

# Detector Support Group

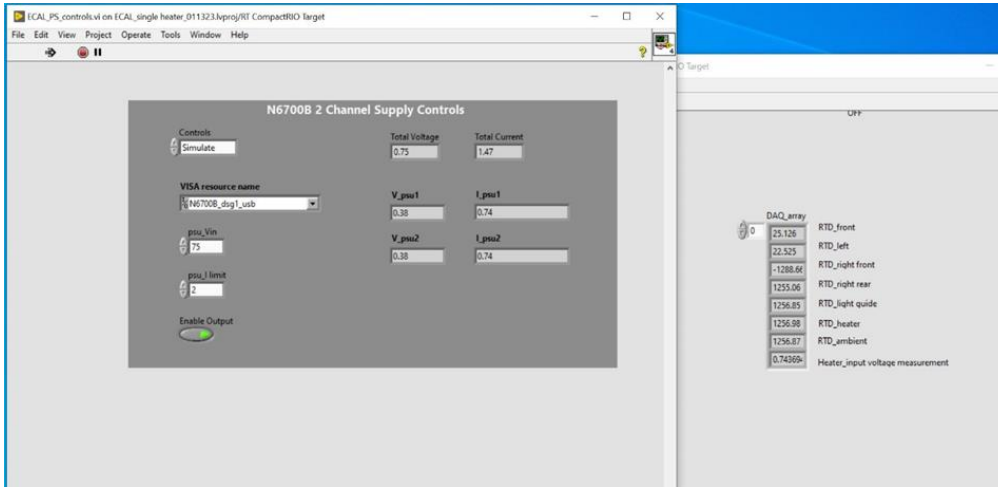
*We choose to do these things "not because they are easy, but because they are hard".*

**Weekly Report, 2023-1-18**

## Hall A – ECAL

Marc McMullen

- Completed LabVIEW controls software for two channels of the Agilent N6700B power supply
- Completed LabVIEW DAq software for eight channels of RTD monitoring and one channel of voltage monitoring (input to the heater)



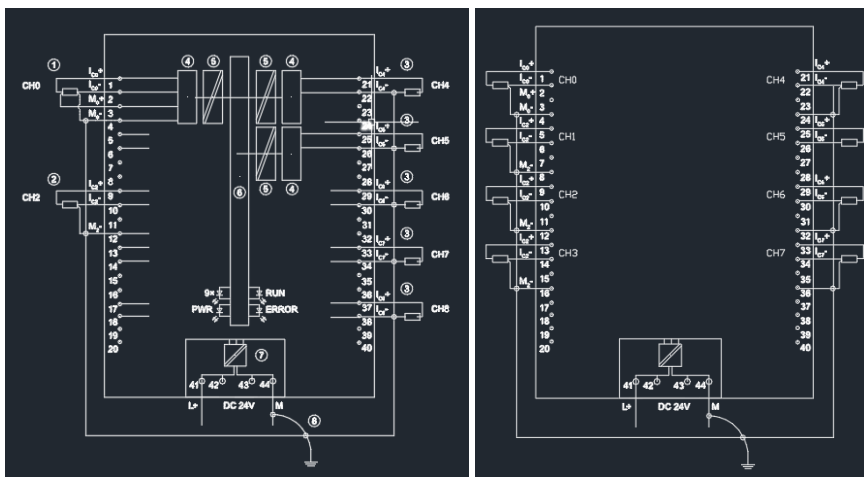
Testing software using a 1  $\Omega$  power resistor as the heater (RTD\_front measurement)

- Started task hazard analysis and dsglist safety documents

## Hall A – Møller

Mary Ann Antonioli, Aaron Brown, Brian Eng

- Gave presentation on magnet power supply and instrumentation & controls to Møller Independent Project Review
- Modified Siemens module drawing to fit Møller wiring
  - ★ Shows all channels as 3-wire connections

