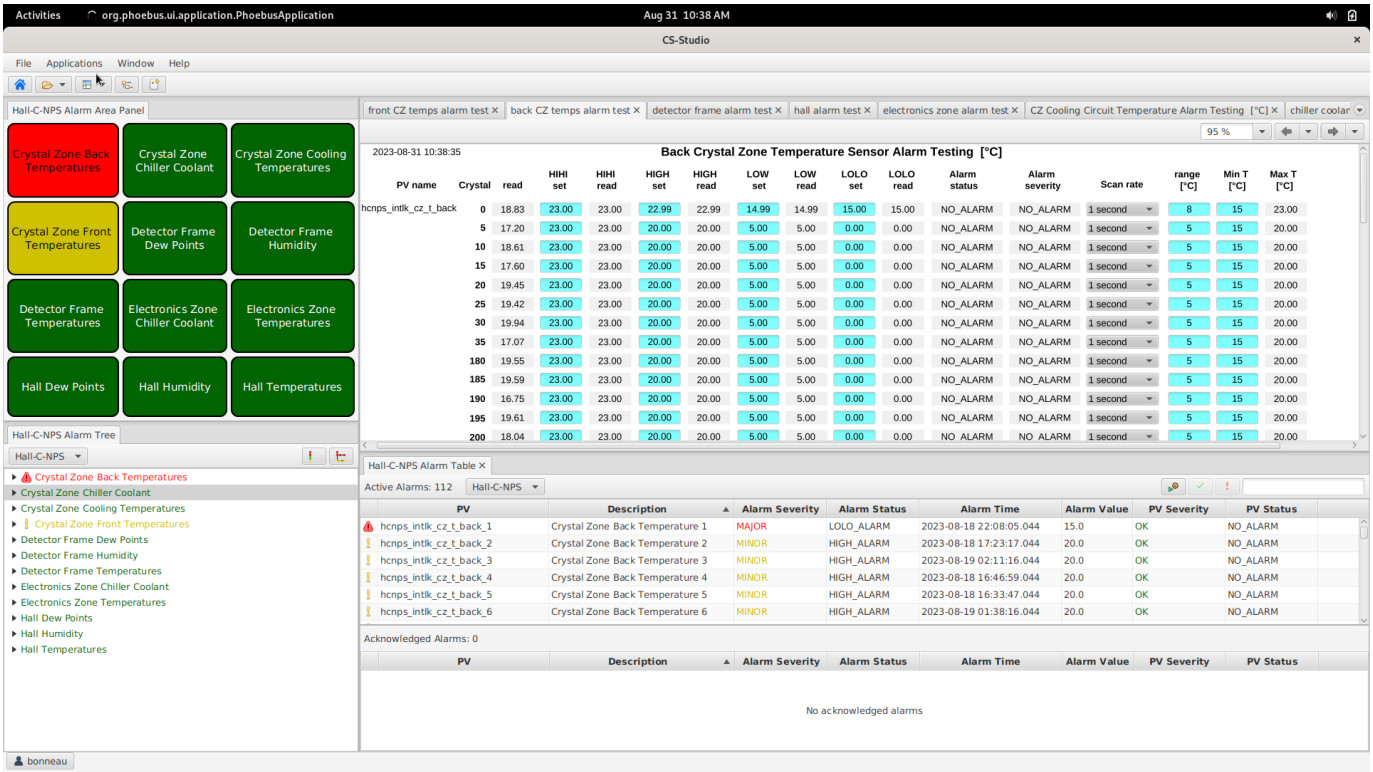
DSG-R&D Phoebus Meeting Minutes

Date: September 01, 2023
Time: 2:00 PM – 2:20 PM

Attendees: Peter Bonneau, Aaron Brown, Pablo Campero, Brian Eng, and Marc McMullen

1. **Development of EIC DIRC Phoebus alarm system test**
   Peter Bonneau and Tyler Lemon
   1. The Phoebus alarm system will monitor the status of the EIC DIRC interlock PCB
      - Reviewed readout hardware for test
        - NI cRIO hardware will be used to read out the interlock PCB
        - Hardware has been ordered and is expected on, or before, October 20
        - The cRIO and modules will be mounted in a portable NI chassis with power supply
      - Phoebus development computer for DIRC test
        - A laptop is being configured as a Phoebus development workstation
        - Received SSD for Linux laptop build
      - Connection from EIC DIRC to Phoebus alarm system
        - A connector will be added on the interlock enclosure for the signal readout by the alarm system cRIO

2. **Phoebus alarm system test with NPS detector signal simulator**
   Peter Bonneau
   1. Phoebus alarm system stability test in progress
      - The system has exhibited unstable operation at times
        - DSG Note 2023-06, DSG Note 2023-03
        - Corruption in Phoebus files was suspected, possibly due to computer disk
      - On a new computer system, an extended test is being run to check system stability
      - NPS detector signal simulator softIOC generates EPICS PVs
        - DSG Note 2023-32, DSG Note 2023-23
        - The softIOC generates 148 simulated signal PVs at 1 Hz
      - Phoebus alarm system monitors EPICS PVs
        - Alarm system reports on PVs that are in an EPICS alarm state
      - System has run without errors for 20 days as of 08/31/2023
      - Alarm system correctly reported the PVs that were configured to generate alarms
      - Phoebus alarm table, alarm tree, and alarm area panel working correctly



Phoebus alarm system stability test – detector simulator control and monitoring, NPS alarm table, alarm tree, and alarm area panel nodes