

Index

- A**
- ABEND option, ABORT statement 202
 - ABORT statement 201
 - ALTLOG= system option 229
 - ALTPRINT= system option 230
 - APPCSEC system option 285
 - \$ASCII informat 148
 - ATTRIB statement 203
 - autocall libraries ., 163
 - autoexec files 16
 - creating 17
 - logging 17
 - specifying 17
 - specifying 231
 - AUTOEXEC= system option 231
 - automatic call library 262
- B**
- batch mode 5
 - input file, specifying 277
 - BEST format 113
 - binary data, formats 112
 - binary data, informats 148
 - binary data, reading 148
 - binary data, writing 112
 - \$BINARY informat 148
 - BLKSIZE= data set option 106
 - BLKSIZE= option
 - FILE statement 206
 - INFILE statement 219
 - BLKSIZE= option, LIBNAME statement 225
 - BLKSIZE= system option 232
 - BMDP engines 53
 - BMDP files 53
 - assigning librefs 54
 - converting 174
 - referencing 54
 - BMDP= option, PROC CONVERT statement 175
 - BMDP procedure 167
 - BMDP programs, invoking 167
 - BUFNO= system option 233
 - BUFSIZE= system option 234
 - BY statement, BMDP procedure 169
 - BYTE function 123
- C**
- CALL PUTEEXEC routine 124
 - CALL routines 123
 - SLEEP 125
 - CAPSOUT system option 235
 - CATCACHE= system option 235
 - \$CB informat 150
 - CBUFNO= system option 236
 - \$CHAR informat 148
 - character data, formats for writing 111, 111, 112
 - character data, informats for reading 147
 - character expressions, translating characters
 - in 142, 145
 - CHARTYPE= system option 236, 303
 - \$CHARw format 111
 - \$CHARZB informat 148
 - CIMPORT procedure 172
 - CLEANUP system option 237
 - CLOCK command 296
 - CMS command 297
 - options for SAS data libraries on tape 37
 - CMS commands, executing from SAS sessions 9
 - CMS command 297
 - CMS function 126
 - %CMS macro statement 162
 - CMS statement 203
 - %SYSEXEC macro statement 162
 - SYSTEM function 145
 - X command 303
 - CMS filenames 6
 - CMS filetypes used by SAS System 26
 - CMS function 126
 - CMS load libraries 264
 - %CMS macro statement 162
 - CMS pipelines 61
 - allocating external files 61
 - CMS statement 203
 - CMS symbols, macro functions for 163
 - CMS system option 275
 - CMS system variables 9
 - CMS variables, macro functions for 163
 - CMS work units 240
 - COLLATE function 127
 - column binary data, informats 150
 - columns, resizing 295
 - commands 296
 - CLOCK 296
 - CMS 297
 - command line 296
 - DM 90
 - EXPLODE 298
 - FILE, routing SAS output with 76
 - FILE, writing external files 68
 - GCURSOR 299
 - HOSTEDIT 299
 - INCLUDE 90
 - INCLUDE 300
 - INCLUDE, reading external files 72
 - MZOOM 301
 - NULLS 301
 - PGM 90
 - PRINT, routing SAS output with 76
 - PRINT, routing SAS output with 77
 - PRINT, routing SAS output with 79
 - PRTFILE, routing SAS output with 76
 - PRTFILE, routing SAS output with 79
 - SUBMIT 90
 - WDRAG 302
 - WIDGNEXT 302
 - WIDGPREV 303
 - X 303
 - CONFIG= system option 238
 - configuration files 15
 - creating 15
 - displaying contents of 16
 - specifying 15
 - specifying 238
 - CONTENT= option, PROC BMDP statement 168
 - CONTENTS procedure 173
 - determining observation length 49
 - controls, selecting 295
 - CONVERT procedure 174
 - COPIES= system option 239
 - COPY procedure 177
 - COPYVOLSER option, PROC TAPECOPY statement 194
 - CP commands, issuing from SAS sessions 9
 - CMS function 126
 - CMS statement 203
 - SYSTEM function 145
 - CP SPOOL commands 239
 - CPORT procedure ., 182
 - CPSP system option 239

D

dash (-), in tree views 295
 data lines, including 218
 DATA= option, PROC BMDP statement 168
 data representation 97
 character data 100
 ebcdic codes 100
 floating-point numbers 97
 integers 99
 LENGTH statement 99
 numeric variables 97
 saving space 99
 data set options 105
 BLKSIZE= 106
 FILEDISP= 107
 specifying 105
 summary table 107
 summary table 108
 DATA step
 suspending 125
 DATA step, changing files during 207
 DATA step, terminating 201
 DATASETS procedure 184
 date and time value informats 149
 DB2CMTRLSE system option 240
 dBASE files, converting 184
 DBF procedure 184
 DCSSs (discontiguous saved segments) 266
 DDnames, as librefs 33
 DDnames, clearing 45
 DEFAULT= option, LENGTH statement 223
 DEFWORKUNIT system option 240
 DEN= option, PROC TAPECOPY statement 194
 DENSITY= option 207
 FILE statement 207
 FILENAME statement 65
 INFILE statement 220
 LIBNAME statement 225
 DENSITY= option, LIBNAME statement 225
 DETACH option, INVOL statement 197
 DETACH option, PROC TAPECOPY statement 194
 DEVICE= system option 241
 DIAG option, PROC SORT statement 192
 DICT= option, PROC CONVERT statement 176
 DINFO function 128
 directories, closing 132
 directories, deleting 133
 directories, filerefs 135
 directories, getting information about 128
 directories, opening 130
 directory attribute information, returning 131
 directory information items, returning number of 132
 directory members, closing 132
 discontiguous saved segments (DCSSs) 266
 disk files, default characteristics for 216
 DISP= option, INFILE statement 220

