening .............................................................. 479
  16-bit output .................................................................. 480
Print to JPEG File .................................................................. 480
Custom profile printing .......................................................... 481
  Managed by Lightroom print settings (Mac) ..................... 482
  Managed by Lightroom print settings (PC) ...................... 483
  Rendering intent ............................................................ 484
Soft proofing for print output: 485
Why what you see isn’t always what you get: 485
Soft proofing in practice: 487
Before and Proof preview: 488
Before state options: 492
Saving a custom template: 493

9 Presenting your work: 495

The Book module: 496
Creating a new book: 497
Book Settings panel: 498
PDF and JPEG book export: 499
Preview panel: 499
Toolbar: 500
Auto Layout panel: 500
Auto Layout Preset Editor: 500
Editing the book pages: 502
Editing the cover pages: 504
Page panel: 506
Marking page layouts as favorites: 506
Adding page numbers to a layout: 506
Saving custom page layouts: 506
Guides panel: 507
Cell panel: 508
Text panel: 508
Text box layouts: 508
Adding auto text: 509
Type panel: 510
Type panel Character controls: 510
Target adjustment tool options: 512
Type panel Frame controls: 512
Background panel: 512
Soft proofing before printing: 513
Publishing your book: 513

The Slideshow module: 514
The Slide Editor view in the content area: 516
Layout panel: 517
Options panel: 518
Overlays panel: 520
Creating a custom identity plate: 521
Adding custom text overlays: 522
Working with the anchor points: 524
Backdrop panel .......................................................... 526
Titles panel ................................................................. 528
Music panel .................................................................. 529
Playback panel ............................................................... 530
  Pan and zoom options .............................................. 530
  Playback screen and quality settings .................... 531
  Manual mode ............................................................ 531
Play and preview .......................................................... 531
  Navigating slideshow photos ................................. 532
  Impromptu slideshows .............................................. 532
Slideshows and selections ............................................ 532
Template Browser panel .............................................. 533
Creating a Slideshow collection ................................. 533
Exporting a slideshow ................................................ 534
  Exporting slideshows to PDF ................................. 535
  Exporting slideshows to JPEG ............................. 536
  Exporting slideshows to video ............................... 536
  Exporting a timelapse video ................................. 537
The Web module .......................................................... 538
  Layout Style panel .................................................. 540
    The Lightroom HTML and HTML5 galleries .......... 540
    Lightroom HTML gallery (default) layout .......... 541
    Lightroom Grid (HTML5) Gallery layout .......... 542
    Third-party gallery styles ............................... 543
  Site Info panel ....................................................... 544
Color Palette panel ..................................................... 545
  Choosing a color theme ..................................... 545
Appearance panel ....................................................... 547
  Appearance settings for the HTML gallery .......... 547
  Appearance panel settings for the HTML5 gallery .... 548
Image Info panel ........................................................ 549
  Adding titles and captions ................................ 549
  Customizing the title and caption information ...... 550
  Creating a custom Text template ......................... 552
Output Settings panel ................................................. 554
  Previewing web galleries .................................... 554
Image appearance in Slideshow and Web modules .......... 555
  Slideshow module colors .................................... 555
  Web module colors .............................................. 555
Exporting a web gallery ............................................ 556
Uploading a web gallery ............................................ 557
  Managing your uploads .................................... 561
Template Browser panel ........................................ 561
Creating a web collection ................................. 561

10 Managing your photos in Lightroom .......... 563

Working with metadata ..................................... 564
The different types of metadata ...................... 564
A quick image search using metadata .............. 566
Metadata panel ............................................. 568
Metadata panel view modes ....................... 568
General and EXIF metadata items ................. 570
File Name ................................................. 570
Sidecar Files ............................................. 570
Copy Name ............................................... 570
Metadata Status ......................................... 572
Cropped photos ......................................... 573
Date representation .................................... 573
Capture time editing .................................. 573
Camera model and serial number ................. 574
Artist EXIF metadata .................................. 574
Custom information metadata ..................... 575
Metadata presets ........................................ 576
Editing and deleting metadata presets .......... 578
IPTC metadata .......................................... 578
IPTC Extension metadata .............................. 580
A more efficient way to add metadata ............. 581
Metadata editing and target photos ............... 582
Mail and web links ..................................... 584
Copyright status ....................................... 585
Keywording and Keyword List panels .......... 586
Ways you can add new keywords ................. 588
Keeping metadata private ............................. 588
Synonyms: The hidden keywords ................. 589
Applying and managing existing keywords ...... 590
Auto-complete options ............................... 590
Removing keywords ................................... 592
Keyword hierarchy ..................................... 592
Keyword filtering ....................................... 593
Importing and exporting keyword hierarchies .. 593
Implied keywords ...................................... 594
Keyword suggestions .................................. 595
Keyword sets ............................................. 596
Creating your own custom keyword sets .......... 597
The Painter tool .......................................................... 598
  Painter tool in Target Collection mode ................. 600
People view mode .................................................. 600
  Single Person view mode ................................. 606
  Expanding and collapsing stacks ...................... 606
  People view mode Toolbar ............................. 607
Person keywords .................................................. 608
  Exporting Person keywords ......................... 610
Photo filtering and searches .................................. 611
  Filtering photos in the catalog ....................... 611
    Three ways you can filter the catalog .............. 612
    Filtering photos via the Filmstrip ............... 613
    Adding folders as favorites ..................... 614
    Filtering flagged photos ....................... 614
    Filtering options ................................ 614
    Creating refined color label selections via the Filmstrip .... 614
    Color label filtering ............................ 615
    Virtual copy and master copy filtering ......... 617
Subfolder filtering ............................................... 618
Making filtered image selections ......................... 619
Filter bar .......................................................... 620
  The Filter bar layout ................................ 621
Text filter searches ............................................. 621
  Search rules .............................................. 622
  Combined search rules ................................ 623
  Fine-tuned text searches .............................. 623
Attribute filter searches ....................................... 624
Metadata filter searches ....................................... 624
  Metadata filter options .............................. 625
  Metadata filter categories ........................... 626
Locating missing photos ....................................... 627
Custom filter settings ......................................... 628
  Empty field searches ................................ 628
  No content searches .................................. 629
  Advanced searches .................................... 631
Publishing photos via Lightroom ......................... 633
Saving and reading metadata .................................. 637
  Saving metadata to the file ......................... 639
  Tracking metadata changes ......................... 639
XMP read/write options ....................................... 641
  Where is the truth? ................................... 644
Synchronizing the metadata settings ...................... 645
Sorting images .................................................. 646
Sort functions .................................................. 647
The sort by label text solution ....................... 649
Geotagging images .............................................. 650
GPS devices ..................................................... 650
Embedding GPS metadata in a photo .......... 651
Reverse geocoding .............................................. 652
The Map module ............................................... 652
Navigation ....................................................... 653
Location filter bar ............................................. 654
Loading GPX tracklogs ................................. 654
Matching photos to a recorded tracklog ..... 655
Editing pins ....................................................... 657
Manually geotagging photos in the Map module .. 658
Permanently reverse-geocoding images ........ 660
Exporting GPS-encoded files ....................... 660
Saved Locations panel ...................................... 661

Appendix

Lightroom preferences and settings .... 663

General preferences ........................................... 664
Splash screens ................................................. 664
Updates ......................................................... 664
Catalog selection ............................................. 665
Import options ............................................... 665
Completion sounds and prompts ................. 666
Presets preferences ........................................... 666
Camera-linked settings ................................. 667
Location section .............................................. 667
Lightroom Defaults section ....................... 667
External Editing preferences .................... 668
File Handling preferences ......................... 668
Import DNG Creation ....................................... 668
Convert and export DNG options ............... 671
DNG compression ........................................... 671
DNG with lossy compression ...................... 672
Checking DNG metadata status ................... 672
Validating DNG files ...................................... 673
Reading Metadata options ......................... 674
Filename generation options .................... 674
Camera Raw and video cache settings ....... 674
Interface preferences ........................................... 675
Panel end mark .................................................. 676
  Custom panel end marks .................................. 676
Creating a custom splash screen ....................... 677
Panel font size .................................................. 677
Lights Out ....................................................... 678
Background ....................................................... 678
Keyword entry ................................................... 678
Filmstrip preference options ............................. 678
Interface tweaks ............................................... 679
Lightroom mobile preferences ............................ 680
Lightroom mobile in use ..................................... 683
  What Lightroom mobile can and cannot do ............ 684
  Lightroom mobile refinements ......................... 685
Setting up a synchronized collection .................. 686
Lightroom mobile collections .............................. 688
Lightroom Web view .......................................... 689
  Managing Lightroom Web view via
  Lightroom desktop ...................................... 691
  Uploading files via Lightroom Web .................... 693
  Removing photos from a collection via
  Lightroom Web view .................................... 695
Lightroom settings and templates ....................... 697
  The Lightroom preference file ......................... 697
  Accessing saved template settings .................... 698
Customizing the Lightroom contents .................... 699
  Hacking the Lightroom contents ....................... 699
Lightroom previews data .................................... 701
System information .......................................... 702
The ideal computer for Lightroom ....................... 702
  RAM .......................................................... 703
  Graphics card ............................................... 703
  Hard drives .................................................. 703
  Drive configurations ..................................... 704
  Striped RAID ............................................... 704
  Mirrored RAID ............................................. 704
  A mirror of stripes ....................................... 705
  RAID 5 ....................................................... 705
  Just a bunch of disks ..................................... 705

Index ............................................................ 707
CHAPTER 10  MANAGING YOUR PHOTOS IN LIGHTROOM

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 presaved metadata templates. And likewise, if Rating, Pick, or Label is selected, you are also offered another choice of settings to use.

