Jeffrey Painter Supported Projects: ESGF, CF Conventions

Quarterly Report for July 2017 - September 2017 (Q4, FY17)

Note that I am working part-time this year, and in the future.

This quarter's accomplishments:

- Completed work on the CF Conventions document and its conformance document: implemented revisions, reviewed Tanya's revisions, and so forth. This quarter include some last-minute work has been added to support CMIP-6, and revising the web site to point to the new versions.
- Continued to test data replication in ESGF, and debug problems. This is the biggest of my projects. Performance continues to be an issue.
- Improved scripts for classifying the data we already have, got a better database from gdo2, and re-ran them. This helps with publishing, replication, and data transfers.
- Transferred the most important data in /scratch/ on CSS-01 and CSS-02 to CSS-03, using a modified version of Cameron Harr's parallel rsync scripts. I wrote scripts to check the results. They discovered errors which I corrected with further rsync runs.
- Fixed a problem with the MSU (satellite temperature) script, which appeared with some data from Curt Covey.

Plans for next quarter:

- In the next quarter, I will be bumping against the maximum time of 1000 hours per calendar year. So I will work only about 40% time rather than the 60% level of the first three quarters.
- Experiment further with replication for CMIP6. I hope that we can move on to full end-to-end replication, i.e. with automated publishing. But first we have to understand the performance problems.
- Continue work on moving data from CSS-01 and CSS-02 to CSS-03. This will require writing scripts and modifying databases to check and categorize data for which my present scripts cannot determine the data quality.
- Replicate missing CMIP-5 data, especially that needed at PCMDI.
- As needed, support other data management activities.
- The CF Conventions documentation will need a low level of support indefinitely.