DM command 90
 documentation
 hardcopy 94
 online 94
 DOPEN function 130
 DOPTNAME function 131
 DOPTNUM function 132
 DSN= option, LIBNAME statement 225

E

E format 114
 E informat 151
 ebcdic characters 100
 formats 111
 formats 111
 informat 147
 ranking 144
 returning a single 123
 returning a string of 127
 writing 120
 code table 100
 EBCDIC delimiters 163
 \$EBCDIC informat 148
 EBCDICw format 111
 ECHO= system option 241
 ENGINE= system option 242
 engines
 See SAS engines
 environment variables 266
 EOV= option, LIBNAME statement 225
 EQUALS option, PROC SORT statement 192
 EXEC variables, assigning values to 124
 EXEC variables, getting values from 141
 EXPLODE command 298
 external files 57
 accessing 59
 block size 64
 closing 132
 copying to current window 300
 deleting 133
 disposition 65
 FILENAME statement 59
 filerefs 57
 filerefs 135
 filerefs 209
 logical record length 65
 opening 138
 opening 143
 order of precedence, input 64
 order of precedence, output 64
 pathname 143
 record format 65
 routing SAS output to 75
 routing SAS output to 76
 routing SAS output to 76
 specifying as input 218
 specifying as output 205

standard label tapes, option settings 66
 tape density 65
 tape labels 65
 tape setting 66
 tapes, changing in a DATA step 65
 tapes, positioning 65
 verifying existence of 134
 verifying existence of 134
 volume ID 66

external files, accessing
 FILENAME statement 59, 60
 INFILE statement 218
 external files, reading 70
 dynamically changing files 71
 INCLUDE command 72
 %INCLUDE statement 71
 INFILE statement 70
 external files, specifying tape density
 in FILE statement 207
 in FILENAME statement 65
 in INFILE statement 220
 in LIBNAME statement 225
 external files, writing 67
 dynamically changing files 68
 FILE command 68
 FILE statement 67
 file-specification options 70
 PRINT option 69
 to nonprint files 70
 to print files 69
 external I/O, supported devices 215

F

FCLOSE function 132
 FDELETE function 133
 FEXIST function 134
 fields, selecting 295
 FILCLR system option 242
 file activity, logging 261, 261
 FILE command, routing SAS output with 76
 FILE command, writing external files 68
 file information items, getting names of 139
 file information items, getting number of 140
 file information items, getting values from 136
 FILE statement 205
 writing external files 67
 FILEDEF command 214
 assigning librefs to SAS data libraries 33
 clearing 242
 FILEDISP= data set option 107
 FILEEXIST function 134
 FILENAME function 135
 FILENAME statement 209
 accessing external files 59
 accessing external files 59
 accessing external files 60
 and CMS pipelines 61
 options for SAS data libraries on tape 36
 options for SAS data libraries on tape 65

TAPECOPY procedure 196

filenames, CMS 6

filenames, SAS 8

FILEREF function 136

filerefs 135

- external files 57
- external files 209
- listing 63
- verifying 136

FILES statement, TAPECOPY procedure 197

files, specifying blocksize

- in FILE statement 206
- in INFILE statement 219

FILEVAR= option 207

FILE statement 207

INFILE statement 220

FILSZ system option 243

- enabling 243
- PROC SORT statement 192

FINFO function 136

FIRSTOBS= option, PROC CONVERT statement 176

fixed-point data 117, 153

floating-point data, and portability 112

floating-point data, formats for writing 112, 115, 119

floating-point data, informats for reading 148, 155

FOOTNOTE statement 217

FOPEN function 138

FOPTNAME function 139

FOPTNUM function 140

FORM subsystem, host-specific frames 296

FORM subsystem, routing SAS output with 77

- adding forms 78
- modifying default forms 78
- specifying forms 78

formats 111

- associating with variables 203
- BEST 113
- binary data, writing 112
- character data 111
- character data, writing 111
- character data, writing 112
- \$CHARw 111
- choosing automatically 113
- E 114
- EBCDIC data 111
- EBCDIC data 111
- EBCDICw 111
- floating-point numbers and portability 112
- for IBM 370 data 112
- HEX 115
- IB 112
- IB 117
- PD 112
- PD 118
- PIB 112
- RB 112
- RB 119

