

The MINERvA Operations Report

All Experimenters Meeting

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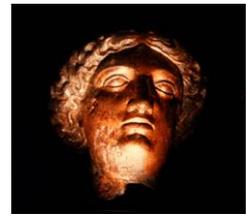
MINERvA Shifts



- Running weekday day shifts
 - All FEBs & PMTs operating
 - We are continually running PED and LI (light injection) runs
 - The data is now being used to set the PEDs, determine the PMT gain, & set the PMT HV.
 - We have trained 3 new expert shifters
 - They take phone calls from the shifters
 - They get the DAQ running if it stops.
- The monitoring computers on the 12th floor are ready for shifts
 - Start with same online monitoring as with LE run.
- We will be running shifts during target scans & the target in and horns on beam pulses.



DAQ Problems



- The system was operating well after the CROC-E replacement
 - The replacement was done on Jun 12-13
 - CROC-E replacement automates the readout by putting the CROCs in charge of the readout of the FEBs
- After that we had a small number TXRX errors
 - Clock not stable over the FEB loop
 - CROC channel → FEB → ... → FEB → CROC channel
 - 2 ways of fixing a channel with this problem
 - Replace the CROC-E
 - Change the length of the CAT.5 readout cable for channels with this problem



DAQ Problems



- On July 19 we were unable to talk to the 2 VME crates
 - The other computer in rack which we previously used for data taking was able to talk to the VME crates. This indicated the PCI card failed.
 - The DAQ again failed & we switched back to the original computer and the DAQ worked again
 - Turned out, the DAQ works with either computer → the problem is with one of the 2 VME crates, not PCI card
 - Then we replaced one crate controllers
 - We are still having problems
 - We have now getting a large number of TXRX errors
 - We are investigating these problems
 - Have been getting help from the 14th floor on this problem



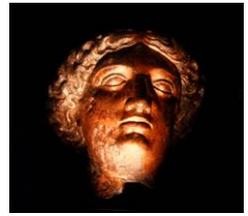
DAQ Problems



- In addition the PPD/Online Support Group has agreed to help
- Last week we got corrupted data from a specific CROC-E channel
 - This error had never happened until last week.
 - Probably due firmware error in the CROC-E
 - We are working on trying to understand this problem
 - Put code in DAQ software to try to catch this problem.
 - Then we run the DAQ a lot, PED & LI runs, to see if the problem appears.



New DAQ computers



- The ORC documentation for the rack which contains 2 new DAQ computers is ready to be submitted to Eric McHugh
 - The rack is ready
- With the problems we are having with the DAQ hardware, it is not clear when we will switch to taking data with these computers.
- At some point we also plan on putting 2 new DAQ computers in the other rack, the VETO rack



Muon Monitor 4



- We are waiting for the gas system from U of Texas, Austin to finish the installation of the Muon Monitor 4
- MM 4 SWIC scanner is the 1st scanner with Ethernet readout. We are working on understanding the signals from MM 4