



CHAPTER

17

SAS System Options

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SAS System Options Under UNIX

This chapter describes SAS system options that have behavior or syntax that is specific to UNIX environments. Each system option description includes a brief “UNIX specifics” section that tells which aspect of the system option is specific to UNIX. If the information under “UNIX specifics” is “all,” then the system option is described only in this documentation. Otherwise, the system option is described in both this documentation and in *SAS Language Reference: Dictionary*.

See “Summary of All SAS System Options” on page 307 for a table of all of the system options available under UNIX.

ALTLOG

Specifies the destination for a copy of the SAS log

Default: no copy of the SAS log is made

Valid in: SAS invocation, SASV8_OPTIONS environment variable, configuration file

UNIX specifics: all

Syntax

`-ALTLOG filename|-NOALTLOG`

-ALTLOG *filename*

specifies the name of a file to which the copy of the SAS log is to be sent.

-NOALTLOG

causes any previous ALTLOG specifications to be ignored.

Details

All messages that are written to the SAS log are also written to *filename*.

See Also

- “ALTPRINT” on page 254
- “Using SAS System Options” on page 136

ALTPRINT

Specifies the destination for a copy of the SAS procedure output file

Default: no copy of SAS output is made

Valid in: SAS invocation, SASV8_OPTIONS environment variable, configuration file

UNIX specifics: all

Syntax

`-ALTPRINT filename | -NOALTPRINT`

-ALTPRINT *filename*

specifies the name of a file to which the copy of the procedure output is to be sent.

-NOALTPRINT

causes any previous ALTPRINT specifications to be ignored.

Details

All messages that are written to the SAS procedure output file are also written to *filename*. You can use this option to capture the procedure output for printing.

See Also

- “ALTLOG” on page 253
- “Using SAS System Options” on page 136

APPEND

Appends the specified pathname to the existing value of the specified system option

Default: none

Valid in: SAS invocation, SASV8_OPTIONS environment variable, configuration file

UNIX specifics: all

Syntax

`-APPEND system-option new-pathname`

system-option

can be HELPLOC, MAPS, MSG, SASAUTOS, SASHELP.

new-pathname

is the new pathname that you want to append to the current value of *system-option*.

Details

By default, if you specify the HELPLOC, MAPS, MSG, SASAUTOS, or SASHELP system option more than one time, the last value that is specified is the value that SAS uses. If you want to add additional pathnames to the pathnames already specified by one of these options, you must use the APPEND system option to add the new pathname. For example, if you entered the following SAS command, the only location that SAS will look for help files is `/apps/help` and the output of PROC OPTIONS will show only `/apps/help`:

```
sas -helploc /sas/help -helploc /apps/help
```

If you want SAS to look in both locations for help files, you must use the APPEND option:

```
sas -helploc /sas/help -append helploc /apps/help
```

For the value of the HELPLOC option, PROC OPTIONS will now show

```
(' /sas/help' ' /apps/help')
```

See Also

- “INSERT” on page 272

AUTOEXEC

Specifies the autoexec file to be used

Default: `autoexec.sas` (see Details below)

Valid in: SAS invocation, SASV8_OPTIONS environment variable, configuration file

UNIX specifics: all

Syntax

`-AUTOEXEC filename | -NOAUTOEXEC`

`-AUTOEXEC filename`

specifies the autoexec file to be used. The *filename* must resolve to a valid UNIX pathname.

`-NOAUTOEXEC`

specifies that SAS is not to process any autoexec files.

Details

The autoexec file contains SAS statements that are executed automatically when you invoke SAS or when you start another SAS process. The autoexec file can contain any SAS statements. For example, your autoexec file can contain LIBNAME statements for SAS data libraries that you access routinely in SAS sessions.

The SAS System looks for this option on the command line, then in the environment variable SASV8_OPTIONS, and finally in the configuration file. It uses the first AUTOEXEC option it encounters.

If neither AUTOEXEC nor NOAUTOEXEC is specified, the SAS System searches three directories for an `autoexec.sas` file in the following order:

- your current directory
- your home directory
- the **SASROOT** directory (see Appendix 1, “The sasroot Directory,” on page 317)

SAS uses the first file it finds to initialize the session.

If you want to see the contents of the autoexec file for your session, use the ECHOAUTO system option when you invoke the SAS System.

See Also

- “Customizing Your SAS Session” on page 14
- *SAS Language Reference: Dictionary*

BATCH

Specifies the batch set of SAS system option default values

Default: NOBATCH

Valid in: SAS invocation, SASV8_OPTIONS environment variable, configuration file

UNIX specifics: default setting

Syntax

`-BATCH` | `-NOBATCH`

-BATCH

specifies that the SAS System use the batch settings of `LINESIZE=132`, `OVP`, `PAGESIZE=60`, and `SOURCE`. At the start of an interactive SAS session, you can use the `BATCH` setting to simulate the behavior of the system in batch mode.

-NOBATCH

specifies that the SAS System not use the batch settings for the `LINESIZE`, `OVP`, `PAGESIZE`, and `SOURCE` options. While in batch mode, you can specify `NOBATCH` to use the default (nonbatch) settings for the `LINESIZE`, `NOOVP`, `PAGESIZE`, and `NOSOURCE` options.

Details

Setting the `BATCH` option does not specify the method of execution. It only specifies batch settings for a collection of options that are in effect when the SAS System

executes. The LINESIZE and PAGESIZE option values for batch mode can be dynamically set based on terminal characteristics when executing interactively.

In addition, the BATCH system option does not specify whether a terminal is present.

See Also

- “LINESIZE” on page 273
- “PAGESIZE” on page 282

BLKSIZE

Specifies the default block size for SAS data libraries

Default: 256

Valid in: SAS invocation, SASV8_OPTIONS environment variable, configuration file, OPTIONS statement, System Options window

UNIX specifics: all

Syntax

`-BLKSIZE n | nK | nM | nG | MIN | MAX | hexX`

`BLKSIZE=n | nK | nM | nG | MIN | MAX | hexX`

n* | *nK* | *nM* | *nG

specifies the block size in multiples of 1; 1,024 (kilobytes); 1,048,576 (megabytes); and 1,073,741,824 (gigabytes), respectively. For example, a value of 8 specifies 8 bytes and a value of 3M specifies 3,145,728 bytes.

MIN

specifies 0 bytes.

MAX

specifies 2,147,483,647 bytes. On 64-bit systems, MAX is 9,007,199,254,740,992.

hexX

specifies the number of bytes in hexadecimal notation. For example, 2DX specifies 45 bytes.

Details

The BLKSIZE= option sets the physical block size of the library. After the library has been created, the block size cannot be changed.

The BLKSIZE= data set option takes precedence over the BLKSIZE= system option.

BUFNO

Specifies the number of buffers to be used for a SAS data set

Default: 1

Valid in: SAS invocation, SASV8_OPTIONS environment variable, configuration file, OPTIONS statement, System Options window

UNIX specifics: default value

Syntax

-BUFNO *n* | *nK* | *nM* | *nG* | MIN | MAX | *hexX*

BUFNO=*n* | *nK* | *nM* | *nG* | MIN | MAX | *hexX*

n* | *nK* | *nM* | *nG

specifies the number of buffers in multiples of 1; 1,024 (kilobytes); 1,048,576 (megabytes); and 1,073,741,824 (gigabytes), respectively. For example, a value of 8 specifies 8 buffers and a value of 3M specifies 3,145,728 buffers.

MIN

specifies 0 buffers, and requires SAS to use the default value of one.

MAX

specifies 2,147,483,647 buffers. On 64-bit systems, MAX is 9,007,199,254,740,992.

hexX

specifies the number of buffers in hexadecimal notation. For example, 2DX specifies 45 buffers.

Details

Under UNIX, the maximum number of buffers you can allocate is determined by the amount of memory available.

See Also

- *SAS Language Reference: Dictionary*

BUFSIZE

Specifies the permanent buffer size for an output SAS data set

Default: 0K

Valid in: SAS invocation, SASV8_OPTIONS environment variable, configuration file, OPTIONS statement, System Options window

UNIX specifics: valid range

Syntax

-BUFSIZE *n* | *nK* | *nM* | *nG* | MIN | MAX | *hexX*

BUFSIZE=*n* | *nK* | *nM* | *nG* | MIN | MAX | *hexX*

n* | *nK* | *nM* | *nG

specifies the buffer size in multiples of 1; 1,024 (kilobytes); 1,048,576 (megabytes); and 1,073,741,824 (gigabytes), respectively. For example, a value of 3M specifies 3,145,728-byte buffers.

MIN

specifies a buffer size of 0. When the buffer size is 0, the BASE engine calculates a buffer size to optimize CPU and I/O use. This size is the smallest multiple of 8K that can hold 80 observations but is not larger than 64K.

MAX

specifies a buffer size of 2,147,483,647 bytes. On 64-bit systems, MAX is 9,007,199,254,740,992.

hexX

specifies the buffer size in hexadecimal notation. For example, 2DX specifies 45-byte buffers.

Details

The buffer size can range from 1K to 2G-1.

If you specify a nonzero value when you create a SAS data set, the BASE engine uses that value. If that value cannot hold at least one observation or is not a multiple of 1K, the engine rounds the value up to a multiple of 1K.

See Also

- *SAS Language Reference: Dictionary*

CLEANUP

Specifies how out-of-resource conditions are to be handled

Default: CLEANUP for interactive modes; NOCLEANUP otherwise

Valid in: SAS invocation, SASV8_OPTIONS environment variable, configuration file, OPTIONS statement

UNIX specifics: behavior when running in interactive line mode and batch mode

Syntax

-CLEANUP | -NOCLEANUP

CLEANUP | NOCLEANUP

Details

The CLEANUP system option indicates whether you should be prompted with a menu of items to be cleaned up when the SAS System encounters an out-of-resource condition.

In batch mode, SAS ignores this option, and if an out-of-resource condition occurs, the SAS session terminates.

See Also

- *SAS Language Reference: Dictionary*

CONFIG

Specifies the name of an alternative configuration file

Default: `sasv8.cfg` (see “Processing Configuration Files” on page 17)

Valid in: SAS invocation, SASV8_OPTIONS environment variable, SASV8_CONFIG environment variable, configuration file

UNIX specifics: all

Syntax

`-CONFIG filename | -NOCONFIG`

-CONFIG filename

specifies a configuration file to be read. The *filename* must resolve to a valid UNIX filename.

