



## CHAPTER

## 18

## System Options

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### SAS System Options under OpenVMS

SAS system options control many aspects of your SAS session, including output destinations, the efficiency of program execution, and the attributes of SAS files and data libraries. System options can be specified in various ways: at SAS invocation, in a SAS configuration file, in an OPTIONS statement (either in a SAS program or in a SAS autoexec file), in the System Options window, in SCL programs, or in the VMS\_SAS\_OPTIONS DCL symbol.

Most SAS system options are completely described in *SAS Language Reference: Dictionary*. Only the system options that have syntax or behavior that is specific to the OpenVMS operating environment are documented here. “Summary of SAS System Options under OpenVMS” on page 387 is a summary of all SAS system options and gives specific information about where each system option can be specified.

Once a system option is set, it affects all subsequent DATA and PROC steps in a program or SAS process until it is respecified.

Some SAS system options have the same effect (and usually the same name) as data set or statement options. For example, the BUFSIZE= system option is analogous to the BUFSIZE= data set option. In the case of overlapping options, the SAS System uses the following rules of precedence:

- data set option values (highest precedence)
- statement option values (precedence over system options)
- system option values (lowest precedence).

### Summary of SAS System Options under OpenVMS

Table 18.1 on page 388 lists all the SAS system options that are available to SAS System users under the OpenVMS operating environment. Many of these options have no system-dependent behavior and are described completely in *SAS Language Reference: Dictionary*. Others are available only under OpenVMS and are completely described here. Other options are described both in this document and in *SAS Language Reference: Dictionary*. Use the following abbreviations to determine where to find more information about an option:

|       |  |
|-------|--|
| ACMET | indicates that the option is described in <i>Communications Access Methods for SAS/CONNECT and SAS/SHARE Software</i> .  |
| COMP  | indicates that the option is completely described here. Some options are not applicable to the OpenVMS operating environment; these options are listed in “System Options That Are Not Applicable in the OpenVMS Environment” on page 395. |
| CON   | indicates that the option is described in <i>SAS/CONNECT User’s Guide</i> .  |
| INGRS | indicates that the option is described in <i>SAS/ACCESS Software for Relational Databases: Reference, (CA-OpenIngres Chapter)</i> .  |
| LR    | indicates that the option is described in the system options portion of <i>SAS Language Reference: Dictionary</i> .  |
| SHAR  | indicates that the option is described in <i>SAS/SHARE User’s Guide</i>  |

The table provides you with the following information about each SAS system option:

- the option name
- the default value that is in effect if you do not specify the option and if the option does not appear in
  - a configuration file
  - your site’s default options table
  - your site’s restricted options table
- where you can specify the option.

Remember that the default values listed in Table 18.1 on page 388 are the default values that are hardcoded into the SAS System. When the SAS System is installed, the default values of SAS system options can be changed by specifying the options in a configuration file (when referenced by the SASSCONFIG logical name in one or more of the SYSTEM, GROUP, JOB, or PROCESS tables). Therefore, the values that you see in PROC OPTIONS output at your site may not match the values that are shown in the table. If you have a question about the default value for a particular option, use PROC OPTIONS, or ask your SAS Support Consultant. For more information about configuration files, see “Configuration Files” on page 46.

**Table 18.1** Summary of SAS System Options

| Options Specification | Default Value             | SAS invocation | System configuration |                | OPTIONS statement | See      |
|-----------------------|---------------------------|----------------|----------------------|----------------|-------------------|----------|
|                       |                           |                | file                 | Options window |                   |          |
| ALQMULT=arg           | 10                        | X              | X                    | X              | X                 | LR, COMP |
| ALTLOG=arg            | none                      | X              | X                    |                |                   | LR, COMP |
| ALTPRINT=arg          | none                      | X              | X                    |                |                   | LR, COMP |
| APPLETLOC             | SASSAPPLETLOC<br>log.name | X              | X                    | X              | X                 | LR, COMP |
| ASYNCHIO              | none                      | X              | X                    |                |                   | LR       |

| Options<br>Specification | Default<br>Value   | SAS<br>invocation | System<br>configuration Options |        |   | OPTIONS<br>statement | See           |
|--------------------------|--|-------------------|---------------------------------|--------|---|----------------------|---------------|
|                          |  |                   | file                            | window |   |                      |               |
| AUTOEXEC=arg             | SASSINIT, if defined;<br>otherwise none  | X                 | X                               |        |   |                      | LR,<br>COMP   |
| BATCH                    | NOBATCH (windowing<br>environment and<br>interactive line modes);<br>BATCH (batch) | X                 | X                               |        |   |                      | LR            |
| BINDING=arg              | DEFAULT  | X                 | X                               | X      | X |                      | LR            |
| BUFNO=arg                | 1  | X                 | X                               | X      | X |                      | LR,<br>COMP   |
| BUFSIZE=arg              | 0  | X                 | X                               | X      | X |                      | LR,<br>COMP   |
| BYERR                    | BYERR  | X                 | X                               | X      | X |                      | LR            |
| BYLINE                   | BYLINE   | X                 | X                               | X      | X |                      | LR            |
| CACHENUM= arg            | 5  | X                 | X                               | X      | X |                      | COMP          |
| CACHESIZ=arg             | 65024  | X                 | X                               | X      | X |                      | COMP          |
| CAPS                     | NOCAPS   | X                 | X                               | X      | X |                      | LR            |
| CARDIMAGE                | NOCARDIMAGE  | X                 | X                               | X      | X |                      | LR            |
| CATCACHE=arg             | 0  | X                 | X                               |        |   |                      | LR            |
| CBUFNO=arg               | 0  | X                 | X                               | X      | X |                      | LR            |
| CC=arg                   | FORTTRAN   | X                 | X                               | X      | X |                      | LR,<br>COMP   |
| CENTER                   | CENTER   | X                 | X                               | X      | X |                      | LR            |
| CHARCODE                 | NOCHARCODE   | X                 | X                               | X      | X |                      | LR            |
| CLEANUP                  | CLEANUP  | X                 | X                               | X      | X |                      | LR,<br>COMP   |
| CMDMAC                   | NOCMDMAC   | X                 | X                               | X      | X |                      | LR            |
| CMPOPT                   | CMPOPT   | X                 | X                               |        |   |                      | LR            |
| COMAMID=arg              | TCP  | X                 | X                               | X      | X |                      | CON,<br>ACMET |
| COMAUX1=arg              | none   | X                 | X                               |        |   |                      | ACMET         |
| COMAUX2=arg              | none   | X                 | X                               |        |   |                      | ACMET         |
| COMPRESS=arg             | NO   | X                 | X                               | X      | X |                      | LR            |
| CONFIG=arg               | SAS\$CONFIG if<br>defined; otherwise none  | X                 |                                 |        |   |                      | COMP          |
| CONNECTREMOTE=arg        | none   | X                 | X                               | X      | X |                      | LR,<br>CON    |
| CONNECTSTATUS            | CONNECTSTATUS  | X                 | X                               | X      | X |                      | LR,<br>CON    |

| Options<br>Specification | Default<br>Value                                       | SAS<br>invocation | System                |                   | OPTIONS<br>statement | See         |
|--------------------------|--|-------------------|-----------------------|-------------------|----------------------|-------------|
|                          |  |                   | configuration<br>file | Options<br>window |                      |             |
| CONNECTWAIT              | CONNECTWAIT  | X                 | X                     | X                 | X                    | LR,<br>CON  |
| CONSOLELOG=              | none   | X                 | X                     |                   |                      | LR          |
| CPUID                    | CPUID  | X                 | X                     |                   |                      | LR          |
| DATASTMTCHK=arg          | COREKEYWORDS   | X                 | X                     | X                 | X                    | LR          |
| DATE                     | DATE   | X                 | X                     | X                 | X                    | LR          |
| DBCS                     | NODBCS   | X                 | X                     |                   |                      | COMP        |
| DBCSLANG=arg             | none   | X                 | X                     |                   |                      | LR,<br>COMP |
| DBCSTYPE=arg             | ALP/VAX  | X                 | X                     |                   |                      | LR,<br>COMP |
| DEQMULT=arg              | 5  | X                 | X                     | X                 | X                    | COMP        |
| DETAILS                  | NODETAILS  | X                 | X                     | X                 | X                    | LR          |
| DEVICE=arg               | none   | X                 | X                     | X                 | X                    | LR,<br>COMP |
| DFLANG=arg               | ENGLISH  | X                 | X                     | X                 | X                    | LR          |
| DKRICOND=arg             | ERROR  | X                 | X                     | X                 | X                    | LR          |
| DKROCOND=arg             | WARN   | X                 | X                     | X                 | X                    | LR          |
| DLDMGACTION=arg          | FAIL for batch mode;<br>REPAIR for interactive<br>mode | X                 | X                     | X                 | X                    | LR          |
| DMR                      | NODMR  | X                 | X                     |                   |                      | LR,<br>CON  |
| DMS                      | DMS  | X                 | X                     |                   |                      | LR          |
| DMSEXP                   | DMSEXP   | X                 | X                     |                   |                      | LR          |
| DOCLOC=arg               | SAS\$DOCLOC logical<br>name                            | X                 | X                     |                   |                      | LR          |
| DSNFERR                  | DSNFERR  | X                 | X                     | X                 | X                    | LR          |
| DUMP                     | NODUMP   | X                 | X                     | X                 | X                    | COMP        |
| ECHOAUTO                 | NOECHOAUTO   | X                 | X                     |                   |                      | LR          |
| ENGINE=arg               | V8   | X                 | X                     |                   |                      | LR,<br>COMP |
| ERRORABEND               | NOERRORABEND   | X                 | X                     | X                 | X                    | LR          |
| ERRORCHECK=              | NORMAL   | X                 | X                     | X                 | X                    | LR          |
| ERRORS=arg               | 20   | X                 | X                     | X                 | X                    | LR          |
| EXPANDLNM                | EXPANDLNM  | X                 | X                     | X                 | X                    | COMP        |
| EXPLORER                 | NOEXPLORER   | X                 | X                     |                   |                      | LR          |
| FILECC                   | FILECC   | X                 | X                     | X                 | X                    | COMP        |

| Options<br>Specification | Default<br>Value  | SAS<br>invocation | System<br>configuration Options |        | OPTIONS<br>statement | See         |
|--------------------------|---|-------------------|---------------------------------|--------|----------------------|-------------|
|                          |   |                   | file                            | window |                      |             |
| FIRSTOBS=arg             | 1   | X                 | X                               | X      | X                    | LR          |
| FMterr                   | FMterr  | X                 | X                               | X      | X                    | LR          |
| FMTSEARCH=arg            | (WORK LIBRARY)  | X                 | X                               | X      | X                    | LR,<br>COMP |
| FORMCHAR=arg             | ---- + ----+= -\<>*   | X                 | X                               | X      | X                    | LR          |
| FORMDLIM=arg             | none  | X                 | X                               | X      | X                    | LR          |
| FORMS=arg                | DEFAULT   | X                 | X                               | X      | X                    | LR,<br>COMP |
| FULLSTIMER               | NOFULLSTIMER  | X                 | X                               | X      | X                    | COMP        |
| GISMAPS=                 | SASSGISMAPS   | X                 | X                               | X      | X                    | LR,<br>COMP |
| GSFCC=                   | PRINT   | X                 | X                               | X      | X                    | COMP        |
| GWINDOW                  | GWINDOW   | X                 | X                               | X      | X                    | LR          |
| HELPLoc                  | SASSHELPLoc logical<br>name   | X                 | X                               | X      | X                    | LR,<br>COMP |
| IMPLMAC                  | NOIMPLMAC   | X                 | X                               | X      | X                    | LR          |
| INGOPTS=                 | none  | X                 | X                               | X      | X                    | INGRS       |
| INITCMD=                 | none  | X                 | X                               |        |                      | LR          |
| INITSTMT=arg             | none  | X                 | X                               |        |                      | LR,<br>COMP |
| INVALIDDATA=arg          | a period (.)  | X                 | X                               | X      | X                    | LR          |
| LABEL                    | LABEL   | X                 | X                               | X      | X                    | LR          |
| _LAST_=arg               | _NULL_  | X                 | X                               | X      | X                    | LR          |
| LINESIZE=arg             | the display width<br>setting for windowing<br>environment and<br>interactive line modes;<br>132 characters for<br>noninteractive and<br>batch modes | X                 | X                               | X      | X                    | LR,<br>COMP |
| LOADLIST=                | none  | X                 | X                               | X      | X                    | COMP        |
| LOG=arg                  | SYSS\$OUTPUT for<br>interactive line mode;<br><i>program-name</i> .LOG for<br>noninteractive and<br>batch modes; LOG for<br>display manager mode    | X                 | X                               |        |                      | LR,<br>COMP |
| LOGMULTREAD              | NOLOGMULTREAD   | X                 | X                               |        |                      | COMP        |
| MACRO                    | MACRO   | X                 | X                               |        |                      | LR          |

