Muon g-2 AEM Update

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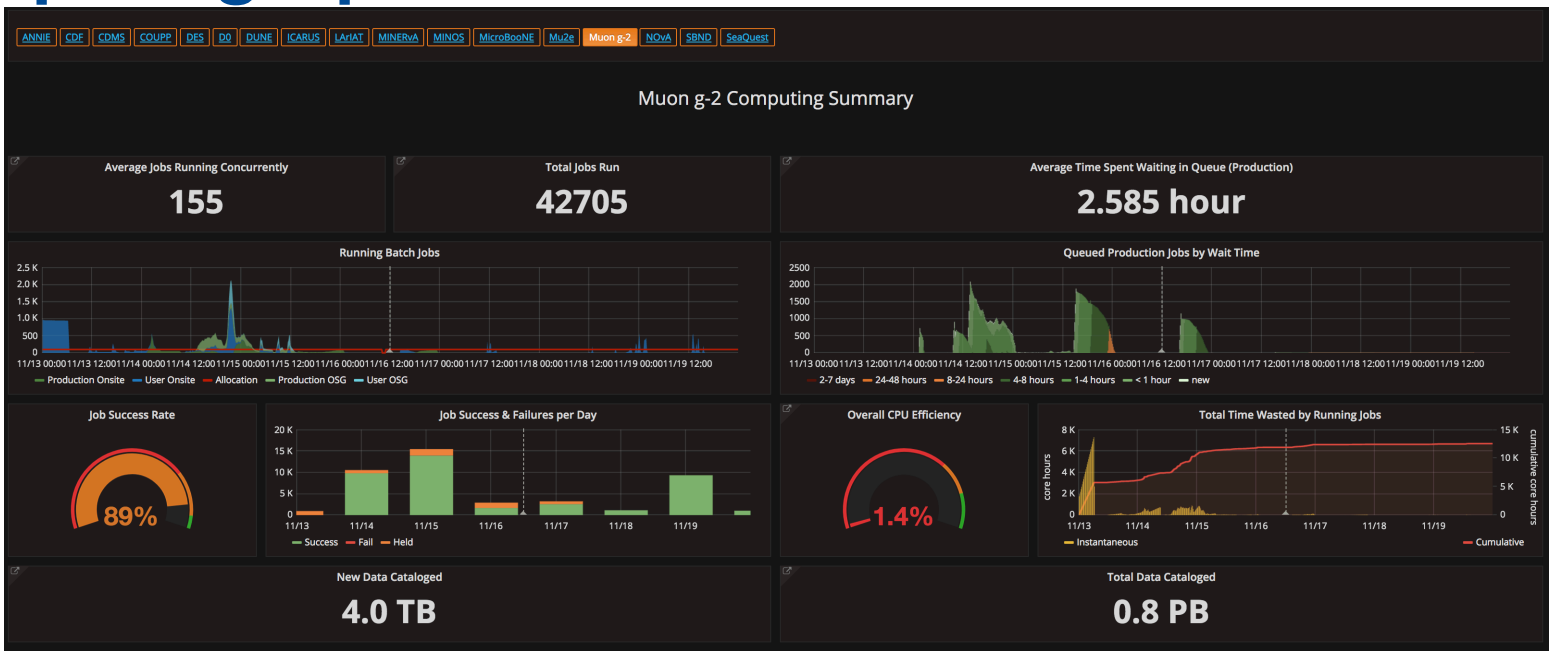
Nov 20th, 2017

