

Index

NUMERICS

3D effects, Texture channel, 267–270

3D images

 continuous depth, 183–185

 two-level offsets, 180–182

8-bit color channels, RGB Color mode, 75

8-bit color images, Indexed Color mode, 71–74

8-bit images, grayscale, 5, 7

8-bits/channel, RGB color images, 6–7

16-bits/channel, extended dynamic range, 7

32-Bit Exposure, status bar information display, 50

32-bits-per-channel, HDR (High Dynamic Range) images, 8

48-bit colors, scanners, 7

64-bit CMYK color images, pros/cons, 8

A

a channel, Lab Color mode, 233–234

absolute colorimetric, rendering intent conversion, 101

absolute method, selective color adjustments, 135

ACE (Adobe Color Engine), color management engine,
99–100

Adaptive (Local), Indexed Color mode option, 72

Add Anchor Point tool

 drawing paths, 424, 432

 vector masks, 298

Add and Subtract field, Apply Image command, 478

Add Noise Filter dialog box, Lab Color images, 247–248

Add, blend mode, 468

additive color, RGB Color mode, 75

additive primary mode, RGB Color mode, 75

adjustment layers

 color masking, 387–392

 creating, 142

 edge detail selections, 364–372

 selective color applications, 388–390

 uses, 29

Adobe Color Engine (ACE), color management, 99–100

Adobe Gamma, monitor calibration, 90–91

Adobe RGB (1998), color working space (CWS), 92–93

Agfa, color management engine, 99

algorithms, resampling images, 14–15

alignments, type characteristic control, 413, 414

All Channels View, histogram information display, 110–111

alpha channels

 accessing, 324

 borders, 334–337

 combining selections, 340–344

 deleting, 333

 duplicating, 329, 332–333

 editing, 328–333

 file formats, 324

 file size issues, 324

 gradient masks, 337–340

 hiding/displaying, 324–326

 layer mask similarities, 162, 377

 loading, 327–328

 loading selections, 151–152

 painting on, 329–332

 preference settings, 326–327

 saving selections as, 150–151, 324

 versus Quick Masks, 321, 346

 viewing, 149–152, 155–156, 324–326

 when to use, 41, 295, 322

ambiguous edges. *See also* edges

 adjustment layers, 364–372

 color channel selections, 355–362

 color range techniques, 362–364

 image extractions, 372–376

 out-of-gamut color selections, 368–372

anchor points, types, 432

ANPA, color library, 86

anti-aliasing

 selection edges, 308

 type tool control, 414

Apple ColorSync, color management engine, 99

Apple RGB, color working space (CWS), 93

- Apply Image dialog box
 - Add blending mode, 468
 - blending color channels, 170–171
 - Chops (channel operations), 477
 - curves adjustment, 481
 - glare reduction techniques, 174
 - image enhancements, 484–485
 - Lab Color mode, 240–244
 - multiple image combinations, 485–488
 - selections, 478–483
 - source image, 478
 - Subtract blending mode, 468
 - supported color modes, 477
 - target image, 477–478
 - arrows, drawing, 447–448
 - Auto Adjustments
 - application operations, 119–120
 - clipping range controls, 121–122
 - Auto Color Correction dialog box, clipping range controls, 121–122
 - Auto Color, color adjustments, 120
 - Auto Contrast, color adjustments, 120
 - Auto Levels, color adjustments, 119
- B**
- b channel, Lab Color mode, 233–234
 - background colors, restoring, 330
 - Background layer, converting to a layer, 23–24
 - backgrounds
 - layer conversion, 23–24
 - replacing, 473–476
 - baseline shift, type characteristic control, 413
 - Behind, blend mode, 468
 - Bezier curves
 - drawing paths, 424–431
 - vector graphics, 4
 - Bicubic, resampling images, 14
 - Bicubic Sharper, 15
 - Bicubic Smoother, 15
 - Bilinear, resampling images, 14
 - Bitmap dialog box, creating bitmap images, 64–69
 - Bitmap images, Subtract Threshold blending modes, 468
 - Bitmap mode images
 - black-and-white graphics images, 63
 - creating, 64–69
 - special effects, 64
 - bitmaps
 - raster images, 4–5
 - resolution setting guidelines, 13
 - simplest graphic image, 5–6
 - Black and White dialog box, monochrome, 207–208
 - black point compensation, rendering intent conversion, 101
 - black points, color adjustments, 126
 - black-and-white images
 - colorizing, 140–141
 - Lab Color mode, 251–256
 - Blending field, Apply Image command, 478
 - blending layers
 - combination, 456–457
 - commands, 471–472
 - comparative, 464–465
 - component, 465–467
 - contrast, 461–464
 - darken, 458–459
 - lighten, 459–461
 - similar content, 469–471
 - tools, 471–472
 - blending modes
 - commands, 471–472
 - layer relationships, 29
 - layers, 37–38
 - Layers palette, 23
 - Smart Filters, 405
 - tools, 471–472
 - Blending Options, Lab Color mode, 240–244
 - blending variable, blending color channels, 171
 - Boolean icons, Options bar, 305
 - borders
 - alpha channels, 334–337
 - feathering, 305–306
 - selections, 315–316
 - bounding box
 - Crop tool, 18–19
 - image transformations, 16
 - brightness
 - color characteristic, 79
 - Color Picker, 83
 - Brightness/Contrast dialog box, color adjustments, 122
 - browsers, Web-friendly colors, 84–86
 - Burn tool, Lab Color mode, 252–256