| Options<br>Specification   | Default<br>Value      | System            |                       |                   |         | OPTIONS<br>statement | See |
|----------------------------|-----------------------|-------------------|-----------------------|-------------------|---------|----------------------|-----|
|                            |                       | SAS<br>invocation | configuration<br>file | Options<br>window | OPTIONS |                      |     |
| MAPS=arg                   | SASSMAPS logical name | X                 | X                     | X                 | X       | LR,<br>COMP          |     |
| MAUTOSOURCE                | MAUTOSOURCE           | X                 | X                     | X                 | X       | LR                   |     |
| MEMSIZE=arg                | 0                     | X                 | X                     |                   |         | COMP                 |     |
| MERGENOBY                  | NOWARN                | X                 | X                     | X                 | X       | LR                   |     |
| MERROR                     | MERROR                | X                 | X                     | X                 | X       | LR                   |     |
| MFILE                      | NOMFILE               | X                 | X                     | X                 | X       | LR                   |     |
| MISSING=arg                | a period (.)          | X                 | X                     | X                 | X       | LR                   |     |
| MLOGIC                     | NOMLOGIC              | X                 | X                     | X                 | X       | LR                   |     |
| MPRINT                     | NOMPRINT              | X                 | X                     | X                 | X       | LR                   |     |
| MRECALL                    | NOMRECALL             | X                 | X                     | X                 | X       | LR                   |     |
| MSG=arg                    | SASSMSG logical name  | X                 | X                     |                   |         | COMP                 |     |
| MSGCASE                    | NOMSGCASE             | X                 | X                     |                   |         | COMP                 |     |
| MSGLEVEL=arg               | N                     | X                 | X                     | X                 | X       | LR,<br>COMP          |     |
| MSTORED                    | NOMSTORED             | X                 | X                     | X                 | X       | LR                   |     |
| MSYMTABMAX=arg             | 51,200 bytes          | X                 | X                     | X                 | X       | LR,<br>COMP          |     |
| MULTENVAPPL                | NOMULTENVAPPL         | X                 | X                     | X                 | X       | LR                   |     |
| MVARSIZE=arg               | 8,192 bytes           | X                 | X                     | X                 | X       | LR,<br>COMP          |     |
| NETENCRYPT                 | NONETENCRYPT          | X                 | X                     | X                 | X       | LR,<br>CON,<br>SHAR  |     |
| NETENCRYPTALGORITM=<br>arg | none                  | X                 | X                     | X                 | X       | LR,<br>CON,<br>SHAR  |     |
| NETENCRYPTKEYLEN=arg       | 0                     | X                 | X                     | X                 | X       | LR,<br>CON,<br>SHAR  |     |
| NETMAC                     | NETMAC                | X                 | X                     | X                 | X       | LR,<br>CON,<br>SHAR  |     |
| NEWS=arg                   | SASSNEWS, if defined  | X                 | X                     |                   |         | LR,<br>COMP          |     |
| NOTES                      | NOTES                 | X                 | X                     | X                 | X       | LR,<br>COMP          |     |
| NUMBER                     | NUMBER                | X                 | X                     | X                 | X       | LR                   |     |
| OBJECTSERVER               | NOOBJECTSERVER        | X                 | X                     |                   |         | LR                   |     |

| Options<br>Specification | Default<br>Value   | SAS<br>invocation | System<br>configuration Options |        | OPTIONS<br>statement | See         |
|--------------------------|--|-------------------|---------------------------------|--------|----------------------|-------------|
|                          |  |                   | file                            | window |                      |             |
| OBS=arg                  | 2147483647   | X                 | X                               | X      | X                    | LR,<br>COMP |
| OPLIST                   | NOOPLIST   | X                 | X                               |        |                      | COMP        |
| OVP                      | NOOVP  | X                 | X                               | X      | X                    | LR          |
| PAGENO=arg               | 1  | X                 | X                               | X      | X                    | LR,<br>COMP |
| PAGESIZE=arg             | display page size for<br>windowing environment<br>and interactive line<br>modes; 60 lines for<br>noninteractive and<br>batch modes                           | X                 | X                               | X      | X                    | LR,<br>COMP |
| PARM=arg                 | none   | X                 | X                               | X      | X                    | LR          |
| PARMCARDS=arg            | FT15F001   | X                 | X                               | X      | X                    | LR,<br>COMP |
| PRINT= arg               | SYSS\$OUTPUT for<br>interactive line mode;<br><i>program-name</i> .LIS for<br>noninteractive and<br>batch modes; OUTPUT<br>for windowing<br>environment mode | X                 | X                               |        |                      | COMP        |
| PRINTMSGLIST             | PRINTMSGLIST   | X                 | X                               | X      | X                    | LR          |
| PROBSIG=arg              | 0  | X                 | X                               | X      | X                    | LR          |
| PROCLEAVE=arg            | 16,384 bytes   | X                 | X                               | X      | X                    | COMP        |
| REPLACE                  | REPLACE  | X                 | X                               | X      | X                    | LR          |
| REUSE=arg                | NO   | X                 | X                               | X      | X                    | LR          |
| RSASUSER                 | NORSASUSER   | X                 | X                               |        |                      | LR,<br>COMP |
| S=arg                    | 0  | X                 | X                               | X      | X                    | LR,<br>COMP |
| S2=arg                   | 0  | X                 | X                               | X      | X                    | LR          |
| SASAUTOS=arg             | SASAUTOS logical<br>name   | X                 | X                               | X      | X                    | LR,<br>COMP |
| SASCMD                   | none   | X                 | X                               | X      | X                    | LR          |
| SASFRSCR                 | none   | X                 | X                               | X      | X                    | CON         |
| SASHELP=arg              | SAS\$HELP logical name   | X                 | X                               |        |                      | LR,<br>COMP |
| SASMSTORE=arg            | none   | X                 | X                               | X      | X                    | LR          |
| SASSCRIPT=arg            | none   | X                 | X                               | X      | X                    | CON         |

| Options<br>Specification | Default<br>Value   | System            |                       |                   |   | OPTIONS<br>statement | See         |
|--------------------------|--|-------------------|-----------------------|-------------------|---|----------------------|-------------|
|                          |  | SAS<br>invocation | configuration<br>file | Options<br>window |   |                      |             |
| SASUSER=arg              | SASSUSER logical name  | X                 | X                     |                   |   |                      | LR,<br>COMP |
| SEQ=arg                  | 8  | X                 | X                     | X                 | X |                      | LR          |
| SEQENGINE=arg            | V7TAPE, V8TAPE   | X                 | X                     | X                 | X |                      | COMP        |
| SERROR                   | SERROR   | X                 | X                     | X                 | X |                      | LR          |
| SETINIT                  | NOSETINIT  | X                 | X                     |                   |   |                      | LR          |
| SKIP=arg                 | 0  | X                 | X                     | X                 | X |                      | LR          |
| SOLUTIONS                | SOLUTIONS  | X                 | X                     |                   |   |                      | LR          |
| SORTDUP=                 | PHYSICAL   | X                 | X                     | X                 | X |                      | LR          |
| SORTPGM=                 | BEST   | X                 | X                     | X                 | X |                      | LR,<br>COMP |
| SORTSEQ=arg              | none   | X                 | X                     | X                 | X |                      | LR          |
| SORTSIZE=arg             | 8388608  | X                 | X                     | X                 | X |                      | LR,<br>COMP |
| SORTWORK=arg             | none   | X                 | X                     | X                 | X |                      | LR,<br>COMP |
| SOURCE                   | NOSOURCE   | X                 | X                     | X                 | X |                      | LR          |
| SOURCE2                  | NOSOURCE2  | X                 | X                     | X                 | X |                      | LR          |
| SPAWN=                   | WAIT   | X                 | X                     |                   |   |                      | COMP        |
| SPOOL                    | NOSPOOL  | X                 | X                     | X                 | X |                      | LR          |
| STACK=arg                | 0  | X                 | X                     | X                 | X |                      | COMP        |
| STARTLIB                 | NOSTARTLIB   | X                 | X                     |                   |   |                      | LR          |
| STIMEFMT                 | M  | X                 | X                     | X                 | X |                      | COMP        |
| STIMER                   | STIMER   | X                 | X                     | X                 | X |                      | COMP        |
| SUMSIZE=arg              | 8388608  | X                 | X                     | X                 | X |                      | LR          |
| SYMBOLGEN                | NOSYMBOLGEN  | X                 | X                     | X                 | X |                      | LR          |
| SYSIN=arg                | SYS\$INPUT for<br>windowing environment<br>and interactive line<br>mode;<br><i>program-name.SAS</i> for<br>noninteractive and<br>batch modes | X                 | X                     |                   |   |                      | COMP        |
| SYSLEAVE=arg             | 16,384 bytes   | X                 | X                     | X                 | X |                      | COMP        |
| SYSPARM=arg              | none   | X                 | X                     | X                 | X |                      | LR,<br>COMP |
| SYSPRINT                 | SYS\$PRINT   | X                 | X                     | X                 | X |                      | COMP        |
| TAPECLOSE=arg            | LEAVE  | X                 | X                     | X                 | X |                      | COMP        |



| Options<br>Specification | Default<br>Value              | System<br>configuration Options |      |        |   | OPTIONS<br>statement | See |
|--------------------------|-------------------------------|---------------------------------|------|--------|---|----------------------|-----|
|                          |                               | SAS<br>invocation               | file | window |   |                      |     |
| TBUFSIZE=arg             | 0                             | X                               | X    | X      | X | LR,<br>CON           |     |
| TCPPORTFIRST=arg         | 0                             | X                               | X    | X      | X | LR,<br>ACMET         |     |
| TCPPORTLAST=arg          | 0                             | X                               | X    | X      | X | LR,<br>ACMET         |     |
| TERMINAL                 | TERMINAL                      | X                               | X    |        |   | LR                   |     |
| TERMIO=                  | NOBLOCK                       | X                               | X    | X      | X | COMP                 |     |
| TRAINLOC=arg             | SAS\$TRAINLOC logical<br>name | X                               | X    |        |   | LR,<br>COMP          |     |
| TRANTAB=arg              | none                          | X                               | X    | X      | X | LR,<br>CON           |     |
| UNLOAD                   | NOUNLOAD                      | X                               | X    | X      | X | COMP                 |     |
| USER=arg                 | none                          | X                               | X    | X      | X | LR,<br>COMP          |     |
| VALIDVARNAME=            | V7, V8                        | X                               | X    | X      | X | LR                   |     |
| VERBOSE                  | NOVERBOSE                     | X                               |      |        |   | COMP                 |     |
| VNFERR                   | VNFERR                        | X                               | X    | X      | X | LR                   |     |
| WORK=arg                 | SAS\$WORKROOT<br>logical name | X                               | X    |        |   | LR,<br>COMP          |     |
| WORKINIT                 | WORKINIT                      | X                               | X    |        |   | LR                   |     |
| WORKTERM                 | WORKTERM                      | X                               | X    | X      | X | LR                   |     |
| WRKCACHE=arg             | 65024                         | X                               | X    | X      | X | COMP                 |     |
| XCMD                     | XCMD                          | X                               | X    |        |   | COMP                 |     |
| XCMDWIN                  | XCMDWIN                       | X                               | X    |        |   | COMP                 |     |
| XKEYPAD                  | XKEYPAD                       | X                               | X    | X      | X | COMP                 |     |
| XLOG                     | NOXLOG                        | X                               | X    | X      | X | COMP                 |     |
| XLOGICAL                 | XLOGICAL                      | X                               | X    | X      | X | COMP                 |     |
| XOUTPUT                  | XOUTPUT                       | X                               | X    | X      | X | COMP                 |     |
| XRESOURCES=arg           | none                          | X                               | X    |        |   | COMP                 |     |
| XSYMBOL                  | XSYMBOL                       | X                               | X    | X      | X | COMP                 |     |
| XTIMEOUT=arg             | 0                             | X                               | X    | X      | X | COMP                 |     |
| YEARCUTOFF=arg           | 1920                          | X                               | X    | X      | X | LR                   |     |

## System Options That Are Not Applicable in the OpenVMS Environment

The following SAS system options are not supported by the OpenVMS operating environment in Version 8 of the SAS System:

- BOTTOMMARGIN=

- COLLATE
- COLORPRINTING
- COPIES=
- DUPLEX=
- LEFTMARGIN=
- ORIENTATION=
- PAPERDEST=
- PAPERSIZE=
- PAPERSOURCE=
- PAPERTYPE=
- PRINTERPATH=
- PRINTINIT
- RIGHTMARGIN=
- RTRACE
- RTRACELOC
- TOPMARGIN=
- UNBUFLOG

---

## ALQMULT=

**Specifies the number of pages that are preallocated to a file**

**Language element:** system option

**Default:** 10

**Valid in:** configuration file, SAS invocation, OPTIONS statement, System Options window, VMS\_SAS\_OPTIONS DCL symbol

**OpenVMS specifics:** All aspects are host-specific

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### Syntax

ALQMULT=*n*

***n*** specifies the number of pages that are allocated for a SAS file. The default value is 10.

**Details** The ALQMULT= system option controls how many pages of disk blocks are allocated to a file when it is created. By default, enough space for 10 pages is allocated. This option applies to internal SAS files, such as data sets, catalogs, index files, and utility files. It does not apply to external files, such as data files, log files, and listings.

## See Also

- Data set option: “ALQMULT=” on page 250
- System option: “DEQMULT=” on page 408

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## ALTLOG=

**Specifies the destination for a copy of the SAS log**

Language element: system option

Default: none

Valid in: configuration file, SAS invocation, System Options window, VMS\_SAS\_OPTIONS DCL symbol

OpenVMS specifics: valid values for *destination*; syntax

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### Syntax

ALTLOG=*destination*

NOALTLOG

### ALTLOG=*destination*

can be SYSSPRINT (the default print queue); your current display, SYS\$OUTPUT (the default output stream); or an OpenVMS pathname. All messages written to the SAS log are also written to the destination.

### NOALTLOG

specifies that the SAS log is not to be printed.

**Details** The ALTLOG= system option specifies a destination to which a copy of the SAS log is written. Use the ALTLOG= system option to capture log output for printing.

To send the SAS log to a printer other than the default printer, redefine the SYSSPRINT logical name to the queue that you want to use.

*Note:* ALTLOG= replaces the following options from earlier releases of the SAS System: LDISK, LPRINT, and LTYPE. △

## See Also

- “Controlling Log and Output Destinations” on page 188

---

## ALTPRINT=

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

Language element: system option

**Default:** NOALTPRINT

**Valid in:** configuration file, SAS invocation, VMS\_SAS\_OPTIONS DCL symbol

**OpenVMS specifics:** valid values for *destination*; syntax

---

## Syntax

ALTPRINT=*destination*

NOALTPRINT

### **ALTPRINT=*destination***

specifies a destination for the SAS procedure output file. The value of *destination* can be SYSSPRINT (the default print queue); your current display, SYSSOUTPUT (the default output stream); or an OpenVMS pathname. All output written to the SAS log is also written to the destination.

### **NOALTPRINT**

specifies that a copy of the SAS procedure output file is not produced.

**Details** The ALTPRINT= system option specifies a destination to which a copy of the SAS procedure output file is written. Use the ALTPRINT= system option to capture procedure output for printing.

To send the procedure output to a printer queue other than the default printer, redefine the SYSSPRINT logical name to the queue that you want to use.

