## FULL COLOR

## Adobe Photoshop ${ }^{\circ}$ CS6 onDemand



# FREE SAMPLE CHAPTER <br> $\square$ 

SHARE WITH OTHERS

# Adobe <br> Photoshop CS6 onDemand 

Steve Johnson<br>Perspection, Inc.

## Adobe® Photoshop® CS6 on Demand

## Copyright © 2012 by Perspection, Inc.

All rights reserved. No part of this book shall be reproduced, stored in a retrieval system, or transmitted by any means, electronic, mechanical, photocopying, recording, or otherwise, without written permission from the publisher. No patent liability is assumed with respect to the use of the information contained herein. Although every precaution has been taken in the preparation of this book, the publisher and author assume no responsibility for errors or omissions. Nor is any liability assumed for damages resulting from the use of the information contained herein.

Library of Congress Cataloging-in-Publication Data is on file

ISBN-13: 978-0-7897-4933-8
ISBN-10: 0-7897-4933-5

Printed and bound in the United States of America
Second Printing: September 2012

Que Publishing offers excellent discounts on this book when ordered in quantity for bulk purchases or special sales.

For information, please contact: U.S. Corporate and Government Sales
1-800-382-3419 or corpsales@ pearsontechgroup.com
For sales outside the U.S., please contact: International Sales
1-317-428-3341 or International@ pearsontechgroup.com

## Trademarks

All terms mentioned in this book that are known to be trademarks or service marks have been appropriately capitalized. Que cannot attest to the accuracy of this information. Use of a term in this book should not be regarded as affecting the validity of any trademark or service mark.

Adobe, the Adobe logo, Acrobat, Bridge, Device Central, Dreamweaver, Extension Manager, Flash, InDesign, Illustrator, PageMaker, Photoshop, Photoshop Elements, and Version Cue are registered trademarks of Adobe System Incorporated. Apple, Mac OS, and Macintosh are trademarks of Apple Computer, Inc. Microsoft and the Microsoft Office logo are registered trademarks of Microsoft Corporation in the United States and/or other countries.

## Warning and Disclaimer

Every effort has been made to make this book as complete and as accurate as possible, but no warranty or fitness is implied. The authors and the publishers shall have neither liability nor responsibility to any person or entity with respect to any loss or damage arising from the information contained in this book.

Publisher Paul Boger
Associate Publisher
Greg Wiegand
Acquisitions Editor
Laura Norman
Managing Editor Steve Johnson

## Author

Steve Johnson
Technical Editor
Toni Bennett
Page Layout
Beth Teyler James Teyler
Interior Designers
Steve Johnson
Marian Hartsough

## Photographs

Toni Bennett
Tracy Teyler
Indexer
Katherine Stimson
Proofreader
Beth Teyler
Team Coordinator
Cindy Teeters

## Acknowledgments

## Perspection, Inc.

Adobe Photoshop CS6 On Demand has been created by the professional trainers and writers at Perspection, Inc. to the standards you've come to expect from Que publishing. Together, we are pleased to present this training book.
Perspection, Inc. is a software training company committed to providing information and training to help people use software more effectively in order to communicate, make decisions, and solve problems. Perspection writes and produces software training books, and develops multimedia and web-based training. Since 1991, we have written more than 120 computer books, with several bestsellers to our credit, and sold over 5 million books.

This book incorporates Perspection's training expertise to ensure that you'll receive the maximum return on your time. You'll focus on the tasks and skills that increase productivity while working at your own pace and convenience.
We invite you to visit the Perspection web site at:
www.perspection.com

## Acknowledgments

The task of creating any book requires the talents of many hard-working people pulling together to meet impossible deadlines and untold stresses. We'd like to thank the outstanding team responsible for making this book possible: the writer, Steve Johnson; the technical editor, Toni Bennett; the production editors, James Teyler and Beth Teyler; proofreader, Beth Teyler; and the indexer, Katherine Stimson.
At Que publishing, we'd like to thank Greg Wiegand and Laura Norman for the opportunity to undertake this project, Cindy Teeters for administrative support, and Sandra Schroeder for your production expertise and support.

## Perspection

## About the Author

Steve Johnson has written more than 70 books on a variety of computer software, including Adobe Photoshop CS5, Adobe Dreamweaver CS5, Adobe Flash Professional CS5, Adobe InDesign CS5, Adobe Illustrator CS5, Microsoft Windows 7, Microsoft Office 2010 and 2007, Microsoft Office 2008 for the Macintosh, and Apple Mac OS X Lion. In 1991, after working for Apple Computer and Microsoft, Steve founded Perspection, Inc., which writes and produces software training. When he is not staying up late writing, he enjoys coaching baseball, playing golf, gardening, and spending time with his wife, Holly, and three children, JP, Brett, and Hannah. Steve and his family live in Northern California, but can also be found visiting family all over the western United States.

## We Want to Hear from You!

As the reader of this book, you are our most important critic and commentator. We value your opinion and want to know what we're doing right, what we could do better, what areas you'd like to see us publish in, and any other words of wisdom you're willing to pass our way.

As an associate publisher for Que, I welcome your comments. You can email or write me directly to let me know what you did or didn't like about this book-as well as what we can do to make our books better.

Please note that I cannot help you with technical problems related to the topic of this book. We do have a User Services group, however, where I will forward specific technical questions related to the book.

When you write, please be sure to include this book's title and author as well as your name, email address, and phone number. I will carefully review your comments and share them with the author and editors who worked on the book.

Email: feedback@quepublishing.com
Mail: Greg Wiegand Que Publishing 800 East 96th Street Indianapolis, IN 46240 USA

For more information about this book or another Que title, visit our web site at www.quepublishing.com. Type the ISBN (excluding hyphens) or the title of a book in the Search field to find the page you're looking for.

This page intentionally left blank

## Contents

Introduction ..... xix
1 Getting Started with Photoshop CS6 ..... 1
Installing Photoshop ..... New!
Starting Photoshop ..... 4
Viewing the Photoshop Window ..... 6 New!
Showing and Hiding Panels ..... 7
Working with Panels ..... 8
Working with Photoshop Tools ..... 10
Creating a New Document ..... 12
Selecting Color Modes and Resolution ..... 13
Creating a New Document Using Presets ..... 14
Working with Non-Square Pixels ..... 15
Opening Images ..... 16
Inserting Images in a Document ..... 17
Importing Raw Data from a Digital Camera ..... 18
Working with Smart Objects ..... 20
Changing Image Size and Resolution ..... 22
Checking for Updates and Patches ..... 24
Getting Help While You Work ..... 26
Saving a Document ..... 28
Using the Status Bar ..... 30
Closing a Document ..... 31
Finishing Up ..... 32
2 Understanding Navigation and Measurement Systems ..... 33
Changing the View Size with the Navigator Panel ..... 34
Changing the View Area with the Navigator Panel ..... 35
Changing the Color of the Navigator Panel View Box ..... 36
Changing the Screen Display Mode ..... 37
Changing the View with the Zoom Tool ..... 38
Increasing or Decreasing Magnification ..... 40
Moving Images in the Document Window ..... 41
Working with Multiple Documents ..... 42
Working with One Image in Multiple Windows ..... 43
Moving Layers Between Documents ..... 44
Creating Notes ..... 45
Working with the Info Panel ..... 46
Changing How the Info Panel Measures Color ..... 47
Working with Rulers ..... 48
Creating Tool Presets ..... 50
3 Customizing the Way You Work ..... 51
Optimizing Photoshop ..... 52
Setting General Preferences ..... 54
Setting File Handling Preferences ..... 56
Setting Interface Preferences ..... 58
Setting Cursors Preferences ..... 60
Controlling Transparency \& Gamut Preferences ..... 61
Working with Units \& Rulers ..... 62
Working with Guides, Grid \& Slices ..... 64
Setting Plug-Ins Preferences ..... 66
Selecting Scratch Disks ..... 67
Allocating Memory \& Image Cache ..... 68
Setting Type Preferences ..... 70
Managing Libraries with the Preset Manager ..... 71 New!
Using and Customizing Workspaces ..... 72
Building Specialized Workspaces ..... 74
Creating a Customized User Interface ..... 75
Defining Shortcut Keys ..... 76
4 Mastering the Art of Selection ..... 77
Using the Rectangular Marquee Tool ..... 78
Using the Elliptical Marquee Tool ..... 79
Using the Single Row and Single Column Marquee Tools ..... 80
Using the Lasso Marquee Tool ..... 81
Using the Magnetic Lasso Tool ..... 82
Using the Polygonal Lasso Tool ..... 84
Using the Quick Selection Tool ..... 85
Using the Magic Wand Tool ..... 86
Selecting by Color Range ..... 87
Refining a Selection Edge ..... 88
Modifying an Existing Selection ..... 90
Working with an Existing Selection ..... 92
Copying and Pasting a Selection ..... 93
Using Channels to Create and Store Selections ..... 94
Using Free Transform and Transform ..... 96
Using the Crop Tool ..... 98
Using the Perspective Crop Tool ..... 100
Using Content-Aware Scaling ..... 101
Using Content-Aware Fill ..... 102
Using Content-Aware Patch ..... 104
Using Content-Aware Move and Extend ..... 105
Using the Puppet Warp ..... 106
5 Working with Layers ..... 107
Understanding the Layers Panel ..... 108
Defining Layer Designations and Attributes ..... 109
Creating a New Layer ..... 110
Selecting Layers ..... 112
Creating a Layer Group ..... 113
Creating a Selection from a Layer ..... 114
Creating a Layer from a Selection ..... 115
Converting a Background into a Layer ..... 116
Controlling Image Information Using the Layers Panel ..... 118
Filtering Layers in the Layers Panel ..... 119
Using Merge Layer Options ..... 120
Linking and Unlinking Layers ..... 121
Aligning and Combining Layers ..... 122
Working with Layer Blending Modes ..... 124
Setting Layer Opacity ..... 125
Duplicating a Layer ..... 126
Deleting Layers ..... 127
Moving Layers Between Documents ..... 128
Working with the Layer Comps Panel ..... 129
Exporting Layers as Files ..... 130
Setting Layers Panel Options ..... 131
Using Smart Guides to Align Layers ..... 132
6 Working with the History Panel ..... 133
Setting History Panel Options ..... 134
Working with Linear and Non-Linear History ..... 136
Controlling the Creative Process with Snapshots ..... 138
Duplicating a History State in Another Document ..... 139
Saving the History State of a Document ..... 140
Reviewing the History State Text File ..... 141
Combining the History Brush with a History State ..... 142
Using the Art History Brush ..... 144
Changing the EraserTool into the History Brush ..... 145
Controlling History States ..... 146 New!
7 Working with Adjustment Layers, Filters, and Tools ..... 147
Creating an Adjustment Layer ..... 148
Modifying an Adjustment Layer ..... 149
Merging Adjustment Layers ..... 150
Creating a Temporary Composite Image ..... 151
Controlling Adjustment Layers with Clipping Groups ..... 152
Deleting an Adjustment Layer ..... 153
Using Blending Modes and Opacity with Layers ..... 154
Using Masks with Adjustment Layers ..... 156
Creating Masks with Selections ..... 157
Using the Add Noise Filter ..... 158
Using the Reduce Noise Filter ..... 159
Keeping Proper Perspective with Vanishing Point ..... 160
Working with the Lens Correction Filter ..... 162
Using the Box, Surface, and Shape Blur Filters ..... 164
Using the Gaussian Blur and Despeckle Filters ..... 166
Using the Unsharp Mask Filter ..... 167
Using the Smart Sharpen Filter ..... 168
Using Sharpen, Blur and Smudge Tools ..... 170
Using the Clone Stamp Tool ..... 171
Setting Up Multiple Clone Sources ..... 172
Using the Dodge and Burn Tools ..... 173
Using the Healing Brush and Patch Tools ..... 174
Working with the Spot Healing Brush ..... 176
Working with the Red Eye Tool ..... 177
Controlling Tonal Range ..... 178
Working with the Histogram Panel ..... 180
8 Understanding Colors and Channels ..... 181
Working with 8 -, $16-$, and 32 -Bit Images ..... 182
Working with the Channels Panel ..... 184
Working with Color Modes ..... 185
Understanding the RGB Color Mode ..... 186
Understanding the CMYK Color Mode ..... 187
Understanding the Grayscale Color Mode ..... 188
Understanding the Bitmap Color Mode ..... 189
Understanding the Indexed Color Mode ..... 190
Understanding the Lab Color Mode ..... 192
Understanding the Duotone Color Mode ..... 193
Using the Multichannel Color Mode ..... 194
Using the Replace Color Adjustment ..... 195
Working with the Color Panel ..... 196
Working with the Swatches Panel ..... 198
Using the Stroke and Fill Commands ..... 200
Creating Spot Color Channels ..... 202
Using the Auto Contrast and Auto Color Commands ..... 203
Using Levels Adjustment Commands ..... 204
Using the Exposure Adjustment ..... 205
Using Curves and Color Adjustments ..... 206
Adjusting Hue and Saturation ..... 208
Adjusting Vibrance ..... 209
Using the Selective Color Adjustment ..... 210
Using the Channel Mixer Adjustment ..... 211
Using the Gradient Map Adjustment ..... 212
Using the Photo Filter Adjustment ..... 213
Using the Invert and Equalize Commands ..... 214
Using the Threshold and Posterize Adjustments ..... 215
Using the HDR Toning Adjustment ..... 216
Using the Shadows/Highlights Adjustment ..... 218
Using the Black \& White Adjustment ..... 219
Using the Match Color Adjustment ..... 220
9 Using the Paint, Shape Drawing, and Eraser Tools ..... 221
Selecting Foreground and Background Colors ..... 222
Using the Brush and Brush Presets Panel ..... 224
Modifying the Brush Presets Panel ..... 225
Selecting Brush Tip Sets ..... 226
Adjusting Brush Tips ..... 227
Adjusting Bristle Brush Tips ..... 228
Creating Customized Brush Tips ..... 229
Saving Customized Brush Tips ..... 230
Working with the Brush and Airbrush Tools ..... 231
Working with the Mixer Brush Tool ..... 232
Working with the Pencil Tool ..... 233
Working with Auto Erase ..... 234
Working with the Line Tool ..... 235
Working with the Shape Tool ..... 236
Working with the Custom Shape Tool ..... 237
Working with Shape Layers ..... 238
Arranging Shape Layers ..... 240
Creating a Custom Shape ..... 241
Saving Custom Shape Sets ..... 242
Using the Paint Bucket Tool ..... 243
Working with the EraserTools ..... 244
Working with the Magic Eraser Tool ..... 246
Creating and Applying Gradients ..... 247
Creating and Saving Customized Gradients ..... 248
Using the Color Replacement Tool ..... 250
10 Creating Masks ..... 251
Understanding Layer and Vector Masks ..... 252
Creating a Layer Mask ..... 253
Using Paint Tools with Layer Masks ..... 254
Using Selections to Generate Complex Layer Masks ..... 255
Using Layer Masks to Generate Soft Transparency ..... 256
Creating Unique Layer Mask Effects ..... 257
Creating a Vector Mask ..... 258
Modifying Layer and Vector Masks ..... 259
Creating Channel Masks ..... 260
Creating Channel Masks from Scratch ..... 261
Modifying Channel Mask Options ..... 262
Creating Channel Masks from Selections ..... 263
Making Channel Masks from Native Color Channels ..... 264
Loading Channel Masks from Selections ..... 266
Moving Channel Masks Between Documents ..... 268
Combining Channel Masks ..... 269
Using the Quick Mask Mode ..... 270
Working with Quick Mask Options ..... 271
Modifying Selections with Quick Mask Mode ..... 272
11 Using the Paths Panel ..... 273
Understanding Vector and Raster Images ..... 274
Converting a Selection into a Path ..... 275
Working with Pen Tools ..... 276
Creating Paths Using the Freeform Pen Tool ..... 278
Using the Magnetic Option with the Freeform Pen Tool ..... 279
Adding and Deleting Anchor Points ..... 280
Modifying Anchor Points ..... 282
Modifying Existing Direction Lines ..... 284
Converting Straight Points and Curved Points ..... 285
Working with Clipping Paths ..... 286
Filling an Area of an Image Using Paths ..... 288
Stroking an Area of an Image Using Paths ..... 289
Creating Shapes as Paths ..... 290
Exporting Paths to Adobe Illustrator ..... 291
Exporting Paths Using the Export Method ..... 292
12 Working with Layer Styles ..... 293
Understanding Layer Styles ..... 294
Adding a Layer Style ..... 295
Creating and Modifying a Drop Shadow ..... 296
Working with Bevel and Emboss ..... 298
Working with Contour and Texture ..... 300
Applying a Color Overlay ..... 302
Using the Stroke Layer Style ..... 303
Using Pattern Overlays ..... 304
Working with Outer Glow and Inner Shadow ..... 306
Applying an Inner Glow Style ..... 308
Creating Customized Layer Styles ..... 310
Creating Customized Styles Using the Styles Panel ..... 312
Moving Existing Layer Styles ..... 314
13 Getting Creative with Type ..... 315
Using Standard Type Tools ..... 316
Working with Type Options ..... 318
Working with the Character Panel ..... 320
Working with the Paragraph Panel ..... 322
Setting Anti-aliasing Options ..... 323
Using the Warp Text Option ..... 324
Working with Text Styles ..... 326
Using Spell Check ..... 328
Finding and Replacing Text ..... 329
Using the Rasterize Type Command ..... 330
Creating Work Paths and Shapes from Type Layers ..... 331
Creating Shape Layers ..... 332
Creating a Type Mask ..... 333
Isolating Image Pixels Using a Type Mask ..... 334
Creating Chiseled Type with a Type Mask ..... 336
Using Masks to Generate Special Effects ..... 338
Creating and Modifying Text on a Path ..... 340
14 Manipulating Images with Filters ..... 341
Working with the Filter Gallery ..... 342 New!
Creating and Working with Smart Filters ..... 344
Applying Multiple Filters to an Image ..... 345
Modifying Images with Liquify ..... 346
Working with Liquify Tool Options ..... 348
Working with Liquify Mask Options ..... 350
Working with Liquify View Options ..... 351
Creating a Liquify Mesh ..... 352
Applying a Liquify Mesh ..... 353
Using the Adaptive Wide Angle Filter ..... 354
Using the Oil Paint Filter ..... 356
Using the Lighting Effects Filter ..... 357
Using the Blur Filter Gallery ..... 358
Using the Lens Blur Filter ..... 360
Working with Photo Filters ..... 362
Blending Modes and Filter Effects ..... 363
Building Custom Patterns ..... 364
Applying a Fade Effect ..... 366
Controlling Filters Using Selections ..... 367
Using a Channel Mask to Control Filter Effects ..... 368
Protecting Images with Watermarks ..... 370
Viewing Various Filter Effects ..... 372
15 Automating Your Work with Actions ..... 375
Examining the Actions Panel ..... 376
Building a New Action ..... 378
Recording an Action ..... 379 New!
Adding a Stop to an Action ..... 380
Controlling the Playback of a Command ..... 381
Adding a Command to an Action ..... 382
Deleting a Command from an Action ..... 383
Working with Modal Controls in an Action ..... 384
Changing the Order of Commands in an Action ..... 385
Copying an Action ..... 386
Running an Action Inside an Action ..... 387
Saving Actions into Sets ..... 388
Saving Actions as Files ..... 389
Moving and Copying Actions Between Sets ..... 390
Inserting a Non-Recordable Command into an Action ..... 391
Using Enhanced Scripting ..... 392
Enhancing the Process with Droplets ..... 394
Using a Droplet ..... 396
16 Controlling Image Output ..... 397
Setting Document Print Options ..... 398
Setting Print Output Options ..... 400
Setting Print Color Management Options ..... 402
Printing a Document in Macintosh ..... 404
Printing a Document in Windows ..... 406
Changing Printer Settings ..... 407
Printing One Copy ..... 408
Understanding File Formats ..... 409
Saving a Document with a Different File Format ..... 410
Inserting File Information into a Document ..... 412
Understanding File Compression ..... 414
Preparing Clip Art for the Web ..... 416
Preparing a Photograph for the Web ..... 418
Preparing an Image for the Press ..... 420
Preparing an Image for an Inkjet or Laser Printer ..... 422
Understanding Monitor, Image, and Device Resolution ..... 424
17 Working with Automate Commands ..... 425
Working with Batch File Processing ..... 426
Working with Conditional Mode Change ..... 428
Cropping and Straightening Photos ..... 429
Converting a Multi-Page PDF to PSD ..... 430
Creating a PDF Document ..... 432
Creating a Contact Sheet ..... 434
Creating Panoramic Images ..... 436
Processing Lens Correction ..... 438
Merging Images to HDR Pro ..... 440
Processing Multiple Image Files ..... 442
Adjusting an Image Fit Size ..... 444
18 Managing Color from Monitor to Print ..... 445
Producing Consistent Color ..... 446
Calibrating Using Hardware and Software ..... 447
Setting Up Soft-Proof Colors ..... 448
Changing from Additive (RGB) to Subtractive (CMYK) ..... 450
Working with Rendering Intents ..... 451
Printing a Hard Proof ..... 452
Working with Color Management ..... 454
Embedding ICC Color Profiles ..... 456
Assigning a Different Profile to a Document ..... 457
Converting Document Colors to Another Profile ..... 458
Using Hue/Saturation for Out-Of-Gamut Colors ..... 460
Using the Sponge Tool for Out-Of-Gamut Colors ..... 462
Working with the Out-Of-Gamut Warning ..... 464
19 Designing for the Web and Devices ..... 465
Saving for the Web ..... 466
Working with Save for Web Options ..... 468
Optimizing an Image to File Size ..... 469
Working with Web File Formats ..... 470
Optimizing a JPEG Document ..... 472
Optimizing a GIF Document ..... 474
Optimizing a PNG-8 Document ..... 476
Optimizing a PNG-24 Document ..... 478
Optimizing a WBMP Document ..... 479
Slicing Images the Easy Way ..... 480
Working with Slices ..... 482
Arranging Slices ..... 484
Saving a Sliced Image for the Web ..... 486
Adding HTMLText or an URL Link to a Slice ..... 488
Defining and Editing Web Data Variables ..... 490
Exporting an Image to Zoomify ..... 492
20 Working with Video ..... 493
Opening Video Files and Image Sequences ..... 494
Creating a Video Layer ..... 495
Modifying a Video Layer ..... 496
Creating a Video Group ..... 498
Adding Text to a Video Layer ..... 499
Splitting a Video Layer ..... 500
Cloning Video Layer Content ..... 501
Adding a Transition to a Video Layer ..... 502 New!
Adding Audio to a Video Layer ..... 503
Creating an Animation ..... 504
Working with Animation ..... 506 New!
Exporting Directly to Video ..... 508 New!
Creating an Image from a Video ..... 510 New!
21 Extending Photoshop ..... 511
Counting Objects in an Image ..... 512
Taking Measurements in an Image ..... 514
Setting 3D Preferences ..... 516 New!
Creating 3D Models ..... 518
New!
Creating 3D Models Using Preset Shapes ..... 520
Viewing the 3D Workspace ..... 521
Modifying 3D Models ..... 522
Creating 3DText524 New!
Adjusting Light with 3D Models ..... 525
Rendering and Saving 3D Models526 New!
22 Working Together with Adobe Programs ..... 527
Exploring Adobe Programs ..... 528
Exploring Adobe Bridge ..... 529
Getting Started with Adobe Bridge ..... 530
Getting Photos from a Digital Camera ..... 531
Working with Raw Images from a Digital Camera ..... 532
Modifying Images in Camera Raw ..... 534 New!
Working with Images Using Adobe Bridge ..... 536
Setting Preferences in Adobe Bridge ..... 538 New
Applying Image Adjustments ..... 540
Creating a Web Photo Gallery ..... 541
Automating Tasks in Adobe Bridge ..... 542
Using Mini Bridge ..... 543
Working with Adobe Media Encoder ..... 544 New!
Working with Adobe Extension Manager ..... 546
Scripting with Adobe ExtendScript Toolkit ..... 547 New!
New Features ..... 549 New!
Adobe Certification ..... 555
Adobe Certified Expert (ACE) ..... 555
Adobe Certified Associate (ACA) ..... 558
Index ..... 561