**Painter tool in Target Collection mode**

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 145).

**People view mode**

Lightroom CC / Lightroom 6 now has a face-tagging feature that is able to automatically identify faces in the catalog images and can be trained to recognize named individuals, add face regions to individual photos, and create Person keywords that can automatically be added to the Keyword List panel inside a designated parent keyword.
The face-tagging process takes place in stages, which starts with the face recognition. Lightroom makes use of the same special face-recognition technology that is used in Photoshop Elements to identify face shapes in each image. This requires the photos in the catalog (or Filmstrip selection) to first of all be indexed. This is a process whereby Lightroom builds a record of each image in a form that the face-recognition engine can use to analyze for faces in images. Indexing can be turned on for the whole catalog by checking the “Enable automatic people finding in the background” option in the Catalog Settings Metadata section, as well as via the new Activity Center. For photos that are currently offline, Lightroom automatically indexes them the next time they come back online and Lightroom is launched. If indexing is turned off, it will index only the selected source whenever you enter the People view, or whenever you activate the Draw Face tool in the Loupe view for the current photo. When this has been done and you go to the People view mode in the Library module, Lightroom displays a view of thumbnails showing all the possible face matches for that particular selection of images in an Unnamed People section. It adds face regions to each identified face in each image and, from there, it is up to the user to identify the faces and enter names manually. As you identify a face and give it a name, Lightroom attempts to identify other identical faces. From there you have the job of clicking to approve the name suggestions as being correct, or rename and look for further unnamed people in the Unnamed People section and identify them accordingly. That is how it is supposed to work, and Lightroom does seem mostly able to spot regular faces. On the other hand, Lightroom can still miss obvious matches, or include all kinds of picture elements as faces, but you can always choose to delete the face region for such photos to remove them from the equation.

Ultimately, this face-tagging feature requires a significant amount of user input in the early stages in order to familiarize Lightroom with the people you photograph most often. The more you use this feature, though, the easier it becomes for Lightroom to automatically recognize the people seen in your photographs and name and keyword them automatically. That is the theory. In practice, you will have to decide whether the effort of all this input work is worth it compared to the manual method of visually identifying people and manually entering keywords, which, if these are regular people you photograph, Lightroom will be able to auto-complete anyway. The intended benefits of face tagging are to have faces recognized automatically immediately after importing and to semi-automate the metadata-adding process. In addition to this, it can pinpoint where the faces are in a picture. So, rather than just have keywords that name the individuals in a photograph, it can add a frame around each face, which identifies each individual person in the shot. Let’s now take a look at the face-tagging controls and the steps used to identify faces in a series of pictures.

NOTE

The index will build faster if you have Smart Previews available. You can monitor the progress via the Activity Center. The indexing process involves reading the raw data from disk, so if you happen to be doing something else that involves reading the raw data, such as converting to DNG, or building Smart Previews, the indexing process can happen simultaneously and get a free ride. Failing that, if there are embedded previews that are sufficiently large enough (greater than 1024 pixels along the longest edge), Lightroom will use those. Face info search data is also included when importing from another catalog and when creating a virtual copy.

TIP

You can click the People button to switch to the People view, and click the People button again to switch back to the Grid view.
1. Here is a Library module Grid view of photographs taken at a garden party. The photographs at this stage were untagged.

2. I switched to the People view by clicking the People view button (circled). Alternatively, I could choose View ➔ People, or use the [P] shortcut. So far, Lightroom recognized just my daughter, which I clicked to confirm and added her to the Named People section. If you hold down the [Alt] key and pan the mouse over a face stack, it shows a preview of all the faces that are in that stack.
3. Here I made a selection of matching faces in the Unnamed People section and clicked in the text field below (you can also use the Shift shortcut) to enter text to identify as a new person and add to the Named People section. Lightroom will auto-complete as you type. When you are editing single faces and you press Return, this automatically selects the next face and highlights the text field. You can also use (Mac)/(PC) + arrow to progress from one face to the next.

4. Lightroom will very likely produce some false results. These you can manage by hitting [Delete], clicking the X button on the bottom of the thumbnail, or making a selection and using the contextual menu to select Remove Face Region.
5. Having begun to train Lightroom to recognize certain faces, I could hover over a face in the People view and click the cancel icon to reject and delete the face region or the check-mark icon to confirm the named-face suggestion and add this face to the Named People section.

NOTE
The placement of the confirm and cancel buttons is reversed on the PC.

6. Another way to manage faces in the Unnamed People section is to make a selection of faces and drag these across to a named face in the Named People section. This names the selected photos. You can also drag photos between sections to take, say, a photo from the Named People section and drag it to the Unnamed People section (where it will become Unnamed again).
7. In this screen shot, I had carried out most of the naming, but there were still some photographs left over where the people were unnamed.

8. Here I double-clicked a named face to go to the Single Person view. You can also do this by clicking the keyword name that appears at the top (circled in Step 7). At the same time, Lightroom will suggest similar face suggestions in the section below. However, in this instance, none of these was correct.
9. I then double-clicked a face in the Single Person view to switch over to the Loupe view in the Library module to reveal the face regions, which as you can see, identified the individual faces and confirmed that keywords had been added. Here the Draw Face tool button is activated (circled) and when active can be used to marquee-drag and manually define new face regions. Clicking the Draw Face tool button allows you to hide all the face regions and also revert to regular Loupe view mode zoom behavior.

**Single Person view mode**

As you manage the photos in the People view mode, the name of the person (or persons) you have selected in the Named People section appears in the top bar (see Figure 10.51). When you click a name, this takes you to the Single Person view mode, where the full number of confirmed faces can be seen (Figure 10.52). Below this is a Similar section, where, as you roll over the faces, you can click the Confirm button to add it to the Confirmed section (even if there is no name suggestion for the face). Right-clicking a face in People view opens a contextual menu (see Figure 10.50). You can use this to choose Find Similar Faces (⌘F [Mac] or Ctrl F [PC]), move to Unnamed People, Remove Face Region, or choose Go to Folder in Library, or Go to Collection to go to the collection that contains the photo. The Find Similar Faces item is also available via the contextual menu in the Loupe view when the Draw Face tool is active and will take you to a Single Person view for that face.

**Expanding and collapsing stacks**

You can use the S key to expand or collapse a stack in the People view, or click and hold S to expand and release to collapse again. Or, you can use the Undo command to revert.
**Figure 10.51** This shows the top bar in the People view mode, where if you click on the selected person’s name, you are taken to the Single Person view shown below in Figure 10.52.

**Figure 10.52** This shows the Single Person view. You can click the arrow (circled) to return to the People view mode again. Click “Find all photos…” to jump to a Library module Grid view filtered selection.

**People view mode Toolbar**

The People view Toolbar is shown in Figure 10.53. The Sort menu can be used to manage how the faces are organized. From the menu here, you can choose to sort by Suggested Name, Filmstrip Order, Stack Size, or Popular Names.

**Figure 10.53** This shows a close-up of the People view Toolbar Sort menu options.
**Person keywords**

As you add face names, you will simultaneously create keywords, which by default, will be added at the root level to the Keyword list. If you want the person keywords you create to be more manageable, I suggest you use the contextual menu shown in Figure 10.55 to enable “Put New Person Keywords Inside this Keyword” for a specific Keyword group, such as (in this instance) PEOPLE. With this scenario, all person keywords you create will automatically become children of the PEOPLE keyword, and an asterisk will appear after the target keyword name.

You can drag a face from the People view mode to the Keyword List panel as a shortcut for applying a correct people keyword. Similarly, you can also drag a person keyword to a face in the People view mode to apply.

You will also notice in the contextual menu shown in Figure 10.55 that you can choose Convert Keywords to Person Keywords. This means where you have previously assigned a keyword with someone’s name, you can convert this to a person keyword. You can do this for single or multiple selected keywords. You can even select a parent keyword and convert it into a Person keyword, and all of the associated child keywords will also be converted. What happens exactly is that this step adds the keyword to the person keyword list, but will not necessarily always add face regions to the photos (see Step 3 on page 610). But where a face region gets added and you enter the first few letters of that person’s name, Lightroom will now know to auto-complete as a known person keyword.

In Figure 10.54, you can see that the Keyword List panel now contains filter options that allow you to filter by All keywords, by Person keywords, or by all Applied keywords.
1. In this example, I wanted to convert an existing, regular keyword to become a Person keyword. First, I clicked the arrow next to the keyword Nick Woodley to load all of the photos with this keyword into Library Grid view. Next, I right-clicked the regular keyword to access the contextual menu and selected Convert Keywords to Person Keywords.

