

## **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 February 28, 2011, at 1:30 PM at One Enterprise Parkway, First Floor Conference Room.**

Tammy Ayers, Denise Cooper, Tonya Davenport, Vertley Hopson, Walter Miller, and Sue Sorlie were in attendance. Chris Harris also attended at the request of the SEC.

#### Topics Discussed:

1. The first topic was gaining a better understanding of what role the Preproduction Environment (PPE) would serve.

Sue Sorlie wanted to clarify the purpose of the PPE. The PPE is the area where runs will be executed at ASDC on AMI-P prior to promotion to the production area. One of the reasons for creating the PPE is so a new executable can be tested before the old executable is overwritten in production. This is especially dangerous for a standing request that runs every day. There is not an easy way to recover the executable.

The PPE will be used to check that the correct files that need to be copied into the production directory are in the PPE and the script and wrappers function as expected. The DMT representatives thought that all PGEs would transition through the PPE before being moved to production. Sue Sorlie wanted to leave the option open not to move some PGEs through the PPE (e.g. Delta deliveries).

The directory structure for the PPE will be /SPG\_ops/PPE. A separate Sun Grid Engine queue will be established. Chris Harris indicated they would be ready by March 1, 2011. Minimal testing will continue to occur in the SSIT directory. For example, SSIT will be used to set up epilogue and any additional scripts (if necessary). The PPE will serve as validation to ensure that all files needed for production are moved and that all scripts and wrappers function as expected. A Production Request (PR) will be generated for all PPE data processing. Once the data from the PPE PR is completed, the Science Team, with DMT assistance, will validate the data. The software will then be promoted to the production environment. All PPE jobs will be run by operations. The PPE will not be used

the first time a PGE is released to ASDC for promotion to AMI-P, since there are no previous executables to overwrite.

Everyone agreed that changes in the PPE might occur as experience is gained. A plan to make data produced in the PPE available for validation by the DMT will be developed.

2. The second topic was the development of robust test cases to be executed by the developers prior to submitting a delivery to CM.

This was an action item out of the CERES Kaizen. Jonathan Gleason, Tammy Ayers, and Denise Cooper are working with the ERBE-like subsystem to develop a checklist of robust test cases for each PGE. The checklist will be provided to the appropriate Science and ASDC personnel for feedback before they are finalized. Once this is done, it will be distributed to the other subsystem leads as examples.

3. Other miscellaneous items were discussed.

There was a concern that the SGE and PCF log files were being listed in the output product portion of the PCF. This has caused problems with the epilogue scripts.

All production on AMI-P will be submitted from ab01. However, for testing and load control, there is no method to direct jobs to a particular architecture. The scripting team is working on a method to allow the architecture to be specified when submitting jobs.

Another problem has been group write permission not being set for directories created during PCF generation. This has caused problems when another operator tries to run the job. `umask 002` needs to be set before running the PCF generators.

Pam Rinsland and Jonathan Gleason have been talking about capturing problem reports and creating a summary to distribute to subsystem leads. The goal is to prevent problems in one subsystem from being repeated in another.

4. New Business

None.

Meeting adjourned at 2:30 PM