This page intentionally left blank

## Introduction

Welcome to Adobe Photoshop CS6 On Demand, a visual quick reference book that shows you how to work efficiently with Photoshop. This book provides complete coverage of basic to advanced Photoshop skills.

## How This Book Works

You don't have to read this book in any particular order. We've designed the book so that you can jump in, get the information you need, and jump out. However, the book does follow a logical progression from simple tasks to more complex ones. Each task is presented on no more than two facing pages, which lets you focus on a single task without having to turn the page. To find the information that you need, just look up the task in the table of contents or index, and turn to the page listed. Read the task introduction, follow the step-by-step instructions in the left column along with screen illustrations in the right column, and you're done.

## What's New

If you're searching for what's new in Photoshop CS6, just look for the icon: New!. The new icon appears in the table of contents and throughout this book so you can quickly and easily identify a new or improved feature in Photoshop. A complete description of each new feature appears in the New Features guide in the back of this book.

## Keyboard Shortcuts

Most menu commands have a keyboard equivalent, such as Ctrl+P (Win) or ${ }^{2}+\mathrm{P}$ (Mac), as a quicker alternative to using the mouse. A complete list of keyboard shortcuts is available on the web at www.perspection.com.

## How You'll Learn

How This Book Works

What's New

Keyboard Shortcuts

Step-by-Step Instructions
Real World Examples

Workshops

Adobe Certification
Get More on the Web

## Step-by-Step Instructions

This book provides concise step-by-step instructions that show you "how" to accomplish a task. Each set of instructions includes illustrations that directly correspond to the easy-to-read steps. Also included in the text are timesavers, tables, and sidebars to help you work more efficiently or to teach you more in-depth information. A "DidYou Know?" provides tips and techniques to help you work smarter, while a "See Also" leads you to other parts of the book containing related information about the task.

## Real World Examples

This book uses real world examples files to give you a context in which to use the task. By using the example files, you won't waste time looking for or creating sample files. You get a start file and a result file, so you can compare your work. Not every topic needs an example file, such as changing options, so we provide a complete list of the example files used through out the book. The example files that you need for project tasks along with a complete file list are available on the web at www.perspection.com.


## Workshops

This book shows you how to put together the individual step-bystep tasks into in-depth projects with the Workshop. You start each project with a sample file, work through the steps, and then compare your results with project results file at the end. The Workshop projects and associated files are available on the web at www.perspection.com and queondemand.com.

## Workshops

Introduction
The Workatop is all atour being creaske and einting outside of the bor. These wricunops wall nelp
 nswludga of how Hings work. Knowladge is power

Getting and Using the Project Files
Eact propet in the Werishop instivess a stortive to hep you get started wet the project, ans a Shai file to previbe you win the resuls so you can seet how wel you accompliktad the task Before yos can use the proiest flea. .vou nees to dommeod tham from tha Wcb. You ann acessa the ther un wher.perspectian. can. Atsar you dowsibad the thas, uncompress them into a toider on your harid dive.

## Project 1: Scaling an Image Using Content-Aware —— The Workshops

Skills and Tools: Content-Aware Scale, Fefine Edge, and Blending Mode
Une of the ereting teateves in Photoshop is Contan-Awara Scaing, The command looks tor the


 sreer masis, insidiual chatnels. Smar Obists, 30 levers, Vides leyers, mitiople levers, and lever qrowps. walk you through in-depth projects to help you put
nue Project
In this sroiect voull wse the Content Avare Seoing feutare abne whit other refinisg toob to mod fy ans entansa a phocoggraph

The Process

nir Alod Rock Camponpud




## Adobe Certification

This book prepares you for the Adobe Certified Expert (ACE) and Adobe Certified Associate (ACA) exams for Adobe Photoshop CS6. Each Adobe certification exam has a set of objectives, which are organized into broader skill sets. To prepare for a certification exam, you should review and perform each task identified with an ACE or ACA objective to confirm that you can meet the requirements for the exam. Information about the ACE and ACA programs are available in the back of this book. The ACE and ACA objectives and the specific pages that cover them are available on the web at www.perspection.com.

## Adobe Certification

About Adobe Certifications
Adobe provides two levele of certicication: Adobe Certiad Expert (ACEI and Adobe simed at industry professionals using Adobe technologr. while Adobe Cerrified Cesociate is an entry level certitication aimed at aspiring profescionale uting digital tectrology

What Does This Logo Mean?
It means this book will propare you for the Adobe Cestritied Expert (ACE) and Adobe Certified Associate (ACA) exams for Adobe Plootoshop CSE Each centification exam has a set of obiectives. which are organsed into brover skil sets. Throvahioutis
book, content that pertains to an objective is identied with the following Adobe Certified logo and objective number below the titie of the topic

About the Adobe Certified Expert (ACE) Program
The Adobs Ceritised Expert (ACE) program is for graphic desianers, Wob designers. systems integrators, vaitue-soded reseliers, developers, nd burs

## What Is an ACE?

An Adobe Cersified Expert is an individual who has passed an Adobe Product Profic: ciency Exam for a specific Adobe software product Adobe Certified Experts are eli gible to promote themselves to chients or employers as highly tilled, expert level
users of Adobe sothware. ACE certification is a recogniced worliswide standard for ?

## Get More on the Web

In addition to the information in this book, you can also get more information on the web to help you get up to speed faster with Photoshop CS6. Some of the information includes:

## Transition Helpers

- Only New Features. Download and print the new feature tasks as a quick and easy guide.


## Productivity Tools

- Keyboard Shortcuts. Download a list of keyboard shortcuts to learn faster ways to get the job done.


## More Content

- Photographs. Download photographs and other graphics to use in your Photoshop documents.
- More Content. Download new content developed after publication.

You can access these additional resources on the web at www.perspection.com.


## Using the Paint, Shape Drawing, and Eraser Tools

## Introduction

Adobe Photoshop supplies you with all types of adjustment and manipulation tools. In addition to image enhancement, Photoshop can also be a powerful application for designing from scratch. With the vast array of supplied brushes, tips, and shape drawing tools, Photoshop helps you produce any image, either enhanced or developed from scratch, that you might need for virtually any conceivable project.

Brushes come in all sizes and shapes, and can be controlled with a mouse or drawing tablet. Since the shape of the tip controls brush strokes, Photoshop gives you access to several sets of predefined brush tip shapes, or you can create your own customized sets. As for shape drawing tools, Photoshop doesn't limit your creativity to just drawing circles and squares; it gives you instant access to dozens of predefined shapes. You can even create and save your own custom shapes. When it comes to Photoshop's paint and drawing tools, your choices are limitless, based only on your knowledge of the available tools, and a creative imagination-the more you know, the more you can do with Photoshop.

And, when all the drawing is said and done, there will be a need for cleaning up. With the various Eraser tools that Photoshop provides, you can make quick work of touching up those small problem areas. Photoshop provides regular eraser tools, eraser tools that erase to a definable edge, and even eraser tools that target specific color values.

When enhancing an image, you might want to apply a gradient. Gradients can be something as simple as black and white, or as complex as one that contains the colors of the rainbow. Gradients can be applied to an image by completely covering the original image information, or they can be controlled through targeted selection, and creative uses of blending modes.

## What You'II Do

## Select Foreground and Background Colors

Use the Brush and Brush Presets Panel
Modify the Brush Presets Panel

## Select Brush Tip Sets

## Adjust Brush Tips

## Create and Save Customized Brush Tips

Work with the Brush, Airbrush, Mixer

Brush, and Pencil Tools

## Work with Auto Erase

## Work with the Line and Shape Tools

## Work with Shape Layers

Work with the Custom Shape Tool
Create and Save Custom Shape Sets

## Use the Paint Bucket Tool

## Work with the Eraser Tools

## Work with the Magic Eraser Tool

## Create and Apply Gradients

Create and Save Customized Gradients

Use the Color Replacement Tool

## Selecting Foreground and Background Colors

## Change the Active Foreground and Background Colors

Use any of the following methods:

- Select the Eyedropper tool on the toolbox, and then click anywhere in the active document to change the foreground color.
Hold down the Alt (Win) or Option (Mac) key, and then click to change the background color.
- To specify the sample point, click the Sample list arrow on the Options bar, and then select an option: Current Layer, Current \& Below (New!), All Layers, All Layers no Adjustments (New!), or Current \& Below no Adjustments (New!).
- Click on a color swatch in the Swatches panel to change the foreground color.

Hold down the Ctrl (Win) or (Mac) key, and then click to change the background color.

