CORONAL DIAGNOSTIC SPECTROMETER

SoHO

CDS SOFTWARE NOTE No. 29

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CDS PLANNING DATABASE DIRECTORIES

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1 Introduction

The data for the CDS planning software are stored in databases accessible from IDL (see CDS Software Notes numbers 2 and 10). During operations, the project will maintain the master copy of these databases at GSFC and they will only be writable by the official CDS planner. However, users who intend to use the CDS for their own observations are free to plan those observations using the planning software. In order to do this they should have their own copies of some of the databases. They can prepare observations and store them in these private databases which can then be transferred to the project databases.

2 Basic raster and study definition database files

In order to have private copies of the databases which hold the definitions of rasters and studies, users should copy all the files in

/cs/data/plan/database/def

to their own directory. The files involved have the following root names.

datawin
datawin2
linelist
linelist2
raster
raster_var
study
study2
study_title
study_var
study_var2

3 Daily planning database files

Once the rasters and studies are defined, users may want to practise creating a daily plan using them. In order to do this they will require further databases which are held in the directory

/cs/data/plan/database/daily

The following root files should be copied to the user's directory.

commprep
flag_master
nrt_reserved
other_obs
point_alt
point_details
point_flag

rasterID
resource
sci_alt
sci_details
sci_flag
sci_plan
seriesID
soho_details
telem_mode
telem_submode

4 Read-only database files

There are certain database files which never need to (and therefore cannot) be written by users. These files are held in the directory

/cs/data/plan/database/sealed

and refer to the following databases.

campaign
campaign_c
compression
institutes
institutes_c
instrument
object
program
resource_type
state

5 Environment variables needed for database access

Within all of the planning routines, users are free to switch between accessing the project (official) databases and their own private databases, although the project databases are read-only. The programs respond to user selection of particular databases by resetting the environment variable ZDBASE. It is that variable which is used to point to the required databases.

When the private databases are selected, the programs copy the definition of the environment variable

ZDBASE_USER

into ZDBASE, and when the project database is to be used they copy the variable

ZDBASE_CDS

into ZDBASE.

In order for the planning routines to work correctly, therefore, the two environment variables, ZDBASE_USER and ZDBASE_CDS should be defined prior to use of the planning software.

However, access to the read-only project databases is always required and therefore the definition of ZDBASE_USER needs to be multi-level (colon separated). For instance, if only the private raster and study definitions are required, use the following definition:

setenv ZDBASE_USER   /users_def_dir:/cs/data/plan/database/daily:/cs/data/plan/database/sealed

or if both private definitions and daily planning are required then use

setenv ZDBASE_USER   /users_def_dir:/users_daily_dir:/cs/data/plan/database/sealed

Note that, if appropriate, the '+' format may be used in the environment variable specification to signify that all subdirectories under the given directory are to be included in the path. This can be used in the definition of ZDBASE_USER or, more often, in the definition of ZDBASE_CDS.

Hence, instead of using the full specification of all three project database directories in sequence

it is possible simply to specify

setenv ZDBASE_CDS   +/cs/data/plan/database

6 Access to databases outside of the planning programs

It is possible to access (generally in a read-only mode) the databases at a lower level than that provided by the planning programs (see, for instance, the documentation on the list_xxx, get_xxx and show_xxx routines). Again, which databases the user may access is controlled by the environment variable ZDBASE.

The user may define this variable to be either the private definition (ZDBASE_USER) or the project definition (ZDBASE_CDS) by use of the routine

IDL> status = fix_zdbase([/user, /cds])

where either keyword may be used to switch the environment variable definition.