-NOCONFIG

specifies that any previous CONFIG specification should be ignored and that the default system options should be used.

Details

Configuration files contain system option specifications that execute automatically whenever SAS is invoked.

If you specify the CONFIG= system option in a configuration file, the option is ignored.

See Also

- “Customizing Your SAS Session” on page 14

DBCS

Recognizes double-byte character sets (DBCS)

Default: NODBCS

Valid in: SAS invocation, SASV8_OPTIONS environment variable, configuration file

UNIX specifics: all

Syntax

-DBCS | -NODBCS

DBCS

uses two bytes for each character in the set.

NODBCS

does not use two bytes for each character in the set.

Details

The DBCS system option is used for supporting languages such as Chinese, Japanese, Korean, and Taiwanese.

See Also

- “DBCSLANG” on page 261
- “DBCSTYPE” on page 262
- “FSDBTYPE” on page 267
- “FSIMM” on page 268
- “FSIMMOPT” on page 269

DBCSLANG

Specifies a double-byte character set (DBCS) language

Default: NONE

Valid in: SAS invocation, SASV8_OPTIONS environment variable, configuration file

UNIX specifics: all

Syntax

-DBCSLANG *language*

language

can be any of the following: CHINESE, JAPANESE, KOREAN, TAIWANESE, and NONE.

Details

The proper setting for the DBCSLANG= system option depends on which setting is used for the DBCSTYPE= system option. Some of the settings of DBCSTYPE= support all of the DBCSLANG= languages, while other settings of DBCSTYPE= support only Japanese.

CHINESE specifies the language used in the People's Republic of China; the language is known as simplified Chinese. TAIWANESE specifies the Chinese language used in Taiwan; the language is known as traditional Chinese.

See Also

- “DBCS” on page 260
- “DBCSTYPE” on page 262
- “FSDBTYPE” on page 267
- “FSIMM” on page 268
- “FSIMMOPT” on page 269

DBCSTYPE

Specifies a double-byte character set (DBCS) encoding method

Default: NONE

Valid in: SAS invocation, SASV8_OPTIONS environment variable, configuration file

UNIX specifics: all

Syntax

`-DBCSTYPE encoding-method`

encoding-method

specifies the type of double-byte character set (DBCS) encoding method. Valid values for *encoding-method* are as follows:

DEC	specifies the DEC encoding method.
DG	specifies the DG encoding method.
EUC	specifies Extended UNIX Code.
HP15	specifies the HP15 encoding method.
PCIBM	specifies the IBM PC encoding method.
SJIS	specifies the Shift-JIS encoding method. (Valid only when the value of DBCSLANG is JAPANESE.)
NONE	is the default encoding method.

Details

Each hardware manufacturer uses different DBCS encoding methods, so check with your system administrator for other values that you can specify.

See Also

- “DBCS” on page 260
- “DBCSLANG” on page 261
- “FSDBTYPE” on page 267
- “FSIMM” on page 268
- “FSIMMOPT” on page 269

DEVICE

Specifies a graphics device driver for SAS/GRAPH software output

Default: none

Valid in: SAS invocation, SASV8_OPTIONS environment variable, configuration file, OPTIONS statement, System Options window, GOPTIONS statement

UNIX specifics: valid device drivers

Syntax

-DEVICE *device-driver-name*

DEVICE=*device-driver-name*

Details

To see the list of device drivers available under UNIX, you can use the GDEVICE procedure. If you are using the SAS windowing environment, submit the following statements to display a list you can scroll through:

```
proc gdevice;
run;
```

If you are running in interactive line mode or batch mode, use the following statements to send the device list to the SAS log:

```
proc gdevice catalog=sashelp.devices nofs;
  list _all_;
run;
```

See Also

- *SAS Language Reference: Dictionary*
- *SAS/GRAPH Software: Reference*

ECHO

Specifies a message to be displayed when the SAS System is invoked

Default: none

Valid in: SAS invocation, SASV8_OPTIONS environment variable, configuration file

UNIX specifics: all

Syntax

`-ECHO 'text-string' | CLS | -NOECHO`

Details

The ECHO option has three forms:

`-ECHO 'text-string'`

specifies the text of the message you want to display. The text must be enclosed in quotes and should fit on a single line. The message is displayed before the SAS session begins and is sent to standard output but not to the SAS log.

`-ECHO CLS`

clears the display before the SAS System initializes.

`-NOECHO`

specifies that the system ignore all previous ECHO options. If the NOECHO option is used in the SAS command, any ECHO options in the configuration file are ignored.

You can specify multiple ECHO options. The strings are displayed in the order in which SAS encounters them. See “Processing System Options Set in Multiple Places” on page 16 for information on how that order is determined.

EDITCMD

Specifies the host editor to be used with the HOSTEDIT command

Default: none

Valid in: SAS invocation, SASV8_OPTIONS environment variable, configuration file, OPTIONS statement

UNIX specifics: all

Syntax

`-EDITCMD "host-editor-pathname editor-options"`

`EDITCMD="host-editor-pathname editor-options"`

Details

The host editor that you specify is used when you issue the HOSTEDIT command. The HOSTEDIT command is valid only when you are running SAS in a windowing environment.

If you do not specify the full pathname, SAS searches the pathnames specified in the \$PATH environment variable. Quotes are needed only when you specify editor options. If you are using a terminal-based editor, you must specify a command that runs the editor inside a terminal emulator window. For example, to use vi, you would specify

```
sas -editcmd "/usr/bin/X11/xterm -e /usr/bin/vi"
```

See Also

- “Configuring the SAS System for Host Editor Support” on page 78

EMAILSYS

Specifies the name of the script to use for sending electronic mail

Default: !SASROOT/utilities/bin/sasmailer

Valid in: configuration file, SAS invocation

UNIX specifics: all

Syntax

`-EMAILSYS name-of-script`

Details

The EMAILSYS system option specifies which script to use for sending electronic mail from within the SAS System.

See Also

- “Sending Mail from within Your SAS Session” on page 31

ENGINE

Specifies the default access method for SAS data libraries

Default: V8

Valid in: SAS invocation, SASV8_OPTIONS environment variable, configuration file

UNIX specifics: valid values

Syntax

`-ENGINE engine-name`

Details

The ENGINE value can be one of the following:

V7|V8|BASE

specifies the default SAS engine for Version 7 and Version 8. These engines are identical.

V6, V609, V610, V612

specifies the default engine for Release 6.09 through Release 6.12. These engines are identical.

V7TAPE|V8TAPE|TAPE

specifies the sequential engine for Version 7 and Version 8. These engines are identical.

V6TAPE

specifies the sequential engine for Version 6.

See Also

- “Assigning Librefs with the LIBNAME Statement” on page 88
- *SAS Language Reference: Dictionary*

FILELOCKS

Specifies whether file locking is on or off and what action should be taken if a file cannot be locked

Default: FAIL

Valid in: SAS invocation, SASV8_OPTIONS environment variable, configuration file

UNIX specifics: all

Syntax

-FILELOCKS NONE | FAIL | CONTINUE

Details

When file locking is in effect, the SAS System prevents these situations:

- two SAS sessions simultaneously opening the same SAS file for update or output.
- two SAS sessions accidentally using the same work subdirectory if they are sharing the same work directory.

You can use the following arguments with the FILELOCKS option:

NONE

turns file locking off. SAS files are not protected from shared update access.

FAIL

turns file locking on. If a file cannot be locked, an attempt to open it fails.

CONTINUE

turns file locking on. If a file is already locked by someone else, an attempt to open it fails. If the file cannot be locked for some other reason, the file is opened and a warning message is sent to the log.

For file locking to work on some hosts, you must have the host's "file locking service" running. This usually involves having a lock daemon (such as **lockd**) and a stat daemon (such as **statd**) running. You may also need to execute other commands. For specifics, refer to the man pages or system administration instructions for your host.

In addition, if you are working with NFS-mounted files, the "file locking service" must be running both on your local host and on the remote host.

See Also

- "WORKINIT" on page 305

FSDBTYPE

Specifies full-screen double-byte character set (DBCS) encoding method

Default: DEFAULT

Valid in: SAS invocation, SASV8_OPTIONS environment variable, configuration file

UNIX specifics: all

Syntax

-FSDBTYPE *encoding-method*

Details

The FSDBTYPE system option specifies the full-screen type of double-byte character set (DBCS) encoding method. Under Unix, you can specify the following *encoding-methods*:

DEC

specifies the DEC DBCS encoding method.

DEFAULT

specifies the default DBCSTYPE for the host.

EUC

specifies the Extended UNIX encoding method.

HP15

specifies the HP-UX DBCS encoding method.

JIS7

specifies the JIS X0208 encoding method.

PCIBM

specifies the IBM PC DBCS encoding method.

SJIS

specifies the Shift-JIS encoding method. Valid only when the value of DBCSLANG is JAPANESE.

Each hardware manufacturer uses different DBCS encoding methods, so check with your system administrator for other values you can specify.

See Also

- “DBCS” on page 260
- “DBCSLANG” on page 261
- “DBCSTYPE” on page 262
- “FSIMM” on page 268
- “FSIMMOPT” on page 269

FSIMM

Specifies full-screen double-byte character set (DBCS) input method module (IMMs)

Default: none

Valid in: SAS invocation, SASV8_OPTIONS environment variable, configuration file

UNIX specifics: all

Syntax

`-FSIMM X11.motif=IMM-name1<, X11.motif=IMM-name2>...`

Details

You can specify the following values for *IMM-name*:

TTY | SASWUJT

provides an interface for `/dev/tty`. This IMM enables you to enter DBCS strings through a terminal emulator that has DBCS input capability.

PIPE | SASWUJP

provides a pipe interface. This interface forks the DBCS input server process. The default server name is `saswujms`, which uses the vendor-supplied MOTIF toolkit.

For example, to use the PIPE IMM for X11.motif drivers, you would specify:

```
-FSIMM X11.motif=PIPE
```

Note: The name of the server can be specified using the FSIMMOPT option. Δ

See Also

- “DBCS” on page 260
- “DBCSLANG” on page 261
- “DBCSTYPE” on page 262
- “FSIMMOPT” on page 269
- “FSDBTYPE” on page 267

FSIMMOPT

Specifies options for full-screen double-byte character set (DBCS) input method module

Default: none

Valid in: SAS invocation, SASV8_OPTIONS environment variable, configuration file

UNIX specifics: all

Syntax

-FSIMMOPT *fullscreen-IMM:IMM-option*

Details

The FSIMMOPT system option specifies an option for each full-screen IMM (input method module). You can specify multiple FSIMMOPT options, one for each IMM. If you specify multiple FSIMMOPT options for the same IMM, only the last specification is used.