C

- cached histogram, Histogram palette display, 110
- Cadmium Metal Oxide Semiconductor (CMOS), light capturing method, 62
- Calculations dialog box
 - Add blending mode, 468
 - Chops (channel operations), 477
 - color desaturation, 197–200
 - combining selections, 340
 - multiple image, 490–492
 - single image, 489–490
 - Subtract blending mode, 468
 - swapping color channels, 166
- Camera Raw, Smart Object techniques, 401
- Canvas Size dialog box, image area color/size/position settings, 20–21
- canvas
 - rotating, 21
 - sizing, 20–21
- cast shadows, creating, 281–284
- CCD (Charged Couple Device), light capturing method, 62
- chain icon, linked layers, 28–29
- Channel characteristic, Apply Image command, 478
- Channel field, saving selections, 322
- channel levels, color adjustments, 125
- Channel Mixer
 - mixing channels, 160–161
 - monochrome image creation, 191–194
 - swapping color channels, 166–169
- Channel Options dialog box
 - alpha channel preferences, 326–327
 - channel preferences, 156–157
- channel variable, blending color channels, 171
- channels. *See also* color channels
 - alpha, 149–152, 155–156
 - blending, 170–175
 - Chops (channel operations), 477
 - color mode assignments, 159
 - color viewing, 148–149
 - combining selections, 340–344
 - curve adjustments, 131
 - deleting, 157
 - duplicating, 157–158
 - editing, 328–333
 - flesh tone enhancements, 257–259
 - image mapping, 270–275
 - image sharpening techniques, 260–264
 - light beams, 287–289
 - lighting effects, 264–270
 - merging, 159
 - mixing, 160–161
 - monochrome selections, 187–190
 - multichannel conversion, 159–160
 - printing, 107
 - restoring foreground/background colors, 330
 - sizing, 15
 - splitting, 158
 - Spot Color, 161–162
 - swapping colors within, 168–169
 - textures, 267–270
 - versus layers, 325
- Channels palette
 - alpha channels, 149–152, 155–156, 295, 324
 - channel option preferences, 156–157
 - color channel selections, 355–362
 - color channel viewing, 148–149, 154
 - color mode assignments, 159
 - combining selections, 340–344
 - concealing/revealing content, 148
 - deleting alpha channels, 333
 - deleting channels, 157
 - duplicating alpha channels, 332–333
 - duplicating channels, 157–158
 - flesh tone enhancements, 257–259
 - hiding/displaying alpha channels, 324–326
 - image information display, 147–148
 - layer masks, 162
 - merging channels, 159
 - mixing channels, 160–161
 - multichannel conversion, 159–160
 - preference settings, 152–154
 - Quick Masks, 162
 - saving a selection as an alpha channel, 324
 - splitting channels, 158
 - Spot Color channels, 161–162, 217–229
 - thumbnail preferences, 153–154
- Character palette, type controls, 412
- Charged Couple Device (CCD), light capturing method, 62
- Chops (channel operations), channels, 477
- Cleanup tool, image extractions, 376
- Clear, blend mode, 468

- Clipboard, image purging, 336
- clipping masks
 - area definitions, 398
 - creating, 398–400
 - layer mask combination, 399–400
 - layer transparency, 29
 - vector objects, 440–443
 - when to use, 41, 297
- clusters, palettes, 54
- CLUT (color lookup table), Indexed Color mode, 71
- CMM (color management engine), color settings, 99–100
- CMOS (Cadmium Metal Oxide Semiconductor), light capturing method, 62
- CMYK color mode
 - Apply Image command support, 477
 - Color Picker, 84
 - Multichannel mode conversion, 78
 - out-of-gamut color selections, 368–372
 - RGB Color mode conversion, 75, 80
 - selective color adjustments, 135–136
 - subtractive color system, 76
- CMYK color working space, RGB mode to CMYK mode conversions, 98
- color adjustments
 - adjustment layers, 142
 - Auto Adjustments, 119–122
 - Auto Color, 120
 - Auto Contrast, 120
 - Auto Levels, 119
 - brightness/contrast, 122
 - channel levels, 125
 - color balancing, 133–136
 - Color Sampler tool, 118–119
 - colorizing black-and-white images, 140–141
 - curves, 127–133
 - deficiency recognition, 110
 - Eyedropper tool, 117
 - histograms, 110–115
 - hue/saturation, 136–139
 - Info palette, 115–117
 - input levels, 123
 - levels, 123–127
 - lightness, 139
 - output levels, 124
 - remapping colors, 136–141
 - white/black point settings, 126
- Color Balance dialog box, adjustments, 133–134
- Color Burn, darken blend mode, 458–459
- color channels. *See also* channels
 - blending channels, 170–175
 - Channel Mixer, 166–169
 - color exclusion methods, 176–178
 - continuous depth 3D images, 183–185
 - glare reduction, 171–175
 - information swapping, 165–169
 - layer groups, 30–31
 - offsetting techniques, 179–185
 - selection, 355–362
 - swapping colors within, 168–169
 - two-level 3D images, 180–182
 - viewing, 148–149, 154
- Color Dodge, lighten blend mode, 460
- color insufficiency, histogram display, 115
- Color Libraries dialog box
 - image overlay, 219
 - spot color inks, 86–87
- color lookup table (CLUT), Indexed Color mode, 71
- color management engine (CMM), color settings, 99–100
- Color Management Policies, color settings, 95–96
- color modes
 - Apply Image command supported types, 477
 - bitmap mode, 63–69
 - channel assignments, 159
 - CMYK Color mode, 75, 76
 - conversions, 80–81
 - Duotone mode, 74
 - grayscale mode, 70–71
 - Indexed Color mode, 71–74
 - Lab Color mode, 76–78
 - Multichannel mode, 78–79
 - RGB Color mode, 75–76
- Color palettes, color selections, 87
- Color Picker
 - brightness, 83
 - CMYK colors, 84
 - CMYK gamut warning, 84
 - Color Libraries, 86–87
 - color parameters, 83
 - color selections, 83
 - creating colors, 82–86
 - hexadecimal equivalents, 85
 - hue mode, 83

