



2x2 DAQ/Computing Working Group for ArgonCube 2x2 Demonstrator

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13 June 2024

2x2 DAQ/Computing Working Group



News – 13 June 2024

- Many people away next week for Neutrino 2024
- Next Wednesday 19 June is a lab holiday
- Cryostat is full with LAr
- No elevator access – elevator locked out since Fri 07 June
 - Repair date unknown
 - Access via fireman's elevator also suspended for maintenance
 - Might use personnel basket later today?
- Commissioning is in progress
 - Events seen in light and charge readout
 - HV ramped up and down 11 June 2024
 - Data analysis in progress
 - Minerva DAQ expert training
 - Shifting – local and remote
- 2x2 Operations Meeting next Tuesday 18 June @ 11

Online Projects

- Run control and Data management - Matt Kramer, Geoff
 - Data management (xrootd)
 - xrootd running on acd-daq02
 - Working through changes with Doug Benjamin and Steve Timm
 - https://cdcvs.fnal.gov/redmine/projects/argoncube-2x2-demonstrator/wiki/Ac2x2-xrootd_
- Runs Database - Sindhu Kumaran
- Slow Controls - Renzo Vizarreta and Company
 - Monitor module 2 UPS – Luis Mora-Lepin
 - View UPS status from cryo computer – only computer on UPS
 - Database for cryo controls - Geoff
 - Working on updating permissions to use reader and writer accounts instead of admin account
- Shifting and Operations - Faiza Akbar, Nimmy Sarah Alex, Anne Norrick, Shifters
 - Looking for a time to reboot control room computers
 - Attempt to prevent a crash seen on acd-cr-01
- Computing and networking – Geoff, Faiza, Nimmy, Bruno
 - 2 new cameras ordered – late July delivery date

Online Commissioning

- Dedicated Time
 - Run control
- In parallel with detector commissioning
 - Data management (xrootd)
 - Runs Database
 - Slow controls
 - Shifting and Operations
 - Remote shifting
 - Computing and networking – working smoothly

Computing and Networking

- Remote shifting – Luis, Carlos
 - Carlos P. testing at W&M using Nova setup
 - 3 computers with 4 monitors each
 - First pass from Luis Z.
 - https://cdcvs.fnal.gov/redmine/projects/argoncube-2x2-demonstrator/wiki/Remote_Shifts
 - Need a small working group to identify a layout
- Networking on acd-mnv01 and acd-mnv02 sorted
 - Public network connections now on 10G interfaces
 - Private network connections configured by sys admins
 - Need to enable system monitoring
- All acd servers have Intelligent Platform Management Interfaces (IPMI)
 - Instructions for remote power cycles in dune docdb
 - <https://docs.dunescience.org/cgi-bin/sso/ShowDocument?docid=31028>
 - Wiki updated to include this link
- DAQ server disk space discussion needed?

2x2 Communication

- 2x2 wiki
 - <https://cdcvs.fnal.gov/redmine/projects/argoncube-2x2-demonstrator/wiki>
- 2x2 logbook
 - <https://dbweb0.fnal.gov:8443/ECL/argoncube>
- 2x2 Slack channels – Slack is not a logbook
 - 2x2_operations
 - 2x2_run_control
 - minerva-for-2x2
- Email lists
 - dune-nd-lar-cnsrt-daqcomp
 - dune-2x2-ops

Why this meeting?

- Started before 2x2 Operations meetings (Tuesdays at 11) and daily toolbox meetings (3:30) to address technical topics
 - Triggering (A9 signals) – open readout gates
 - Resistive wall monitor – identifies when protons pass RWM device
 - Computing and networking
- Discuss current topics (see agenda)
 - Run controls
 - Data management
 - Runs DB
 - Slow controls using Grafana and python scripts
 - Shifting and Operations
 - Computing and networking
- Look to the future
 - dunedaq - postponed
 - dune timing - postponed
 - slow controls for experiment devices
 - EPICS – used for SBN (SBND, Icarus, uBoone)
 - Ignition – used by Cryo controls