See the FSIMM system option description for IMM values you can specify. See SAS Technical Report J-121, *DBCS Support Usage Guide* (in Japanese) for option values for each IMM.

For example, you can use the FSIMMOPT option to specify the name of the server to be used for the PIPE IMM:

```
-fsimmopt PIPE:MOTIF
```

See Also

- “DBCS” on page 260
- “DBCSLANG” on page 261
- “DBCSTYPE” on page 262

FULLSTIMER

Writes all available system performance statistics to the SAS log

Default: NOFULLSTIMER

Valid in: SAS invocation, SASV8_OPTIONS environment variable, configuration file, OPTIONS statement

UNIX specifics: all

Syntax

-FULLSTIMER | -NOFULLSTIMER

FULLSTIMER | NOFULLSTIMER

FULLSTIMER

writes to the SAS log a complete list of resources that were used for each step and for the entire SAS session.

NOFULLSTIMER

does not write to the SAS log a complete list of resources.

Details

The statistics printed by FULLSTIMER depend on which machine you use. On BSD-based UNIX systems, the SAS System calls the `getrusage()` UNIX system call to obtain the statistics presented with FULLSTIMER. On System V-based UNIX systems, the SAS System calls the `time()` and `times()` UNIX system calls.

If both FULLSTIMER and STIMER are set, the FULLSTIMER statistics are printed. FULLSTIMER can display

- the elapsed time (real time), the cpu time spent in user mode (user cpu), and the cpu time spent performing system overhead tasks on behalf of the SAS process (system cpu).
- the number of pages that SAS tried to access but were not in main memory and required I/O activity (page faults), and the number of pages that can be accessed without I/O activity (page reclaims).
- the amount of memory required to run a step (memory).
- the number of times a process was swapped out of main memory (page swaps).
- the number of block input and output operations.
- the number of times that the SAS process had to give up on the CPU because of a resource constraint such as a disk drive (voluntary context switches), and the number of times that the operating system forced a process into an inactive state (involuntary context switches).

FULLSTIMER displays all statistics returned by the operating environment.

See Also

- “STIMER” on page 299

GISMAPS

Specifies the name of the SAS data library that contains U.S. Census Tract maps supplied by SAS/GIS

Default: GISMAPS, if defined

Valid in: SAS invocation, SASV8_OPTIONS environment variable, configuration file, LIBNAME statement

UNIX specifics: valid values for *library-specification* and *path-to-library*

Syntax

GISMAPS=*library-specification* | *path-to-library*

library-specification* | *path-to-library

specifies either a library or a physical path to a library that contains U.S. Census Tract maps supplied by SAS/GIS.

Details The GISMAPS= system option specifies the name of the SAS data library that contains the U.S. Census Tract maps supplied by SAS/GIS.

See Also

- GISMAPS= system option in *SAS Language Reference: Dictionary*

HELPLOC

Specifies the location of the text and index files for the facility that is used to view SAS Help

Default: !SASROOT/X11/native_help

Valid in: SAS invocation, configuration file

UNIX specifics: default pathname

Syntax

-HELPLOC (*pathname*<,*pathname*...>)

Details

The value for this option is not cumulative; the current value is the path or paths that are specified in the last occurrence of the option. To insert or append pathnames by specifying an additional HELPLOC option, you must use the INSERT or APPEND system option.

See Also

- “INSERT” on page 272
- “APPEND” on page 254

INSERT

Inserts the specified pathname at the beginning of the value of the specified system option

Default: none

Valid in: SAS invocation, SASV8_OPTIONS environment variable, configuration file

UNIX specifics: all

Syntax

`-INSERT system-option new-pathname`

system-option

can be HELPLOC, MAPS, MSG, SASAUTOS, or SASHELP.

new-pathname

is the new pathname that you want to insert at the front of the current value of *system-option*.

Details

By default, if you specify the HELPLOC, MAPS, MSG, SASAUTOS, or SASHELP system option more than one time, the last specification is the one that SAS uses. If you want to insert additional pathnames to front of the search paths already specified by one of these options, you must use the INSERT system option to add the new pathname. For example, if you entered the following SAS command, the only location that SAS will look for help files is `/apps/help` and the output of PROC OPTIONS will show only `/apps/help`:

```
sas -helploc /apps/help
```

If you want SAS to look in both the current path for help files and in `/apps/help` and if you want SAS to search `/apps/help` first, then you must use the INSERT option:

```
sas -insert helploc /apps/help
```

If your current path for help files is `!SASROOT/X11/native_help`, then for the value of the HELPLOC option, PROC OPTIONS will now show

```
( '/apps/help' '!SASROOT/X11/native_help' )
```

See Also

- “APPEND” on page 254

LINESIZE

Specifies the line size of SAS output

Default: the display width setting for the interactive modes; 132 for batch mode

Valid in: SAS invocation, SASV8_OPTIONS environment variable, configuration file, OPTIONS statement, System Options window

UNIX specifics: default values

Syntax

`-LINESIZE n | MIN | MAX | hexX`

`LINESIZE=n | MIN | MAX | hexX`

n
specifies the line size in bytes.

MIN
specifies a line size of 64.

MAX
specifies a line size of 256.

hexX
specifies the line size in hexadecimal notation. For example, 2DX specifies 45 characters.

See Also

- “Controlling the Content and Appearance of Output” on page 137
- *SAS Language Reference: Dictionary*

LMODE

Specifies whether interactive line mode should be used when the SAS windowing environment is not available

Default: LMODE

Valid in: SAS invocation, SASV8_OPTIONS environment variable, configuration file

UNIX specifics: all

Syntax

-LMODE | -NOLMODE

Details

By default, if the DMS option is in effect and for some reason the SAS windowing environment cannot be run on your display, the SAS System prints a message indicating the nature of the problem and starts an interactive line mode session, if possible. If you still want to use the SAS windowing environment, issue the ENDSAS statement to terminate the session, correct the problem, and invoke the SAS System again.

When NOLMODE is in effect and the SAS windowing environment cannot be run, the SAS System prints a message indicating the nature of the problem and terminates.

The NOLMODE option is especially useful when using the X Interface to the SAS System, because the SAS windowing environment will most often not run if either the DISPLAY specification is wrong or the SAS System does not have permission to connect to your display.

LOG

Specifies a destination to which the SAS log is written in batch mode

Default: a file in the current directory with the same filename as the SAS source file and an extension of `.log`.

Valid in: SAS invocation, SASV8_OPTIONS environment variable, configuration file

UNIX specifics: all

Syntax

-LOG *filename* | -NOLOG

-LOG *filename*

specifies the name of a file, other than the default, to which the SAS log is to be sent. The *filename* must be a valid UNIX filename.

-NOLOG

suppresses the creation of the SAS log. Do not use this value unless your SAS program is thoroughly debugged.

Details

LOG is valid in batch mode; it is ignored in the interactive modes.

See Also

- “Using SAS System Options” on page 136

LPTYPE

Specifies which UNIX command and options settings will be used to route files to the printer

Default: BSD for Berkeley-based systems; SYSV otherwise

Valid in: SAS invocation, SASV8_OPTIONS environment variable, configuration file, OPTIONS statement

UNIX specifics: all

Syntax

-LPTYPE BSD | SYSV

LPTYPE=BSD | SYSV

Details

The LPTYPE option determines whether the SAS System is to use the **lpr** or the **lp** UNIX command to print files.

The LPTYPE option has two forms:

-LPTYPE BSD

causes the SAS System to use the **lpr** command to send files to the printer. The **lpr** command is usually supported on UNIX operating systems developed at Berkeley.

-LPTYPE SYSV

causes the SAS System to use the **lp** command to send files to the printer. The **lp** command is usually supported on operating systems derived from UNIX System V.

If you do not know whether to specify BSD or SYSV, check with your System Administrator.

By default, the SAS System uses the **lpr** command if your operating system is derived from Berkeley's version; otherwise, it uses the **lp** command.

See Also

- “PRINTCMD” on page 284

MAPS

Specifies the name of the SAS data library containing the SAS/GRAPH map data sets

Default: `!SASROOT/maps` (set in the installed `!SASROOT/sasv8.cfg` file)

Valid in: SAS invocation, SASV8_OPTIONS environment variable, configuration file, OPTIONS statement, System Options window

UNIX specifics: default value and *library-specification*

Syntax

-MAPS *library-specification*

MAPS=*library-specification*

Details

The MAPS option specifies the name of the SAS data library that holds the SAS/GRAPH map data sets. The *library-specification* argument can be a libref, an environment variable, or a pathname of a directory. Do not use a specific filename. You can reassign the MAPS libref, but you cannot clear it.

Map files may have to be uncompressed before they are used. Use the CONTENTS statement in the DATASETS procedure to determine whether they are compressed.

See Also

- *SAS Language Reference: Dictionary*
- “INSERT” on page 272
- “APPEND” on page 254

MAXMEMQUERY

Specifies the limit on the maximum amount of memory that is allocated for certain procedures

Default: 6M (set in the installed !SASROOT/sasv8.cfg file)

Valid in: SAS invocation, SASV8_OPTIONS environment variable, configuration file, OPTIONS statement

UNIX specifics: all

Syntax

-MAXMEMQUERY *n* | *nK* | *nM* | *nG* | MIN | MAX | *hexX*

n* | *nK* | *nM* | *nG

specifies the limit in multiples of 1; 1,024 (kilobytes); 1,048,576; and 1,073,741,824 (gigabytes), respectively. For example, a value of 8 specifies 8 bytes and a value of 3M specify 3,145,728 bytes.

MIN

specifies 0 bytes, which indicates that there is no limit on the total amount of memory that can be used by each procedure.

MAX

specifies a limit of 2,147,483,647 bytes. On 64-bit systems, MAX is 9,007,199,254,740,992.

hexX

specifies the limit in hexadecimal notation. For example, 2DX specifies 45 bytes.

Details

Some SAS procedures attempt to allocate all of the memory that they can, up to the amount specified by the MEMSIZE option. If this amount of memory is not available, SAS attempts to use paging. If the amount of page space is less than the value of MEMSIZE, SAS generates an error message. The MAXMEMQUERY option specifies the maximum amount of memory that SAS can request at one time. If your system has small system paging devices, you may want to lower the value of MAXMEMQUERY.