2. I then clicked the People button to switch to People view. At this stage in People view mode, it had assigned face regions to the photos, which now needed confirming. I selected all, typed in Nick Woodley to one of the selected faces, and hit Return.
Exporting Person keywords

When you export photos from Lightroom (as discussed in Chapter 7), you have the option to exclude exporting the people keywords you have added. It does not matter how you choose to organize your keyword list hierarchy, because Lightroom already identifies the (face-tag generated) people keywords as a separate class. By default, Lightroom does not include Person keywords in an export. If you wish to override this privacy mode, you can do so by unchecking the Remove Person Info option shown in Figure 10.57. When unchecked, the metadata is saved as a keyword and also to the Person Shown section of the IPTC metadata.

3. Occasionally, automatic face detection will fail to find a face in some photos. In this example, I double-clicked one such photo to open in Loupe view (Figure 10.56). I then mouse-clicked the Draw Face Region button to activate the region drawing tool. Next, I mouse-clicked the photo and dragged the region drawing tool over the face. Lastly, I began typing the first few letters of Nick’s name. Since the name was a known Person keyword Lightroom auto-completed the name.

**Figure 10.56** In the Loupe view, with the Draw Face tool active, you can click a suggested face region name and click to confirm or reject.

**NOTE**
As you help Lightroom by identifying the names of people, you can train it to be better at recognizing that person in the future. However, this happens only where there are clearly recognizable facial features. So, if the subject you name happens to be wearing dark sunglasses, this will not deprecate the Lightroom face recognition process.

**Figure 10.57** The Metadata section of the Lightroom Export dialog.
Index

1:1 previews, 114, 116, 379, 396
16-bit printing, 480
16-bit processing, 152, 429
32-bit HDR files, 196
64-bit processing, 10

A
actions, export, 436–439
Activity Center, 38–39
Address Lookup option, 38
Adjustment brush, 298–313
  Auto Mask option, 302–303, 304, 306
  Clarity adjustments, 312–313
  Color effect, 306–307
  contextual menu, 300
  editing brush strokes, 300
  initial options, 298–300
  moiré reduction, 403–405
  pin position/edits, 300, 314
  previewing stroke areas, 304
  saving effect settings, 300
  selective noise reduction, 402–403
  Shadows adjustments, 310–311
  Sharpness adjustments, 312–313
  Soften Skin effect, 304–305
  Temp and Tint adjustments, 308–309
Adobe Bridge. See Bridge program
Adobe Camera Raw. See Camera Raw
Adobe Color CC, 545
Adobe Color Engine (ACE), 482
Adobe Creative Cloud, 1, 7
Adobe IDs, 9, 680
Adobe Photoshop. See Photoshop
Adobe Reader, 535
Adobe Revel, 683
Adobe RGB color space, 117, 189, 412, 428–429, 438, 555
Adobe Standard profile, 272, 274
Amount slider
  Lens Vignetting, 265
  Post-Crop Vignetting, 266
  Sharpening controls, 380–381
anchor points, 524–525
Andreas, Peter, vi
Aperture Importer plug-in, 58
aperture information, 626–627
Appearance panel (Web module), 538, 547–548
  HTML gallery settings, 547
  HTML5 gallery settings, 548
Apply During Import panel, 49
Armes, Timothy, 444
artist name metadata, 574–575
aspect ratios, 170–171, 517, 627
Aspect Ratios overlay, 171
attribute filter searches, 624
Audio Balance slider, 530
Auto Align option, 197, 198
Auto Dismiss option, 174, 175
Auto Import Settings dialog, 60
Auto Layout option
  Book module, 496, 500–501
  Picture Package, 464–465, 467
Auto Layout Preset Editor, 500–501
Auto Mask option, 302–303, 304, 306
auto straightening, 168–169
Auto Sync mode, 294, 330
Auto Text options, 509
Auto Tone setting, 184–185, 197, 214, 216, 339
Auto White Balance setting, 176
automatic program updates, 664
Auto-Stack by Capture Time feature, 136–137
B
B&W panel (Develop module), 350, 353
  Auto button, 350, 354, 355
  manual adjustments, 356–358
  slider controls, 350, 352, 356, 360
See also black-and-white conversions
Back Up Catalog dialog, 11, 70
Backdrop panel (Slideshow module), 514, 526–527
background operations in Lightroom, 39
Background panel (Book module), 512, 513
backgrounds
  book, 512, 513
  module interface, 678
  print layout, 458
  slideshow, 526–527
backups
  catalog, 69–72
  imported photo, 45
  optical disk, 99
  setup for, 71
  software for, 71–72
badges, thumbnail, 101, 143
Balance slider, 362
bandwidth issues, 683–684
Barroso, Clicio, 304
Basic panel (Develop module), 174–213
  Auto Tone setting, 184–185
  Blacks slider, 182–184, 188, 195, 207, 235
  Clarity slider, 208–211
  Contrast slider, 181, 186
  Exposure slider, 180, 186, 193, 194, 195, 206
Basic panel (Develop module) (cont.)
Highlights slider, 181–182, 187, 193, 234
Histogram panel used with, 190–191
image adjustment workflow, 185–188
keyboard shortcuts for, 191
overexposed image correction, 192–193
Saturation slider, 212–213, 367
Shadows slider, 181–182, 187, 194, 195, 234
Temp slider, 178, 179, 354–355
Tint slider, 178, 179, 354, 359
Tone Curve adjustments and, 181, 232–235
underexposed image correction, 194–195
Vibrance slider, 212–213, 367
White Balance tool, 174–179, 185, 233
Whites slider, 182–184, 188, 206, 235

beauty retouching, 304–305
Before/After viewing modes, 278–283
Copy settings buttons, 280
keyboard shortcuts, 279, 280
managing previews in, 280–283
soft-proofing feature, 488–491
Behance website, 633–636
bit depth, 16, 412, 429
Black & White button, 350
black-and-white conversions, 349–369
desaturating color for, 366–369
Develop module controls, 350–351
fine-tuning B&W images, 362–369
infrared effect and, 359–361
manual adjustments for, 356–358
overview of options for, 352
Saturation slider for, 350
Split Toning panel for, 350, 361, 362–365
Temperature slider for, 354–355
Tint slider for, 354, 359
See also B&W panel
Blacks adjustment
auto calculation, 183–184
Basic panel, 182–184, 188, 195, 207, 235
blur effect, 394–395
Blurb photo books, 496
Bombich, Mike, 71
Book module, 496–513
Auto Layout panel, 500–501
Background panel, 512, 513
Book Settings panel, 498–499
Cell panel, 508, 512
Guides panel, 507
interface overview, 496–497
Page panel, 506–507
Preview panel, 499–500
Text panel, 508–509
Toolbar, 500
Type panel, 510–512
Book Preferences dialog, 509
Book Settings panel, 496, 498–499
books, 496–513
backgrounds for, 512, 513
covers for, 503, 504–505
creating new, 497–498
editing, 502–505
guides used for, 507
multi-page view of, 500
page layout options, 506–507
PDF or JPEG, 499
presets for, 500–501
previewing, 499–500
publishing, 513
setup options, 498–499
soft proofing, 513
text options, 508–512
type controls, 510–512
borders, 460–461, 462
Bridge program, 135, 581, 638, 642, 647–649
brush spots, 287–290, 291
bucket system, 99
Build Previews menu, 44
Build Smart Previews option, 80
burning CDs/DVDs, 440–441
Bury, Joshua, v, 4

