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CORONAL DIAGNOSTIC SPECTROMETER

**SoHO**

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CDS SOFTWARE NOTE No. 8

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Version 3

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## CDS SOFTWARE AND DATA DIRECTORIES

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# 1 Top-level directory and installation

At RAL the top directory is specified by /sohos1/cds although clearly the directories above /cds are site-specific. System managers should set up a soft-link (cs) to point to /xxxx/cds/soft. The /cs/ directory at RAL contains three important files. First there is the compressed tar file of all the current software (cds.tar.Z) and also two startup file (login and cshrc). These latter two should be sourced in the user's .login if a full cds setup is required.

To install the software try the following:

- 1) ftp the cds.tar.Z to a temporary (/temp, say) directory on your machine
- 2) uncompress cds.tar
- 3) cd to your top-level cds directory (eg cd /disk2/cds)
- 4) if creating an update then rm -r soft/
- 5) cd /temp (or wherever the tar file is)
- 6) tar -xvVf cds.tar /cs/
- 7) edit the files /cs/login and /cs/cshrc for local setup

# 2 Documentation

Each directory which contains some files should have a 'aaareadme.txt' file which explains the general purpose behind the files in that directory. Any file with that name is capable of being read by the IDL utility 'doc' under the heading of \*INFO\*.

Note that the one-line explanation of any routine can be extracted by the IDL routine 'purpose'. This routine can search the standard cds directories and produce a hardcopy if required.

# 3 Software directories

Under the main .../cds directory are two parallel directories /soft and /data. The /data directory is reserved for the observed CDS data when it finally arrives. Under the /soft directory there are five main software directories (/ops, /sci, /soho\_util, /cds\_util and /util) and a /data directory which holds small amounts of data needed by the software. The overall structure is therefore as follows:

```
/site_specific/cds/soft/.....  
  
    /ops/plan/tech  
    . . /science  
    . . /database  
    . . /command  
    . .  
    . /data_handling/telem/engineering
```

```

. .                /science

. .                /i_o/archive
. .                /fits/cds/calib
. .
. /data_anal/egse/cal
. .                /egse/ops
. .
. .                /rtdisp

/sci/cal/vds/wave
. .                /inten
. .
. .                /gis
. .
. /data_anal/ql/line_fit
. .                /ql_disp
. .                /interface
. .                /serts
. .                /manager
.
. /data_anal/int_inv
. .
. /data_handling/i_o/fits/fits/cds/cslib
.
. /data_handling/soho/sumer
. .                /cds

/cds_util/help
.                /misc
.                /string

/soho_util/time
.                /plan/image_tool/nlsqfit

/util/widget
.                /window
.                /numerical
.                /array
.                /struct
.                /time
.                /os
.                /device
.                /user

```

```
. /coord
. /misc
. /string
. /image
. /graphics
. /tape
. /database
. /c
. /fits
. /sw_maint
. /help
.
/data/gbo/goes
. /bb
. /bbso
. /cde
. /kbou
. /khmn
. /kpno
. /ksac
. /lear
. /mees
. /yohk
. /nobe
. /mwno
.
. /soho/sumer
.
. /atomic
.
. /gen/cal/int
. /wav
. /psf
.
. /vds/cal/int
. /wav
. /model
.
. /gds/cal/int
. /wav
. /model
.
. /att/cal
. /att
. /nis
. /gis
.
. /info/vds_report
```

```

.          /swnote
.
.    /plan/command/cvt
.          /ttc
.          /ltb
.          /misc
.    /raster
.    /sequence
.    /series
.    /lwin
.    /fwin
.    /tech
.    /database
.
.    /time
.    /test_fits
.
.
/2bconv/astlib
.    /yohkoh
.    /sdac
.    /jhu
.
/a2ps/man
.
.
/scripts

```

## 4 Associated data directories

In addition to the pure software directories we need somewhere to put data (not the observed solar data but auxiliary data and information of various kinds). This has been catered for by the inclusion of a /data directory under /cs. For portability, however, these directories should only be accessed from within the software by the use of environment variables which will be defined on each system.

Directory -----	Environment variable -----
/cs/...	
/data/atomic	CDS_ATOMIC

	(Atomic data needed by the s/w)
/data/att/cal	CDS_ATT_CAL (Calibration data relating to spacecraft/CDS attitude.)
/data/gbo/bb	CDS_GBO_BB
/goes	CDS_GBO_GOES
/... etc	
	(Data from non-SOHO expts)
/data/gds/cal/int	CDS_GDS_CAL_INT
/wav	CDS_GDS_CAL_WAV (Calibration data specific to SPAN detector)
/model	CDS_GDS_MODEL (Data for model/synthetic data from SPAN detector)
/data/gen/cal/int	CDS_GEN_CAL_INT
/psf	CDS_GEN_CAL_PSF
/wav	CDS_GEN_CAL_WAV (General calibration data)
/data/gis	CDS_GIS (Calibration data relating specifically to the optics in the spectrograph ie non-detector)
/data/info	CDS_INFO (General information ie where this note would go)
/info/swnote	CDS_INFO_NOTE (where this note is)
/info/vds_report	CDS_INFO_VDS (VDS calibration report)
/data/nis	CDS_NIS (Calibration data relating specifically to the optics in the spectrograph ie non-detector)
/data/plan/command	CDS_PLAN_COM

		(Command definition file)
/fwin	CDS_PLAN_FWIN	(Flag windows files)
/lwin	CDS_PLAN_LWIN	(Line windows files)
/raster	CDS_PLAN_RAS	(Raster definition files)
/sequence	CDS_PLAN_SEQ	(Sequence definition files)
/series	CDS_PLAN_SER	(Series definition files)
/data/soho/sumer /... etc	CDS_SOHO_SUMER	(Data from other SOHO expts)
/data/time	TIME_CONV	(Details of leap secs, time anomalies etc.)
/data/vds/cal /int /wav	CDS_VDS_CAL_INT CDS_VDS_CAL_WAV	(Calibration specific to VDS detector)
/model	CDS_VDS_MODEL	(Data for VDS model/synthetic data)

For instance, the data files needed by the VDS\_DUMMY program would be accessed from the program in an OS- and site-independent way by using

```
filename = concat_dir('$CDS_VDS_MODEL','pixels.dat')
```