

DSG Meeting Minutes – Wednesday, May 14, 2014

Antonioli, Mary Ann:

- Completed Hall B SVT HV Mpod-to-distribution box cables 2 and 3.
 - Began cable 4.
- Completed data analysis of Hall B SVT modules through P13.
- Began spreadsheet of Hall D target controls.

Bonneau, Peter:

- Met with Mike Cole from Electrical Equipment Company regarding Rockwell PLC hardware and software to be used in Halls B and D
 - Discussions included building a floating license-based PLC development system using a USB dongle. This flexible system will not require a sub-net dependent license server to allow for off-network PLC programming development and troubleshooting.
- Debugged and coordinated programming with Dave and Werth on Hall D target PLC controls.
 - Actives included participation in troubleshooting of the media connection and communication parameters of the 490NBX Ethernet Gateway module, which communicates between the PLC controller and the Lakeshore 336 Cryogenic Temperature Controller.
- Added automated voltage scan capabilities to the VME V450 ADC test program for Hall B SVT slow controls.
 - This subroutine uses an external programmable voltage source to provide a range of precision input voltages to ADC. The test PC uses a GPIB interface to communicate with the Keithley voltage source. A Dawn mini VME crate along with a Weiner controller is also used in this test station.
- Compiling and writing requirements for the HallB SVT EPICS based slow controls system.
 - Compiling a complete hardware list with module specifications.
- Coordinated with Saptarshi preparation and materials needed for mounting of R1 Hall B SVT preproduction modules.
- Discussed slow controls equipment, including electrical requirement, for the Hall B SVT chiller system and instrumentation for measuring the SVT coolant flow and leak detection.
- Requested Hall B SVT HFCB serial #s 7 and 13 to be returned from FNAL for further testing and study.
 - HFCB #7 had a 1.3 M ohm short between the U4 Coretalking differential LVDS signals. HFCB #13 had four high impedance shorts which passed MicroCraft's electrical testing. These HFCB's will be held back from module production and be only used for testing purposes.

Butler, Dave:

- Participated in the Hall D Target readiness review.
- Completed the Hall D BCAL N2 monitoring system.
 - Work included installing flow meters, programming flow meters, installing PLC analog modules, running cables, configuring PLC software and updating GUI. There is a duplicate system for Upstream and Downstream.
- Completed the Hall D Pair Spectrometer slow controls.
 - Includes reading 4 thermocouples for each Arm (A and B), installing the Point I/O system, running cables, hooking up to the network switch, configuring FCAL PLC, and creating a GUI.
- Attended Hall D GlueX collaboration talks which were relevant to FDC and slow controls work.
- Continued working on communication software for Hall D Magnet Power Supply.
 - Began debugging quench detector software for digital potentiometer

Eng, Brian:

Hall B SVT

- Wiped and reinstalled OS X, plus update and install software, on laptop for Tina.
- Updated Hall B MPOD controller firmware on crates in EEL/121B and EEL/231 (now all crates at JLAB have identical version).
- Updated Hall B VME driver for Linux 3.10 kernel on Concurrent SBC.

- Compiled full list of signals from Hall B MPOD (crate, LV, and HV card) that can be accessed over the network.
 - Still need to reduce the list to only ones that we need to monitor/control in EPICS.
- Working with mechanical group on Hall B Region 1 cold plate mockup with mechanical and pre-production (PP) modules.
 - Found out that we can't use PP modules next to one another as pitch adapter (PA) width is larger than on production modules (could only get 2 modules next to one another, the 3rd module has interference with PA).
- Installing data connector screws on next batch of populated Hall B HFCBs.
- Still dealing with getting power for Hall B SVT chiller (plug is NEMA 6-20 current outlet is L21-30), called Lauda and they deferred to electricians on using a 30 A service when normally the device expects 20 A service. Trying to see if we can get plant services to make something so that we don't have to cut off the plug and void the warranty.

