



# MINOS+ Status Report



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All Experimenters' Meetings

February 24, 2014



# Near Detector DAQ



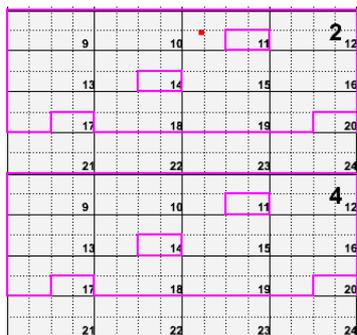
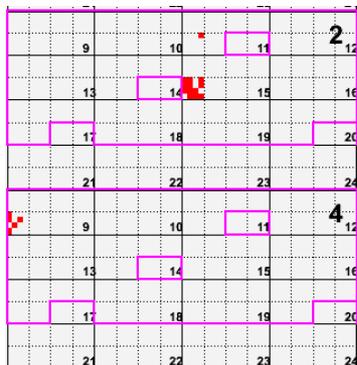
- Lots of maintenance works have been done during beam down time
- Control room computers kernel update
  - Completed by SWS (Farhan)
  - All is working fine
- MINOS+ DAQ upgrade
  - minos-online upgraded to version 2.6.1
  - Add disabling of VME slave images to the function `vmeBusAddressConfigure()`
  - New `startup.readout` configuration file flag for starting FER tasks
  - Updated version of the `MinosReset` jar file from Jim Patrick



# Near Detector Electronics



rogue cal check channels



- Minder boards change
  - Wrong Datatype 2-14-5, 5-20-5
  - CAPID errors 4-20-3 (whole minder), 7-14-4-3 (single channel)
  - Fixed with the new boards
- Master boards change
  - Rogue pedestal and CAPID errors in 2-15-2
  - Rogue pedestal in 4-9-2
  - Fixed with the new boards
- New problem
  - Miscount Errors on 4-9-2
  - Need to be addressed during next opportunity
- Hot border for channel 0-17-7
  - Had swapped the corresponding Minder several times in the past
  - Swapped the Master board, calibrated, but the problem remains
  - We'll try swapping the cable at the next opportunity, from the Alner box into this minder, with one that works fine
  - If the problem moves to the other minder, we'll know the problem is not the Minder, but either the cable or the Alner box
- Spares inventory
  - Two good Minders, two good Masters
  - Bad boards will be repaired at ANL (Gary Drake)



# Far Detector DAQ



## Motorola MVME 5500



- PVIC-less FD DAQ progress
  - Bill Badgett resumed the work on refurbishing the FD DAQ to set it up as the one at ND, which is ethernet based
  - He has found the reason of the destructive interference seen while reading out VARCS with both Motorola MVME 5500 and RIO3 plugged in the same crate, meaning that the middle VARC was being dropped from the readout
  - The problem was due to having one VME Slave image NOT being disabled in the MVME 5500
  - When the image is disabled, ALL the VARCs in the crate are readout correctly

## FD DAQ Sunday crashes

- FD DAQ went into error state 03:16 AM Sunday morning
- A mis-configured board was unfortunately as a replacement in crate 6
- The new board inserted already had a differential PVIC card mounted and this caused destructive interference with the other cards in Branch2
- DAQ experts are still working to bring the DAQ to live



# Far Detector



- UPS rebuilt and replacement
  - Known design flaw in Powerware 9120 UPS
  - Repair by capacitors replacement
  - Replaced the UPS on rack 8
  - Ongoing efforts, 5 have already been done, more to fix.
- South radon meter re-calibration
  - Based on a comparison to two other dedicated radon meters (Sun Nuclear unit and an RSens RStone unit)
- Network outage
  - Fermilab network connection to Soudan failed Tuesday
  - Monitoring by computing division detected at “alert condition” at 9:41 PM.
  - Service appears to have been restored about 11:35 PM