MEMSIZE

Specifies the limit on the total amount of memory that can be used by each SAS session

Default: 32M, except 48M on ALX (set in the installed `!SASROOT/sasv8.cfg` file)

Valid in: SAS invocation, SASV8_OPTIONS environment variable, configuration file

UNIX specifics: all

Syntax

`-MEMSIZE n | nK | nM | nG | MIN | MAX | hexX`

n | nK | nM | nG

specifies the limit in multiples of 1; 1,024 (kilobytes); 1,048,576 (megabytes); and 1,073,741,824 (gigabytes), respectively. For example, a value of 8 specifies 8 bytes and a value of 3M specifies 3,145,728 bytes.

MIN

specifies 0 bytes, which indicates that there is no limit on the total amount of memory that can be used by each SAS session.

MAX

specifies a limit of 2,147,483,647 bytes. On 64-bit systems, MAX is 9,007,199,254,740,992.

hexX

specifies the limit in hexadecimal notation. For example, 2DX specifies 45 bytes.

Details

The MEMSIZE option specifies the total amount of memory available to each SAS session. The operating system might use additional amounts of memory. Too low a value will result in out-of-memory conditions.

MSG

Specifies the library that contains SAS error messages

Alias: SASMSG

Default: `!SASROOT/sasmsg` (set in the installed `!SASROOT/sasv8.cfg` file)

Valid in: SAS invocation, SASV8_OPTIONS environment variable, configuration file

UNIX specifics: all

Syntax

`-MSG UNIX-pathname`

UNIX-pathname must resolve to a valid UNIX pathname. You can use an environment variable that resolves to a valid pathname.

Details

This option is set in the installation process and is not normally changed after installation. You can specify multiple MSG options.

See Also

- “INSERT” on page 272
- “APPEND” on page 254

MSGCASE

Determines whether SAS displays notes, warnings, and error messages in uppercase

Default: NOMSGCASE

Valid in: SAS invocation, SASV8_OPTIONS environment variable, configuration file

UNIX specifics: all

Syntax

`MSGCASE | NOMSGCASE`

MSGCASE

displays messages in uppercase characters.

NOMSGCASE

displays messages in uppercase and lowercase characters.

Details

User-generated messages and source lines are not affected by the MSGCASE system option.

MSYMTABMAX

Specifies the maximum amount of memory available to the macro variable symbol table(s)

Default: 4M (set in the installed `!SASROOT/sasv8.cfg` file)

Valid in: SAS invocation, SASV8_OPTIONS environment variable, configuration file, OPTIONS statement, System Options window

UNIX specifics: default value

Syntax

`-MSYMTABMAX n|nK|nM|nG|MAX |hexX`

`MSYMTABMAX=n|nK|nM|nG|MAX |hexX`

n|nK|nM|nG

specifies the amount of memory in multiples of 1; 1,024 (kilobytes); 1,048,576 (megabytes); and 1,073,741,824 (gigabytes), respectively. For example, a value of 8 specifies 8 bytes and a value of 3M specifies 3,145,728 bytes.

MIN

specifies 0 bytes, which causes all macro symbol tables to be written to disk.

MAX

specifies 2,147,483,647 bytes. On 64-bit systems, MAX is 9,007,199,254,740,992.

hexX

specifies the amount of memory in hexadecimal notation. For example, 2DX specifies 45 bytes.

See Also

- *SAS Language Reference: Dictionary*
- *SAS Macro Language: Reference*

MVARSIZE

Specifies the maximum size for in-memory macro variables

Default: 32K (set in the installed `!SASROOT/sasv8.cfg` file)

Valid in: SAS invocation, SASV8_OPTIONS environment variable, configuration file, OPTIONS statement, System Options window

UNIX specifics: default value

Syntax

`-MVARSIZE n|nK|nM|nG|MIN|MAX |hexX`

MVARSIZE=*n* | *nK* | *nM* | *nG* | MIN | MAX | *hexX*

n* | *nK* | *nM* | *nG

specifies the macro variable size in multiples of 1; 1,024 (kilobytes); 1,048,576 (megabytes); and 1,073,741,824 (gigabytes), respectively. For example, a value of 8 specifies 8 bytes and a value of 3M specifies 3,145,728 bytes.

MIN

specifies 0 bytes, which causes all macro variable values to be written to disk.

MAX

specifies 2,147,483,647 bytes. On 64-bit systems, MAX is 9,007,199,254,740,992.

hexX

specifies the macro variable size in hexadecimal notation. For example, 2DX specifies 45 bytes.

See Also

- *SAS Language Reference: Dictionary*
- *SAS Macro Language: Reference*

NEWS

Specifies the file that contains messages to be written to the SAS log

Default: `!SASROOT/misc/base/news` (set in the installed `!SASROOT/sasv8.cfg` file)

Valid in: SAS invocation, SASV8_OPTIONS environment variable, configuration file

UNIX specifics: `-NONEWS` option

Syntax

`-NEWS filename` | `-NONEWS`

`-NEWS filename`

specifies the name of the file that contains messages for the SAS log.

`-NONEWS`

causes any previous NEWS specifications to be ignored.

See Also

- *SAS Language Reference: Dictionary*

OBS

Specifies which observation the SAS System will process last

Default: MAX

Valid in: SAS invocation, SASV8_OPTIONS environment variable, configuration file, OPTIONS statement, System Options window

UNIX specifics: default value

Syntax

-OBS *n* | *nK* | *nM* | *nG* | MIN | MAX | *hexX*

OBS=*n* | *nK* | *nM* | *nG* | MIN | MAX | *hexX*

n* | *nK* | *nM* | *nG

specifies the number of the last observation to process in multiples of 1; 1,024 (kilobytes); 1,048,576 (megabytes); and 1,073,741,824 (gigabytes), respectively. For example, a value of 8 specifies the eighth observation and a value of 3M specifies the 3,145,728th observation.

MIN

specifies 0. If OBS=0 and the NOREPLACE option is in effect, SAS might still be able to take certain actions. See *SAS Language Reference: Dictionary* for more information.

MAX

sets the maximum number of observations to process to 2,147,483,647. On 64-bit systems, MAX is 9,007,199,254,740,992.

hexX

specifies the number of the last observation in hexadecimal notation. For example, 2DX specifies the 45th observation.

See Also

- *SAS Language Reference: Dictionary*

OPLIST

Writes the settings of SAS system options to the SAS log

Default: NOOPLIST

Valid in: SAS invocation, SASV8_OPTIONS environment variable, configuration file

UNIX specifics: all

Syntax

-OPLIST | -NOOPLIST

Details

The OPLIST system option echoes only the system options specified on the command line; it does not echo any system options specified in the configuration file or in the

SASV8_OPTIONS environment variable. (If you want to echo the contents of the configuration file, use the VERBOSE option.) For example, suppose you invoke the SAS System with the following command:

```
sas -nodms -fullstimer -nonews -oplist
```

The SAS System writes this line to the SAS log:

```
NOTE: SAS command line: -nodms -fullstimer -nonews -oplist
```

See Also

- “VERBOSE” on page 304

PAGESIZE

Specifies the number of lines that compose a page of SAS output

Default: number of lines on your display for interactive modes; 60 for batch mode

Valid in: SAS invocation, SASV8_OPTIONS environment variable, configuration file, OPTIONS statement, System Options window

UNIX specifics: default values and range

Syntax

```
-PAGESIZE n | nK | MIN | MAX | hex
```

```
PAGESIZE=n | nK | MIN | MAX | hex
```

n* | *nK

specifies the number of lines in bytes or kilobytes (1,024 bytes).

MIN

specifies 15 lines, which is the minimum page size.

MAX

specifies 32,767 lines.

hexX

specifies the number of buffers in hexadecimal notation. For example, 2DX specifies 45 lines.

Details

The default for interactive modes is the number of lines on your display. For batch mode, the default is 60. Values can range from 15 to 32,767.

See Also

- “Controlling the Content and Appearance of Output” on page 137
- *SAS Language Reference: Dictionary*

PATH

Specifies the search path for SAS executable modules

Default: !SASROOT/sasexe (set in the installed !SASROOT/sasv8.cfg file)

Valid in: SAS invocation, SASV8_OPTIONS environment variable, configuration file

UNIX specifics: all

Syntax

-PATH *pathname*

Details

The PATH option identifies the search paths for SAS executable files. You can specify multiple PATH options to define the search order. The paths are searched in the order in which SAS encounters them; therefore, specify at the front of the list the paths for the products that you run most frequently. See “Processing System Options Set in Multiple Places” on page 16 for information on how that order is determined when you specify the PATH system option more than once.

PRINT

Specifies the destination for SAS output in batch mode

Default: the SAS output from a batch SAS program is written to a file in the current directory with the same filename as the SAS source file and an extension of .lst.

Valid in: SAS invocation, SASV8_OPTIONS environment variable, configuration file

UNIX specifics: all

Syntax

-PRINT *filename*|-NOPRINT

-PRINT *filename*

specifies the name of a file, other than the default, to which the SAS output is to be sent.

-NOPRINT

indicates that any previous PRINT specifications should be ignored and that the default file should be used.

Details

PRINT is valid in batch mode; it is ignored in interactive modes.

See Also

- “Using SAS System Options” on page 136

PRINTCMD

Specifies the print command the SAS System is to use

Default: none

Valid in: SAS invocation, SASV8_OPTIONS environment variable, configuration file, OPTIONS statement

UNIX specifics: all

Syntax

`-PRINTCMD “print-command”`

`PRINTCMD=“print-command”`

Details

If your site uses a print command (spooler) other than `lp` or `lpr`, *print-command* specifies its name.

The syntax of the options passed to the print command is controlled by the LPTYPE system option. If LPTYPE is set to BSD, the command uses `lpr` command options; if LPTYPE is set to SYSV, the command uses `lp` command options.

When specified in an options statement, the PRINTCMD option will not change the print commands assigned to previously defined filenames. For example, consider the following code:

```
filename pc1 printer;
proc printto print=pc1;
run;
proc print data=sales.week;
run;

options printcmd="netlp";

filename pc2 printer;
proc printto print=pc2;
run;
proc print data=sales.month;
```



```
run;
```

Output associated with PC2 will use the **netlp** command; output associated with PC1 will use the default print command.