- Lab colors, 84
- RGB colors, 84
- saturation, 83
- Web friendly colors, 84–86
- color profiles, custom, 102
- Color Range dialog box
 - color sampling, 362–364
 - edge detail selections, 364–372
 - out-of-gamut color selections, 368–372
 - selection outlines, 294
- Color Sampler tool, color measurements, 118–119
- color separations
 - duotone images, 214–215
 - halftone screens, 11–12
- Color Settings dialog box
 - color management, 95–98
 - out-of-gamut color selections, 369–372
- Color Swatches, clipping range adjustments, 121
- Color Sync RGB, color working space (CWS), 93
- Color Working Space (CWS)
 - Adobe RGB (1998), 92–93
 - Apple RGB, 93
 - CMYK, 98
 - color settings, 95–98
 - Color Sync RGB, 93
 - ColorMatch RGB, 93
 - display independent, 89
 - embedding profiles, 94–95
 - glass window concepts, 90
 - ICC profiles, 90
 - monitor calibration, 90–91
 - Monitor RGB, 93
 - profile conversions, 94–95
 - ProPhoto RGB, 93
 - sRGB IEC61966-2.1, 92
- Color
 - component blend mode, 466
 - Indexed Color mode option, 72
- colorimeter, monitor calibration, 91
- ColorMatch RGB, color working space (CWS), 93
- colors. *See also* digital color
 - adjustment layers, 387–392
 - CMM (color management engine), 99–100
 - Color Libraries, 86–87
 - Color Management Policies, 95–96
 - Color palettes, 87
 - Color Picker, 82–87
 - composites, 455–456
 - contrast adjustments, 390–392
 - creating, 81–87
 - duotone image selections, 211–212
 - out-of-gamut selections, 368–372
 - sampling, 82
 - Swatches palette, 87–88
 - type tool control, 414
- combination blend modes, blending layers, 456–457
- commands
 - blending modes, 471–472
 - menu selection methods, 51
- Commission Internationale d’Eclairage, Lab Color mode, 76–78
- comparative blend modes, 464–465
- component blend modes, 465–467
- composite shadows, creating, 284–287
- composites
 - Apply Image command, 477–488
 - colors, 455–456
 - matting, 474
 - printing, 106
 - replacing backgrounds, 473–476
- constraining proportions, resampling images, 15
- Contract Selection dialog box, knockouts, 223–224
- contrast blend modes, blending layers, 461–464
- contrast, color adjustments, 390–392
- conversions, Smart Object techniques, 401
- Convert Anchor Point tool, vector masks, 298
- Convert Point tool, drawing paths, 424, 432
- Convert to Profile dialog box, color profile conversions, 94–95
- corner points, anchor point editing, 432
- Crop tool
 - fixed size/resolution, 19
 - perspective cropping, 20
 - selections, 18–19
- Current Tool, status bar information display, 50
- Curve Grid Options, curve adjustments, 127–131
- curved paths
 - closing, 429
 - directional changes, 427–428
 - drawing, 426–430
 - guidelines, 430
 - straight path combination, 428–429

curves

- Apply Image command adjustments, 481
- color adjustments, 127–133
- duotone image adjustments, 213–216
- Lab Color mode, 244–245
- lock-down, 132
- spot adjustments, 132–133

Curves dialog box

- color adjustments, 127–133
- sepia tones, 204–207

Custom, Indexed Color mode option, 72

Custom Pattern dialog box, bitmap mode images, 68–69

Custom Shape dialog box, shape definitions, 450–451

custom shapes, drawing, 448–451

CMYK color images, 64-bits, 8

D

darken blend modes, blending layers, 458–459

Darken, darken blend mode, 458

Darker Color, component blend mode, 467

data fields, histogram information display, 112

Defringe dialog box, matting images, 474–475

Delete Anchor Point tool, drawing paths, 424, 432

Delete Layer conformation window, discarding layers, 37

desaturate monitor colors, percentage settings, 101

Destination fields, saving selections, 322

device dependant, RGB Color mode, 75

dialog boxes

- access methods, 51–52
- versus palettes, 54

DIC, color library, 86

Difference, comparative blend mode, 464–465

Diffusion Dither, bitmap mode images, 64, 66–67

digital color. *See also* colors

- computer calculation process, 61–62, 63
- sensor devices, 62

digital halftones, bitmap mode images, 63–69

Direct Selection tool

- drawing paths, 424, 432
- vector masks, 298

Display & Cursors Preferences dialog box, color channels, 153

Dissolve, combination blend mode, 456–457

dither, rendering intent conversion, 101

Dithering, Indexed Color mode option, 74

Document Dimensions, status bar information display, 50

Document field, saving selections, 322

Document Profile, status bar information display, 50

documents

- copying individual layers, 33, 35
- copying multiple layers, 35
- dragging/dropping layer content between, 36
- image information display, 47–50

Dodge tool, Lab Color mode, 252–256

drag-and-drop, Smart Object techniques, 401

drawing

- arrows, 447–448
- curved paths, 426–430
- custom shapes, 448–451
- ellipses, 446
- freeform paths, 430–431
- lines, 447–448
- paths, 424–431
- polygons, 446–447
- rectangles, 446
- shapes, 445–451
- straight paths, 425–426, 428–429

drop shadows, layer styles, 277–280

Duotone Curve dialog box, duotone adjustments, 213–216

duotone images

- color selections, 211–212
- color separations, 214–215
- curve adjustments, 213–216
- ink overfill concerns, 210, 216
- Multichannel mode, 215–216
- versus process color, 210

Duotone mode

- Multichannel mode conversion, 79
- tonal range extender, 74

Duotone Options dialog box, ink color configuration, 211–212

Duplicate Channel dialog box, saving a channel as a new document, 188–189

Duplicate Layer dialog box, 36

duplications, Smart Object techniques, 401, 404

E

Edge Highlighter tool, 372–374

Edge Touchup tool, 376

edges. *See also* ambiguous edges

- adjustment layers, 364–372
- anti-aliasing, 308
- color channel selections, 355–362
- color range techniques, 362–364
- out-of-gamut color selections, 368–372

Edit menu, transformation options, 16–17

effects, Smart Object techniques, 401

Efficiency, status bar information display, 50

8-bit color channels, RGB Color mode, 75

8-bit color images, Indexed Color mode, 71–74

8-bit images, grayscale, 5, 7

8-bits/channel, RGB color images, 6–7

ellipses, drawing, 446

Elliptical Marquee tool, selections, 304, 309–310

em spaces, type characteristic control, 413

Embedded Profile Mismatch dialog box, 96–97

Enhance Monochromatic Contrast, 121

Enhance Per Channel Contrast, 121

EPS Options dialog box, saving clipping paths, 442

Eraser tool, image extractions, 376

Exact, Indexed Color mode option, 71

Exclusion, comparative blend mode, 465

Expand command, matting images, 476

Extract dialog box, image extractions, 372–376

Extraction field, image previews, 374–375

extractions, edge detail techniques, 372–376

Eyedropper tool

- color measurements, 117
- color sampling, 82, 139

F

fades, contrast adjustments, 390–392

Feather Selection dialog box, feathering borders, 305–306

feathering, selections, 317

fields, selection saving, 322

file formats

- alpha channels, 324
- masks, 300
- Photoshop CS3 supported types, 9
- PSD (Photoshop), 9

files, image size calculations, 8

Fill command

- alpha channels, 295
- layer masks, 296–297

fill layers

- masking techniques, 393–397
- uses, 29

Fill Opacity slider, layers, 26

Fill Path dialog box, path fills, 436

Fill tool, image extractions, 376

fills, paths, 436

filter masks, when to use, 41

Filters command, alpha channels, 295

filters

- High Pass, 358–369
- Quick Mask application techniques, 349–351
- Smart Filters, 298–299, 404–406
- Smart Object techniques, 401

