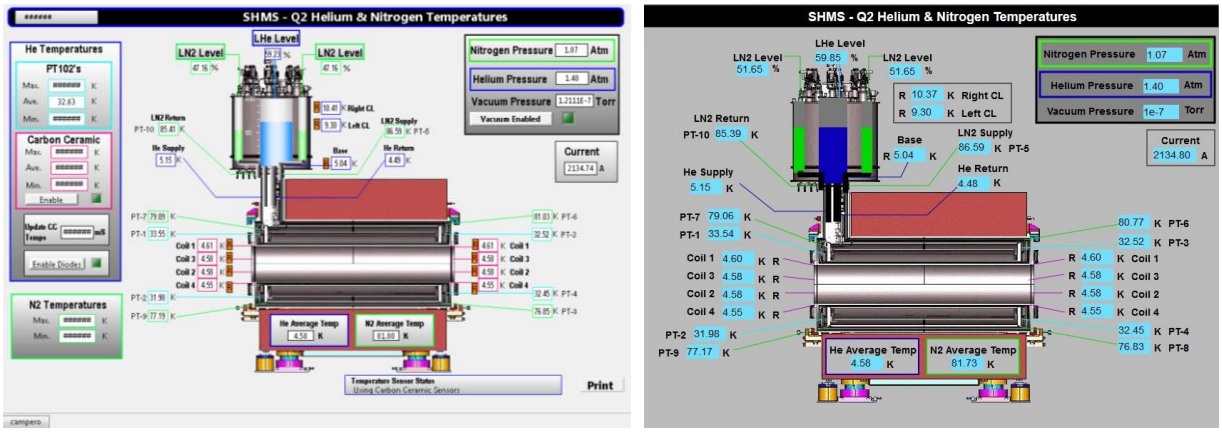
Detector Support Group
Weekly Report, 2019-04-03

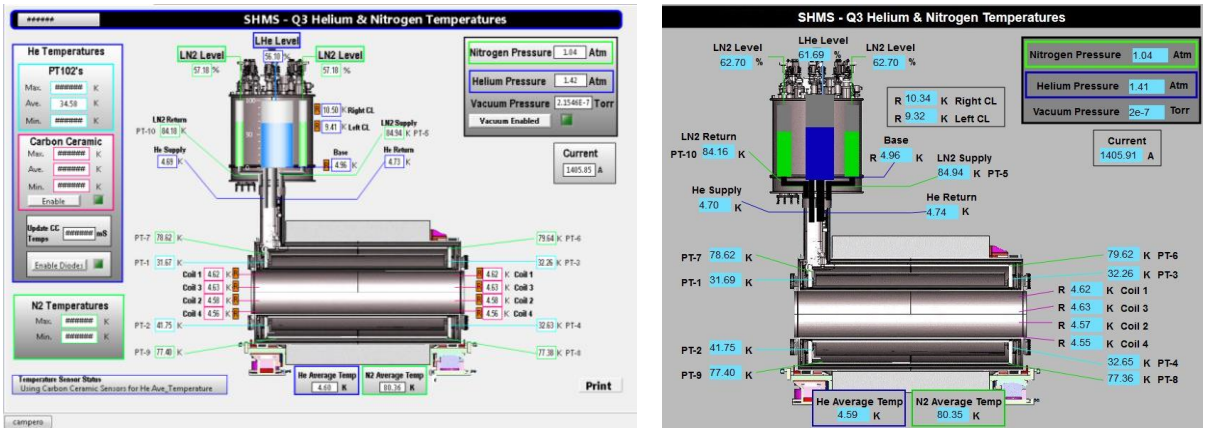
Summary

Hall C EPICS

- CSS-BOY screens developed for SHMS Q2 and Q3 helium & nitrogen temperatures and then converted to WEDM screens using Python script.



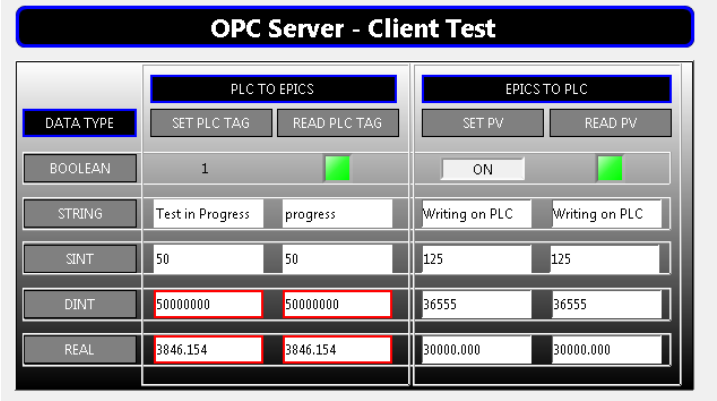
SHMS Q2 Helium & Nitrogen Temperatures screen. Left: CSS-BOY. Right: WEDM.



SHMS Q3 Helium & Nitrogen Temperatures screen. Left: CSS-BOY. Right: WEDM.

- Communication issues debugged in Hall C PLC-to-EPICS simulation set up.
- For backup and restore, Tcl/Tk-to-CSS-BOY Python script modified to add a second drop-down menu to HV screens.

- For a better understanding of the current PLC-to-EPICS conversion, PLC routine, OPC server, EPICS-OPC client, EPICS database, and CSS-BOY GUI developed for simulation.



CSS-BOY screen showing simulation results for the data transfer between DSG-PLC and EPICS.

Hall C CAEN Test Station

- Voltage testing completed for 85 of 192 channels.

Hall B Magnets

- Torus and DBX Cryocon temperature monitors lost communication with PLC controls, making temperatures unable to be monitored in PLC/EPICS screens. Communications recovered by resetting Cryocons.

RICH

- Inventoried aerogel tiles on-hand at JLab using list from INFN collaborators.
  - ✶ Of the tiles on the collaborator's list, two were not found.
  - ✶ There were also five tiles on-hand that were not included on collaborator's list.

LTCC

- C_4F_{10} usage: MFC indicates 0.36 kg/day.

Hall A

- CompactLogix PLC for Dipole magnets' Dynapower power supplies received and inventoried.

Engineering Division

- Soldered ~275 capacitors on BPMs.

DSG R&D

cRIO Test Stand

- SubVI developed to open and close channels of NI 9485 relay module.
- Code developed, tested, and debugged to test NI 9216 RTD module samples, mean, accuracy, and standard deviation.