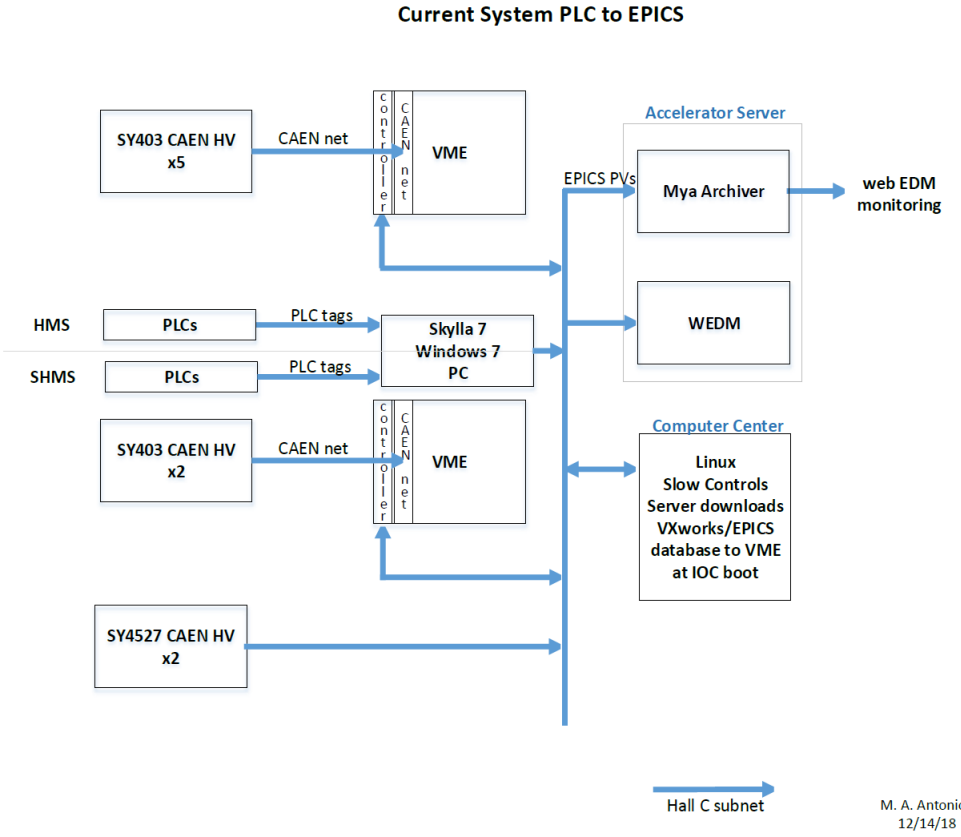
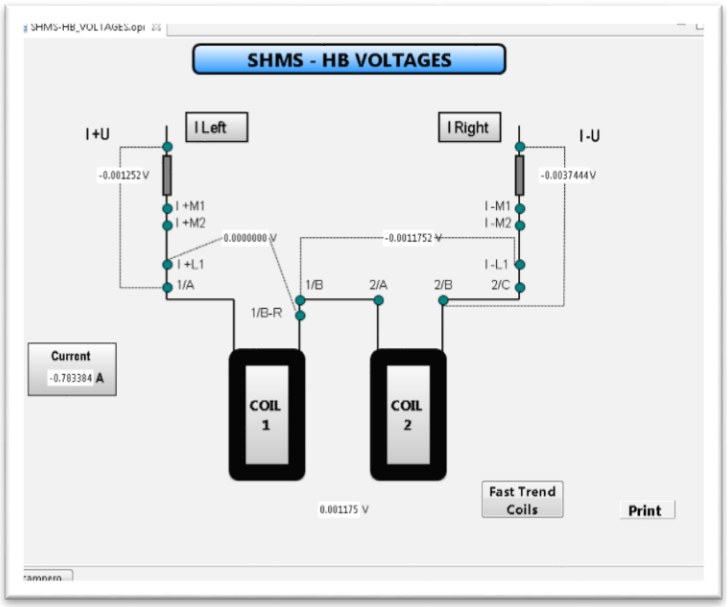
Hall C EPICS Slow Controls Report (12/06/2018 – 12/12/2018)

- Mapping of current PLC-to-EPICS system created.

