DSG-R&D Phoebus Meeting Minutes

Date: May 12, 2023

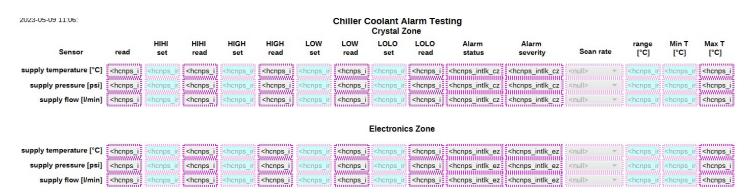
Time: 2:00 PM - 2:30 PM

Attendees: Mary Ann Antonioli, Peter Bonneau, Pablo Campero, Tyler Lemon, and Marc McMullen

1. Phoebus Screen development for Alarm System

Mary Ann Antonioli, Peter Bonneau, Aaron Brown

- 1. Converted the seven array-based screens to screens with individual PVs
 - Front crystal zone thermocouple temperatures
 - Back crystal zone thermocouple temperatures
 - Detector frame
 - Crystal zone cooling circuit
 - Electronics zone
 - Hall environment
 - Chiller coolant



2. Development of NPS and alarm test system signal and PV list

Mary Ann Antonioli and Aaron Brown

- 1. Discussed status of adapting array-based PVs to individual PVs for alarm system
 - Completed alarm test system PVs for NPS analog signals

3. Development of Phoebus test system message monitoring program

Peter Bonneau

- 1. Phoebus does not have an application that can directly monitor message streams
- 2. Completed program to directly monitor alarm system Kafka message streams
- 3. Program was used to debug the Phoebus alarm annunciator Talk stream
 - DSG Note 2023-18

4. Investigating implementation of Phoebus (V4.6.10) save and restore application

Peter Bonneau

- 1. Save and restore is used to restore PV settings upon reboot of IOCs
- 2. Phoebus alarm test system softIOC has ~6000 settings to restore
- 3. Requires configuring and building Phoebus from source code
- 4. Requires a relational database (RDB) server
 - MySQL V8.0 is recommended
- 5. Does not use Apache Kafka streams
- 6. Missing features
 - Security in authentication and authorization
 - Search capabilities for configurations or snapshots

5. Alarm System SoftIOC Development

Peter Bonneau and Aaron Brown

- 1. Implemented NPS softIOC signal simulator for alarm system development
- 2. Integrating new alarm test thermocouple screens into the alarm test system
- 3. Developing VisualDCT thermocouple template for alarm test system softIOC
 - Upon softIOC startup, the template is used to generate the simulated NPS thermocouple signals within the EPICS database