

SoLID Magnet Controls System Meeting Minutes

Date: December 7, 2022

Time: 11:00–12:00

Attendees: *Peter Bonneau, Aaron Brown, Pablo Campero, George Jacobs, Steven Lassiter, Mindy Leffel, Tyler Lemon, and Marc McMullen*

1. PLC and EPICS data transfer

Pablo Campero

1. Since there were no updates by EECO on providing the license for KEKSERVEREX, implemented EPICS Ether IP driver to enable data transfer between EPICS and PLC
 - Will follow up until it gets solved
2. Completed tasks to allow data transfer between EPICs and PLC
 - Generated database with the records to transfer data between EPICS and PLC
 - Contributed to implementation of the setup of the EPICS Ether IP driver
 - Modified and added to the PLC code
 - Had to alias program scope PLC tags to newly-created controller scope PLC tags
 - Provided permission to allow EPICS user to write to variables
3. Provided PLC tags to control main supply valves
 - Provided write access to twelve PLC tags for six valves, two tags per valve (set position and enable PLC manual mode)
 - Reviewed PLC code to determine the PLC tag needed to reset valve errors in EPICS
4. Tested data transfer between EPICS and PLC; no issues found

2. Access to HMI screens

Pablo Campero

1. There are three HMI Client licenses available to access the monitoring and controls HMI screens
 - The HMI server runs on PHYCAD 58 computer, which also can be used to access the screens
 - Set up dsg-halla-1 computer for DSG and hall members' access
 - Need to set up two more—PHYCAD59 computer and Lassiter's laptop

3. Modifying HMI screens to monitor Cryo variables

1. Need to add cryo EPICS process variables to HMI screens
 - Supply Pressure *CPI272I* in the Upgraded Injector Test Facility
 - Contamination/Recovery Suction *CCT20N*
 - Bypass Valve Position *CEV249BYUORB*
 - Warm return pressure is not available

4. Cable from voltage tap to resistor box

Pablo Campero and Mindy Leffel

1. Discussed details of cable fabrication
2. The two conductors for voltage taps of the current leads will be 10 ft.

5. Other topics

DSG and Steven Lassiter

1. Monitored vacuum; at meeting time was ~ 0.34 Torr
2. Steven suggested changes to *CCR Expert* screen
 - Add description of valve names
 - Move vacuum indicator away from vacuum bottom
3. Monitored errors shown on *Radiation Coil Shield Temperature* screen
 - Explained that indicators blink red when the PLC ADC has a fault or the readback resistance for the Rh-Fe sensors is out of limits
4. Add option to bring *ESR Cryo* screen to front if clicked