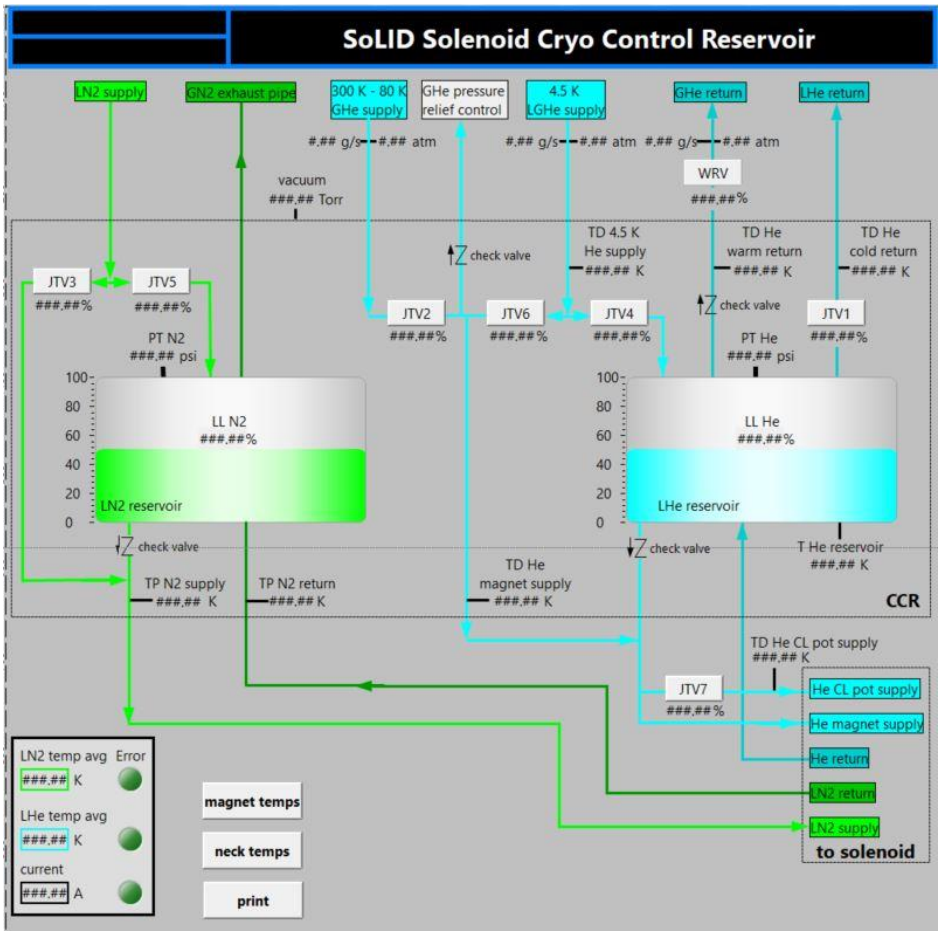
Summary

Hall A – SoLID Magnet Controls

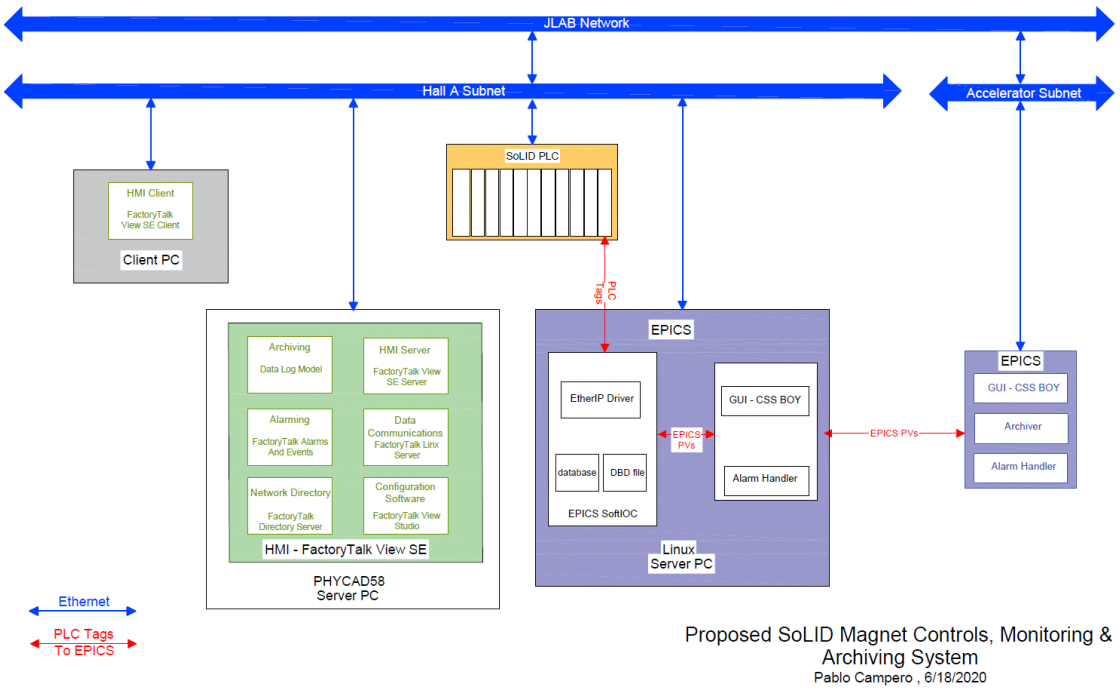
Mary Ann Antonioli, Aaron Brown, Pablo Campero, Brian Eng, Tyler Lemon, Marc McMullen

- Completed *Cryo Control Reservoir* CSS-BOY screen



Screenshot of the *Cryo Control Reservoir* CSS-BOY screen for SoLID.

- Modified electrical drawings
  - ✶ LVDT Wire Diagram Drawing A00000-16-03-1150
    - Changed PLC channel assignment
    - Changed labels for LVDTs
    - Added warm return valve
  - ✶ LVDT Voltage Readout Diagram Drawing A00000-16-03-1200
    - Added warm return valve to Grayhill switch position 8
    - Changed location for common voltage input to read LVDT
- Generated Proposed Magnet Controls, Monitoring & Archiving overview diagram
  - ✶ Diagram shows main components of the HMI system and interactions with the PLC controller and EPICS system



Proposed SoLID Magnet Controls, Monitoring & Archiving System Overview Diagram

Hall A – SBS/BB GEM Gas Systems

Brian Eng, Mindy Leffel, Marc McMullen

- Populated six gas flow sensor boards
- Completed initial routing of I^2C multiplexer board used to control readback data from up to 8 gas flow sensors

