

Hall C EPICS

Date: March 7, 2019

Time: 10:00AM – 11:00AM

Attendees: Peter Bonneau, Pablo Campero, Brian Eng, Tyler Lemon, Steve Wood

1. WEDM alarms

- 1.1. WEDM displays alarms based on PVs' fields.
- 1.2. DSG demonstrated WEDM alarms with local WEDM server and IOC running on DSG's PC.
- 1.3. To add alarm indication to WEDM for PVs from PLC systems, the alarm fields will have to be added to KEPServerEX.
- 1.4. Steve Wood will get DSG the database file for KEPServerEX, DSG will add alarm fields to PVs, and Hall C will use new database file to implement alarm fields in KEPServerEX.
- 1.5. Alarm limits will be based on HMI alarm limits.

2. Web-accessible data archiver

- 2.1. There is not a WEDM archived data plotter available.
- 2.2. Steve Wood demonstrated Hall C's existing EPICS archiver interface.
 - 2.2.1. <https://hallcweb.jlab.org/targetlog/> as "Hall C EPICS Archiver Interface".

3. WEDM Heartbeat

- 3.1. Hall C previously requested heartbeat indicator on WEDM.
- 3.2. DSG recommended heartbeat logic be added to PLC programs and signal be passed to KEPServerEX.
- 3.3. Pablo Campero will develop PLC routine that has an overall PLC heartbeat and an EPICS-to-PLC communication heartbeat.

4. HV CSS screens.

- 4.1. Tyler Lemon will put all CSS screens with corrected PVs on *cdaq12* at */home/cdsg/CSS-Workspaces/CSS*.
- 4.2. Steve Wood requested that script developed by DSG to build CSS screens be added to Makefile of existing Tcl/Tk HV monitoring.
 - 4.2.1. Adding new script to Makefile would allow new CSS screens to be updated in the same way as old Tcl/Tk screens are updated.
- 4.3. "Silence alarms" control on Tcl/Tk screens not needed in CSS.
- 4.4. On/off controls will be added to control HV on a group level.
- 4.5. Only a global spectrometer HV off control will be added.
- 4.6. Startup command under development.
 - 4.6.1. Name of executable will follow Hall C convention (*go_...*).
- 4.7. DSG is investigating how to add channel information to HV monitoring bar plots when mouse is hovered over a channel.
- 4.8. DSG will schedule with Steve Wood to test CSS screens again.

5. Backup and restore

- 5.1. DSG is investigating EPICS BURT.
- 5.2. DSG is also developing a script-based backup and restore program in the event that EPICS BURT does not behave as expected.

6. CAEN test station

- 6.1. Marc McMullen is working on hardware test of CAEN mainframe.
- 6.2. Pablo Campero is working on EPICS test of CAEN mainframe.
- 6.3. Brian Eng gave report of status indication found for channels in CAEN.
 - 6.3.1. Channel's status indicated by binary bits that must be parsed to get cause of interlock on channel.

7. Hall C's future run schedule

- 7.1. Downtime of approximately one month in April/May 2019.
- 7.2. Short experimental run in July 2019.
- 7.3. After run, there will be an installation period for polarized Helium-3 target.
- 7.4. Hall C expected to start fall run in November.

8. Hall A PLC

- 8.1. Steve Wood given overview of DSG's task to replace PLC in Hall A.
- 8.2. PR submitted by Brian Eng for new CompactLogix PLCs has been signed.
- 8.3. Brian Eng has started conversion of old SLC 500 PLC program to Studio 5000 to allow it to run on new CompactLogix PLC.