S370FIB 112

S370FIBU 112

S370FPD 112

S370FPDU 112

S370FPIB 112

S370FRB 112

S370FZD 112

S370FZDL 113

S370FZDS 113

S370FZDT 113

S370FZDU 113

varying-length character values 112

VARYINGw 112

\$W 112

w.d 120

ZD 121

FORTG= system option 243

FORTRAN text library 243

FSBCOLOR system option 244

FSBORDER= system option 244, 303

FSDEVICE= system option 245, 303

FSMODE= system option 246, 303

FULLSTIMER system option 246

function keys, defining 162

function keys, displaying and editing 294

function keys, specifying a primary set 258, 303

functions 123

- BYTE 123
- CMS 126
- COLLATE 127
- DINFO 128
- DOPEN 130
- DOPTNAME 131
- DOPTNUM 132
- FCLOSE 132
- FDELETE 133
- FEXIST 134
- FILEEXIST 134
- FILENAME 135
- FILEREF 136
- FINFO 136
- FOPEN 138
- FOPTNAME 139
- FOPTNUM 140
- GETEXEC 141
- KTRANSLATE 142
- LIBNAME 142
- MOPEN 143
- PATHNAME 143
- RANK 144
- SYSGET 145
- SYSTEM 145
- TRANSLATE 145

G

GCURSOR command 299

GETEXEC DATA step function 85

GETEXEC function 141

GHFONT= system option 247

GLOBALV variables 9

graphical user interface 293

- columns, resizing 295
- controls, selecting 295
- fields, selecting 295
- function keys, designating a primary set 303
- function keys, displaying and editing 294
- navigation 293
- SAS menus, displaying 294
- scrolling 295
- selection fields 295
- text entry fields, displaying contents of 298
- text entry fields, editing 298
- views, resizing 295
- views, selecting 295
- widgets, selecting 295
- window controls 293
- windows, arranging 294
- windows, moving 294
- windows, resizing 294

graphics device name, macro variable for 161

H

hardcopy documentation 94

help

- hardcopy documentation 94
- online documentation 94

help files, location 248, 262

help, user-defined

- developing 93
- HTML tags supported 93
- itemstores 93
- using 93

HELPLOC= system option 248

HEX format 115

\$HEX informat 148

hexadecimal character data, reading 152

hexadecimal character data, writing 115

host editor, invoking 299

host environment variables 145

host sort programs 271

- displaying messages from 270
- enabling SUM FIELDS=NON 274
- passing EQUALS option to 269
- passing LIST option to 270
- passing parameters to 271
- specifying 271
- specifying 272

host symbols 145

HOSTEDIT command 299

HTML

- tags supported by user-defined help 93

I

I/O activity, logging 261, 261

IB format 112, 117
 IB informat 148, 153
 IBM 3290 terminals, character size 236
 IBM 370 data formats 112
 IBM 370 data informats 149
 INCLUDE command 300
 and SASMACROs 90
 reading external files 72
 %INCLUDE statement 218
 reading external files 71
 INDD= option, INVOL statement 197
 INDD= option, PROC TAPECOPY statement 194
 indexes, managing 184
 INFILE statement 218
 reading external files 70
 informats 147
 \$ 148
 \$ASCII 148
 associating with variables 203
 \$BINARY 148
 binary data, reading 148
 \$CB 150
 CB 150
 \$CHAR 148
 character data 147
 \$CHARZB 148
 column binary data 150
 date and time values 149
 E 151
 \$EBCDIC 148
 EBCDIC data 147
 floating-point data and portability 148
 for IBM 370 data 149
 \$HEX 148
 HEX 152
 IB 148
 IB 153
 \$OCTAL 148
 PD 148
 PD 154
 PDTIME 150
 \$PHEX 148
 PIB 148
 PUNCH 150
 RB 148
 RB 155
 RMFDUR 150
 RMFSTAMP 150
 ROW 150
 S370FIB 149
 S370FIBU 149
 S370FPD 149
 S370FPDU 149
 S370FPPIB 149
 S370FRB 149
 S370FZD 149
 S370FZDL 149
 S370FZDS 149
 S370FZDT 149

S370FZDU 149
 SMFSTAMP 150
 TODSTAMP 150
 TU 150
 \$VARYING 148
 w.d 156
 ZD 157
 ZDB 159
 ZDw.d 148
 zoned decimal data, reading 148
 integer binary data 117, 153
 interactive line mode sessions, interrupting 6
 interactive sessions, starting 5
 INVOL= option, INVOL statement 197
 INVOL= option, PROC TAPECOPY statement 194
 INVOL statement, TAPECOPY procedure 196
 ITEMS procedure 187
 itemstores
 building 187
 definition 93

