C H A P T E R

12

Data Set Options

Data Set Options in the CMS Environment

Portable data set options are documented in *SAS Language Reference: Dictionary*. This section includes detailed information about only CMS-specific data set options. However, *SAS Language Reference: Dictionary* includes all SAS data set options that are available under CMS.

Specifying Data Set Options

Data set options can be specified in parentheses following a data set name. In this case, the data set options apply only to that one data set.

You can also specify certain options that apply to data sets in a LIBNAME statement or LIBNAME function, in which case those options apply to all the data sets in that data library. Other data set options are actually system options, which means that they can be specified globally for all the data sets that are accessed in a given SAS session or process.

Data set options can be specified in different places with a varying scope of applicability. See the "Valid as" information in each data set option description for details as follows:

data set option
    applies to a single data set only.

library option
    applies to a single data set or to all the data sets in a library if the option is used in a LIBNAME statement or LIBNAME function.

system option
    applies to all data sets in a SAS session or process.

A data set option or a system option can also be a library option if it applies to only certain hosts or engines.

BLKSIZE=

Specifies the block size for SAS data sets

Default: 32,768 bytes
Engines: V8, V8TAPE, V7, V7TAPE, V6, V6TAPE, V5
Valid as: data set option, library option, system option
CMS specifics: all

Syntax

BLKSIZE=*block-size*

block-size
   can range from 0 to 65,536 bytes.

Details

The BLKSIZE= data set option specifies the blocking factor that is used for input and update of SAS data sets (input only for the V5 engine). When blocking is in effect, SAS is able to read and write multiple data pages by buffering its input and output. When processing a SAS data set, the BLKSIZE= option has no effect unless SAS can place at least four data set pages within the buffer that is specified by the BLKSIZE= option. The BLKSIZE= option does not become an attribute of the data set. Thus, the BLKSIZE= option can be specified for data set input and output.

See Also

   □   "SAS Library Engines" on page 53

FILEDISP=

Specifies the initial disposition for a SAS data library in tape format

Default: OLD
Engines: V8TAPE, V7TAPE, V6TAPE
Valid as: data set option
CMS specifics: all

Syntax

FILEDISP=NEW | OLD

NEW
   specifies that the sequential data library is to be considered empty. SAS therefore does not look for previously written members. The data step writes the new member

at the beginning of the new (empty) library. Any members that existed in the library prior to the write are lost. The FILEDISP=NEW option can be valid only during the first write to a sequential data library for a given libref. For all subsequent writes to that libref, FILEDISP=NEW is ignored and FILEDISP=OLD is assumed.

OLD

specifies that the sequential data library is not initially empty. SAS therefore writes members with names that do not already exist in the library at the end of the library. If the member being written has a name that already exists in the library, the existing member is overwritten and any members that follow the overwritten member are lost.

Details

A sequential data library is a single SAS file that can contain one or more concatenated members.

To avoid inadvertent data loss, make sure that you specify FILEDISP=NEW only when writing to new (empty) sequential data libraries. Also, when writing to an existing sequential data library, make sure that the name of the member being written does not inadvertently correspond to the name of a member that already exists in the library.

See Also

□ "Assigning a Libref to a Sequential Library" on page 41 .

Summary Table of SAS Data Set Options in the CMS Environment

All the SAS data set options (the data set options that are specific to CMS as well as to the portable data set options) are listed in *SAS Language Reference: Dictionary*. Table 12.1 on page 122 gives a brief description of each option and explains whether it can be used for a data set that is opened for input (a data set being read), output (a data set being created), or update (a data set being updated).

The See column refers you to more detailed information about an option, based on the following legend:

COMP　　　　See "Data Set Options in the CMS Environment" on page 119

LR　　　　　See *SAS Language Reference: Dictionary*

The Engines column lists the engines with which the option is valid, based on the following legend:

all V8, V7, V6, DBI　　　applies to all disk and tape engines, including database interface (DBI) engines.

all V8, V7, V6　　　applies to all disk and tape engines except DBI engines.

V8TAPE, V7TAPE, V6TAPE　　　applies to all tape engines for the specified SAS versions; does not apply to disk or DBI engines.

V8, V7, V6　　　applies to all disk engines for the specified versions; does not apply to tape or DBI engines.

Certain data set options in the following table have two rows, one specifying when the option can be used with Version 8, 7, and 6 engines, and the other with Version 5 engines.