*Note:* The ALTPRINT= system option replaces the following options from earlier releases of the SAS System: PDISK, PPRINT, and PTYPE. △

## See Also

- Chapter 8, “Routing the SAS Log and SAS Procedure Output,” on page 187

---

## APPLETLOC=

**Specifies the location of Java applets**

**Language element:** system option

**Default:** SASSAPPLETLOC

**Valid in:** configuration file, SAS invocation, VMS\_SAS\_OPTIONS DCL symbol

**OpenVMS specifics:** default

---

## Syntax

APPLETLOC=*base-URL*

### ***base-URL***

specifies the address where the SAS documentation is located. The maximum address length is 256 characters. SASSAPPLETLOC is the default on OpenVMS.

**Details** The APPLETLOC= system option specifies the base location (typically a URL) for Java applets. These applets can be access from an intranet server or a local CD-ROM.

## See Also

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

## AUTOEXEC=

Specifies the autoexec file that is used when the SAS System is initialized

Language element: system option

Default: SASSINIT, if SASSINIT is defined, otherwise no default

Valid in: configuration file, SAS invocation, VMS\_SAS\_OPTIONS DCL symbol

OpenVMS specifics: valid values for *file-specification*; syntax

## Syntax

AUTOEXEC=*file-specification*

NOAUTOEXEC

### **AUTOEXEC=***file-specification*

specifies an autoexec file to use instead of any existing process-level SASSINIT file.

Even if SASSINIT is defined in your process-level logical name table, it is ignored.

However, system-, group-, and job-level autoexec files are still processed if they exist.

The file specification can be an OpenVMS pathname or logical name. If you do not supply a file type, the type .SAS is assumed.

### **NOAUTOEXEC**

indicates that no process-level autoexec file is processed even if one exists. If no process-level logical name SASSINIT exists, NOAUTOEXEC is the default. The system-, group-, and job-level autoexec files are still processed if they exist.

*Note:* For Version 8, in PROC OPTIONS, this system option is listed as AUTOEXEC= rather than NOAUTOEXEC as it was in Version 6. △

**Details** The AUTOEXEC= system option specifies the autoexec file. The autoexec file contains SAS statements that are executed automatically when you invoke the SAS System or when you start another SAS process. The autoexec file can contain any valid SAS statements. For example, you can include LIBNAME statements for SAS data libraries you access routinely in SAS sessions.

System-, group-, and job-level SASSINIT files are processed regardless of the value of the AUTOEXEC= system option and regardless of whether the process-level SASSINIT logical name exists.

In Version 8 of the SAS System, whenever any level of SASSINIT is processed as an AUTOEXEC file, the value of AUTOEXEC= from PROC OPTIONS is AUTOEXEC=SAS\$AUTO. To see which files are actually processed as autoexecs, issue the following SAS statement:

```
x 'show logical SAS$AUTO';
```

*Note:* Although SASSINIT is the OpenVMS logical name that is used to specify one or more autoexec files, SAS\$AUTO is returned from PROC OPTIONS when SASSINIT is processed at any level. △

## See Also

- “Autoexec Files” on page 47

## BUFNO=

**Specifies how many buffers to use for a SAS data set**

Language element: system option

Default: 1

Valid in: configuration file, SAS invocation, OPTIONS statement, System Options window, VMS\_SAS\_OPTIONS DCL symbol

OpenVMS specifics: valid values for *n*

## Syntax

BUFNO=*number of buffers*

### *number of buffers*

specifies the number of buffers, from 1 to 10, that you want to allocate in bytes (*n*), kilobytes (*nK*), megabytes (*nM*), or gigabytes (*nG*).

**Details** Under OpenVMS, there is not a maximum number of buffers that you can allocate, except for memory constraints. However, it is unusual to specify more than 10.

You might want to vary the value of the BUFNO= system option if you are trying to maximize memory usage or the number of observations per page.

## See Also

- BUFNO= system option in *SAS Language Reference: Dictionary*
- System option: “BUFSIZE=” on page 400

## BUFSIZE=

**Specifies the permanent buffer size for an output SAS data set**

Language element: system option

Default: 0

Valid in: configuration file, SAS invocation, OPTIONS statement, System Options window, VMS\_SAS\_OPTIONS DCL symbol

OpenVMS specifics: valid values for  $n$

---

## Syntax

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

$n$  |  $nK$  |  $nM$  |  $nG$

specifies the buffer size in bytes ( $n$ ), kilobytes ( $nK$ ), megabytes ( $nM$ ), or gigabytes ( $nG$ ).

### MIN

sets the number of buffers to 0 and requires SAS to use a default value. Under OpenVMS, the default value is 0. The minimum number is -2147483648.

### MAX

sets the number of buffers to the largest signed, 4-byte integer representable in your operating environment. Under OpenVMS, the maximum number is +2147483647 or 2 gigabytes.

### hexX

specifies the number of buffers as a hexadecimal number. This number must be followed by an X, as in *hexadecimal-valueX*.

**Details** The BUFSIZE= system option specifies the permanent buffer size for output SAS data sets. Under OpenVMS, the size of the buffer can range from 0 to 2,147,483,647 (2 gigabytes). The value is always rounded up to the next multiple of 512 bytes. If the value is 0, the engine picks a value depending on the size of the observation. The default value is 0. The value of BUFSIZE is saved with the data set and be viewed with PROC CONTENTS or a similar window.

You may want to vary the value of the BUFSIZE= system option if you are trying to maximize memory usage or the number of observations per page.

**Comparisons** The BUFSIZE= system option can be overridden by the BUFSIZE data set option.

## See Also

- BUFSIZE= system option in *SAS Language Reference: Dictionary*
- “Using the BUFSIZE= Option” on page 207
- Data set option: “BUFSIZE=” on page 252
- System option: “BUFNO=” on page 400

---

## CACHENUM=

**Specifies the number of caches used per SAS file**

Language element: system option

Default: 5

Valid in: configuration file, SAS invocation, OPTIONS statement, System Options window, VMS\_SAS\_OPTIONS DCL symbol

**OpenVMS specifics:** All aspects are host-specific

---

## Syntax

CACHENUM=*n*

***n***

specifies the number of I/O data-cache pages to be used per SAS file. The default value is 5.

**Details** Pages of SAS files are cached in memory with each cache containing multiple pages. By default, the CACHENUM= system option maintains up to 5 caches for each open file.

## See Also

- Data set option: “CACHENUM=” on page 253
- System option: “CACHESIZ=” on page 402

---

## CACHESIZ=

**Specifies the size of cache that is used for each open SAS file**

**Language element:** system option

**Default:** 65024

**Valid in:** configuration file, SAS invocation, OPTIONS statement, System Options window, VMS\_SAS\_OPTIONS DCL symbol

**OpenVMS specifics:** All aspects are host-specific

---

## Syntax

CACHESIZ=*integer*

***integer***

can range from 0 to 65,024. By default, SAS uses a value that is an even multiple of the file’s page size. If you specify a value of 0, SAS does not use a data cache. The default value is 65024.

**Details** Pages of SAS files are cached in memory with each cache containing multiple pages. The CACHESIZ= system option controls the size (in bytes) of this data cache.



## See Also

- Data set option: “CACHESIZ=” on page 253
- System option: “CACHENUM=” on page 401
- System option: “BUFSIZE=” on page 400

---

## CC=

**Tells SAS what type of carriage control to use when it writes to external files**

**Language element:** system option

**Default:** FORTRAN

**Valid in:** configuration file, SAS invocation, OPTIONS statement, System Options window, VMS\_SAS\_OPTIONS DCL symbol

**OpenVMS specifics:** carriage-control format

---

### Syntax

CC=CR | FORTRAN | PRINT

#### CR

specifies OpenVMS carriage-return carriage-control format. The use of overprinting with CC=CR is not supported.

#### FORTRAN

specifies FORTRAN carriage-control format. This is the default.

#### PRINT

specifies OpenVMS print carriage-control format.

### Details

The CC= system option specifies what type of carriage control to use when the SAS System writes to external files. All SAS procedure output files are affected by this option. If the CC= system option is specified when SAS is invoked, then it also affects the SAS log.

## See Also

- “Reading and Writing SAS System Print Files” on page 171

---

## CLEANUP

**Specifies how to handle an out-of-resource condition**

**Language element:** system option

**Default:** CLEANUP

**Valid in:** configuration file, SAS invocation, OPTIONS statement, System Options window, VMS\_SAS\_OPTIONS DCL symbol

**OpenVMS specifics:** operation in various modes

---

## Syntax

CLEANUP | NOCLEANUP

### CLEANUP

does not prompt you before the SAS System attempts to clean up your disk. However, when an out-of-disk-space condition occurs and your display is attached to the process, you are prompted with a menu selection even if the CLEANUP option is on.

When the CLEANUP option is on, the SAS System performs automatic continuous cleanup. If not enough resources are recovered, the request for the resource fails, and an appropriate error message is written to the SAS log.

CLEANUP is the default in batch mode because there is no display attached to the process to accommodate prompting.

### NOCLEANUP

prompts you before the SAS System attempts to clean up your disk. NOCLEANUP is the default if you are running the SAS System in any mode except batch.

**Details** The CLEANUP system option indicates whether you are prompted with a menu of items to clean up when the SAS System encounters an out-of-resource condition.

When CLEANUP is on, you are not prompted for any out-of-resource condition except for out-of-disk-space conditions. If you do not want to be prompted for out-of-disk-space conditions, use the CLEANUP option in conjunction with the NOTERMINAL option.

If you specify NOCLEANUP, a dialog box prompts you for input when the SAS System runs out of a resource. On every menu except the out-of-disk-space menu, you can select **continuous**. If you choose Continuous, the CLEANUP system option is turned on, and you are not prompted again in out-of-resource conditions, unless the SAS System runs out of disk space.

## See Also

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

---

## CONFIG=

**Specifies the name of the configuration file used when initializing the values of SAS system options**

**Language element:** system option

**Default:** SAS\$CONFIG, if defined. If no SAS\$CONFIG process-level logical name exists, there is no default.

**Valid in:** SAS invocation

**OpenVMS specifics:** All aspects are host-specific; valid values for *file-specification*; syntax

---

## Syntax

CONFIG=*file-specification*

NOCONFIG

### CONFIG=*file-specification*

indicates the specified file is used as the configuration file, and SAS\$CONFIG in your process-level logical name table is ignored. However, system-, group-, and job-level configuration files are still processed if they exist.

The value for *file-specification* must be a valid OpenVMS pathname or logical name. If you do not supply a file type, the type .CFG is assumed.

### NOCONFIG

indicates that no process-level configuration file is processed, even if one exists. If no process-level logical name SAS\$CONFIG exists, NOCONFIG is the default. The system-, group-, and job-level configuration files are still processed if they exist.

**Details** The CONFIG= system option specifies the complete filename of your configuration file. This file contains SAS options that are executed automatically whenever the SAS System is invoked. You can create your own configuration file and store it in a location you choose.

System-, group-, and job-level SAS\$CONFIG files are processed regardless of the value of the CONFIG= option and regardless of whether the process-level SAS\$CONFIG logical name exists.

*Note:* The CONFIG= system option can be specified only at SAS invocation, not in a configuration file. If you specify the CONFIG= system option in the configuration file, the option is ignored. △

In the OpenVMS environment, the configuration file can contain any SAS system option except CONFIG= and VERBOSE. If these two system options appear in a configuration file, they are ignored.

## See Also

- “Configuration Files” on page 46

---

## DBCS

### Recognizes double-byte character sets (DBCS)

Valid in: configuration file, SAS invocation

Language element: system option

Default: none

OpenVMS specifics:

---

## 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** In addition to supporting languages such as Chinese, Japanese, and Korean, you can use DBCS to convert lowercase variable values into uppercase.

**See Also**

System Options:

“DBCSSLANG” on page 406

“DBCSTYPE=” on page 407

---

## DBCSSLANG

**Specifies a double-byte character set (DBCS) language**

Language element: system option

Alias: DBLANG

Default: none

Valid in: configuration file, SAS invocation, VMS\_SAS\_OPTIONS DCL symbol

OpenVMS specifics: valid values for *language*; syntax

---

**Syntax**

DBCSSLANG=*language*

***language***

specifies a double-byte character set (DBCS) language. The value for *language* can be one of the following:

**CHINESE**

specifies the language used in the People’s Republic of China. This language is known as *simplified* Chinese.

**JAPANESE**

specifies the Japanese language.

**KOREAN**

specifies the Korean language.

**TAIWANESE**

specifies the Chinese language used in Taiwan. This language is known as *traditional* Chinese.

**UNKNOWN**

specifies a language that uses double-byte character sets but is not supported by SAS. When an invalid value is specified, the DBCSSLANG= system option defaults to UNKNOWN. Usually, this value is not explicitly set by the user.

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

In Version 8, if you specify the DBCSLANG= system option when you invoke the SAS System or in a configuration file, you can also use the command-line alias, DBLANG.

## See Also

- System option: “DBCSTYPE=” on page 407

---

## DBCSTYPE=

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

**Language element:** system option

**Alias:** DBTYPE

**Default:** ALP on the Alpha VMS platform, VAX on the VAX/VMS platform

**Valid in:** configuration file, SAS invocation, VMS\_SAS\_OPTIONS DCL symbol

**OpenVMS specifics:** valid values for *encoding-method*; syntax

---

## Syntax

DBCSTYPE=*encoding-method*

### *encoding-method*

specifies the double-byte character set (DBCS) encoding method.

On the Alpha VMS platform, the value for *encoding-method* can be one of the following:

ALP

specifies the Alpha encoding method.

EUC

specifies Extended UNIX Code.

SJIS

specifies the Shift-JIS encoding method (valid only if DBCSLANG=JAPANESE).

HP15

specifies the HP15 encoding method.

PCIBM

specifies the encoding method used by IBM for its OS/2 platforms..

PCMS

specifies the encoding method used by Microsoft Corporation for its Windows platforms.

On the VAX /VMS platform, the value for *encoding-method* can be one of the following:

VAX

specifies the VAX encoding method.

**DEC**

specifies the DEC encoding method.

**SJIS**

specifies the Shift-JIS encoding method (valid only if DBCSLANG=JAPANESE).

**EUC**

specifies Extended UNIX Code.

