

Software Tasks in Test Lab

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Abstract

Discussion of the Software problems to test HYCal in Test Lab

1 Introduction

The main task for the software in the Test Lab is to check all HYCal Hardware and to do monitoring measurements before moving to Hall B. At the present moment we do not have full picture of HYCal hardware.

We need to check and repair everything in nearest future. Anatoli Sitnikov will come in a week. We must have the information about all HYCAL hardware problems, such as the absence of booster supply or the signal in each channel etc.

DAQ is working. We are able to test.

2 Tasks to do this week

- HV aspects
 - There is misunderstanding in Data Base or in HV program. We can not adjust HV at specific channel. For example, to change the HV in the channel [W609](#) we need really to ask HV software to change it in the channel [W504](#).
The same situation is for many other channels. We need to fix the problem to avoid large HV values on PWO channels.
Check where is the problem: in the HV Software or in Data base. ([Dave](#), [Eric](#), [Vasiliy](#))
Result of the analysis ([Vasiliy](#)):

Con.Number	Cell	DelNum	HV Number	HV Crate	HV found
c1.33	G177	3.1.1 (28)	3.1.33	0.0.4	G29
c1.34	G178	3.1.2 (29)	3.1.34	0.0.9	G57
c1.35	G179	3.1.3 (30)	3.1.35	0.0.14	G87
c1.36	G180	3.1.4 (31)	3.1.36	0.0.19	G116
c1.37	G205	3.1.5 (32)	3.1.37	0.0.24	G146

It was found (see earlier) that the channel W609 is adjusted by HV for W504 Test (as previously):

Con.Number	Cell	DelNum	HV Number	HV Crate	HV found
c3.96	W609	1.2.4 (29)	3.2.52	0.14.46	W504

Conclusion: **Need to change software.**

There is another problem for HV.X.4. - **Not investigated yet.**

- Add the possibility to turn on(off) specific board HV (part of the board) it is important for testing the boards (Dave, Eric)
- Cables were re-soldered - need to change DB (Yar is working)
- Hardware tests
 - Add third crate to the DAQ reading (Dave, Eric)
 - Test all pedestals without cables – find the broken channels and channels (boards) with large rms (Raphael, Dustin, Vasily)
 - Test all pedestals with connected cables – investigate the changes in rms (Raphael, Dustin, Vasily)
 - Test LMS in all channels after connecting (Raphael, Dustin, Vasily)
- Trigger cable tests
- Prepare list of bad channels - to be done immediately after HV programming changes (Eric, Yar, Vasily)