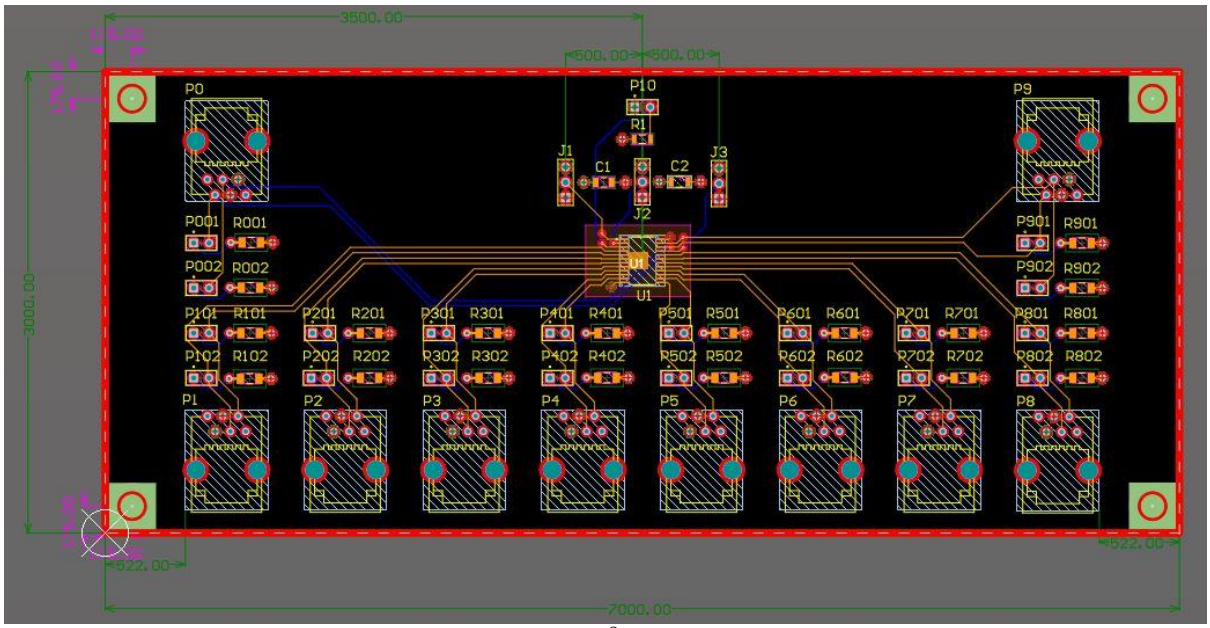


Figure 1. Completed trace routing of the I^2C Mux using Altium Designer.

Hall B – Drift Chamber

Brian Eng, Marc McMullen

- Debugged mass flow controller (MFC) issues for Region 3 gas flow
  - MFC would not flow above ~20 lpm
    - Caused by a restriction downstream; rotameters were not reset to pre-MEDCON6 levels

HDice - fsNMR Program

Peter Bonneau, Tyler Lemon, Marc McMullen

- Successfully debugged issues in fsNMR program
  - Auto-adjustment of lock-in amplifier gain was incorrectly using X measurement rather than amplitude
    - Caused data for amplitude, phase, and Y to have stair-step appearance caused by data input overflow
  - Program had a subVI that was setting the attenuation to -63 dB after a cycle, but the program never reset the attenuation to the user's set value
  - Found that if background subtraction was not used, program was still subtracting 1 from all data
- Continued development of cryogenic target subroutine
  - Discussed implications of monitoring the cryogenic sensors while data acquisition is in progress
- Downloaded and installed LabVIEW libraries for the Zurich Instruments lock-in amplifier

Hall C - NPS

Aaron Brown, George Jacobs, Mindy Leffel

- CAEN high voltage testing
  - Performed load stability tests on CAEN modules #0352, #0359, #0327, #0355, and #0358
  - Analyzing data from HV stability tests – #0338 with load
- Terminated 60 high voltage divider cables (total of 310 cables made so far)

Hall C- HMS/SHMS Magnets CSS Screen Development

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

- Started development of HMS HX JT page

EIC

Brian Eng

- Attended Bluejeans meeting to discuss layout issues related to swapping a Cerenkov with a DIRC

DSG

Peter Bonneau

- Installing programs and configuring new Dell developer laptop
  - ✶ Developed scripts that use SSH, PuTTY, and Remote Desktop Protocol (RDP) to simplify login procedures for computers that use the CUE and Halls gateways.

DSG R&D – MSELV Chassis

Peter Bonneau, Tyler Lemon, Marc McMullen

- Received populated RMCs
  - ✶ Alignment with sbRIO looks correct
- Received and set up Xilinx PYNQ-Z1 board for investigation into whether it could be used as a chassis controller

DSG – Website Design

Peter Bonneau, Aaron Brown, Brian Eng

- Added Keywords selections to DSG Notes and DSG Talks Advanced Search Features
- New Talks posted to DSG website