

DSG-NPS R&D Meeting Minutes

Date: August 31, 2021

Time: 11:00 AM – 12:42 PM

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

1. Reviewed 08/24/2021 meeting minutes

DSG

1. 08/24/2021 DSG-NPS R&D Meeting Minutes

- For the thermal analysis of the 36x30 array of PbWO₄ crystals, Aaron Brown will mark the temperature sensor locations

2. Reviewed 08/26/2021 collaboration meeting minutes

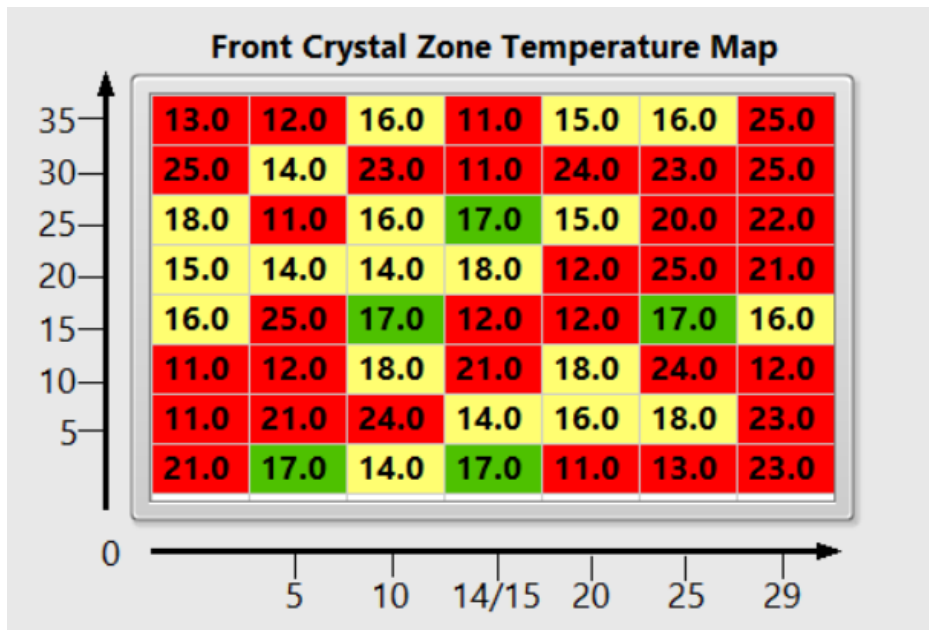
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1. 08/26/2021 NPS Collaborators' Meeting Minutes

3. Hardware Interlock System development

Mary Ann Antonioli, Peter Bonneau, Aaron Brown

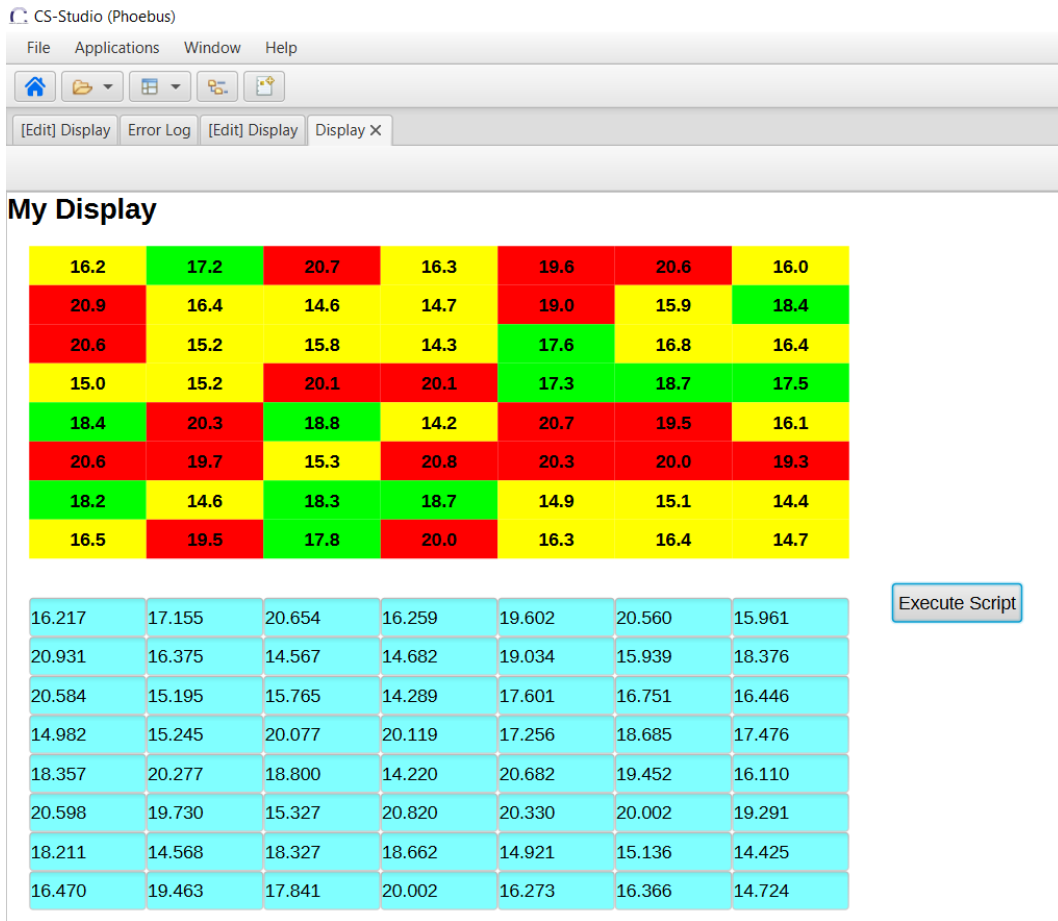
1. Discussed revisions to *Temperature Map* tab for LabVIEW Hardware Interlock Monitoring program
 - Temperature map now shows actual temperature for each sensor instead of average
 - Axes have been changed to show row and column numbers instead of crystal numbers



Screenshot of Temperature Map tab for the LabVIEW Hardware Interlock Monitoring program

2. Aaron Brown will generate a spreadsheet detailing the rates at which the Keysight scanning and Hardware Interlock Monitoring subroutines can update temperature values and how quickly data can be shared between each subroutine

3. Reviewed first draft of Phoebus EPICS Temperature Map screen
 - Temperature values are generated using random numbers generated via an embedded JavaScript



Screenshot of EPICS Temperature Map developed using Phoebus

- Aaron Brown will develop a Python script to generate random numbers that will be passed to both the EPICS screen and the LabVIEW Hardware Interlock Monitoring program

4. Databasing

Aaron Brown, Pablo Campero, George Jacobs

1. A local DSG MySQL database will be developed for drawings, notes, talks, etc. from each project
 - Will research cloud-based storage for database files
 - Brian Eng suggested using the database servers maintained by the computer center for storage

5. HV supply cable testing

Peter Bonneau, Aaron Brown, Brian Eng, George Jacobs, Mindy Leffel, and Marc McMullen

1. Testing of cable #40, with Radial connector on one end and flying leads on the other
 - Marc McMullen ordered banana plugs and an enclosure for all testing components

6. Radiall 52 connector encapsulation testing

Brian Eng, George Jacobs, Mindy Leffel, and Marc McMullen

1. Mindy Leffel has the hot glue and glue gun in hand
2. Radiall 52-pin connectors have arrived from CAEN; Marc McMullen will deliver them to Mindy Leffel
3. Marc McMullen will write the testing procedure