



Detector Support Group

Weekly Report, 2015-10-14

Antonioli, Mary Ann

Hall B

DC

- Reviewing the 2004 LabVIEW code for testing CAEN HV cards.
 - ★ Identified problems and updated the Voltage Monitoring Resolution and Accuracy test and the Voltage Setting and Accuracy test.
- Documented test data of 31 signal cable bundles.
 - ★ R2S5 and R2S6 completed this week.
 - ★ Sixteen connectors were replaced in these bundles.
- Cleaning, testing, repairing, and labelling of regions one and two completed.
 - ★ Fifty eight connectors were replaced for these regions.

DSG

- Fabricating test station to be built for National Instruments modules.

Arslan, Sahin

Hall B

SVT/Micromegas

- Located in ESB, HV cables with SHV connectors for Micromegas.
 - ★ Chose with Brian 32 cables; tested and brought them over to the EEL room 125.

DC

- Labeled 28 bundles of signal cables.
- Located five HV mainframes and 42 modules (Positive voltage modules: twenty 40 [μ A], and six 20 [μ A]; negative voltage modules: sixteen 40 [μ A]).
- Located 14 LV supplies.
 - ★ To fully instrument the chambers need four more low voltage supplies; also need two supplies as spares

DSG

- Submitted work request to Facilities Management for removal of cubicle in EEL Bldg.
 - ★ Informed Walt Aker and Bert Manzlak about this matter.
- Submitted “excess form” for UPS battery that doesn't work in the DSG control room.
- Reconfigured test set up in DSG control room
- Rearranged small clean room.
- Moved new computer to computer center's help desk for configuration.
- Attended Worker Safety Committee Meeting

Bonneau, Peter

Hall B

HDICE

- Debugged the rotation of target polarization program's feature “automatic mode” using modified code that uses a single power supply.



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- Discovered error in the rotation of target polarization program's feature "manual mode", while fast ramping.
 - ★ Error displays "system warning" rather than the expected "sweeping-limit".
- Started setup of the Fluke Transconductance Amplifier, which will be used in the calibration test of the Current Transducer-Box's head assembly.
- Wrote sub-VI's for the Oxford power supply and Current Transducer-Box's test program.
 - ★ Sub-VI's will be used for controlling the power supply and the read-back of the Current Transducer-Box.
 - ★ Program will compare power supply's output current to the current measured by the Current Transducer-Box.

SVT

- Setup new remote "system monitoring" station.
- Monitored interlock system on a daily basis.

DSG

- Configured software directory and created new project files for the NI (cRIO) Test Station.
 - ★ Test station will be used for upgrade of the SVT Hardware Interlock System.
- Reviewed hardware requirements for the CAEN HV Test Stand.
- Developed cost estimate for Allen- Bradley PLC Test Station.
- Configured computer for new DSG technician.

Hall D

- Developing Mya configuration files to aid in monitoring the health of detectors.
 - ★ A "permission denied" error was preventing the adding of configuration files to FDC Mya configuration directory. Emailed Hovanes and he opened permissions for hdops user, which fixed the problem.
- Examined status of slow control systems on a daily basis.

Butler, Dave

Hall B

Gas System

- Submitted purchase request for a cRIO system to use for development of controls and data acquisition systems.
 - ★ System will be a spare for the gas system.
- Ordered a +/-15 [VDC] power supply for the HTCC temperature gas monitoring system in the TEDF.
 - ★ Worked with Nick Markov on a mounting solution for the humidity sensor.

Hall D

- Attended GlueX collaboration talks on Engineering, Accelerator, Electronics and Slow Controls.



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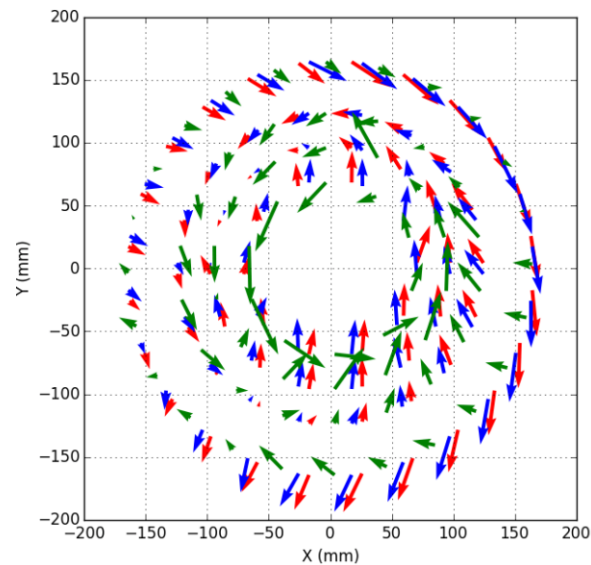
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Eng. Brian

Hall B

SVT

- Meeting to go over calibration progress, got some JLAB survey data back (module fiducials).
- Made database and some plots for data: <https://userweb.jlab.org/~beng/SVT/survey/>



Beam line view

Arrows indicate the direction and the magnitude (not to scale) of the position of the surveyed locations (tip of arrow) from the ideal locations (base of arrow). Longer arrow indicates larger displacements. Red and blue arrows indicate measurement results on the copper fiducials, upstream of the target location, while green arrows indicate measurement results at the downstream end, on the PEEK (Polyether ether ketone/thermo plastic).

Concentricity precision of the regions, due to distortion of the cylinders, is ~ 100 [μm]; centering precision on the origin is ~ 100 [μm]. Z – location precision is ~ 250 [μm].

HDICE

- Continued work on trying to convert notebooks to Mathematica 10, still debugging crash.
- Finally, received Type N connector (specifically for air-core cable) part number.
 - ★ However, no distributor has item in stock; trying to get pricing and lead time information.

Micromegas

- Worked with Sahin locating 32 HV coax cables with SHV connectors for end-of-year test run with SVT.
 - ★ Tested and moved cables to EEL.

Hall D

- Monitored solenoid repairs progress



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Jacobs, George

Hall B

Gas System

- Ordered Argon gas for TORUS welding via GSS.
- Ordered 4 cylinders of 10% CO₂ in Argon gas for DC testing in EEL room 125.
- Designed replacement stand for DCGAS solenoid valve panel and for local solenoid control box

Leffel, Mindy

Hall B

DC

- Replaced 9 signal cable connectors:
 - ★ One cable had broken contact, one cable had transposed wires, and seven cables had broken connectors.

DSG

- Reviewing OSHA forklift operation training material, in preparation for upcoming class.

McMullen, Marc

Hall B

Gas System

- Completed machining work and assembly of temporary HTCC gas monitor chassis.
- Continued working and testing of HTCC gas monitor VI.
 - ★ Added data logging of flow [lpm], humidity [ppm], and pressure [in WC].
- Modified humidity sensor cable and assembled 40 [ft] long pressure cable for use on the detector in the TEDF.

Sitnikov, Anatoly

Hall B

DC

- Tested 23 cable bundles.
- Cleaned 250 connectors.
- Labelled cables.