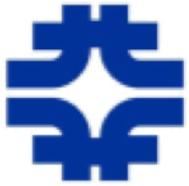


MINER ν A Operations Report

All Experimenters' Meeting

Steve Hahn, FNAL
May 6, 2013



MINERvA



-
- Running shifts weekdays for about 1½ hours
 - All boards operating
 - Run PEDs and light Injection to determine if there has been any change in the detector.
 - There appears to be no change in the detector or PMTs
 - Tests over weekend for crate controller problems
 - Scheduling 24-hour shifts for when beam starts; start longer day shifts (5 hour day shifts?) soon



Repairing light leaks from water target installation



- During original installation of water target Nov. 17, 2011 32 light fibers were masked off due to light leak problems. Eventually reduced to 20 channels with special optical cables
- Installed Tedlar and black Herculite around top of water target to light-tight the area of the cable connections to the plane. This fixed 17 fibers/channels of light leaks leaving 3 masked channels.



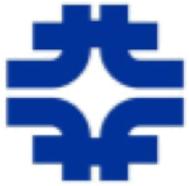
Fiber bundles entering "baggy" before final light-tight pieces added



Intermittent DAQ problems



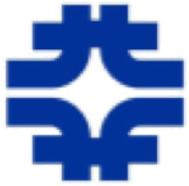
- Still having intermittent problems with the DAQ running. Intermittent nature make debugging difficult.
 - The DAQ stops running after ~ 4 hours (with large spread)
 - Software reset fixes the problem.
 - We can still run shifts with this problem
 - The error is from a CROC module (Chain ReadOut Controller)
 - Error is actually from 1 of the 4 channels in the CROC which reads out a FEB chain; usually this is an FEB problem
 - But several CROC modules have caused this problem so it may be a broader issue



Debugging DAQ problems



- Debugging CROC readout errors
 - VME crate voltages are correct
 - Checking crate controller for crate controller errors while stressing crate controller
 - Do so at D0 test stand and on detector. D0 test stand almost ready to go.
 - Did crate controller stress test on detector over last weekend. No indication of a problem with crate controllers.
 - Investigation continues
- DAQ software is ready and hardware is tested and ready. Also, new DAQ computers for detector are on order. Guess a week more for final debugging.



CROC-E Upgrade



- CROC-E is hardware and DAQ upgrade for CROCs to read out at full MI Cycle rate of 0.75 Hz
- New CROC-E boards have been assembled and tested for QC by EE group on 14th floor
- New DAQ program for CROC-E read out is being tested with help from the Fermilab online group. The testing is continuing; some work on CROC-E firmware may also be necessary. These CROC-Es and additional CROC-Es will be used for full chain (10 FEBs per chain; 40 FEBs and 4 CROC-Es in all) tests in D0 test stand where more space is available; this is being assembled by Geoff Savage. Computers and some hardware are already in place and configured.
- Final detector configuration is 15 CROC-Es in two VME crates and 10 spares.