K

%KEYDEF macro statement 162
 KTRANSLATE function 142

L

LABEL= option 207
 LABEL= option, FILE statement 207
 LABEL= option, FILENAME statement 36
 LABEL= option, INFILE statement 220
 LABEL= option, LIBNAME statement 36, 177, 225
 LABEL= option, PROC BMDP statement 168
 LABEL= option, PROC TAPECOPY statement 194
 label processing, SAS data libraries on tape 38
 LABEL2= option, PROC BMDP statement 168
 labels, tape
 FILE statement 207
 INFILE statement 220
 labels, variable 203
 LEAVE= option 207
 LEAVE= option, FILE statement 207
 LEAVE= option, FILENAME statement 37
 LEAVE= option, INFILE statement 220
 LEAVE= option, LIBNAME statement 37, 225
 LEAVE= option, PROC SORT statement 192
 LEAVE= system option 248
 LENGTH statement 222
 lengths, associating with variables 203
 LIBNAME function 142
 LIBNAME statement 223
 assigning librefs 30
 options for SAS data libraries on tape 36

library engines 51
 librefs 30
 assigning with FILEDEF command 33
 assigning with LIBNAME function 142
 assigning with LIBNAME statement 30
 clearing 45
 DDnames as 33
 for BMDP files 54
 for OSIRIS files 56
 for SAS data libraries 30
 for SAS data libraries 223
 for SAS files on disk 35
 for sequential libraries 40
 for SPSS files 55
 listing 45
 multiple per SAS data library 44
 restrictions 32
 LINESIZE= system option 249
 LIST option, PROC SORT statement 193
 LISTING filetype 26
 LOG= system option 250
 LRECL= option 207
 FILE statement 207
 INFILE statement 220
 LU62MODE system option 285
 LUFIRST system option 285
 LUNAME system option 285
 LUPREFIX system option 285

M

macro functions 163
 %SCAN 163
 %SYSGET 163
 macro statements 162
 %CMS 162
 %KEYDEF 162
 %SYSEXEC 162
 macro variables 161
 SYSDEVIC 161
 SYSENV 162
 SYSJOBID 162
 SYSRC 162
 SYSSCP 162
 SYSSCPL 162
 macros
 See also stored compiled macro facility
 autocall libraries 163
 automatic call library, specifying 262
 collating sequence 165
 MAP option, PROC TAPELABEL statement 199
 MAPS= system option 251
 memory 248
 for procedure termination 260
 for SAS software termination 278
 leaving unallocated 248
 maximum limit 252
 tracking usage 251
 MEMRPT system option 251

MEMSIZE= system option 252
 menus 190
 message files, converting to uppercase 254
 MESSAGE option, PROC SORT statement 193
 message windows, zooming 301
 missing values 170
 MOPEN function 143
 MSG= system option 253
 MSGCASE system option 254
 MSGLEVEL= system option 254
 MZOOM command 301

N

news files 255
 NEWS= system option 255
 NEWVOLSER= option, PROC TAPECOPY statement 195
 NL option, INVOL statement 197
 NOEQUALS option, PROC SORT statement 192
 NOFSNRESEQ= option, PROC TAPECOPY statement 195
 NOLIST option, PROC TAPECOPY statement 195
 NOMISS option, PROC BMDP statement 169
 noninteractive sessions 4
 definition 5
 interrupting 6
 specifying an input file 277
 NULLS command 301
 numeric data, formats for writing 120
 numeric data, informats for reading 156

O

OBS= option, PROC CONVERT statement 176
 observation length, determining 49
 \$OCTAL informat 148
 online documentation 94
 operating environment abbreviations, macro variable for 162, 162
 operating environment, macro variable for 162
 OPLIST system option 256
 OPTIONS procedure 189
 customizing SAS sessions 18
 OPTIONS statement 227
 customizing SAS sessions 18
 OPTIONS window, customizing SAS sessions 18
 ORACLE option, LIBNAME statement 224
 ORACLE version number, specifying 256
 ORAVER= system option 256
 OSIRIS engines 53
 OSIRIS files 55
 converting 174
 librefs 56

 referencing 56
 OSIRIS= option, PROC CONVERT statement 176
 OUT= option, PROC CONVERT statement 176
 out-of-resource conditions 237
 OUTDD= option, PROC TAPECOPY statement 195
 output devices, filerefs 135
 output files, specifying 205

P

packed decimal data 118, 154
 PAGE option, PROC TAPELABEL statement 199
 PAGESIZE= system option 257
 parmcards file 24
 PARMCARDS statement, BMDP procedure 169
 PATHNAME function 143
 PD format 112, 118
 PD informat 148, 154
 PDMTIME informat 150
 performance statistics, logging 246, 275, 276
 PFKEY= system option 258, 303
 PGM command 90
 \$PHEX informat 148
 PIB format 112
 PIB informat 148
 PIPE option 205
 FILE statement 205
 INFILE statement 219
 pipelines 61, 205
 PL/I text library 258
 PLIO= system option 258
 plus sign (+), in tree views 295
 PMENU procedure 190
 PRINT command, routing SAS output with 76, 77, 79
 print files, converting to uppercase 235
 PRINT option, writing external files 69
 PRINT= system option 259
 printer, routing SAS output to 77
 printing, specifying number of copies 239
 PRINTTO procedure 190
 routing SAS output with 75
 routing SAS output with 79
 PROC BMDP statement 168
 PROC CONVERT statement 175
 PROC TAPECOPY statement 194
 PROC TAPELABEL statement 199
 procedures 167
 BMDP 167
 CIMPORT 172
 CONTENTS 173
 CONTENTS, determining observation length 49
 CONVERT 174
 COPY 177

