DSG-R&D Phoebus Meeting Minutes

Date: April 28, 2023
Time: 02:00PM – 02:30PM

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

1. Phoebus screen development for alarm system

Mary Ann Antonioli, Peter Bonneau, and Aaron Brown

1. Converting array-based screens to screens with individual PVs
2. Successfully tested a screen on Linux alarm system development computer
   - Corrected spacing to show PV alarm box indicators for both minor and major severity

2023-04-21 15:25:18

Back Crystal Zone Temperature Sensor Alarm Testing [°C]

PV name	Crystal	read	HIHI set	HIHI read	HIGH set	HIGH read	LOW set	LOW read	LOLO set	LOLO read	Alarm status	Alarm severity	Scan rate
hcnps_intlk_cz_t_back	0	103.81	21.00	21.00	20.98	20.98	15.02	15.02	15.00	15.00	HIHI	MAJOR	1 second
	5	4.09	21.00	21.00	20.98	20.98	15.02	15.02	15.00	15.00	LOLO	MAJOR	1 second
	10	16.41	21.00	21.00	20.98	20.98	15.02	15.02	15.00	15.00	NO_ALARM	NO_ALARM	1 second
	15	18.60	21.00	21.00	20.98	20.98	15.02	15.02	15.00	15.00	NO_ALARM	NO_ALARM	1 second

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

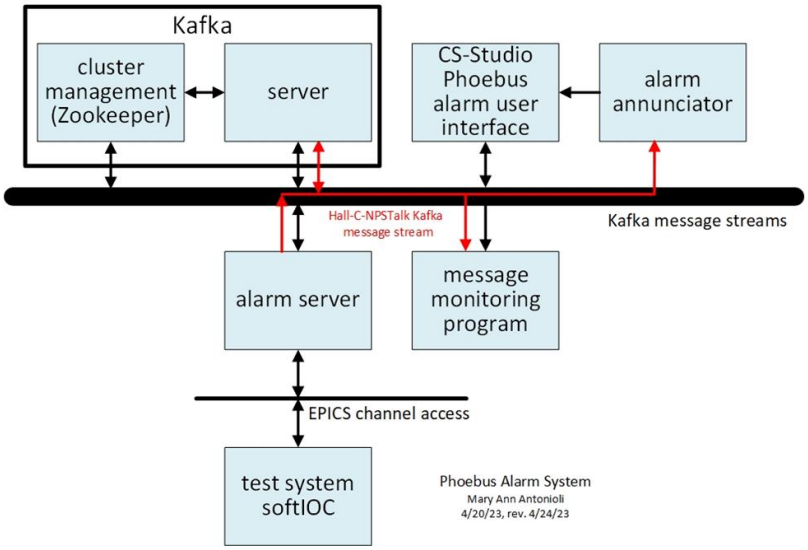
Mary Ann Antonioli and Aaron Brown

1. Discussed status of adapting array-based PVs to individual PVs for alarm system
   - Alarm system requires additional PVs for control and monitoring of the test system softIOC, such as range, maximum, and minimum of the random values used for testing

3. Development of Phoebus alarm test system server configuration file

Peter Bonneau

1. Used for alarm system debugging
2. Phoebus does not have an application that can directly monitor the message streams
3. Developing a standalone Linux program that can independently monitor any of the three alarm system messaging streams (status/configuration, command, and talk streams)
   - Message monitoring program displays the alarm streams via a Linux terminal window
   - Message stream data is stored in a text file
   - Additional options, such as writing test messages directly to the stream, is planned
   - Program is being used to debug the Phoebus alarm annunciator talk stream



4. **Investigating the implementation of Phoebus save and restore application**
   Peter Bonneau
   1. Save and restore PV values from snapshots
   2. Useful for alarm system development

5. **Alarm system softIOC development**
   Peter Bonneau and Aaron Brown
   1. Discussed implementation of NPS ops softIOC for alarm system development; reviewed status