The MINERνA Operations Report
All Experimenters Meeting

Howard Budd, University of Rochester

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MINERvA v97 FEB Firmware Update

- V97 – separates storing of hits for each TriP chip on a FEB.
  - A FEB has 6 TriP chips. 4 (Hi & Med) chips & 2 Lo chips.
  - v95, present FEB firmware , has 2 TriP (hi & med) chips and 1 low chip store their charge together when there is a disc hit.
  - v97, the new FEB firmware, just the TriP chip (hi & med) with a disc hit stores its charge. This increases our live time.
  - v97 has been extensively tested on the 14th floor test stand with 1 FEB. The data looked fine.
  - v97 has been tested on the Lab F test stand with 15 FEBs. v97 ran fine and the data looked fine.
- v97 require a CROCE firmware update and a FEB firmware update. Today, we will do the CROCE firmware update for v97.
  - It is backward combatible to v95.
- Tomorrow we will start the FEB firmware download.

MINERvA V97 FEB Firmware Update

- Firmware can be downloaded without removing cards from the detector.
- However, if a FEB fails to download, we might have to remove it from the detector and have the firmware installed on the 14th floor. This may require removing the roof.
- Then test v97:
  - The DAQ runs without additional FEB errors that stop the DAQ
    - We get occasionally get FEB errors with v95.
  - The LI and PED data for all FEBs looks correct.
  - We do not get unpacking errors in the nearline.
- Thanks to Paul Rubinov & Cristian Gingu of PPD EED & Donatella Torretta of ND.

MINERvA Computers

- We have installed one new DAQ computer in addition to the 2 DAQ computers we have in the Hall.
  - It is a spare and the SLAMs software installation is finished.
  - We need to do our software installation.
- 2 computers have been installed in the MINOS Hall for the nearline (online monitoring), for a total of 4 nearline computers.
- 1 is the nearline control machine and 1 is the spare nearline machine.
- The other 2 computers will be moved to Feynman Center as part of our nearline system.
  - We are working with SCD to setup Fife batch to submit to the nearline jobs to these 2 computers in Feynman.
- Our present nearline system using SLF5 computers will work until Mar 2017.