See Also

- Chapter 6, “Routing Output,” on page 125
- “LPTYPE” on page 275

PROCLEAVE

Specifies the amount of memory to leave reserved for normal SAS procedure termination

Default: 8K

Valid in: SAS invocation, SASV8_OPTIONS environment variable, configuration file

UNIX specifics: all

Syntax

```
-PROCLEAVE n | nK | MIN | MAX | hex
```

n | *nK*

specifies the amount of memory in bytes or kilobytes (1,024 bytes) to leave unallocated.

MIN

sets the amount of memory to leave unallocated to 0 bytes and requires SAS to use a default value.

MAX

specifies 64K.

hexX

specifies the number of bytes in hexadecimal notation. For example, 2DX specifies 45 bytes.

Details

The PROCLEAVE= system option specifies an amount of memory to leave unallocated so that a procedure can terminate normally when error recovery code is initiated. If a procedure that demands large amounts of memory (such as the GLM procedure) is failing, increase the number of bytes specified by PROCLEAVE=. Increasing the number of bytes causes the failing procedure to use an algorithm that demands less memory. However, the procedure is also forced to use utility data sets, thereby increasing the execution time of the procedure.

Under UNIX, the range of values for PROCLEAVE= is from 0 through 64K.

See Also

- “SYSLEAVE” on page 300

RSASUSER

Controls whether members of the SASUSER data library can be opened for update or for read-only access

Default: NORSASUSER

Valid in: SAS invocation, SASV8_OPTIONS environment variable, configuration file

UNIX specifics: network considerations

Syntax

-RSASUSER | -NORSASUSER

Details

RSASUSER

limits access to the SASUSER data library to read-only access. (If the SASUSER data library is being shared by multiple users or the same user is running the SAS System multiple times simultaneously, the SASUSER data library is often shared.) By default, if one user has a member of the SASUSER data library open for update, all other users are denied access to that SAS data library member. For example, if one user is writing to the SASUSER.PROFILE catalog, no other user can even read data from the PROFILE catalog.

Specifying RSASUSER enables a group of users to share SASUSER data library members by allowing all users read-only access to members. In the PROFILE catalog example, if RSASUSER is in effect, each user can open the PROFILE catalog for read-only access, allowing other users to concurrently read from the PROFILE catalog. However, no user can write information out to the PROFILE catalog; you receive an error message if you try to do so.

Specifying RSASUSER from the command line affects only that session's access to files. To enable a group of users to share members in the SASUSER data library, the system manager should set RSASUSER in a common SAS configuration file, which is shared by all users who will be sharing the SASUSER data library.

If you specify RSASUSER but no PROFILE catalog exists in the SASUSER data library, the PROFILE catalog is created in the WORK data library.

Note: While the RSASUSER option is extremely useful for sharing information (such as the PROFILE catalog) stored in the SASUSER data library, it is less practical when used in conjunction with SAS/ASSIST software or other SAS modules that require update access to the SASUSER data library. △

NORSASUSER

prevents users from sharing members of the SASUSER data library because it allows a user to open a file in the SASUSER library for update access. Update access requires exclusive rights to the data library member.

See Also

- “Sharing Files” on page 101
- *SAS Language Reference: Dictionary*

RTRACE

Produces a list of resources that are read during SAS System execution

Default: OFF

Valid in: SAS invocation, configuration file

UNIX specifics: all

Syntax

`-RTRACE FULL|OFF`

FULL

traces both files that are read and executable files that are loaded.

OFF

tells the SAS System not to produce any trace information.

Details

The RTRACE system option produces a list of resources that are read or loaded during execution of the SAS System. If you specify FULL, then you must use the RTRACELOC option to specify a destination for the RTRACE information.

RTRACELOC

Specify the pathname of the file to which RTRACE information is written

Default: none

Valid in: SAS invocation, configuration file

UNIX specifics: all

Syntax

`-RTRACELOC pathname`

Details

The RTRACELOC system option specifies the pathname of the file to which RTRACE information is written. If you specify RTRACE FULL, then you must specify a value for RTRACELOC. The *pathname* cannot be standard output; it must be a file.

SASAUTOS

Specifies the autocall library

Default: SASAUTOS fileref

Valid in: SAS invocation, SASV8_OPTIONS environment variable, configuration file, OPTIONS statement, System Options window

UNIX specifics: syntax for specifying multiple *dir-names*

Syntax

-SASAUTOS '*dir-name*' | *fileref*

-SASAUTOS ('*dir-name1*' | *fileref1*,..., '*dir-name-n*' | *filerefn*)

-NOSASAUTOS

SASAUTOS=*dir-name*' | *fileref*

SASAUTOS =('*dir-name1*' | *fileref1*,..., '*dir-name-n*' | *filerefn*)

NOSASAUTOS

Note: The SASAUTOS option uses filerefs, not librefs. Δ

Details

Each autocall macro library consists of files in a UNIX directory. The *dir-name* can be the pathname of a UNIX directory, a fileref, or an environment variable.

If you specify the pathname of a directory, you must enclose the name in quotes. You can omit the quotes only if you are specifying the option in the configuration file, in the SAS command, or in the SASV8_OPTIONS environment variable, and if the name cannot be taken to be a fileref.

If you specify a fileref, you must define it before attempting to use any of the autocall macros. You can define the fileref in a FILENAME statement, in an environment variable, or with the FILENAME function (see "Assigning Filerefs with the FILENAME Statement" on page 106).

How you specify multiple directory names depends on where you specify the SASAUTOS option:

- If you specify the option in the configuration file or in the SASV8_OPTIONS environment variable, use either multiple SASAUTOS options, or enclose the directory names in parentheses. Separate the names with a comma or a blank space.
- If you specify the option in the SAS command, use multiple SASAUTOS options, because parentheses cause syntax errors.
- If you specify the option in the OPTIONS statement or in the System Options window, you must enclose the directory names in parentheses. Separate the names with a comma or a blank space.

At configuration time, the SAS System concatenates all directories specified for SASAUTOS. However, after the session starts, any new directories you specify override any current autocall libraries.

The NOSASAUTOS option causes the SAS System to ignore all previous SASAUTOS specifications (whether specified in the SAS command, in the configuration file, or in the SASV8_OPTIONS environment variable).

The default value of the SASAUTOS option is the SASAUTOS fileref. There is no UNIX directory assigned to the fileref, so you must define the SASAUTOS fileref if you want to use it as your autocall library.

See Also

- *SAS Language Reference: Dictionary*
- *SAS Macro Language: Reference*
- “INSERT” on page 272
- “APPEND” on page 254

SASHELP

Specifies the locations of SASHELP libraries

Default: `!SASROOT/sashelp` (set in the installed `!SASROOT/sasv8.cfg` file)

Valid in: SAS invocation, SASV8_OPTIONS environment variable, configuration file

UNIX specifics: *pathname* can also be an environment variable

Syntax

`-SASHELP pathname`

`-SASHELP ('pathname', 'pathname'...)`

Details

This option is set in the installation process and is not normally changed after installation. An environment variable can be specified as the value of SASHELP.

See Also

- *SAS Language Reference: Dictionary*
- “INSERT” on page 272
- “APPEND” on page 254

SASSCRIPT

Specifies one or more storage locations of SAS/CONNECT script files

Default: `!SASROOT/misc/connect`

Valid in: SAS invocation, SASV8_OPTIONS environment variable, configuration file, OPTIONS statement, System Options window

UNIX specifics: syntax for specifying multiple directory names

Syntax

-SASSCRIPT '*dir-name*' | ('*dir-name-1*',..., '*dir-name-n*')

SASSCRIPT=' *dir-name*' | ('*dir-name-1*',..., '*dir-name-n*')

Details

How you specify multiple directory names in the same SASSCRIPT option depends on where you specify the SASSCRIPT option:

- If you specify the option in the configuration file or in the SASV8_OPTIONS environment variable, use either multiple SASSCRIPT options, or enclose the directory names in parentheses. Separate the names with a comma or a blank space.
- If you specify the option in the SAS command, use multiple SASSCRIPT options, since parentheses cause syntax errors.
- If you specify the option in the OPTIONS statement or in the System Options window, you must enclose the directory names in parentheses. Separate the names with a comma or a blank space.

See Also

- *SAS Language Reference: Dictionary*

SASUSER

Specifies the name of the SASUSER library

Default: `~/sasuser.800` (set in the installed `!SASROOT/sasv8.cfg` file)

Valid in: SAS invocation, SASV8_OPTIONS environment variable, configuration file

UNIX specifics: *pathname* can be an environment variable

Syntax

-SASUSER *pathname*

Details

The *pathname* identifies the directory for the SASUSER library that contains a user's profile catalog. You can use an environment variable to specify the pathname, for example:

```
sas -sasuser $HOME
```

See Also

- *SAS Language Reference: Dictionary*

SEQENGINE=

Specifies the default access method for SAS sequential data libraries

Default: V8TAPE

Valid in: configuration file, SAS invocation, OPTIONS statement, System Options window, SASV8_OPTIONS environment variable

UNIX specifics: all

Syntax

SEQENGINE=*engine-name*

engine-name can be one of the following under UNIX:

V7TAPE | V8TAPE | TAPE

specifies the sequential engine for Version 7 and Version 8. These engines are identical. V8TAPE is the default value.

V6TAPE

specifies the sequential engine for Version 6.

Details The SEQENGINE= option specifies the default access method, or engine, that is used when creating new sequential-format SAS data libraries. The engine that is used with an existing sequential library is determined by the first data set in that library and is not affected by this option.

See Also

- “Accessing Sequential-Format Data Libraries” on page 96

SET

Defines an environment variable

Default: none

Valid in: SAS invocation, SASV8_OPTIONS environment variable, configuration file

UNIX specifics: all

Syntax

–SET *variable-name value*

Details

The SET option lets you define an environment variable that is valid within the SAS session and any shell started from within the SAS session. Using the SET option is similar to using the SAS `setenv` command. See “Executing Operating System Commands from Your SAS Session” on page 12 for details .

A special use for the SET option is to specify the name of the SASROOT directory:

```
-set SASROOT pathname
```

The pathname specified can then be used to expand `!SASROOT` (as shown in Table 4.2 on page 88).

After exiting your SAS session, environment variables that are set with the SET option no longer exist.

