



Detector Support Group

We do things not because they are easy, but because they are hard.

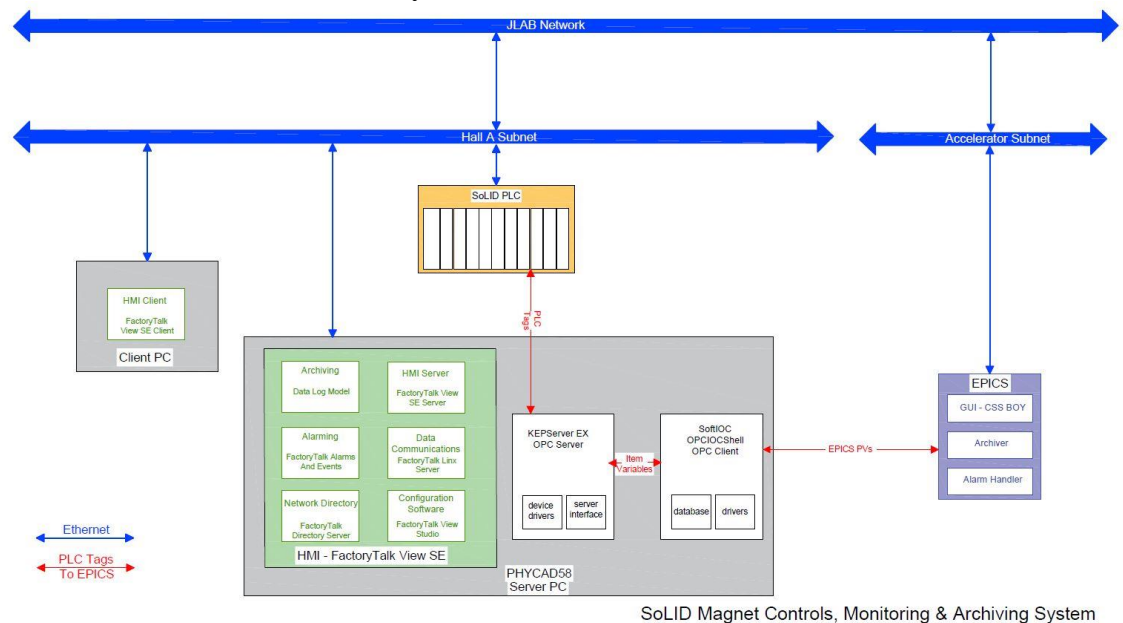
Weekly Report, 2020-06-17

Summary

Hall A – SoLID Magnet Controls

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

- Added alarm table button to “Radial and Axial Supports” screen
- Started “JT Valve Page” HMI screen
- Revised electrical drawing
 - ★ Changed Grayhill switch, from eight position selector to twelve position selector Drawing A00000-16-03-120
- Generated HMI System Overview diagram
 - ★ Diagram shows main components of the HMI system and interactions with the PLC controller and EPICS system



SoLID Magnet HMI System Overview Diagram

HDice - fsNMR Program

Peter Bonneau, Marc McMullen, Tyler Lemon

- Requested additional features for the program have been completed, installed, and tested on the computer in the HDice lab
 - ★ Investigating use of SigmaPlot program to process NMR/fsNMR data to calculate the polarization
 - Polarization calculation is labor intensive requiring manual input of each data file into the program
 - Automation of this process is desirable
- Optimizing LabVIEW block diagram layout
 - ★ By putting functions into subVIs and reorganizing block diagram to put subVIs with similar features in same sequence frame



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- Added Cryo Sensor tab and started adding the coded nested loops from the NMR program

Hall C - CAEN HV Test

Aaron Brown, George Jacobs

- Performed load stability tests on CAEN modules #0353 and #356
- Analyzing data from HV stability tests – #0324, #0325, #0236, and #0337 with load
- Continued analysis of Stability Test data

Hall C- Magnets CSS Screen Development

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

- Continued development of Test OPI Creator program
 - ★ Completed new portion of code that determines what type of controls to place to test rules based on the value that would trigger the rule
 - For example: If rule is triggered by PV being 1 or 0, a Boolean control is placed, otherwise a text input control is placed on test screen
 - ★ Investigating using built-in CSS functions to place controls on test screen
 - Placing items in this method is much more consistent and easier than using a template widget layout and replacing keywords in template
 - Downside is that controls must be placed on test screen using a script on the test screen, so script has to be added to test screen programmatically

Hall C – CSS-BOY Screen Development for Checklist

Peter Bonneau, Aaron Brown, Tyler Lemon

- Putting finishing touches on Shift Checklist CSS-BOY screen
- Investigated how to get checklist items that do not have EPICS PVs onto CSS screen
 - ★ For CODA status information, there is no direct CODA-EPICS interface, however, Hall B has been able to get the necessary CODA information into EPICS; so it is doable
 - ★ For HMS and SHMS chamber's fiducial efficiency, information is in text files so a script can be written to find the latest file and parse it for necessary information
 - ★ For items with camera feeds, direct links to camera feeds can be provided rather than generic link to web page for all camera feeds

Hall C – NPS

Aaron Brown, Mindy Leffel

- Terminated 60 cables for a total of 250

DSG – R&D

Brian Eng

- Got Phoebus working on Raspberry Pi
 - ★ New GUI (Display Builder) has some indicators that might be useful (in particular the multi-state LED)



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DSG – Website Design

Peter Bonneau, Aaron Brown, Pablo Campero, Brian Eng

- Redesigned DSG Talks and DSG Notes search pages
 - ★ Added Advanced Search features
- Updated Hall A SoLID Technical Documentation page
 - ★ Created three new web pages for:
 - Documentation Links
 - Program Flow diagrams
 - Manuals and Specifications
 - ★ Solved link issues and sorted HMI and CSS pages