Table 12.1   Summary of SAS Data Set Options

Data Set Option	Description	When Used	See	Engine
ALTER=	assigns an alter password to a SAS file and enables access to a password-protected SAS file	input, output, update	LR	V8, V7, V6
BLKSIZE=	specifies buffer size for all I/O operations	input, output	COMP	all V8, V7, V6
		input	COMP	V5
BUFNO=	specifies the number of buffers for processing a SAS data set	input, output, update	LR	all V8, V7, V6
		input	LR	V5
BUFSIZE=	specifies permanent buffer size for output SAS data sets	output	LR	all V8, V7, V6
CNTLLEV=	specifies the level of shared access allowed to the SAS data set	input, update	LR	all V8, V7, V6
		input	LR	V5
COMPRESS=	compresses observations in an output SAS data set	output	LR	all V8, V7, V6
DLDMGACTION	specifies what type of action to take when a SAS file in a SAS data library is detected as damaged	input, output, update	LR	V8
DROP=	excludes variables from processing or from output SAS data sets	input, output, update	LR	all V8, V7, V6, DBI
ENCRYPT=	encrypts SAS data files	output	LR	all V8
FILECLOSE=	specifies the volume positioning to be performed when a SAS file residing on tape is closed	input, output	LR	V8TAPE, V7TAPE, V6TAPE
FILEDISP=	specifies the initial disposition for a SAS data library on tape	input, output	COMP	V8TAPE, V7TAPE, V6TAPE
FIRSTOBS=	causes processing to begin at a specified observation	input	LR	all V8, V7, V6, DBI
GENMAX=	requests generations for a file and specifies the maximum number of generations	input, output, update	LR	V8

Data Set Option	Description	When Used	See	Engine
GENNUM=	references a specific generation of a data set	input, output, update	LR	V8
IDXNAME=	directs SAS to use a specific index to satisfy the conditions of a WHERE expression	input	LR	V8
IDXWHERE=	overrides the SAS decision about whether to use an index to satisfy the conditions of a WHERE expression	input	LR	V8
IN=	creates a variable that indicates whether the data set contributed data to the current observation (with SET, MERGE, MODIFY, UPDATE statements only)	input	LR	all V8, V7, V6, DBI
INDEX=	defines one or more indexes for a new data set	output	LR	V8, V7, V6
KEEP=	specifies variables for processing or writing to output SAS data sets	input, output, update	LR	all V8, V7, V6, DBI
LABEL=	specifies a label for the data set	input, output, update	LR	all V8, V7, V6, DBI
OBS=	specifies the last observation of the data set to process	input	LR	all V8, V7, V6, DBI
OUTREP=	specifies an output format for an operating environment other than CMS	output	LR	all V8
POINTOBS=	controls whether a new compressed data set may be processed by observation number	input	LR	V8
PW=	assigns a read, write, and alternate password to a SAS file	input, output, update	LR	all V8, V7, V6
PWREQ=	specifies whether to display a requestor window if a password has not been supplied	input, output, update	LR	all V8, V7, V6
READ=	specifies a read password for a SAS file	input, update	LR	all V8, V7, V6
		input	LR	V5
RENAME=	changes the name of a variable	input, output, update,	LR	all V8, V7, V6, DBI
REPLACE=	overrides the REPLACE= system option	output	LR	all V8, V7, V6, DBI

Data Set Option	Description	When Used	See	Engine
REUSE=	specifies reuse of space when observations are added to a compressed data set	output	LR	all V8, V7, V6
SORTEDBY=	specifies how the data set is currently stored	input, output, update	LR	all V8, V7, V6
		input	LR	V5
TOBSNO=	specifies the number of observations to be transmitted in each multi-observation exchange with a SAS server	input, output, update	LR	REMOTE
TYPE=	specifies the data set type for input, update, and output data	input, output, update	LR	all V8, V7, V6, DBI
WHERE=	selects observations that meet the specified condition	input, update	LR	all V8, V7, V6, DBI
WHEREUP=	specifies whether to evaluate added observations and modified observations against a WHERE expression	input, update	LR	V8
WRITE=	assigns a write password to a SAS file and enables access to a write-protected SAS file	input, output, update	LR	V8, V7, V6

SAS˚ Companion for the CMS Environment, Version 8