

# DSG-R&D Phoebus Meeting Minutes

Date: July 07, 2023

Time: 02:00PM – 02:30PM

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

## 1. Alarm system test station development

Peter Bonneau

1. Discussed implementation of NPS detector signal simulator for alarm system testing
  - Integrating Visual Database Tool (VisualDCT) templates into alarm test system
  - The templates and a text substitution file form an EPICS database at IOC boot that generates simulated NPS detector signals via process variables (PVs); templates store EPICS alarm limits for each detector sensor group
  - Completed templates for
    - Crystal zone front and back temperatures
    - Detector frame temperatures
    - Detector frame humidity and dew points
    - Hall temperatures
    - Hall humidity and dew points
  - Debugged and tested Phoebus user interface screens
  - Programming PVs into nodes for the alarm area panel

PV name	Sensor	read	HHi set	HHi read	HGH set	HGH read	LOW set	LOW read	LOLO set	LOLO read	Alarm status	Alarm severity	Scan rate	range [°C]	Min T [°C]	Max T [°C]
hcnp_intk_df_t	frame 1	15.13	21.00	21.00	20.98	20.98	15.02	15.02	15.00	15.00	NO_ALARM	NO_ALARM	1 second	5.94	15.03	20.93
	frame 2	19.68	21.00	21.00	20.98	20.98	15.02	15.02	15.00	15.00	NO_ALARM	NO_ALARM	1 second	5.94	15.03	20.93
	frame 3	17.67	21.00	21.00	20.98	20.98	15.02	15.02	15.00	15.00	NO_ALARM	NO_ALARM	1 second	5.94	15.03	20.93
	frame 4	18.45	21.00	21.00	20.98	20.98	15.02	15.02	15.00	15.00	NO_ALARM	NO_ALARM	1 second	5.94	15.03	20.93
Humidity																
hcnp_intk_df_rh	frame 1	24.56	30.00	30.00	25.00	25.00	1.00	1.00	0.00	0.00	NO_ALARM	NO_ALARM	1 second	20	4	28.00
	frame 2	8.42	30.00	30.00	25.00	25.00	1.00	1.00	0.00	0.00	NO_ALARM	NO_ALARM	1 second	10	1	11.00
	frame 3	3.11	30.00	30.00	25.00	25.00	1.00	1.00	0.00	0.00	NO_ALARM	NO_ALARM	1 second	10	1	11.00
	frame 4	1.46	30.00	30.00	25.00	25.00	1.00	1.00	0.00	0.00	NO_ALARM	NO_ALARM	1 second	10	1	11.00

PV	Description	Alarm Severity	Alarm Status	Alarm Time	Alarm Va....	PV Severity	PV Status
hcnp_intk_df_rh_3	hcnp_intk_df_rh_3	MINOR	LOW_ALARM	2023-07-03 15:29:39.756	1.0	OK	NO_ALARM
hcnp_intk_df_rh_1	hcnp_intk_df_rh_1	MINOR	HIGH_ALARM	2023-07-03 11:01:06.756	25.1457999...	OK	NO_ALARM

Phoebus alarm system test station user interface and monitoring