- Click the Foreground or Background thumbnail to choose the color's destination. Create a color in the Color panel.
- Click the Foreground or Background Color box to open the Color Picker dialog box, select a color or enter color values, and then click $\mathbf{O K}$.

The Foreground and Background colors, located on the toolbox, are Photoshop's way of identifying your primary painting color, as well as the color Photoshop uses in conjunction with the Background layer. When you select any of Photoshop's painting or drawing tools, the color applied to the document will be the foreground color. Hence, it's sometimes referred to as the active color. The Background color serves several functions-its primary roll is to instruct Photoshop how to handle erasing on the Background layer. When you use an eraser tool on a layer, by default, the pixels are converted to transparency. However, when you use an eraser tool on the Background, something different happens. Since the Background does not support transparency, it replaces the erased pixels with the current background color.


## Use Default and Switch the Foreground and Background Colors

1. Click the Default Foreground and Background Colors button to revert the foreground and background colors to their default values of black and white.

2 Click the Switch Foreground and Background Colors button to switch current colors.

TIMESAVER Press D to change the foreground and background colors to their default values of black and white, and press $X$ to switch the current colors.

## Did You Know?

You can add colors from the Color Picker to the Swatches panel. Open the Color Picker dialog box, select the color you want to add to the Swatches panel, click Add To Swatches, type a name for the color, and then click OK.
You can create sample color markers. Click the Eyedropper or Color Sampler tool on the toolbox. In the document, hold down the Shift key (if using Eyedropper tool), and then click once to create a color marker. Information appears in the Info panel. You can have a maximum of four Color Markers in a single document. To reposition a marker, press the Ctrl (Win) or A (Mac) key, and then click and drag the marker to a new position, or drag it off the window to delete it.

## For Your Information

## Understanding Colors

In Windows, you can use the Color dialog box, which displays basic and custom color squares and a color matrix with the full range of colors in the color spectrum, to help you select a color. You can enter RGB values for hue, saturation, and luminosity (also known as brightness) to specify a color. Hue is a pure color (one without tint or shade); the name of the color (red, green, etc.) is measured by its location on the color wheel. Saturation is a measure of how much white is mixed in with the color. A fully saturated color has vivid tones; a less saturated color is more of a washed-out pastel. Luminosity is a measure of how much black is mixed with the color. A very bright color contains little or no black. You can also change the hue by moving the pointer in the color matrix box horizontally; you can change the saturation by moving the pointer vertically, and the luminosity by adjusting the slider to the right of the color matrix box. On the Macintosh, you click one of the color modes and select a color, using its controls. You can select RGB values by selecting the color sliders at the top of the dialog box, then choosing RGB Sliders from the pop-up menu, and dragging the Red, Green, and Blue sliders. Or, you can enter values (color numbers) to select a color. You can select hue, saturation, and brightness (or luminosity) values by selecting Color Sliders, choosing HSB Sliders, then dragging the sliders or entering your own values.

## Using the Brush and Brush Presets Panels

Photoshop introduced the Brush and Brush Preset panels in CS5. The Brush panel allows you to create and select individual brushes, while the Brush Presets panel allows you to select and use predefined or custom brush tip sets or individual brushes. In the Brush panel, the current painting engine configuration, with options-including Shape Dynamics, Scattering, Texture, Dual Brush, Color Dynamics, Transfer, Brush Pose (New!), Noise, Wet Edges, Build-up (New!), Smoothing, and Protect Texture-gives you control over brushes in ways that once were only available in programs like Adobe Illustrator.

To use the Brush or Brush Presets panel, you first need to select a brush tool, or a tool that requires the use of a brush, such as the Eraser tool, chosen from the toolbox, and then display the Brush or Brush Presets panel. You can click the Window menu, and then choose Brush or Brush Presets to display the panel. You can also click the Brush Panel button on the Options bar (with a brush tool selected) or Brush Presets panel, or click the Brush Presets button on the Brush panel. Photoshop includes brush presets from John Derry, a Corel Painter expert (New!).


## Modifying the Brush Presets Panel

## Change the Brush Presets Panel View

1. Select a Brush tool on the toolbox, and then select the Brush Presets panel.

2 Click the Brush Presets Options button, and then select from the available View options:

- Text Only. Select to display all brush tips by their names.
- Small Thumbnail. Select to display all brush tips using a small thumbnail.
- Large Thumbnail. Select to display all brush tips using a large thumbnail.
- Small List. Select to display all brush tips by their names and small thumbnail.
- Large List. Select to display all brush tips by their names and large thumbnail.
- Stroke Thumbnail. Select to display all brush tips with a stroke. (This is useful in determining how the brush will look when applied in the document.)

The Brush Presets panel comes in many forms; you can view brushes as strokes, or you can choose thumbnails, or even text descriptions. The form of the Brush Presets panel does not impact its performance, only how you view the available brush tips. Choose the version that best suits your current design needs, and then change the view as needed. When you select a brush, it becomes the default for that tool only. This gives you the ability to choose a default brush for each of the brush-specific tools.


## Selecting Brush Tip Sets

## Select Brush Tip Sets

(1) Select a Brush tool on the toolbox, and then select the Brush Presets panel.

2 Click the Brush Presets Options button.

3 Click any of the predefined brush sets.
(4) Click OK.

This replaces the current brush tips with the selected set, or you can click Append to add them to the current set.

## Did You Know?

You can reset brushes back to the original default set. Click the Brush Presets Options button, click Reset Brushes, and then click OK.
You can draw straight lines using Photoshop's brush tools. Holding the Shift key while dragging constrains the brush to a 90 -degree line. To draw a straight line between two points, click once in the document window, move the mouse to another position, hold down the Shift key, and then click a second time. A straight line will be drawn between the first and second mouse clicks.

The Brush Preset panel comes with a wide variety of predefined brush tip sets, including natural bristle, faux finish, and special effect brushes. Each set organizes specific brush tips by name. Since other Photoshop tools also use brush tips, it's important to have the right tool (brush tip) for the right job. Using or making do with the wrong brush tip is akin to digging a swimming pool with a teaspoon. You wouldn't paint a portrait with a house-painting brush, so don't settle for anything less than the exact brush tip you need to get the job done.


## Adjusting Brush Tips

## Adjust a Brush Tip

1. Select a Brush tool on the toolbox, and then select the Brush panel.
2. Click to select a specific brush tip.
(3) Select from the various options:

- Brush Tip Shape. Lets you modify the brush tip size (up to 5,000 pixels (New!)), angle, roundness, hardness, and spacing. You can also flip the brush shape along its x (left to right), or y (top to bottom) axis.
- Shape Dynamics. Lets you randomly (jitter) generate different sizes, angles, and roundness for the brush tip.
- Scattering. Lets you randomly scatter the shape, choose how many to use (Count), and randomly change the number (Count Jitter) as you draw.
- Texture. Lets you select a predefined or custom texture, in place of a solid color.
- Dual Brush. Lets you select a second brush.
- Color Dynamics. Lets you key off of the active foreground and background colors with the brush tip; try the Apply Per Tip check box (New!).
- Transfer. Adjusts the build-up of the paint or effect.
- Brush Pose. Applies a rotation or tilt to the brush tip (New!); useful for painting with a mouse.
- Other Dynamics. See Table.

The Brush panel provides a series of controls that let you define how a brush tip, such as an erodible tip (New!) or airbrush (New!), is applied to the active image. Features-such as Brush Tip Shape, Shape Dynamics, Scattering, Texture, Dual Brush, Color Dynamics, Transfer, Brush Pose (New!), Noise, Wet Edges, Build-up (New!), Smoothing, and Protect Texture-let you customize your brush tips. When you drag to resize the brush an overlay appears, displaying values (New!).


## Adjusting Bristle Brush Tips

## Adjust a Bristle Brush Tip

(1) Select a Brush tool on the toolbox, and then select the Brush panel.
(2) Click to select a bristle brush tip.
(3) To show or hide the bristle brush preview, click the Toggle the Live Tip Brush Preview button on the panel.
4. Select from the various bristle options:

- Shape. Lets you select a bristle brush shape, such as Round or Flat (Point, Blunt, Curve, Angle, or Fan).
- Bristles. Lets you modify the density of the bristle between $1 \%$ and $100 \%$. The density is the number of bristles in a specified area of the brush neck.
- Length. Lets you modify the length of the bristle between $25 \%$ and $500 \%$.
- Thickness. Lets you modify the thickness of the bristle from fine to coarse between $1 \%$ and 200\%.
- Stiffness. Specify the rigidness of the bristle between $1 \%$ to $100 \%$. A lower value creates flexible bristles, while a higher value creates stiffer bristles.
- Angle. Lets you modify the angle of the brush.

Bristle brushes simulate the effects of painting with a natural brush, such as watercolors and oils. When you use a bristle brush, it paints with vectors to resemble a natural brush stroke. When you select a bristle brush, you can set brush options, such as brush shape (either round or flat), brush size, length, density, thickness, and stiffness. If you want to see a visual representation of your changes, use the Toggle the Live Tip Brush Preview button on the panel. When you use a writing tablet and 6 D pen, such as a Wacom Art Pen, with a bristle brush, the pen responds to pressure, bearing, rotation, and tilt.


## Creating Customized Brush Tips

## Create a New Brush Tip

1 Open an image, scan an item, or select any of Photoshop's painting tools and create a shape for a new brush tip.

IMPORTANT Since the color of a brush is determined when the brush tip is selected, create the brush tip using black or shades of gray.

2 Select the brush tip using any of Photoshop's selection tools.

IMPORTANT Photoshop picks up any pixel information in the underlying layers, even white. If you want the brush to have a transparent background, make sure the areas surrounding the image are transparent.

3 Click the Edit menu, and then click Define Brush Preset.
4. Enter a name for the new brush preset.

## (5) Click OK.

Open the Brush panel, and then scroll to the bottom of the list to access your newly created brush tip.

Since the Define Brush Preset button picks up any background colors within the selection area, it always creates the brush tip in a blank layer.

Although Photoshop's Brush panel gives you many choices for brush tips, any good designer will tell you that no matter how many brush tips you have, you'll always want more. For example, you're working on a 100-year-old photograph, and you need a specific brush to add hair details to the blown-out areas of the image. You'll want to find a special type of brush that literally creates the illusion of wavy hair and add it to your collection of brush tips. Photoshop, in an effort to help keep you organized, gives you the ability to create your very own customized brush tips, and then save them later in organized sets.


## Saving Customized Brush Tips

## Save a Customized Brush Tip

1 Select a Brush tool on the toolbox, and then select the Brush Presets panel.

2 Create a set of customized brushes.
(3) Click the Brush Presets Options button, and then click Save Brushes.

4 Type the name of the set.
5 Click the Save In (Win) or Where (Mac) list arrow, and then select where you want to save the brush set.
6 Click Save.
The brush tip is saved with the ABR extension.

## Did You Know?

You can access your customized sets directly from the Brush Options menu.
When you save your customized brush set, put them in the Brushes folder, located in the Adobe Photoshop CS6/Presets folder. Brush sets saved here appear in the Brush Options menu along with the other Photoshop presets.
You can create customized brush sets with the Preset Manager. Click the Edit menu, point to Presets, click Preset Manager, select the brushes you want, (use Shift or Ctrl (Win) or © (Mac) to select) and then click Save Set.

Once a brush tip is created, it becomes part of the current set. However, the brush has not yet been permanently saved in Photoshop. Although the new brush tip will reappear every time you access the Brush panel, if you choose the option to reset the panel, the new brush will be lost. To keep brushes you must save them into customized sets; choose the default Brushes folder, so Photoshop can use them.


# Working with the Brush and Airbrush Tools 

## Work with the Brush and Airbrush Tools

1. Select the Brush tool on the toolbox.
2) Select a brush tip on the Options bar or from the Brush panel.
3. Specify Paint Engine options for the brush from the Brush panel.

4 Select from the following Brush options on the Options bar:

- Mode. Click the list arrow to choose from the available blending modes. The blending modes controls how the active brush color blends with the colors in the active image.
- Opacity. Enter an opacity percent ( $1 \%$ to $100 \%$ ), or click the list arrow, and then drag the slider left or right.
- Flow. Enter a flow percentage (1\% to $100 \%$ ), or click the list arrow, and then drag the slider left or right. When you apply the brush, Flow controls the amount of ink supplied to the brush.
- Airbrush. Click the button to enable airbrush-style build-up effects.

5. Drag within the image to paint.

Photoshop's Brush and Airbrush tools were designed to reproduce the visual effect of applying paint to a canvas. You have full control over the brush tip, color, size, opacity, and even the brush's blending mode. Control over the image is achieved by using additional layers to hold the brush strokes-but remember, adding additional layers increases the file size of a Photoshop document. Since layers have their own individual options, such as opacity, fill, and blending modes, you achieve even greater control over the final design by giving brush strokes their own layers. Once the brush stroke is to your liking, you can always merge the brush-stroke layer into the image to conserve file size.


## For Your Information

## Using the Brush and Airbrush Tools

The Brush and Airbrush tools look the same, but they perform quite differently. The Brush tool maintains a specific opacity; for example, if you choose $50 \%$ opacity, the Brush maintains that opacity no matter how many times you pick up your pen and start again. However, if you release and drag again over the same area, the Brush adds another $50 \%$ application of ink to the image, producing a more saturated result. The Airbrush tool works by accumulation-dragging the image produces a brush stroke based on the opacity of the brush and the speed with which you move the tool across the image. If you hold the Airbrush tool in one position, the ink color will slowly increase until it reaches $100 \%$, just like a real airbrush.

## Working with the Mixer Brush Tool

## Work with the Mixer Brush Tool

(1) Select the Mixer Brush tool on the toolbox.
(2) Select a brush tip on the Options bar or from the Brush panel.
(3) Select a mixing color.
(4) Click the Current Brush Load list arrow, and then select Load Brush, Clean Brush, or Load Solid Colors Only.
5. Click the Load the Brush After Each Stroke or Clean the Brush After Each Stroke button.
6) Click the Blending Combinations list arrow, and then select a preset.
(7) Specify a percentage ( $1 \%$ to $100 \%$ ), or click the list arrow, and then drag the slider for any of the following Mixer Brush options on the Options bar:

- Wet. Controls the wetness of the brush.
- Load. Controls the load rate to add paint to the brush.
- Mix. Controls the mix rate between the brush and canvas color.
- Flow. Controls the amount of ink supplied to the brush.
8 Drag within the image to paint.

With the Mixer Brush tool, you can define multiple colors on a single brush tip, and then mix and blend them together with the underlying hues on your canvas. With a photo, you can use a dry, empty brush to blend the existing colors while at the same time adding a painting effect to the image. Mixer Brush options on the Options bar allow you to control the wetness of the brush, the load rate to add paint to the brush, the mixing rate between the brush and canvas color, and whether the brush is refilled, cleaned, or both after each painting stroke.


## Working with the Pencil Tool

## Work with the Pencil Tool

(1) Select the Pencil tool on the toolbox.

2 Click the Brush Preset Picker list arrow, and then click a brush tip.
(3) Click the Mode list arrow, and then select a blending mode.
4. Enter an Opacity percentage value ( $1 \%$ to $100 \%$ ).
5. Drag the Pencil tool across the active document.

## Did You Know?

You can use the Pencil tool to create calligraphy lettering. Select the Pencil tool, click black as your painting color, and then click one of the oblong brush tips on the Options bar. If you own a drawing tablet, use the tablet with the Pencil tool to create beautifully formed calligraphy letters.

The Pencil tool is exactly what its name implies...a pencil. The Pencil tool is limited to hard brush tips of any size or shape, and creates freeform lines using the current foreground color. In fact, the major difference between the Pencil and Brush tools is the Pencil tool's inability to draw anything but a hard-edged line. A unique feature of the Pencil tool is its ability to switch between the current foreground and background colors using the Auto Erase feature.


## Working with Auto Erase

## Work with Auto Erase

(1) Select the Pencil tool on the toolbox.
(2) Select the Auto Erase check box on the Options bar.
(3) Drag the Pencil tool across the active document to create a line in the active foreground color.
4. Click anywhere in the background and the Pencil tool will use the foreground color.
5. Move the brush tip over one of the previous lines, and then drag to create a line in the active background color.

## Did You Know?

You can draw straight lines with the Pencil tool. Click once in the document to create a black dot, move to another position, hold down the Shift key, and then click again. When you hold down the Shift key, the Pencil tool creates a straight line between the two mouse clicks.