Find Dark and Light Colors, clipping range adjustments, 121

flesh tones, channel enhancements, 257–259

flipping, image transformations, 17–18

Focoltone, color library, 86

fonts, type characteristic control, 412, 414

Forced, Indexed Color mode option, 72

foreground colors, restoring, 330

48-bit colors, scanners, 7

Free Transform Points tool, path transformations, 433

Freeform Pen tool, drawing paths, 424, 430–431

Full Screen Mode, image display, 45

Full Screen Mode w/Menu Bar, image display, 45

G

gamma, blending RGB colors, 101

Gaussian Blur filter, edge softening, 351

Geometry Options, Freeform Pen tool, 430–431

glare, color channel reduction techniques, 171–175

Gradient Editor, 395–396

Gradient Fill layer, 394–396

gradient masks

- alpha channels, 337–340
- image blends, 381–387

Graph tools, curve adjustments, 131

graphics, raster versus vector, 3–5

graphics

- background layer, 23–24
- bitmaps, 4, 5–6, 63–69
- canvas sizing, 20–21
- channel sizing, 15
- clipping masks, 397–400

graphics (*continued*)

- Color Management Policies, 95–96
 - constraining proportions, 15
 - cropping, 18–21
 - display techniques, 43–47
 - extraction techniques, 372–376
 - file size calculations, 8
 - flattening, 40
 - flipping, 17–18
 - gradient mask blends, 381–387
 - grayscale, 5
 - HDR (High Dynamic Range), 8
 - information display, 47–50
 - interpolation settings, 15
 - mapping, 270–275
 - mask sizing, 15
 - missing color profiles, 97–98
 - opening with mismatched color profiles, 96–97
 - previewing extractions, 374–375
 - printing, 102–107
 - resampling, 13–14
 - Resize Image Assistant/Wizard, 15
 - resolution guidelines, 13
 - RGB color, 6–7
 - rotation, 17–18
 - saving before flattening, 40
 - scale styles, 15
 - scrolling techniques, 46
 - 64-bit CMYK, 8
 - sizing, 13–15
 - sizing by percentage, 45
 - spot color overlay, 218–219
 - transformations, 16–18
- Grayscale mode
- Apply Image command support, 477
 - black-and-white graphics images, 70–71
 - 8-bit images, 5, 7
- GretagMacbeth's Eye One Spectrophotometer, 102
- grids, curve adjustments, 127–131
- H**
- halftone resolutions, characteristics, 11–12
- Halftone Screen dialog box, bitmap mode images, 66–68

- halftone screens, color separations, 11–12
- Hand tool, image scrolling method, 46
- Hard Light, 462
- Hard Mix, 464
- HDR (High Dynamic Range) images, 32-bits-per-channel, 8
- Heidelberg, color management engine, 99
- height/width, constraining proportions, 15
- Help system
 - Resize Image Assistant/Wizard, 15
 - tool tips, 56
- hexadecimal equal vents, Web-friendly colors, 85
- Hide All command, layer mask techniques, 378
- Hide Selection command, layer mask techniques, 378
- High Dynamic Range (HDR) images, 8
- High Pass filter, tonal region separations, 358–359
- high radius sharpening, Lab Color mode, 235–236
- highlights
 - glare reduction techniques, 171–175
 - histogram display, 110–111, 113
 - layers, 25
 - Smart Object techniques, 401
- hirlaom sharpening, Lab Color mode, 235–236
- Histogram palette
 - cached/uncached histogram, 110
 - context sensitive, 111–112
 - data fields, 112
 - information display, 110–111
 - numerical data display, 110–112
- histograms
 - channel level adjustments, 125
 - color adjustment tool, 110–115
 - pixel value adjustments, 124–125
- HKS, color library, 86
- horizontal scale, type characteristic control, 413
- HSB color model, color characteristics, 79
- hue
 - color adjustments, 136–139
 - color characteristic, 79
 - Color Picker default mode, 83
 - component blend mode, 465–466
- Hue/Saturation dialog box
 - color, 136–141
 - contrast, 392
 - selective color, 389

- I
- ICC (International Color Consortium) profiles, CWS, 90
- Illustrator
 - editing Smart Objects, 403–404
 - pasting images between programs, 402
- Image Position, status bar information display, 48–49
- image resolutions, characteristics, 9–10
- Image Size dialog box, image size settings, 13–15
- image window
 - deleting paths, 435
 - status bar, 47–50
 - Title bar, 47
- images
 - background layer, 23–24
 - bitmaps, 4, 5–6, 63–69
 - canvas sizing, 20–21
 - channel sizing, 15
 - clipping masks, 397–400
 - Color Management Policies, 95–96
 - constraining proportions, 15
 - cropping, 18–21
 - display techniques, 43–47
 - extraction techniques, 372–376
 - file size calculations, 8
 - flattening, 40
 - flipping, 17–18
 - gradient mask blends, 381–387
 - grayscale, 5
 - HDR (High Dynamic Range), 8
 - information display, 47–50
 - interpolation settings, 15
 - mapping, 270–275
 - mask sizing, 15
 - missing color profiles, 97–98
 - opening with mismatched color profiles, 96–97
 - previewing extractions, 374–375
 - printing, 102–107
 - resampling, 13–14
 - Resize Image Assistant/Wizard, 15
 - resolution guidelines, 13
 - RGB color, 6–7
 - rotation, 17–18
 - saving before flattening, 40
 - scale styles, 15
 - scrolling techniques, 46
 - 64-bit CMYK, 8
 - sizing, 13–15
 - sizing by percentage, 45
 - spot color overlay, 218–219
 - transformations, 16–18
- imagesetters, color separations, 11–12
- Imation, color management engine, 99
- indents, type characteristic controls, 413
- Indexed Color mode
 - CLUT (color lookup table), 71
 - 8-bit color images, 71–74
 - Subtract Threshold blending mode, 468
- Info palette, color measurements, 115–117
- inkjet printers
 - ICC profiles, 90
 - image printing cautions, 102
 - resolution setting guidelines, 13
 - stochastic screen resolutions, 12
- input levels, color adjustments, 123
- input values, curve adjustments, 131
- International Color Consortium (ICC) profiles, CWS, 90
- International Commission on Illumination, Lab Color mode, 76–78
- interpolation, preference settings, 15
- Invert characteristic, Apply Image command, 478
- invert variable, blending color channels, 171
- J
- Japan Electronic Industry Development Association (JEIDA), sRGB CWS, 92
- joins, palettes, 54
- K
- kerning, type characteristic control, 413
- key commands
 - channel viewing, 154
 - image scrolling, 46
 - layer masks controls techniques, 378
 - layer stacking order, 28
- knockouts, spot colors, 222–225
- Kodak, color management engine, 99

