DSG SICOM Meeting Minutes

Date: February 22, 2024
Time: 2:00 PM – 3:00 PM

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

1. Hall C NPS Interlocks program

Aaron Brown and Mary Ann Antonioli

1. Debugging the NPS Interlock LabVIEW program
   - Noted in the program that the values that determine the array element position and how many elements of the array to be read were missing for some arrays
   - Noted issues in the Boolean comparators used to determine if the values were within the set limits. Boolean comparator AND does not compare empty arrays
2. Planning changes on the new version of the NPS Interlock program
   - Discussed what portions of the code can be converted to subVIs

2. Hall A SoLID LAPPD- NX12 CAD software

Pablo Campero and Marc McMullen

1. Gantry support design
   - L-profiles will be added to the base of each leg of the gantry support to ensure stability and proper attachment to the base of the LAPPD black box
2. LED box design
   - Modifying 3D model in NX due to changes in LED power and control connections
   - Designed LED support inside the box to hold the head of the LED and provide stability for the fiber light attachment
   - Adding threads to the holes at the LED box's base; LED box will be assembled to the gantry's carrier with bolts so position adjustments can be done to achieve perpendicularity with the LAPPD window
3. Reviewing Agilent 33522A signal generator specifications and software compatibility
   - A typical pulse produced by the Agilent waveform generator is used to drive the LED and trigger the data acquisition system. Voltage is varied to control the yield of photons emitted by the LED
   - Model was discontinued; recommended replacement is 33522B Waveform Generator, 30 MHz, 2-channel
   - Checking for instrument drivers for LabVIEW control

3. Ansys Gateway with Amazon Web Services (AWS)

Pablo Campero

1. Reviewed highlights of the JLab meeting to develop a plan to start testing Ansys Gateway
   - IT support is working on access to HPC licenses for JLab users during the testing period, which will be extended by ANSYS
2. Ansys Learning Hub will be extended for JLab users
   - Added DSG usernames to the list of users with access

4. **Hall A ECAL temperature and heater controls LabVIEW program**
   Marc McMullen and Brian Eng
   1. Completed ECAL test stand interlocks control program
      - Reviewed GUI with all controls and monitoring features
      - Discussed actual temperature sensor location and its representation on the GUI
      - PID expert controls available to control heaters in automatic mode
      - Variables displayed on GUI will be archived in EPICS

5. **Hall B FT detector interlock program**
   Peter Bonneau
   1. Reviewed list of cRIO control systems for detectors and magnets supported by DSG
      - List needs to be updated
   2. Discussed upgrades required for the LabVIEW software packages running on cRIO controller