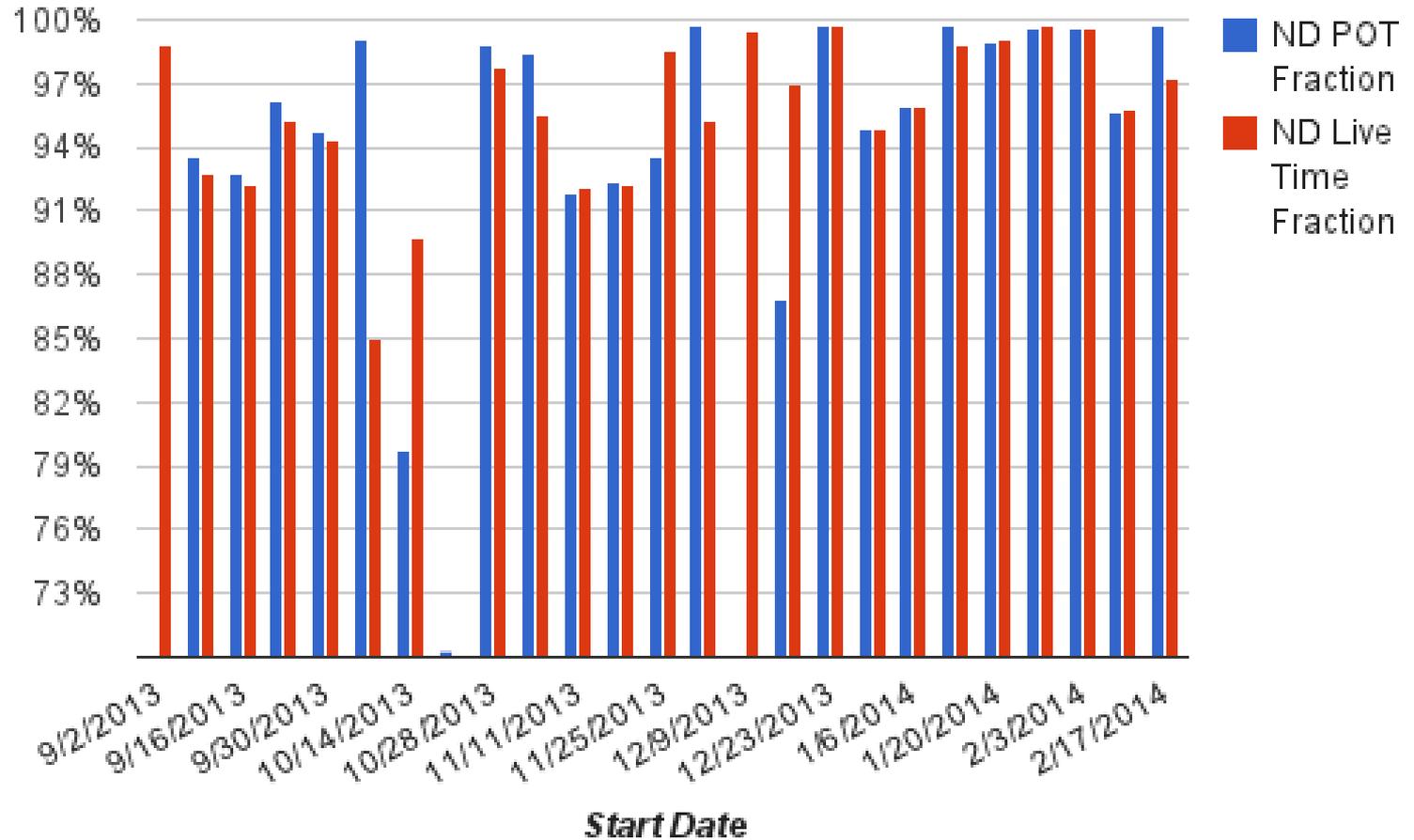
# MINOS+ Status



Start Date/Time	End Date/Time	Near Detector		Far Detector	
		POT Fraction	Live Time Fraction	POT Fraction	Live Time Fraction
12/30/13 00:00:00	01/06/14 00:00:00	94.9%	94.9%	98.5%	98.5%
01/06/14 00:00:00	01/13/14 00:00:00	95.9%	95.9%	98.7%	98.8%
01/13/14 00:00:00	01/20/14 00:00:00	99.7%	98.8%	99.8%	99.3%
01/20/14 00:00:00	01/27/14 00:00:00	99.0%	99.1%	95.2%	94.8%
1/27/14 12:00 AM	2/3/14 12:00 AM	99.7%	99.7%	95.8%	96.6%
2/3/14 12:00 AM	2/10/14 12:00 AM	99.5%	99.6%	94.9%	95.2%
2/10/14 12:00 AM	2/17/14 12:00 AM	95.7%	95.7%	99.9%	99.0%
2/17/14 12:00 AM	2/24/14 12:00 AM	99.7%	97.2%	78.0%	87.0%



## ND POT fraction and Live Time Fraction





## FD POT Fraction and Live Time Fraction