L

- L channel, Lab Color mode, 233–234
- Lab Color mode
 - a channel, 233–234
 - Apply Image command support, 477
 - Apply Image techniques, 240–244
 - b channel, 233–234
 - black-and-white techniques, 251–256
 - Blending Options, 240–244
 - Color Picker, 84
 - Curves techniques, 244–245
 - device independent, 77, 233
 - high radius sharpening, 235–236
 - hiraloam sharpening, 235–236
 - image sharpening techniques, 234–239
 - International Commission on Illumination, 76
 - L channel, 233–234
 - luminance mask, 237–239
 - monochrome image creation, 195–197
 - noise addition/reduction, 246–251
 - RGB Color mode conversion, 80
 - two pass sharpening, 237–239
- laser printers, color separations, 11–12
- Lasso tool, selections, 304, 311
- Layer characteristic, Apply Image command, 478
- layer comps, multiple version saves, 29
- layer content
 - layer type changing, 29
 - printing, 107
- Layer Group Properties dialog box, color channels, 30–31
- layer groups, layer organization, 29
- layer masks
 - alpha channel similarities, 162, 377
 - clipping mask combination, 399–400
 - concealing/revealing contiguous layers, 29
 - content moving, 378
 - creating, 378–380
 - enabling/disabling, 378
 - gradient mask blends, 381–387
 - moving, 378
 - removing, 378
 - selections, 378
 - viewing, 378
 - when to use, 41, 296–297
- Layer Palette Options dialog box, thumbnail size, 25
- Layer Properties dialog box, layer naming, 24
- Layer Styles dialog box
 - advanced bending controls, 472–473
 - color exclusions, 176–178
 - combination blend modes, 456–457
 - drop shadows, 277–280
 - glare reduction techniques, 175
 - layer styles, 39
- layer styles, drop shadows, 277–280
- layer variable, blending color channels, 171
- layers
 - adjustment, 29, 142, 364–372
 - background, 23–24
 - blending modes, 29, 37–38
 - clipping masks, 29, 297, 397–400
 - combination blend modes, 456–457, 465–467
 - comparative blend modes, 464–465
 - comps, 29
 - consolidating, 40
 - content, 29
 - content transferring, 35–36
 - content viewing, 25
 - contrast blend modes, 461–464
 - copying, 33
 - copying individual, 33, 35
 - copying multiple, 35
 - creating, 31, 33–34
 - cutting to a new layer, 34
 - darken blend modes, 458–459
 - discarding, 37
 - dragging/dropping between documents, 36
 - duplicating, 36
 - fill, 29, 393–397
 - Gradient Fill, 394–396
 - gradient mask blends, 381–387
 - grouping, 29–31
 - highlighting, 25
 - image flattening, 40
 - lighten blend modes, 459–461
 - linking, 28–29
 - locking, 31–32
 - masking, 29
 - multiple layer selections, 28
 - naming conventions, 24
 - noncontiguous selections, 25, 28

- opacity, 26
 - Pattern Fill, 397
 - shape, 443–444
 - Smart Filters, 404–406
 - Smart Objects, 400–404
 - Solid Color Fill, 393–394
 - stacking order, 26–28
 - styles, 38–40
 - thumbnail sizes, 25
 - transparency, 26–27
 - versus channels, 325
 - Layers palette
 - Background layer, 23–24
 - blending layers, 37–38
 - compositing shadows, 284–287
 - consolidating layers, 40
 - copying individual layers, 33, 35
 - copying multiple layers, 35
 - creating layers, 31, 33–34
 - discarding layers, 37
 - duplicating layers, 36
 - Fill Opacity slider, 26
 - flattening images, 40
 - grouping layers, 29–31
 - layer content viewing, 25
 - layer controls, 22–23
 - layer masks, 296–297
 - layer naming, 24
 - linking layers, 28–29
 - Opacity slider, 26
 - stacking order, 26–28
 - vector masks, 298
 - leading, type characteristic control, 413
 - levels
 - channels, 125
 - color adjustments, 123–127
 - input, 123
 - output, 124
 - pixel value assignments, 124–125
 - saving/loading, 127
 - white/black point adjustments, 126
 - Levels dialog box
 - contrast adjustments, 391–392
 - histogram display, 111
 - tonal range adjustments, 123–124
 - light beams, creating, 287–289
 - lighten blend modes, 459–461
 - Lighten, blend mode, 459–460
 - Lighter Color, component blend mode, 467
 - Lighting Effects dialog box, image enhancements, 264–266
 - lighting, light beams, 287–289
 - lightness, color adjustments, 139
 - line art
 - bitmap mode images, 63–69
 - resolution setting guidelines, 13
 - Linear Burn, darken blend mode, 459
 - Linear Dodge, lighten blend mode, 461
 - lines, drawing, 447–448
 - links, layers, 28–29
 - lithographic printing, out-of-gamut color selections, 368–372
 - Load Selection dialog box, loading selections, 327–328
 - Local (Adaptive), Indexed Color mode option, 72
 - Local (Perceptual), Indexed Color mode option, 72
 - Local (Selective), Indexed Color mode option, 72
 - lock icons, layers, 31–32
 - lock-down curves, color adjustments, 132
 - luminance mask, Lab Color mode, 237–239
 - Luminosity, component blend mode, 467
- ## M
- Macintosh
 - monitor calibration, 90–91
 - Resize Image Assistant, 15
 - status bar display, 47–50
 - Magic Wand tool, selections, 304, 314–315
 - Magnetic Lasso tool, selections, 304, 312–313
 - Magnetic Pen tool
 - drawing paths, 424
 - freeform paths, 431
 - Magnification Box, Navigator image display, 46–47
 - Make Selection dialog box, path conversions, 438–439
 - Make Selection from Path dialog box, 438–439
 - marching ants, 41, 294–295
 - Mask characteristic, Apply Image command, 478
 - mask variable, blending color channels, 171
 - masks
 - adjustment layers, 387–392
 - alpha channel, 41, 295
 - characteristics, 293

masks (*continued*)