C
Cadman, Rob, vi
calibrating the display, 153–157
devices used for, 153–154
steps in process of, 155–157
white point and gamma, 154–155
Calvert, Terry, vi
Camera Calibration panel (Develop module), 272–277
B&W conversions and, 367, 369
camera profiles, 272–273
creative uses of, 277, 367, 369
custom calibrations, 274–277
Camera Raw
cache size for, 674–675
camera profiles, 272–273
Lightroom compatibility with, 160–161, 332–335, 413
processing images in, 4
See also raw files
cameras
black-and-white mode on, 352
connecting to computers, 61–62
custom calibrations for, 274–277
default Develop settings for,
346–347, 667
importing files from, 34–37
lens correction data from, 248
metadata info about,
574–575, 626
previews generated by, 116
profiles for, 272–273
tethered shooting with, 61–65
transmitting photos from, 61
Campagna, Matthew, 543
candidate images, 120
Canon EOS Utility, 62, 574
captions
viewing in Metadata panel, 568
web gallery, 549–553
capture sharpening, 372–373, 431
capture time editing, 573–574
Carbon Copy Cloner, 71
Cast Shadow option, 518, 519
Catalog panel (Library module), 86, 139
INDEX
709
Catalog Settings dialog, 15, 69, 639, 643
catalogs, 68–83
about, 68–69
backing up, 69–72
corrupted, 72, 638
creating new, 73
exporting, 75–77, 79
filtering photos in, 611–617
folders and, 54–55, 95–96
importing, 77–79
optimizing, 70
removing photos from, 149
selecting default, 665
sharing between computers, 81–83
Smart Previews for, 76, 77, 80–83
storage location for, 13, 14
upgrading, 11–13
Causa, Ettore, 304
CD/DVD exports, 440–441
Cell panel (Book module), 496, 508, 512
Cell Size/Spacing sliders, 454
cells
Book module layout, 508, 512
Custom Package layout, 468–470
Picture Package layout, 464–467
Single Image/Contact Sheet layout, 453–457
Cells panel (Print module), 464–467, 468–469
centering prints, 454
Chan, Eric, v, 4, 274, 373
Channel menu, 228
color gamut considerations, 485–486
color labels, 134–135
assigning to photos, 134, 135
Bridge label compatibility, 135, 647–649
filtering photos with, 135, 615–616, 626, 629–630
sort functions and, 647–649
Color Management settings, 474, 481
Color Palette panel (Web module), 538, 545
Color panel controls, 238
color picker dialog, 518
Color Priority vignette, 268, 269
color profiles, 153
Color Smoothness slider, 400–401
color spaces, 16, 153, 189, 412, 408–429, 438
color themes, 545–546
Color Wash controls, 526, 527
ColorChecker chart, 176, 274
colorimeter device, 153
ColorSync option, 474, 477, 481
Compact Cells view, 100, 101
coloring images
Before/After viewing modes for, 278–283
Compare view for, 120–123, 127, 128
compression options, 32, 535, 671–672
custom computers
connecting cameras to, 61–62
setup for running Lightroom on, 8, 702–706
sharing catalogs between, 81–83
See also Macintosh computers;
Windows computers
Configure FTP File Transfer dialog, 557–558
Constrain Aspect Ratio button, 170
Constrain to Warp option, 168
Contact Info/Gallery Author box, 544
circle spots, 284, 285, 291

Clarity adjustments
Adjustment brush, 312–313
Basic panel, 208–211
negative, 210–211, 304
Quick Develop panel, 216
clipping
gamut, 242–243
highlight, 180, 189, 206
shadow, 189, 206–207
Clone mode, Spot Removal tool, 284, 291
close-up Loupe view, 104, 108, 109
CMYK images, 46, 161, 438–439, 488
collections, 139–148
book, 497–498
creating new, 140–141
duplicating, 143
editing, 144
Lightroom mobile, 688, 691–692
Lightroom Web view, 689–690
module-specific, 141–144, 496
print, 448, 470
public vs. private, 691, 692
publishing, 633–636
Quick, 139–140, 145
removing photos from, 149, 695–696
renaming, 144–145
saving creations as, 496
sets of, 146
slideshows, 514, 533–534
Smart, 146–148
synchronized, 21, 686–687
target, 145, 600
web gallery, 561
Collections panel, 141, 146, 498, 561
color adjustments
Adjustment brush, 306–307
desaturated color, 366–369
HSL controls, 238–243
hue-shift effects, 241–242
noise reduction, 398, 399–401
Saturation slider, 212–213
selective color darkening, 240–241
Split Toning panel, 364–365
Vibrance slider, 212–213
Contrast adjustments
Basic panel, 181, 186
Detail panel, 397
controlled vocabularies, 433, 586, 592, 593, 594
Convert Photos to DNG dialog, 32–33, 671
Copy as DNG option, 32, 37
Copy Name field, 570, 572
Copy Settings dialog, 336
copying
Before/After view settings, 280–283
Develop module settings, 336–337
importing photos by, 32
copyright information, 432, 578, 585
corruption
catalog, 72, 638
file, 37, 45
Cotterill, Harriet, vi
Create bar, 448
Create Collection dialog, 141, 145
Crop Frame tool, 166, 168–169
Crop Lock button, 170
Crop Marks option, 462
Crop Overlay mode, 164, 170, 263, 266
Crop Overlay tool panel, 165
cropping photos, 164–173
aspect ratios for, 170–171
auto straightening and, 168–169
basic steps for, 166–167
canceling crops, 172
Constrain to Warp option, 168
guide overlays for, 171, 172
metadata info about, 573
panorama cropping, 203
post-crop vignettes, 266–269
Quick Develop options, 173
repositioning crops, 171
rotating and, 164, 263
Custom Filter menu, 132
custom filters, 628–632
custom metadata, 575–581
Custom Package layout, 468–470, 471
custom profile printing, 481–484
customizing Lightroom, 22–23, 699–700
Cut Guides option, 471
Cycled Overlays option dialog, 171
Develop module (continued)
Basic panel controls, 174–213
Before/After viewing modes, 278–283
Blacks adjustment, 182–184, 188, 207
Camera Calibration panel, 272–277
Camera Raw compatibility, 160–161, 332–335
camera-specific settings, 346–347, 667
Clarity adjustments, 208–211
color adjustments, 238–243
Contrast adjustments, 181, 186
copying and pasting settings, 336–337
cropping procedures, 164–173
Detail panel, 372, 379–389
Develop Presets panel, 273
display calibration, 153–157
Effects panel, 266–271
Exposure adjustments, 180, 186, 192–195, 206–207
Graduated Filter tool, 314–318
HDR image adjustments, 199
highlight adjustments, 181–182, 187
Histogram panel, 189–191
History panel, 323–324
HSL controls, 238–243
image-processing engine, 152
interface overview, 162–163
Lens Corrections panel, 244–265
localized adjustments, 298–322
Loupe Overlay view, 110–113
Match Total Exposures command, 204–205
presets used in, 338–347, 375
process versions, 158–160
profile recognition, 153
Radial Filter tool, 319–322
Red Eye Correction tool, 295–297
retouching tools, 284–322
Saturation adjustments, 212–213
shadow adjustments, 181–182, 187
Snapshots panel, 324–327
DAM Book, The (Krogh), 99, 135
date/time information, 573–574, 626
dead pixels, 372
defaults
camera Develop setting, 346–347, 667
restoring in Lightroom, 667–668
Defringe adjustments, 250–256
eyedropper tool for, 251
global, 252–254
localized, 255–256
process for making, 250–251
Deghost Amount options, 200
decomposing processing, 373, 374, 396
Density slider, 299
desaturated color adjustments, 366–369
Destination panel (Import dialog), 50–52
Detail panel (Develop module), 372
default settings, 375
Noise Reduction controls, 374, 396–401
Sharpening controls, 372, 373, 379–389
detail slider
Noise Reduction controls, 397
Sharpening controls, 384–386, 387
Develop module, 5, 151–347
Adjustment brush, 298–313
Auto Tone setting, 184–185, 339
B&W controls, 350–369
Develop module (continued)
Soft Proofing option, 485, 487–492
Spot Removal tool, 284–294
synchronizing settings, 219, 330–331
Tone Curve panel, 224–237
Tool Overlay options, 172, 291
Whites adjustment, 182–184, 188
White Balance tool, 174–179, 185
Develop Presets panel, 273
Develop Settings menu, 49
digital asset management (DAM) system, 564
Discard 1:1 Previews option, 116
display screen
displaying, 153–157
dual-display setup, 126–129, 419
soft-proofing considerations, 485–487
tips on choosing, 153
Distortion slider, 263
DNG files, 8, 668–673
compression for, 32, 671–672
converting raw files to, 32–33, 277, 671
copying photos as, 32, 37, 668–671
exporting images as, 428, 430, 440, 440, 671
metadata status for, 672
Photo Merge, 196, 197–199, 200
saving non-raw files as, 429
validating, 33, 670
Expanded Cells view, 100, 101
XMP metadata in, 642, 644
DNG Profile Editor, 274–277
DPX video format, 445
Draft Mode Printing option, 456, 479
drag-and-drop import, 56–57
Draw Face Region tool, 105, 108, 601, 606, 610
Drobo storage system, 705
droplets, Photoshop, 436–439
dual-display setup, 126–129, 419
dutton, Harry, vi
DVD/CD exports, 440–441
Earney, Richard, 340, 698
drop shadows, 518

Export (continued)
color space options for, 428–429, 438
as email attachments, 441–443
digitized files, 652, 660
GPS-encoded files, 652, 660
keywords, 432–433, 594, 610
location options for, 424, 426–427
metadata options for, 424–427
naming files for, 428
output sharpening for, 432
person keywords, 610
plug-ins for, 444
post-processing options for, 435
presets for, 424
to the same folder, 426–427
sizing images for, 429–431
slideshows, 534–537
video files, 445, 536–537
watermark options for, 433–435
web galleries, 556
exposure
Basic panel adjustments, 180, 186, 192–195, 206
Histogram panel and, 190
Match Total Exposures command, 204–205
overexposed image correction, 192–193
Quick Develop panel adjustments, 215
underexposed image correction, 194–195
Exposure slider, 180, 186, 193, 194, 195, 206
external editing options, 408–415
file format/settings, 412
naming/rename files, 412
Photoshop editing option, 409, 413
preference settings, 16, 408–409, 412
preset creation, 411
program selection, 410–411
steps for using, 414–415
eyedropper tool, 251
Eye-Fi cards, 61, 651
Eye-One Photo, 154

