

Symbols

; (semicolon) 25
{ (curly braces) 40, 204
@ (at symbol) 223
** (exponentiation operator) 38
(hashmark) 25

A

abbreviations feature 23
abbreviations, directives xxix
acsplines mode 36
adding
 contour lines 139
 tic marks 117
adjusting interpolation
 curves 37
airplane 301
allometric scaling 254
analysis
 data 10
 exploratory data (EDA) 11
 geographical 12
 graphical 3, 9–10
 image 11
 multivariate 269
 statistical 11
angles option 323
animate 207
Anscombe's Quartet xxvi
appearance (plot) 106
 aspect ratio 106
 changing 284

 key 104
 options 324
 size ratio 106
applications (strings) 57
aqua terminal 219
AquaTerm 308
armor 301
arrays
 bundling PostScript images
 into 217
 creating with multiplot
 layout 178
 of graphs with layout 177
arrows 94
 custom styles 96
 customizing appearance 95
 option 326
 tricks 96
aspect ratio 106
autoscale option 94, 331
axes 110
 double-logarithmic 9
 example 123
 formatting tic labels 118
 grid 123
 input 128
 multiple 111
 options 330
 output 129
 plotting with two coordinate
 systems 112
 reading tic labels 122
 restoring numerical
 labeling 127
 selecting plot ranges 115

 terminology 111
 tic marks 116
 time series 124, 127
 uses for multiple 113
 zero 123
axis labels 98

B

back ticks 226
backhead option 95
banking 284
bar-and-whiskers plot 80, 258
bars option 330
batch operations 228
bessel functions 317
bezier mode 35
bimodal data 5
binary operators 320
bind command 236, 315
bitmap terminal options 342
bitmaps 206
blank lines 31
 double 31
 single 31
borders 108
 defined 92
 option 324
 three-dimensional plots 142
Boutell, Tom 206
box kernel 150
box plot 72, 258
box-and-whiskers plot 80, 258
boxes style 73
boxwidth option 330

- building
 - from source 305
 - gnuplot 303
 - on Mac OS X 308
 - on Unix 306
 - on Windows 308
 - bundling PostScript images into arrays 217
 - butt keyword 205
- C**
-
- call command 25, 27, 310
 - calling
 - gnuplot 228
 - programs 224
 - candlesticks style 80
 - canvas 92
 - capturing subprocess output 225
 - car data 246, 251, 275
 - case study
 - color 169
 - iteration 275
 - categorical variables 134
 - cauchy kernel 150
 - cb axis 159
 - cbdata time option 159
 - cbdtics option 159
 - cblabel option 159
 - cbmtics option 159
 - cbrange option 159
 - cbtics option 159
 - cd command 310
 - censoring data 282
 - CGI script 239, 241
 - changing
 - appearance 284
 - composition problems 292
 - charts (control) 11, 278
 - Chebyshev polynomial 178
 - CIA World Factbook 263
 - clabel option 336
 - clear command 218, 313
 - clip option 324
 - clr type indicator xxviii
 - clustered histogram style 76
 - cntrparam option 336
 - color 152
 - box 158
 - case studies 169
 - defining 155
 - interpolating between 154
 - palettes 153
 - plots option 337
 - spaces 153
 - specifying 87
 - uses for 160
 - using for data
 - representation 161
 - warnings 168
 - color blind 168
 - colorbox options 159, 337
 - color-map. *See* palettes
 - colspec 87
 - column function 42
 - column manipulation
 - functions 319
 - columnsfirst keyword 177
 - command history 61
 - command-line-orientation 6, 13
 - commands
 - bind 236, 315
 - call 25, 27, 310
 - cd 310
 - clear 218, 313
 - curve fitting 314
 - executing in subshells 225
 - exit 309
 - file system 310
 - fit 191, 314
 - help 309
 - history 309
 - if 315
 - load 25, 310
 - loading 310
 - lower 218, 314
 - managing options 312
 - pause 232, 315
 - plot 6, 9, 16, 26, 102, 310
 - plotting 310
 - print 59, 309
 - pwd 310
 - quit 309
 - raise 218, 314
 - _range 115
 - recalling 17
 - replot 26, 312
 - reread 232, 315
 - reset 50, 313
 - running gnuplot 309
 - save 25, 310
 - saving 310
 - set 25, 50, 312
 - set logsc 44, 238
 - set multiplot 176
 - set mxtics 124
 - set palette 154
 - set palette file 156
 - set pm3d hidden3d 158
 - set size 202
 - set terminal 201
 - set xmtics 124
 - shell 313
 - show 50, 312
 - show palette 156
 - show palette gradient 157
 - splot 26, 134, 145, 312
 - subprocesses 313
 - system 313
 - terminal handling 313
 - test 69, 314
 - test palette 155–156
 - unset 50, 313
 - unset colorbox 159
 - unset multiplot 176
 - update 314
 - comment character 25, 52
 - comparing data 278
 - comparison operator 56
 - complex numbers 40
 - functions 318
 - components (graphs) 92
 - computer-aided data
 - analysis 271
 - concatenation operator 56
 - configure options 307, 321
 - configuring
 - gnuplot 307
 - workspace 234
 - conifg/ directory 306
 - contour lines 139
 - contour option 337
 - contour plots 336
 - control characters 203
 - control charts 11, 160
 - monitoring quantities 278
 - control variables 193
 - conversion routines 153
 - conversion specifiers 122
 - coordinate axes 141
 - coordinates
 - graphs 93
 - non-Cartesian 184
 - Copyright file 306
 - core plot styles 70
 - corners2color keyword 158
 - counting statistics 256
 - creating
 - animated GIFs 207
 - arrays with multiplot layout 178
 - colored graphs with palettes 157
 - custom hot key bindings 236

