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Supported Projects: AIMS, ESGF, UV-CDAT and PCMDI
Quarterly Report for October 1, 2016 – December 31, 2016

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Quarter Accomplishments:

CMOR

- Release CMOR 3.2.5 on July 14th.
- Release CMOR 3.2.6 on August 31th.
- Release CMOR 3.2.7 on September 15th.
  - Update netCDF libraries in order to run UV-CDAT and CMOR in the same conda environment.
  - Create a conda shared environment file (cmor.env) to facilitate installation.
  - Fix PrePARE C code to match timestamp in filename created by CMOR
  - Add further_info_url template for obs4MIPs project
  - Fix python wrapper to ensure that data shape is pass correctly to cmor.write()
  - Add hierarchical attribute setting in CMIP6_CV and CMOR so that keys in multiple entries are written to the output netCDF file.
  - PrePARE now uses regular expression to verify each element in a strict manner.
    - CMIP6 -> "^CMIP6$"
  - Salinity Units were added per user request: psu, pss-78 and Practical Salinity Units 78
  - Missing Value for integer variable is now working. Default is -999 and can be changed or added in the tables.
    - "missing_value": "1e20",
    - "int_missing_value": "-999",
  - Trap SIGTERM signal in CMOR and PrePARE when CRITICAL ERROR is issued to avoid core dump on OpenSUSE systems.
  - Fix Chunking for time coordinate variable. The chunk size is set to 1 unless it is overwritten by the user. Latitude and Longitude coordinate variables are now set to CONTIGUOUS

- Update CMOR3 tables using Martin Jukes' database as notified.
  - 01.00.13 (July 13th)
  - 01.00.14 (July 31nd)
  - 01.00.15 (August 3rd)

CDMS

- Port CDMS to Python3.
  - It is working on Linux with development version of the ESMF regridder provided by NOAA. No ESMF is available on OSX at this time. C python extension and Python code have been ported to Python 3 and are also back compatible with Python 2.
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- Fix CDMS authentication on Linux to read ESGF file.
  - Use of latest GLOBUS "myproxylogin" to get a certificates and set ".dodsrc" file appropriately.

- CDMS now allows reading of non-CF-1 compliant file (i.e. GPCP files).
- Indent/clean all CDMS python code using pep8 and flake8 interface.
- Add new NC_STRING type to attributes and variables.
- Add Python 3 to continuous integration on github for TravisCI(Linux) and CircleCI(Mac OSX).

Next Quarter's Roadmap
- Finalize OSX python 3 port.
- Compile ESMF and ESMPy on Mac OSX.
- Fix ESGF authentication on OSX (netCDF issue).
- Continue work on CDMS documentation in Sphynx.
- Continue to fix numerous CDMS issues (72).
- Give support to CMOR users.

I will be working 40% on CDMS and 20% on CMOR in the next quarter. I wil start to work 40% on a Cybersecurity project.