F
Face Detection, 38
face-tagging feature. See People view mode
favorite folders, 614
Feather slider
  Adjustment brush, 298–299
  Post-Crop vignette, 266
  Spot Removal tool, 292
Fetch software, 557
File Format options, 16
file handling
  imported photos and, 44–46
  setting preferences for, 16, 668–675
File Handling panel (Import dialog), 44–46
File Renaming panel (Import dialog), 47–48
File Type filtering, 626
Filename Template Editor, 47, 412, 668
files
  corruption of, 37, 45
  organization of, 42–43
  saving metadata to, 637–639
Filmstrip, 27
  filtering photos via, 613
  navigating photos via, 124–125
  setting preferences for, 678–679
Filter bar, 26, 99, 620–632
  advanced searches, 631–632
  Attribute section, 624
  component layout, 621
  custom settings, 628–632
  Metadata section, 624–627
  searching with, 566–567, 621–627, 628–632
  shortcut for toggling, 620
  Text section, 621–623
filtering photos, 611–632
  attribute searches, 624
  catalog options for, 612
  collections based on, 146–148
filtering photos (continued)
  color labels for, 135, 615–616, 629–630
  custom settings for, 628–632
  Filmstrip options for, 613
  flags used for, 130, 614
  GPS data used for, 654, 661
  keywords used for, 593
  master copy filtering, 617
  metadata searches, 624–627
  rules defined for, 622–623, 628–630
  selections used for, 614, 619
  star ratings for, 132, 133
  subfolder filtering, 618
  text searches, 621–623
  toggling settings for, 611
  virtual copy filtering, 617
finding. See searching
FireWire connections, 61
flagged photos
  deleting rejects, 149
  filtering picks/rejects, 130, 614
  Flag icons indicating, 101
  rating picks/rejects, 130–131
flipping photos, 172
Flow slider, 299
folders
  catalogs and, 54–55, 95–96
  creating new, 94
docked/undocked, 41
exporting to same, 426–427
favorite, 614
hierarchy of, 87
importing, 35–36, 51, 52
links to, 91
managing, 87–88
Metadata section, 624–627
organizing, 97–99
publishing photos to, 635
synchronizing, 92–93, 333
system, 88–90
template settings, 698–699
Folders panel (Library module), 87–99
  adding new folders via, 94
  contextual menu, 52
  system folders and, 88–90
Foster, Nadia, vi
fractions, typographic, 679
Fraser, Bruce, vi, 270, 372, 387, 432
Friedl, Jeffrey, 444, 570
FTP programs, 557
G
galleries. See web galleries
gamma setting, 154–155
gamut clipping, 242–243
General preferences, 14, 664–666
Geotag Photos app, 650
geotagged images, 650–661
  creating, 650–651
  exporting, 652, 660
  filtering, 654, 661
  manually tagging, 658–659
  reverse geocoding of, 652, 660
  viewing and managing, 652–661
  See also Map module
Google Maps, 10
Gorman, Greg, 207
GPS metadata, 650–661
  embedding into photos, 651
  exporting files containing, 652, 660
  filtering photos by, 654, 661
  options for recording, 650–651
  reverse geocoding of, 652, 660
  See also geotagged images
GPU acceleration, 18–19
GPX tracklogs, 654–657
Graduated Filter tool, 314–318
  Brush option, 317–318
  example of using, 314–316
Grain effects sliders, 270–271
graphics card, 19, 703
grayscale conversions. See black-and-white conversions
grayscale previews, 380, 387
Grid cell badge, 81
Grid Gallery style, 540, 542, 545
Grid overlay, 110, 111, 171
Grid view, 41, 100–103
  navigating, 102–103
  options available in, 100–101
Grid view (continued)
secondary displays and, 127, 128, 129
shortcuts for, 104, 109
videos displayed in, 219, 220
working in, 106, 107
grouping photos, 136–137
guides
book, 507
print, 455, 464
Guides overlay, 110, 111
Guides panel
Book module, 496
Print module, 448, 455

H
H.264 video format, 445, 536
halo suppression, 384
Hamburg, Mark, iv, v, 2, 204, 238
hard drives, 703–706
Harvey, Phil, 575
HDR image creation, 196–199
Deghost Amount options, 200
Photo Merge process for, 197–199
HDR Merge Preview dialog, 198
Heal mode, Spot Removal tool, 284, 291, 294
Help menu, 24, 27, 162
hiding/showing
panels, 84
Toolbar, 26
hierarchy
folder, 87
keyword, 433, 592–593
high-density-pixel display support, 4, 41, 514
Highlight Priority vignette, 268, 269
highlights
clipping, 180, 189, 206
detail recovery, 187, 192
reflective vs. nonreflective, 206
Highlights adjustment
Basic panel, 181–182, 187, 193, 234
Tone Curve panel, 230
Histogram panel
Develop module, 189–191
Library module, 214
History panel (Develop module), 21, 323–324
Hogarty, Tom, v
Holbert, Mac, 208, 447
HSL / Color / B&W panel (Develop module), 238, 350
HSL controls (Develop module), 238–243
B&W conversion method, 367, 369
desaturated color adjustments, 366–369
false color hue adjustments, 241–242
overview of sliders and, 238
reducing gamut clipping with, 242–243
selective color darkening, 240–241
HTML galleries, 540, 541
Appearance panel settings, 547
Color Palette panel settings, 545
Site Info panel settings, 544
Title/Caption information, 549, 551
HTML5 galleries, 540, 542
Appearance panel settings, 548
Color Palette panel settings, 545
Site Info panel settings, 544
Title/Caption information, 549, 551
Hue sliders
HSL panel, 238, 239, 240, 241
Split Toning panel, 362
Image Info panel (Web module), 538, 549–553
Image Settings panel (Print module), 448, 450–452
Picture Package layout, 464
Single Image/Contact Sheet layout, 450–452
image-processing engine, 151, 152
implied keywords, 594
Import dialog, 30–31
Apply During Import panel, 49
compact mode, 31
content area, 41–43
Destination panel, 50–52
expanded mode, 30, 31
File Handling panel, 44–46
File Renaming panel, 47–48
Import Presets menu, 52
Source panel, 40
Import DNG Creation options, 668–671
Import from Aperture dialog, 58
Import from Catalog dialog, 78
Import Photos dialog, 92, 93, 114
Import Presets menu, 52
importing photos, 29–65
Add method for, 54–55
Aperture Importer for, 58–59
Auto Import feature, 60
backing up and, 45
camera card imports, 34–37
catalog imports, 77–79
Develop settings and, 49
DNG conversion options, 32–33
drag-and-drop method for, 56–57
folder options for, 35–36, 51, 52
Import dialog options, 30–31, 40–52
keyword imports, 593–594
metadata info and, 36, 49, 578, 586, 587
organizing and, 42–43, 50
pixel limit for, 46
preferences for, 665
presets created for, 36, 52
previewing and, 44, 114–115
importing photos (continued)
problems with, 44–45
raw+JPEG options, 46
renaming options, 47–48
storage locations for, 50–52
tethered shooting and, 61–65
importing video files, 46, 53
info overlay, 121
information
camera, 574, 626
copyright, 432, 578, 585
date/time, 573–574, 626
photographic, 463, 626–627
title/caption, 549–553
See also metadata
infrared effect, 359–361
inkjet printers, 447
Inside Lightroom website, 340, 698
installing/upgrading Lightroom, 9–13
interface, 2, 25–27
customizing, 17, 676–679
setting preferences for, 675–679
interpolation methods, 431
inverse searches, 623
IPTC metadata, 49, 568, 578–580, 586
ISO settings
metadata info on, 627
noise reduction and, 398
K
kerning, 511
keyboard shortcuts, 3, 27, 162
Keyword List panel (Library module), 586, 587, 588, 589, 592–594, 608
Keywording panel (Library module), 586, 587, 590, 594–597
keywords, 586–597
adding to photos, 588
applying existing, 590, 591
auto-completion of, 590
entry preferences for, 678
exporting, 432–433, 594, 610
filtering, 593
hierarchy of, 433, 592–593
implied, 594
importing, 593–594
Painter tool and, 598–600
person, 608–610
private, 588
removing, 592
sets of, 596–597
suggested, 595
synonyms of, 589
See also metadata
Knoll, John, 4, 6
Knoll, Thomas, v, 4, 6, 196, 208, 238
Kost, Julieanne, v
Krogh, Peter, 98, 99, 135
L
Lab color values, 191
labeling photos. See color labels
Layout Image overlay, 112–113
Layout panel
Print module, 448, 453–455
Slideshow module, 514, 517
Layout Style panel (Print module), 448, 450
Custom Package layout, 468–470
Picture Package layout, 464–467
Single Image/Contact Sheet layout, 450–463
Layout Style panel (Web module), 538
HTML gallery (default) layout, 540, 541
Lightroom Grid (HTML5) gallery layout, 540, 542
third-party layout styles, 543–544
LCD displays, 153, 485
Lens Corrections panel (Develop module), 244–265
chromatic aberration removal, 248–249
Defringe adjustments, 250–256
d plot profile adjustments, 244–247
Lens Vignetting adjustments, 263–265
Transform perspective adjustments, 263
Upright adjustments, 257–262
Lens Profile Creator program, 245
Lens Vignetting sliders, 263–265
lenses
metadata info on, 244, 245, 626
profiles for, 244–247
Library module, 67, 84–149
Catalog panel, 86, 139
color labels, 134–135
Compare view, 120–123
dual-display setup, 126–129
Filmstrip, 124–125, 613
Filter bar, 26, 99, 620–632
Folders panel, 87–99
Grid view, 100–103
Histogram panel, 214
Keyword List panel, 586, 587, 588, 589, 592–594, 608
Keywording panel, 586, 587, 590, 594–597
previews, 114–117
Library module (continued)
Publish Services panel, 633–636
Quick Collections, 139–140
Quick Develop panel, 173, 214–223
rating images in, 130–135
selection options, 138
shortcuts for, 27
Sort menu, 646–649
stacks, 136–137
star ratings, 132–133
Survey view, 118–119
Toolbar, 86
video functions, 219–223
Library View Options dialog, 100, 105, 640
Lightroom CC / Lightroom 6 versions, 1
Lightroom Configuration Manager, 570
Lightroom mobile, 680–696
Delete All Data button, 681
Lightroom Web view and, 689–696
limitations of, 684–685
overview on using, 683–684
preferences for, 20–21, 681
recent refinements to, 685
steps for setting up, 680–682
synchronized collections, 21, 686–688
Lightroom Publishing Manager, 633
Lightroom RGB workspace, 152, 189
Lightroom Settings folder, 69
Lightroom Web view, 689–696
collections viewed in, 689
managing via Lightroom desktop, 691–692
removing photos from collections via, 695–696
steps for setting up, 689–690
uploading photos via, 693–694
Lights Out/Lights Dim modes, 678
links
e-mail and web, 544, 560, 584
folder and image, 91
localized adjustments, 298–322
Adjustment brush, 298–313
Clarity slider, 304, 312–313
Color effect, 306–307
Defringe controls, 255–256
Graduated Filter tool, 314–318
Moiré slider, 403–405
Noise slider, 402–403
Radial Filter tool, 319–322
Shadows slider, 310–311
Sharpness slider, 312–313, 392–393
Temp and Tint sliders, 178, 308–309
Location Filter bar, 654
lock files, 69
Lock Zoom Position option, 108
lossy DNGs, 32, 672, 683
Loupe Overlay view, 110–113
Grid and Guides, 110–111
Layout Image feature, 112–113
Loupe view, 41, 104–109
navigating, 108–109
options available in, 105
secondary displays and, 126, 128, 129
shortcuts for, 104, 105, 109
videos displayed in, 219, 220
working in, 107
zoom views, 109
Luminance sliders
detail panel, 396–397
HSL panel, 238, 240, 242, 243, 367, 369
Lyons, Ian, v