 CPORT 182
 DATASETS 184
 DBF 184
 DCSS versus load library 275
 ITEMS 187
 OPTIONS 189
 OPTIONS, customizing SAS sessions 18
 PMENU 190
 PRINTTO 190
 PRINTTO, routing SAS output with 75
 PRINTTO, routing SAS output with 79
 SORT 191
 TAPECOPY 193
 TAPELABEL 199
 PROCLEAVE= system option 260
 PROG= option, PROC BMDP statement 169
 PRTFILE command, routing SAS output with 76, 79
 PUNCH informat 150
 PUTEXEC DATA step function 85

R

RANK function 144
 RANK function task 144
 RB format 112, 119
 RB informat 148, 155
 real binary data 115, 119, 155
 RECFM= option 208
 FILE statement 208
 INFILE statement 220
 return codes, macro variable for 162
 RETURN option, ABORT statement 202
 REXX execs, invoking from SAS sessions 203
 REXX language 83
 ++NOLOG directive 86
 ++SASLOG directive 86
 DM command 90
 GETEXEC DATA step function 85
 INCLUDE command 90
 logging messages 86
 mode switching 88
 PGM command 90
 productivity aids 89
 PUTEXEC DATA step function 85
 RC values 87
 RC variable 87
 retrieving variables 85
 return codes 87
 SASMARCOs, invoking 90
 SASMARCOs, return codes 87
 setting variables 85
 subcommand environment 84
 SUBMIT command 90
 RMFDUR informat 150
 RMFSTAMP informat 150
 ROW informat 150
 RTRACE= system option 261
 RTRACELOC= system option 261

S

- S370FIB format 112
- S370FIB informat 149
- S370FIBU format 112
- S370FIBU informat 149
- S370FPD format 112
- S370FPD informat 149
- S370FPDU format 112
- S370FPDU informat 149
- S370FPIB format 112
- S370FPIB informat 149
- S370FRB format 112
- S370FRB informat 149
- S370FZD format 112
- S370FZD informat 149
- S370FZDL format 113
- S370FZDL informat 149
- S370FZDS format 113
- S370FZDS informat 149
- S370FZDT format 113
- S370FZDT informat 149
- S370FZDU format 113
- S370FZDU informat 149
- SAS catalogs, caching 235
- SAS catalogs, specifying page buffers 236
- SAS data libraries 107
 - disposition 107
 - engines 242
 - file descriptions, printing 173
 - librefs, assigning and deassigning 143
 - librefs, assigning and deassigning 223
 - pathname 143
 - V606, support for 52
- SAS data libraries on tape 36
 - CLOSE disposition 279
 - CMS command options 37
 - examples 38
 - FILENAME options 36
 - label processing 38
 - LIBNAME options 36
 - mounting tapes 37
 - positioning tapes 38
- SAS data libraries, librefs for 30
 - assigning multiple 44
 - DDnames as librefs 33
 - libref restrictions 32
 - with FILEDEF command 33
 - with LIBNAME statement 30
- SAS data sets 106
 - appending to 184
 - blocksize 106
 - blocksize 232
 - buffer size 234
 - buffers 233
 - copying 184
 - deleting 184
 - listing 184
 - renaming 184
- SAS engines 51
 - BMDP engines 53
 - library engines 51
 - OSIRIS engines 53
 - SPSS engines 53
 - view engines 52
- SAS engines, specifying 223
- SAS filenames 8
- SAS files 21
 - CMS filetypes 26
 - converting to dBASE files 184
 - copying 47
 - copying 177
 - deleting 48
 - listing 46
 - LISTING filetype 26
 - parmcards file 24
 - renaming 48
 - SAS filetype 26
 - SAS log file 23
 - SAS procedure output file 24
 - SASLOG filetype 26
 - size, estimating 48
 - summary of 24
 - USER library, directing SAS data sets to 22
 - WORK library 21
 - WORK library, definition 21
 - WORK library, deleting SAS data sets 22
 - WORK library, increasing size of 22
 - WORK library, saving temporary SAS data sets 22
- SAS files on disk 35
 - assigning librefs 35
 - reading 35
 - tape format 29
 - tape format 43
 - writing 34
- SAS files on tape 36
 - FILEDISP= option 41
 - sequential libraries, assigning librefs 40
 - tape format 28
 - writing 41
- SAS files, transporting to and from CMS
 - CIMPORT procedure 172
 - CPORT procedure 182
 - overview 44
- SAS filetype 26
- SAS/GRAPH maps, location 251
- SAS/GRAPH software, terminal device drivers 241
- SAS jobs, terminating 201
- SAS libraries in tape format, engines for 265
- SAS log
 - detail level 254, 281
 - logging performance statistics 246
 - logging performance statistics 275
 - logging performance statistics 276
 - logging REXX messages 86
 - logging system options 256
 - news files 255
- SAS log files 23
- SAS log, routing 73
 - default destination 73
 - default destination, restoring 75
 - in batch mode 250
 - in noninteractive mode 250
 - to a printer 77
 - to a terminal 77
 - to external files 75
 - to external files 76
 - to external files 76
 - to remote destination 80
 - to same destination as SAS procedure output 79
 - with ALTLOG= system option 229
 - with FILE command 76
 - with FORM subsystem 77
 - with PRINT command 76
 - with PRINT command 77
 - with PRINT command 79
 - with PRINTTO procedure 75
 - with PRINTTO procedure 79
 - with PRINTTO procedure 190
 - with PRTFILE command 76
 - with PRTFILE command 79
 - with SAS system options 75
 - destination, changing 74
- SAS menus, displaying 294
- SAS procedure output 217
 - footnotes 217
 - line size 249
 - page size 257
 - titles 227
- SAS procedure output file 24
- SAS procedure output, routing 73
 - default destination 73
 - default destination, restoring 75
 - in batch mode 259
 - in noninteractive mode 259
 - to a printer 77
 - to a terminal 77
 - to external files 75
 - to external files 76
 - to external files 76
 - to remote destination 80
 - to same destination as SAS log output 79
 - with ALTPRINT= system option 230
 - with FILE command 76
 - with FORM subsystem 77
 - with PRINT command 76
 - with PRINT command 77
 - with PRINT command 79
 - with PRINTTO procedure 75
 - with PRINTTO procedure 79
 - with PRINTTO procedure 191
 - with PRTFILE command 76
 - with PRTFILE command 79
 - with SAS system options 75
 - destination, changing 74
- SAS session job ID, macro variable for 162
- SAS sessions, connecting to 6