**PCMS**

specifies the encoding method used by Microsoft Corporation for its Windows platforms.

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

In Version 8, if you specify the DBCSTYPE= system option when you invoke the SAS System or in a configuration file, you can also use the command-line alias, DBTYPE.

**See Also**

- System option: “DBCSSLANG” on page 406

---

## DEQMULT=

**Specifies the number of pages to extend a file**

Language element: system option

Default: 5

Valid in: configuration file, SAS invocation, OPTIONS statement, System Options window, VMS\_SAS\_OPTIONS DCL symbol

OpenVMS specifics: All aspects are host-specific

**Syntax**

DEQMULT=*n*

*n*

specifies the number of pages desired to extend a SAS file. The default value is 5.

**Details** The DEQMULT= system option controls how many pages of disk blocks are added to a file each time it has to be extended. By default, enough space for 5 pages is added.

## See Also

- Data set option: “DEQMULT=” on page 257
- System option: “ALQMULT=” on page 396

---

## DEVICE=

**Specifies a terminal device driver for SAS/GRAPH software**

**Language element:** system option

**Default:** none

**Valid in:** configuration file, SAS invocation, OPTIONS statement, System Options window, VMS\_SAS\_OPTIONS DCL symbol

**OpenVMS specifics:** valid values for *device-driver-name*

---

### Syntax

DEVICE=*device-driver-name*

#### *device-driver-name*

specifies the name of a terminal device driver under OpenVMS.

**Details** To see a list of device drivers that are available under OpenVMS, use the GDEVICE procedure. If you run SAS in windowing mode, then issue the following statements to display a list that you can scroll through:

```
proc gdevice catalog=sashelp.devices;
run;
```

If you run SAS in interactive line mode, noninteractive mode, or batch mode, then issue the following statements to write the device list to the SAS procedure output file:

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

## See Also

- DEVICE= system option in *SAS Language Reference: Dictionary*
- GDEVICE procedure in *SAS/GRAPH Software: Reference*

---

## DUMP=

**Specifies when to create a process dump file**

**Language element:** system option

**Default:** NODUMP

**Valid in:** configuration file, SAS invocation, OPTIONS statement, System Options window, VMS\_SAS\_OPTIONS DCL symbol

**OpenVMS specifics:** All aspects are host-specific

---

## Syntax

DUMP=END\_PROC | FATAL

NODUMP

### DUMP

tells SAS to create a process dump file. This form of the option can take the following values:

**END\_PROC**

causes the next procedure that runs to completion to signal a fatal error. If SET PROCESS/DUMP has been turned on, this forces a file to be created on disk, which can later be analyzed with the ANALYZE/PROCESS\_DUMP utility.

DUMP=END\_PROC is used to gather information for debugging at any point throughout the execution of a SAS job.

**FATAL**

tells SAS to resignal any fatal errors that it encounters. If SET PROCESS/DUMP has been turned on, this forces a file to be created on disk, which can later be analyzed with the ANALYZE/PROCESS\_DUMP utility.

### NODUMP

tells SAS not to perform any dump activity.

## Details

### CAUTION:

**Never use the DUMP= system option unless you are advised to do so by the SAS Institute Technical Support Division.** △

The DUMP= system option is used for debugging purposes only. You use it in conjunction with the DCL command SET PROCESS/DUMP to write the contents of the address space to a file on disk when the SAS System terminates due to a fatal error. To create a dump file, type the following DCL command at the DCL prompt before you run your SAS job:

```
$ SET PROCESS/DUMP
```

---

## ENGINE=

**Specifies the default access method for disk-format SAS data libraries**

**Language element:** system option

**Default:** V8

**Valid in:** configuration file, SAS invocation, VMS\_SAS\_OPTIONS DCL symbol

**OpenVMS specifics:** valid values for *engine-name*



---

## Syntax

ENGINE=*engine-name*

### *engine-name*

can be one of the following under OpenVMS:

V8

specifies the current default base engine (this is also known as the BASE engine).

V8TAPE

specifies the Version 8 TAPE SAS engine (this is also known as the TAPE engine).

V7

specifies the V7 SAS engine.

V7TAPE

specifies the Version 7 TAPE SAS engine.

V6

specifies the Version 6 SAS engine.

V6TAPE

specifies the Version 6 TAPE SAS engine.

V5

specifies the Version 5 SAS engine.

CONCUR

specifies the concurrency engine.

XPORT

specifies the transport engine. The XPORT engine reads or writes one or more SAS data sets in transport format.

**Details** The ENGINE= system option specifies which engine name is associated with a SAS data library. The engine is used when a SAS data library points to an empty directory or a new file.

## See Also

- ENGINE= system option in *SAS Language Reference: Dictionary*
- Chapter 6, “Using SAS Engines,” on page 139

---

## EXPANDLNM

**Specifies whether concealed logical names are expanded when paths are displayed to the user**

Language element: system option

Default: EXPANDLNM

**Valid in:** configuration file, SAS invocation, OPTIONS statement, System Options window, VMS\_SAS\_OPTIONS DCL symbol

**OpenVMS specifics:** All aspects are host-specific

---

## Syntax

EXPANDLNM | NOEXPANDLNM

### EXPANDLNM

specifies that concealed logical names are to be expanded. This is the default.

### NOEXPANDLNM

specifies that concealed logical names are not to be expanded when paths are displayed.

**Details** The EXPANDLNM system option controls whether concealed logical names are expanded when paths are displayed to the user. By default, VMS concealed logical names are not expanded when used in messages in the SAS log. Using the EXPANDLNM system option forces these concealed logical names to expand.

In Version 8 of the SAS System under OpenVMS, the EXPANDLNM system option can be used with all engines.

## Example

For example,

```
MYDISK$ : [ DIRECTORY ]
```

is displayed as

```
$1$DUA1 : [ MYDISK . DIRECTORY ]
```

---

## FILECC

**Specifies how to treat data in column 1 of a print file**

**Language element:** system option

**Default:** FILECC

**Valid in:** configuration file, SAS invocation, OPTIONS statement, System Options window, VMS\_SAS\_OPTIONS DCL symbol

**OpenVMS specifics:** All aspects are host-specific

---

## Syntax

FILECC | NOFILECC

### FILECC

specifies that data in column 1 of a print file should be treated as carriage control. This is the default.

**NOFILECC**

specifies that data in column 1 of a print file should be treated as data.

**Details** The FILECC system option specifies whether to treat data in column 1 of a print file as carriage control or as data.

**See Also**

- “Reading and Writing SAS System Print Files” on page 171

**FMTSEARCH=**

**Controls the order in which format catalogs are searched**

Language element: system option

Default: (WORK LIBRARY)

Valid in: configuration file, SAS invocation, OPTIONS statement, System Options window, VMS\_SAS\_OPTIONS DCL symbol

OpenVMS specifics: valid values for *libref*

**Syntax**

FMTSEARCH=(*libref-1 libref-2 . . . libref-n*)

***libref***

specifies a valid OpenVMS libref. The value of *libref* can be either *libref* or *libref.catalog*. If only the libref is given, the SAS System assumes the FORMATS is the catalog name.

**Details** The FMTSEARCH= system option searches format data logs in the order that they are listed, until the desired member is found. The WORK.FORMATS catalog is always searched first, and the LIBRARY.FORMATS catalog is searched next, unless one of them appears in the FMTSEARCH= list.

When you specify this system option in a configuration file or on the SAS command line, you must enclose the option value in double quotation marks. You must also separate each libref with a blank space, not with a comma, even though the comma is typically used as a list delimiter by OpenVMS.

**See Also**

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

**FORMS=**

Specifies the default form that is used for windowing environment output

**Language element:** system option

**Default:** DEFAULT

**Valid in:** configuration file, SAS invocation, OPTIONS statement, System Options window, VMS\_SAS\_OPTIONS DCL symbol

**OpenVMS specifics:** valid values for *form-name*

---

## Syntax

FORMS=*form-name*

### *form-name*

specifies the name of the form. To create a customized form, use the FSFORMS command in a windowing environment.

**Details** The FORMS= system option also customizes output from the PRINT command (when FORM= is omitted) or output from interactive windowing procedures. The default form (DEFAULT) contains settings that control various aspects of interactive windowing output, including printer selection, text body, and margins.

## See Also

- FORMS= system option in *SAS Language Reference: Dictionary*
- FSFORMS command in the SAS online Help

---

## FULLSTIMER

**Writes all system performance statistics to the SAS log**

**Language element:** system option

**Default:** NOFULLSTIMER

**Valid in:** configuration file, SAS invocation, OPTIONS statement, System Options window, VMS\_SAS\_OPTIONS DCL symbol

**OpenVMS specifics:** host-specific options

---

## Syntax

FULLSTIMER | NOFULLSTIMER

### **FULLSTIMER**

specifies that the SAS System write to the SAS log a complete list of computer resources that were used for each step and for the entire SAS session.

### **NOFULLSTIMER**

specifies that the SAS System not write to the SAS log a complete list of computer resources. This is the default.

**Details** The FULLSTIMER system option specifies whether all the performance statistics of your computer system that are available to the SAS System are written to the SAS log.

Under OpenVMS, the FULLSTIMER system option prints the following statistics:

- buffered I/O
- direct I/O
- elapsed time
- page faults
- CPU time.

If both the FULLSTIMER and STIMER system options are set, only the FULLSTIMER statistics are printed.

## See Also

- System option: “STIMER” on page 442

## GISMAPS=

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

**Language element:** system option

**Default:** SASSGISMAPS

**Valid in:** configuration file, SAS invocation, OPTIONS statement, System Options window, VMS\_SAS\_OPTIONS DCL symbol

**OpenVMS 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 that are supplied by SAS/GIS software.

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

## See Also

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

## GSFCC=

**Tells SAS what type of carriage control to use for writing to graphics stream files**

**Language element:** system option

**Default:** PRINT

**Valid in:** configuration file, SAS invocation, OPTIONS statement, System Options window, VMS\_SAS\_OPTIONS DCL symbol

**OpenVMS specifics:** All aspects are host-specific

---

## Syntax

GSFCC=CR | PRINT | NONE

### CR

creates a carriage return carriage control file.

### PRINT

is a VFC format file with all carriage controls set to null. These files can be used with most utilities except for some file transfer protocols, such as Kermit.

### NONE

creates a file with no carriage control. This format is useful if you plan to download the file to a personal computer.

**Details** The GSFCC= option determines the file format of graphics stream files. When used as a system option, GSFCC= controls all graphics files that are created in a single SAS session. To specify a different format for a single file, use the GSFCC= statement option in the FILENAME statement.

## See Also

- FILENAME statement: “Host-Specific External I/O Statement Options” on page 361

---

## HELPLOC

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

**Language element:** system option

**Default:** SAS\$HELPLOC

**Valid in:** configuration file, SAS invocation, OPTIONS statement, System Options window, VMS\_SAS\_OPTIONS DCL symbol

**OpenVMS specifics:** valid values for *path*

---

## Syntax

HELPLOC (*path-1*<,*path-2*,...,*path-n*>)

***path***

specifies the directory path in which the file is located.

*Note:* When viewed in PROC OPTIONS, *path* will be expanded to the full path that is defined by SAS\$HELPLLOC. △

**Details** The HELPLLOC system option identifies the location of the SAS online Help files in your operating environment.

The value for this system option is cumulative; the paths are searched in last in, first out order.

**See Also**

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

**INITSTMT=**

**Specifies a SAS statement that is to be executed after any statements in the autoexec file and before any statements from the SYSIN file**

Language element: system option

Alias: IS=

Default: none

Valid in: configuration file, SAS invocation, VMS\_SAS\_OPTIONS DCL symbol

OpenVMS specifics: valid values for *statement(s)*

**Syntax**

INITSTMT="*statement(s)*"

IS="*statement(s)*"

**"*statement(s)*"**

specifies any SAS statement or statements. The value for *statement(s)* must be enclosed in double quotation marks.

**Details** In order to conform to the OpenVMS command-line syntax, the value for this option must be enclosed in double quotation marks. The quotation marks enable you to preserve case, as well as to specify a compound statement. Any value that is enclosed in single quotation marks is resolved as a symbol by OpenVMS before it is processed by the SAS System. If no symbol exists for the specified value, unexpected results may occur.

*Note:* Placing single quotation marks inside double quotation marks may not create the effect that you want. To preserve the case of the characters, enclose strings in double quotation marks. △

## See Also

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

## LINESIZE=

**Specifies the line size of SAS output**

**Language element:** system option

**Alias:** LS=

**Default:** the display width setting for windowing environment and interactive line modes; 132 characters for noninteractive and batch modes

**Valid in:** configuration file, SAS invocation, OPTIONS statement, System Options window, VMS\_SAS\_OPTIONS DCL symbol

**OpenVMS specifics:** valid values for *width*; syntax

### Syntax

LINESIZE=*width* | *n* | MIN | MAX | hexX

#### *width*

specifies the display width setting of the output.

#### *n*

specifies the line size of the output in bytes. Valid values are 64 to 256.

#### MIN

sets the line size of the output to 64, and requires SAS to use a default value.

#### MAX

sets the line size of the output to 256.

#### hexX

specifies the line size of the output as a hexadecimal number. This number must be followed by an X, as in *hexadecimal-valueX*.

**Details** In the OpenVMS environment, the default for interactive modes (the SAS windowing environment and interactive line mode) is the display width setting. For noninteractive and batch modes, the default is 132 characters.

## See Also

- LINESIZE= system option in *SAS Language Reference: Dictionary*
- System option: "PAGESIZE=" on page 429

## LOADLIST=

**Specifies whether to print to the specified file the information about images that the SAS System has loaded into memory**



**Language element:** system option

**Default:** none

**Valid in:** configuration file, SAS invocation, OPTIONS statement, System Options window, VMS\_SAS\_OPTIONS DCL symbol

**OpenVMS specifics:** All aspects are host-specific

## Syntax

LOADLIST=*file-specification*

NOLOADLIST

### LOADLIST=*file-specification*

identifies an external file where the information is printed. The value for *file-specification* can be either a pathname or a logical name.

*Note:* When you use LOADLIST= in an OPTIONS statement, you must enclose *file-specification* in double quotation marks. When you use LOADLIST= during SAS invocation or in a configuration file, do not use quotation marks. △

### NOLOADLIST

specifies to not print any information. This is the default.

