

The MINERvA Operations Report

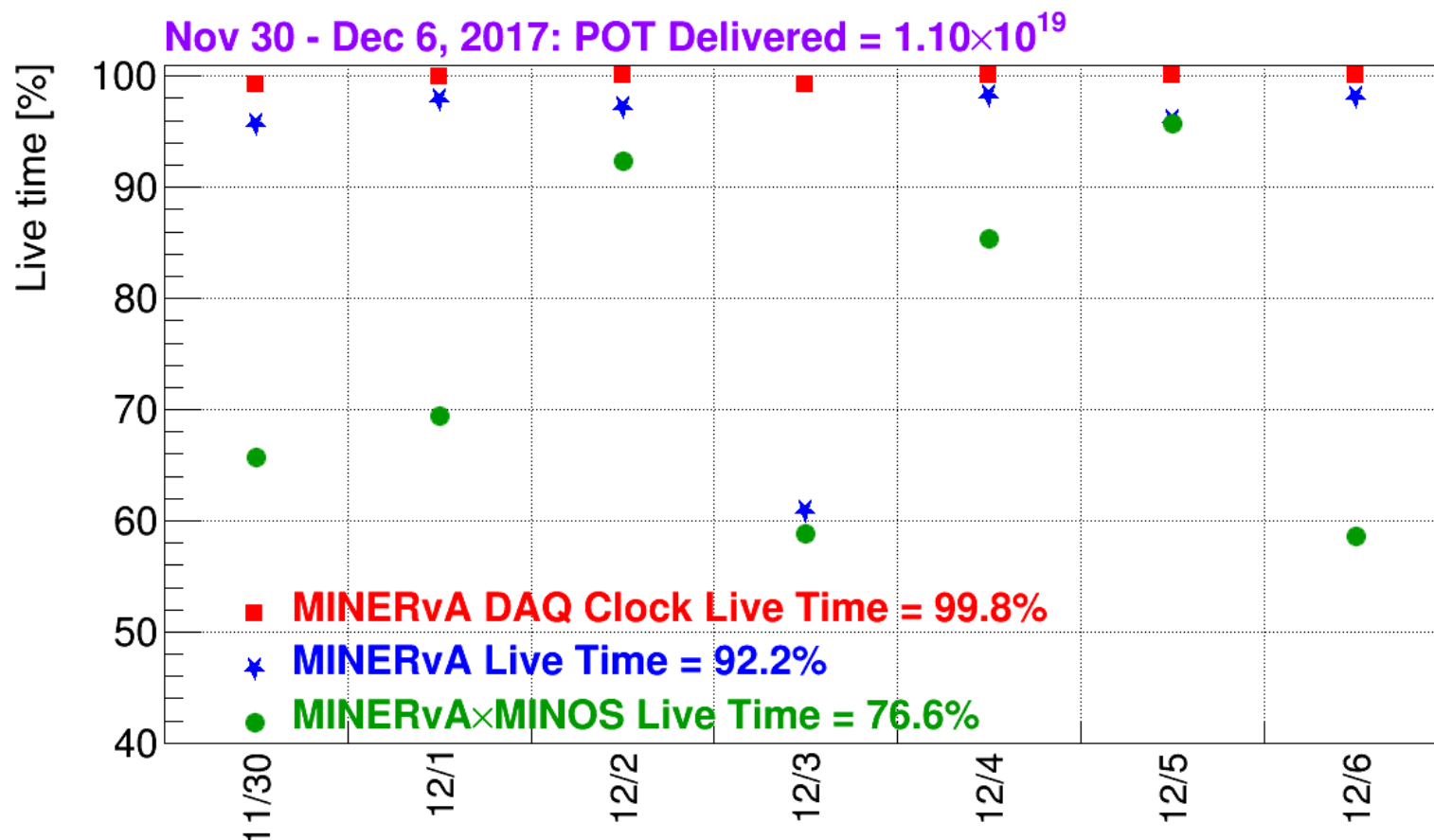
All Experimenters Meeting

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Dec 11, 2017



ν Data



- Nov 30, Dec 3, Dec 5, 83.7% MINERvA live
 - Files not processed by keepup, MINERvA DAQ up all the time



MINOS DAQ Problem



- Nov 30 – Dec 6, 83.1% MINOS live
- Since the evening of Nov 29, the MINOS DAQ has been stopping
 - It has done it 30 ~ 40 times.
 - It took a week to fix, & evening of Dec 6 this was fixed. Much of this time we were just trying to keep MINOS running.
- We did a wide variety of things to get it working. At the end, there was much discussion of the cause. I will give my view on the cause.
 - On Nov 30 the VME crate reset, which goes through ACNET, did not work for Crate 5. This was due to a bad connection in the output of the reset line on the ACNET CAMAC card. Hence, the reset line to the reset card in Crate 5 was floating.
 - This caused problems with the MASTER boards in the VME Crate. In addition, its may have hurt the VME crate in other ways to cause DAQ crashes.