- SAS sessions, customizing 13
 - autoexec files 16
 - autoexec files, creating 17
 - autoexec files, logging 17
 - autoexec files, specifying 17
 - configuration files, creating 15
 - configuration files, displaying contents of 16
 - configuration files, specifying 15
 - OPTIONS procedure 18
 - OPTIONS statement 18
 - OPTIONS window 18
 - SASUSER library 19
 - system options, displaying 18
 - system options, in the SAS command 14
 - system options, precedence 18
- SAS sessions, interrupting 5
 - display manager 5
 - interactive line mode 6
 - noninteractive sessions 6
- SAS sessions, starting 3
 - batch mode 5
 - interactive mode 5
 - noninteractive mode 4
 - noninteractive mode 5
 - commands for 4
- SAS sessions, terminating 201
- SAS statements 201
 - ABORT 201
 - ATTRIB 203
 - CMS 203
 - FILE 205
 - FILE, writing external files 67
 - FILENAME 209
 - FILENAME, accessing external files 59
 - FILENAME, accessing external files 59
 - FILENAME, accessing external files 60
 - FILENAME, and CMS pipelines 61
 - FOOTNOTE 217
 - %INCLUDE 218
 - %INCLUDE, reading external files 71
 - including 218
 - INFILE 218
 - INFILE, reading external files 70
 - INVOL, TAPECOPY procedure 196
 - LENGTH 222
 - LIBNAME 223
 - LIBNAME, assigning librefs 30
 - OPTIONS 227
 - OPTIONS, customizing SAS sessions 18
 - TITLE 227
- SAS supervisor, DCSS versus load library 275
- SAS system options 229
 - ALTLOG= 229
 - ALTPRINT= 230
 - AUTOEXEC= 231
 - BLKSIZE= 232
 - BUFNO= 233
 - BUFSIZE= 234
 - CAPSOUT 235
 - CATCACHE= 235
 - CBUFNO= 236
 - changing values of 227
 - CHARTYPE= 236
 - CLEANUP 237
 - CMS 275
 - CONFIG= 238
 - CPSP 239
 - DB2CMTRLSE 240
 - DEFWORKUNIT 240
 - DEVICE= 241
 - displaying 18
 - ECHO= 241
 - ENGINE= 242
 - FILCLR 242
 - FILSZ 243
 - for windowing environment 303
 - FORTG= 243
 - FSBCOLOR 244
 - FSBORDER= 244
 - FSDEVICE= 245
 - FSMODE= 246
 - FULLSTIMER 246
 - GHFONT= 247
 - HELPLC= 248
 - in the SAS command 14
 - LEAVE= 248
 - LINESIZE= 249
 - LOG= 250
 - logging 256
 - MAPS= 251
 - MEMRPT 251
 - MEMSIZE= 252
 - MSG= 253
 - MSGCASE 254
 - MSGLEVEL= 254
 - NEWS= 255
 - NULLEOF 255
 - OPLIST 256
 - ORAVR= 256
 - PAGESIZE= 257
 - PFKEY= 258
 - PLIO= 258
 - precedence 18
 - PRINT= 259
 - PROCLEAVE= 260
 - routing SAS output with 75
 - RTRACE= 261
 - RTRACELOC= 261
 - SASAUTOS= 262
 - SASHELP= 262
 - SASLIB= 263
 - SASLOAD= 264
 - SASNEWS= 255
 - SASUSER= 264
 - SEQENGINE= 265
 - SERIES= 266
 - SET= 266
 - SIODISK= 267
 - SORT3IPL 274
 - SORTCUT= 267
 - SORTCUTP= 268
 - SORTEQOP 269
 - SORTLIB= 269
 - SORTLIST 270
 - SORTMSG 270
 - SORTNAME= 271
 - SORTPARM= 271
 - SORTPGM= 272
 - SORTSIZE= 273
 - SORTSUMF 274
 - SSEG 275
 - STATS 275
 - STIMEFMT= 276
 - STIMER 276
 - summary table 284
 - SYSIN= 277
 - SYSLEAVE= 278
 - TAPECLOSE= 279
 - TXTLIB 279
 - USER= 280
 - values, listing 189
 - VECTOR 281
 - VERBOSE 281
 - VIOBUF= 281
 - VSAMLOAD 282
 - VSAMREAD 283
 - VSAMUPDATE 283
 - WORK= 283
 - XCMD 284
- SAS System, displaying a logon message 241
- SAS System, starting 3
- SAS text library 263
- SAS WORK library 283
- SASAUTOS= system option 262
- SASHELP= system option 262
- SASLIB= system option 263
- SASLOAD= system option 264
- SASLOG filetype 26
- SASMACROS and the REXX language 87, 90
- SASMSG directory, path to 253
- SASNEWS= system option 255
- SASUSER library 19, 264
- SASUSER= system option 264
- %SCAN macro function 163
- scientific notation 114, 151
- scrolling windows 295
- selection fields 295
- SEQENGINE= system option 265
- SERIES= system option 266
- SET= system option 266
- setting variables 85
- SIODISK= system option 267
- SL option, INVOL statement 197
- SLEEP, CALL routine 125
- SMFSTAMP informat 150
- SORT procedure 191
- SORT3IPL system option 274
- SORTCUT= system option 267
- SORTCUTP= system option 268
- SORTEQOP system option 269