## Details

The LOADLIST= system option helps you identify images that should be either moved to your local node or installed on your system in order to improve performance. Each time an image is loaded into memory, its name is added to the list. The images that appear most often in the list are likely candidates for performance enhancements.

The following is a partial list of a typical LOADLIST file:

| IMAGE    | SIZE   | UNLOADABLE | LOAD COUNT |
|----------|--------|------------|------------|
| SASDEAP1 | 1536   | YES        | 1          |
| SASMSG   | 10240  | YES        | 1          |
| SASXKERN | 346112 | NO         | 1          |
| SASDS    | 226816 | NO         | 1          |
| SASDS    | 226816 | NO         | 1          |
| SASDS    | 226816 | NO         | 1          |
| SASDS    | 226816 | NO         | 1          |

Each entry consists of the following:

#### IMAGE

is the image that was loaded from the SAS library.

#### SIZE

is the size of the image, in bytes.

#### UNLOADABLE

indicates whether the image is available for unloading.

#### LOAD COUNT

indicates how many times the image was requested for loading. This is a usage count for the image.

### CAUTION:

Each new OpenVMS process opens its own version of the external file that LOADLIST writes to, so version limits can cause a loss of LOADLIST information. △

Every time an image is *requested*, SAS writes another entry to the LOADLIST file. If an image is requested but is already in memory, you will see another entry for the image, but the LOAD COUNT number remains the same. The LOAD COUNT number is always 1, indicating that it is physically loaded only once during the SAS session.

## See Also

- Chapter 10, “Optimizing System Performance,” on page 203

---

## LOG=

**Specifies where the SAS log is written when running SAS programs in any mode other than the windowing environment**

**Language element:** system option

**Default:** SYSS\$OUTPUT for interactive line mode; *program-name*.LOG for noninteractive and batch modes; LOG for the SAS windowing environment mode

**Valid in:** configuration file, SAS invocation, VMS\_SAS\_OPTIONS DCL symbol

**OpenVMS specifics:** valid values for *destination*; syntax

---

### Syntax

LOG=*destination*

NOLOG

### LOG=*destination*

specifies either an external file or a device where the SAS log is written. The value of *destination* can be SYSS\$PRINT (the default printer queue); your current display; SYSS\$OUTPUT (the default output stream); or an OpenVMS pathname.

### NOLOG

specifies that the SAS log is not written to a file. NOLOG is valid only in noninteractive mode and batch mode.

**Details** The LOG= system option specifies a destination to which the SAS log is written when executing SAS programs in modes other than the windowing environment.

To send the log to a printer other than the default printer, redefine the SYSS\$PRINT logical name to the queue that you want to use.

The LOG= option is valid in interactive line mode, noninteractive mode, and batch mode. It is ignored in the SAS windowing environment. NOLOG is valid in noninteractive mode and batch mode; it is ignored in interactive line mode and the SAS windowing environment.

## See Also

- Chapter 8, “Routing the SAS Log and SAS Procedure Output,” on page 187

---

## LOGMULTREAD

**Specifies the session log file to be opened for shared read access**

**Language element:** system option

**Default:** NOLOGMULTREAD

**Valid in:** configuration file, SAS invocation, VMS\_SAS\_OPTIONS DCL symbol

**OpenVMS specifics:** All aspects are host-specific

---

### Syntax

LOGMULTREAD | NOLOGMULTREAD

### LOGMULTREAD

opens the session log file for shared read access.

### NOLOGMULTREAD

closes the session log file. This is the default.

**Details** The LOGMULTREAD system option allows you to open the session log file for shared read access. The default is NOLOGMULTREAD. Specifying LOGMULTREAD degrades performance, because data are written to the log more frequently.

---

## MAPS=

**Gives the SAS library that holds the SAS/GRAPH map data sets**

**Language element:** system option

**Default:** SAS\$MAPS logical name

**Valid in:** configuration file, SAS invocation, OPTIONS statement, System Options window, VMS\_SAS\_OPTIONS DCL symbol

**OpenVMS specifics:** default; valid values for *library-specification*

---

### Syntax

MAPS=*library-specification*

### *library-specification*

can be a libref, an OpenVMS logical name, or a pathname to the directory or subdirectory level. Do not use a specific filename.

**Details** The MAPS= system option specifies the name of the SAS data library that holds the SAS/GRAPH map data sets.

## See Also

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

## MEMSIZE=

**Specifies the limit on the total amount of memory to be used by the SAS System**

**Language element:** system option

**Default:** 0 (unlimited memory)

**Valid in:** configuration file, SAS invocation, VMS\_SAS\_OPTIONS DCL symbol

**OpenVMS specifics:** All aspects are host-specific

### Syntax

MEMSIZE=*n* | *nK* | *nM* | *nG* | MIN | MAX | hex*X*

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

specifies the amount of memory to be used in bytes (*n*), kilobytes (*nK*), megabytes (*nM*), or gigabytes (*nG*). The default is 0, or unlimited memory.

**MIN**

specifies 0, which specifies that there is no limit.

**MAX**

specifies the maximum, which is +2147483647 or 2 gigabytes

**hex*X***

specifies the amount of memory as a hexadecimal number. This number must be followed by an *X*, as in *hexadecimal-valueX*.

**Details** The MEMSIZE= system option specifies a limit on the total amount of memory the SAS System uses at any one time. The operating system may use additional amounts of memory. A value of 0 or MIN indicates that there is no limit. Too low a value will result in out-of-memory conditions.

*Note:* When you specify MEMSIZE=0 or MEMSIZE=MIN and run PROC OPTIONS, the value of MEMSIZE is displayed as -1. △

## MSG=

**Specifies the library that contains SAS error messages**

**Language element:** system option

**Default:** SAS\$MSG logical name

**Valid in:** configuration file, SAS invocation, VMS\_SAS\_OPTIONS DCL symbol

**OpenVMS specifics:** All aspects are host-specific

---

## Syntax

MSG=*library-specification*

### *library-specification*

can be an OpenVMS logical name (including search strings) or pathname. Do not use a specific filename.

**Details** In the OpenVMS environment, the default value for the MSG= system option is the directory that is pointed to by the SAS\$MSG logical name. If no SAS\$MSG logical name is defined, the SAS System cannot start.

The MSG= system option replaces the SASMSG= system option.

---

## MSGCASE

**Specifies whether notes, warnings, and error messages that are generated by the SAS System are displayed in uppercase characters**

**Language element:** system option

**Default:** NOMSGCASE

**Valid in:** configuration file, SAS invocation, VMS\_SAS\_OPTIONS DCL symbol

**OpenVMS specifics:** All aspects are host-specific

---

## Syntax

MSGCASE | NOMSGCASE

### MSGCASE

specifies that messages are displayed in uppercase characters.

### NOMSGCASE

specifies that messages are displayed in uppercase and lowercase characters. This is the default.

**Details** The MSGCASE system option specifies whether or not messages from the message file are uppercased before they are written out. User-generated messages and source lines are not affected by this system option.

---

## MSGLEVEL=

**Controls the amount of information sent to the SAS log**

**Language element:** system option

**Default:** N

**Valid in:** configuration file, SAS invocation, OPTIONS statement, System Options window, VMS\_SAS\_OPTIONS DCL symbol

**OpenVMS specifics:** information written to the SAS log

---

## Syntax

MSGLEVEL=N | I

**N**

specifies that the SAS System print only note, warning, and error messages. This is the default.

**I**

specifies that the SAS System print informational, note, warning, and error messages.

**Details** The MSGLEVEL= system option controls the amount of information that the SAS System writes to the SAS log in certain situations. For example, if SAS uses an index to optimize a WHERE or BY statement, it usually does not generate a log note about it. If MSGLEVEL=I, however, the system displays a note to the log whenever it uses an index to optimize a statement.

## See Also

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

## MSYMTABMAX=

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

**Language element:** system option

**Default:** 51,200 bytes

**Valid in:** configuration file, SAS invocation, OPTIONS statement, System Options window, VMS\_SAS\_OPTIONS DCL symbol

**OpenVMS specifics:** default; valid values for *n*

---

## Syntax

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

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

specifies the amount of memory in bytes (*n*), kilobytes (*nK*), megabytes (*nM*), and gigabytes (*nG*).

**MIN**

is 0.

**MAX**

specifies the maximum amount of memory available, which is 2,147,483,647.

**Details**

Under OpenVMS, the range for the MSYMTABMAX= system option is 0 to 2,147,483,647 bytes. After the MSYMTABMAX value is reached, SAS writes any additional macro variables to disk.

**See Also**

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

**MVARSIZE=**

**Specifies the maximum size for in-memory macro variable values**

Language element: system option

Default: 8,192 bytes

Valid in: configuration file, SAS invocation, OPTIONS statement, System Options window, VMS\_SAS\_OPTIONS DCL symbol

OpenVMS specifics: default; valid values for *n*

**Syntax**

MVARSIZE=*n* | *nK* | *nM* | *nG* | MIN | MAX | hex*X*

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

specifies the size for macro variables stored in memory in bytes (*n*), kilobytes (*nK*), megabytes (*nM*), and gigabytes (*nG*).

**MIN**

sets the MVARSIZE= system option to 0, which causes all macro variables to be written to disk.

**MAX**

specifies the maximum amount of memory available, which under OpenVMS is 32,767.

**hexX**

sets the maximum macro variable size stored in memory as a hexadecimal number. This number must be followed by an X, as in *hexadecimal-valueX*.

**Details** The MVARSIZE= system option specifies the maximum size for macro variables that are stored in memory. If the size of the macro variable is larger than the maximum value that is specified, variables are written out to disk.

Under OpenVMS, the range of values is from 0 to 32,767 bytes.

The value of the MVARSIZE= system option can affect system performance. Before you specify the value for production jobs, run tests to determine the optimum value.

## See Also

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

## NEWS=

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

**Language element:** system option

**Default:** SAS\$NEWS, if defined. If no SAS\$NEWS logical name exists, no news is written to the SAS log.

**Valid in:** configuration file, SAS invocation, VMS\_SAS\_OPTIONS DCL symbol

**OpenVMS specifics:** valid values for *file-specification*

## Syntax

NEWS=*file-specification*

NONEWS

### NEWS=*file-specification*

specifies an external file. The value for *file-specification* can be a valid OpenVMS pathname or logical name.

### NONEWS

specifies that the contents of the NEWS file is not displayed in the SAS log, even if the file exists.

**Details** In the OpenVMS environment, the default behavior is to search for the SAS\$NEWS logical name. If it is found, the contents of the NEWS file are displayed in the SAS log immediately after the SAS header.

## See Also

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

## OBS=

**Specifies which observation the SAS System will process last**

**Language element:** system option

**Default:** 2147483647

**Valid in:** configuration file, SAS invocation, OPTIONS statement, System Options window, VMS\_SAS\_OPTIONS DCL symbol

**OpenVMS specifics:** valid values for *n*; valid value for MAX



---

## Syntax

OBS=*n* | *nK* | *nM* | *nG* | MIN | MAX | hex*X*

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

specifies the number of the last observation to process in bytes (*n*), kilobytes (*nK*), megabytes (*nM*), or gigabytes (*nG*).

**MIN**

sets the number of the last observation to process to 0, and requires SAS to use a default value.

**MAX**

is 2,147,483,647. This number is the default.

**hex*X***

specifies the number of the last observation to process as a hexadecimal number. This number must be followed by an *X*, as in *hexadecimal-valueX*.

**Details** The OBS= system option specifies which observation from a data set or which record from a raw data file that SAS reads last.

Under OpenVMS, the default value is 2147483647.

## See Also

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

---

## OPLIST

**Controls whether the settings of SAS system options are written to the SAS log**

Language element: system option

Default: NOOPLIST

Valid in: configuration file, SAS invocation, VMS\_SAS\_OPTIONS DCL symbol

OpenVMS specifics: All aspects are host-specific

---

## Syntax

OPLIST | NOOPLIST

**OPLIST**

specifies that the SAS System write the settings of options to the SAS log.

**NOOPLIST**

specifies that the SAS System does not write the settings of options to the SAS log.

**Details** Under OpenVMS, the OPLIST system option echoes only the system options specified when the SAS System is invoked; it does not echo any system options specified

in a configuration file. If you want to echo the contents of the configuration file, use the VERBOSE system option.

You cannot change the settings of SAS system options with the OPLIST system option.

## Example

Suppose you invoke the SAS System with the following command:

```
$ SAS/NODMS/FULLSTIMER/OPLIST
```

The following line is then written to the SAS log:

```
/NODMS/FULLSTIMER/OPLIST
```

## See Also

- System option: “VERBOSE” on page 450

---

## PAGENOE=

**Resets the page number**

Language element: system option

Default: 1

Valid in: configuration file, SAS invocation, OPTIONS statement, System Options window, VMS\_SAS\_OPTIONS DCL symbol

OpenVMS specifics: valid values for *n*; syntax

---

### Syntax

PAGENOE=*n* | *nK* | *nM* | *nG* | MIN | MAX | hex*X*

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

specifies the page number in bytes (*n*), kilobytes (*nK*), megabytes (*nM*), or gigabytes (*nG*).

**MIN**

sets the page number to the minimum number, which is 1.

**MAX**

specifies the maximum page number as the largest signed, 4-byte integer representable in your operating environment.

**hex*X***

specifies the page number as a hexadecimal number. This number must be followed by an *X*, as in *hexadecimal-valueX*.

**Details** The PAGENOE= system option specifies a beginning page number for the next page of output that SAS produces. Under OpenVMS, 1 is the default.

In Version 8, if you specify the PAGENO= system option when you invoke the SAS System or in a configuration file, you can use the command-line alias, PAGNO.

## See Also

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

## PAGESIZE=

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

Language element: system option

Alias: PS=

Default: display page size for windowing environment and interactive line modes; 60 lines for noninteractive and batch modes

Valid in: configuration file, SAS invocation, OPTIONS statement, System Options window, VMS\_SAS\_OPTIONS DCL symbol

OpenVMS specifics: syntax

### Syntax

PAGESIZE=*n* | *nK* | MIN | MAX | hex*X*

***n* | *nK***

specifies the number of lines that compose a page in bytes (*n*) or kilobytes (*nK*).