M
Macintosh computers
gamma setting on, 154
keyboard preferences on, 102, 126
Lightroom preferences on, 14–19, 34, 697
printer settings on, 472, 475, 478, 482
system requirements for, 8
Time Machine backups on, 71
magnification options, 108–109
Managed by Lightroom print settings, 482–483
Managed by Printer option, 474, 481
Map module, 652–661
GPX tracklogs, 654–657
Location Filter bar, 654
manual geotagging, 658–659
navigating, 653
pin markers, 657–658
Saved Locations panel, 661
See also geotagged images
margin settings, 453, 454–455
Masking slider, 387–389
master images, 328–329, 617
Match Total Exposures command, 204–205
Maximize PSD and PSB File Compatibility option, 44
McCormack, Sean, vi, 460, 537
Media Pro, 68
megapixels, 702
memory cards, 34–37
menu bar, 25
metadata, 564–597, 637–645
camera info, 574, 626
capture time, 573–574
copyright status, 578, 585
custom information, 575–581
displayed in Metadata panel, 568, 570–575
DNG view mode for, 672
editing for multiple images, 582
efficient way of adding, 581
export options for, 432–433, 610
face-recognition, 606, 610
filter options for, 624–627
GPS coordinates as, 650–661
imported photos and, 36, 49, 578
keywords and, 586–597, 610
lens info, 244, 245
mail and web links, 584
presets, 49, 576–580
private, 588
saving to files, 637–639
metadata (continued)
searching with, 566–567, 624–627
setting preferences for, 674
status info, 333, 335, 572, 641
synchronizing, 645
target photos and, 582–583
tracking changes to, 639–641
types of, 564–565
video file, 223
virtual copies and, 328
web gallery, 552, 554
XMP space and, 637, 639, 641–644
Metadata panel (Library module), 568–585
action arrows, 584, 585
customizing data in, 575–581
editing data in, 582–585
information displayed in, 568, 570–575
view modes, 568–569, 571
Midpoint slider, 265, 266
Mirror Image mode, 109
mirrored RAID system, 704–705
missing photos, 627
mobile version of Lightroom. See Lightroom mobile modules
collections specific to, 141–144, 496
Lightroom design using, 2–3
menu for selecting, 25, 699
removing from Lightroom, 699
shortcuts for, 3, 162
See also specific modules
moiré reduction, 403–405
monitor. See display screen
movies. See video files/clips
multiple cell printing, 456–457
music for slideshows, 529, 530, 537
Music panel (Slideshow module), 529
My Pictures folder, 13, 14

N
naming/renaming
collections, 144–145
exported photos, 428
externally edited photos, 412
folders, 89, 559
illegal characters for, 674
imported photos, 47–48
photo files, 47–48, 570
snapshots, 324
Nash, Graham, 447
Navigator panel (Library module), 86, 109
negative Clarity adjustments, 210–211
negative sharpening effect, 394–395
negatives
exporting catalogs with/without, 75–76
importing catalogs without, 79
New Develop Preset dialog, 338, 366
no content searches, 629–630
noise reduction, 396–403
color, 398, 399–401
luminance, 396–397
selective, 402–403
shadow, 378
tips for, 398
nonreflective highlights, 206
numbered star ratings, 132–133
numbering sequences, 48