- SORTEQOP system option, PROC SORT statement 192
 - sorting observations 191
 - 31-bit plist versus 24-bit plist 274
 - data set size cutoff 268
 - FILSZ system option, enabling 243
 - host sort program, displaying messages from 270
 - host sort program, enabling SUM FIELDS=NON 274
 - host sort program, passing EQUALS option to 269
 - host sort program, passing LIST option to 270
 - host sort program, passing parameters to 271
 - host sort program, specifying 271
 - host sort program, specifying 272
 - observation number cutoff 267
 - sort size 273
 - TXTLIB, specifying 269
 - SORTLIB= option, PROC SORT statement 192
 - SORTLIB= system option 269
 - SORTLIST option, PROC SORT statement 192
 - SORTLIST system option 270
 - SORTMSG option, PROC SORT statement 192
 - SORTMSG system option 270
 - SORTNAME= system option 271
 - SORTPARM= system option 271
 - SORTPGM= system option 272
 - SORTSIZE= option, PROC SORT statement 192, 193
 - SORTSIZE= system option 273, 285
 - SORTSUMF option, PROC SORT statement 192
 - SORTSUMF system option 274
 - SPSS engines 53
 - SPSS files 54
 - converting 175
 - librefs 55
 - referencing 55
 - SQL/DS connections 240
 - SQLDS option, LIBNAME statement 224
 - SQLVIEW option, LIBNAME statement 224
 - SSEG system option 275
 - STATS system option 275
 - STIMEFMT= system option 276
 - STIMER system option 276
 - stored compiled macro facility 164
 - sas system options used by 165
 - subcommand environment 84
 - SUBMIT command 90
 - suspending DATA steps 125
 - SYSDEVIC macro variables 161
 - SYSENV macro variables 162
 - %SYSEXEC macro statement 162
 - SYSGET DATA step function 10
 - SYSGET function 145
 - %SYSGET macro function 11, 163
 - SYSIN= system option 277
 - SYSJOBID macro variables 162
 - SYSLEAVE= system option 278
 - SYS Parm= option 208
 - SYS Parm= option, FILE statement 208
 - SYS Parm= option, FILENAME statement 37, 66
 - SYS Parm= option, INFILE statement 221
 - SYS Parm= option, LIBNAME statement 37, 225
 - SYSRC macro variables 162
 - SYSSCP macro variables 162
 - SYSSCPL macro variables 162
 - SYSTEM function 145
- ## T
- TAP1 option, PROC TAPECOPY statement 195
 - tape density, specifying
 - in FILE statement 207
 - in FILENAME statement 65
 - in INFILE statement 220
 - in LIBNAME statement 225
 - tape label information, listing 199
 - tape labels ., 65
 - bypassing 177
 - listing information about 199
 - no-label processing 179
 - SAS data libraries on tape 38
 - specifying 65
 - standard-label option settings 66
 - standard-label option settings 66
 - standard-label processing 181
 - TAPECLOSE= system option 279
 - TAPECOPY procedure 193
 - TAPELABEL procedure 199
 - tapes 37
 - changing in a DATA step 65
 - density, specifying 65
 - input volumes, specifying 196
 - mounting 37
 - positioning 38
 - positioning 65
 - settings, specifying 66
 - standard label option settings 66
 - tracks, specifying 66
 - tapes, as output files ., 205
 - tapes, copying 168
 - bypassing label processing 177
 - COPY procedure 168
 - no-label processing 179
 - standard-label processing 181
 - TAPECOPY procedure 193
 - tapes, positioning 38, 65
 - TAPn option, INVOL statement 197
 - TAPn option, PROC TAPECOPY statement 195
 - TAPn option, PROC TAPELABEL statement 199
 - terminal device drivers 245
 - terminal support 304
 - graphics device drivers 304
 - IBM 3290 screen resolution 306
 - SAS3270 device drivers 305
 - text device drivers 304
 - TERMINAL system option 285
 - terminals, end-of-file indicators 255
 - terminals, full-screen data stream type 246
 - terminals, routing SAS output to 77
 - text entry fields
 - displaying contents of 298
 - editing 298
 - text libraries 279
 - enabling 279
 - FORTRAN 243
 - PL/I 258
 - SAS 263
 - time format, specifying 276
 - time, displaying 296
 - TITLE statement 227
 - TODSTAMP informat 150
 - TRACK= option 208
 - FILE statement 208
 - FILENAME statement 66
 - INFILE statement 221
 - LIBNAME statement 226
 - TRANSLATE function 145
 - transport files, creating 182
 - transport files, restoring 172
 - TU informat 150
 - TXTLIB system option 279
- ## U
- underscore (_), in tree views 295
 - UNIT= option, PROC BMDP statement 169
 - USER library, directing SAS data sets to 22
 - USER library, specifying 280
 - USER= system option 280
- ## V
- V5 (V5TAPE) option, LIBNAME statement 224
 - V6 option, LIBNAME statement 223
 - V606 data libraries 52
 - V6TAPE option, LIBNAME statement 223
 - VAR statement, BMDP procedure 169
 - variable formats 203
 - variable informats 203
 - variable labels 203
 - variable lengths 203, 222
 - variable names, BMDP output 176
 - variable names, OSIRIS output 176
 - variable names, SPSS output 177
 - \$VARYING informat 148
 - varying-length character values, writing 112
 - VARYINGw format 112
 - vector facility 281
 - vector graphics devices, background color 244
 - vector graphics devices, default hardware font 247

