

CLAS12 Software @ JLab

Friday, March 15, at 08:00, the default clas12 environment module will change, 4.4→4.5, which includes (email announcement today):

- coatjava/10.0.4 → 10.0.9
- gemc/5.4 → 5.7
- ced/1.5.09 → 1.6.1
- mcgen/2.33 → 2.42

With the move to AlmaLinux 9 (EL9), this will likely be the last update for RHEL7/CENTOS7 (EL7).

AlmaLinux 9 @ JLab

General

- <https://mailman.jlab.org/pipermail/jlab-scicomp-briefs/2024q1/000940.html>
- Highlights
 - JLab Scicomp's transition from EL7 to EL9 to be complete by June
 - Currently ifarm9 interactive and farm16 batch nodes are EL9 and available for use
 - SLURM/SWIF feature/os = el9
 - No more /apps, /site, nor /u/scratch
 - New, opt-in, larger, scicomp-only /home directory coming soon

CLAS12

- Base and default environment setup for EL7 and EL9 are the same
 - source /group/clas12/packages/setup.[c]sh
 - module avail ...
 - module load clas12
- Some changes under the hood for EL9
 - The "clas12/pro" module is gone. Its equivalent is (and always has been) just "clas12".
 - Everything is from EL9 system packages and/or CVMFS
 - python/3.9.7 → system (3.9.18)
 - gcc/9.2.0 → system (11.4.1)
 - root/6.28.04 → 60.30.04
 - Only a subset of old versions will be available
 - coatjava/6.5.9/6.5.6.1/10.0.2
 - clas12root/1.8.2c
 - root/6.30.04
 - ced/1.6.1
 - Additions
 - pymods (better name?)
 - just an optional environment module for accessing some preinstalled pip3 python packages for required CLAS12 dependencies
 - if you don't want it ...
 - module unload -f --noauto pymods
 - and then install the necessary python dependencies yourself
 - iguana – new clas12 analysis package

/work disk maintainence

We had another quota “emergency”, probably once every year or two, this time on /work/clas. After manual cleanup by some collaborators, usable again after a day, and back to 40%, 17 TB free on /work/clas now.

Note, /work/clas12 is independent with a larger quota. We also run more monitoring with notifications on /work/clas12 to try to avoid this, and have started doing that for /work/clas too:

- <https://clasweb.jlab.org/clas12offline/disk/>
- <https://clasweb.jlab.org/clas12offline/disk/work/clas6/>

Are these kind of occasional outages acceptable? How much of /work/clas is really in use? How much is obsolete and can/should be deleted? Not easy questions to answer. The same goes for /work/clas12, at least eventually. If we want to take a more proactive approach, we could:

Backup to tape

- The tape silo has a 1 MB minimum per file.
- So, it would have to be everything larger than 1 MB, else tar directories at some reasonable level(s) to make everything larger than 1 MB.

And Delete

- Announce months in advance.
- Everything older than N years (based on access time)? Could decrease N in stages.
- Or, delete everything and require people to retrieve it from tape?
- Could solicit a list of things not to touch and see how large it becomes?

We can have a dedicated discussion in a future meeting on this.