

NOvA Experiment Report

Update on NOvA Operations



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AEM Meeting

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Experiment Status:

- We are now in “button-up” mode.
- **Recent highlights:**
 - We are now stably running in the DAQ release we will use during the return of beam.
 - Have begun the final phase of replacing buffer nodes in our FD computing farm.
 - All critical systems are in place for the return of beam.
 - We are running with 2 new triggers (michele electron, supernova) with a few more still in the testing phase.

Shutdown Activities:

Completed:

- dashboard development/deployment/documentation
- spill server heartbeat apps
- convert DAQ/DDT CVS to SVN
- DAQ releases (R10-Final, R11, R12-Beta)
- database flattening
- expert desktop setup
- audit novadaq/novadcs users
- kernel upgrades
- multi-partition testing
- expert training
- DSO scan upgrades/rollout
- ganglia upgrades
- DCM switch to internal timing mode
- Buffer node replacement phase 1&2
- DAQ/DCS server maintenance
- DAQ On-Call expert documentation
- deploy supernova trigger
- VNC alignment
- puppet refactoring
- loadshed software development/testing
- trigger framework upgrades

In Development:

- final stage of buffer node replacement
- trigger validation framework
- trigger testing
- stability testing
- loadshed deployment
- gateway authentication

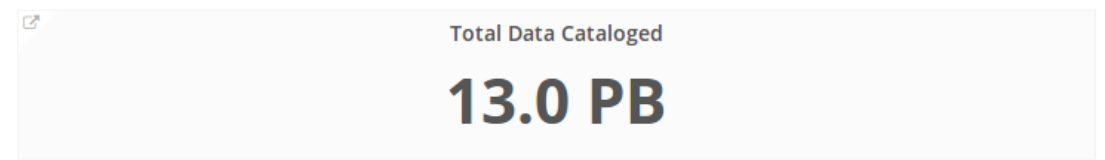
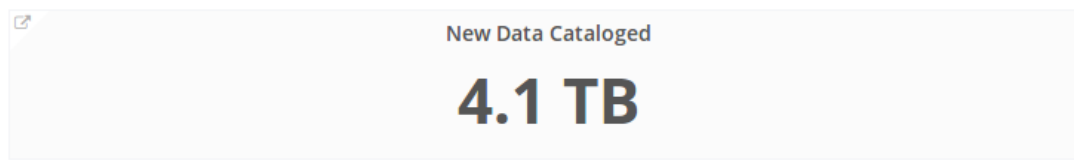
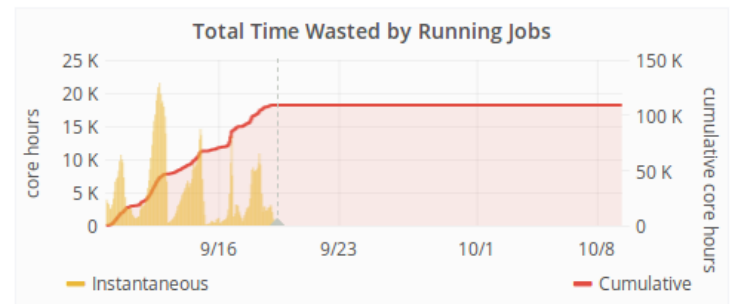
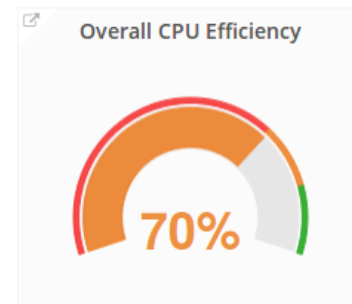
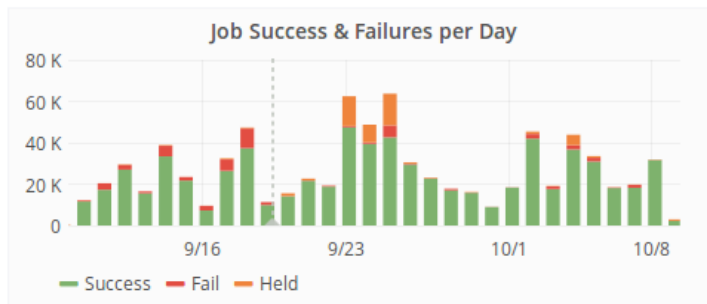
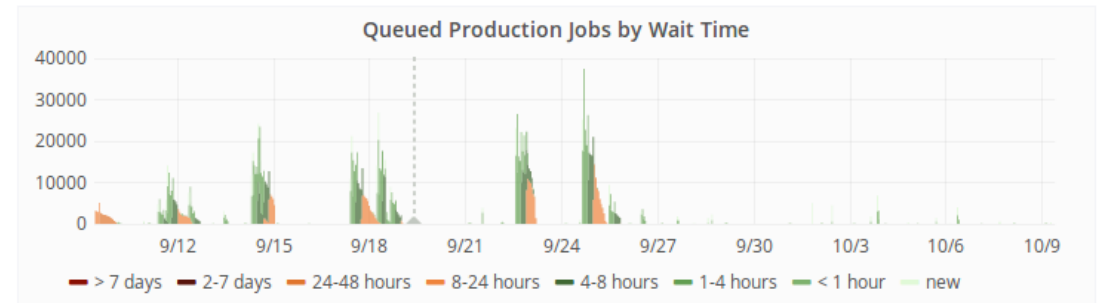
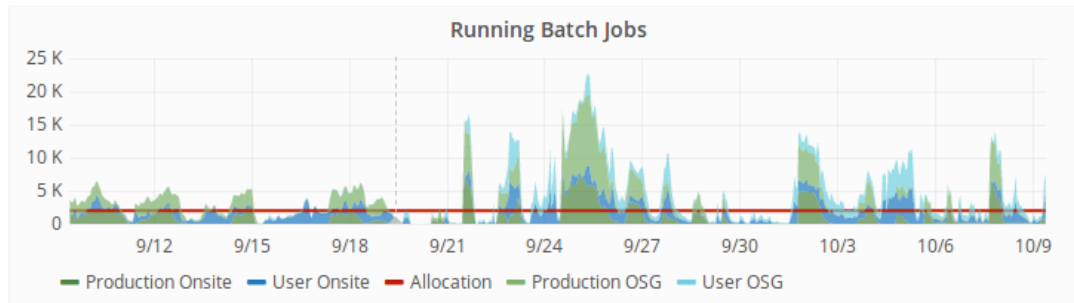
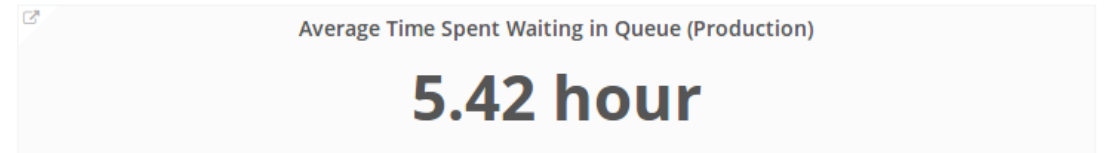
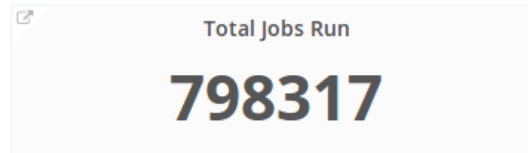
Deferred:

- automated health checks
- live DCM timing offsets

Computing Status:



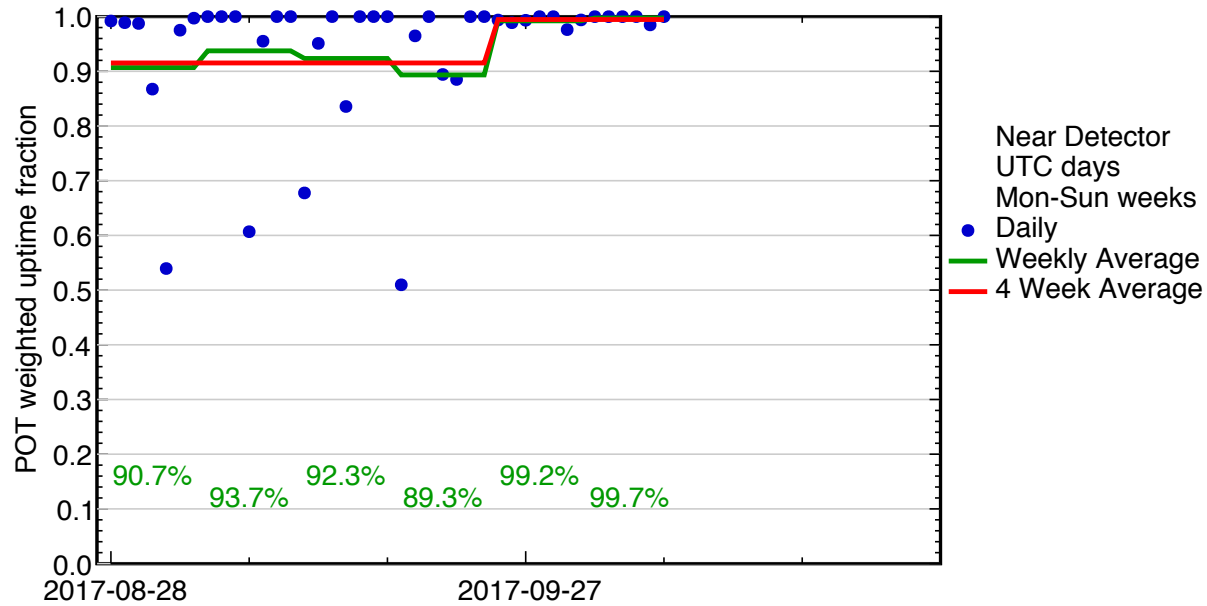
NOvA Computing Summary



Computing Status:

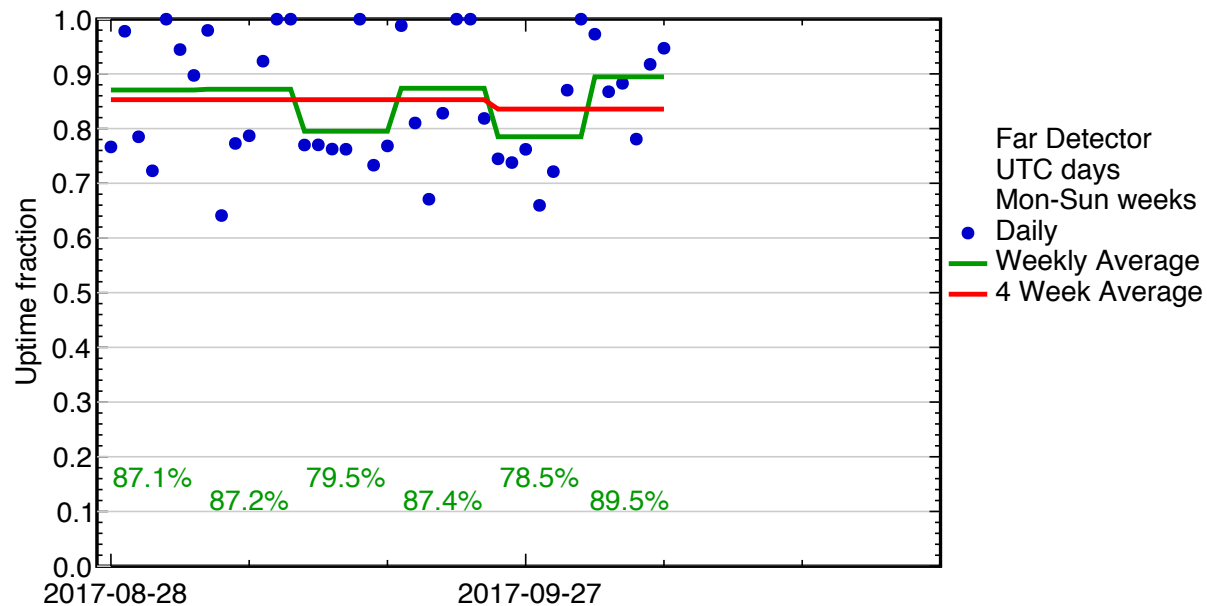
- September “Miniproduction” campaign (smallish test production in anticipation of next major campaign to begin in Nov.) mostly smooth
 - A few instances of a couple hundred jobs not receiving files in previously prestaged dataset waiting for 24h (!) → apparently low efficiency. Killed when discovered
 - Efficiency stats cut out after enstore/dCache upgrade on 9/19 due to bug in reporting SW. Ticket open with SCD to fix (we understand solution to be deployed soon)
- Heavy user load on SAM & dCache from upcoming analysis work
 - Lots of xrd timeouts from streaming common files from dCache. Trying to work around in our SW, but challenging

Uptime:



Near Detector:

- Ave. 5-week uptime: 93.8%
- Ave. 5-week uptime (excluding planned downtime): **99.1%**



Far Detector:

- Ave. 5-week uptime: 85.4%
- Ave. 5-week uptime (excluding planned downtime): **94.0%**