

DSG-NPS R&D Meeting Minutes

Date: April 25, 2023

Time: 02:00 PM – 03:00 PM

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

1. Thermal readback

Mary Ann Antonioli, Peter Bonneau, Aaron Brown, Pablo Campero, and Tyler Lemon

1. Mary Ann will adjust the widget spacing for all of the NPS Phoebus screens
 - The widgets are too close to see the full alarm borders
2. A LabVIEW EPICS client has been developed; started testing the crystal zone back temperatures Phoebus screen using random numbers
 - The issue with the PV *cz_t_back_3* not receiving the proper value has been resolved
 - The issue with all PVs receiving the same value has been resolved
3. Debugging issue of some variables getting initialized and then after the first loop iteration, grey out
 - Cause may be that LabVIEW program starts in EPICS control mode, but EPICS PVs do not start initialized, so variables initialized via the configuration file get overwritten by the EPICS PVs which have a null value
 - Discussed a potential solution of forcing the program to operate in LabVIEW control mode for the first loop iteration and then switching to EPICS control mode

2. Hardware

Aaron Brown and Marc McMullen

1. Met with CAEN engineers to troubleshoot issues with the high voltage supply crates and modules; some unresolved issues remain – random voltage oscillations, EPICS communication with crate #1 (nps-hv1) is slower than with crate #2 (nps-hv2), and random parameter setpoint changes
 - Discussed grounding conditions in the EEL building as possible solution to voltage oscillations
 - Debugging of EPICS communication with crate #1 is in progress
2. Tested remote power controller circuit with cRIO relay and heat gun; no problems
3. Tested CAEN interlock circuit using cRIO relay and LEMO cable; no problems
 - Simona Malace has requested that the NIM signal generated by the VLD bleaching mode trigger the relay for the CAEN crates interlocks