The Auto Erase feature lets you automatically switch the Pencil tool's painting color using the current foreground and background color swatches. The trick is where you start drawing the line. If you start dragging the brush tip from a new location in the document, the Pencil tool creates a line in the active foreground color. If you then place the brush tip on a previously drawn line and drag, the Pencil tool creates a new line in the active background color. Since the Auto Erase feature doesn't really erase anything, it will perform exactly the same way on a transparent layer as it does on the background layer.


## Working with the Line Tool

## Work with the Line Tool

(1) Select the Line tool on the toolbox.
(2) Click the Tool Mode list arrow, and then click Pixels to create raster shapes in the foreground color.

3 Click the Settings button, and then select from the following options:

- Arrowheads. Select the Start and/or End check boxes to create arrowheads on the line.
- Width. Enter a percentage ( 10 to 1,000 ), to determine the width of the arrowhead in relation to the width of the line.
- Length. Enter a percentage (10 to 5,000 ), to determine the length of the arrowhead.
- Concavity. Enter a percentage $(-50$ to +50$)$ to determine the concavity of the arrowhead.

4. Enter a value ( 1 to 1,000 pixels) to determine the weight of the line.
5 Click the Mode list arrow, and then select a blending mode.
5. Enter an Opacity percentage value ( $1 \%$ to $100 \%$ ).
1 Select the Anti-alias check box to create a visually smoother line.
8 Drag in the document window to create the line; the cursor displays angle and length (New!).

The Line tool lets you draw lines by dragging from one point in the active document and releasing in another. You can draw lines at precise 45 - or 90 -degree angles by holding down the Shift key as you drag. Select the Line tool, or if you already have another drawing tool selected, you can choose the Line tool from the toolbox. Then configure the Line tool using the Options bar. It's also a good idea to create the lines in a separate layer. That way, once the lines have been drawn, it's as easy as selecting the Move tool and repositioning them where you want them.


## For Your Information

## Using the Line Tool

The Line tool can be used to create customized guidelines for those projects that require something other than vertical or horizontal guidelines. Just create a new layer, and then select the Line tool. Choose a line weight (width) of one or two pixels, select a drawing color that contrasts with the image, and then draw the required guides. When you're finished, lock the layer, and use the visual guides to complete your project. Hide the layer when it's not needed, and finally, delete the layer when you're done with the job. One more thing-remember to turn off the Arrowheads option.

## Working with the Shape Tool

## Work with the Shape Tool

1 Select the Rectangle, Rounded Rectangle, Ellipse, or Polygon tool on the toolbox.
(2) Click the Tool Mode list arrow, and then click Pixels to create raster shapes in the foreground color.
(3) Click the Settings button, and then select from the following options:

## - Unconstrained, Fixed Size,

 Proportional, and From Center. (Rectangle, Rounded Rectangle, Ellipse)- Square. (Rectangle, Rounded Rectangle)
- Circle. (Ellipse)
- Radius, Smooth Corners, Star, Indent Sides By, and Smooth Indents. (Polygon)

4. Click the Mode list arrow, and then select a blending mode.
5. Enter an Opacity percentage value ( $1 \%$ to $100 \%$ ).

6 Select the Anti-alias check box to create a visually smoother image.

7 Drag in the document window to create the shape; the cursor displays width and height (New!).

IMPORTANT Maintain control over your design by drawing shapes in separate layers.

Creating standard shapes, such as polygons or rectangles with rounded corners, used to be a hassle. That is, until Photoshop released its Standard Shape drawing tools. Now, it's a simple matter of selecting the correct tool, choosing a color, and then drawing the shape. As with any of Photoshop's drawing functions, control is maintained with the use of additional layers. Photoshop's standard shapes include rectangles, rounded rectangles, ellipses, and polygons. Each one of the shape tools comes with additional options to control exactly how the shape appears when drawn.


## Working with the Custom Shape Tool

## Work with the Custom Shape Tool

1) Select the Custom Shape tool on the toolbox.
2. Click the Tool Mode list arrow, and then click Pixels to create raster shapes in the foreground color.
(3) Click the Settings button, and then select from the following options: Unconstrained, Defined Proportions, Defined Size, Fixed Size, or From Center.
3. Click the Shape list arrow, and then select a shape from the available options.
5 Click the Mode list arrow, and then select a blending mode.
4. Enter an Opacity percentage value ( $1 \%$ to $100 \%$ ).
7 Select the Anti-alias check box to create a visually smoother line.

8 Drag in the document window to create the customized shape.

Having the ability to draw a perfect polygon or rounded-corner rectangle is nice; however, Photoshop went way beyond standard shapes when it introduced the Custom Shape tool. Photoshop now comes packaged with dozens of predesigned shapes, or you can even create your own. User-defined shapes can be made from literally any vector object. For example, a company logo can be converted to a custom shape. Custom shapes have many time-saving applications. As previously mentioned, a company logo, if used frequently, is only a mouse click away. Any vector form, outline, or shape used on a recurring basis, can be converted to a custom shape and saved for future use. Select the Custom Shape tool, and then configure the shape using choices from the Options bar.


## Working with Shape Layers

## Create a Shape Layer

(1) Select a shape tool or a pen tool on the toolbox.
(2) Click the Tool Mode list arrow, and then click Shape to create raster shapes in the foreground color.
(3) Specify the following options:

- Fill. Select a fill color, gradient, or pattern and related options (New!).
- Stroke. Select a stoke color, gradient, or pattern and related options (New!).
- Stroke Width. Specify a stroke point size (New!).
- Stroke Type. Specify a stroke style type (New!). Select a style, such as dashed or dotted. You can also specify the stroke align position, caps, or corners. Click More Options for additional settings.
4 Click the Settings button, and then select from the following options:
Unconstrained, Defined Proportions, Defined Size, Fixed Size, or From Center.
(5) Drag in the document window to create the shape layer.
- To constrain proportionally, hold down the Shift key. To draw from center, press Alt (Win) or Option (Mac).

With any of the shape drawing tools, you can use Photoshop's extensive layer effects options to colorize the shape, add a drop shadow or bevel, or even apply a gradient or pattern to the shape. You can change the fill (New!) and stroke (New!) with a color, gradient, pattern, or none. For strokes you can also apply pre-built styles as well as specify the align position, caps, and corners to create and save your own stroke styles (New!). You can use the Combine (Add), Subtract, Intersect, or Exclude options on the Paths Operation menu to modify the current shape on a selected layer in the Layers panel. For example, you can create a doughnut shape using the Subtract From Shape Area option.


## Work with a Shape Layer

1 Select the Path Selection tool on the toolbox.

2 Click or drag a marquee to select the shapes you want to work with.
(3) To move shapes, point to the shape, and then drag to reposition it in another location.
4. To modify shapes on the current shape layer, click the Path Operation button on the Options bar to create on a new layer, or combine (add), subtract, intersect, exclude overlapping, or merge shapes.
5 To change the style of the selected shape layer, use the formatting options on the Options bar.

## See Also

See "Arranging Shape Layers" on page 240 for more information on aligning and arranging elements on a shape layer.


## Arranging Shape Layers

## Arrange Elements on a Shape

 Layer(1) Select the Path Selection tool on the toolbox.
(2) Select the shapes on the layer you want to arrange.
(3) To align shapes to the pixel grid, select the Align Edge check box on the Options bar.
(4) To use alignment settings, select the following options:

- Align To Selection. Toggles on and off; select to align shapes to current selection.
- Align To Canvas. Toggles on and off; select to align shapes to the canvas edges.
- Alignment. Select a command to align to edges or center.
- Distribution. Select a command to distribute horizontally or vertically to width or heights.
(5) To use arrangement settings, select the following options:
- Bring Shape To Front. Brings shape to the top of the stack.
- Bring Shape Forward. Brings shape one level to the top.
- Bring Shape To Back. Brings shape to bottom of the stack.
- Bring Shape Backward. Brings shape one level to the bottom.

After you create a shape layer, you can use the alignment and arrangement options (New!) to change shape position and stacking order on the layer. With the alignment options, you can position shapes to a specific edge or center or distribute them horizontally or vertically. You can align shapes to the canvas or to the current selection. With the arrangement options, you can change the order in which the shapes stack on top of each other. If you're a web designer, you find the Align Edges option a help. When you work with pixels (not points), the Align Edge option aligns all the shape layers to internal pixel grid, which ensures sharp outlines.


## Creating a Custom Shape

## Create a Custom Shape

1) Open a document that contains the vector image you want to convert into a shape, or create a shape using any of Photoshop's vector drawing tools.
2) Click the Edit menu, and then click Define Custom Shape.

3 Enter a name for the new shape.
(4) Click OK.

The shape appears as a thumbnail at the bottom of the active Custom Shapes panel.

## Did You Know?

You can move Photoshop shapes into other vector programs, such as Illustrator, FreeHand, and even Flash. Click the File menu, point to Export, and then click Paths To Illustrator. Name the new document, and then click Save.

Custom shapes can be created from anything you choose, and the process is quick and simple. You just create the shape, select the shape, and name the shape. That's it. Since shapes are vector images, they're resolution-independent, which means you can draw them at any size without impacting image quality. Once custom shapes are saved, they can be accessed by opening a document, selecting the Shape tool, and choosing your new shape from the Custom Shapes panel.


## Saving Custom Shape Sets

## Save Custom Shape Sets

1 Select the Custom Shape tool on the toolbox.
2. Click the Shape list arrow to see a list of the current shapes.
(3) Create new shapes, and then add them to the current list.

IMPORTANT As you create new shapes, if there are some you don't like, delete them. Right-click the shape, and then click Delete Shape.
4 To add preexisting shapes, click the Options button, and then click Load Shapes, or choose from the available predefined shape lists.
5. Click the Options button, and then click Save Shapes.
(6) Enter a descriptive name for the new set in the File Name (Win) or the Save As (Mac) box.

7 Click the Save In (Win) list arrow or Where (Mac) popup, and then select a location to save the new shape set.

When you save shapes in the Custom Shapes folder (default location), your customized shape appears at the bottom of the Shapes Options menu.

8 Click Save.
The custom shape file is saved with the CSH extension.

Creating customized sets of shapes is an excellent way to get organized. The next time you need a specific shape all you have to do is select the shape from your organized sets. Organization can save you time, but it also lends a sense of consistency to designs. Using the same customized shapes repeatedly helps to tie the elements of a design together, and Photoshop gives you the perfect way to maintain that consistency with customized shape sets.


## Using the Paint Bucket Tool

## Use the Paint Bucket Tool

1. Select the Paint Bucket tool on the toolbox.
2. Click the Fill list arrow, and then select an option:

- Foreground. Fills a selected area with the current foreground color.
- Pattern. Fills a selected area with a pattern.
(3) Click the Pattern list arrow, and then select a predefined fill pattern. This option is available if you select Pattern as a fill option.

4. Click the Mode list arrow, and then select a blending mode.
5. Enter an Opacity percentage value ( $1 \%$ to $100 \%$ ).

6 Select a Tolerance value (0 to 255). The Tolerance value influences the range that the Paint Bucket uses to fill a given area.
(7) Select the Anti-alias check box to create a visually smoother line.

8 Select the Contiguous check box to restrict the fill to the selected area.

9 Select the All Layers check box to fill the color range information from all the image's layers.

10 Click the Paint Bucket tool cursor on the area to be changed.

The Paint Bucket tool is not new; in fact, it's been around almost as long as Photoshop. The Paint Bucket's primary function is to fill an area with the active foreground color, but that's not all it's capable of doing. The Paint Bucket tool can fill areas with a selected pattern and, much the same way that the Magic Wand tool selects image information, the fill area can be controlled by the shift in brightness of image pixels. Combine those features with the ability to change the Paint Bucket's blending mode or opacity, and you have a tool with a lot of horsepower.


## Working with the Eraser Tools

## Use the Basic Eraser Tool

(1) Select the Eraser tool on the toolbox.
(2) Click the Brush list arrow, and then select a brush tip.
(3) Click the Erasing Mode list arrow, and then click Brush, Pencil, or Block.
(4) Enter an Opacity percentage value ( $1 \%$ to $100 \%$ ) to determine how much the eraser removes from the image.
(5) Enter a Flow percentage value ( $1 \%$ to $100 \%$ ) to determine the length of the eraser stroke.
6 Click the Airbrush button to change the solid eraser stroke of the eraser to that of an airbrush.
(7) Select the Erase To History check box to temporarily turn the Eraser into a History Brush.
(8) Drag the Eraser over an image layer to convert the image pixels to transparency.

Photoshop's basic Eraser tool converts image pixels in a layer to transparent pixels. While the primary function of the Eraser tool has not changed, the tool itself has been greatly improved. For example, you can use the Eraser tool to remove a specific color or to erase around the edge of an object. You can instruct the Eraser tool to remove a specific color while protecting another color and at the same time, increase or decrease the tool's tolerance (the range of selection). If you use the Eraser tool on a layered document, the tool will erase to transparency. If the Eraser tool is used on a flattened document (flattened documents do not support transparency), the Eraser tool will use the active background color to perform the erasure. As you can see, the eraser tools do more than blindly erase image information. As you master the eraser tools, you just may find those complicated eraser jobs becoming easier and easier. The Background Eraser tool lets you select specific colors within an image and erase just those colors.


## Use the Background Eraser Tool

1) Select the Background Eraser tool on the toolbox.
2. Click the Brush list arrow, and then select a brush tip.

3 Click one of the Sampling buttons (determines how the Background Eraser selects the color range):

- Continuous. Continually selects a color range as you drag the Eraser tool across the image.
- Once. Samples a color range when you first click your mouse.
- Background Swatch. Only erases the active background color.

4. Click the Limits list arrow, and then click how far you want the erasing to spread:

- Discontiguous. Lets the Eraser tool work with all similar color range pixels throughout the image.
- Contiguous. Restricts the Eraser tool to the selected color range, without moving outside the originally sampled area.
- Find Edges. Looks for a shift in color range and attempts to erase to the visual edge of the image.

5 Select a Tolerance percentage value ( $1 \%$ to $100 \%$ ). The higher the tolerance, the greater the range.
6 Select the Protect Foreground Color check box to prevent that color from being erased.
( Drag in the image to erase.


## For Your Information

## Using the Background Eraser Tool

The Background Eraser tool erases an image by converting the image pixels to transparency. If you attempt to use the Background Eraser tool on a flattened image, the tool will automatically convert the flattened background into a normal layer. Photoshop is actually making an assumption that if you're using the Background Eraser tool, you obviously need the image to be on a layer that supports transparency, not a background layer.

## Working with the Magic Eraser Tool

## Work with the Magic <br> Eraser Tool

(1) Select the Magic Eraser tool on the toolbox.
(2) Enter a Tolerance value (0 to 255). The higher the value, the greater the range the Magic Eraser erases.
(3) Select the Anti-alias check box to create a visually softer eraser (useful when dealing with intensely rounded or curved selections).
(4) Select the Contiguous check box to select adjacent pixels within the active document.

5 Select the Sample All Layers check box to sample image information from all layers (Photoshop then treats the visual image as a composite).
(6) Click within the active document.

The Magic Eraser tool, depending on the options you choose, samples the pixels directly under the tool and uses that data to create a range for erasing image information.

The Magic Eraser tool functions the same way as the Magic Wand selection tool, except that instead of selecting an area, it erases it. The Magic Eraser tool works on any traditional Photoshop layer, as well as the Background layer. Clicking with the Magic Eraser tool converts image pixels into transparent pixels. Since the Background layer does not support transparency, using the Magic Eraser tool causes Photoshop to convert the Background into a traditional layer. The click position for the Magic Eraser tool is the reference point from which the erase takes place. The Magic Eraser tool erases all contiguous pixels (those touching each other) that are within the set tolerance level, which is how great of a variation in pixel color you can have to be included in the erase.


## Creating and Applying Gradients

## Create a Standard Gradient

1 Select the Gradient tool on the toolbox.

2 Click the Gradient list arrow, and then select from the available gradients.

- The preset gradients include Foreground to Transparent, Chrome, Spectrum, Transparent Rainbow, Transparent Stripes, and Neutral Density.
3 Select one of the following gradient types from the five icons:
- Linear, Radial, Angle, Reflected or Diamond.