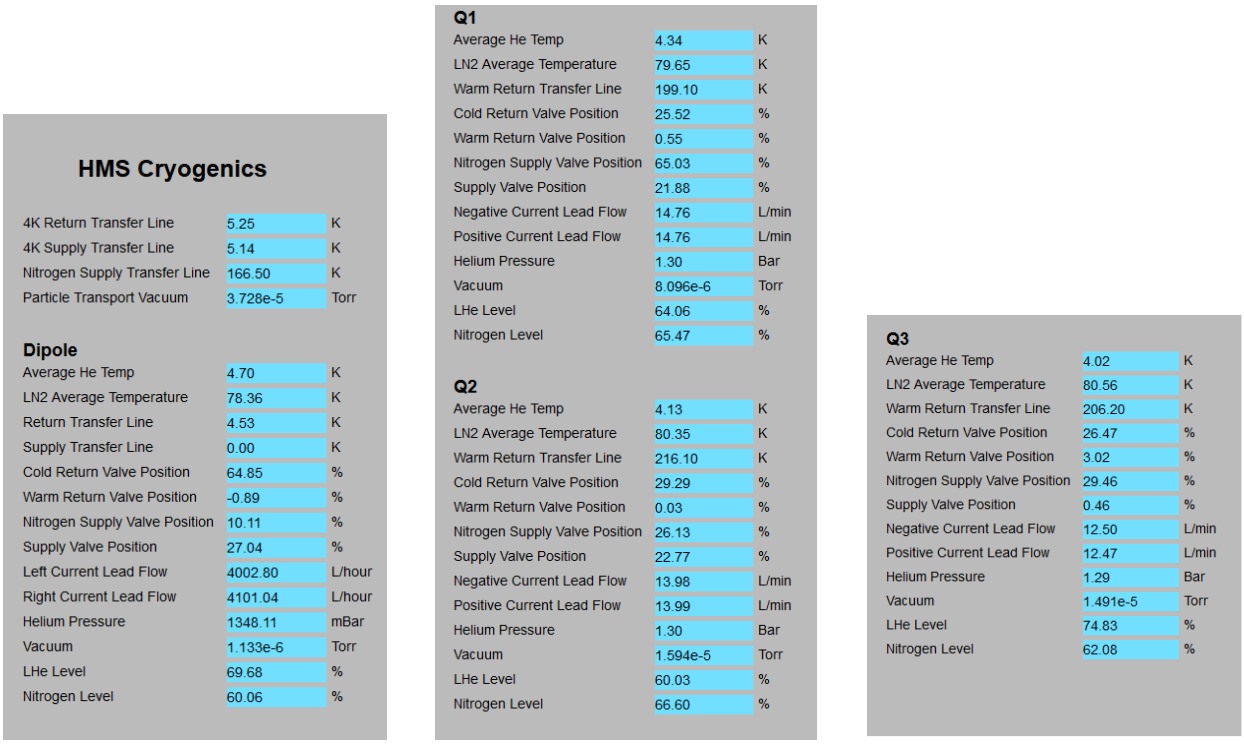


- *SHMS HB Voltage Taps* OPI screen completed using EPICS-CSS Studio.
  - ✶ New screen is based on PLC HMI Voltages screen, shows similar appearance and structure for the interface.
  - ✶ OPI screen runs in real-time mode using PVs from accelerator host.



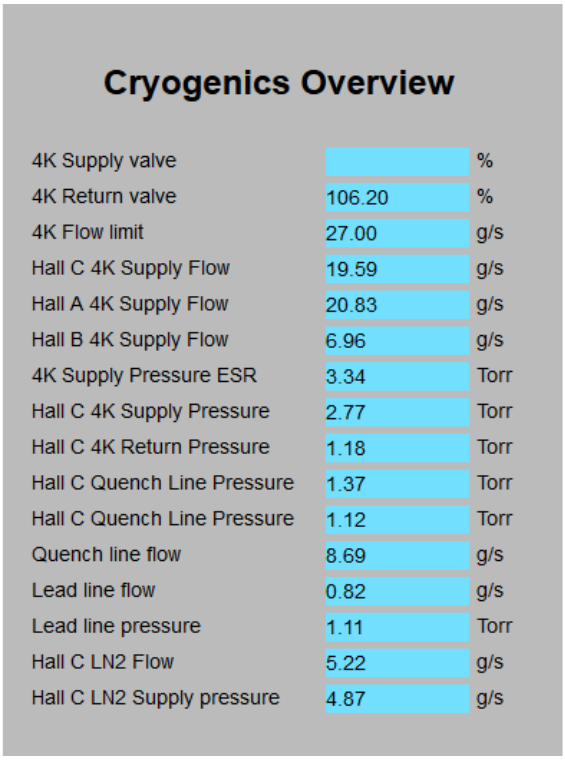
SHMS HB Voltages screen developed in EPICS-CS-Studio

- Spreadsheet generated with all SHMS PVs available on the PLC.
  - ✶ These PVs are not available in the accelerator Host (129.57.255.12)
  - ✶ Spreadsheet shows: PLC tag name, data type, scope, tag address, proposed PV name for EPICS, and description for each PVs.
- EPICS-IOC test server developed.
  - ✶ PLC tag created on DSG PLC controller.
  - ✶ Tag read by EPICS server running on dsg-linux2 PC (129.57.195.32).
- Python program created to convert CSS .opi files to EDM .edl files (opi2edl).
- Opi2edl program tested by converting SHMS HB Helium Temperatures CSS screen.
  - ✶ Screen deployed to WEDM.
- Python program developed to convert CSV list of PVs to EDM screen (csv2edl).
- Hall C Cryogenics, HMS Cryo, and SHMS Cryo screens created using csv2edl program and deployed to WEDM.



Screenshot showing of HMS Cryo WEDM screen created using csv2edl program. Screen lists all PVs provided for HMS Dipole, Q1, Q2, and Q3.

Screenshot showing of SHMS Cryo WEDM screen created using csv2edl program. Screen lists all PVs provided for HMS Dipole, HB, Q1, Q2, and Q3.



Screenshot showing of SHMS Cryo WEDM screen created using csv2edl program. Screen lists all PVs provided for HMS Dipole, HB, Q1, Q2, and Q3.

- HTML menu created for cryogenic WEDM screens for use during development.
- DSG group log-in set up on Hall C Linux server for EDM screen development.