VECTOR system option 281
 VERBOSE system option 281
 verbosity 281
 view engines 52
 views
 resizing 295
 selecting 295
 VIOBUF= system option 281
 VOLID= option 208
 FILE statement 208
 INFILE statement 221
 VOLID= option, FILENAME statement 37
 VOLID= option, LIBNAME statement 37, 226
 VSAM data sets 282
 loading 282
 reading 283
 updating 283
 VSAMLOAD system option 282
 VSAMREAD system option 283
 VSAMUPDATE system option 283

W

\$W format 112
 w.d format 120
 w.d informat 156
 WDRAG command 302
 widgets
 keyboard focus on 302, 303
 selecting 295
 WIDGNEXT command 302
 WIDGPREV command 303

window controls 293
 windowing environment 303
 borders 244
 borders 306
 graphics cursor, turning on/off 299
 graphics objects, moving and resizing 302
 mouse 305
 SAS system options for 303
 scroll bars 244
 scroll bars 306
 widgets 306
 windows
 See also graphical user interface
 arranging 294
 moving 294
 navigating 293
 resizing 294
 windows messages, zooming 301
 windows, copying external files into 300
 windows, host-specific 293
 windows, turning NULLS on/off 301
 WORK data sets, virtual I/O buffer 281
 WORK files, routing to disk 267
 WORK library 21
 deleting SAS data sets 22
 increasing size of 22
 saving temporary SAS data sets 22
 WORK= system option 283

X

X command 303
 enabling 284
 XCMD system option 284
 XEDIT, invoking 299

Y

YEARCUTOFF system option 285

Z

ZD format 121
 ZD informat 157
 ZDB informat 159
 ZDw.d informat 148
 zoned decimal data 121, 157, 159
 reading 148

Special Characters

\$ informat 148
 + (plus sign), in tree views 295
 ++NOLOG directive 86
 ++SASLOG directive 86
 - (dash), in tree views 295
 _ (underscore), in tree views 295

Numbers

31-bit plist versus 24-bit plist 274