4. Click the Mode list arrow, and then select a blending mode.
5. Enter an Opacity percentage value (1\% to $100 \%$ ).

6 Select the Reverse check box to reverse the color order of the selected gradient.

7 Select the Dither check box to visually create a smoother transition between gradient colors.

8 Select the Transparency check box to create gradients using a gradient mask (allows for transparency in the gradient).

9 Drag in the image to create a gradient.

While most of Photoshop's painting and drawing tools let you select and paint with a single color, the Gradient tool lets you paint with a veritable rainbow of colors. The Gradient tool comes packaged with several sets of predesigned gradients-including color, transparent, and neutral density options-or you can create and save your own customized gradient sets. The process of creating a gradient is simple; you select a gradient along with a specific type (Linear, Radial, etc.), and then drag in the document window. The length and angle of the drag determines how the gradient is applied. Since gradients, by default, overwrite image pixels, it's a good idea to create gradients in separate layers.


## For Your Information

## Adding Predefined Gradients

To add a predefined gradient, you must first select the Gradient tool. Click the Gradient Picker button, located on the Options bar, to use one of the available gradient sets. Choose to append the new gradients to the existing list, or click OK to replace the existing gradients with the new ones.

## Creating and Saving Customized Gradients

## Create and Save a Customized Gradient

1) Select the Gradient tool on the toolbox.

2 Click the thumbnail of the active gradient on the Options bar to open the Gradient dialog box.
(3) Select a gradient from the available options that is close to what you want to create.

- The preset gradients include Foreground to Transparent, Chrome, Spectrum, Transparent Rainbow, Transparent Stripes, and Neutral Density.
(4) Enter a name for the new gradient.

5 Click New.
A thumbnail (copy of the selected gradient) appears at the bottom of the list.

6 Click the Gradient Type list arrow, and then select one of the following:

- Solid. Uses solid colors for the gradient.
- Noise. Uses noise to distribute the colors.

Customized gradients are easy to create and essential when you just can't find what you want in Photoshop's predefined sets. It doesn't matter how many gradients Photoshop provides for you, there will always be that one instance where they just don't do the required job. With just a few clicks of your mouse, you can create your own customized gradients. You can start with one of Photoshop's gradients and modify it to your needs. You can also start completely from scratch; the choice is yours, and so are the rewards of creating that one-of-a-kind stunning gradient you can use for your current and future projects.


7 Click the Smoothness list arrow, and then select one of the following:

- Smoothness. A percentage value ( $0 \%$ to $100 \%$ ) that determines how smoothly the colors of the gradient blend together (available when the Solid option is selected).
- Roughness. A percentage value (0\% to 100\%) that determines how much noise to introduce into the gradient colors (available when the Noise option is selected).

8 To add Opacity Stops, click above the gradient line; to remove Opacity Stops, drag the stop away from the line.

9 To add Color Stops, click below the gradient line; to remove Color Stops, drag the stop away from the line.
10 Click on an Opacity Stop, and then enter an Opacity percentage ( $0 \%$ to $100 \%$ ), and a Location percentage ( $0 \%$ to $100 \%$ ) for the stop to place it on the line.
11 Click on a Color stop, and then select a color, and a Location percentage ( $0 \%$ to $100 \%$ ) for the stop to place it on the line.
12. Click Delete to delete the selected opacity or color stop.

13 Click Save to save the new gradient set.

The set will include the new gradients, and all the gradients that appear in the Presets panel.
(14) Click OK.


## For Your Information

## Creating a Customized Gradient

Gradients serve many purposes. They can be used to jazz up a shape drawn with Photoshop's drawing tools or they can be applied to an entire document and used as a background on a web page, brochure or newsletter. Whatever you use gradients for, remember that they are powerful image elements. Use gradients to attract attention to a document, but don't use them if they draw people's eyes away from the main elements of the image. It will be a small consolation to know that your fantastic marketing graphic attracted attention, but everyone was so focused on your special effects and gradients, they forgot to buy what you were selling. Remember, it's always about the message. An image is worth a thousand words...let the image tell its story.

## Using the Color Replacement Tool

## Use the Color Replacement Tool

(1) Select the Color Replacement tool on the toolbox.
(2) Select a Brush tip on the Options bar.
(3) Select from the available Sampling options:

- Continuous. Samples colors continuously as you drag.
- Once. Replaces the targeted color only where you click.
- Background Swatch. Erases areas matching the background.

4. Select from the available Limits options:

- Discontiguous. Replaces the sampled color under the pointer.
- Contiguous. Replaces connected areas containing the sampled color and preserves the sharpness of shape edges.
- Find edges. Limits painting of the replacement color within an object as defined by its edges.

5. Enter a Tolerance percentage value ( $0 \%$ to $255 \%$ ).
(6) Select the Anti-alias check box for a smoother edge on areas you correct.
(7) Select a foreground color to use to replace the unwanted color.
(8) Drag in the image over the color you want to replace.

The Color Replacement tool lets you replace a specific color in your image. For best results use soft brushes with this tool to help blend the colors into the original image. Have you ever captured that perfect picture of a family member or friend, only to find they have red eyes? Or maybe there's a part of your image where the color draws attention away from the focal point. Either way, the Color Replacement tool is a great feature that allows you to take control of the final image.


## Index

## A

absolute colorimetric rendering intent, 451
accented edges filter effect, 373
Acrobat 4 color system, 454
actions, 375-396. See also droplets
adding command to action, 382
buttons, converting to, 377
Conditional Mode Change command, 428
copying, 386
sets, copying between, 390
deleting command from action, 383
enhanced scripting of, 392-393
files, saving actions as, 389
modal controls, working with, 384
moving actions between sets, 390
multiple sources, calling actions from, 387
names for action sets, 390
new action, building, 378
non-recordable commands, inserting, 391
order of commands, changing, 385
pauses in, 384
play options, 394
playback of command, controlling, 381
recording actions, 379
running actions inside actions, 387
saving, 375
files, saving actions as, 389
sets, saving actions into, 388
sets
creating, 388
files, saving actions as, 389
moving and copying between, 390
names for, 390
speed of executing, 385
stop to action, adding, 380

Actions dialog box, 389
Actions panel, 375-377. See also actions; droplets
adaptive wide angle filter, 354-355
Add Layer Mask button, 253, 255
with type masks, 339
Add Layer Styles button, 255, 295, 310
Add New Layer button, 111
Add Noise filter, 158
Additional Plug-Ins Folder, 66
Additive RGB, 186
adjustment layers, 109
advantages of, 147
blending modes with, 154
composite layers, creating, 151
creating, 148
deleting, 153
file formats for, 148
filters on masks, 157
grouping, 152
HDR Toning, 216-217
Levels adjustment for, 178-179
linking layers in, 121, 151
masks with, 156-157
merging, 150-151
modifying, 149
opacity, working with, 154
pain on adjustment masks, 156
regular layer, converting to, 153
temporary composite images, creating, 151
Adobe (ACE) color management, 458
Adobe Acrobat Reader, 4
Adobe Bridge. See Bridge
Adobe Creative Suite, 1, 528
Bridge with, 13
Adobe Drive, 28, 30
Adobe Extension Manager, 528, 546

Adobe ExtendScript Toolkit 528, 547
Adobe Flash. See SWF files
Adobe Gamma utility, 446
Adobe Help Center, 4, 26-27
Adobe Illustrator. See Illustrator
Adobe Media Encoder, 528, 544-545
Adobe Ray Tracer, 516
Adobe Updater Preferences dialog box, 4, 24-25
Airbrush, 173, 227, 231
align layers, Auto, 122-123
alpha channels
different file formats, saving as, 411
saving, 28
altitude values for Bevel and Emboss style, 299
anchor points. See also paths
with Magnetic Lasso tool, 83
Android, 544-545
angle values
for Bevel and Emboss style, 299
for Drop Shadow style, 296
with Smart Sharpen filter, 168
animations, work with, 506-507
animated GIFs creating, 504-505
annotations. See notes
anti-aliasing
for Bevel and Emboss style, 300
Character panel selections, 321
Column Marquee tools and, 80
with Custom Shapes tool, 237
for Drop Shadow style, 297
for Inner Glow style, 309
with Line tool, 235
and Magic Eraser tool, 246
multi-page PDFs to PSDs, converting, 431
for Outer Glow style, 307
with Paint Bucket tool, 243
for paths with fill, 288
setting options for, 323
with Type tool, 317, 319
Apple Computers. See also Macintosh
Apple Devices
Media Encoder for, 544-545
Application frame, 72-73
Arc and Arch styles of warped text, 324
arrange multiple documents, 42
arrowheads with Line tool, 235
Art History brush, 133, 144
artistic filters, 342
for layer mask borders, 257
Asian text options, 70
Auto-Align, 122-123
Auto-Blend, 122-123
Auto Color command, 203
Auto Contrast and Color command, 203
Auto Contrast command, 203
Auto Erase, 234
Auto Save, 28-29, 56-57
Auto Tone command, 202
Auto levels command, 204
Automate commands, 425-444

## B

Background Eraser tool, 244-245
backgrounds, 109, 222-223
converting into layers, 116-117
default and switching of colors, 223
Foreground and Background colors, 222-223
Merge Visible option, 117
multi-layered documents into backgrounds, converting, 117
Screen Mode determining, 37
Barrel distortion, 162-163
baseline shift, 315
Character panel selections, 321
batch commands with Bridge, 442-443
Batch File Processing, 426-427
BBEdit, 392
Bevel and Emboss style
contours, working with, 299-300
with layer masks, 255
Texture option for, 300-301
with type masks, 336-337
working with, 298-299
Bicubic Sharper method, 54
Bird's Eye view, 38-39
bit depth, 182
bitmap color modes, 185, 189
bitmapped fonts, 319
black and white. See also Grayscale color mode
Threshold adjustment for, 215

Black \& White adjustment, 219
Black Point Compensation
for converting color space, 459
for soft-proof colors, 448
blade curvature with Lens Blur filter option, 361
blend modes, 09
with adjustment layers, 154
Color Overlay style with, 302
for Drop Shadow style, 296
Fill blending mode, 201
with filter effects, 363
for Inner Shadow style, 308
with layer masks, 257
with layers, 124
for Outer Glow style, 306
with Pattern Overlays, 304
for Stroke layer style, 303
blend layers, Auto, 122-123
bloating with Liquify, 346
Blur filters. See also Lens Blur filter
Box Blur filter, 164
channel masks, softening effects of, 267
Field blur filter, 358-359
Gallery, 358-359
Iris blur filter, 358-359
in Quick Mask Mode, 271
Shape Blur filter, 164-165
Surface Blur filter, 164-165
Tilt-Shift blur filter, 358-359
Blur tool, 170
BMP files, 409
layers exported as, 130
borders
Auto Color command with, 203
channel mask borders, moving, 268
layer mask borders, creating, 257
paths, creating shapes as, 290
boundaries, proportional transform, 96
bounding boxes, 257
clipping paths and, 286
in Print dialog box with preview, 398-399
Box Blur filter, 164
Bridge, 1, 4
adjustments, images, 540
automating, tasks, 542
camera raw, 532-535
closing documents and opening, 31
exploring, 529
images, working with, 536-537
Mini Bridge, 543
opening files with, 16
photos, getting, 531
preferences, 538-539
starting, 530
with Adobe Creative Suite 2, 13, 455
Web Photo Gallery, 541
brightness. See also HSB (hue, saturation, brightness)
with Lens Blur filter, 361
Brightness/Contrast adjustment, 181, 206-207
Bristle brush tip
adjusting, 228
Brush font, 306
Brush Pose, 224, 227
brush strokes filters, 342
in Quick Mask Mode, 271
brush tips, 226
cursor options, 60
customized brush tips, creating, 229
saving, 230
brushes, 221. See also specific tools with Color Replacement tool, 250
Liquify tool option, 348
in Quick Mask Mode, 270
with Vanishing Point tool, 160
Brush Options menu, 230
Brush panel, 224
Bristle brush tip, adjusting, 228
Brush tip, adjusting, 227
pre-defined sets in, 226
Brush Presets panel, 224
modifying, 225
built-in scripts, 393
Build-up, brush, 224, 227
Bulge style of warped text, 324
Burn tool, 173

## C

cache preferences, 53
setting levels, 68
calibrating colors. See color management
calligraphy lettering, Pencil tool for, 233
Camera Data 1 and 2, 412

## Camera Raw

dialog box, 18-19, 532-535
introduction, plug-in, 528
preferences in Bridge, 532
preferences in Photoshop, 57
canvas size, 22-23
center justification, 319
chain button with layer masks, 253
channel masks, 251. See also Quick Mask Mode
combining, 269
deleting, 266-267
filter effects, controlling, 368-369
Gaussian Blur filter with, 267, 269
loading, 266-267
modifying options, 262
moving masks between documents, 268
from native color channels, 264-265
pre-existing channels, options, 262
saving, 266-267
from scratch, 261
from selections, 263
showing/hiding, 261
softening effects of, 267
working with, 260
Channel Mixer adjustment, 211
channels, 181. See also channel masks
Channel Mixer adjustment, 211
8 -bit channels, 182-183
Spot color channels, 202
Channels panel. See also channel masks selections, creating, 94
working with, 184
Character panel, 72-73, 315
showing/hiding, 319
Character panel working with, 320-321
Character Styles panel creating styles, 326-327
Chisel Hard Technique for bevel, 298
chiseled text
creating, 308
with type mask, 336-337
choke value for Inner Glow style, 309
chromatic aberration, 162
Cineon files, 409
circles with Standard Shape tool, 236
clipart for Web, preparing, 416-417
clipboard
with Pattern Maker filter, 364
preferences for, 55
clipping. See also paths
masks, creating, 111
Clone Stamp tool, 171, 501
Clone Source panel, 172, 174, 176, 501
closing documents, 31
CMYK (cyan, magenta, yellow, black) color, 13, 47, 185. See also color management; out-of-gamut
Color Slider, 196
converting images to, 187
Multi-Channel color mode, converting images to, 194
patterns, generation of, 365
press, preparing images for, 420-421
RGB (red, green, blue) color and, 185, 450
soft-proof colors, setting up, 448-449
Spectrums or Ramps, 197
Color Balance command, 181, 206-207
Color Dynamics, 224, 227
color handling, printing, 402-403
Color Intensity with Match Color adjustment, 220
color lookup table (CLUT), 190-191
color management, 445-463. See also ICC Profile; out-of-gamut; rendering intent
assigning profiles to document, 457
converting color space to profile, 458-459
defaults, 454-455
hardware, calibrating with, 447
monitors, calibrating, 446
Print dialog, options, 402-403, 452-453
RGB to CMYK, changing from, 450
soft-proof colors, setting up, 448-449
software, calibrating with, 447
working with, 454-455
Color Management, printing, 402-403
color markers, creating, 46
color modes, 13, 185
bitmap color modes, 189
changing, 185
Replace Color command, 195
selecting, 13
Color Overlay, 293
applying, 302

Color panel, 196-197
for PNG-8 documents, 476
Color Picker
selecting colors from, 65
text color, changing, 317
Color Replacement tool, 250
color sliders, 196
preferences for, 55
Color Sampler Tool, 46, 223
Color Swatch button, 319
colors, 181. See also channels; CMYK (cyan, magenta, yellow, black) color; color management; Info panel; RGB (red, green, blue) color; spot colors; tonal values; unified color table
Auto Color command, 203
Auto Contrast command, 203
Auto levels command, 204
Background colors, 222-223
Background Eraser tool, 244-245 of brush tips, 229
Black \& White adjustment, 219
Channel Mixer adjustment, 211
clipart for Web, preparing, 416
Color Balance adjustment, 206-207
Color Replacement tool, 250
Curves adjustment, 206
deleting on Swatches panel, 198
Desaturate command, 208
for Drop Shadow style, 296
Equalize command, 214
Eraser tools with, 244-245
Exposure adjustment, 205
fill colors, changing, 332
Fill command, 200-201
Foreground colors, 222-223
for GIF documents, 474
Gradient Map adjustment, 212
Grid options, 64-65
Guides option, 64-65
for Inner Glow style, 308
Invert command for, 214
levels adjustment, 204
Macintosh, printing in, 404-405
Match Color adjustment, 220
Navigator panel view box color, 36
of notes, 45
for Outer Glow style, 306