O
O'Hare, Sam, 394
Open Catalog dialog, 77
optimizing catalogs, 70
Options panel (Slideshow module), 518–519
organizing
folders, 97–99
imported photos, 42–43, 50
orphan works, 578, 585
Output Settings panel (Web module), 538, 554
output sharpening, 375, 432
overexposed image correction, 192–193
overlays
crop guide, 171, 172
Grid and Guides, 110–111
identity plate, 520, 521
Layout Image, 112–113
Loupe Overlay, 110–113
text, 520, 522–525
Overlays panel (Slideshow module), 514, 520–525
P
Page Bleed view, 454
Page Grid area, 454
Page panel
Book module, 496, 506–507
Print module, 458–463
Page Setup dialog, 472
Paint Overlay vignette, 266–268
Painter tool, 145, 598–600
Pan and Zoom option, 530
panels
designed with, 2–3
end mark options, 676
font size options, 677
hiding/showing, 84
solo mode for, 162
working with, 26
See also specific panels
panorama creation, 200–203
Photo Merge process for, 201–203
Projection options, 201
Paper
photo book, 498
printer profiles for, 475, 483
size settings for, 472
Pascucci, Camilla, vi, 594
PDF documents
exporting books as, 499
print files output as, 456, 478
slideshows exported as, 534, 535
Pearce, James, vi
People view mode, 600–610
how it works, 600–601
person keywords, 608–610
Single Person view mode, 606, 607
stack controls, 606
steps for using, 602–606
Toolbar, 607
Perceptual rendering intent, 484
performance issues, 4, 70, 674
Performance preferences, 18–19
person keywords, 608–610
perspective corrections, 257–263
Transform controls, 263
Upright adjustments, 257–262
Pet Eye mode, 297
Pfiffner, Pamela, v
photo galleries. See web galleries
Photo Info templates, 463
Photo Merge feature, 196–203
HDR image creation, 196–199
panorama creation, 200–203
PhotoKit SHARPENER plug-in, 432, 479
Photoshop, 6–7, 407, 408–423
droplet creation, 408–409
editing images in, 408–423
extended editing in, 420–423
Lightroom integration with, 7, 161, 408–423, 642
setting preferences for, 408–409, 412
Smart Objects used in, 420–423
steps for working with, 416–419
Photoshop Elements, 332
picks and rejects
deleting rejected photos, 149
filtering photos flagged as, 130, 614
Flag icons indicating, 101
flagging photos as, 130–131
keyboard shortcuts for, 41, 130
Picture Package layout, 464–467, 471
Pictures folder, 13, 14
pin markers
Adjustment Brush, 300
Graduated Filter tool, 314
Radial Filter tool, 319
pixel limit, 46
Playback panel (Slideshow module), 514, 530–531
Plug-in Manager, 444
plug-ins
export, 444
import, 58
slideshow, 537
PNG files, 5, 112, 641–644, 676
Point Curve editing mode, 226–227
Point Curve menu, 225
portrait sharpening, 376
Post-Crop vignette controls, 266–269
Post-Processing export options, 435
preferences, 14–19, 663, 664–679
accessing, 14, 34
External Editing, 16, 408–409
file for storing, 697
File Handling, 16, 668–675
General, 14, 664–666
Interface, 17, 675–679
mobile, 20–21, 681
Performance, 18–19
Presets, 15, 347, 666–668
resetting, 13, 664
presentations, 495–561
book, 496–513
slideshow, 514–537
web gallery, 538–561
presets
book, 500–501
camera-specific, 346–347
Develop module, 338–347
export, 424
external editor, 411
how they work, 341
HSL desaturate, 366
import, 36, 52
metadata, 49, 576–580
names for, 342
preferences for, 15, 666–668
resetting, 345
sharpening, 375–377
steps for using, 342–345
tone curve, 226
video clip, 223
watermark, 434
Presets panel (Develop module), 338, 375
presharpening images, 371
Preview panel (Book module), 499–500
Preview Target tool, 379
previews, 114–117
Before/After, 278–283
Book module, 499–500
brush stroke area, 304
camera vs. Lightroom, 116
data file for, 82, 701
exporting catalogs with, 76–77
generation of, 115–116
gray scale, 380, 387
imported photo, 44, 114–115
Library module, 114–117
Masking slider, 388–389
missing, 117
Photoshop-edited image, 419
quality settings, 117
secondary display, 128
size settings, 117
slideshow, 531
soft proof, 485–492
web gallery, 554–555
See also Smart Previews
Print Adjustment controls, 477
Print button, 450, 478
print collections, 448, 470
Print dialog, 475, 478, 482
print drivers, 475
Print Job panel (Print module), 448, 474–484
Print Adjustment controls, 477
Print dialog, 475, 478, 482
print drivers, 475
Print Job panel (Print module), 448, 474–484
Color Management
settings, 474
Draft Mode Printing
option, 479
Lightroom printing procedure, 474–478
Print Adjustment controls, 477
Print Sharpening option, 479
Print to JPEG File option, 480
Profile menu, 481
rendering intent options, 484
Print module, 448–484
  Cells panel, 464–467, 468–469
  Custom Package layout, 468–470
  Guides panel, 455
  Image Settings panel, 450–452, 464
  interface overview, 448–450
  Layout panel, 453–455
  Layout Style panel, 450
  Page panel, 458–463
  Page Setup dialog, 472
  Picture Package layout, 464–467
  Print Job panel, 474–484
  Print Setup dialog, 472, 473
  Rulers, Grid & Guides panel, 464
  Single Image/Contact Sheet layout, 450–463
  Template Browser panel, 493
  Print Resolution option, 479
  Printing, 447–493
    16-bit, 480
    contact sheets, 456–457
    custom profiles for, 481–484
    Draft Mode for, 456, 479
    to JPEG files, 478, 480
    Lightroom procedure for, 474–478
    margin adjustments for, 453, 454–455
  mode settings for, 479
  multiple cell, 456–457
  to PDF files, 456, 478
  rendering intent for, 484
  resolution for, 432, 455, 473, 479
  sharpening images for, 375, 432
  soft proofing images for, 485–492
  templates for, 470, 476, 493
  private metadata, 588
  process versions, 158–160, 215, 330, 336, 339, 413
profiles
  camera, 272–273
  color, 153
  lens, 244–247
  printer, 475, 481–484
  Projection options, 201
  Promote subfolders dialog, 88
  proofing feature. See soft proofing
  ProPhoto RGB color space, 152, 189, 412, 428–429, 438
  PSD files
    ensuring recognition of, 44
    external editing options, 411, 412
    XMP metadata options, 641–644
  publishing books, 513
  photos, 633–636
  video clips, 634
  Purchase Book dialog, 513
R
  Radial Filter tool, 319–322
    correcting edge sharpness with, 321–322
    example of working with, 320
    Radius slider, 382–383, 387
  RAID systems, 71, 704–705
  RAM requirements, 703
  rating photos, 130–135
    color label use and, 134–135
    flagging picks/rejects, 130–131
    star ratings for, 132–133
raw files
  converting to DNG, 32–33, 277, 671
  Detail panel adjustments, 375
  editing in Photoshop, 409, 413
  external editor options, 410–411
  processing of, 373–375
  See also Camera Raw
  raw+JPEG files, 46
  Real World Image Sharpening with Adobe Photoshop, Camera Raw, and Lightroom (Fraser and Schewe), 387
  Recovery slider, 181
  Red Eye Correction tool, 295–297
    cursor size adjustments, 295
    Pet Eye mode, 297
  Redo command, 324
  Refine Photos dialog, 131
    reflective highlights, 206
  rejects and picks. See picks and rejects
  Relative rendering intent, 484
  Reload command, 550
  removing keywords from the Keyword List, 592
  photos from collections, 149, 695–696
  photos from the catalog, 149
  red eye from images, 295–297
  spots on photos, 284–294
  See also deleting
  Rename Photos dialog, 48
  renaming. See naming/renaming
  Render Preview options, 44
  rendering intent options, 44, 484, 488
  Repeat One Photo per Page option, 450, 452
  Resize to Fit options, 429, 430
  resizing. See sizing/resizing
  Resnick, Seth, 586, 593
  resolution
    image size and, 430, 479
    print reproduction and, 432, 455, 473, 479
  resource info for book, v
Retina displays, 4, 154
retouching photos, 284–322
  Adjustment brush for, 298–313
  Graduated Filter tool for,
  314–318
  localized adjustments, 298–322
  Radial Filter tool for, 319–322
  Red Eye Correction tool for,
  295–297
  Spot Removal tool for, 284–294
reverse geocoding, 13, 642,
  652, 660
RGB channels, 228, 352
RGB curve editing mode, 228–229
RGB workspace, 152
Richmond, Eric, vi, 519
Riecks, David, 594
Rotate to Fit option, 450, 452, 464
rotating photos
  cropping and, 164, 263
  printing and, 450, 452
Roundness slider, 266
rulers and guides, 455
Rulers, Grid & Guides panel (Print
  module), 464
S
Saturation adjustments
  Basic panel, 212–213, 367
  HSL panel, 238, 240, 366
  Quick Develop panel, 216
  Split Toning panel, 362
Saved Locations panel, 661
saving
  Develop presets, 338–340
  effect settings, 300
  metadata to files, 637–639
  print templates, 493
  Quick Collections, 139
  slideshow templates, 533
  snapshot variations, 324, 325
  web gallery templates, 561
scenic sharpening, 377
Schewe, Jeff, iv, vi, 387, 396, 432
screen display. See display screen
Screen output option, 432
searching
  advanced or complex, 631–632
  attribute filter for, 624
  metadata used for, 566–567,
  624–627
  rules defined for, 622–623,
  628–630
  text filter for, 621–623
  second copy backups, 45
Secondary Display submenu, 126
secure file transfer protocol
  (SFTP), 558
Select Catalog dialog, 14
selections
  filtering photos using, 614, 619
  instructions on making, 138
  saving as collections, 140–141
  Slideshow module, 532
sequence numbers, 48
sets
  collection, 146
  keyword, 596–597
shadows
  clipping, 189, 206–207
  darkening, 207, 232
  lightening, 187, 195
  localized adjustments, 310–311
  noise problems, 378
Shadows adjustment
  Adjustments panel, 310–311
  Basic panel, 181–182, 187, 194,
  195, 234
  Tone Curve panel, 232
sharing
  catalogs, 81–83
  collections, 690
sharpening (continued)
  luminance targeted, 379
  modifying controls, 384–389
  negative, 394–395
  output, 375, 432
  portrait, 376
  presets for, 375–377
  print, 375, 432, 479
  sample image for, 378
  scenic, 377
  web gallery images, 554
Sharpening controls
  Adjustment brush, 312–313
  Amount slider, 380–381
  Clarity slider, 304, 312–313
  Detail panel, 372, 373, 379–389
  Detail slider, 384–386
  Masking slider, 387–389
  Quick Develop panel, 216
  Radius slider, 382–383
  Sharpness slider, 312–313,
  392–393
shortcuts, keyboard, 3, 27, 162
shutter speed information, 626
sidecar files, 570
Simulate Paper & Ink option, 487
Single Image/Contact Sheet layout,
  450–463
Single Person view mode, 606, 607
Site Info panel (Web module),
  538, 544
Size slider
  Adjustment brush, 298
  Spot Removal tool, 284, 291
sizing/resizing
  images for exporting, 429–431
  interpolation and, 431
  thumbnails, 102
skin tone corrections, 239
Skurski, Mike, 432
sleep protection, 10
Slide Editor view, 516, 522, 525
Slideshow module, 514–537
  Backdrop panel, 526–527
  interface overview, 514–515
  Layout panel, 517
Slideshow module (continued)
    Music panel, 529
    Options panel, 518–519
    Overlays panel, 520–525
    Playback panel, 530–531
    Preview mode, 531
    Slide Editor view, 516, 522, 525
    Template Browser panel, 533
    Titles panel, 528
    Toolbar, 514, 532

slideshows, 514–537
    backdrops for, 526–527
    collection creation, 533–534
    color processing for, 555
    exporting, 534–537
    identity plates, 520, 521
    impromptu, 532
    music sound tracks for, 529,
       530, 537
    navigating, 532
    PDF or JPEG, 534, 535–536
    playback options, 530–531
    plug-ins for, 537
    previewing, 531
    selections for, 532
    templates for, 533
    text overlays, 522–525
    titles for, 528
    video, 536–537