Jacobs, George:

Hall B

- Continued to coordinate installation of the new Hall B DC gas lines running from 96B to Hall B.
 - Cryo techs - Dano Oprisko, Joshua Ingoldsby, Dontre Tucker Welding QA - Jenord Alston Fire Prot Eng - Tim Minga
- Completed Hall B DC: R1S5 and R1S6 DCHV and DCRB testing.
 - Moved sectors into the clean room for storage.
- QA on Hall B DC: R1S1 and R1S2 - gas lines, HV testing, DCRB tests.
- Disassembled the old Hall B DC gas valve panel.
- Began assembly of the Hall B LTCC valve panel, 90%.
 - Waiting for uni-strut and associated parts to finish.
- RMA of 2 Hall B solenoids purchased from Grainger.
- Began looking for replacement solenoid valves for Hall B DC gas valve panel.
 - Requires five 1" NC, three 1" NO, two 5/16" NC, and two 5/16" NO for the safety system. System requirements are that the valves must operate at 0 psid. NC - Normally Closed or closed when de-energized, NO - Normally Open or open when de-energized
- Hall B Solenoid Conductor meeting.
 - Upcoming soldering runs at AES. John Hogan – SOTR, Krister, FX, Morgan, and me.

Leffel, Mindy:

Hall B

- Reworked nine PMTs for Hall B CTOF
- Discussed with a representative at TE Connectivity the correct extraction tools to use with the pins and sockets for the slow controls disconnect.
- Finished terminating the plug and receptacle of the first SC disconnect.
 - Crimped all pins on the plug of the second disconnect.
- Observed Saptarshi and Brandon removing a module from the support ring.

Mann, Tina:

- Complete as of 5/09/2014 five Kapton cables for Hall D Goniometer.
 - These were the last of the cables to be completed on Scot Spiegel's list for Hall D
 - These cables will be used under vacuum, hence Multi-Pin Instrumentation: 32-pin socket connectors are used.
- Corrected cable fabrication issues for Hall D.
 - 1x30" cable. Had issues installing the connector after sockets were crimped, noticed that 5 of the pin sockets were flared at the end of the crimp. Replaced the sockets using 24 gauge crimp socket. The two connectors slid on with no difficulties and the snap ring was attached.
- Fabricated cables for Hall D.
 - 1x24" NO ISSUES, used 19 pin socket connector
 - 1X30" NO ISSUES and 2X16" NO ISSUES

- Mindy assisted with soldering an RTD for Hall D.
- Trained on Hall B Drift Chambers by Morgan.
 - Read procedures and safety.
- Worked on Hall B Drift Chambers.
 - power-verified voltage on board from guard, field, and sense wires to the quad connector
 - repaired quad connectors (replaced pins that were damaged or not connected)
- Working on 25-D-Sub for VME to patch panel.

McMullen, Marc:

Hall B SVT

- Performed post-manufacturing QA on the last HFCB V2.1.
 - Visual inspection complete, resistance measurements taken with Keithley 2002 meter.
 - Current measurements taken in probe station dark box with Keithley 237 source meter.
- Trip to the HFCB/Bus Cable manufacturer, COMPUNETICS, and HFCB populator, COMPUNETIX.
 - Met with the manufacturer and discussed the status of the Bus Cable Panels and HFCB V2.2.
 - Bus Cable Panel has been plated and is in PPG resist photo imaging.
- Started design of SVT module assembly dark box using AutoCad.
 - Measured optical table and transport cart models to get a minimum size for the dark box.

Sitnikov, Anatoly

Hall D Pair Sepctrometer

- Moved Arm A from Electronic Group to room 126 for second measure pulses.
 - Result: 5 channels are repaired (good), but 1 channel does not work.
- Assembling 3 boards (panels): soldering 432 Lemo PCB connectors and 432 Flat Chip resistors.
 - 1 board is ready(144 connectors and 144 resistors were soldered).
 - Cleaning, checking of first board.
 - Began assembly of second board.

Teachey, Werth:

Hall D Target Control

- Reconfigured the IP and port settings for the 490NBX ASCII to Ethernet Gateway to communicate with the Compact Logix PLC controller.
- Configured the IP settings for the Lakeshore 336 Temperature Controller to communicate with the 490NBX ASCII to Ethernet Gateway.
- Successfully wrote code for the Compact Logix PLC controller, in structured text, to test communication between the 490NBX ASCII to Ethernet Gateway and Lakeshore 336 Temperature Controller.
- Writing code for the Compact Logix PLC controller, in structured text, to read back the four temperature RTDs that are connected to the Lakeshore 336 Temperature Controller.