Photo Filter option, 213, 362
for PNG-8 documents, 476
Posterize adjustment for, 215
in Quick Mask Mode, 271
Replace Color command, 195
selection by color range, 87
Selective Color adjustment, 210
skin tones, detect faces, 87
Slice option, 64-65
Stroke command, 200
Swatches panel, 198-199
text color, changing, 317
for transparency grid, 61
ColorSync, 446, 458
workflow, setting, 454
color settings, 454
with Creative Suite, 455
columns and rows
ruler options, 63
Single Row/Column Marquee tools, 80
combine layers, Auto, 122-123
combining channel masks, 269
commands. See also specific commands
enhanced scripting of, 392-393
compression. See file compression
comps, layer, 129
concavity with Line tool, 235
Conditional Mode Change command, 428
Contact Sheet, creating, 434-435
Content-Aware fill, 102-103
with Patch tool, 104
Content-Aware move and extend, 105
Content-Aware Move tool, 10, 105
Content-Aware scaling, 101
contours
for Bevel and Emboss style, 299
for Outer Glow style, 307
working with, 300
Convert Point tool, 285
Convert To Mask button, 260
Convert To Profile command, 458
copies
different file formats, save as, 411
file copies, saving, 28
printing, 398, 404, 406
copying. See also actions; layers
do not copy watermarks, 371

## copying (continued)

History states, 134, 139
selection, 93, 128
with Vanishing Point tool, 160-161
copyrights, watermarks protecting, 341, 370-371, 412-413
contours
for Drop Shadow style, 297
for Inner Glow style, 309
Count tool
counting, 512-513
preferences, 64-65
crawling marquee, 274
Create New Action button, Actions panel, 376-377, 378
Create New Channel button, 260
Create New Layer button, 257
duplicating layers with, 126
Create New Set button, Actions panel, 377
Create Plane tool, 160
Crop and Straighten Photos command, 425, 429
Crop command, 425
crop marks, printing, 400
cropping selections, 98-100
Crop Tool, 98-99
cursors
painting cursor options, 60
preferences, 60
Curves adjustment, 181, 206
with channel masks, 265
custom preset document, creating, 12
Custom Shapes tool, 237-242
creating custom shapes, 241
saving shape sets, 242
customizing, 51. See also layer styles
brush tips, 229
color settings, 454-455
Swatches panels, 199
user interface, 74-75
workspace, 72-73
cutout filter effect, 372

## D

data driven graphics, 490
DCS files, 409
press, preparing images for, 420-421
defaults for panels, 7-9
Delete button, Actions panel, 377
deleting. See also layers
actions, commands from, 383
adjustment layers, 153
anchor points in paths, 280-281
with Bridge, 536-537
channel masks, 266-267
customized workspace, 72-73
linked layers, 127
notes, 45
panels, 7-9
pixels, 44
presets, items in, 71
ruler guides, 49
Swatches panel, colors on, 198
text, 317
density option, 405, 372
depth values
for Bevel and Emboss style, 298
Lens Blur filter option, 361
for texture, 301
Desaturate command, 208
Despeckle filter, 166
destination for droplets, 395
DICOM files, 409
Difference Blending Mode, 154
diffuse glow filter effect, 373
digital cameras
calibrating, 447
importing raw data from, 18-19
noise from, 159
digital watermarks, embedding, 341, 370371
Direct Selection tool, 283
curve of segment line, changing, 285
type path, reshaping, 340
direction for Bevel and Emboss style, 298
Display preferences. See also interface
distance values
for Drop Shadow style, 297
Lens Blur filter option, 361
distortion, 342
with Free Transform command, 96
for layer mask borders, 257
Lens Correction filter and, 162-163
in Quick Mask Mode, 271
Transform command selection, 97
distribution option with Add Noise filter, 158
dithering
clipart for Web, preparing, 416
for GIF documents, 475
for gradients, 247
for Indexed color mode, 190
for PNG-8 documents, 477
for WBMP documents, 451
DNG files
information on, 535
raw images saved as, 18-19, 532-535
do not copy watermarks, 371
Dock, painting engine in, 224
docking, 6
document windows, 42
document dimensions, 30
document window, 6
moving images in, 41
Vanishing point tool, working with, 160161
documents. See also layers; new documents
all documents, closing, 31
backgrounds, converting multi-layered documents into, 117
closing, 31
custom preset document, creating, 12
dragging layer thumbnails into documents, 44
inserting, images, 17
file information into, 412-413
New Document Preset Resolutions, 62-63
multiple, arrange, 42
organizing documents, 411
profiles, 30
saving, 28-29
sizes, 30
Dodge tool, 173
downloading
DNG converters, 19
layer styles, 312
patches, 24-25
updates, 24-25
dragging layer thumbnails into documents, 44
drawing tablets, 126
Drawing tool, 221

Drop Shadow, 294
creating, 296-297
with layer masks, 255
modifying, 296-297
droplets, 375
creating, 394-395
naming options, 395
using, 396
dry brush filter effect, 372
DSC 2.0 color plates, 202
Dual Brush, 224, 227
Duotone color mode, 185
converting images to, 193
duplicating. See copying
Dust and Scratches filter, 158
dynamic range, 182-183. See also High Dynamic Range (HDR) images

## E

East Asian
language options, 317
Edit Plane tool, 278
editing
animated GIFs, 481
inserted documents, 17
nondestructively, 21
selections, 92
8-bit channels, 182-183
Exposure adjustment with, 205
ellipses
for layer mask borders, 257
with Standard Shape tool, 236
Elliptical Marquee tool, 79
Embed Color Profile, Macintosh, 411
embedding
ICC color profiles, 456
proof profile information, 29
Emboss style. See Bevel and Emboss style
emulating color systems, 454
encoding images for press, 421
EPS files, 409
inserting images in, 17
metadata information, adding, 413
text saved as, 325
Equalize command, 214
Eraser tools, 221, 244-245
Background Eraser tool, 244-245

## Eraser tools (continued)

basic Eraser tool, 244
with Foreground and Background colors, 222
to History brush, 145
Magic Eraser tool, 246
exact colors for Indexed color mode, 190
Exclusion Blending Mode, 154
EXIF profile tag, ignoring, 57
exiting Photoshop, 32
Export Layers To Files command, 130
exporting. See importing and exporting exposure
controlling, 30
Exposure adjustment, 205
Extension Manager, 546
Extract, 341
eyedroppers, 87
for Background colors, 222-223
for Foreground colors, 222-223
with Save For Web command, 468
with Vanishing Point tool, 161

## F

F-Stop information, 412
fades, 341
with Match Color adjustment, 220
with Smart Sharpen filter, 169
working with, 366
Feather option
with layer masks, 256
for out-of-gamut colors, 461
Field blur filter, 358-359
File Compatibility options, 28-29, 57
file compression
lossy/lossless compression, 414-415
understanding, 414-415
file extensions
for droplets, 395
lowercase, saving as, 29
file formats. See also specific types
different file formats, saving documents with, 410-411
list of, 409
understanding types of, 409
File Handling preferences, 51, 56-57
files. See also droplets; importing
and exporting
3D, 516-526
actions as files, saving, 389
File Handling preferences, 56-57
Fill command, 200-201
Content-Aware fill, 102-103
for paths, 273
with paths, 288
fills
colors, changing, 332
Layers panel option, 108
with Paint Bucket tool, 243
for Stroke layer style, 303
Filter Controls, Image Gallery dialog box, 342
Filter Gallery, 342-343
multiple filters, applying, 345
Filter Selection, Image Gallery dialog box, 342
filter layers, 108, 118, 119
filters, 341-374. See also specific types
on adjustment layer masks, 157
Blur Gallery, 358-359
categories of, 342
channel masks controlling effects, 368-369
Fade command with, 366
gradient masks with, 368-369
for layer mask borders, 257
Lens Correction filter, 162-163
Lighting Effects filter, 357
multiple filters, applying, 345
Oil Paint filter, 356
order for applying, 345
Photo Filters, 213, 362
in Quick Mask Mode, 271
selections, controlling filters with, 367
shortcut for reapplying, 343
various filter effects, 372-374
watermarks, embedding, 341, 370-371
adaptive wide angle filter, 354-355
Find and Replace, 315, 329
with Bridge, 536-537
Find Edges filter, 366
FireWire, Scratch Disks with, 53
Fish style of warped text, 324
Fisheye style of warped text, 324
Fit Image command, 444

Fixed Aspect Ratio
with Elliptical Marquee tool, 79
with Rectangular Marquee tool, 78
Flag style of warped text, 324
Flash. See SWF files
flow
for Airbrush tool, 231
for Paintbrush tool, 231
fonts
Character panel selections, 320-321
missing fonts, replacing, 317
neon effects for, 306
of notes, 45
preferences, 54
preview size on menu, changing, 318
types of, 319
Type preferences for, 70
Type tool, working with, 318
foregrounds, 222-223
default and switching of, 223
with Paint Bucket tool, 243
freeform bounding box, 17
Free Transform command, 96
Freeform Pen tool, 278-279
FreeHand, moving shapes to, 241
freezing with Liquify, 347
fresco filter effect, 372
Full Screen Mode, 37
Fuzziness slider, 87

## G

gamut. See also out-of-gamut preferences, 61
Gamut Warning, 187, 398, 464 mask, 61
Gaussian Blur filter, 166 on adjustment masks, 157
with channel masks, 267, 269
with layer masks, 256, 257
Smart Sharpen filter with, 168
General preferences, setting, 54-55
geometry
with Custom Shapes tool, 237
with Line tool, 235
paths, complexity of, 278
with Standard Shape tool, 236
GIF files, 397, 470. See also animated GIFs
creating, 504-505
clipart for Web, preparing, 416-417
compression of, 414-415
metadata information, adding, 413
opening images, 16
optimizing GIF documents, 474-475
Save For Web command with, 466
saving documents as, 28
for Web images, 465
glass filter effect, 373
Global Light option
for Bevel and Emboss style, 299
with Drop Shadow style, 296
Gloss Contours for Bevel and Emboss style, 299
glowing edges filter effect, 373
Gradient Map adjustment, 212
Gradient Overlay, 293
Gradient tool, 11
gradients, 221
creating, 247
customized gradients, 248-249
with filters, 368-369
for Inner Glow style, 309
for Outer Glow style, 307
pre-defined gradients, adding, 247
with Stroke layer style, 303
grain filter effect, 374
graphic pen filter effect, 374
gray. See also Grayscale color mode
with layer masks, 252, 254
Grayscale color mode, 13, 185
Channel Mixer adjustment with, 211
Color Slider, 196
converting images to, 188
Duotone color mode and, 193
patterns, generation of, 365
Spectrums or Ramps, 197
working with, 188
grid size, 64-65
transparency grid size, 61
groups
adjustment layers, grouping, 152
nested layer group, creating, 113
Guides, Grids \& Slices options, 64-65
guides
ruler guides, 48-49
custom, 45 degree angles, 80

## H

## H.264, 544-545

halftone screens for press images, 421
Hand tool
with Lens Correction filter, 162
with Liquify, 347
monitor, fitting image to, 40
moving images, document window, 41
with Save For Web command, 468
with Vanishing Point tool, 161
Hard Mix Blending Mode, 154
hard proofs, printing, 402-403, 452-453
hardware color calibration, 447
HDV Anamorphic Pixel Aspect Ratio, 15
Healing Brush tool, 174
with Reduce Noise filter, 159, 174
height values
Fit Image command, 444
with Pattern Maker filter, 365
print size option, 399
Help menu
updates, checking for, 25
using, 26-27
hiding. See showing/hiding
High Dynamic Range (HDR) images, 182-183, 216-217
Exposure adjustment with, 205
Merge images to, 440-441
Merge image to, in Bridge, 437
highlights
for Bevel and Emboss style, 299
with Dodge and Burn tools, 173
Shadow/Highlight adjustment, 218
tonal range, controlling, 178-179
Histogram panel, 180
for levels, 179
History brush, 133
combining with History states, 142
correcting mistakes with, 142
Eraser tool to, 145
layers with, 145
snapshots, working with, 143
History panel, 133-145. See also snapshots
linear history, 133, 136
resetting to, 146
multiple undo commands, 134
non-linear state of, 133, 136-137
purging RAM, 146
saving RAM, 139
setting options in, 134-135
History states, 52, 68
controlling, 146
duplicating, 134, 139
History brush combined with, 142
number, setting, 134
purging, 137, 146
reviewing text file, 141
saving, 140
Horizontal Type Mask tool, 333
Hot keys. See shortcut keys
HSB (hue, saturation, brightness)
Brightness/Contrast adjustment, 181, 206
Color Slider, 196
Hue/Saturation adjustment, 208
opacity of, 154
Replace Color command and, 195
HTML (Hypertext Markup Language) files generating, 471
hue. See HSB (hue, saturation, brightness)
Hue/Saturation adjustment, 208
for out-of-gamut colors, 460-461
hyphenation
Character panel selections, 321
Paragraph panel selections, 322
I
ICC Profile
embedding ICC color profiles, 456
information, embedding, 29
for JPEG images, 473
Windows, 411
Illustrator, 224
inserting images in, 17
paths, exporting, 273, 291-292
Pen tools in, 277
scripts, using, 392-393
shapes to Illustrator, moving, 241
image cache, 51
preferences, 53
image compression, 397
Image Gallery dialog box, 342
Image menu, Adjustments option, 147
Image Preview, Image Gallery dialog box, 342

## Image Processor, 442-443

image pyramid, saving, 423
images, with bit depth ( 8,30 , and 32 ), 182-183
importing and exporting. See also paths; SWF files
digital camera, raw data from, 18-19
layers to files, exporting, 130
shapes to vector, exporting, 241
video, 508-509
Zoomify, 492
inches as measurement system, 33
Include All Subfolders command, 394
indents
Paragraph panel selections, 322
with Standard Shape tool, 236
InDesign, 70
adjustment layers, opening, 148
clipping paths in, 273
EPS documents, type information in, 325
indexed color mode, 185
converting image to, 190-191
Inflate style of warped text, 324
Info panel, 46
changing measurement of colors in, 47
color markers, creating, 46
displaying information in, 47
specific size object, creating, 46
ink density. See density
inkjet printers
getting the best results for, 422-423
resolution, understanding, 424
Inner Glow style, 308-309
Inner Shadow style, 306-307
Insert Menu command with actions, 391
inserting images in documents, 17
installing Photoshop, 2-3
intellectual property, protecting, 341, 370-371
interface
preferences, 58-59
interlacing
for GIF images, 475
for PNG-8 documents, 477
for PNG-24 documents, 478
Internet. See also Web design; Web images; Web sites
help on, 26-27
saving files for, 28
updates, checking for, 24
interpolation, 22-23, 54, 274
press, images for, 421
inverting
command, 214
Lens Blur filter option, 361
textures, 301
IPTC Contract, 412
Iris blur filter, 358-359
J
jitter
for Inner Glow style, 309
Liquify tool option, 348
for Outer Glow style, 307
JPEG files, 397, 409, 470
compression of, 414-415
JPEG 2000 format,409, 419
JPEG Stereo, 409
layers exported as, 130
metadata information, adding, 413
opening images, 16
optimizing JPEG documents, 472-473
photographs for Web, preparing, 418-419
printers, preparing images for, 423
raw images saved as, 18
Save For Web command with, 466, 470
saving documents as, 28
transparency, support for, 61
for Web images, 465
justification
Paragraph panel selections, 322
of text, 317, 319