See Also

- Appendix 1, “The sasroot Directory,” on page 317
- “Defining Environment Variables” on page 17

SORTANOM

Specifies certain options for the host sort utility

Default: none

Valid in: configuration file, SAS invocation, SASV8_OPTIONS environment variable, OPTIONS statement

UNIX specifics: all

Syntax

`SORTANOM=option(s)`

`-SORTANOM option(s)`

Option(s) can be any one or more of the following:

- | | |
|----------|---|
| b | tells syncsort to run in multi-call mode instead of single-call mode. (Refer to the documentation for syncsort for more information.) |
| | <i>Note:</i> This option is available for syncsort only. Δ |
| t | prints statistics about the sorting process in the SAS log. |
| v | prints (in the SAS log) all of the commands that are passed to the host sort utility. |

SORTCUT

Specifies the number of observations above which the host sort program is used instead of the SAS sort program

Default: 0

Valid in: configuration file, SAS invocation, SASV8_OPTIONS environment variable, OPTIONS statement

UNIX specifics: all

Syntax

`SORTCUT=n | nK | nM | nG | MIN | MAX`

`-SORTCUT n | nK | nM | nG | MIN | MAX`

***n* | *n*K | *n*M | *n*G**

specifies the number of observations in multiples of 1; 1,024 (kilobytes); 1,048,576 (megabytes); and 1,073,741,824 (gigabytes), respectively. For example, a value of 8 specifies 8 observations and a value of 3M specifies 3,145,728 observations.

MIN

specifies 0 observations.

MAX

specifies 2,147,483,647 observations. On 64-bit systems, MAX is 9,007,199,254,740,992.

hexX

specifies the number of observations in hexadecimal notation. For example, 2DX specifies 45 observations.

When you specify SORTPGM=BEST, SAS uses the value of the SORTCUT and SORTCUTP options to determine whether to use the host sort or the SAS System sort. If the number of observations in the data set is greater than the number that you specify with SORTCUT, the host sort will be used. If both SORTCUT and SORTCUTP are either not defined or are set to 0, the SAS System sort is used. If you specify both options and either condition is true, SAS chooses the host sort.

SORTCUTP

Specifies the number of bytes above which the host sort program is used instead of the SAS sort program

Default: 0

Valid in: configuration file, SAS invocation, SASV8_OPTIONS environment variable, OPTIONS statement

UNIX specifics: all

Syntax

`SORTCUTP=n | nK | nM | nG | MIN | MAX`

`-SORTCUTP n | nK | nM | nG | MIN | MAX`

n* | *nK* | *nM* | *nG

specifies the number of bytes in multiples of 1; 1,024 (kilobytes); 1,048,576 (megabytes); and 1,073,741,824 (gigabytes), respectively. For example, a value of 8 specifies 8 bytes and a value of 3M specifies 3,145,728 bytes.

MIN

specifies 0 bytes.

MAX

specifies 2,147,483,647 bytes. On 64-bit systems, MAX is 9,007,199,254,740,992.

hexX

specifies the number of bytes in hexadecimal notation. For example, 2DX specifies 45 bytes.

Details

When you specify SORTPGM=BEST, SAS uses the value of the SORTCUT and SORTCUTP options to determine whether to use the host sort or the SAS System sort. If the data set to be sorted is larger than the number of bytes (or kilobytes or megabytes) that you specify with SORTCUTP, the host sort (external) program will be used instead of the SAS sort (internal) program. On 32-bit systems, the value you specify must be less than or equal to 2,147,483,647 bytes. On 64-bit systems, the value you specify must be less than or equal to 9,007,199,254,740,992. If both SORTCUT and SORTCUTP are either not defined or are set to 0, the SAS System sort is used. If you specify both options and either condition is true, SAS chooses the host sort.

The following equation computes the number of bytes to be sorted:

$$\text{number-of-bytes} = ((\text{length-of-obs}) + (\text{length-of-all-keys})) \\ * \text{number-of-obs}$$

SORTDEV

Specifies the pathname used for temporary files created by the host sort utility

Default: same location as -WORK, which is set in the installed !SASROOT/sasv8.cfg file

Valid in: configuration file, SAS invocation, SASV8_OPTIONS environment variable, OPTIONS statement

UNIX specifics: all

Syntax

SORTDEV='pathname'

-SORTDEV pathname

Details

The SORTDEV= option specifies an alternative pathname for temporary files created by the host sort.

SORTLIB

Specifies the pathname of the host sort library

Default: none

Valid in: configuration file, SAS invocation, SASV8_OPTIONS environment variable, OPTIONS statement

UNIX specifics: all

Syntax

`SORTLIB='pathname'`

`-SORTLIB pathname`

Details

pathname is the pathname of the directory that contains the sort library.

SORTNAME

Specifies the name of the host sort utility

Default: SYNCSORT

Valid in: configuration file, SAS invocation, SASV8_OPTIONS environment variable, OPTIONS statement

UNIX specifics: all

Syntax

`SORTNAME='host-sort-utility-name'`

`-SORTNAME host-sort-utility-name`

Details

The SORTNAME= option specifies the name of the default host sort utility. You can specify **syncsort**, **smartsort**, or **cosort**.

See Also

- “SORTPGM” on page 296

SORTPARM

Specifies parameters for the host sort utility

Default: none

Valid in: configuration file, SAS invocation, SASV8_OPTIONS environment variable, OPTIONS statement

UNIX specifics: all

Syntax

`SORTPARAM='parameters'`

`-SORTPARAM 'parameters'`

Parameters are any parameters that you want to pass to the sort utility. For a description of these parameters, refer to the documentation for the sort that you are using.

SORTPGM

Specifies whether the SAS System sort or the host sort is used

Default: SAS

Valid in: SAS invocation, SASV8_OPTIONS environment variable, configuration file, OPTIONS statement

UNIX specifics: all

Syntax

`-SORTPGM SAS|HOST|BEST`

`SORTPGM=SAS|HOST|BEST`

Details

The SORTPGM system option tells SAS whether to use the SAS System sort, to use the host sort, or to determine which sort is best for the data set.

SAS
tells SAS to use the SAS System sort.

HOST
tells SAS to use the sort specified by the SORTPGM system option.

BEST
tells SAS to determine the best routine to sort the data set: the SAS System sort or the host sort specified by the SORTPGM system option. The settings of the SORTCUT and SORTCUTP system options determine whether SAS chooses the SAS System sort or the host sort.

See Also

- “SORTNAME” on page 295
- “SORTSIZE” on page 297
- “SORTCUTP” on page 293

SORTSIZE

Specifies the amount of memory available to the SORT procedure

Default: 16M, but may be larger on some machines (set in the installed `!SASROOT/sasv8.cfg` file)

Valid in: SAS invocation, SASV8_OPTIONS environment variable, configuration file, OPTIONS statement, System Options window

UNIX specifics: value of MAX

Syntax

`-SORTSIZE n | nK | nM | nG | MIN | MAX | hex`

`SORTSIZE=n | nK | nM | nG | MIN | MAX | hex`

n* | *nK* | *nM* | *nG

specifies the number of bytes in multiples of 1; 1,024 (kilobytes); 1,048,576 (megabytes); and 1,073,741,824 (gigabytes), respectively. For example, a value of 8 specifies 8 bytes and a value of 3M specifies 3,145,728 bytes.

MIN

specifies 0 bytes, which indicates that there is no limit except the limitation specified by the MEMSIZE system option.

MAX

specifies 2,147,483,647 bytes. On 64-bit systems, MAX is 9,007,199,254,740,992.

hexX

specifies the number of bytes in hexadecimal notation. For example, 2DX specifies 45 bytes.

Details

The SORTSIZE option may reduce the amount of swapping the SAS System must do to sort a data set. If the SORT procedure needs more memory than you specify, it creates a temporary utility file in your SASWORK directory. The SORT procedure’s algorithm can swap unneeded data more efficiently than the operating system can.

For optimal performance, set SORTSIZE to a value less than the available physical memory. It is recommended that you set SORTSIZE to a value that is at least 8M less than the value of MEMSIZE.

See Also

- “The SORT Procedure” in *SAS Procedures Guide*
- “SORTDEV” on page 294
- “SORTLIB” on page 295

STDIO

Specifies that the SAS System should use `stdin`, `stdout`, and `stderr`

Default: NOSTDIO

Valid in: SAS invocation, SASV8_OPTIONS environment variable, configuration file

UNIX specifics: all

Syntax

`-STDIO` | `-NOSTDIO` | `-`

Details

This option tells the SAS System to take its input from standard input (`stdin`), to write its log to standard error (`stderr`), and to write its output to standard output (`stdout`).

This option is designed for running the SAS System in batch mode or from a shell script. If you specify this option interactively, SAS starts a line mode session. The STDIO option overrides the DMS, DMSEXP, and EXPLORER system options.

You can specify `-STDIO` or simply a hyphen (`-`) by itself.

The STDIO option does not affect the assignment of the STDIO, STDIN, and STDERR filerefs. See “Filerefs Assigned by the SAS System” on page 113 for more information.

For example, in the following SAS command, the file `myinput` is used as the source program, and files `myoutput` and `mylog` are used for the procedure output and log respectively.

```
sas -stdio < myinput > myoutput 2> mylog
```

If you are using the C shell, you should use parentheses:

```
(sas -stdio < myinput > myoutput ) >& output_log
```

See Also

- Chapter 6, “Routing Output,” on page 125

STIMEFMT

Control the format of output produced by FULLSTIMER and STIMER

Default: M

Valid in: SAS invocation, SASV8_OPTIONS environment variable, configuration file, OPTIONS statement

UNIX specifics: all

Syntax

-STIMEFMT *value*

STIMEFMT=*value*

Details

The STIMEFMT system option controls the format of output produced by the FULLSTIMER and STIMER system options.

STIMEFMT takes the following values:

HOURS, H, or Z

prints time statistics in **hh:mm:ss.ss** format.

MINUTES or M

prints time statistics in **mm:ss.ss** format.

SECONDS or S

prints time statistics in **ss.ss** format.

NORMAL or N

prints time statistics in **ss.ss** format if the time is less than one minute, in **mm:ss.ss** format if the time is less than one hour, or in **hh:mm:ss.ss** format otherwise.

STIMER

Writes a subset of system performance statistics to the SAS log

Default: STIMER

Valid in: SAS invocation, SASV8_OPTIONS environment variable, configuration file, OPTIONS statement

UNIX specifics: all

Syntax

-STIMER | -NOSTIMER

STIMER | NOSTIMER

STIMER

writes only CPU time and real time to the SAS log.

