CERES Systems Engineering Committee

Members: Maria Mitchum, NASA, DMO
          Sandy Nolan, SAIC
          Jill Travers, DAAC
          Sue Sorlie, DAAC

Charter: Serve as a forum for resolving issues which affect more than one
          working group. Report to CERES Data Management Team

CERES File Management Database, August 6, 1999, 9:00 am

The System Engineering minutes from April 6, 1999 give the background and justification for the development of a central File Management Database (FMDB) to be maintained by the CERES Software developers at SAIC.

On August 6, Maria met with Jill, Sue, Fred Byrd, Bob Ignacio from the LaTIS DAAC, and Sharon Rodier from SAIC. One of the issues that Sharon asked about was the identification of the CERES output files. Fred pointed out that at this time his code is not able to handle multiple ProductionStrategy (ps) and ConfigurationCode (cc) in the definition of the file names, but that will be addressed as soon as possible. Sharon discussed the imminent delivery of the Subsystem 1 PGEs on August 16. It is her desire to start testing the delivery of the updated FMDB from the SAIC database.

The logistics of the FMDB delivery were discussed and it was finally decided that:

1. Each Table will be downloaded for each PGE-set of files (using the Unload command).
2. The unloaded tables will be tarred and sent in one file to CERES CM.
3. CERES CM will forward them to DAAC SSI&T.
4. DAAC will test the newly delivered set of Tables as part of the SSI&T process.

Note: that due to the uniqueness of the file_id table in the LaTIS Database, the DAAC will use a 'diff' type of update to the LaTIS Tables, to insure the DB integrity.

Once the delivery and implementation of the DB updates have been tested, then Sharon, Fred and Jill will document a more detail set of steps for their departments to follow.

The DMT to DAAC Production Request (PR) form was discussed briefly. The ideal situation would be an interactive web-based PR system which is registered directly into the LaTIS Database Production System. Fred is studying this approach. In the meantime Maria has been urged to submit the PR by PGE for each CERES Instrument with all ProductionStrategy input requirements explicitly defined.

Meeting adjourned 10:15am mvm

Maria, Bob and Fred adjourned to Fred's office to continue the discussion of Processing Requirements. Fred has built the required tables to support multiple CERES SamplingStrategies using the Instrument identifier (INST) as the key. This key will be supplied by the LaTIS operator to automatically source the Output SamplingStrategy and all required input SamplingStrategies for each PGE.

As an outgrowth of this discussion, another topic of concern was raised by Fred: the Clouds/Convolution Terra processing proposal. The Subsystem developers wish to process clouds once and convolution 2 times, once for each instrument (FM1 and FM2). There are problems foreseen if there were two separate processors, one for single instrument and one for two instruments. One draw back is that a real person (operator) would always have to make a decision for each hour of the month to make sure that both IESs are available and which PGE to run, the single or the double processor....too much hands-on requirements.

If there was only a single processor which took care of both logics, single and double instruments, this would also require hands-on operators intervention to be able to remember if both instruments or just one instrument IES(s) were available and if both had gotten processed. (Here: input a [single SamplingStrategy or two SamplingStrategies] or [single INST or double INST -such as INST = FM1 or INST = FM1+FM2].) Fred stressed that the epilogue logic that is working now will break. Fred would have to come up with special logic just for this PGE, to be able to handle one output Product-ID and 2 unique SamplingStrategies and then to have some method of knowing if he should expect one output set or two .... it gets really nasty.

Maria suggested to approach Tim and Walt to consider either clouds and convolution be separated into 2 PGEs, or the PGE that exists now be run twice, once for each Terra instrument.

Meeting adjourned 11:45am mvm