Hall C EPICS

Date: January 18, 2019
Time: 10:00AM – 11:00AM

Attendees: Peter Bonneau, Brian Eng, Amanda Hoebel, Steve Lassiter, Tyler Lemon, Steve Wood

1. HV TCL/TK conversion to CS-Studio (CSS).
    1.1. DSG has developed Python script to convert TCL/TK configuration files to CSS.
    1.2. HV in use for SHMS and HMS so DSG will avoid testing screens with PVs that have potential to write values to HV system.
    1.3. Additional features requested on CSS HV screens:
        1.3.1. Ability to display channel information for histogram bar if user hovers mouse over part of HV voltage and current histograms.
        1.3.2. Generate channel map document for HV group for use as debugging tool.
        1.3.3. Backup/restore system for HV parameters.
    1.4. Discussed potential need for graphical interface for HV.
        1.4.1. Steve Wood mentioned that while a graphical HV interface is not necessarily needed for current system, it may be helpful for new detector systems.

2. PLC-to-EPICS interface
    2.1. HMS PLC interface to EPICS went down January 17, 2019.
    2.2. DSG worked to resolve issue with Steve Lassiter.
    2.3. KEPServerEX software used as intermediate between EPICS and PLC was source of error.
    2.4. Discussed plans to downgrade PLC controller firmware in attempt to fix issue.
        2.4.1. After meeting, firmware downgrade of PLC controllers from 20.058 to 20.055 resolved issue; HMS PLC system now able to communicate to EPICS.

3. WEDM
    3.1. DSG demonstrated WEDM cryogenics screens.
    3.2. Hall C made additional request for alarm indicating for WEDM monitors.
        3.2.1. DSG will look into how to indicate alarms in WEDM.
        3.2.2. Alarms should be able to handle disconnects and frozen values.
        3.2.3. Heartbeat signals may need to be added to PLC for a "screen/comms operational" status.

4. Skylla7
    4.1. Windows 7 server Skylla7 used as Hall C PLC controls server.
    4.2. During PLC-to-EPICS debugging, reboot of Skylla7 took ~21 minutes.
        4.2.1. Long reboot time may be due to internal failure (disk corruption, memory issue, or other).
    4.3. DSG recommends planning to replace Skylla7 with a new server with Windows 10.
        4.3.1. Windows 7 will no longer be supported by JLab Computer Center after 2019.

5. CAEN crate for testing
    5.1. Hall C will loan CAEN HV crate to DSG for development of CAEN-to-EPICS interface for Hall C EPICS system.
    5.2. Hall C will arrange for new modules and CAEN mainframe to be brought to DSG.