

Lina Muryanto
Supported Projects: (CDAT, ESGF, E3SM)
Quarterly Report for January-March 2018

Quarterly Accomplishments

- **CDAT:**
 - Implemented automation of CDAT nightly validation which includes installing CDAT nightly (for Linux/MacOS + py2/py3 flavors) and run all relevant test suites in CircleCI.
 - Implemented automation of validation of CDAT v8.0 yaml files in CircleCI. This automation allowed us to install all flavors of v8.0 yaml files and run relevant test suites prior to the release of CDAT v8.0.
- **ESGF:**
 - Manually tested ESGF 3.0 installer, and reported problems found.
 - Manually installed ESGF 2.6.x node, and ran esgf-test-suite against it.
- **E3SM:**
 - Manually installed anaconda and processflow on acme1, run processflow with couple configuration files.
 - Manually verified reports/links generated after running processflow.
 - Implemented an automation of doing a clean install of anaconda and processflow in Jenkins on aims1. At the end of the install, the Jenkins pipeline also run processflow with a specific config file.
 - Implemented a similar automation as above for acme_diags.

Next Quarter's roadmap

- **CDAT:**
 - Move run_tests.py to cdat_info for code reusability.

- Improve nightly test runs reporting, so that it is possible to view failed tests only. This is to reduce the time needed to look through all test logs manually.
 - Add validation of “conda install -c conda-forge -c cdat/label/v80 -c cdat”
 - Move vcs testing to circleci so that we do testing on Ubuntu and RH6 and MacOS.
 - Set up some tests for “regular” (not mesalib) version of CDAT.
 - Try remote server setup for VNC for running VCS - <https://github.com/CDAT/cdat/wiki/Remote-server-setup-for-VNC>
 - Get familiar with VCDAT, look into possibility to add automated tests.
- **ESGF:**
 - Manually test ESGF 3.0 installer.
 - Learn how to publish test data.
 - Automate installing esgf 2.x node and esgf 3.0 node in Jenkins.
 - Automate launching esgf-test-suite against an esgf node from Jenkins.
 - Manually test beyond basic tests.
- **E3SM:**
 - Manually install and run processflow on aims4.
 - Get familiar with existing unit tests.
 - Get familiar with the output data and plots of both processflow and E3SM diags – goal: to be able to assess if a run completed successfully and generated correct output.
 - Add more Jenkins pipeline to run processflow with different configuration files.

- Create Jenkins pipelines for acme_diags for creating other environments.

Resources Required to Achieve Goals

- A Linux box for testing non-mesalib version of CDAT – X11 forwarding is slow and vpn seems to create issues.
- VMs for ESGF work, a server to run Jenkins instance.
- Availability of following team members for effort coordinations:
 - CDAT: Charles, Denis
 - VCDAT: James
 - ESGF: Sasha, William
 - E3SM: Renata, Sterling, Zeshawn.