

DSG-NPS R&D Meeting Minutes

Date: December 08, 2020

Time: 11:00AM – 12:15 PM

Attendees: Mary Ann Antonioli, Aaron Brown, Pablo Campero, George Jacobs, Mindy Leffel, Tyler Lemon, Marc McMullen, and Amrit Yegneswaran

1. CSS screen development status

- 1.1. Mary Ann Antonioli completed 540 of 1080 PMT Settings blocks on the main NPS screen
 - 1.1.1. The units for voltage and current (currently being taken from the PVs) will be changed to V and uA, respectively
- 1.2. Aaron Brown attached PMT Status pop-up screens to 70 of 1080 LEDs on the *NPS CAEN Overview* screen
 - 1.2.1. Mary Ann Antonioli will be developing the rest of the PMT Status pop-up screens (1010) for the *NPS CAEN Overview* screen
- 1.3. Aaron Brown will develop a script to assign values to macros and PVs to widgets programmatically
- 1.4. Mary Ann Antonioli and Aaron Brown will develop a PowerPoint presentation to detail the steps to develop the PMT Status and PMT Settings pop-up screens

2. CAEN testing and data analysis

- 2.1. Marc McMullen will begin the procurement process for a chassis to build a new SHV Load Box
- 2.2. Mary Ann Antonioli completed plotting trip test data for all modules
- 2.3. Developing Python analysis package for ramp test data analysis
 - 2.3.1. Mary Ann Antonioli will generate plots for the individual channels of all 33 modules
- 2.4. All test analysis plots will be posted to the NPS section of the DSG technical documentation website
 - 2.4.1. Aaron Brown will develop testing analysis summary charts for the trip and ramp tests to be included on the website

3. Hardware Interlock System development

- 3.1. Aaron Brown submitted a PR for temperature readout system components; signed by Stephen Wood

Items to Order For Hardware Interlock System					
Vendor	Part #	Name	Price	Qty	Total
Keysight/Agilent	34980A	Mainframe	\$3,117	1	\$3,117
Keysight/Agilent	34921A	Multiplexer	\$1,034	2	\$2,068
Keysight/Agilent	34921T	Terminal Block	\$254	2	\$508.00
Keysight/Agilent	Y1136A	D-Sub cables (50-pin)	\$141	2	\$242
TC Direct	201-301	K-type Thermocouple	\$8.00	10	\$80.00
Total					\$6,015

- 3.2. Aaron Brown is developing a three-dimensional model of detector using NX 12 to aid the development of Hardware Interlock System

4. Cable fabrication

- 4.1. Mindy Leffel fabricated 1040 of 1100 HV divider cables
- 4.2. Mindy Leffel picked up from the lab the connectors and cable to fabricate the 140' multi-conductor cables
 - 4.2.1. Received 40 Radiall 52-pin connectors from CAEN, however, they incorrectly sent 20 female connectors; should have all been male
 - 4.2.2. Greg Kibilko is investigating
- 4.3. Aaron Brown will submit PR for the pins for the SAMTEC connectors