Computing Update



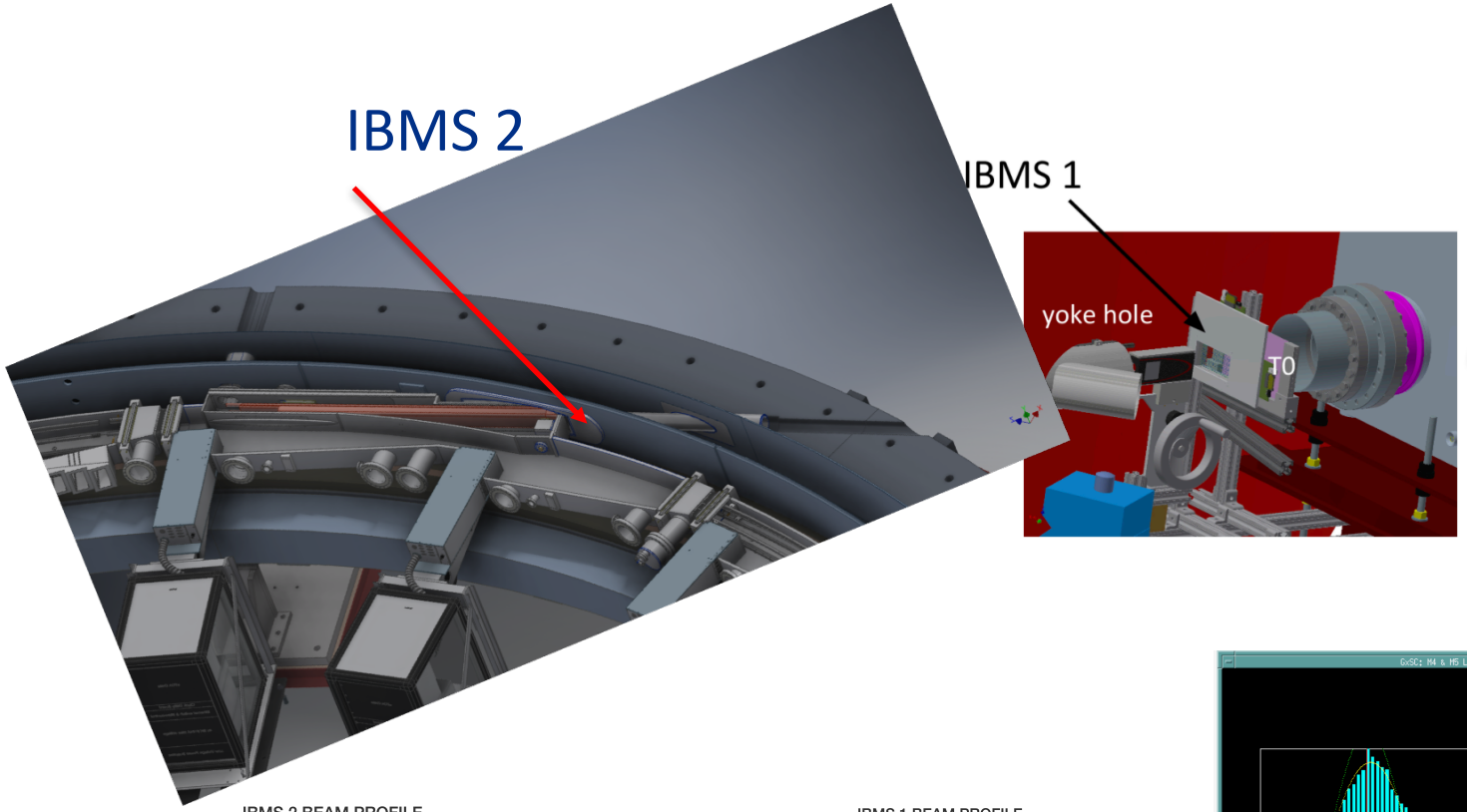
Warning: Efficiency numbers incorrect!

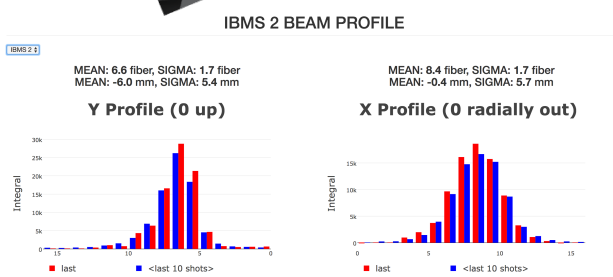
The new GPGrid batch system that was deployed on Sept. 19 is not correctly reporting CPU usage for jobs, so the efficiency numbers are incorrect. This is being actively investigated and will be fixed ASAP.