- clipping, 41, 297, 397–400, 440–443
 - color adjustments, 387–392
 - concepts, 41
 - creating/editing, 300
 - filter, 41
 - gradient, 381–387
 - Gradient Fill layer, 394–396
 - layer, 41, 296–297, 377–380
 - Pattern Fill layer, 397
 - Quick Masks, 41, 296
 - saving, 300
 - selection, 41
 - selection outline, 294–295
 - shape layers, 443–444
 - shapes, 452
 - sizing, 15
 - Smart Filter, 298–299, 406
 - Solid Color Fill layer, 393–394
 - type, 41, 298–299, 418–421
 - vector, 41, 298, 439–443
- Master (Perceptual), Indexed Color mode option, 72
- Master (Selective), Indexed Color mode option, 72
- Matte, Indexed Color mode option, 73
- matting, composites, 474
- memory, status bar information display, 50
- menus, access methods, 51–52
- Merge Channels dialog box, channel merges, 159
- merges
 - channels, 159
 - layer consolidating, 40
- midtone, histogram display, 114
- Minus Eyedropper tool, color sampling, 139
- Missing Profile dialog box
 - missing color profiles, 97–98
 - out-of-gamut color selections, 369–370
- monitor resolutions, characteristics, 10–11
- Monitor RGB, color working space (CWS), 93
- monitors
 - CWS calibration, 90–91
 - ICC profiles, 90
- monochrome images
 - Black and White dialog box, 207–208
 - Channel Mixer techniques, 191–194
 - channel selections, 187–190

- color desaturation, 197–200
 - curve techniques, 204–207
 - Lab Color mode, 195–197
 - photo filters, 201–203
 - sepia tones, 200–207
- More Options Color Settings dialog box, advanced color settings, 99–102
- Move tool, transformation options, 16–17
- Multichannel mode
 - CMYK image conversion, 78
 - Duotone image conversion, 79
 - duotone images, 215–216
 - independent channels, 78
- Multiply, darken blend mode, 458

N

- Navigator, image display, 46–47
- Nearest Neighbor, resampling images, 14
- New Curves dialog box, interactive histogram, 111
- New Group dialog box, grouping layers, 30
- New Layer dialog box
 - adjustment layers, 142
 - converting background to a layer, 24
 - creating layers, 31, 33
- New Spot Channel dialog box, image overlay, 218–222
- New Tool Preset dialog box, saving tool presets, 57–58
- noise, Lab Color mode addition/reduction, 246–251
- Normal, combination blend mode, 456–457

O

- objects, vector graphics, 3–4
- objects
 - drawing paths, 424–431
 - path editing, 431–438
 - shape layers, 443–452
 - uses, 423–424
 - vector masks, 439–443
- opacity
 - Apply Image command, 478
 - blending color channels, 171
 - layers, 23, 26
 - versus solidity, 220–222
- Opacity slider, Layers palette, 23, 26
- Operations field, saving selections, 323

Options bar

- Boolean icons, 305
- cropping to size, 19
- Selection tool specifications, 304–305
- Shape tools, 445
- tool options, 57
- Tool Preset menu, 305
- tool presets, 57–58
- transformations, 18
- type controls, 412

orientation, type tool control, 414

out-of-gamut colors, selection techniques, 368–372

output devices, ICC profiles, 90

output levels, color adjustments, 124

output values, curve adjustments, 131

Overlay, contrast blend mode, 461

Overprint Colors dialog box, duotone images, 216

P

Page Setup dialog box, image printing, 103

painting

- alpha channel editing, 329–332
- blending modes, 468
- Quick Masks, 344–348
- restoring foreground/background colors, 330

Palette, Indexed Color mode option, 71

palettes

- clustering, 54
- context sensitive, 53
- docking, 52
- Indexed Color mode, 71–74
- joining, 54
- organizing, 54
- rearranging, 52
- relocating, 54–55
- removing, 52
- resizing, 52
- restoring, 54–55
- saving custom workspaces, 55
- versus dialog boxes, 54

PANTONE Matching System, color library, 86

Paragraph palette, type controls, 412

paragraph text, creating, 415–417

pasting, Smart Object techniques, 401

Path Selection tool

- drawing paths, 424, 432
- vector masks, 298

Path tools, drawing paths, 424–431

paths

- anchor point editing, 432
- clipping, 440–443
- closing, 429
- combining, 433
- curved, 426–430
- deleting, 435–436
- displaying, 435
- drawing, 424–431
- drawing/editing tools, 424
- editing, 431–433
- fills, 436
- freeform, 430–431
- paragraph text creation, 416–417
- saving, 434–435
- selection conversions, 438–439
- selections, 432
- shape layers, 443–452
- straight, 425–426, 428–429
- stroking, 437
- transformations, 433
- vector masks, 298, 439–440

Paths palette

- deleting paths, 436
- path conversions, 438–439
- path fills, 436
- saving paths, 434–435
- stroking paths, 437
- working paths, 434

Pattern Dither, bitmap mode images, 64, 65–66

Pattern Fill layer, masking techniques, 397

Pen tool

- curved paths, 426–430
- drawing paths, 424–430
- straight paths, 425–426, 428–429
- vector masks, 298

