

Hall D Slow Controls

Date: March 21, 2019

Time: 10:00AM – 10:30AM

Attendees: Peter Bonneau, Pablo Campero, Hovanes Egiyan, Brian Eng, Tyler Lemon, Scot Spiegel, Tim Whitlatch

1. Solenoid

- 1.1. Powered off; not needed for current experiment.
- 1.2. Plan to start warm up of magnet to 80 K within next few days.
 - 1.2.1. Since Solenoid is off, Cryo requested warm up of magnet before end of run so maintenance on Hall D cryo refrigerator can be started before end of run.
- 1.3. Tim will give Hovanes list of alarms to disable for warm up.
- 1.4. Over summer, DSG will install and troubleshoot new PXI controller.
 - 1.4.1. Newest controller stopped communicating during operation prompting it to be replaced with previous controller.
 - 1.4.2. During downtime, new controller will be reinstalled to troubleshoot its issues.
- 1.5. PR for a spare PXI ADC module will be submitted (only one spare currently on hand).
 - 1.5.1. Cost estimate ~ \$2,300.
 - 1.5.2. Lead time: ~ 1 month.

2. COMCAL

- 2.1. COMCAL running smoothly.
- 2.2. Parts on hand to upgrade its stages.
 - 2.2.1. Whether stages will be upgraded has yet to be determined.
 - 2.2.2. There were concerns that current stages would not hold alignment, but alignment within 300 μm has been held throughout run.
- 2.3. PR for new chiller will be submitted as currently, spare for BCAL is being used by COMCAL.

3. PS/ST MPOD

- 3.1. Have had issues with MPOD not communicating over network.
- 3.2. Reboot resolved issues, but reboot had to be performed locally.
- 3.3. There is a known bad channel in crate; plan to replace board over summer.
 - 3.3.1. Channel fails self-test on crate boot, requiring local communication access to re-enable channel.

4. Remote resets

- 4.1. Network cable for PDU for PS/ST MPOD needs to be moved to a different network switch and port.
 - 4.1.1. Move should resolve its remote reset issues.
- 4.2. Over summer, Hall D will add network cables and ability to remotely reset three VME crates used by accelerator to control Hall D's beamline.
 - 4.2.1. During run, accelerator asked Hall D to reset VMEs.
 - 4.2.2. Access to hall had to be made to reset crates.
- 4.3. CAEN HV crates
 - 4.3.1. CAEN HV crates currently do not have easy remote reset ability.
 - 4.3.2. Hovanes will coordinate with Nick Sandoval to develop PLC routine for remote reset of CAEN HV crates.

5. DIRC

- 5.1. “South” detector running smoothly.
- 5.2. Level switch for south optical box water will be installed over summer.
- 5.3. FPGA temperature readout will be added to DAQ over summer.
- 5.4. Debugging and development of DAQ crashes in progress.
 - 5.4.1. Due to high trigger rate (>50 kHz), readout of FPGA voltages and temperatures were overloading readout and causing DAQ to periodically crash.
 - 5.4.2. Ben Raydo and Sergey Boyarinov are determining best FPGA voltage/temperature readout strategy to prevent DAQ overload.
- 5.5. “North” detector will be installed over summer.
 - 5.5.1. All components on hand with exception of optical window.
 - 5.5.2. Optical window estimated to arrive at JLab in June 2019.

6. Hall D estimated to close for Fall 2019 experimental run in mid-October 2019.