## K

kerning, 320
keyboard. See also shortcut keys paths, moving, 282
Kuler panel, 66

L
Lab color mode, 13, 185
Color Slider, 196
converting image to, 192
patterns, generation of, 365
landscape orientation, 398-399
language options, 317
large files, saving, 22,57
laser printers, preparing images for, 422-423
Lasso Marquee tool, 81
Lasso tools. See also specific tools
Lasso Marquee tool, 81
for layer mask borders, 257
Magnetic Lasso tool, 82-83
Polygonal Lasso tool, 81-84
launching Photoshop, 4-5
Layer Comps panel, 129
layer filters, 108, 118, 119
layer masks, 108, 251
borders, creating, 257
creating, 253
modify, 259
Paint tools with, 254
role of, 252
selections generating, 255
soft transparency, generating, 256
type masks, combining with, 338-339
as white, 254
layer shapes, 236, 238-240
Layer Style dialog box, 295
customized styles with, 310-311
layer styles, 293-314. See also specific styles
adding, 295
combining layer style elements, 310
customized styles
with Layer Style dialog box, 310-311
with Styles panel, 312-313
to masked images, 255
modifying existing layer style, 295
moving existing layer styles, 314
names for, 311, 313
saving customized styles, 312
sharing, 313
showing/hiding, 295
single layer styles, moving, 314
understanding, 294
layers, 107-131. See also adjustment layers; backgrounds; layer masks; layer styles; linked layers; opacity; Type tool
active document, adding layers to, 110
blending modes, 124
comps, creating, 129
copying, 93, 126
elements in layers, 115
deleting, 108, 127
linked layers, 127
designation of, 109
different file formats, saving documents as, 411
dragging layer thumbnails into documents, 44
Eraser tools with layered documents, 244
exporting as files, 130
filters, 108, 118, 119
History brush, multiple layers with, 145
locking, 118
Magic Eraser tool with, 246
Merge options with, 120
moving, 110
documents, layers between, 44, 128
names for, 118
nested layer group, creating, 113
new layers, creating, 110-111
opacity, 125
pasting, 93
properties, changing, 118
saving, 28
selecting layer options, 111
selecting methods, 112
selections from layers, creating, 114-115
showing/hiding, 118
Smart Objects, converting, 21
stacking order, changing, 118
two open documents, moving layers between, 44
updating layer comps, 129
Layers panel, 108. See also layers
controlling image information with, 118
setting options, 131
thumbnail size, changing, 131
tonal range, controlling, 178-179
leading Character panel selection, 321
left justification, 319
length with Line tool, 235
Lens Blur filter
brightness with, 161, 361
Smart Sharpen filter with, 168
working with, 360-361
Lens Correction
automation, 438-439
filter, 162-163
Levels adjustment, 178-179
for actions, 380
with channel masks, 265
with type masks, 335
working with, 204
libraries, Preset Manager for, 71
Lighting Effects filter, 357
Line tool, 235
45 and 90 degree angles, 235
linear history. See History panel
lines. See straight lines
Link Layers option, Layers panel option, 108
linked layers, 118
with composite adjustment layers, 151
creating, 118, 121
deleting, 127
with Pattern Overlays, 305
textures, linking, 301
unlinking, 121
Liquify, 341
mask options, 350
meshes
applying, 353
creating, 352
modifying loaded meshes, 353
Show Mesh option, 351, 352
modifying images with, 346
options, working with, 348-349
saving meshes, 353
Show Mesh option, 351, 352
view options, 351
Load Mesh button, 352
loading
channel masks, 266-267
meshes, 352
localized color cluster, 87, 195
locking layers, 118
Layers panel option, 108
locking ruler guides, 49
lossless compression, 414-415
printers, preparing images for, 422-423
lossy compression, 414-415
for GIF images, 475
luminosity
with Match Color adjustment, 220
Photo Filter option, 362
LZW files
compression of, 415
printers, preparing images for, 423

## M

Macintosh
color calibrator in, 446
Embed Color Profile option, 411
Print Settings in, 404-405, 407
printers, preparing images for, 423
printing documents in, 404-405
Magic Eraser tool, 246
Magic Wand tool, 86
channel masks, creating, 263
Magnetic Lasso tool, 82-83
with paths, 279
Make Work Path button, 275
marching ant marquee, 272
margins
in Macintosh Page Print Settings, 407
Paragraph panel selections, 322
in Windows, 407
Marquee tools, 77. See also Elliptical Marquee tool; Rectangular Marquee tool
Lasso Marquee tool, 81
Single Row/Column Marquee tools, 80
type masks, creating, 333
with Vanishing Point tool, 160
masks, 108. See also channel masks; layer masks; Quick Mask Mode; selections; Type tool
with adjustment layers, 156-157
clipping masks, creating, 111
Liquify mask options, 350
Standard Mask Mode, 270
Match color adjustments, 181, 220
modify, 259
vector masks, 252, 258, 259
Mask Edge button, 256
match prints, printing, 452-453
matte option
clipart for Web, preparing, 416
for GIF documents, 475
for indexed color mode, 190
matte option (continued)
for JPEG images, 473
photographs for Web, preparing, 418
for PNG-8 documents, 477
for PNG-24 documents, 478
for Web design, 467
maximize compatibility, saving, 28-29, 57
measurements
Rulers, 48-49
system for, 33
Measurement Log panel
counting, 512-513
taking measurements, 514-515
memory. See also RAM (random access memory)
100\% Memory Usage option, 69
preferences, setting, 68-69
Memory \& Image Cache preferences, 68-69
menus
color preferences for, 55
customizing, 74-75
original settings, restoring, 74
Merge Down option, 120
Merge Image to HDR Pro, 216-217, 437, 440-441
Merge Visible option, 117, 120
merging. See also adjustment layers
Merge Down option, 120
Merge Visible option, 117, 120
Photomerge, 436-437
meshes. See Liquify
metadata, 13
adding to files, 412-413
with Bridge, 536-537
matte option
for GIF images, 475
for JPEG images, 473
for PNG-8 documents, 477
for PNG- 24 documents, 478
metadata, 537
Microsoft ICM color management, 458
midtones
with Dodge and Burn tools, 173
Shadow/Highlight adjustment for, 218
tonal range, controlling, 178-179
Mini Bridge, 543
mirroring with Liquify, 347
missing fonts, replacing, 317
Mixer Brush tool, 232
mode
for Airbrush tool, 231
color, 13, 185
Conditional Mode Change command, 428
with Custom Shapes tool, 237
for gradients, 247
with Line tool, 235
for Paint Bucket tool, 243
for Paintbrush tool, 231
for Pencil tool, 233
monitors. See also color management automatically fitting image to, 40
calibrating, 447
resolution, understanding, 424
selecting areas for, 78
soft-proof colors, setting up, 448-449
monochromatic option
with Add Noise filter, 158
with Lens Blur filter, 361
mosaic tiles filter effect, 374
Motion Blur filter
Add Noise filter with, 158
Smart Sharpen filter with, 168
mouse movements in actions, 391
Move Grid tool, 162
Move tool, 11
with Vanishing Point tool, 160
moving. See also layers; paths
adjustment layers, 149
anchor points in paths, 280
with Bridge, 536-537
channel masks between documents, 268
Document window, moving images in, 41
layer styles, 314
with Vanishing Point tool, 160-161
Multi-Channel color mode, 185, 194
multi-layered documents into backgrounds, converting, 117
Multi-Picutre Format files, 409
Multiply blending mode
with layers, 124, 154
with Pattern Overlays, 304

## N

names. See also renaming
for action sets, 390
for custom preset document, 12
of data driven graphics, 508
droplets, naming options for, 395
for gradients, 248
for layer styles, 311, 313
for layers, 118
native color channels, channel masks from, 264-265
native formats, 474
Navigator panel. See also zooming
area of view, changing, 35
color of view box, changing, 36
shortcuts, 34
size of view, changing, 34
thumbnails, sizing and zooming, 35-36
Nearest Neighbor method, 54
neon effects, 306
nested layer group, creating, 113
New Document Preset Resolutions, 62-63
new documents
creating, 12
preset resolutions, 62-63
with presets, 14
New Layer dialog box, 111
New Layer Effect button, 345
noise
Add Noise filter, 158
with brush tips, 227
for Drop Shadow style, 297
for Inner Glow style, 308
for Outer Glow style, 306
Reduce Noise filter, 159
nondestructive editing, 21
non-linear state of History panel, 133, 136-137
non-squared pixels, 15
note paper filter effect, 373
notes, 45
different file formats, save as, 411
saving, 28, 45

## 0

offset with Pattern Maker filter, 365
Oil Paint filter, 356
on-image controls, 219
onion skinning, 506-507
opacity, 61
with adjustment layers, 154-155
for Airbrush tool, 231
with Art History brush, 144
for Bevel and Emboss style, 299
for Color Overlay style, 302
with Custom Shapes tool, 237
for Drop Shadow style, 296
of gradients, 249
for Inner Glow style, 308
Layers panel option, 108
Liquify view option, 351
for Outer Glow style, 306
for Paintbrush tool, 231
with Pattern Overlays, 304
for Pencil tool, 233
setting, 111, 125
for Stroke layer style, 303
OpenEXR files, 409
OpenGL, 3, 38, 40, 68-69, 516
OpenType font
changing font attributes, 321
defining, 318-319
opening images, 16
Optimize To File Size option, 469
optimizing
image to file size, 469
Photoshop, 52-53
Options bar, 6, 11
organizing documents, 411
outline font, 319
output options, printing, 398-401
out-of-gamut, 61, 187
command, test, 464
Hue/Saturation Adjustment for, 460-461
Sponge tool, working with, 462-463
Out of Scratch Disk Space error, 53
Outer Glow style, 294
working with, 306-307
output options, setting
setting, 486-487
saving, 486-487
Overlay blending mode with Pattern Overlays, 304
Override Action "Open" commands, 394

## P

Page Setup, in Print Settings, 407
Paint Brush tool, 77
Paint Bucket tool, 11, 243
Paint tools, 10, 221
with layer masks, 254
Paintbrush, 231
with layer masks, 254
as Stroke tool, 289
painting. See also gradients
adjustment layers, opening, 148
on adjustment masks, 156
cursor options, 60
painting engine. See Brush panel
panel knife filter effect, 372
panels, 6. See also specific types
adding panels, 7-9
customizing, 72-73
preferences for, 55
showing/hiding, 7-9, 37
subtracting panels, 7-9
working with, 7-9
workspaces, 72-73
panoramic photographs
correcting with Adaptive Wide Angle Filter, 454-455
creating, in Photoshop, 436-437
creating, in Bridge, 437
Pantone Color Matching System, 445
paper options, 407, 405
Paragraph panel, 72-73
showing/hiding, 319
working with, 321, 322
Paragraph Styles panel
creating styles, 326-327
Paste, preferences for resizing, 55
pasting, selection, 93, 128
Paste in Place, Paste Into, 93, 128
Patch tool, 174-175
with Content-Aware Fill, 104
with Reduce Noise filter, 159
patches, checking for, 24-25
Path Selection tool, 282
type path, reshaping, 340
paths, 292. See also Type tool
anchor points
adding, 280
converting, curved to straight points, straight to curved points, 285
deleting, 280-281
direction lines, modifying, 284
with Magnetic option of Freeform Pen tool, 279
modifying, 282
moving, 280
clipping paths, 273
working with, 286-287
complexity of path, controlling, 278
curved to straight points, converting, 285
deleting anchor points, 280-281
direction lines, modifying, 284
Fill command with, 273, 288
Freeform Pen tool, 278-279
Magnetic option, using, 279
Illustrator, exporting paths to, 291-292
keyboard, moving path with, 282
Magnetic option of Freeform Pen tool, using, 279
moving
anchor points, 280
keyboard, moving path with, 282
PathsTo Illustrator command, exporting paths with, 292
Pen tools with, 273, 276-277
Save As, exporting paths with, 291
selections into paths, converting, 275
shapes as paths, creating, 290
straight to curved points, converting, 285
Stroke command with, 273, 289
Paths panel, 273
Paths To Illustrator command, 292
Pattern Maker, 341, 364-365
Pattern Overlays, 293
repositioning, 305
working with, 304-305
patterns
with Paint Bucket tool, 243
for Stroke layer style, 303
for texture, 301
pauses in actions, 384
PBM files, 409
PCX files, 409
PDAs (personal digital assistants), 186
RGB (red, green, blue) color with, 450
PDF files, 409, 425
creating, saving, 432-433
format, 433
inserting images in, 17
layers exported as, 130
metadata information, adding, 413
multi-page PDFs to PSDs, converting, 430-431
PSD file, converting to, 430-431
types of, 432
PDF presentations, 409, 425
creating, 432-433
PDF presets
creating, working, 433
Pen tools
in Illustrator, 277
with paths, 273, 276-277
Pencil tool, 233
Auto Erase and, 234
for calligraphy lettering, 233
perceptual rendering intent, 451
Performance, 52-53, 68-69, 516-517
Perspection web site, 11
Perspective Crop Tool, 100
perspective of Transform command selection, 97
Photo Filters, 213, 362
photographic manipulation, 171
photographic restoration, 158
photographs for Web, preparing, 418-419
Photomerge, 436-437
command, 425
Photoshop, 32-bit or 64-bit, 3, 5
Photoshop Extended
3D files, 516-526
Count tool, 64-65, 512-513
Enable 3D GPU, 69, 516-517
Measurement feature, 160, 512-515
picas as measurement system, 33
PICT files, 409
Pincushion distortion, 162-163
Pixar files, 409
Pixel Aspect Ratio Correction, 15
pixelization, 13
pixels, 13. See also adjustment layers; raster data
Add Noise filter, working with, 158 of data driven graphics, 508 of data sets, 491

Equalize command, 214
with Eraser tool, 222
excess pixels, deleting, 44
Histogram panel, information in, 180
image interpolation, 54
large files, saving, 22
Magic Eraser tool with, 246
as measurement system, 33
non-squared pixels, 15
resolution, understanding, 424
with RGB (red, green, blue) color, 450
Smart Sharpen filter, 168-169
Unsharp Mask filter, 167
Place command
inserting images in documents with, 17
preferences for resizing, 55
placeholder text, inserting, 317
plastic wrap filter effect, 374
Play button, Actions panel, 377
play options, 394
playback of command, controlling, 381
plug-ins, 66-67
organizing, 66
Plug-Ins and Scratch Disks preferences, 6667
PNG-8 files
information on, 415
optimizing PNG-8 documents, 476-477
saving for the Web, 466-467
PNG-24 files
information on, 415
optimizing PNG-24 documents, 478
saving for the Web, 466-467
PNG files, 409
clipart for Web, preparing, 416-417
compression of, 414-415
layers exported as, 130
metadata information, adding, 413
opening images, 16
photographs for Web, preparing, 418-419
Save For Web command with, 466-467, 470
saving documents as, 28
for Web images, 465
Polygonal Lasso tool, 81-84
polygons
Polygonal Lasso tool, 81-84
with Standard Shape tool, 236
portrait orientation, 398-399
position for Stroke layer style, 303
Posterize adjustment, 215
PostScript type size, 48, 70
precise cursor options, 60
preferences, 51
cursors preferences, 60
File Compatibility options, 28-29, 57
File Handling preferences, 56-57
gamut preferences, 61
General preferences, 54-55
Guides, Grid \& Slices preferences, 64-65
interface preferences, 58-59
Memory \& Image Cache preferences, 68-69
Performance, 52-53, 68-69, 516-517
plug-ins preferences, 66
scratch disks preferences, 67
3D preferences, 516-517
transparency preferences, 61
Type preferences, 70
Units \& Rulers preferences, 62-63
Preset Manager for libraries, 71 presets
new documents with, 14
Preset Manager, 71
saving items and, 71
tools, 50
press, preparing images for, 420-421
previewing
fonts, 70, 318-319
Lens Blur filter option, 361
non-squared pixels, 15
press, images for, 421
with Save For Web command, 468
transparency settings, 61
with Unsharp Mask filter, 167
Print One Copy command, 408
Print dialog box with preview, 398-401
printers. See also Windows
calibrating, 447
converting color space to another profile, 458
preparing images for, 422-423
printing
Gamut Warning, 398
hard proofs, 452-453
larger images, 408

Macintosh, documents in, 404-405
one copy of document, 408
output options, 398-401
Print dialog box with preview, 398-401
Show Paper White, 398
Windows, documents in, 404
problems, reporting, 25
progressive option
for JPEG images, 473
photographs for Web, preparing, 419
proof profile information, embedding, 29
Proof Setup, Windows, 411
Protect Texture option, 227
Protect Tones, 173, 462
PSB files, 409
opening images, 16
PSD files, 409
adjustment layers as, 148
creating, 432-433
as a presentation, 433
large files, saving, 22
layers exported as, 130
metadata information, adding, 413
multi-page PDFs to PSDs, converting, 430-431
opening images, 16
PDF files, converting, 430-431
preferences for saving, 57
raw images saved as, 18
puckering with Liquify, 346
Puppet Warp tool, 106
purging RAM, 137, 146
pushing left with Liquify, 346

## 0

QuarkXpress, 286
EPS documents, type information in, 325
Quick Mask Mode, 272, 270
filters in, 271
options, working with, 271
saving selections, 271
Quick Selection tool, 85