creating (*continued*)
 font tables 232
 palettes 154–155
 plots in polar mode 185
 thumbnails 208
 critical point 179
 crop option 206
 csplines mode 36
 cumulative directive 243
 cumulative distribution
 functions 259
 curb weight 246
 curve fitting 190
 background 190
 commands 314
 curves
 scaling 280
 shifting 280
 custom line styles 86
 customizing
 arrows 95
 styles 85
 CVS, obtaining development
 version from 305

D

dashed keyword 205
 dashlength option 205
 data
 analysis 10
 bimodal 5
 censoring 282
 comparing 278
 exploratory analysis (EDA) 11
 grid format 146
 matrix format 148
 minimal context 91
 multimodel 261
 multivariate 264
 plotting 43
 from files 20
 using `splot` 145
 ranked 262
 reading interactively 63
 rejecting 282
 representation 161
 smoothing noisy 35
 transformations 41
 truncating 282
 understanding with
 graphs 10, 301
 data files 51
 comments 52
 examples 20, 33, 53–54

explanations 102
 field separator 52
 formats 51
 input 296
 missing values 52
 number formats 51
 options 51
 plotting unsorted 32
 strings 54
 title strings 54
 tricks 54
`_data` option 334
 data sets 30
 blank lines 31
 examples 30–31
 managing 30
 multiple 30
 datafile option 51–52, 321
 date options 334
 decimalsign option 322
 decorations 94, 326
 default keyword 159
 default settings 104
 defining colors 155
 demo/ directory 306
 design palettes 162
 development versions 303
`dgrid3d` option 149, 335
 diesel fuel 251
 diffusion limited aggregation
 (DLA) 6
 dimensions 265
 directives
 abbreviations xxix
 every 31
 font 206
 frequency 33, 35, 257
 global style 70
 index 31
 inline style 68
 layout 177
 linewidth 209
`scansautomatic` 158
`scansbackward` 158
`scansforward` 158
 size 206
 smooth 32, 35
 title 9, 177
 unique 32, 35
 using 24, 192
 with 21
 distances (judging) 287
 DLA. *See* diffusion limited aggregation
 docs/ directory 306

dots style 72
 double blank lines 31
 double-logarithmic axes 9, 47,
 255
 downwards keyword 177
 draft lottery 248
`_dtics` option 335
 dumb terminal 220
 dummy option 323
 duplex plots 210
 dynamic keyword 209