Pencil tool, curve adjustments, 131

Perceptual (Local), Indexed Color mode option, 72

Perceptual (Master), Indexed Color mode option, 72

perceptual, rendering intent conversion, 100

perspective, image cropping, 20

Photo Filter dialog box, sepia tones, 201–203

Pin Light, contrast blend mode, 463–464

pixel-based types, pros/cons, 418

pixels

- image file size calculations, 8
- level value assignments, 124–125
- raster graphics, 3–5
- smallest editable image unit, 5

placements, Smart Object techniques, 401

Plus Eyedropper tool, color sampling, 139

point text, creating, 415

Point tool, curve adjustments, 131

Polygonal Lasso tool, selections, 304, 311–312

polygons, drawing, 446–447

Preserve Transparency characteristic, Apply Image command, 478

preserve transparency variable, 171

Preview field, extracted images, 375

Previous, Indexed Color mode option, 72

Print dialog box, image printing, 103

Print with Preview dialog box, image printing, 104–106

printer resolutions, characteristics, 10

printers. *See also* inkjet printers; laser printers; imagesetters

- ICC profiles, 90
- image printing cautions, 102
- RIP (Raster Image Processor), 11, 81
- resolution setting guidelines, 13
- stochastic screen resolutions, 12

printing

- channels, 107
- composites, 106
- images, 102–107
- layer content, 107
- separations, 106
- spot colors, 229

process color, versus duotone, 210

ProfileMaker Pro, 102

ProPhoto RGB, color working space (CWS), 93

PSD (Photoshop) file format, native format, 9

Q

quadtones

- color selections, 211–212
- color separations, 214–215
- curve adjustments, 213–216
- ink overfill concerns, 210, 216

Multichannel mode, 215–216

- versus process color, 210

Quick Mask Options dialog box, preference settings, 349

Quick Masks

- accessing, 344
- creating, 162
- editing techniques, 344–348
- filter application techniques, 349–351
- painting techniques, 344–348
- preference settings, 349
- restoring foreground/background colors, 330
- saving, 300
- versus alpha channels, 321, 346
- when to use, 41, 296

Quick Selection tool, selections, 304, 315

R

raster graphics

- bitmap images, 4–5
- pixel based, 3–5

Raster Image Processor (RIP)

- color conversions, 81
- color separations, 11

rasterize type, creating, 418

rectangles, drawing, 446

Rectangular Marquee tool, selections, 304, 309–310

Reduce Noise Filter dialog box, Lab Color images 250–251

Refine Edges dialog box, refining selection edges, 307

relative colorimetric, rendering intent conversion, 100–101

relative method, selective color adjustments, 135

Remove Black Matte command, matting images, 475

Remove White Matte command, matting images, 475

rendering intent, color conversions, 100–101

resampling images

- algorithms, 14–15
- constraining proportions, 15

resolution-independent, vector graphics, 4

resolutions

- bitmap mode images, 65
- halftone, 11–12
- image, 9–10
- monitor, 10–11
- printer, 10
- scanner setting guidelines, 13
- stochastic screen, 12

Reveal All command, 378, 379

- Reveal Selection command, 378
- RGB color mode
 - Apply Image command support, 477
 - blending with gamma corrections, 101
 - CMYK mode conversion, 75, 80
 - Color Picker, 84
 - device dependant, 75
 - 8-bits/channel, 6–7
 - Lab Color mode conversion, 80
- RIP (Raster Image Processor)
 - color conversions, 81
 - color separations, 11
- rotation
 - canvas area, 21
 - image transformations, 17–18
- S**
- saturation
 - color adjustments, 136–139
 - color characteristic, 79
 - Color Picker, 83
 - component blend mode, 466
 - rendering intent conversion, 100
- Save as Defaults, clipping range adjustments, 121
- Save Path dialog box, 434–435
- Save Selection dialog box
 - alpha channels, 150–151
 - selections, 322–324
- Save Workspace dialog box, custom workspaces, 55
- scale and offset variable, blending color channels, 171
- scale styles, proportionally resizing images, 15
- scales, type characteristic controls, 413
- scanners
 - 48-bit color support, 7
 - resolution setting guidelines, 13
- Scratch Sizes, status bar information display, 50
- Screen, lighten blend mode, 460
- screen modes, image display, 45
- scroll bars, image scrolling, 46
- Select menu, selection outlines, 294–295
- selection masks, 41
- selection outline masks, , 294–295
- selections
 - adjustment layers, 364–372
 - anti-aliasing edges, 308
 - Apply Image command, 478–483
 - auto select tools, 314–315
 - borders, 315–316
 - color adjustments, 387–392
 - color channels, 355–362
 - color range edge detail, 364–372
 - color range selection outlines, 362–364
 - combining, 340–344
 - content nudging, 320
 - Crop tool, 18–19
 - duotone image colors, 211–212
 - duplicating contents, 320
 - expanding/contracting, 316
 - feathering, 317
 - feathering borders, 305–306
 - free-form tools, 311–313
 - growing, 317
 - layer masks, 378
 - loading, 327–328
 - loading alpha channels, 151–152
 - modifying techniques, 315–317
 - monochrome images, 187–190
 - moving contents, 320
 - moving outlines, 319
 - multiple layers, 28
 - new layer creation, 33
 - noncontiguous layers, 25, 28
 - nudging outlines, 320
 - out-of-gamut colors, 368–372
 - path conversions, 438–439
 - paths, 432
 - refining edges, 307, 317
 - saving, 322–324
 - saving as alpha channels, 150–151
 - shape selection tools, 308–310
 - showing/hiding edges, 315
 - similar pixel selections, 317
 - smoothing, 316
 - transformations, 318–319
- Selective (Local), Indexed Color mode option, 72
- Selective (Master), Indexed Color mode option, 72
- Selective Color dialog box, color adjustments, 135–136
- sensors, light capturing devices, 62
- separations, printing, 106
- sepia tones
 - curve techniques, 204–207
 - monochrome images, 200–207
 - photo filters, 201–203