MINERvA Status

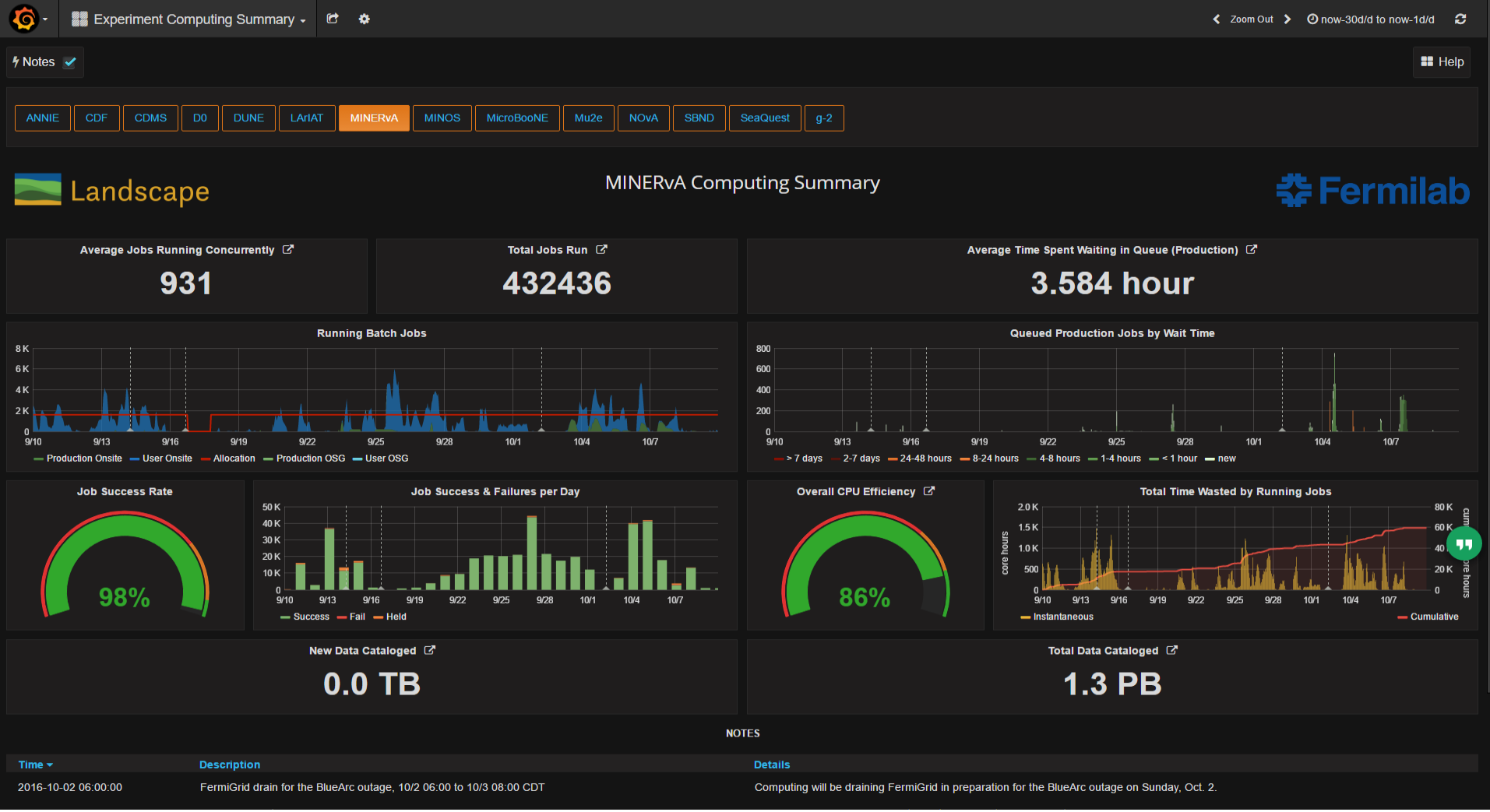
- During the previous beam run, we had 2 problematic chains 0-2-1 & 0-4-0. They are giving occasional errors. We have been replacing FEBs to determine which FEBs are causing the problem. We haven't found the problem FEBs.
  - We need to remove the roof to replace more FEBs.
- 3 FEBs with PED problems need to be replaced.
- We will start filling the He target in the next week or 2. The process will start when some parts and the He arrives.
  - The He filling can take place while we are taking data.
  - The 1st filling during the LE run took place during data taking.
- All the above tasks require removing the roof.
- We have determined that FEBs with calibration issues do not need to be replaced.
- At this point, we do not need to replace any PMTs.

MINOS

- MINOS DAQ is running well.
- We have bought up MINOS after 2 power outages.
- We have replaced 3 MINDERs boards & 1 fan pack.
- LI is running and the test runs will give us the current status & if we need to fix anything.
- 3 computers came back from Soudan, The 2 MINOS timing computers have been replaced. Only 1 timing computer is used by the DAQ. The other computer is mounted in a rack and is a spare.
- We will be receiving spares parts from Soudan.

MINOS

- The MINOS tasks needed do be completed before beam starts:
  - We need to clean the hv cards in the 2 Lecroy HV crates.
  - Front filters on all the racks have been replaced. We need to replace the filters on the rear of the racks.
  - We have to 2 MASTER cards which have errors when we run the “NearCalibrate run”.
    - We have to run the “NearCalibrate run” after a MINDER is replace to determine the QIE calibration constants.
    - These MASTER cards run without errors in normal data taking, which is confusing.
- We plan on doing these tasks this week.
- Thanks to Steve Hahn, Donatella Torretta, & Bill Badgett,



- Over the last month.
- Average concurrent jobs lower than quota.
  - User analysis was low during this period.
  - Production going to ramp up with new release cut recently.
- Success rate is very good. Efficiency is very good.