E

EDA. *See* exploratory data
 analysis
 edge effects 282
 enabling
 interlacing 207
 multiplot mode 176
 polar mode 184
 encoding option 322
 enhanced text mode 202
 control characters 203
 examples 204
 options 339
 enhancing quantitative
 perception 289
 enum type indicator xxviii
 environment variables 194, 234
 EPS file 211
`epslatex` terminals 212
 error integral functions 317
 errorbars 78
 Euclidean distance 150
 European Union 262
 every directive 31
 example data sets
 airplane 301
 allometric scaling 254
 armor 301
 car data 246, 251, 275
 Chebyshev polynomial 178
 curb weight 246
 diesel fuel 251
 diffusion limited aggregation
 (DLA) 6
 draft lottery 248
 European Union 262
 flow balance 287
 fractal 6, 171
 fuel consumption 275
 glass data 265
 ice cream 111
 lottery 248

example data sets (*continued*)
 mammals 254
 Mandelbrot set 171
 marathon 4, 280
 miles per gallon (mpg) 275
 price 246
 spectrum 104
 sunspots 284
 web traffic 252

examples
 axes 123
 enhanced text mode 204
 fit command 195
 scatter plots 246, 248

executing commands in
 subshells 225

exit command 309

exp kernel 150

explanations 102
 data files 102
 plot command 102

explicit mode 158

exploratory data analysis
 (EDA) 11

exponential functions 316

export script 27

exporting 25, 201

expressions (math) 38

F

false-color plot 161

features
 abbreviations 23
 autoscale 94
 multiplot 175
 sensible defaults 23
 smooth cumulative 260

field separators 52

fig terminal 220

file formats
 EPS 210
 GIF 207
 JPG 208
 PDF 217
 PNG 207
 PostScript 210
 SVG 208

file system (commands) 310

files
 data 51
 data sets 30
 examples of data 20
 exporting graphs to 201
 initialization 235

input data 296
 loading 25
 output 298
 plotting data from 20
 plotting unsorted data 32
 reading palettes from 156
 reading tic labels from 122
 saving 25

filled plot styles 81

financebars style 80

fit command 191, 314
 control variables 193
 environmental variables 194
 example 195
 options 194
 output variables 193
 tips 194

fit option 322

flow balance 287

flt type indicator xxviii

flushing output channels 205

font
 default 202
 directive 206
 PostScript 202, 210–211, 216
 specifying 210
 terminals 202
 TrueType 202, 206–207, 211

font tables 232, 341

fontpath option 207, 322

forcing interactive sessions 229

format cb option 159

format option 331

formats
 data files 51
 grid 146
 matrix 148

formatting tic labels 118

fractal 6, 171

freefont project 207

frequency directive 33, 35, 257

fsteps style 72

fuel consumption 275

functions
 Bessel 317
 built-in 38
 column 42
 column manipulation 319
 complex arguments 318
 creating palettes with 155
 cumulative distribution 259
 error integral 317
 exponential 316
 gamma 317
 gprint() 122

hyperbolic 316

imag() 41

keyword 155

logarithmic 316

miscellaneous 318

plotting 43

rand() 38, 256

real() 41

scanf() 128

smooth frequency 256

smooth kdensity 258

strftime() 127

strings 56, 318

system() 225

time column handling 319

trigonometric 316

user-defined 39

valid() 43

xticlabels() 122

yticlabels() 122, 263

G

gamma functions 317

Gaussian kernel 150, 258

generating
 logarithmic plots 44
 textual output 59

GIF terminal 207

glass data 265

global plot styles 68, 70

GNU software, compared with
 gnuplot 13

gnuplot 3, 13
 benefits 14
 building 303
 calling 228
 as CGI script 239
 command history 61
 compared with GNU
 software 13
 configuring 307
 examples 4, 6
 help 61
 hot keys 62
 installing 303
 invoking 17, 229
 limitations 15
 mailing list 14, 345
 mousing 62–63
 new features 14
 obtaining 303
 tricks and warnings 44
 web pages 239
 web sites 305

