

# SoLID Magnet Controls System Meeting Minutes

**Date:** January 20, 2023

**Time:** 11:00–12:00

*Attendees:* Aaron Brown, Pablo Campero, Steven Lassiter, Tyler Lemon, and Marc McMullen

## 1. HMI screens

*Pablo Campero*

1. Reviewed screen modifications and new features of *Solenoid Menu* screen, which will be used during low current test
2. Discussed the plot for nitrogen delta temperature requested for *Solenoid Cooldown* screen
  - Determined that the delta temperature should be between the cryo control reservoir supply and return; PLC code will be added
3. Completed label corrections on *Solenoid Neck Temperatures* screen
4. Trends requested to be added to the *Solenoid CCR Expert* screen for cryogenic variables CPI2721, CEV249BYUORB, and CCT20N
  - Variables will be added to the FactoryTalk View data logger system

## 2. PLC programming

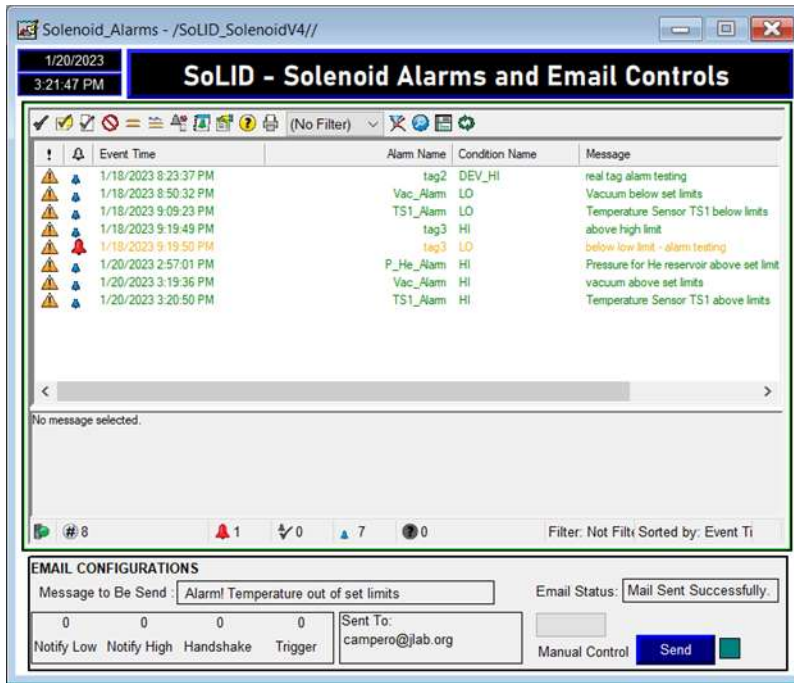
*Pablo Campero*

1. Wrote PLC routine *Alarms\_Setup* that controls sending and receiving an email when an alarm is present
  - Sets PLC Boolean tag for email in HMI Alarm and Event Server
  - Sends email only once per each alarm event
  - Tested code; no issues found
2. Added requested temperature sensors' PLC tags in controller scope and linked tags with existing PLC tags in program scope
3. Discussed archiving of some read-only PLC tags
  - Radial support sensor readouts
  - Voltage taps sensor readouts
4. Removing unused PLC tags and unused User Defined Add-ons
5. Will deploy new version of PLC program to the controller once changes and additions are completed

## 3. PLC alarm handler and email sender

*Pablo Campero*

1. Configured Alarms and Event Server
  - Code runs in Event server and sends email based on active alarm
  - Requested a list of alarmed signals, to include name of signal, limit values, message text, alarm type (e.g. digital alarm, deviation alarm, or level alarm)
2. Implemented FactoryTalk ME EmailSender Control to send alarm emails
  - Generated HMI string tags to set the alarm email text
  - Tested handshaking options to avoid multiple emails
  - Tested sending alarm emails from smtp@jlab.org (jlab existing account),
  - Steven Lassiter provided list of expert users to receive emails
3. Generated an HMI screen to show details of alarms and emails



Solenoid Alarms and Email Controls HMI screen

4. Steven Lassiter requested email notification to experts when cooldown stages are completed

#### 4. Phoebus screens

*Mary Ann Antonoli and Pablo Campero*

1. Working on code for buttons on *Solenoid Interlock* screen for actions that cannot be achieved through usual Phoebus properties

#### 5. Other Topics

All

1. Magnet cooldown start is planned for January 23
2. Steven Lassiter suggested the DSG-SoLID Magnet Control System meeting be every week during the magnet low current test period
  - Meeting will be held every Friday at 11:00