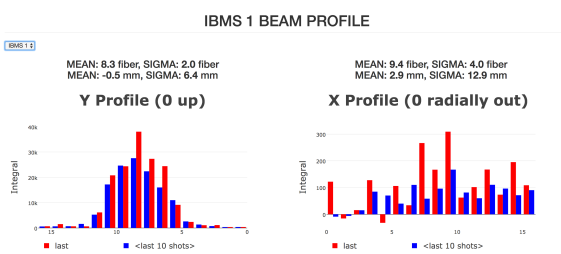
Shutdown update week of 11/20

- Inflector (magnet to inject beam into ring)
  - Operating
- Kicker and Quads (Injection systems to put/keep muons on proper orbit in ring)
  - Trained up, working on controls systems
- IBMS (Incoming Beam Monitoring System to measure profile of beam at end of beamline)
  - 3 / 4 commissioned, working on X monitor
- Fiber Harps (in-ring beam profile monitors)
  - Electronics re-commissioning during controlled accesses this week
- Calorimeter (measure decay positrons from muons)
  - 22/24 calorimeters operating
- Tracker (measures spatial profile of decay positrons)
  - 16/16 installed. Some services (gas/air/water) remain
- Trolley (Maps the magnetic field when the muon beam is off)
  - Installed, 13 orbits last week (4 with field).
- Cryopumps (increases pumping speed to storage ring)
  - Continued Infrastructure installation
- Hall
  - Secured Friday, commissioned entrance counters with beam over weekend
  - Will be secured all evenings and will attempt to circulate and store with nominal Inflector, Quad and Kicker values.
  - Supervised accesses will continue Tue/Wed morning and mornings next week for cryopumps

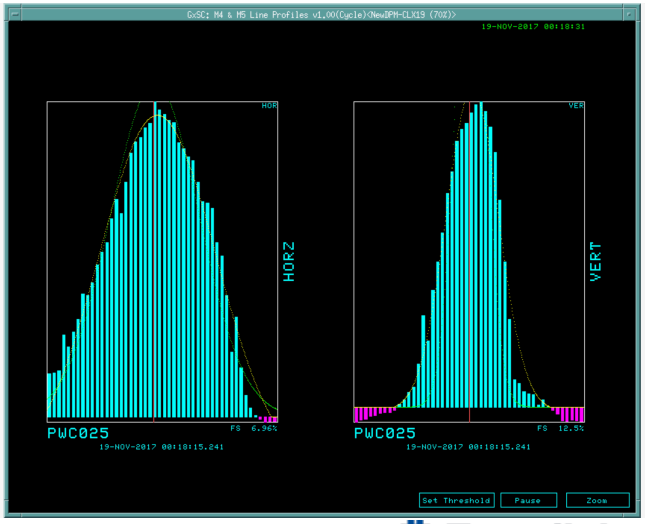
Beam profiles Fri-Sun on AD and Exp Instrumentation