- gpic terminal 220
 - gprint() function 122
 - Grace graphing tool 349
 - graphical analysis 3, 9–10
 - benefits 12
 - limitations 12
 - resources 345
 - graphical analysis
 - techniques 273
 - banking 284
 - changing appearance 284
 - changing compositions
 - problems 292
 - comparing data 278
 - core principle 274
 - enhancing quantitative
 - perception 289
 - housekeeping 296
 - iteration 275
 - judging lengths/
 - distances 287
 - plot ranges 291
 - presentation graphics 298
 - responsiveness 280
 - transformation 275
 - truncation 280
 - zero in plot range 291
 - graphical methods 245
 - counting statistics 256
 - multivariate data 264
 - ranked data 262
 - relationships 246
 - graphics
 - file formats 206
 - presentation 11, 298
 - graphicx package (LaTeX) 212
 - graphing tools 348
 - graphs 92
 - aligned on common axis 181
 - arrays with layout 177
 - arrows 94
 - components 92
 - coordinates 93
 - creating with palettes 157
 - decorations 94
 - exporting 25
 - exporting to file 201
 - key 100
 - legend 100
 - lifecycle 296
 - objects 99
 - pm3d mode 157
 - polar mode 185
 - presentation 10
 - scatter plot 23
 - stacked 293
 - text labels 97
 - understanding data with 10, 301
 - within graphs 179
 - grid axes 123
 - grid cbtics option 159
 - grid format 146
 - grid mcbtics option 159
 - grid option 332
- H**
-
- half-tone shading example 87
 - hann kernel 150
 - hardware requirements xxix
 - head option 95
 - header option 216
 - heat scale palette 165
 - help command 61, 309
 - hidden3d option 136, 335
 - histeps style 72
 - histograms 74, 256
 - history command 61, 309
 - history feature 17
 - historysize option 322
 - hot key bindings, creating
 - custom 236
 - hot keys 62
 - housekeeping 296
 - graph lifecycle 296
 - input data files 296
 - output files 298
 - hue-based palette 166
 - hue-saturation-value (HSV)
 - scheme 153, 165
 - hyperbolic functions 316
- I**
-
- ice cream 111
 - idx type indicator xxviii
 - if command 315
 - imag() function 41
 - image analysis 11
 - implicit mode 158
 - impulses style 73
 - including EPS files in LaTeX
 - documents 211
 - index directive 31
 - indexing strings 56
 - initialization file 235
 - inline plot styles 68
 - input
 - axes 128
 - data files 296
 - redirection 226
 - insets 176
 - INSTALL file 306
 - INSTALL.gnu file 306
 - installing 308
 - gnuplot 303
 - on Linux 304
 - on Mac OS X 304
 - on Windows 304
 - int type indicator xxviii
 - interactive terminals 218
 - options 343
 - interlacing 207
 - interpolate keyword 158
 - interpolating between
 - colors 154
 - interpolation curves 37
 - invoking gnuplot 17, 229
 - isosamples option 136, 335
 - iteration 273, 275
 - case study 275
 - defined 10
- J**
-
- jitter plots 256
 - JPG terminal 208
 - judging lengths/distances 287
- K**
-
- kdensity directive 258
 - Kelley, Colin (software developer) 13
 - kernel 258
 - density estimates 258
 - Gaussian 258
 - smoothing 150
 - key 22, 100
 - appearance 104
 - default settings 104
 - explanation 102
 - layout 101
 - option 327
 - placement 101
 - turning on/off 101
 - keyboard event 238
 - keywords
 - butt 205
 - columnsfirst 177
 - corners2color 158
 - dashed 205
 - default 159
 - downwards 177
 - dynamic 209
 - functions 155