NOSTIMER

does not write any statistics to the SAS log.

Details

The STIMER system option specifies whether a subset of all the performance statistics of your system that are available to SAS are written to the SAS log. If both STIMER and FULLSTIMER are set, the FULLSTIMER statistics are printed.

See Also

- “FULLSTIMER” on page 269

SYSIN

Specifies the default location of SAS source code when running in batch mode

Default: none

Valid in: SAS invocation, SASV8_OPTIONS environment variable, configuration file

UNIX specifics: all

Syntax

`-SYSIN filename`

The *filename* must be a valid UNIX filename.

Details

This option applies only when you are using batch mode. It is not necessary to precede the filename with the SYSIN option if the filename immediately follows the keyword SAS. For example, the following two SAS commands are equivalent:

```
sas saspgms/report1.sas      sas -sysin saspgms/report1.sas
```

See Also

- “Starting SAS Sessions” on page 5

SYSLEAVE

Specifies the amount of memory to leave reserved for normal SAS system termination

Default: 8K

Valid in: SAS invocation, SASV8_OPTIONS environment variable, configuration file

UNIX specifics: all

Syntax

`-SYSLEAVE n|nK|MIN|MAX|hexX`

n* | *nK

specifies the amount of memory in bytes or kilobytes (1,024 bytes) to reserve.

MIN

specifies 0 bytes and requires SAS to use a default value.

MAX

specifies 64K.

hexX

specifies the number of bytes in hexadecimal notation. For example, 2DX specifies 45 bytes.

Details

The SYSLEAVE= system option specifies an amount of memory to leave unallocated so that SAS can attempt to terminate normally when error recovery code is initiated.

Under UNIX, the range of values is from 0 through 64K.

See Also

- “PROCLEAVE” on page 285

SYSPRINT

Specifies the destination for printed output

Default: default system printer

Valid in: SAS invocation, SASV8_OPTIONS environment variable, configuration file, OPTIONS statement

UNIX specifics: all

Syntax

`-SYSPRINT destination | 'destination option-list'`

`SYSPRINT=destination | 'destination option-list'`

Details

The SYSPRINT option specifies a destination for printed output other than default system printer. You can also use the option list to pass options to the **lp** (or **lpr**) command.

Note: When a fileref is assigned, the SYSPRINT option is queried. If the value of the SYSPRINT option is later changed, the fileref does not pick up this change. Δ

For details, see “Changing the Default Print Command” on page 156.

destination

is the name of a hardcopy device at your site. Consult your system administrator for a list of available destinations.

option-list

is the list of options to pass to the **lp** (or **lpr**) command.

See Also

- Chapter 6, “Routing Output,” on page 125

TAPECLOSE

Specifies the default **CLOSE** disposition when reading and writing a SAS data library on tape

Default: REREAD

Valid in: SAS invocation, SASV8_OPTIONS environment variable, configuration file, OPTIONS statement, System Options window

UNIX specifics: all

Syntax

-TAPECLOSE *disposition*

TAPECLOSE=*disposition*

Details

Disposition can be one of the following values:

REREAD

rewind to the beginning of this file when it is closed. This is the default.

REWIND

rewind to the beginning of the tape after closing each member.

LEAVE

perform no tape positioning when you close a member.

FREE

rewind and dismount the tape when the next member is closed.

See Also

- *SAS Language Reference: Dictionary*

UNBUFLOG

Specifies whether the SAS log is buffered

Default: NOUNBUFLOG

Valid in: configuration file, SAS invocation

UNIX specifics: all

Syntax

UNBUFLOG | NOUNBUFLOG

UNBUFLOG

specifies that messages are written to the SAS log as they are generated.

NOUNBUFLOG

specifies that messages are saved in the buffer and written to the SAS log when the buffer is full.

Details

The UNBUFLOG system option is most useful when you are running in server mode. Specifying UNBUFLOG may slightly reduce performance.

See Also

- OBJECTSERVER system option in *SAS Language Reference: Dictionary*

USER

Specifies the name of the default permanent SAS data library

Default: none

Valid in: SAS invocation, SASV8_OPTIONS environment variable, configuration file, OPTIONS statement, System Options window

UNIX specifics: *pathname* must be a valid UNIX pathname

Syntax

-USER *pathname*

USER='pathname' | libref

Details

Pathname identifies the directory containing your default permanent SAS data library. It must be a directory name. *Libref* is the libref associated with the directory containing your default permanent SAS data library. It must already be assigned.

See Also

- *SAS Language Reference: Dictionary*
- “USER Data Library” on page 95

VERBOSE

Controls whether SAS writes the settings of SAS system options to the terminal

Default: NOVERBOSE

Valid in: SAS invocation, SASV8_OPTIONS environment variable, configuration file

UNIX specifics: all

Syntax

-VERBOSE | -NOVERBOSE

-VERBOSE

writes the settings of SAS system options from the configuration file, the SAS command, and the SASV8_OPTIONS environment variable to the terminal. For the CONFIG option, VERBOSE lists the name of the configuration file.

-NOVERBOSE

does not write the settings of the system options to the terminal.

Details

SAS sends the system option information to standard output. If the standard output is a terminal, the list is displayed with the **more** command. You can also use the **more** command to scroll the file. The RETURN key scrolls one line; the space bar scrolls the entire display.

See Also

- “Customizing Your SAS Session” on page 14
- “OPLIST” on page 281

WORK

Specifies the name of the WORK library

Default: set in the installed !SASROOT/sasv8.cfg file

Valid in: SAS invocation, configuration file, SASV8_OPTIONS environment variable

UNIX specifics: all

Syntax

–WORK *pathname*

Details

Pathname identifies the directory (not a filename) where your WORK SAS data library can be created or found. SAS will create the directory if it does not exist. You must have write permission to *pathname*.

See Also

- *SAS Language Reference: Dictionary*
- “WORKINIT” on page 305

WORKINIT

Initializes the WORK data library

Default: WORKINIT

Valid in: SAS invocation, SASV8_OPTIONS environment variable, configuration file

UNIX specifics: WORKINIT does not erase files from previous sessions

Syntax

–WORKINIT | –NOWORKINIT

Details

The WORKINIT option controls whether the WORK data library is initialized at SAS System invocation. You can use the following forms of the WORKINIT option:

WORKINIT

specifies that a new subdirectory is to be created in the directory specified in the WORK option.

NOWORKINIT

specifies that the system is to use the directory specified by the –WORK option. SAS does not create a new WORK data library.

See Also

- “WORK” on page 304
- *SAS Language Reference: Dictionary*

XCMD

Specifies whether the X command is valid in the current SAS session

Default: XCMD

Valid in: configuration file, SAS invocation, SASV8_OPTIONS environment variable

UNIX specifics: all

Syntax

XCMD | NOXCMD

XCMD

specifies that the X command is valid in the current SAS session.

NOXCMD

specifies that the X command is not valid in the current SAS session.

Details The XCMD system option specifies whether the X command is valid in the current SAS session.

See Also

- “Executing Operating System Commands from Your SAS Session” on page 12
- “X” on page 185

XPRINTNM

Sets the default printer name for use with host printing

Default: Print PostScript to disk

Valid in: SAS invocation, SASV8_OPTIONS environment variable, configuration file, OPTIONS statement

UNIX specifics: all

Syntax

XPRINTNM='printer-name';

-XPRINTNM 'printer-name';

Details

The XPRINTNM option sets the name of the default printer that you want to use with host printing. XPRINTNM accepts one argument:

printer-name
is the name of a printer device that you have defined through the Printer Setup dialog.

If you do not define any printer devices through the Printer Setup dialog, your default printer formats output in generic PostScript using a Courier font with no margins, then prints the output to a file named **prn.ps** in your current directory.

For example, you can specify a printer name on the OPTIONS statement as follows:

```
options xprintnm='HP LaserJet 4Si in room 1313';
```

The next time you invoke SAS, you can return to the default printer device as follows:

```
-xprintnm 'Print PostScript to disk'
```

Summary of All SAS System Options

Table 17.1 on page 308 lists every SAS system option available under UNIX. Many of these options have no host-specific behavior and are described in *SAS Language Reference: Dictionary*. If an option is available only under UNIX, it is described in *SAS Companion for UNIX Environments*. If an option is available under all environments but has some environment-specific behavior, it is described in both *SAS Language Reference: Dictionary* and *SAS Companion for UNIX Environments*. Use the following legend to see where to find more information on an option.

Comp	indicates that the option is described in this chapter .
LR	indicates that the option is described in <i>SAS Language Reference: Dictionary</i> .
Access	indicates that the option is described in <i>SAS/ACCESS Software for Relational Databases: Reference, (CA-OpenIngres Chapter)</i> .
Connect	indicates that the option is described in <i>SAS/CONNECT User's Guide</i> .
Share	indicates that the option is described in <i>SAS/SHARE User's Guide</i> .
Methods	indicates that the option is described in <i>Communications Access Methods for SAS/CONNECT and SAS/SHARE Software</i> .

Table 17.1 on page 308 also shows the default value for each option and where you can specify the option:

- at initialization: in the SAS command, in the SASV8_OPTIONS environment variable, or in the configuration file
- in the OPTIONS statement
- in the System Options window.

