HALL C PLC TASKS REPORT (08/02/2018 – 08/08/2018)

Hall C - PLC Tasks List

Item	Description	Priority	Primary Person	Start Date	Status	Comments	Suggested Duration (days) by Hall C
1	HMS & SHMS Dipole field regulation routine	1	Pablo	14-Jun-18	In Progress	Testing of code to be started	10
2	New NMR communication through PLC to PSU	1	Brian	10-May-18	In Progress	NMR installed in Hall C dipole for testing code	5
3	Test Ethernet vs Controlnet interface.	1	Pablo	7-Jun-18	Completed	Completed on 06/13/ 2018	N/A
4	Swapping of Controlnet by Ethernet modules in SHMS	1	Pablo Brian	3-Jul-18	Completed	Completed on 7/13/2018	N/A
5	Add spectrometer rotation electric break control	2	Hall C	-	Completed	Completed on 08/03/2018	5
6	Add HMS Spectrometer Vacuum to controls	2	Tyler	29-May-18	Completed	Completed on 07/23/2018. To be downloaded to PLC by Steve or Mike.	2
7	Data Logging upgrade, install and make operational	2	Pablo	-	Waiting	HMI screen access	20
8	Develop "on loop" current regulation routine for quads' (3) PSU.	2	Amanda	14-Jun-18	Completed	Completed on 08/06/2018	10
9	Tune valve responses	2	TBD	-	Not started	Need more information	5
10	Wire UPS status to controls	2	Tyler	30-May-18	In Progress	Code modification requested to minimize PLC channel count	2
11	Modify SHMS shutter not in place status	2	Hall C	-	Completed	Completed on 08/03/2018	1
12	Add HMS shutter controls and status	3	Hall C	-	Completed	Completed on 08/03/2018	1
13	~~Alarm notification to on-call staff~~	~~3~~	~~TBD~~	-	~~Not started~~	Should be done in EPICS	4
14	Add HMS quadrupoles hall probe readouts to PLC	3	Tyler	-	Waiting	Email sent requesting information on task, probes and availability of spare probe	3
15	Change SHMS LVDT I/O module from Differential to Single ended	3	TBD	-	Not started	Need information about available hardware	4
16	End of life for Windows 7 upgrade to windows 10 (next year?)	4	Pablo	-	In Progress	RSLOGIX5000 upgraded to v20 on Skylla7. Computer center needs to upgrade Skylla to windows 10.	10
17	Upgrade SHMS PLC from version 16 to version 20	1	Brian Pablo Amanda Tyler	3-Jul-18	Completed	Completed on 7/13/2018	N/A
18	Upgrade HMS PLC from version 16 to version 20	N/A	Pablo Brian Tyler	19-Jul-18	Waiting	Identified modules needed. Waiting for Hall C to procure the modules.	N/A

- PLC program for dipole field regulation in progress
  - Completed first draft version of Dipole Field Regulation PLC program
  - Generated four new routines as part of this program.
  - Upgraded HMI test screen with new options to test PLC code.

- With regards to Windows 7 upgrades to Windows 10.
  - DSG-HallC-6 computer has been rebuilt to Windows 10.
  - Computer with faulty video card needs to be replaced.

- Tested NMR networking in building 36 as part of the preparation for NMR unit and hall probe test in presence of magnetic field.
  - Building 36 doesn't have Hall C dev subnet available.
  - Requested assignation of Hall C dev to one port at the Ethernet switch available.
  - Requested test NMR and probe by generating magnetic field in test lab (building 36) within the operation range of the probe 1.13-3.4 T

- Modified current loop regulation program to reflect appropriate units.
  - No information was available on units the tags were in.
  - Program had MPS_WA_value equal to ADC_readback when they would never be equal, due to not having the same units.
  - Verified logic and sequence follow agreed flow diagram.
  - Waiting on verification of modifications made.

- DSG is waiting for information from Hall C on the following tasks:
  - Valve tune responses
  - Data logging access.
  - HMS quadrupoles specifications.
  - SHMS LVDT I/O module.