- keywords (*continued*)
 - interpolate 158
 - offset 138, 178
 - rounded 205
 - rowsfirst 177
 - scale 178
 - solid 205
 - title 22
 - trianglepattern 138
 - upwards 177
 - knots, splines 249
 - kst graphing tool 348
- L**
-
- _label option 332
 - label option 327
 - labels (scatter plots) 251
 - landscape option 209
 - LaTeX
 - EPS file 211
 - PostScript plots 211
 - tricks 217
 - layout
 - directive 177
 - key 101
 - source tree 306
 - least squares fitting 191
 - legend. *See* key
 - lengths, judging 287
 - libgd library 206
 - linear grayscale palette 165
 - lines
 - blank 31
 - style 71, 86
 - linespoints style 71
 - linewidth directive 209
 - linewidth option 205
 - Linux, installing gnuplot 304
 - lisp/ directory 306
 - load command 25, 310
 - loading
 - commands 310
 - files 25
 - loadpath option 323
 - locale option 334
 - logarithmic functions 316
 - logarithmic plots 44, 252–256
 - logarithmic scales 8, 44, 252–256
 - log-log plots 8, 45, 255
 - log-normal distribution 181
 - logscale cb option 159
 - logscale option 325
 - lottery 248
 - lower command 218, 314
 - luminance-dominated palettes 167
- M**
-
- Mac OS X
 - building gnuplot 308
 - installing gnuplot 304
 - terminals 219
 - macros
 - option 323
 - string 223
 - magnet 179
 - mailing lists resources 345
 - mammals 254
 - managing
 - data sets 30
 - option commands 312
 - options 50
 - Mandelbrot set 171
 - mapping option 323
 - marathon 4, 280
 - margin 92, 108
 - option 325
 - Marquardt-Levenberg method 191
 - math 38
 - built-in functions 38
 - complex numbers 40
 - expressions 38
 - functions 316
 - non-Cartesian coordinates 184
 - options 323
 - parametric plots 183
 - user-defined functions/variables 39
 - vector fields 188
 - mathematical methods and modeling, resources 347
 - Maxima calculation system 348
 - mcbtics option 159
 - mean 4, 261
 - median 261
 - Microsoft Windows terminal 219
 - miles per gallon (mpg) 275
 - minimal context for data 91
 - miscellaneous
 - commands 315
 - functions 318
 - options 344
 - missing values 52
 - modes
 - enhanced text 202
 - explicit 158
 - implicit 158
 - multiplot 176
 - palette-mapped color 14
 - parametric 183
 - pm3d 157
 - polar 184
 - smooth directive 35
 - time series 129
 - monitoring control chart quantities 278
 - mouse event 238
 - mouse option 323
 - mousing 62–63
 - _mtics option 335
 - m_tics option 117, 332
 - multiple axes 111
 - multiplot feature 175
 - arrays 177
 - multiplot layout 178
 - multiplot mode 176
 - multiplot option 325
 - multivariate analysis 269
 - multivariate data 264
- N**
-
- Napoleon's march xxvi
 - NEWS file 306
 - nohead option 95
 - non-Cartesian coordinates 184
 - nonlinear fit 190, 197
 - noraise option 218
 - number formats 51
 - number of degrees of freedom 194
 - numbers (complex) 40
- O**
-
- object option 327
 - objects 99
 - obtaining
 - development version from CVS 305
 - gnuplot 303
 - Octave Forge 218
 - Octave programming language 348
 - offset keyword 138, 178
 - offsets option 326
 - open source resources 347
 - OpenDX graphing tool 348

- operations (strings) 55
 - operators
 - binary 320
 - comparison 56
 - concatenation 56
 - ternary 321
 - unary 320
 - options
 - angles 323
 - appearance 324
 - arrow 326
 - autoscale 94, 331
 - axes 330
 - backhead 95
 - bars 330
 - bitmap terminals 342
 - border 324
 - boxwidth 330
 - cbdata time 159
 - cbdtics 159
 - cblabel 159
 - cbmtics 159
 - cbrange 159
 - cbtics 159
 - clabel 336
 - clip 324
 - cntrparam 336
 - color plots 337
 - colorbox 159, 337
 - configuration 321
 - configure 307
 - contour 337
 - contour plots 336
 - crop 206
 - dashlength 205
 - _data 334
 - data files 51
 - datafile 321
 - date 334
 - decimalsign 322
 - decorations 326
 - dgrid3d 149, 335
 - _dtics 335
 - dummy 323
 - encoding 322
 - enhanced text mode 339
 - fit 322
 - fit command 194
 - fontpath 207, 322
 - format 331
 - format cb 159
 - grid 332
 - grid cbtics 159
 - grid mcbtics 159
 - head 95
 - header 216
 - heads 95
 - hidden3d 136, 335
 - historysize 322
 - interactive terminals 343
 - isosamples 136, 335
 - key 327
 - _label 332
 - label 327
 - landscape 209
 - linewidth 205
 - loadpath 323
 - locale 334
 - logscale 325
 - logscale cb 159
 - macros 323
 - managing 50
 - mapping 323
 - margin 325
 - math 323
 - mcbtics 159
 - miscellaneous 344
 - mouse 323
 - _mtics 117, 335
 - m_tics 332
 - multiplot 325
 - nohead 95
 - noraise 218
 - object 327
 - offsets 326
 - origin 326
 - output 338
 - palette 154, 337
 - parametric 323
 - persist 218
 - pm3d 338
 - pointsize 330
 - polar 324
 - portrait 209
 - PostScript terminal 342
 - print 338
 - _range 333
 - samples 324
 - set clabel 141
 - set cntrparam 140
 - set contour 139
 - set fontpath 235
 - set loadpath 235
 - set mapping 187
 - set multiplot 177
 - set style 328
 - set style arrow 329
 - set style fill 329
 - set style histogram 329
 - set style line 329
 - set style rectangle 330
 - set table 60
 - set terminal aqua 344
 - set terminal epslatex 343
 - set terminal gif 342
 - set terminal jpeg 342
 - set terminal png 342
 - set terminal postscript 342
 - set terminal svg 344
 - set terminal windows 344
 - set terminal wxt 343
 - set terminal x11 344
 - set xtics 116
 - size 326
 - standalone 216
 - style 328
 - style function 50
 - surface 136, 336
 - surface plots 136
 - symbol font 340
 - table 339
 - terminal 202, 339
 - terminal appearance 205
 - terminals 339
 - termoption 339
 - three-dimensional plots 335
 - _tics 333
 - ticscale 334
 - time 334
 - timefint 334
 - timestamp 328
 - title 328
 - transparent 207
 - view 336
 - xyplane 142, 336
 - zero 324
 - zeroaxis 334
 - origin option 326
 - O-ring xxvi
 - outlier removal 282
 - output
 - axes 129
 - capturing subprocess 225
 - channels 205
 - files 298
 - options 338
 - print-quality 209
 - redirection 226
 - variables 193
 - overview of gnuplot 4
- P**
-
- palette option 154, 337
 - palette-mapped color mode 14

