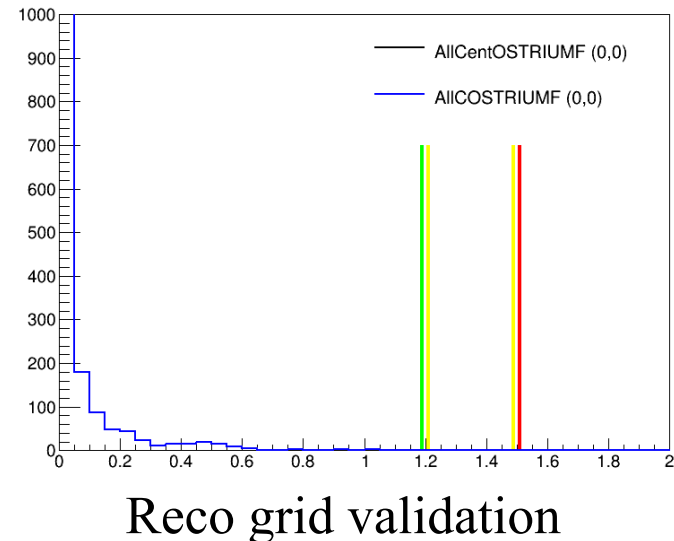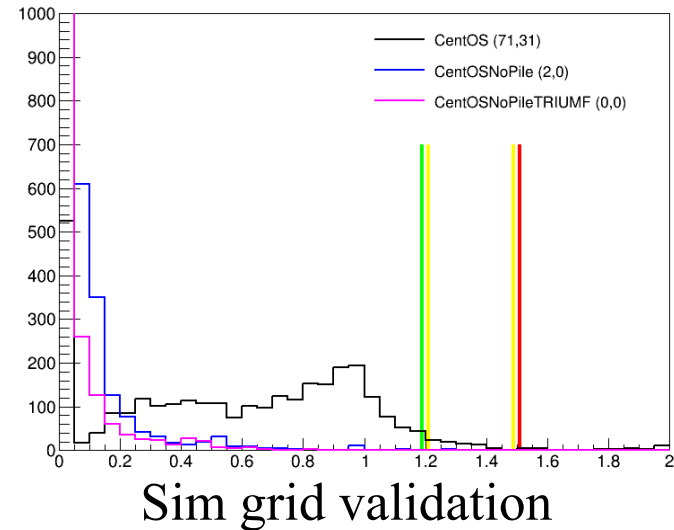# CentOS7

Alessandra Forti

Jamboree

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SL6 SW on C7 WNs

- Production: ✓
  - Histogram validation ✓
    - Evtgen ✓
    - Derivation ✓
    - Simulation ✓
    - Reco ✓
  - Grid validation ✓
    - Simulation ✓
    - Reco ✓
- Analysis: validated ✓
  - Histogram validation ✓
  - HC compile and run on the grid ✓

Sim grid validation

Reco grid validation

More detailed validation plots in Jose test space

CentOS7 native

- Work on release 21 started after the summer 2016 but two migrations took precedence

  - Cmt → cmake

  - svn → git next March

- After March

  - Bug fixes

  - Physics validation

- Once C7 releases are available both platform will be used until the end of Run 2

  - C7 releases cannot be validated on SL6 nodes

  - There cannot be mixed resources behind the same PandaQueues

Current testing

- Sites
  - OSCER and ECDF are now running production SL6 jobs
  - TRIUMF is testing and doing a lot of validation
  - Australia-LCG2 has now the resources in place to start testing too.

Site	Tier	Cloud	Analysis	Single core	Multi core
Australia-ATLAS	T2	CA	-	-	-
OSCER	T2	US	-	online	online (sim only)
TRIUMF-LCG2	T1	CA	test	test	test
UKI-SCOTGRID-ECDF	T2	UK	test	online	online

- You need to create a new Panda Site for testing
  - Please add SL7 to the queues to easily identify them
  - SW validation
  - HC tests
  - And SL5 releases will not work on C7 nodes
- In the future it may not be needed
  - SL5 rel will need to be cleaned up though

Middleware status

- OSG distributes CentOS7 middleware

- EGI has now an rpm in the UMD testing repositories MWREADY-135

  - UMD CentOS7 testing repository

  - YUM repo file

  - No need to go through recipes to get the rpms in place

  - It needs to be tested by sites

    - TRIUMF started to look into it

    - Feedback on the ticket above is very welcome if you test the UMD testing repository

- Tarball version of the UMD rpm available in CVMFS

  - /cvmfs/grid.cern.ch/centos7-wn-preview-v01

Containers & Virtualisation

- RAL is moving towards running services inside containers, controlled by Mesos.

  - Some services already migrated (FTS and Squid).

  - Batch Farm will be entirely migrated by April next year.

  - C7 machines will run "SL6 WN" inside containers.

- What works?

  - ATLAS, CMS, LHCb and ALICE jobs.

- They started to test singularity on the WNs

  - Considered easier also for smaller sites ✓

- For full detail see Andrew Lahiff's presentation

Containers and virtualisation

- TRIUMF is also testing docker containers
- ECDF has resources on Openstack so they started using them for analysis
  - Production running on standard C7 WNs
  - C7 analysis on standard WNs in test
  - SL6 VMs on C7 hypervisors on openstack in test
    - Analysis in test because of a problem with the storage which is under investigation

HOWTO migrate

- It is recommended to keep the SL6 and C7 resources separated even now

    - Big bang upgrade: declare a downtime and come back with C7 worker nodes behind the same PandaSite and PandaQueues.

        - sw releases will have to be wiped and revalidated

            - SL5 releases will not be reinstalled

    - Rolling upgrade: declare an "at risk" DT, create a new PandaSite with new master+slaves queues.

        - sw releases will automatically be validated

- In either case the migration has to be communicated to ATLAS (<atlas-project-adc-operations@cern.ch>)

    - Sites using SL6 containers or VM don't need to announce

        - But it is good if you tell us in case of problems

Recommended?

- Moving the WNs to CentOS7 is **NOT** yet recommended on EGI resources as the middleware is not in good shape yet.
  - Testing appreciated would speed up its release though
- ATLAS SL6 applications running in compatibility mode have been validated and sites that have to move can move
  - If you have to move **please don't setup the nodes without telling us.**

Information

- CentOS7 Readiness twiki

- Problems and tickets tracking: ADCINFR-11

- We have now an e-group for sites who want to test to use for communication.

  - atlas-adc-centos7@NOSPAMcern.ch

- Any other question I&F coordinators

  - Alessandra.Forti@NOSPAMcern.ch

  - ball@NOSPAMumich.edu