**MIN**

sets the number of lines that compose a page. Values can range from 15 to 32767.

**MAX**

sets the number of lines that compose a page to the largest signed, 4-byte integer representable in your operating environment. Under OpenVMS, this number is 32767.

**hex*X***

sets the number of lines that compose a page as a hexadecimal number. This number must be followed by an *X*, as in *hexadecimal-valueX*.

**Details** The PAGESIZE= system option specifies the number of lines that can be printed per page of SAS output.

Under OpenVMS, the default for interactive modes (interactive line mode and the SAS windowing environment) is your display page-size setting. For noninteractive and batch modes, the default is 60 lines. Values can range from 15 to 32,767 lines.

## See Also

- PAGESIZE= system option in *SAS Language Reference: Dictionary*
- System option: “LINESIZE=” on page 418

---

## PARMCARDS=

**Specifies the file reference to use as the PARMCARDS file**

**Language element:** system option

**Default:** FT15F001

**Valid in:** configuration file, SAS invocation, OPTIONS statement, System Options window, VMS\_SAS\_OPTIONS DCL symbol

**OpenVMS specifics:** valid values for *file-ref*

### Syntax

PARMCARDS=*file-ref*

#### *file-ref*

specifies the file reference of the file to be opened.

**Details** The PARMCARDS= system option specifies the file reference of a file that SAS opens when it encounters a PARMCARDS= statement in a procedure.

In Version 8, if you specify the PARMCARDS= system option when you invoke the SAS System or in a configuration file, you can use the command-line alias, PRMCARDS.

## See Also

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

---

## PRINT=

**Specifies the destination of the procedure output**

**Language element:** system option

**Default:** SYSS\$OUTPUT for interactive line mode; *program-name*.LIS for noninteractive and batch modes; OUTPUT for the SAS windowing environment

**Valid in:** configuration file, SAS invocation, VMS\_SAS\_OPTIONS DCL symbol

**OpenVMS specifics:** All aspects are host-specific

### Syntax

PRINT=*destination*

NOPRINT

**PRINT=*destination***

specifies to print either to an external file or to a device. The value of *destination* can be SYSSPRINT (the default print queue); your current display, SYSSOUTPUT (the default output stream); or an OpenVMS pathname.

**NOPRINT**

specifies to print to SYSSOUTPUT.

**Details** The PRINT= system option specifies the destination to which SAS output is written when executing SAS programs in modes other than the interactive windowing environment.

To send the procedure output to a printer queue other than the default printer, redefine the SYSSPRINT logical name to the queue that you want to use.

The PRINT= system option is valid in interactive line mode, noninteractive mode, and batch mode; it is ignored in the SAS windowing environment.

**See Also**

- Chapter 8, “Routing the SAS Log and SAS Procedure Output,” on page 187

## PROCLEAVE=

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

Language element: system option

Default: 16,384 bytes

Valid in: configuration file, SAS invocation, OPTIONS statement, System Options window, VMS\_SAS\_OPTIONS DCL symbol

OpenVMS specifics: All aspects are host-specific

### Syntax

PROCLEAVE=*n* | *nK*

***n* | *nK***

specifies the amount of memory to leave unallocated for termination in bytes (*n*) or kilobytes (*nK*).

**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, you increase the number of bytes specified by the PROCLEAVE= system option. This forces 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.

The value of the PROCLEAVE= system option can be expressed as bytes (*n*) or as kilobytes (*nK*). Although the value can be any integer, values between 512 and 262,144 bytes are recommended.

## See Also

- System option: “SYSLEAVE=” on page 444

---

## RSASUSER

### Controls access to members in the SASUSER data library

Language element: system option

Default: NORSASUSER

Valid in: configuration file, SAS invocation, VMS\_SAS\_OPTIONS DCL symbol

OpenVMS specifics: availability of SASUSER data library to users

---

## Syntax

RSASUSER | NORSASUSER

### RSASUSER

limits access to the SASUSER data library to read-only access.

### NORSASUSER

prevents users from sharing SASUSER library members, because it allows a user to open a SASUSER library member for update access. Update access requires exclusive rights to the library member. When NORSASUSER is in effect and another user tries to share the PROFILE catalog, a temporary PROFILE catalog is created in the WORK directory.

## Details

Under the OpenVMS environment, it is common to have a SASUSER data library that is shared by a group of users. By default, if one user has a library member open for update, all other users are denied access to that library member. For example, if one user is writing data 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 library members by allowing all the users read-only access to members. In this 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 would be able to write information to the PROFILE catalog.

Specifying RSASUSER in a SAS session affects only that session's access to files. To enable a group of users to share members in the SASUSER library, the system manager should set RSASUSER in a configuration file that is shared by all the users who will be accessing the files. For example, RSASUSER can be contained in a file referenced by a group-level SAS\$CONFIG logical name.

*Note:* The usefulness of the RSASUSER option depends on how the SAS System is being used. Although the RSASUSER system option is extremely useful when users must share information (such as the PROFILE catalog) that is stored in the SASUSER data library, it is not useful if these same users are using SAS/ASSIST software. SAS/ASSIST software requires update access to the SASUSER library. △

## See Also

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

## S=

Specifies the length of statements in each line of source statements and the length of data in the line following a DATALINES statement

Language element: system option

Default: 0

Valid in: configuration file, SAS invocation, OPTIONS statement, System Options window, VMS\_SAS\_OPTIONS DCL symbol

OpenVMS specifics: valid values for *n*

## Syntax

S=*n* | *nK* | *nM* | *nG* | MIN | MAX | hex*X*

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

specifies the length of statements and data in bytes (*n*), kilobytes (*nK*), megabytes (*nM*), or gigabytes (*nG*).

**MIN**

sets the length of statements and data to 0, and requires SAS to use a default value.

**MAX**

sets the length of statements and data to the maximum, which under OpenVMS is 2147483647.

**hex*X***

specifies the length of statements and data as a hexadecimal number. This number must be followed by an *X*, as in *hexadecimal-valueX*.

**Details** The S= system option specifies the length of statements, exclusive of sequence numbers, on each line of SAS source statements and the length of data, exclusive of sequence numbers, on lines following a DATALINES statement.

Under OpenVMS, the value of the S= system option can range from 0 to 2,147,483,647.

## See Also

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

---

## SASAUTOS=

**Specifies the autocall macro library**

**Language element:** system option

**Default:** SASAUTOS logical name

**Valid in:** configuration file, SAS invocation, OPTIONS statement, System Options window, VMS\_SAS\_OPTIONS DCL symbol

**OpenVMS specifics:** valid values for *library-specification*

---

### Syntax

SASAUTOS=*library-specification* | (*library-specification-1*, . . . , *library-specification-n*)

#### *library-specification*

can be any valid reference to an aggregate storage location under OpenVMS (directories or OpenVMS text libraries). The specification can be a fileref or an OpenVMS logical name (including search strings) or pathname. OpenVMS pathnames must be enclosed in quotation marks. (Remember that quotation marks used in the SAS command must be double quotation marks unless a symbol is implied, as discussed in “INITSTMT=” on page 417.) Any aggregate storage location specifications that are not enclosed in quotation marks are considered logical names.

**Details** Under OpenVMS, the default is the SASAUTOS logical name. If no SASAUTOS logical name is defined and an autocall library is referenced, the following message appears:

```
ERROR: No file referenced by SASAUTOS OPTION can
      be opened.
WARNING: Source level autocall is not found or
      cannot be opened.
Autocall has been suspended and OPTION
      NOMAUTOSOURCE has been set.
To use the autocall facility again, set OPTION
      MAUTOSOURCE.
```

#### **CAUTION:**

**Do not override the definition of the SASAUTOS logical name.** Several parts of the SAS System require the macros that are defined in the supplied SASAUTOS files. These parts include SAS/ASSIST software and the PMENU facility under the SAS windowing environment autocall libraries. △

When you specify two or more autocall libraries in the SAS command, you must enclose the specifications in parentheses and use commas to separate multiple specifications. Blanks are not acceptable delimiters in the SAS command, but they are accepted if you specify the SASAUTOS option in the OPTIONS statement.



## See Also

- SASAUTOS= system option in *SAS Language Reference: Dictionary*
- System option: “INITSTMT=” on page 417
- “Autocall Libraries” on page 464
- *SAS Macro Language: Reference*

---

## SASHELP=

Specifies the directory or directories to be searched for SAS help files, default forms, device lists, dictionaries, and other entries in the SASHELP catalog

Language element: system option

Default: SAS\$HELP logical name

Valid in: configuration file, SAS invocation, VMS\_SAS\_OPTIONS DCL symbol

OpenVMS specifics: valid values for *library-specification*

### Syntax

SASHELP=*library-specification*

#### *library-specification*

can be an OpenVMS logical name (including search strings) or pathname. Do not use a specific filename.

**Details** The SASHELP= system option is set during the installation process and normally is not changed after installation.

Under OpenVMS, the default value for the SASHELP= system option is the directory that the SAS\$HELP logical name points to. If no SAS\$HELP logical name is defined, the SAS System cannot start.

## See Also

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

---

## SASUSER=

Specifies the name of the SASUSER library

Language element: system option

Default: SAS\$USER logical name

Valid in: configuration file, SAS invocation, VMS\_SAS\_OPTIONS DCL symbol

OpenVMS specifics: valid values for *library-specification*; syntax

---

## Syntax

SASUSER=*library-specification*

### *library-specification*

specifies an OpenVMS logical name or pathname to the directory or subdirectory level for a SAS data library. Do not use a specific filename.

**Details** The SASUSER= system option specifies the SAS data library that contains a user's profile catalog.

Under OpenVMS, the default value for the SASUSER= system option is the directory that the SAS\$USER logical name points to. If no SAS\$USER logical name is defined, the SAS System cannot start.

## See Also

- SASUSER= system option in *SAS Language Reference: Dictionary*
- "SASUSER Library" on page 51

---

## SEQENGINE=

**Specifies the default access method for SAS sequential data libraries**

Language element: system option

Default: V8TAPE

Valid in: configuration file, SAS invocation, OPTIONS statement, System Options window, VMS\_SAS\_OPTIONS DCL symbol

OpenVMS specifics: All aspects are host-specific

---

## Syntax

SEQENGINE=*engine-name*

### *engine-name*

can be one of the following under OpenVMS:

V8TAPE

specifies the sequential engine for Version 8. This is the default.

V7TAPE

specifies the sequential engine for Version 7.

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

- Chapter 6, “Using SAS Engines,” on page 139

---

## **SORTPGM=**

**Specifies the name of the sort utility**

Language element: system option

Default: BEST

Valid in: configuration file, SAS invocation, OPTIONS statement, System Options window, VMS\_SAS\_OPTIONS DCL symbol

OpenVMS specifics: valid values for sort utility; syntax

---

### **Syntax**

SORTPGM=BEST | HOST | SAS

#### **BEST**

specifies the sort utility that is best suited for the data. This is the default.

#### **HOST**

specifies the HOST sort utility that is available under OpenVMS. The HOST sort utility may be more suitable than the sort utility supplied by the SAS System for data sets that contain many observations.

#### **SAS**

specifies the sort utility to be supplied by the SAS System, which is more efficient for sorting small files than invoking the HOST sort utility.

**Details** The SORTPGM= system option specifies the name of the system sort utility to be invoked by the SAS System.

Under OpenVMS, if SORTPGM=BEST and the data set to be sorted contains 50,000 observations or fewer, the SAS sort is used; otherwise, the HOST sort is used. The informational message that describes which sort was used when SORTPGM=BEST is suppressed unless the value of the MSGLEVEL= system option is I (informational).

## See Also

- System option: “MSGLEVEL=” on page 423

---

## **SORTSIZE=**

**Specifies the amount of memory that is available to the SORT procedure**

**Language element:** system option

**Default:** 8M

**Valid in:** configuration file, SAS invocation, OPTIONS statement, Systems Options window, VMS\_SAS\_OPTIONS DCL symbol

**OpenVMS specifics:** default

## Syntax

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

## Syntax Description

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

specifies the amount of memory in bytes, kilobytes, megabytes, and gigabytes, respectively. If *n*=0, the sort utility uses its default.

***MIN***

specifies the minimum amount of memory available.

***MAX***

specifies the maximum amount of memory available.

***hex***

specifies the amount of memory as a hexadecimal number. This number must be followed by an X, as in *hexadecimal-valueX*

**Details** Generally, the value of the SORTSIZE= system option should be less than the physical memory available to your process. If the SORT procedure needs more memory than you specify, the system creates a temporary utility file.

PERFORMANCE NOTE: Proper specification of SORTSIZE= can improve sort performance by restricting the swapping of memory that is controlled by the operating environment.

For OpenVMS, the default value for SORTSIZE is 8M.

## See Also

“SORT” on page 348

SORTSIZE= system option in *SAS Language Reference: Dictionary*

## SORTWORK=

**Defines locations for host sort work files**

**Language element:** system option

**Default:** none

**Valid in:** configuration file, SAS invocation, OPTIONS statement, System Options window, VMS\_SAS\_OPTIONS DCL symbol

**OpenVMS specifics:** number of work files specified

---

## Syntax

SORTWORK=< *libref*>;

SORTWORK=*path*;

SORTWORK=(< *libref1*> | *path1*,< *libref2*> | *path2*, ... < *libref10*> | *path10*)

NOSORTWORK

### *libref*

specifies a data library. Librefs must be assigned using a LIBNAME statement. When more than one *libref* is specified, they must be enclosed in parentheses.

### *path*

specifies an OpenVMS pathname. The value for *path* must be enclosed in single or double quotation marks.

### NOSORTWORK

deassigns the librefs or paths assigned using SORTWORK=.

**Details** The SORTWORK= system option lets users specify up to ten work files for the OpenVMS host sort. The paths and librefs defined in the SORTWORK= system option are assigned to the OpenVMS logical names SORTWORK0 through SORTWORK9. The OpenVMS host sort uses these logical names to determine where to create the host sort work files.

You can specify the NOSORTWORK option to deassign the logical names that are set using SORTWORK=. Otherwise, they stay assigned until the SAS session is terminated.