- palette-mapped three-dimensional. *See* pm3d mode
 - palettes 153
 - color spaces 153
 - creating 154
 - creating colored graphs 157
 - creating with functions 155
 - design 162
 - heat scale 165
 - hue-dominated 166
 - linear grayscale 165
 - luminance-dominated 167
 - palette option 154
 - querying 156
 - reading from files 156
 - sample 165
 - saturation-based 166
 - testing 156
 - warnings 168
 - parallel coordinate plots 264
 - parameter
 - estimation 197
 - scale 116
 - parametric option 323
 - parametric plots 183
 - pause command 232, 315
 - PDF terminal 217
 - percentiles 261
 - Perl, calling gnuplot from 230
 - persist option 218
 - phase transition 179
 - pipes 230
 - plot command 6, 9, 16, 26, 102, 310
 - plot styles
 - box 72
 - core 70
 - errorbars 78
 - filled 81
 - other 84
 - ranges 78
 - selecting 68
 - plots
 - appearance 106
 - borders 108
 - box 72, 258
 - box-and-whiskers 258
 - color 337
 - contour 336
 - creating in polar mode 185
 - duplex 210
 - generating logarithmic 44
 - jitter 256
 - logarithmic 44, 252
 - log-log 45, 255
 - margins 108
 - parallel coordinate 264
 - parametric 183
 - ranges 18, 291
 - scatter 246
 - selecting ranges 115
 - semi-log 45, 252
 - simplex 210
 - star 270
 - three-dimensional 133
 - watermarking 227
 - plotting
 - axes with two coordinate systems 112
 - commands 310
 - data 43
 - data from files 20
 - data using splot 145
 - functions 43
 - in parametric mode 183
 - Unix password 58
 - unsorted data files 32
 - vector fields 188
 - pm3d mode 157
 - pm3d option 338
 - PNG terminal 207
 - points style 71
 - pointsize option 330
 - pointsize variable style 84
 - polar mode 184
 - creating plots 185
 - graphs 185
 - polar option 324
 - polishing 10
 - pop 27
 - portrait option 209
 - pos type indicator xxviii
 - PostScript
 - images 210
 - plots 211
 - terminals 209, 342
 - power law 7, 252, 254
 - presentation graphics 10–11, 298
 - price 246
 - print command 59, 309
 - print option 338
 - print-quality output 209
 - programs, calling 224
 - pseudocolumns 42
 - push 27
 - pwd command 310
 - Python, calling gnuplot from 230
-
- Q**
- qnorm algorithm 150
 - quantitative perception, enhancing 289
 - querying palettes 156
 - quit command 309
 - quotes 55
-
- R**
- R language and environment 348
 - raise command 218, 314
 - rand() function 38, 256
 - _range commands 115
 - _range option 333
 - ranges (plots) 291
 - ranked data 262
 - reading
 - data interactively 63
 - palettes from files 156
 - tic labels 122
 - README file 306
 - README.1ST file 306
 - real() function 41
 - reality representation 11
 - recalling commands 17
 - redirection
 - input 226
 - output 226
 - rejecting data 282
 - relationships 246
 - logarithmic scales 252
 - scatter plots 246
 - release versions 303
 - replot command 26, 312
 - reread command 232, 315
 - reset command 50, 313
 - resources
 - books 345
 - graphics/graphical analysis 345
 - mailing lists 345
 - mathematical methods and modeling 347
 - open source 347
 - statistics 346
 - web sites 345
 - responsiveness 280
 - restoring numerical axes
 - labeling 127
 - rgbcolor 87
 - rounded keyword 205
 - rowsfirst keyword 177
 - running commands 309

