

# DSG-R&D Phoebus Meeting Minutes

Date: July 21, 2023

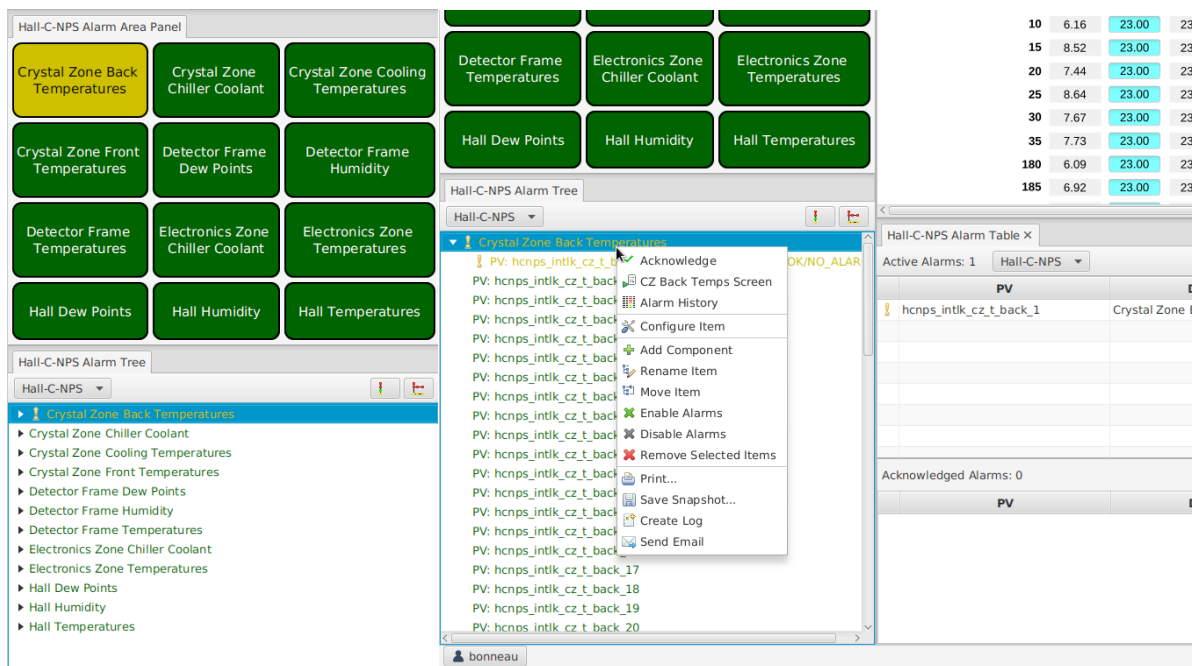
Time: 2:00 PM – 2:45 PM

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

## 1. Alarm system test station development

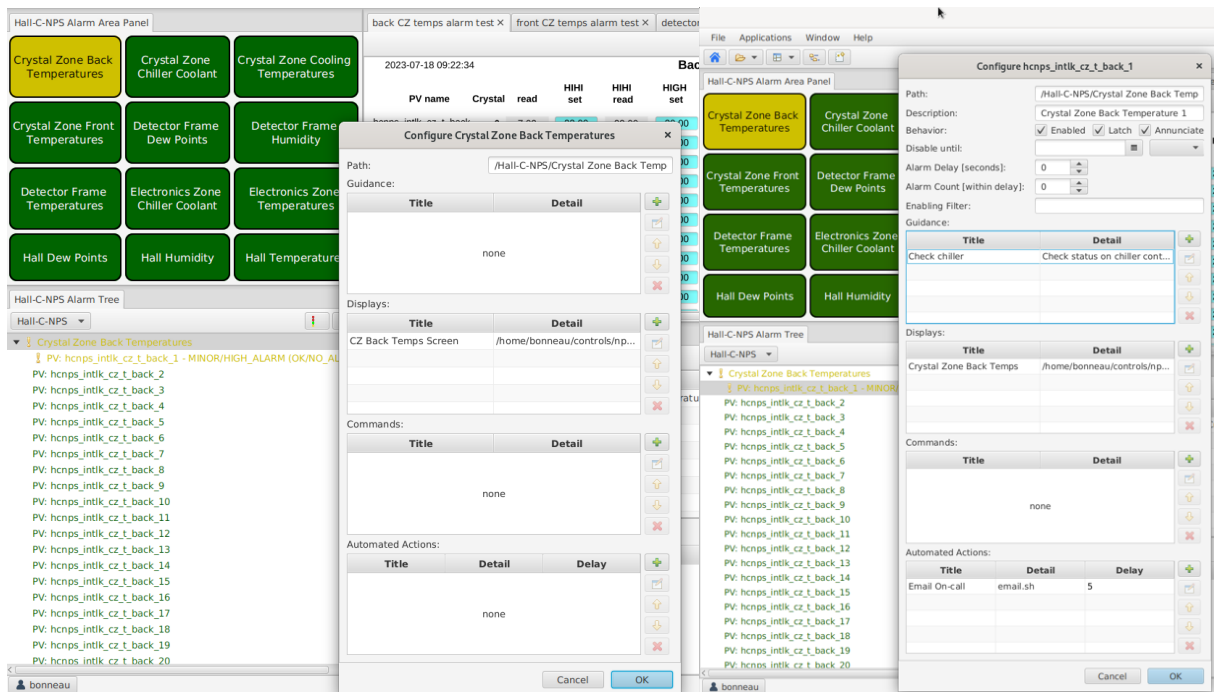
Peter Bonneau

- Discussed programming of nodes into the Phoebus alarm test station
  - Nodes are used to organize EPICS PVs into user-selected groups
  - Nodes are programmed into the Phoebus alarm server
  - The Phoebus Alarm Area Panel shows the combined status of PVs within a node
    - If any PV within a node goes into the HIHI or LOLO alarm state, the node panel shows red
    - If any PV with a node goes into the HIGH or LO alarm state, the node panel shows yellow
    - If no PV within a node is in an alarm state, the node panel shows green
  - Nodes can be used to execute some commands on all PVs within a node
    - E.g., alarm acknowledge, disable/enable alarms, go to a common user screen, give common alarm guidance, and automated actions (email)
    - Nodes cannot be used to set a common alarm delay, timed disable, or change annunciation settings
  - Reviewed the 12 NPS alarm nodes that have been programmed
    - Crystal zone temperature: front and back
    - Detector frame: temperatures, humidity, and dew points
    - Hall: temperatures, humidity, and dew points
    - Electronics zone: temperatures, chiller coolant
    - Crystal zone: temperatures, chiller coolant



NPS Alarm Test Station Nodes & Alarm Panel Area

User Interface Menu for the Crystal Zone Temperatures Node



Configuration Menu for the Crystal Zone Temperatures Node

Configuration Menu for a Crystal Zone Temperature PV

## 2. Debugging Phoebus Test Station Alarm Server

1. Discussed issues with the configuration file that loads the alarm parameter settings for each simulated detector PV when the system is first initialized
  - After the system is initialized, the alarm server stores PV alarm settings within Phoebus
  - The system correctly accepts some PVs (~60%); others are ignored
  - No errors are reported by the Phoebus alarm server console

## 3. Upcoming Phoebus Development

*Peter Bonneau and Aaron Brown*

1. Complete NPS detector signal simulator for alarm test station
2. Debug and complete integration of simulated signals into Phoebus alarm server
3. PV save and restore application using Phoebus (Aaron)
  - Save and restore is used to set EPICS alarm levels for the alarm test system