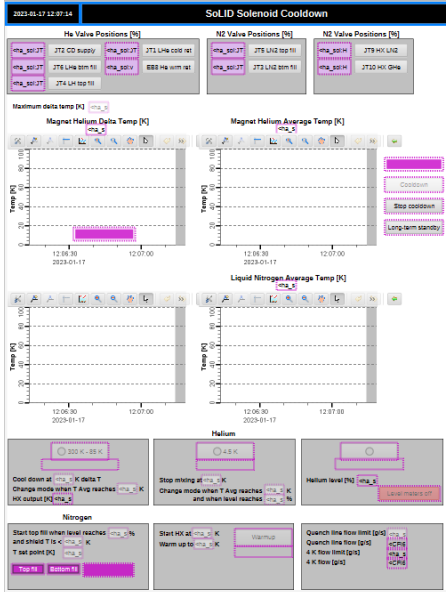


Left side shows Siemens drawing, right side modified drawing

## Hall A – SoLID

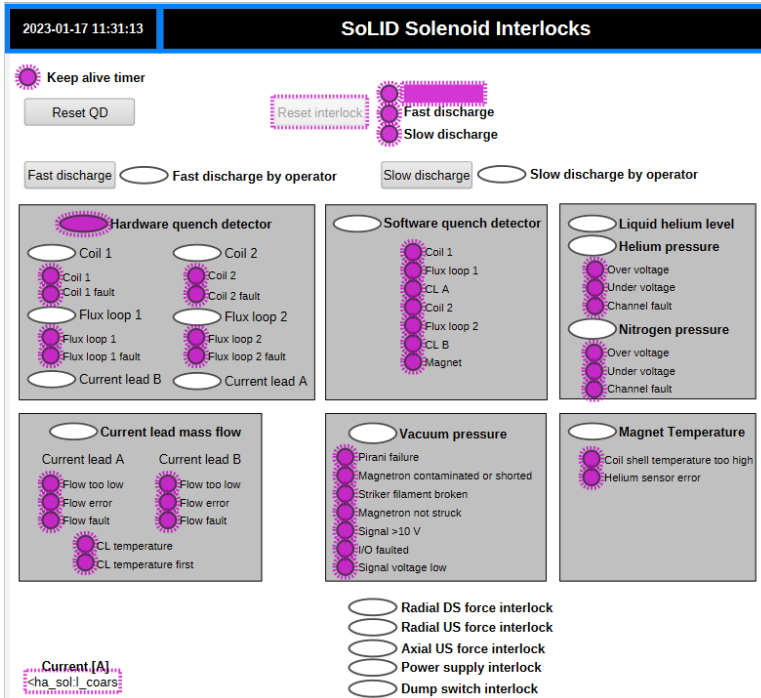
*Mary Ann Antonioli, Pablo Campero, Mindy Leffel*

- Continued Phoebus *Cooldown* screen; completed except for button scripts



Phoebus *Cooldown* screen

- Completed Phoebus *Interlocks* screen, except for button scripts



Phoebus *Interlocks* screen



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- Changed three text symbol widgets to one label widget, for each support, on *Radial Support* and *Radial and Axial Support* Phoebus screens
- Developing FactoryTalk View alarm handler
- Implementing FactoryTalk ME EmailSender Control to send alarm emails
- Set up configurations on PHYCAD59 computer to allow access to HMI system

### Hall B – Magnets

#### Brian Eng

- Participated, with committee members, in Solenoid Magnet Power Supply Assessment to review current status
- Tested hardware quench detector thresholds with Probir and Morgan
  - ★ Had numerous magnet power supply water flow trips during this time
- Copied solenoid polarity change code to the torus
  - ★ <https://logbooks.jlab.org/entry/4108523>

### Hall C – NPS

#### Peter Bonneau, Aaron Brown, Pablo Campero, Brian Eng, Marc McMullen

- Soldered 340 capacitors to PMT bases
- Debugging hardware interlock system's LabVIEW program for thermal readback
  - ★ Added auto-restart capability
  - ★ Reducing wait times for chiller communication in attempt to speed up program execution
- Writing troubleshooting instructions to be posted to NPS controls wiki page

### Hall D – JEF

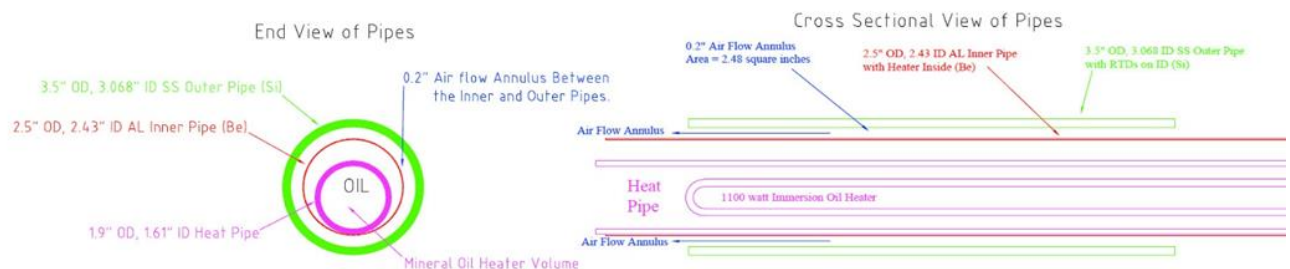
#### Mindy Leffel

- Wrapped five Crytur crystals with 3M foil and Tedlar

### EIC

#### George Jacobs, Marc McMullen

- Drew close-up of thermal test stand piping



- Completed flow tests at 10, 20, 50, 100, 200, and 250 LPM
  - ★ Data presented to BNL engineers



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## **EIC – DIRC**

*Tyler Lemon and Marc McMullen*

- Developed circuitry for laser interlock system to power or de-energize magnetic locks based on system state
- Updating interlock schematic with recent changes
- Submitted laser lab LOSP for signature review