S

-
- sample palettes 165
 - samples option 324
 - sampling bias 282
 - saturation-based palettes 166
 - save command 25, 310
 - saving
 - commands 310
 - files 25
 - sbezier mode 35
 - scale keyword 178
 - scale parameter 116
 - scales, logarithmic 252
 - scaling curves 280
 - scaling law 7, 252, 254
 - scanf() function 128
 - scansautomatic directive 158
 - scansbackward directive 158
 - scansforward directive 158
 - scatter plots 246–247
 - example 248
 - graph 23
 - labels 251
 - splines 249
 - SciDAVis graphing tool 348
 - screen 92
 - scripts export 27
 - segmentation tasks 167
 - selecting
 - plot ranges 115
 - plot styles 68
 - semi-log plots 45
 - sensible defaults feature 23
 - set clabel option 141
 - set clip 43
 - set cntrparam option 140
 - set command 25, 50, 312
 - set contour option 139
 - set fontpath option 235
 - set format 118
 - set loadpath option 235
 - set logsc option 238
 - set mapping option 187
 - set multiplot option 177
 - set mxtics option 124
 - set palette option 154
 - set pm3d hidden3d option 158
 - set samples 43
 - set size option 202
 - set style arrow option 329
 - set style fill option 329
 - set style histogram option 329
 - set style line option 329
 - set style option 328
 - set style rectangle option 330
 - set table option 60
 - set terminal command 201
 - set terminal aqua option 344
 - set terminal epslatex option 343
 - set terminal gif option 342
 - set terminal jpeg option 342
 - set terminal png option 342
 - set terminal postscript
 - option 342
 - set terminal svg option 344
 - set terminal windows option 344
 - set terminal wxt option 343
 - set terminal x11 option 344
 - set xmtics command 124
 - set xtics options 116
 - settings, default key 104
 - shell command 313
 - shifting curves 280
 - show command 50, 312
 - show palette command 156
 - show palette gradient
 - command 157
 - simplex plots 210
 - single blank lines 31
 - size
 - directive 206
 - option 326
 - terminals 202
 - size ratio 106
 - slideshows 232
 - smooth directive 32, 35
 - cumulative feature 260
 - frequency function 256
 - kdensity function 258
 - smooth surfaces 149
 - smoothing
 - kernels 150
 - noisy data 35
 - software requirements xxix
 - solid keyword 205
 - source tree layouts 306
 - SourceForge web site 308
 - Space shuttle xxvi
 - specifying
 - color 87
 - fonts 210
 - size of PostScript images 210
 - spectrum 104
 - splines 150, 249
 - splot command 26, 134, 145, 312
 - dgrid3d option 149
 - grid format 146
 - matrix format 148
 - smooth surfaces 149
 - spread 280
 - src/ directory 306
 - stacked graph 293
 - stacked histogram style 76
 - standalone option 216
 - standard deviation 4, 79, 261, 280
 - star plots 270
 - statistical analysis 11
 - statistics
 - counting 256
 - resources 346
 - StatLib's Data and Story Library
 - web site 249
 - steps style 72
 - str type indicator xxviii
 - strings 55, 223
 - applications 57
 - data files 54
 - examples 54, 57
 - functions 56, 318
 - indexing 56
 - macros 223
 - overview 55
 - quotes 55
 - variables 224
 - styles 21
 - custom arrow 96
 - custom line 86
 - customizing 85
 - function option 50
 - options 328
 - subprocesses
 - capturing output 225
 - CGI script 241
 - commands 313
 - sunspots 284
 - suppressing colorbox 159
 - surface option 136, 336
 - surface plots 136
 - See also* splot command
 - SVG terminal 208
 - symbol font options 340
 - system command 313
 - system() function 225
-
- T**