## R

Radiance files, 409
radius option, 164-165, 167-169, 236, 361

RAM (random access memory), 51. See also History panel; History states
adjusting options, 68-69
optimizing, 53
purging RAM, 137, 146
ramps, 197
range values
for Bevel and Emboss style, 300
for Inner Glow style, 309
for Outer Glow style, 307
raster data, 424. See also Layers panel
change and, 397
documents, 13
interpolation and, 274
saving, 410-411
Smart Objects with, 21
understanding raster images, 274
Rasterize Type command, 330
raw digital camera data, importing, 18-19
RAW files, 18-19, 409
large files, saving, 22
reconstructing with Liquify, 346, 349
Record button, Actions panel, 377
recording actions, 379
Rectangle tool for layer mask borders, 257
rectangles
with Rectangle tool, 257
with Standard Shape tool, 236
Rectangular Marquee tool, 78
with Pattern Maker filter, 364
RedEye tool, 177
Reduce Noise filter, 159
with Healing Brush tool, 159, 174
reduction
for GIF documents, 474
for PNG-8 documents, 476
Refine Edge
selection, 88-89
with Layer Masks, 256
registration marks, printing, 400
relative colorimetric rendering intent, 451
remove option with Smart Sharpen filter, 168
renaming
with Bridge, 542
presets, 71
rendering intent
for hard proofs, 453
for soft-proof colors, 448
working with, 451
repeating Transform command selection, 97
Replace Color command, 195
Resample Image option, 22
resizing. See size
resolution
changing, 22-23
selecting, 13
understanding, 424
retouching images, 171
RGB (red, green, blue) color, 13, 47, 185. See also color management; out-ofgamut
CMYK (cyan, magenta, yellow, black) color and, 185, 450
Color Slider, 196
converting image to, 186
with 8-bit channels, 182-183
Gamut Warning mask, 61
Lab color mode for images, 192
Multi-Channel color mode, converting images to, 194
patterns, generation of, 365
press, preparing images for, 420-421
Spectrums or Ramps, 197
right justification, 319
Rise style of warped text, 324
RLE (Run Length Encoding) scheme, 416
Rotate View tool, 41
rotating
with Bridge, 536-537
with Lens Blur filter, 361
Smart Objects, 21
Transform command selection, 97
roughness of gradients, 249
rows. See columns and rows
rulers, 48-49, 51
guides, working with, 48-49
options for, 62-63
switching between measurements, 62

## S

Saturate and Desaturate command, 181
saturation. See also HSB (hue, saturation, brightness)
rendering intent, 451
Saturate and Desaturate command, 181

Save As command, 29
paths exported with, 291
with text, 319
Save commands.
understanding, 29
Save For Web command, 466-467
Save for Web dialog box, 469
Save Mesh button, 352
Save Optimized As command, 471
saving. See also actions; layer styles
Auto Save, 28-29, 56-57
alpha channels, 28
brush tips, 230
channel masks, 266-267
custom shape sets, 242
documents, 28-29
file formats, files with different, 410-411
File Saving options, selecting, 56
gradients, 248-249
History states, 140
image pyramid, 423
inserting file information into documents, 412-413
large files, 22, 57
layer styles, 312
layers, 28
Liquify meshes, 353
maximize compatibility, saving, 28-29, 57
notes, 28,45
preferences, 56-57
presets, items as, 71
Quick Mask selections, 271
spot colors, 28
Swatches panels, 199
thumbnail data, 29
understanding Save commands, 29
for Web, 466-468
scaling
Content-Aware scaling, 101
Character panel selections, 321
with Pattern Overlays, 305
in Print dialog box with preview, 401
Smart Objects, 21
for texture, 301
Transform command selection, 97
scanners
calibrating, 447
noise from, 159
photographs for Web, preparing, 419
Photoshop, scanning images into, 17
Scattering, 224, 227
Scratch Disks, 51, 53, 66-67
scratch sizes, 30
Info panel displaying, 47
Screen blending mode, 154
with Pattern Overlays, 304
Screen Mode for display, 37
scripting
Adobe ExtendScript Toolkit, 528, 547
scripts, 392-393
scroll wheel preferences, 55
scrubby sliders, 11
Scrubby Zoom, 40, 55
SCT files, 409
searching. See Find and Replace
Select menu options, 92
selection marquees, hiding, 463
selection masks, 94-95
selections, 10, 77-99. See also specific tools
adding to, 90-91
Brightness/Contrast adjustment with, 207
channel masks from, 263
channels, creating with, 94
by color range, 87
cropping selections, 98-100
filters, controlling, 367
with Free Transform command, 96
layers, 112
layer masks, generation of, 255
layer options, selecting, 111
masks, 94-95, 157
layer masks, generation of, 255
modifying existing selection, 92
paths, converting to, 275
Quick Mask option, 272
Quick Selection tool, 85
Refine Edge, 88-89
subtracting from, 90-91
with Transform command, 96-97
Selective Color adjustments, 181, 210
sepia color, Fill blending with, 201
sets. See actions
Shadow Angles option with Drop Shadow style, 296
Shadow/Highlight adjustment, 218
shadows
for Bevel and Emboss style, 299
with Dodge and Burn tools, 173
Shadow/Highlight adjustment, 218
tonal range, controlling, 178-179
Shape Blur filter, 164-165
Shape Dynamics, 224, 227
shape layers, 109
arranging, 240
creating, 238
drawing option, 290
work with, 238-239
Shape Marquee tools, 11
Shape tool, 221, 236-237
shape layer, 238-239
shapes
Custom Shapes tool, 237, 241-242
Lens Blur filter option, 361
paths, creating shapes as, 290
on a shape layer, 236, 238-239
with Standard Shape tool, 236
Type tool, creating shape layers with, 332
sharing
actions, 389
layer styles, 313
Sharpen tool, 170
Shell Lower/Upper style of warped text, 324
Shift key for tools, 11
shortcut keys, 3, 4
defining new, 76
filters, reapplying, 343
list of, xix
with Navigator panel, 34
for tools, 11
working with, 76
zooming with, 39
Show Paper White, 398
showing/hiding
channel masks, 261
Character panel, 319
layer styles, 295
layers, 118
Navigator panel, 35
panels, 7-9, 37
Paragraph panel, 319
selection marquees, 463
toolbox, 37
shutter speed information, 412
Single Row/Column Marquee tools, 80
size
adjustment layers and, 147
for Bevel and Emboss style, 298
of CMYK document, 185
of documents, 30
for Drop Shadow style, 297
image size, changing, 22-23
Info panel, information in, 46, 47
for Inner Glow style, 309
for Outer Glow style, 307
photographs for Web, preparing, 419
preferences for resizing, 55
for Stroke layer style, 303
view size, changing, 34
sketch filters, 342
skewing Transform command selection, 97
skin tones, detect faces, 87
Slice Selection tool
with Save For Web command, 468
slicing images, 480-481
arranging, 484-485
distributing, 484-485
HTML text, add, 488-489
saving for the Web, 486-487
setting output options, 486-487
stacking, 484-485
URL, add Web address, 488-489
working with, 64-65, 482-483
slide shows, 432-433
sliders, changing text boxes to, 74
Smart Filters
Creating, 344
Smart Objects, from, 20-21
Working with, 344
Smart Guides, 132
Smart Objects, 20-21
apply Smart Filter, 344
converting 3D layer to, 21
inserting image as, 17-19
preferences, 55
Smart Sharpen filter, 168-169
smoothness
of gradients, 249
with painting engine, Brush panel, 227
Smudge tool, 170
snapshots, 134
creating, 138
with History brush, 143
softness
for Bevel and Emboss style, 298
channel masks, 267
layer masks, soft transparency, 256
soft-proof colors, setting up, 448-449
software color calibration, 447
sounds, preferences for, 55
source option for Inner Glow style, 309
spacing Paragraph panel selections, 322
Spatter filter, 374
for layer mask borders, 257
specific size object, creating, 43
spectrums, 197
speed of Photoshop, adjusting, 68-69
Spell Check, 315
Character panel selections, 321
working with, 328
Sponge tool, 173
desaturating areas of image with, 208
for out-of-gamut colors, 462-463
spot colors, 202
file formats, saving documents as, 411
saving, 28
Spot Healing Brush tool, 176
Content-Aware fill, 102-103
spread values
for Drop Shadow style, 297
for Outer Glow style, 307
squares with Standard Shape tool, 236
Squeeze style of warped text, 324
stacking images, 122
stacking order of layers, 118
stained glass filter effect, 374
stamp filter effect, 373
Stamp tool
Clone Stamp tool, 171
with Vanishing Point tool, 160
Standard Mask Mode, 270
Standard Pen tool with paths, 276
Standard Screen Mode, 37
Standard Shape tool, 236, 236
Options bar, 11
stars with Standard Shape tool, 236
Status bar, 30

Stop button, Actions panel, 377
straight lines
drawing, using a brush, 226
Line tool for, 235
Pencil tool for, 234
Straighten button, Ruler tool, 48-49
Straighten tool, 162
Stroke command, 200
for paths, 273
with paths, 289
Stroke layer style, 303
Stroke Path option, 289
styles. See also layer styles
for Art History brush, 144
for Bevel and Emboss style, 298
for text, 326-327
Styles button for warping text, 324
Styles panel, 293
layer styles, creating, 312-313
stylize filters, 342
subfolders
in Batch File Processing, 423
Include All Subfolders command, 394
subtracting from selection, 90-91
Suppress Color Profile Warnings, 394
Suppress File Open Options Dialogs, 394
Surface Blur filter, 164-165
Swatches panel, 198-199
customizing, 199
saving, 199
system requirements, 3

## T

tablecloth, 61
Targa files, 409
layers exported as, 130
technique
for Bevel and Emboss style, 298
for Inner Glow style, 309
for Outer Glow style, 307
text, 33. See also anti-aliasing; notes; Spell Check; Type tool; warping
Asian text options, 70
chiseled text, creating, 308
of data sets, 491
History state text files, reviewing, 141
Rasterize Type command, 330
workspace for, 72-73
text boxes to sliders, changing, 74
textures, 224, 227
with Bevel and Emboss style, 300-301
filters, 342
Protect Texture option, 227
thawing with Liquify, 347
32-bit images, See also High Dynamic Range (HDR) images
3D effects, Bevel and Emboss style for, 298
3D model files
adding to a 2D model, 518-521
converting 3D layer to Smart Object, 21
creating
from a 2D image, 518-519
from a grayscale image, 518-519
from a multi-frame file (3D Volume), 518-519
from a shape preset, 520
from text, 524
editing a model, 522-523
exporting a model, 526
lighting, 525
preferences, 516-517
render a model, 526
saving a file with a model, 526
workspace, viewing, 521
threshold, 215
with Lens Blur filter, 361
with Surface Blur filter, 164-165
with Unsharp Mask filter, 167
thumbnails. See also Navigator panel
with Bridge, 13
in Brush Presets panel, 225
dragging layer thumbnails, 44
file saving options, 56
Layers panel thumbnail size, changing, 131
with Save For Web command, 468
saving thumbnail data, 29
TIFF files, 409
adjustment layers as, 148
large files, saving, 22
layers exported as, 130
metadata information, adding, 13, 413
opening images, 16
photographs for Web, preparing, 418-419
preferences for saving, 57
printers, preparing images for, 422-423
raw images saved as, 18
tile boundaries with Pattern Maker filter, 365
Tilt-Shift blur filter, 358-359
tolerance
for Art History brush, 144
with Paint Bucket tool, 243
for paths, 275
tonal values
controlling, 178-179
Histogram panel and, 180
Invert command for, 214
with Smart Sharpen filter, 169
with Surface Blur filter, 164-165
tool tip preferences, 55
toolbox, 6
showing/hiding, 37
tools. See also specific tools
multiple tools, accessing, 10
working with, 10-11
tracking Character panel selections, 321
Traditional type size, 48
transfer functions for press images, 421
Transform command, 96-97
with Vanishing Point tool, 160
transparency. See also layer masks
clipart for Web, preparing, 416
clipping paths and, 286-287
for GIF documents, 475
for gradients, 247
gray creating, 252, 254
with History brush, 145
for JPEG images, 473
layer styles requiring, 294
for PNG-8 documents, 477
for PNG-24 documents, 478
preferences, 61
printer, preparing images for, 423
soft transparency, generating, 256
for Web design, 467
TrueType font
defining, 318-319
turbulence with Liquify, 347
turning on/off Smart Guides, 132
tweening, 506-507
twirling with Liquify, 346
Twist style of warped text, 324

Type 1 PostScript font defining, 318-319
Type preferences, 70
Type tool, 10, 315-340
anti-aliasing, 323
chiseled type, creating, 336-337
editing type on path, 317
extrude to 3D, 337, 524
fonts, working with, 318-319
horizontal and vertical type, toggling between, 318
layers, creating, 109, 332
masks
chiseled type, creating, 336-337
creating type masks, 333
layer masks, combining with, 338-339
pixels, isolating, 334-335
special effects, generating, 338-339
moving type mask, 334
options, working with, 318
orientation, changing, 318
paths, 316-317, 331
text on path, creating, 340
work paths, creating, 331
placeholder text, inserting, 317
preferences for, 70
Rasterize Type command, 330
resize type box, 319
rotate type box, 319
shape layers, creating, 332
skew type box, 319
special effects, generating, 338-339
standard typing tools, 316-317
Type menu, using, 316-319

## U

undos, 52. See also History panel multiple undo commands, performing, 134
unified color table
for GIF images, 475
for PNG-8 documents, 477
units, 51 . See also rulers
options for, 62-63
Unsharp Mask filter, 167
Updater, 24-25
updates
checking for, 24-25
from Internet, 24
layer comps, updating, 129
options, setting, 4
for versions of Photoshop, 2
user interface, customized, 74-75

## V

Vanishing Point tool, 160-161
variables, data, 490-491
vector data
interpolation and, 274
Paths panel and, 273
press, images for, 421
saving, 410-411
Smart Objects with, 20-21
understanding vector images, 274
vector masks, 252, 258, 259
Vertical Type Mask tool, 333
vibrance, 183, 209
video, layers
adjustment layers, adding, 499
audio, adding, 503
cache, clearing, 146
cloning, 501
creating and modifying, 495-497
exporting, 508-509
Frames view, 504-507
grouping, 498
new documents with video presets, 14
opening, formats, 494-495
preview option, 14
rasterize, still image, 510
splitting, 500
stacking order, 499
text, adding, 499
transitions, adding, 502
Video Timeline view, 495-507
views and viewing. See also Navigator panel
Bird's Eye view, 38-39
with Bridge, 530, 536-537
for Brush Presets panel, 225
Liquify view options, 351
Photoshop window, 6
RGB color mode, 13, 185
size of view, changing, 34
two views, working on one image in, 43
Zoom tool, changing view with, 38-39 vignettes

Lens Correction filter, vignetting and, 162
Vimeo, 544-545
visibility
of data driven graphics, 491
of data sets, 491

## W

Warped Text button, 319
warping
with Liquify, 346
Smart Objects, 20-21
text, 319, 324-325
Transform command selection, 97
watermarks
embedding, 341, 370-371
restricted, 371
Wave style of warped text, 324
WBMP files
optimizing WBMP documents, 479
Save For Web command with, 466-467, 470
for Web images, 465
Web Content panel, 487
Web data variables, 490-491
Web design, 465-492.
file formats, working with, 476-471
optimizing image to file size, 469
saving documents for, 466-468
Web images
clipart, preparing, 416-417
Color Slider, 196
lossy/lossless compression, 414-415
photographs for Web, preparing, 418-419
preparing, 397
Web Photo Gallery, Bridge, 541
Web snap
for GIF documents, 474
for PNG-8 documents, 476
Wet Edges, 227
width values
Fit Image command, 444
with Line tool, 235
with Pattern Maker filter, 365
print size option, 398

## Windows

color calibrator in, 446
ICC Profile, 411
Microsoft ICM color management, 458
Printer Settings in, 407
printers
preparing images for, 422-423
setting up, 407
printing documents in, 406
Proof Setup, 411
workspace, using and customizing, 72-73
WYSIWYG type, 70

## X

XMP files, 13
inserting file information into documents, 412-413
XMP Software Development Kit, 413

## Y

YouTube, 544-545

## Z

ZIP files
compression of, 415
printers, preparing images for, 423
Zoom tool, 33
with Lens Correction filter, 162
with Save For Web command, 468
two views, working on one image in, 43
with Vanishing Point tool, 161
view of image, changing, 38-39
Scrubby Zoom, 40, 55
Zoomify, export, 492
zooming, 6. See also Zoom tool
area of view, changing, 35
with Liquify, 347
monitor, automatically fitting image to, 40
on multiple documents, 40
with Navigator panel, 34-35
$100 \%$, automatically zooming to, 40
preferences for, 55
Scrubby Zoom, 40, 55
with shortcut keys, 39