MINOS DAQ Problem



- With help of AD, the reset connections were fixed at the CAMAC card. Then, the VME crate reset worked for all 8 crates.
- It's possible the Motorola crate controller for Crate 5 had a problem. This controller was replaced & that improved things.
- We thank Donatella Torretta, Steve Hahn, & Bill Baggett of ND for help on trying to solve this problem & Greg Vogel of AD.
- In the celebration that ensued, we neglected to go through ALL the MINOS online monitoring plots. Spill gate was not there, and so we were not taking neutrino data for 2 hours on Dec 6 and all morning of Dec 7 (next reporting period) due to the Spill gate problem.
 - A Lemo cable was not plugged into a connection on the front of the ACNET crate. We don't know how it got unplugged. All the work took place at the back of the ACNET crate. When the cable was plugged in, the Spill gate was fine.

Average Jobs Running Concurrently

1640

Total Jobs Run

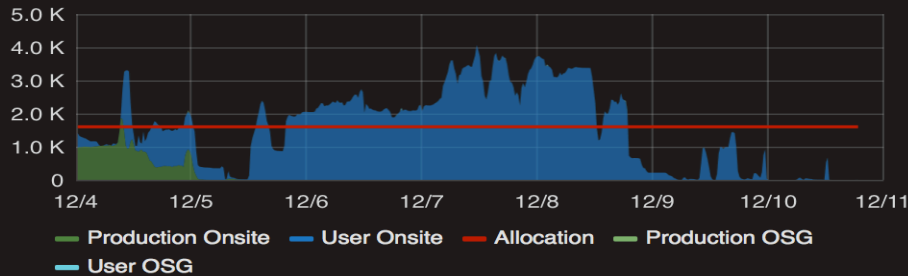
162248

Dec 4 -10

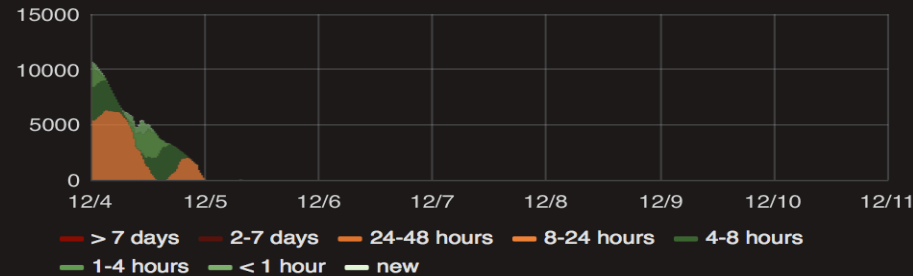
Average Time Spent Waiting in Queue (Production)

10.47 hour

Running Batch Jobs



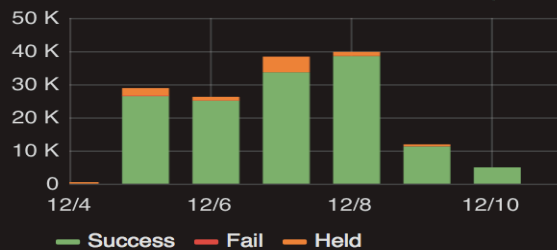
Queued Production Jobs by Wait Time



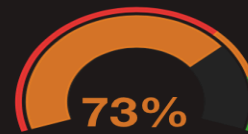
Job Success Rate



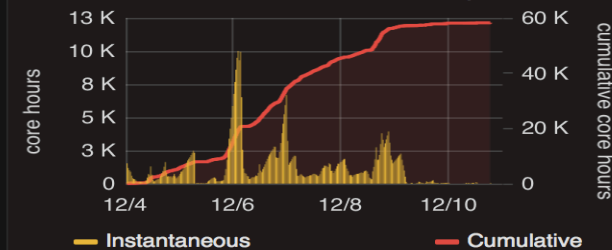
Job Success & Failures per Day



Overall CPU Efficiency



Total Time Wasted by Running Jobs



New Data Cataloged

0.7 TB

Total Data Cataloged

1.7 PB

- Average concurrent jobs are around the average quota (~1500)
- Job success rate was good (93%) and the overall CPU efficiency was slightly low (73%) :
 - A user's analysis has large fraction of the jobs held, causing the low CPU efficiency. The user is investigating the source of issue