 - table option 339
 - tabular environment 217
 - Taylor expansion 18
 - terminals 200
 - appearance options 205
 - aqua 219
 - capabilities 69

- terminals (*continued*)
 - common options 202
 - dumb 220
 - enhanced text mode 202
 - epslatex 212
 - exporting graphs to files 201
 - fig 220
 - flushing output channels 205
 - font 202
 - gpic 220
 - graphics file formats 206
 - handling commands 313
 - interactive 218
 - JPG 208
 - LaTeX documents 211
 - Mac OS X 219
 - option 339
 - PDF 217
 - PNG 207
 - pop 201
 - PostScript 209
 - print-quality output 209
 - push 201
 - size 202
 - SVG 208
 - tgif 220
 - Unix 219
 - window 219
 - wxt 218
 - x11 219
 - terminology (axes) 111
 - termoption option 339
 - ternary operators 321
 - test command 69, 314
 - test palette command 155–156
 - testing palettes 156
 - text labels 97
 - axis labels 98
 - title 98
 - textual output
 - generating 59
 - print command 59
 - set table option 60
 - tgif terminal 220
 - thermodynamics of phase
 - transitions 179
 - three-dimensional plots 133
 - borders 142
 - contour plot options 136
 - coordinate axes 141
 - creating 135
 - grid format 146
 - matrix format 148
 - options 335
 - smooth surfaces 149
 - spot command 145
 - surface plot options 136
 - view point 141, 143
 - thumbnails, creating 208
 - tic labels, formatting 118
 - tic marks 116
 - adding 117
 - major 116
 - minor 117
 - _tics option 333
 - ticscale option 334
 - time column handling
 - functions 319
 - time options 334
 - time series 124, 127, 252
 - time series mode 129
 - time series styles 80
 - timefmt option 334
 - timestamp option 328
 - title directive 9, 177
 - title keyword 22
 - title label 98
 - title option 328
 - title strings 54
 - transformations 273, 275
 - data 41
 - transparent option 207
 - tree-rings palette 168
 - trianglepattern keyword 138
 - trigonometric functions 316
 - truncation 280
 - data 282
 - edge effects 282
 - turning key on/off 101
 - type indicators for user-supplied
 - parameters xxviii
- U**
-
- UCI Machine Learning Repository web site 246, 265
 - unary operators 320
 - understanding data with
 - graphs 10, 301
 - unique directive 32, 35
 - Unix
 - building gnuplot 306
 - input/output redirection 226
 - password plotting 58
 - terminals 219
 - unset colorbox command 159
 - unset command 50, 313
 - unset multiplot command 176
 - unsorted data files examples 33
 - update command 314
 - upwards keyword 177
 - user-defined
 - functions 39
 - variables 39
 - using directive 24, 192
- V**
-
- valid() function 43
 - variables
 - categorical 134
 - control 193
 - environmental 194, 234
 - keyboard event 238
 - mouse event 238
 - output 193
 - string 224
 - user-defined 39
 - vector fields 188
 - plotting 188
 - versions, release/
 - development 303
 - view option 336
 - view point, three-dimensional
 - plots 143
 - visualization concepts 10
- W**
-
- watermarking plots 227
 - web sites
 - freefont project 207
 - gnuplot 239, 305
 - libgd library 206
 - resources 345
 - SourceForge 308
 - StatLib's Data and Story Library 249
 - UCI Machine Learning Repository 246, 265
 - web traffic 252
 - Williams, Thomas (software developer) 13
 - Windows
 - building gnuplot 308
 - installing gnuplot 304
 - windows terminal 219
 - with boxes style 257
 - with directive 21
 - with labels style 84
 - workspace, configuring 234
 - wxt terminal 218

X

X11 308
x11 terminal 219
xticlabels() function 122
xyplane option 142, 336

Y

yticlabels() function 122, 263

Z

z value 280

zero axes 123
zero included in range 291
zero option 324
zeroaxis option 334
z-score 274