- shadows
 - cast, 281–284
 - compositing, 284–287
 - drop, 277–280
 - histogram display, 110–111, 113
 - Smart Object techniques, 401
- shape layers, creating, 443–444
- Shape menu, custom shapes, 449
- Shape tools
 - creating shapes, 444–445
 - Options bar controls, 445
 - vector masks, 298
- shapes
 - arrows, 447–448
 - custom shapes, 448–451
 - drawing, 445–451
 - ellipses, 446
 - lines, 447–448
 - masking, 452
 - polygons, 446–447
 - rectangles, 446
- Show Channels in Color, histogram information display, 111
- Show Transform Controls, options, 16–17
- Single Column tool, selections, 304, 310
- Single Row tool, selections, 304, 310
- 16-bits/channel, extended dynamic range, 7
- 64-bit CMYK color images, pros/cons, 8
- Size and Mode Information, status bar information display, 49
- size, type characteristic control, 412, 415
- Smart Filters
 - applying, 404–405
 - blending modes, 405
 - masking techniques, 406
 - when to use, 298–299
- Smart Objects
 - creating, 402–403
 - duplicating, 404
 - editing, 403–404
 - pixel altering limitations, 401
 - Smart Filters, 298–299, 404–406
 - vector images, 400–404
- Smart Sharpen dialog box, image sharpening, 262–264
- smooth points, anchor point editing, 432
- smoothing, selections, 316
- Snap Neutral Midtones, clipping range adjustments, 121
- Soft Light, contrast blend mode, 461–462
- Solid Color Fill layer, masking techniques, 393–394
- solidity, versus opacity, 220–222
- Source field, Apply Image command, 478
- source variable, blending color channels, 171
- spectrophotometer, custom profile creation, 102
- Sponge tool, Lab Color mode, 252–256
- spot adjustments, curves, 132–133
- Spot Color channels
 - creating, 161–162
 - image overlay techniques, 218–219
 - knockouts, 222–228
 - layer independent, 217
 - printing, 229
 - solidity versus opacity, 220–222
 - tint values, 220–222
 - tonal areas, 225–228
 - traps, 222–225
 - viewing/concealing, 222
- sRGB IEC61966-2.1, color working space (CWS), 92
- Standard Screen Mode, image display, 45
- status bar, image information display, 47–50
- Status Bar Menu, status bar information display, 49–50
- stochastic screen resolutions, inkjet printers, 12
- straight paths
 - closing, 429
 - curved path combination, 428–429
 - drawing, 425–426
- Stroke command
 - alpha channels, 295
 - layer masks, 296–297
- Stroke Path dialog box, stroking paths, 437
- strokes, paths, 437
- styles
 - layers, 38–40
 - type characteristic control, 412
- Subtract Anchor Point tool, vector masks, 298
- Subtract Threshold, blend mode, 468
- Subtract, blend mode, 468
- subtractive color system, CMYK Color mode, 76
- subtractive primary mode, paint/ink mixing, 75
- Swatches palette, color selections, 87–88
- System Mac OS, Indexed Color mode option, 72
- System Windows, Indexed Color mode option, 72

T

Target Colors & Clipping, clipping range adjustments, 121
 Target field, Apply Image command, 478
 target variable, blending color channels, 171
 Texture channels, image enhancements, 267–270
 32-Bit Exposure, status bar information display, 50
 32-bits-per-channel, HDR (High Dynamic Range) images, 8
 3D effects, Texture channel, 267–270
 3D images
 continuous depth, 183–185
 two-level offsets, 180–182
 thresholds, bitmap mode images, 64, 65
 thumbnails
 Channels palette preference settings, 153–154
 layer content size, 25
 working paths, 434
 Tile Information, status bar information display, 49
 Timing, status bar information display, 50
 tint values, spot colors, 220–222
 Title bar, image information display, 47
 tonal areas, spot colors, 225–228
 tonal deficiencies, histogram display, 114
 Tool Preset menu, Options bar, 305
 tools
 blending modes, 471–472
 option settings, 57
 presets, 57–58
 tool tips, 56
 Tools palette
 icons, 57
 Quick Masks, 296
 selection outlines, 294–295
 selection tools, 304
 tool categories, 55–56
 tool tips, 56
 Toyo, color library, 86
 tracking, type characteristic control, 413
 Transform Points tool, path transformations, 433
 Transformation command, alpha channels, 295
 transformations
 bounding box, 16
 flipping, 17–18
 linked layers, 28–29
 Options Bar, 18

 paths, 433
 rotation, 17–18
 selections, 318–319
 Smart Object techniques, 401
 transparency
 Indexed Color mode option, 73
 layers, 26–27
 traps, spot colors, 222–225
 tritones
 color selections, 211–212
 color separations, 214–215
 curve adjustments, 213–216
 ink overfill concerns, 210, 216
 Multichannel mode, 215–216
 versus process color, 210
 TRUMATCH, color library, 86
 two pass sharpening, Lab Color mode, 237–239
 two-level 3D images, 180–182
 type characters
 paragraph text, 415–417
 point text, 415
 warping text, 417–418
 Type Mask tool
 generating/editing type masks, 418–421
 type masks, 298–299
 type masks
 creating, 418–421
 when to use, 41, 298–299
 Type tools
 functions, 413–414
 generating/editing type masks, 418–421
 Option bar controls, 412, 414
 paragraph text, 415–417
 point text, 415

U

uncached histogram, Histogram palette display, 110
 Uniform, Indexed Color mode option, 72
 unprintable colors, out-of-gamut color selections, 368–372
 Unsharp Mask dialog box
 hiraloom settings, 236
 image sharpening, 260–262
 two pass sharpening, 238–239
 updates, Smart Object techniques, 401

V

- vector graphics
 - Bezier curves, 4
 - object based, 3–4
 - resolution-independent, 4
 - Smart Objects, 400–404
- vector masks
 - clipping paths, 440–443
 - creating, 439–440
 - when to use, 41, 298
- vector objects
 - drawing paths, 424–431
 - path editing, 431–438
 - shape layers, 443–452
 - uses, 423–424
 - vector masks, 439–443
- vector paths, paragraph text creation, 416–417
- Version Cue, status bar information display, 50
- vertical scale, type characteristic control, 413
- View Box, Navigator image display, 46–47
- View menu, image display methods, 44–45
- virtual masks, creating/editing, 300
- Vivid Light, contrast blend mode, 462–463

W

- warp text, type tool control, 414, 417–418
- Web, Indexed Color mode option, 72
- Web sites
 - GretagMacbeth, 102
 - Rainbow Symphony, 179
- Web-friendly colors, Color Picker, 84–86
- white points, color adjustments, 126
- width/height, constraining proportions, 15
- Windows PC
 - monitor calibration, 90–91
 - Resize Image Wizard, 15
 - status bar display, 47–50
- workspaces, restoring/relocating palettes, 54–55

Z

- Zoom In/Out buttons, Navigator image display, 46–47
- Zoom Slider, Navigator image display, 46–47
- Zoom tool, image display techniques, 44