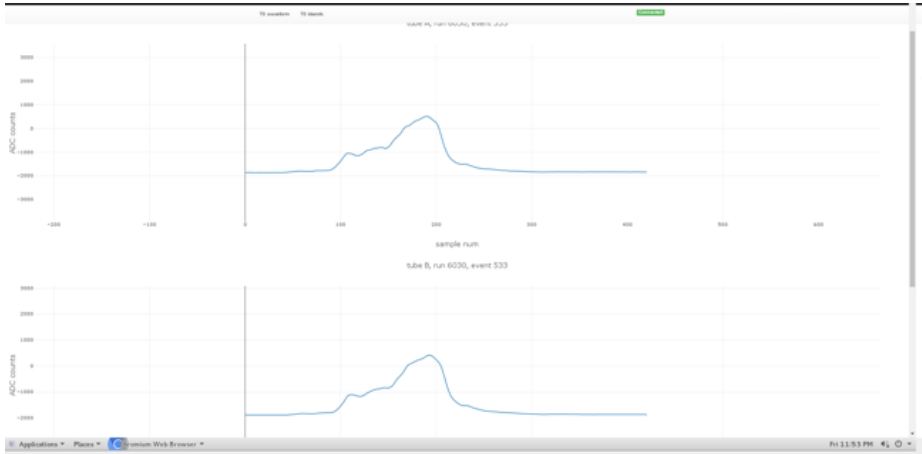


Electronics Problem on X1

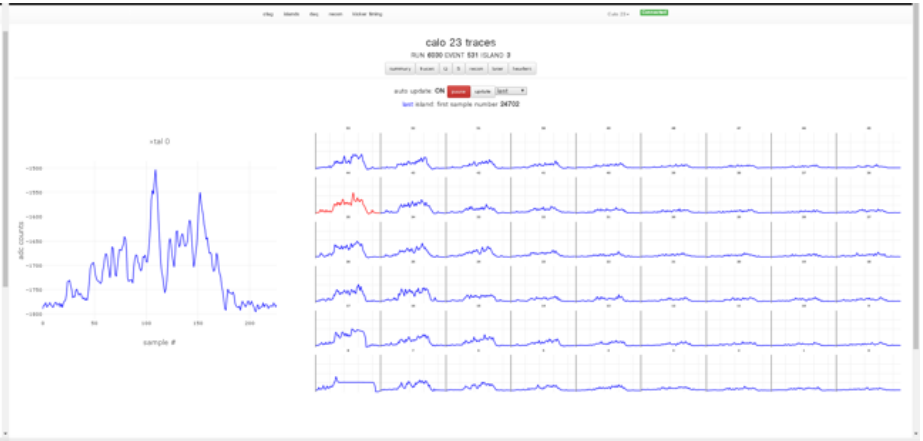


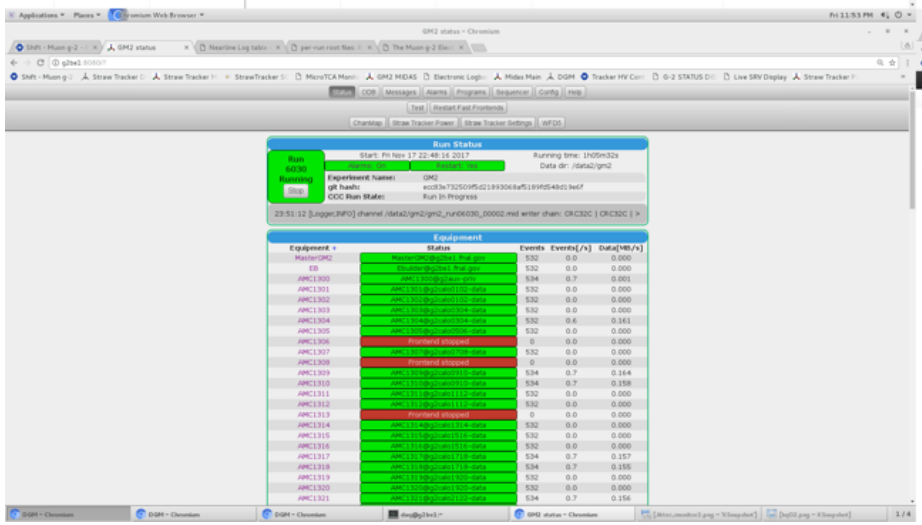
First Beam Splashes Fri Nov 17 Evening shift

T0 (entrance scint)



Calo 23 (just upstream of inflector)





DAQ operating most frontends

Calo 24 (just downstream of inflector)