Smart Collections, 11, 81, 146–148
Smart Objects, 420–423

Smart Previews, 4, 44, 80–83
    creating, 80–81
    exporting catalogs with, 76, 77
    face-recognition technology
       and, 601
    Lightroom mobile and, 683
    sharing catalogs using, 81–83
    size of data file for, 82

Snapshots panel (Develop module),
    324–327
    saving variations using,
       324, 325
    Sync Snapshots command,
       324, 326–327

soft proofing, 485–492
    Before and After views, 488–491
    Before State options, 492
    books before printing, 513
    display screen considerations,
       485–487
    practice guidelines, 487–488
    Soft Proofing panel, 487, 488
    Soften Skin effect, 304–305
    solo mode for panels, 162
    Soni, Neil, vi
    sorting photos, 646–649
        color labels and, 647–649
        tethered shooting and, 65
    sound tracks, 529, 530, 537
    sounds, completion/alert, 666
    Source panel (Import dialog), 40
    Special Characters panel, 511
    splash screen options, 664, 676, 677
    Split Toning panel (Develop module)
        black-and-white conversions, 350,
           361, 362–365
        color image adjustments,
           364–365
    Spot Removal tool, 284–294
        auto-find behavior, 292
        brush spot adjustments, 287–290
        Clone and Heal modes, 284, 291
        editing circle/brush spots, 291
        Feather slider, 292
        instructions for using, 284–285
        keyboard shortcuts, 284, 285, 291
        synchronized spotting, 293–294
        Tool Overlay options, 291
        undoing/deleting spots, 291
        Visualize Spots feature, 286–287

SQLite3 database format, 68

sRGB color space, 189, 412, 429,
   438, 555
SSDs (solid-state drives), 81, 701
stacking photos, 136–137
star ratings, 132–133
Sten, Zalman, 4
Straighten tool, 167
straightening photos, 167, 168–169
striped RAID system, 704, 705

Sync Snapshots command, 324, 326–327

T

Target Adjustment tool, 224, 230,
   238, 356, 367, 512
target collections, 145, 600

Temp slider
    B&W conversions, 354–355
    independent adjustments, 179
    localized adjustments, 178,
       308–309

Template Browser panel
    Print module, 448, 493
    Slideshow module, 533
    Web module, 538, 552, 561

subfolders
    creating, 94
    filtering, 618
    importing, 41, 54
    organizing photos into, 50
    showing photos in, 88
Survey view, 118–119, 128, 129
Sync Snapshots command, 324,
   326–327
Synchronize Folder dialog,
   92–93, 333
Synchronize Metadata dialog, 645
Synchronize Settings dialog,
   219, 293, 327, 330, 331
synchronizing
    Auto Sync mode for, 294, 330
    with Camera Raw, 333–335
    collections, 21, 686–687
    Develop settings, 219, 330–331
    folders, 92–93, 333
    with Lightroom mobile, 21, 38,
       686–687
    metadata settings, 645
    snapshots, 324, 326–327
    spot removal settings, 293–294
    Upright settings, 259–262
system folders, 88–90
System Info dialog, 702
system recommendations, 8,
   702–706
templates

- Photo Info, 463
- print, 470, 476, 493
- settings folder for, 698–699
- slideshow, 533
- text, 552–553
- web gallery, 561

Tether toolbar, 64

Tethered Capture Settings dialog, 63

Tethered Shoot control panel, 64

Tethered shooting, 61–65

- cable connection for, 61
- connecting cameras for, 61–62
- Lightroom feature for, 62–65
- Sort option for, 65
- speed considerations for, 63
- steps in process of, 63–65
- wireless, 61–62

text

- book, 508–512
- photo info, 463
- searching, 621–623
- slideshow, 520, 522–525
- Sort by Label option, 649
- web gallery, 549–553
text box layouts, 508

Text panel (Book module), 496, 508–509

Text Template Editor, 668

- Print module, 463
- Slideshow module, 522, 523
- Web module, 550, 552

thelightroombook.com website, v

theturninggate.net website, 543

third-party gallery styles, 543–544

thumbnails

- badges displayed with, 101, 143
- Library Grid view, 102

Thumbnails slider, 41, 102, 500

TIFF files

- exporting photos as, 428
- external editing options, 411, 412
- XMP metadata options, 641–644

Time Machine backups, 71

time/date information, 573–574, 626
time-lapse videos, 537

Tint slider

- B&W conversions, 354, 359
- independent adjustments, 179
- localized adjustments, 178, 308–309
titles

- slideshow, 528
- web gallery, 549–553

Titles panel (Slideshow module), 514, 528
tone controls

- Basic panel, 180–188
- Quick Develop panel, 214–216
- Tone Curve panel, 224–237

Tone Curve panel (Develop module), 224–237

- Basic panel adjustments and, 181, 232–235
- overview of controls in, 224–225

Point Curve editing mode, 226–227

RGB curve editing mode, 228–229

Tone Curve regions, 230–232

- tone range split points, 225, 236–237

Tool Overlay options, 172, 291

Toolbar, 26

- Book module, 500
- Develop module, 291
- Import dialog, 41
- Library module, 86

- People view mode, 607
- Slideshow module, 514, 532

tracklogs, 654–657

Transform perspective controls, 263

- transparency preservation, 258

Type panel (Book module), 510–512

typographic fractions, 679

U

Uncheck All button, 41

- underexposed image correction, 194–195

Undo command, 291, 300, 324, 526

Unsharp Mask filter, 372

updates

- automatically checking for, 664
- provided by book’s author, v

upgrading Lightroom, 11–13

Upload Settings panel (Web module), 557, 559

uploading

- files via Lightroom Web, 693–694
- web galleries, 557–561

Upright adjustments, 257–262

- how they work, 257–258
- suggested order for, 258

- synchronizing, 259–262

UPS units, 72

USB connections, 61

user Lightroom folder, 69

V

Validate DNG Files feature, 673

Vibrance adjustments

- Basic panel, 212–213, 367
- Quick Develop panel, 216

video cache settings, 675

video drivers, 19

video files/clips

- adding to slideshows, 530
- editing, 219–223
- exporting, 445, 536–537
- importing, 46, 53
- presets for, 223
- publishing, 634
- slideshows as, 536–537

- time-lapse, 537

view modes

- Develop module, 164, 278–283
- Metadata panel, 568–569, 571

View options (Library module)

- Compare view, 120–123
- Grid view, 41, 100–103, 106, 107
- Loupe Overlay view, 110–113
- Loupe view, 41, 104–109
- Survey view, 118–119

vignetting

- applying to photos, 266–269
- correcting problems with, 263–265
virtual copies
  copy names for, 570, 572
  creating for photos, 328–329
  external editing with, 417–418
  filtering for, 617
  snapshots vs., 328
  soft proofing and, 489, 492
  Visualize Spots feature, 286–287

W
warped images, 168
watermarks, 433–435, 458, 520
web browsers, 555, 558
web galleries, 538–561
  captions for, 549–553
  collection creation, 561
  color processing for, 555
  color themes for, 545–546
  exporting, 556
  HTML-style, 540, 541, 547
  HTML5-style, 540, 542, 548
  identity plate options, 544
  layout appearance, 547–548
  metadata information, 552, 554
  previewing, 554–555
  quality settings, 554
  sharpening images in, 554
  site info for, 544
  styles for, 540–544
  templates for, 561
  third-party, 543–544
  titles for, 549–553
  uploading, 557–561
Web module, 538–561
  Appearance panel, 547–548
  Color Palette panel, 545
  Export and Upload buttons, 556
  Image Info panel, 549–553
  interface overview, 538–539
  Layout Style panel, 540–544
  Output Settings panel, 554
  performance improvement, 538
  Preview in Browser button, 555
  Site Info panel, 544
  Template Browser panel, 552, 561
  Upload Settings panel, 557, 559
Web view. See Lightroom Web view
web-safe colors, 545
website links
  from email, 560
  from metadata, 584
  from web galleries, 544
Wendt, Max, v
Weston, Stuart, vi
white balance
  Basic panel adjustments, 174–179, 185, 233
  color checker chart, 176
  creative adjustments, 177
  display screen calibration, 154–155
  independent adjustments, 179
  localized adjustments, 178
  Quick Develop panel adjustments, 215
White Balance tool, 174–179, 185, 233
white point, 154, 485
Whites adjustment
  auto calculation, 183–184
  Basic panel, 182–184, 188, 235
Windows computers
  gamma setting on, 154
  Lightroom preferences on, 14–19, 34, 697
  printer settings on, 472, 473, 476–477, 478, 483
  system requirements for, 8
wireless shooting, 61–62
Witte, Valerie, v
workflow in Lightroom, 5–6
WS_FTP Pro software, 557

X
XMP space, 637
  read/write options, 641–644
  saving metadata to, 639

Z
Zoom to Fill Frame option (Slideshow module), 518, 519
Zoom to Fill option (Print module), 450, 451, 464
zooming
  clicked point to center, 108, 679
  magnification options for, 108–109