DSG SICOM Meeting Minutes

Date: May 9, 2024
Time: 2:00 PM – 3:00 PM

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

1. NPS interlock controls and monitoring, vers. 3

Mary Ann Antonioli and Aaron Brown

1. Aaron modified subVI used to calculate trip delay
    - Removed unnecessary case structure and checked true/false conditions
    - Tested subVI
    - Brian suggested modification of labels for some indicators on the front panel to make the logic clearer

2. Hall B Magnet PLC controls

Pablo Campero, Brian Eng, and Tyler Lemon

1. Unable to connect to the Torus PLC
    - DSG members will contact Rockwell Automation support after the physics run period since access to PLC is necessary for debugging
2. Pablo requested access to dsgcontrols1 and clas12magpc computers to access PLC software
    - Tyler added Pablo's laptop to Factory TalkView Administration Console list of allowed users in dsgcontrols1 PC
    - Brian added administration rights on clas12magpc for other DSG members
        - Tested remote desktop connections
        - Checked that PLC software was installed
        - Will add DSG laptop hostnames to Factory TalkView Administration Console list of allowed users during next opening of Hall B

3. Hall B ALERT

Brian Eng and Marc McMullen

1. Brian installed LabVIEW 2024Q1on local computer to control and monitor Alicat mass flow controller (MFC)
    - Noted issues with readback variables from MFC and computer and/or network staying online for extended time; changed execution mode in LabVIEW
    - Connected external RTD temperature sensor to compare the temperature variations with temperature sensor located inside MFC
    - Archived data for both temperature sensors shows that when valve of the MFC is open (100%), the temperature increments
2. Discussed limitations of reading the valve position from Alicat MFC when connected in Modbus protocol

4. Hall D Solenoid PXI

Brian Eng

1. EPICS PV arrays not working properly with NI Linux, so Brian installed Windows 10 IoT Enterprise LTSC 2021 on PXIe-8861 controller
    - Unable to created arrays of the required size (10 MB) based on the transfer data rate
    - Will contact NI support to fix issues; otherwise LabVIEW code will need to be changed to break down arrays into maximum array size allowed
2. Brian installed LabVIEW 2024 Q1 and the required modules

5. EIC DIRC

Tyler Lemon

1. Tyler is changing Arduino program to improve timing, increase DAQ rate, and improve serial interface reliability
    - Brian suggested incrementing the baud rate to an available value greater than 115200 for the serial configurations
2. Tyler is developing a testing and calibration program for photodiode DAQ PCB