The SORTWORK $n$  logical names are not assigned during options processing. They are assigned during processing of the SORT procedure. The same applies to deassigning the logical names. If you specify OPTIONS NOSORTWORK, the deassigning of the logical names will not take place until another SORT procedure is submitted.

The SORT procedure option, SORTWKNO=, overrides SORTWORK=. SORTWKNO= enables the user to specify how many work files the host sort should use. Valid values range from 0 through 6. No matter how many sort work file locations have been assigned through SORTWORK=, the number that is specified with SORTWKNO= determines how many of the locations are used.

Since the SORTWKNO= option is limited, you can use the OpenVMS maximum of 10 sort work files by defining SORTWORK0 through SORTWORK9. If you specify locations with SORTWORK=, the SAS System will tell the sort utility how many work files to create (one per location). If you specify some number of SORTWORK= locations, but do not want to use them all for a particular PROC SORT command, use SORTWKNO= in the SORT procedure to specify exactly how many to use.

If you specify fewer SORTWORK locations than the number that was specified with SORTWKNO=, the extra work files will be created in SYS\$SCRATCH.

Specifying no SORTWKNO= and specifying SORTWKNO=0 have the same effect: if SORTWORK= locations have been defined, all those locations will be used. If they have not been defined, 0 will be sent to the sort utility as the number of work files; this is the OpenVMS default. The default action is to create a work file if needed.

## See Also

- Procedure: “SORT” on page 348
- Statement: “LIBNAME” on page 378

---

## SPAWN=

**Specifies that the SAS System is invoked in a SPAWN/NOWAIT subprocess**

Language element: system option

Default: WAIT

Valid in: configuration file, SAS invocation, VMS\_SAS\_OPTIONS DCL symbol

OpenVMS specifics: All aspects are host-specific

---

### Syntax

SPAWN=WAIT | NOWAIT

### WAIT

causes the SAS System to assume that the terminal can be used to take input from the user. This is the default.

### NOWAIT

causes the SAS System to assume that the terminal cannot be used to take input from the user. Therefore, the SAS System will not run in interactive line mode. Attention handling is disabled. However, you can run the SAS System in batch mode or in the Motif environment. The following is an example of using this option:

```
$ SPAWN/NOWAIT SAS/SPAWN=NOWAIT MYFILE.SAS
```

Specifying SPAWN=NOWAIT in this situation is highly recommended. If you don't specify it, unnecessary interactions occur between the spawned SAS System and your terminal.

**Details** The SPAWN= system option facilitates smooth operation of the SAS System in a SPAWN/NOWAIT subprocess.

To terminate the subprocess that runs the SAS System, use the DCL STOP command.

## See Also

- “Running SAS in a SPAWN/NOWAIT Subprocess” on page 30

---

## STACK=

**Specifies the size of the procedure stack in bytes**

Language element: system option

**Default:** 0

**Valid in:** configuration file, SAS invocation, OPTIONS statement, System Options window, VMS\_SAS\_OPTIONS DCL symbol

**OpenVMS specifics:** All aspects are host-specific

---

## Syntax

STACK=*stack-size*

NOSTACK

### STACK=*stack-size*

must be an integer between 64K and 512K.

### NOSTACK

specifies to use the default size for most procedures, which is 40,000 bytes.

**Details** The STACK= system option specifies the size of the procedure stack in bytes. The *stack* is an area of memory that the procedure uses to store information, such as call-frame data and local variables. In general, the larger the procedure, the more stack space the procedure needs. If you are running large jobs, you may see the following message:

```
%SAS-W-LOWSTACK, low stack encountered for task
      task-name
```

This message indicates that the current procedure is using up most of its stack space. You can use the STACK= option to increase the stack size for the procedure. The default for most procedures is 60,000 bytes. If you use the STACK= system option, you change the size of the stack for all procedures. Therefore, you may need to set the stack size back to the default after certain procedures.

---

## STIMEFMT

**Specifies the format to use for displaying the time on STIMER output**

**Language element:** system option

**Default:** M

**Valid in:** configuration file, SAS invocation, OPTIONS statement, System Options window, VMS\_SAS\_OPTIONS DCL symbol

**OpenVMS specifics:** All aspects are host-specific

---

## Syntax

STIMEFMT=H | M | S

### H

specifies that the SAS System display the STIMER output time in hours, minutes, and seconds in the following format: **hours:minutes:seconds**.

**M**

specifies that the SAS System display the STIMER output time in minutes and seconds in the following format: **minutes:seconds**. This is the default.

**S**

specifies that the SAS System display the STIMER output time in seconds.

**Details** The STIMEFMT system option specifies the format to use for displaying the time on STIMER output as either **seconds**, **minutes:seconds**, or **hours:minutes:seconds**.

**See Also**

- System option: “STIMER” on page 442

**STIMER**

**Writes a subset of system performance statistics to the SAS log**

Language element: system option

Default: STIMER

Valid in: configuration file, SAS invocation, OPTIONS statement, System Options window, VMS\_SAS\_OPTIONS DCL symbol

OpenVMS specifics: All aspects are host-specific

**Syntax**

STIMER | NOSTIMER

**STIMER**

specifies that the SAS System write the statistics. When STIMER is in effect, the SAS System writes to the SAS log a list of computer resources used for each step and the entire SAS session.

**NOSTIMER**

specifies that the SAS System not write performance statistics to the SAS log.

**Details** The STIMER system option specifies whether performance statistics of your operating environment are written to the SAS log.

Under OpenVMS, the STIMER option writes the following statistics:

- elapsed time
- CPU time.

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

**Comparisons** The STIMER system option specifies whether a subset of all the performance statistics of your operating environment that are available to the SAS System are written to the SAS log. The FULLSTIMER system option specifies whether all of the available performance statistics are written to the SAS log.



## See Also

- System option: “FULLSTIMER” on page 414
- System option: “STIMEFMT” on page 441

---

## SYSIN=

**Specifies the default location of SAS source programs**

**Language element:** system option

**Default:** SYSS\$INPUT for the SAS windowing environment and interactive line mode; *program-name*.SAS for noninteractive and batch modes

**Valid in:** configuration file, SAS invocation, VMS\_SAS\_OPTIONS DCL symbol

**OpenVMS specifics:** All aspects are host-specific

---

### Syntax

SYSIN=*file-specification*

NOSYSIN

### SYSIN=*file-specification*

identifies an external file. The value for *file-specification* can be an OpenVMS logical name or pathname.

### NOSYSIN

invokes the SAS System, processes the autoexec file, and then terminates the SAS System, returning you to the DCL prompt.

**Details** The SYSIN= system option specifies a file containing a SAS program. This option indicates to the SAS System that you are executing in noninteractive mode and can be specified only in the SAS invocation.

The default value for the SYSIN= system option under interactive line mode and the SAS windowing environment is the SYSS\$INPUT logical name. Any value other than SYSS\$INPUT for *file-specification* prevents the SAS System from running interactively. The value for *file-specification* can be a valid OpenVMS pathname or logical name. The default value for SYSIN= in noninteractive and batch modes is the file specification that you provided with the SAS command. For example, if you invoke the SAS System with the following command, the value for *file-specification* is ORANGES.SAS:

```
$ SAS ORANGES
```

You can also explicitly specify the SYSIN= system option as an option in the SAS command when you invoke the SAS System in noninteractive or batch mode, as in the following example:

```
$ SAS/SYSIN=ORANGES
```

This technique allows you to include your source file specification in a configuration file.

Under OpenVMS, the syntax of this system option also enables you to specify NOSYSIN. If you specify NOSYSIN, as in the following example, the SAS System is

invoked, the autoexec file is processed, and then the SAS System terminates, returning you to the DCL prompt:

```
$ SAS/NOSYSIN/AUTOEXEC=MYEXEC.SAS
```

This technique is useful if you want to test an autoexec file without actually running a complete SAS session.

The SYSIN= system option is associated with an automatic macro variable, VMSSASIN. This variable contains the value of the SYSIN= option, and provides you with the name of the SAS job that is currently being run. When the SAS System is run in an interactive mode the value is SYSSINPUT.

Also, the SYSIN= option accepts wildcard specifications. For example, you could use the following SAS command to invoke the SAS System:

```
SAS/SYSIN=*.SAS
```

This command causes the SAS System to execute all the files with an extension of .SAS in the current directory. Only one log and one procedure output file are created. By default, the name of the first job run is used for these files.

## SYSLEAVE=

**Specifies an amount of memory to leave reserved for normal SAS System termination**

**Language element:** system option

**Default:** 16,384 bytes

**Valid in:** configuration file, SAS invocation, OPTIONS statement, System Options window, VMS\_SAS\_OPTIONS DCL symbol

**OpenVMS specifics:** All aspects are host-specific

### Syntax

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

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

specifies the amount of memory to reserve in bytes (*n*), kilobytes (*nK*), megabytes (*nM*), or gigabytes (*nG*).

**MIN**

sets the amount of memory to reserve to 512 bytes.

**MAX**

sets the amount of memory to reserve to 262,144 bytes.

**hex*X***

specifies the amount of memory to reserve as a hexadecimal number. The number must be followed by an *X*, as in *hexadecimal-valueX*.

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

Under OpenVMS, the suggested SYSLEAVE= values are integers from 512 to 262,144.

## See Also

- System option: “PROCLEAVE=” on page 431

---

## SYSPARM=

Specifies a character string that can be passed to SAS programs

Language element: system option

Default: none

Valid in: configuration file, SAS invocation, OPTIONS statement, System Options window, VMS\_SAS\_OPTIONS DCL symbol

OpenVMS specifics: valid values and syntax for *characters*

---

### Syntax

SYSPARM=<“>*characters*<”>

#### *characters*

writes the character string in all uppercase.

#### “*characters*”

preserves the case of the character string.

**Details** The SYSPARM= system option specifies a character string that can be passed to SAS programs.

By default, the value of the SYSPARM= system option is uppercased under OpenVMS. To preserve the case of the string, enclose it in double quotation marks.

### Example

If you specify the following command,

```
$ SAS/SYSPARM=mytext
```

the string **MYTEXT** is passed to your SAS session.

However, if you specify the following command,

```
$ SAS/SYSPARM="mytext"
```

the string **mytext** is passed to your SAS session.

## See Also

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

---

## SYSPRINT

Specifies the destination for printed output

**Language element:** system option

**Default:** SYS\$PRINT

**Valid in:** configuration file, SAS invocation, OPTIONS statement, VMS\_SAS\_OPTIONS DCL symbol

**OpenVMS specifics:** All aspects are host-specific

---

## Syntax

SYS\$PRINT=*print-queue-name*<*destination*>

### ***print-queue-name***

specifies the name of the printer as it is installed under OpenVMS. The value for *printer-name* must be enclosed in double quotation marks.

### ***destination***

optionally specifies a filename to write the print file to disk. If specified, then all printer output that is generated by the SAS System is routed to this file. Even though the output is not sent directly to a printer, it is still formatted using the printer driver associated with *printer-name*. The value for *destination* must be enclosed in double quotation marks.

**Details** The SYS\$PRINT system option specifies the destination of a printer where you want to print your SAS output.

If you do not specify the SYS\$PRINT system option, the *printer-name* and *destination* arguments use the default system printer values.

## See Also

- Chapter 8, “Routing the SAS Log and SAS Procedure Output,” on page 187

---

## TAPECLOSE=

Specifies the default CLOSE disposition for a SAS data library on tape

**Language element:** system option

**Default:** LEAVE

**Valid in:** configuration file, SAS invocation, OPTIONS statement, System Options window, VMS\_SAS\_OPTIONS DCL symbol

**OpenVMS specifics:** All aspects are host-specific

---

## Syntax

TAPECLOSE=*disposition*

### ***disposition***

can be one of the following under OpenVMS:

**REWIND**

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

**LEAVE**

performs no tape positioning when you close a member.

**FREE**

rewinds and dismounts the tape when the next member is closed.

**Details** Under OpenVMS, DISP is not a valid value for the TAPECLOSE= system option.

The only valid value for tape libraries that are accessed by the COPY procedure is LEAVE; it cannot be overridden.

**See Also**

- TAPECLOSE= system option in *SAS Language Reference: Dictionary*
- COPY procedure in *SAS Procedures Guide*

---

**TERMIO=**

**Specifies whether terminal I/O is blocking or non-blocking**

Language element: system option

Default: NOBLOCK

Valid in: configuration file, SAS invocation, OPTIONS statement, System Options window, VMS\_SAS\_OPTIONS DCL symbol

OpenVMS specifics: All aspects are host-specific

---

**Syntax**

TERMIO=BLOCK | NOBLOCK

**BLOCK**

specifies that terminal I/O is blocking.

**NOBLOCK**

specifies that terminal I/O is non-blocking.

**Details** TERMIO controls whether terminal I/O in line mode SAS is blocking or non-blocking. NOBLOCK, the default, allows other processes, such as ODS, to execute while the line mode process waits for terminal input. While NOBLOCK is set, command line recall is limited to one previous command. Specify TERMIO=BLOCK to enable full command line recall functionality.

---

## TRAINLOC=

**Specifies the base location of SAS online training courses**

Language element: system option

Default: SAS\$TRAINLOC

Valid in: configuration file, SAS invocation, VMS\_SAS\_OPTIONS DCL symbol

OpenVMS specifics: default

---

### Syntax

TRAINLOC=*"base-URL"*

### Syntax Description

#### *base-URL*

specifies the address where the SAS online training courses are located.

**Details** The TRAINLOC= system option specifies the base location (typically a URL) of SAS online training courses. These online training courses are typically accessed from an intranet server or a local CD-ROM. The default for OpenVMS is SAS\$TRAINLOC.

### Examples

Some examples of the *base-URL* are:

- *"file:///e:\onlintut"*
- *"http://server.abc.com/SAS/sastrain"*

---

## UNLOAD

**Specifies whether to unload images at the end of each SAS step**

Language element: system option

Default: NOUNLOAD

Valid in: configuration file, SAS invocation, OPTIONS statement, System Options window, VMS\_SAS\_OPTIONS DCL symbol

OpenVMS specifics: All aspects are host-specific

---

### Syntax

UNLOAD | NOUNLOAD

**UNLOAD**

removes images from the virtual address space.

