CERES Systems Engineering Committee

Members: Tammy Ayers, SSAI (DM)
Denise Cooper, SSAI (DM)
Tonya Davenport, SSAI (ASDC)
Vertley Hopson, SSAI (ASDC)
Walt Miller, Chair, SSAI (DM)
Sue Sorlie, SSAI (ASDC)

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

The SEC met on July 27, 2010, at 2:00 PM in Building 1268, Room 2316.
Tammy Ayers, Denise Cooper, Tonya Davenport, Vertley Hopson, Walter Miller, and Sue Sorlie were in attendance. Lee Bodden, Lisa Coleman, Angel Cross, Sharon Dukes-Allen, Jonathan Gleason, Thomas Grepiotis, Brian Magill, and John Robbins also attended at the request of the SEC.

Topics Discussed:

1. The first topic was selecting a Chair for the next year starting in August.

   Since the current chair had only served in the position for two months, it was decided he could continue for the next year.

2. The second topic was testing of *AMI-P*.

   AMI-P is physically a stand-alone configuration of *AMI* hardware to use for production while the rearchitecture of *AMI* is performed. The goal of *AMI-P* is to provide the needed processing power to complete the Edition3 CERES processing before the Terra and Aqua Senior Review.

   Chris Harris wants to minimize the work required to get *AMI-P* functional. The first step will be to determine if deliveries already available on *AMI* can run on the new system. Eight PGEs have been delivered to *AMI*. The SSI&T area has been created on *AMI-P* and the files on *AMI* in those directories have already been copied to it. The existing binaries will be tested and no changes will be made unless they failed to run. The directory ASDC_archive will be available, but will require files be copied into it from the Data Product On-line (DPO). CERESlib will be recompiled and installed on *AMI-P*.

   The earlier the decision on what data dates will be used for testing, the sooner they can be moved to *AMI-P*. For SCCR 716, running the same Aqua data specified for ValR21 on *warlock* and *AMI-P* was suggested. This will provide comparison files for validating the system.

A discussion was held on the procedure to be used for software needed for *AMI-P* testing that is not ready for delivery. SYNI and TSI are candidates that fall in this category. Sue Sorlie did not think that *magneto* would be able to handle all the Edition3 load and thought the latter TISA deliveries should only go to *AMI-P*. Delivering to both *magneto* and *AMI-P* or a rush test case and the final delivery would put additional work on SIT. Another concern raised was the availability of the new production scripts for nonproduction, test-only deliveries. Since tuning of any production system is an on-going item, the group did not think code needed to be delivered before it was ready for production.

Jonathan Gleason said that Edition3 was the highest priority; however, Edition2 processing and *AMI-P* testing were critical also. He was going to provide a new priority list to SIT. It was thought that a weekly tag-up with SIT would allow better control on getting the needed software done in the correct order.

3. A presentation was given on the scripts being developed for heterogeneous operation on *AMI*.

Brain Magill presented the framework for the new scripts and suggested changes. The sequence will be to source an environment script, then submit the SGE_Driver script with the date or range of dates needed. The SGE_Driver will determine if all the files are available and then start the Launch_Script which will submit the job to Sun Grid Engine (SGE). Within the Launch_Script the PCF will be generated and the PGE executed. The file checking now checks for old output files that would cause a job to end prematurely. Brian proposed eliminating the Launch_Script and using a generic function that can be provided inputs from the driver scripts. This would reduce the number of scripts to create and maintain and the need to recreate information that is available in the launch script. The consensus of the group was that this would be fine, but a method to override the file checking for development and cases where it is decided to run a job without the required files is also necessary.

Lisa Coleman provided an overview of future initiatives for *AMI* production. The Production Request database will be reviewed the week of August 16. During an earlier briefing to ASDC, Pam Rinsland requested a Concept of Operations be developed. Possible alternatives to how environmental variables are used should be explored. Lisa is also looking at expanding the development team to include more ASDC and senior DMT members. Jonathan requested that the SEC continue to review this effort. It was suggested that an iterative approach of development and SIT testing be used.

4. New Business

None.

Meeting adjourned at 3:40 PM