

We choose to do these things "not because they are easy, but because they are hard".

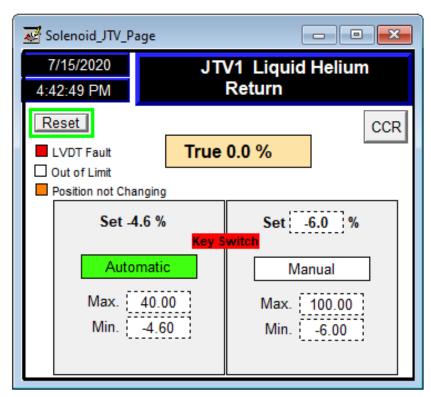
Weekly Report, 2020-07-15

Summary

Hall A – SoLID Magnet Controls

<u>Mary Ann Antonioli, Aaron Brown, Pablo Campero, Brian Eng, Tyler Lemon, Marc McMullen</u>

- Developing JT Valve Page HMI screens for JT valves 1 to 7
 - ★ Assigned required PLC tags and HMI tags for each indicator
 - **★** Configured Automatic and Manual control buttons
 - **★** Testing controls and monitoring features



SoLID Solenoid JTV Page HMI screen under development

Hall A – GEM Detector Gas Systems

Brian Eng, George Jacobs, Mindy Leffel, Tyler Lemon, Marc McMullen

- Reviewing documentation on tubing to INFN GEM panels
- Revised I²C multiplexer board
 - * Added DIN rail mounts to each end to allow easy installation onto the gas distribution panel

Hall B – Magnets

Pablo Campero, Brian Eng, Tyler Lemon

 Completed all pre-power-up interlock and instrumentation checkouts for Solenoid and Torus Magnet



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HDice

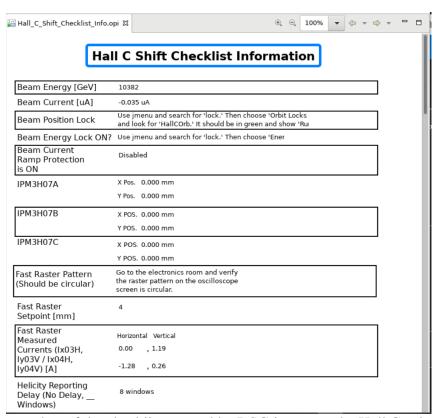
Peter Bonneau, Tyler Lemon, Marc McMullen

- Reviewed latest test results and comments on the fsNMR program
 - * New program revisions include removing scaling from phase, plotting averaged phase data in red, and live data in white
 - * Background data files will be investigated as the cause of spikes in test data (while using background subtraction)
- Continued debugging version of program with added cryogenic sensors
 - * Program collects sensor data during standby modes and after frequency scans of the target
 - **★** Started adding data logging of sensor data

Hall C - Controls & Monitoring

Peter Bonneau, Aaron Brown, Tyler Lemon

- Placed the Hall C Shift Worker's Checklist Information CSS-BOY screen on the Hall C subnet for review
 - ★ Revisions in progress



Screenshot of the checklist created by DSG in use on the Hall C subnet

Hall C - NPS

Peter Bonneau, Aaron Brown, George Jacobs, Mindy Leffel, Tyler Lemon

• Four hundred and forty (440) high voltage divider cables fabricated



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- **★** Terminated 50 high voltage divider cables
- * Cut 225 RG174 cables, 600 jumper wires, and 125 pieces of heat shrink
- Environmental monitoring
 - * Continued researching and developing documentation to aid in the selection of sensors and associated readout electronics
- CAEN testing
 - ★ Finished stability testing with GECO and started EPICS stability testing on CAEN crate and modules
 - * Analyzing HV stability test (with load) data from modules #128, #317, and #356
 - Analysis of 16/34 modules complete
 - ★ Developed new Python program to plot stability test data acquired by using EPICS
 - **★** Debugging issues with EPICS based stability test
 - CSS program keeps freezing at the end of the test and has to be restarted
 - Changed test structure to automatically stop and shut off all modules after 24 hours

Hall C- HMS/SHMS Magnets CSS Screen Development

Mary Ann Antonioli, Aaron Brown, Pablo Campero, Brian Eng, Tyler Lemon

• Continued developing HMS Quad JT Setup screen

Hall D

Brian Eng

• Created HDList for PXI ADC calibration

Hall D – WEDM

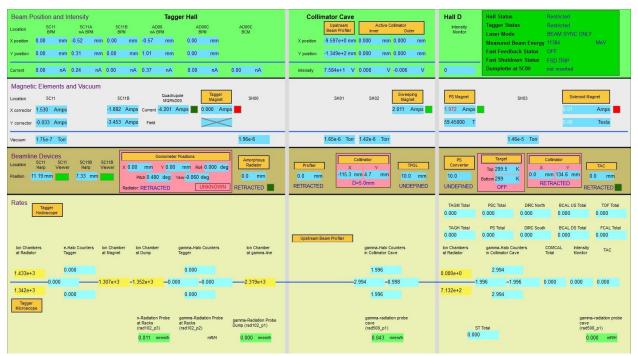
Tyler Lemon

- Developed GlueX Overview screen in WEDM
 - ★ Debugging still necessary for position status indicators under "Beamline Devices" section



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Screenshot of GlueX Overview WEDM screen

EIC

Brian Eng

• Researching cable lengths and possible routing for silicon end caps

DSG R&D - cRIO Test Stand

Mary Ann Antonioli

• Developed test procedure for cRIO test stand 2

DSG – Website Design

Mary Ann Antonioli, Peter Bonneau, Aaron Brown, Pablo Campero, Brian Eng,

Tyler Lemon, Marc McMullen

- Redesigning technical documentation section
 - ★ Developed new DSG R&D website sections for cRIO tests, PLC test station, RICH, and Test OPI Creator
- Continued refining Keywords lists on the Notes and Talks search pages