taskmain

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Abstract

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1 User information

All the SAS tasks use the same main program. This means that they share most of their command line interface.
SAS tasks are also influenced by environment variables. Most of these variables can be overridden on the command line.

1.1 Command line options

Common options
All SAS tasks support the following command line options:

`-c`

`--noclobber` No clobber; Datasets are not overwritten.

`-d`

`--dialog` Presents the user with a *Graphical Interface* for task specific parameters.
Only available in SAS distribution with shared libraries!

`-h`

`--help` Provide information about the command line options.

`-m`

`--manpage` Displays the HTML documentation for the task. Requires Netscape.

`-p`

`--param` Print all parameters with their default and current value and exits the task. If any mandatory parameters, an error message is issued.

`-t`

`--trace` Turn on tracing information from the libraries.

`-V` ***level***

`-verbosity` ***level*** Set the verbosity level of the task, as handled by package **error**.

`-v`

`--version` Print the version number of the task.

`-w` [***code—n***]

`--warning` [***code—n***] Suppresses warning messages (handled by package **error**), and at the end of the task, it produces information about how many times a particular warning is silenced. Multiple occurrences of this option are allowed.

If *no* argument is given, this option suppresses all warnings.

The argument can be a warning code, e.g. *NoAttitudeData* will suppress all warnings of type *NoAttitudeData*.

If the argument is a number, only the first n warnings are showed for each type of warning; all subsequent warnings are silenced.

Example: *-w 10 -w LowDisk*
This will suppress *all* warnings of type *LowDisk*; all other warnings are shown only the first *10* times each.

OAL specific options
If the task uses the ODF Access Layer (**oal**) the following command line option is recognized as well:

`-o` ***odf***

`--odf` ***odf*** Specify the *Observation Data File*[1] that is to be accessed by the **oal**. *odf* can be the name of an ODF summary file as created by the task **odfingest** or merely the name of a directory containing one. In the latter case the summary file is assumed to have a name ending in either `*SUM.ASC` or `*SUM.SAS`. If both are present `*SUM.ASC` is ignored. The parameter's value supersedes any assignments made to the environment variable `SAS_ODF` (see Sect. 1.2) which is inspected by the **oal** for the ODF location if `--odf` is omitted.

CAL specific options
If the task uses the Calibration Access Layer (**cal**) the following command line options are recognized as well:

`-a` ***dir1***[**:***dir2:...*]

`--ccfpath` ***dir1***[**:***dir2:...*] A colon separated list of directories that define a search path along which CCF constituents are to be sought. Please note: If a CCF replacement file is passed via `--ccffiles` with its full absolute path any specified search path is *not* considered in trying to access this constituent.

`-f` ***f1 ...***

`--ccffiles` ***f1 ...*** White-space, comma, or colon separated list of CCF constituents to replace the corresponding ones in the CCF pointed at via the `--ccf` command line option or the environment variable `SAS_CCF` (see below); each specified file must be a valid CCF constituent according to the *CCF ICD*[2].

`-i` ***cifname***

`--ccf` ***cifname*** *cifname* is the name of a data set comprising a table with the name `CALINDEX`. This will normally be a Calibration Index File (CIF) created by the task **cifbuild**. *cifname* can also be the name of a directory. In this case the `CALINDEX` table is sought in a data set with the default name `ccf.cif` in the specified directory. The parameter's value supersedes any assignments made to the environment variable `SAS_CCF` (see Sect. 1.2) which is inspected by the **cal** for the CIF location if `--ccf` is omitted.

Task specific options
All tasks may have additional parameters in a parameter file, that can be set on the command line (more information can be found in package **param**).

param `=`***value***

`--`***param*** `=`***value*** Set the value of parameter *param* to *value*

1.2 Environment variables

The behavior of the tasks is modified by the following environment variables:

`SAS_CCF` This has the same meaning as the command line option `--ccf` (see above). A command line override supersedes any assignment made to `SAS_CCF`, i.e., the CIF pointed at via `SAS_CCF` is ignored in this case. Only of relevance for tasks making use of the Calibration Access Layer (see documentation of cal).

`SAS_CCFFILES` This has the same meaning as the command line option `--ccffiles` (see above). A command line override supersedes any assignment made to `SAS_CCFFILES`, i.e., the list of CCF replacement constituents is ignored in this case. Only of relevance for tasks making use of the Calibration Access Layer (see documentation of cal).

`SAS_CCFPATH` This has the same meaning as the command line option `--ccfpath` (see above). A command line override supersedes any assignment made to `SAS_CCFPATH`, i.e., the search path specified via `SAS_CCFPATH` is ignored in this case. Only of relevance for tasks making use of the Calibration Access Layer (see documentation of cal).

`SAS_DIR` The toplevel directory where the SAS is installed.

`SAS_ODF` This has the same meaning as the command line option `--odf` (see above). A command line override supersedes any assignment made to `SAS_ODF`, i.e., the ODF summary file specified in `SAS_ODF` is ignored in this case. Only of relevance for tasks making use of the ODF Access Layer (see documentation of oal).

`SAS_PATH` A list of colon-separated directories that contain SAS packages. Should at minimum contain `SAS_DIR`.

`SAS_RAND_SEED` If defined this environment variable has to be set to an integer value which will be used to initialize the single global random number generator that is being used throughout the SAS. Not setting `SAS_RAND_SEED` will cause the seed to be initialized by a pseudo-random number

that is based on the local time. Hence, processing the same dataset twice with identical command line arguments will not necessarily yield identical results unless `SAS_RAND_SEED` is defined. If the value cannot be converted to an integer number a warning message is issued and execution continues as if `SAS_RAND_SEED` had not not been defined at all.

`SAS_TRACER` Determines the debug level of the libraries.

`SAS_VERBOSITY` Determines the debug level of the task.

1.3 Output

- Messages, errors and warnings are written to standard error
- The list of accessed CCF constituents is written to the standard output channel if the task makes use of the **cal** and if the verbosity level is greater than or equal to `Verbose`.

References

[1] ESA. XMM Interface Control Document: Observation and Slew Data Files (XSCS to SSC) (SciSIM to SOCSIM). Technical Report XMM-SOC-ICD-0004-SSD Issue 2.5, ESA/SSD, June 2000. Found at the URL: `ftp://astro.estec.esa.nl/pub/XMM/documents/odf_icd.ps.gz`.

[2] ESA. Interface control document for the XMM current calibration file. Technical Report XMM-GEN-ICD-0005, ESA/SSD, Dec 2001. Issue 4.0.