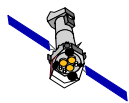


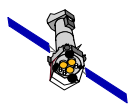
SAS startup thread

Eduardo Ojero
SAS Team



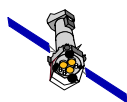
What do you need?

- SAS software
- XMM-Newton Calibration files
- My data (ODF)



Initialization of SAS

- SAS software was installed in
`/some_dir/xmmsas_20130501_1901`
- Define SAS_DIR
`setenv SAS_DIR /some_dir/xmmsas_20130501_1901`
- source `$SAS_DIR/setsas.csh`



The command `sasversion`

`sasversion`:- XMM-Newton SAS release and build information:

SAS release: `xmmsas_20130501_1901-13.0.0`

Compiled on: Thu May 2 19:37:01 GMT 2013

Compiled by: `sasbuild@sasbld02.net4.lan`

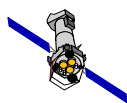
Platform : RHEL5.8 64

SAS-related environment variables that are set:

`SAS_DIR = /sas/Linux/RHEL_5.8Client/64/sas13_0_0`

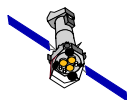
`SAS_PATH = /sas/Linux/RHEL_5.8Client/64/sas13_0_0`

`SAS_CCFPATH = /ccf/pub`



The calibration files

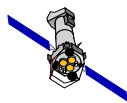
- Create repository somewhere in your system
e.g. /ccf
- `setenv SAS_CCFPATH /ccf`



What is an ODF?

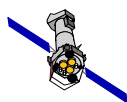
- **Observation Data File (ODF)**: The set of files obtained from an XMM Observation.
- These files contain information on the science exposures for each instrument used, modes, filters, etc.
- To know where to find the ODF , SAS will use **\$SAS_ODF**

```
setenv SAS_ODF /home/user/sasdata/MY_OBS
```



What is a CIF?

- For each ODF and observation date, we need to generate a Calibration Index File (CIF), that will take the appropriate Current Calibration Files (CCFs)
- This is done only once unless you know that new CCFs have been issued
- The program to create the CIF is cifbuild



Creating the CIF

Choose your work directory

e.g.: `mkdir /home/user/my_work`

`cifbuild`

- Creates the `ccf.cif` file.

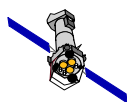
FITS file with binary extension CALINDEX.

- `withccfpath=no`

No absolute paths for calibration files (default)

- `ccf.cif` can be viewed with FITSIO `fv`.

```
setenv SAS_CCF ccf.cif
```

Creating the summary file

Each ODF includes a file that summarizes all the observational information involved (*SUM.ASC). We must update this information to produce a new summary file (*SUM.SAS).

odfingest

Built only once unless you change the data

```
setenv SAS_ODF `ls -1 *SUM.SAS`
```