Table 17.1 Summary of All SAS System Options

Name	Default	Can Be Specified In			See
		SAS Invocation, SASV8_OPTIONS, Configuration File	OPTIONS Statement	System Options Window	
ALTLOG	no copy	X			Comp
ALTPRINT	no copy	X			Comp
APPEND	none	X			Comp
APPLETLOC	!SASROOT/misc/ applets	X			LR
ASYNCHIO	see LR	X			LR
AUTOEXEC	see description	X			Comp
BATCH	NOBATCH	X			Comp/LR
BINDING	DEFAULT	X	X	X	LR
BLKSIZE	256	X	X	X	Comp
BOTTOMMARGIN	none	X	X	X	LR
BUFNO	1	X	X	X	Comp/LR
BUFSIZE	0	X	X	X	Comp/LR
BYERR	BYERR	X	X	X	LR
BYLINE	BYLINE	X	X	X	LR
CAPS	NOCAPS	X	X	X	LR
CARDIMAGE	NOCARDIMAGE	X	X	X	LR
CATCACHE	0	X			LR
CBUFNO	0				LR
CENTER	CENTER	X	X	X	LR
CHARCODE	NOCHARCODE	X	X	X	LR
CLEANUP	see description	X	X	X	Comp/LR
CMDMAC	NOCMDMAC	X	X	X	LR
CMPOPT	none	X	X	X	LR
COLLATE	NOCOLLATE	X	X	X	LR
COLORPRINTINT	COLORPRINTINT	X	X	X	LR
COMAMID	TCP	X			Connect/ Share/ Methods
COMAUX1	X				Methods
COMAUX2	X				Methods
COMPRESS	NO	X	X	X	LR
CONFIG	see description	X (also SASV8_CONFIG environment variable)			Comp
CONNECTREMOTE	none	X	X	X	Connect

Can Be Specified In					
Name	Default	SAS Invocation, SASV8_OPTIONS, Configuration File	OPTIONS Statement	System Options Window	See
CONNECTSTATUS	X	X	X	X	Connect
CONNECTWAIT	X	X	X	X	Connect
CONSOLELOG	none	X			LR
COPIES	1	X	X	X	LR
CPUID	CPUID	X			LR
DATASTMTCHK	COREKEYWORDS	X	X	X	LR
DATE	DATE	X	X	X	LR
DBCS	NODBCS	X			Comp
DBCSLANG	see description	X			Comp
DBCSTYPE	see description	X			Comp
DETAILS	NODETAILS	X	X	X	LR
DEVICE	none	X	X	X	Comp/LR
DFLANG	ENGLISH	X	X	X	LR
DKRICOND	ERROR	X	X	X	LR
DKROCOND	WARN	X	X	X	LR
DLDMGACTION	REPAIR	X	X	X	LR
DMR	NODMR	X			Connect
DMS	DMS	X			LR
DMSEXP	NODMSEXP	X			LR
DOCLOC	none	X			LR
DSNFERR	DSNFERR	X	X	X	LR
DUPLEX	NODUPLEX	X	X	X	LR
ECHO	none	X			Comp
ECHOAUTO	NOECHOAUTO	X			LR
EDITCMD	none	X	X		Comp
EMAILSYS	none	X (except SASV8_OPTIONS environment variable)			Comp
ENGINE	V8	X			Comp/LR
ERRORABEND	NOERRORABEND	X	X	X	LR
ERRORCHECK	NORMAL	X			LR
ERRORS	20	X	X	X	LR
EXPLORER	NOEXPLORER	X			LR
FILELOCKS	FAIL	X			Comp
FIRSTOBS	1	X	X	X	LR
FMterr	FMterr	X	X	X	LR
FMTSEARCH	WORK library	X	X	X	LR

Name	Default	Can Be Specified In				See
		SAS Invocation, SASV8_OPTIONS, Configuration File	OPTIONS Statement	System Options Window		
FORMCHAR	---- + ----+= -/\<>*	X	X	X		LR
FORMDLIM	none	X	X	X		LR
FORMS	DEFAULT	X	X	X		LR
FSDBTYPE	none	X				Comp
FSIMM	none	X				Comp
FSIMMOPT	none	X				Comp
FULLSTIMER	NOFULLSTIMER	X	X			Comp
GISMAPS	see description					LR
GWINDOW	GWINDOW	X	X	X		LR
HELPLOC	!SASROOT/X11/ native_help	X				Comp/LR
IMPLMAC	NOIMPLMAC	X	X	X		LR
INGOPTS	none	X				Access
INITCMD	none	X				LR
INITSTMT	none	X				LR
INVALIDDATA	.	X	X	X		LR
INSERT	none	X				Comp
LABEL	LABEL	X	X	X		LR
LAST	_NULL_	X	X	X		LR
LEFTMARGIN	none	X	X	X		LR
LINESIZE	see description	X	X	X		Comp/LR
LMODE	LMODE	X				Comp
LOG	see description	X				Comp
LPTYPE	see description	X	X			Comp
MACRO	MACRO	X				LR
MAPS	!SASROOT/maps	X	X	X		LR/Comp
MAUTOSOURCE	MAUTOSOURCE	X	X	X		LR
MAXMEMQUERY	6M	X				Comp
MERGENOBY	NOWARN	X	X	X		LR
MERROR	MERROR	X	X	X		LR
MFILE	NOMFILE	X	X	X		LR
MEMSIZE	48M	X				Comp
MISSING	.	X	X	X		LR
MLOGIC	NOMLOGIC	X	X	X		LR

Can Be Specified In					
Name	Default	SAS Invocation, SASV8_OPTIONS, Configuration File	OPTIONS Statement	System Options Window	See
MPRINT	NOMPRINT	X	X	X	LR
MRECALL	NOMRECALL	X	X	X	LR
MSG	!SASROOT/ sasmsg	X			Comp
MSGCASE	NOMSGCASE	X			LR
MSGLEVEL	N	X	X	X	LR
MSTORED	NOMSTORED	X	X	X	LR
MSYMTABMAX	4M	X	X	X	Comp/LR
MULTENVAPPLE	NOMULTENVAPPLEX		X		LR
MVARSIZE	32K	X	X	X	Comp/LR
NETENCRYPT	NONETENCRYPT	X	X	X	Share/ Connect
NETENCRYPTALGORITHM	none	X	X	X	Share/ Connect
NETENCRYPTKEYLEN	0	X	X	X	Share/ Connect
NETMAC	NETMAC	X	X	X	Share/ Connect
NEWS	!SASROOT/misc/ base/news	X			Comp/LR
NOTES	NOTES	X	X	X	LR
NUMBER	NUMBER	X	X	X	LR
OBJECTSERVER	NOOBJECTSERVER	X			LR
OBS	MAX	X	X	X	Comp/LR
OPLIST	NOOPLIST	X			Comp
ORIENTATION	PORTRAIT	X	X	X	LR
OVP	NOOVP	X	X	X	LR
PAGENO	1	X	X	X	LR
PAGESIZE	see description	X	X	X	Comp/LR
PAPERDEST	none	X	X	X	LR
PAPERSIZE	LETTER	X	X	X	LR
PAPERSOURCE	none	X	X	X	LR
PAPERTYPE	PLAIN	X	X	X	LR
PARM	none	X	X	X	LR
PARMCARDS	FT15F001	X	X	X	LR
PATH	!SASROOT/sasexe	X			Comp

Name	Default	Can Be Specified In			See
		SAS Invocation, SASV8_OPTIONS, Configuration File	OPTIONS Statement	System Options Window	
PRINT	see description	X			Comp
PRINTCMD	none	X	X		Comp
PRINTERPATH	none	X (Available on MIPS ABI and Intel ABI only)			LR
PRINTINIT	NOPRINTINIT	X			LR
PRINTMSGLIST	PRINTMSGLIST	X	X	X	LR
PROBSIG	0	X	X	X	LR
PROC	PROC	X	X	X	LR
PROCLEAVE	8K	X			Comp
REPLACE	REPLACE	X	X	X	LR
REP_MGRLOC	none	X			LR
REUSE	NO	X	X	X	LR
RIGHTMARGIN	none	X	X	X	LR
RSASUSER	NORSASUSER	X			Comp/LR
RTRACE	none	X			Comp
RTRACELOC	none	X			Comp
S	0	X	X	X	LR
SASAUTOS	SASAUTOS fileref	X	X	X	Comp/LR
SASCMD	none	X			Connect
SASFRSCR	none	Valid in SAS Component Language			Connect
SASHELP	!SASROOT/ sashelp	X			Comp/LR
SASMSTORE	none	X	X	X	LR
SASSCRIPT	!SASROOT/misc/ connect	X	X	X	Comp/ Connect
SASUSER	~SASUSER.800	X			Comp/LR
SEQ	8	X	X	X	LR
SEQENGINE	V8TAPE	X	X	X	Comp
SERROR	SERROR	X	X	X	LR
SET	none	X			Comp
SETINIT	NOSETINIT	X			LR
SKIP	0	X	X	X	LR
SOLUTIONS	SOLUTIONS	X			LR
SORTANOM	none	X	X		Comp
SORTCUT	0	X	X		Comp
SORTCUTP	0	X	X		Comp

Can Be Specified In					
Name	Default	SAS Invocation, SASV8_OPTIONS, Configuration File	OPTIONS Statement	System Options Window	See
SORTDEV	see decription	X	X		Comp
SORTDUP	physical	X	X	X	LR
SORTLIB	none	X	X		Comp
SORTNAME	SYNCSORT	X	X		Comp
SORTPARM	none	X	X		Comp
SORTPGM	SAS	X	X		Comp
SORTSEQ	none	X	X	X	LR
SORTSIZE	16M	X	X	X	Comp/LR
SOURCE	SOURCE	X	X	X	LR
SOURCE2	NOSOURCE2	X	X	X	LR
SPOOL	NOSPOOL	X	X	X	LR
STARTLIB	STARTLIB	X			LR
STDIO	NOSTDIO	X			Comp
STIMEFMT	M	X			Comp
STIMER	STIMER	X	X		Comp
SUMSIZE	8K				LR
SYMBOLGEN	NOSYMBOLGEN	X	X	X	LR
SYNCHIO	see LR	X			LR
SYSIN	none	X			Comp
SYSLEAVE	8K	X			Comp
SYSPARM	none	X	X	X	LR
SYSPRINT	default system printer	X			Comp
S2	0	X	X	X	LR
TAPECLOSE	REREAD	X	X	X	Comp
TBUFSIZE	0	X	X	X	Connect
TCPPORTFIRST	0	SAS invocation on the remote host			Methods
TCPPORTLAST	0	SAS invocation on the remote host			Methods
TERMINAL	TERMINAL	X			LR
TOPMARGIN	none	X	X	X	LR
TRAINLOC	none	X			LR
TRANTAB	none	X	X	X	LR/ Connect
UNBUFLOG	NOUNBUFLOG	X			Comp
USER	none	X	X	X	Comp/LR

Can Be Specified In					
Name	Default	SAS Invocation, SASV8_OPTIONS, Configuration File	OPTIONS Statement	System Options Window	See
VALIDVARNAME	V7	X	X	X	LR
VERBOSE	NOVERBOSE	X			Comp
VNFERR	VNFERR	X	X	X	LR
WORK	see description	X			Comp/LR
WORKINIT	WORKINIT	X			Comp/LR
WORKTERM	WORKTERM	X	X	X	LR
XCMD	XCMD	X			Comp
XPRINTNM	Print Postscript to disk	X	X		Comp
YEARCUTOFF	1920	X	X	X	LR

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