**NOUNLOAD**

switches off all unloading. This is the default.

**Details** The UNLOAD= system option helps you optimize SAS System performance. This system option enables the SAS System to disassociate a dynamically loaded image from a user's virtual address space and to release resources allocated by the loaded image. The ability to remove images has been available since Release 5.18, but the syntax and nature of the UNLOAD= system option have changed.

You can specify UNLOAD when memory is at a premium, however, doing so will adversely affect performance. If the same procedures are used repeatedly in a SAS job, specify NOUNLOAD.

**See Also**

- “Using the UNLOAD System Option” on page 213

**USER=**

**Specifies the default permanent SAS data library**

Language element: system option

Default: none

Valid in: configuration file, SAS invocation, OPTIONS statement, System Options window, VMS\_SAS\_OPTIONS DCL symbol

OpenVMS specifics: valid values for *library-specification*

**Syntax**

USER= *library-specification*

***library-specification***

can be a libref, an OpenVMS logical name, or a pathname to the directory or subdirectory level. Do not use a specific filename.

**Details** If the USER= system option is specified, you can use one-level names to reference permanent SAS files in SAS statements. However, if USER=WORK is specified, SAS assumes that files referenced with one-level names refer to temporary work files.

## See Also

- USER= system option in *SAS Language Reference: Dictionary*
- “Directing Temporary SAS Data Sets to the USER Library” on page 33

---

## VERBOSE

**Controls whether the SAS System writes the settings of all the system options specified in the configuration file to either the terminal or the batch log**

Language element: system option

Default: NOVERBOSE

Valid in: SAS invocation, VMS\_SAS\_OPTIONS DCL symbol

OpenVMS specifics: All aspects are host-specific

---

### Syntax

VERBOSE | NOVERBOSE

### VERBOSE

specifies that the SAS System write the settings of the system options.

### NOVERBOSE

specifies that the SAS System not write the settings of the system options.

**Details** The VERBOSE system option is valid only on the command line at SAS invocation or in the VMS\_SAS\_OPTIONS DCL symbol.

Under OpenVMS, the settings are written to your display in any method of running the SAS System except batch mode. If you invoke SAS as a part of a batch job, the settings are written to the OpenVMS batch log.

If you specify the VERBOSE system option in a configuration file, no error message is generated, but the option is ignored.

## See Also

- System option: “OPLIST” on page 427
- “Configuration Files” on page 46
- “Displaying the Contents of Configuration Files” on page 47

---

## WORK=

**Specifies the name of the directory under which the SAS WORK directory is created**

Language element: system option

Default: SAS\$WORKROOT logical name



Valid in: configuration file, SAS invocation, VMS\_SAS\_OPTIONS DCL symbol

OpenVMS specifics: valid values for *library-specification*

---

## Syntax

WORK=*library-specification*

### *library-specification*

can be an OpenVMS logical name or pathname to the directory or subdirectory level.  
Do not use a specific filename.

**Details** You can define a logical name SAS\$WORKROOT to override the system default.

## See Also

- WORK= system option in *SAS Language Reference: Dictionary*
- “The WORK Data Library under OpenVMS” on page 32

---

## WRKCACHE=

**Specifies the size of the I/O data cache allocated for a file in the WORK data library**

Language element: system option

Default: 65024

Valid in: configuration file, SAS invocation, OPTIONS statement, System Options window, VMS\_SAS\_OPTIONS DCL symbol

OpenVMS specifics: All aspects are host-specific

---

## Syntax

WRKCACHE=*n* | *nK* | *nM* | *nG* | MIN | MAX | hex*X*

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

specifies the size of the data cache in bytes (*n*), kilobytes (*nK*), megabytes (*nM*), and gigabytes (*nG*).

**MIN**

sets the size of the I/O data cache to 0.

**MAX**

sets the size of the I/O data cache to 65024. This number is the default.

**hex*X***

specifies the size of the I/O data cache as a hexadecimal number. This number must be followed by an X, as in *hexadecimal-valueX*.

**Details** The WRKCACHE= system option controls the size (in bytes) of the data cache used to buffer I/O pages for files that are created in the WORK data library. This option functions exactly like the CACHESIZ= data set option, which you can use in a LIBNAME statement. However, because no LIBNAME statement is explicitly issued for the WORK data library, the WRKCACHE= system option is necessary to enable you to specify a default cache size for all files that are created in the WORK data library by the V8, V8TAPE, V7, V7TAPE, V6, or V6TAPE engines. The value of *n* must be a positive integer.

## See Also

- Data set option: “WRKCACHE=” on page 261
- Data set option: “CACHESIZ=” on page 253
- System option: “CACHESIZ=” on page 402
- Statement: “LIBNAME” on page 378

---

## XCMD

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

Language element: system option

Default: XCMD

Valid in: configuration file, SAS invocation, VMS\_SAS\_OPTIONS DCL symbol

OpenVMS specifics: All aspects are host-specific

---

### 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

- Command: “X” on page 238
- System option: “XCMDWIN” on page 452

---

## XCMDWIN

**Specifies whether to create a DECTERM window for X command output when in the SAS windowing environment**

**Language element:** system option

**Default:** XCMDWIN

**Valid in:** configuration file, SAS invocation, VMS\_SAS\_OPTIONS DCL symbol

**OpenVMS specifics:** All aspects are host-specific

---

## Syntax

XCMDWIN | NOXCMDWIN

### XCMDWIN

specifies that a DECTERM window should be created for X command output when in the SAS windowing environment.

### NOXCMDWIN

specifies that no DECTERM window should be created.

**Details** The XCMDWIN option specifies whether to create a DECTERM window for X command output when in the SAS windowing environment. This option is ignored when running line mode, non-interactive mode, or batch mode.

## See Also

- “Issuing DCL Commands during a SAS Session” on page 36
- Statement: “X” on page 383
- Command: “X” on page 238

---

## XKEYPAD

**Specifies that subprocesses use the keypad settings that were in effect before you invoked the SAS System**

**Language element:** system option

**Default:** XKEYPAD

**Valid in:** configuration file, SAS invocation, OPTIONS statement, System Options window, VMS\_SAS\_OPTIONS DCL symbol

**OpenVMS specifics:** All aspects are host-specific

---

## Syntax

XKEYPAD | NOXKEYPAD

### XKEYPAD

specifies that the SAS System use the previous settings in the subprocess.

### NOXKEYPAD

specifies that the SAS System use the SAS keypad settings currently in the subprocess..

**Details** The XKEYPAD system option specifies whether a subprocess that was spawned by an X statement or X command uses the keypad settings in effect before you invoked the SAS System.

The XKEYPAD system option is valid in interactive line mode and in the SAS windowing environment.

## See Also

- Statement: “X” on page 383
- Command: “X” on page 238

## XLOG

**Specifies whether to display the output from the X command in the SAS log file**

Language element: system option

Default: NOXLOG

Valid in: configuration file, SAS invocation, OPTIONS statement, System Options window, VMS\_SAS\_OPTIONS DCL symbol

OpenVMS specifics: All aspects are host-specific

## Syntax

XLOG | NOXLOG

### XLOG

specifies that the SAS System display the X command output in the SAS log file.

### NOXLOG

specifies that the SAS System not display the X command output in the SAS log file.

**Details** The XLOG system option specifies whether to display the X command output in the SAS log file.

## See Also

- System option: “XOUTPUT” on page 455
- System option: “XCMD” on page 452
- Command: “X” on page 238

## XLOGICAL

**Specifies that process-level logical names are passed to the subprocess that is spawned by an X statement or X command**

**Language element:** system option

**Default:** XLOGICAL

**Valid in:** configuration file, SAS invocation, OPTIONS statement, System Options window, VMS\_SAS\_OPTIONS DCL symbol

**OpenVMS specifics:** All aspects are host-specific

---

## Syntax

XLOGICAL | NOXLOGICAL

### XLOGICAL

passes the logical names to the subprocess.

### NOXLOGICAL

does not pass the logical names to the subprocess.

**Details** The XLOGICAL system option specifies whether to pass the process-level logical names to the subprocess that is spawned by an X statement or X command.

The XLOGICAL system option takes effect only after a subprocess is spawned. For information about when a subprocess is spawned, see “XTIMEOUT=” on page 458.

## See Also

- Statement: “X” on page 383
- Command: “X” on page 238
- System option: “XTIMEOUT=” on page 458

---

## XOUTPUT

**Specifies whether to display the output from the X command**

**Language element:** system option

**Default:** XOUTPUT

**Valid in:** configuration file, SAS invocation, OPTIONS statement, System Options window, VMS\_SAS\_OPTIONS DCL symbol

**OpenVMS specifics:** All aspects are host-specific

---

## Syntax

XOUTPUT | NOXOUTPUT

### XOUTPUT

specifies that the SAS System display the output from the X command.

### NOXOUTPUT

specifies that the SAS System not display the output from the X command.

**Details** The XOUTPUT system option enables you to suppress output that is created by the X command. The XOUTPUT system option is intended for SAS/AF applications that issue operating environment commands behind the scenes.

## See Also

- Command: “X” on page 238

---

## XRESOURCES=

**Specifies a character string of X resource options or the application instance name for the SAS interface to Motif**

**Language element:** system option

**Default:** none

**Valid in:** configuration file, SAS invocation, VMS\_SAS\_OPTIONS DCL symbol

**OpenVMS specifics:** All aspects are host-specific

---

## Syntax

XRESOURCES=“*resource-list*”

### “*resource-list*”

specifies the resource setting to be passed to the SAS System. The value for *resource-list* must be enclosed in double quotation marks.

**Details** For the SAS interface to Motif, the XRESOURCES= system option enables you to pass any valid X window system command-line options as well as **-xrm** options to the interface. The **xrm** option enables you to set any resource used by the SAS System. For a complete list of resource and class names used by the SAS System, see “Summary of X Resources for the SAS System” on page 119. The first argument in the resource list can also be used to specify the application instance name.

In order to conform to the OpenVMS command-line syntax, this option must be enclosed in double quotation marks. This enables you to preserve case, as well as to specify a compound statement. Any value that is enclosed in single quotation marks is resolved as a symbol by OpenVMS before it is processed by the SAS System. If no symbol exists for the specified value, unexpected results may occur.

*Note:* Placing single quotation marks inside double quotation marks may not create the effect you want. To preserve the case of the characters, enclose the string in double quotation marks. △

## Example

In the following example, the XRESOURCES= system option does three things:

- It uses the **AXPSAS** argument to define this application instance name as AXPSAS. The application class is always SAS. Therefore, the SAS System will use any application instance resources that are prefixed with AXPSAS, as well as any application class resources that are prefixed by SAS.

- It uses the **-display** command-line option to specify that the SAS windows for the session should be displayed on node MYNODE.
- It uses the **-xrm** option to set the **AXPSAS.sessionGravity** resource to the value **SouthWestGravity**. When the SAS windows are displayed on the node, they are positioned in the southwest region of the screen. If you want to specify more than one resource setting, you must issue a separate **-xrm** option.

```
$ SAS /MOTIF /XRESOURCES="AXPSAS
    -display=mynode::0
    -xrm=(AXPSAS.sessionGravity: SouthWestGravity)"
```

## See Also

- “Summary of X Resources for the SAS System” on page 119

---

## XSYMBOL

**Specifies that global symbols are passed to the subprocess that is spawned by an X statement or X command**

**Language element:** system option

**Default:** XSYMBOL

**Valid in:** configuration file, SAS invocation, OPTIONS statement, System Options window, VMS\_SAS\_OPTIONS DCL symbol

**OpenVMS specifics:** All aspects are host-specific

---

### Syntax

XSYMBOL | NOXSYMBOL

### XSYMBOL

passes the global symbols to the subprocess.

### NOXSYMBOL

does not pass the global symbols to the subprocess.

**Details** The XSYMBOL system option specifies whether to pass the global symbols to the subprocess that is spawned by an X statement or X command.

Local symbols are not passed to a subprocess that is created using the X *DCL-command* form of the X statement or X command. Thus, if you define a process-level symbol, MYSYMBOL, before you invoke the SAS System, and then you issue the following X statement during your SAS session, the SAS System cannot find MYSYMBOL:

```
x 'show symbol mysymbol';
```

To see the value of MYSYMBOL, issue the following X statement and then issue the SHOW SYMBOL MYSYMBOL command at the SAS\_> prompt:

```
x '';
```

This option takes effect only after a subprocess is spawned. For information about when a subprocess is spawned, see “XTIMEOUT=” on page 458.

## See Also

- Statement: “X” on page 383
- Command: “X” on page 238
- System option: “XTIMEOUT=” on page 458
- “Issuing DCL Commands during a SAS Session” on page 36

---

## XTIMEOUT=

**Specifies how long a subprocess that has been spawned by an X statement or X command remains inactive before being deleted**

**Language element:** system option

**Default:** NOXTIMEOUT

**Valid in:** configuration file, SAS invocation, OPTIONS statement, System Options window, VMS\_SAS\_OPTIONS DCL symbol

**OpenVMS specifics:** All aspects are host-specific

---

### Syntax

XTIMEOUT=*time-span*

NOXTIMEOUT

### XTIMEOUT=*time-span*

specifies the number of minutes until an inactive subprocess is deleted. The value of *time-span* can range from 0 to 59. XTIMEOUT=0 indicates that the subprocess is deleted immediately when control returns to the SAS System.

### NOXTIMEOUT

indicates that the subprocess never times out, and it is not deleted until the SAS session terminates. This is the default.

**Details** This option affects only the following form of the X command or X statement:

```
X 'DCL-command'
```

When an X statement or X command spawns a subprocess to issue one specific DCL command, the subprocess is not automatically deleted when control returns to the SAS System; it remains active based on the value of the XTIMEOUT= system option.

Each time an X statement or X command is issued, the timer is reset to the value specified in the XTIMEOUT= system option. When the subprocess remains inactive for the time period specified by XTIMEOUT=, the subprocess is deleted.

*Note:* When certain DCL commands are submitted by an X statement or X command, any existing subprocess is deleted regardless of the value of the XTIMEOUT= system option. △



## See Also

- Statement: “X” on page 383
- Command: “X” on page 238
- “Issuing DCL Commands during a SAS Session” on page 36



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