

Closing Remarks

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- We had many nice status reports and discussions on our Trigger and DAQ design. They are really fantastic as summarized in Higuchi-san's beautiful talk.
=> Thank you, everyone!
- Hot topics in this workshop are already discussed in Higuchi-san's talk. So I have basically nothing to add.

However.....

Several issues which I noticed (random list):

1. Belle2link

- It still has many issues and is not well established yet.
 - * Slow control: unified scheme to set registers in FEE
 - * Implementation in Spartan 6
 - * Unstable link in some cases -> how to check?
 - <- should be checked/fixed in the series of “system test” with each detector conducted by Nakao-san with Liu-san.
 - * Documentation on both usage and protocol + source codes.
 - Tutorial provided in Liu-san's slides already. Source will be provided soon.

2. Radiation tolerance

- * Spartan 6 will be used in detector FEE placed near detector (ex. on the top). <- Is it really OK?
- * Should be tested in further radiation test.

3. Timing Distribution

- * Pipeline operation in trigger handshake should be proven to work.

4. Neuromorphic trigger

- How to feed CDC data to the trigger? The scheme is still unclear. Full CDC raw data? TSF info only?
 - > Should be discussed and fixed among related persons.

5. Data reduction strategy

- Need to be discussed with physics group.
- MC study could be required to have realistic numbers of the efficiencies and reduction factors. <- MC is ready to do this?

6. Calibration run scheme

- Discussion on it was missing in this workshop
 - <- A little bit early to discuss.
- “On the fly” calibration scheme utilizing the injection period should be discussed (PXD and ECL, for example).
- It may be difficult because of the limitation in the event builder buffer size. -> OK at low rate (<50Hz injection)??
- We should discuss about it in coming meetings and conclude the possibility.

7. DAQ software management

- How to keep up with offline software version?
- “Regular update” is required.
 - > Should think about “regulation” for the update.
- Management of DQM codes and automated checking
 - > Task force issue. Need to form the task force soon.

8. Slow control : many things to do

- How to manage two worlds : NSM and PVSS
 - + additional layer may exist (like Chromosome)
- Need the framework fixed as early as possible for the development of detector control (i.e. HV control)
- Run state model should be clarified for various cases.
(HV trip, local run)
- License issue for PVSS and DB(Oracle)

Workshop goals achieved?

Goals:

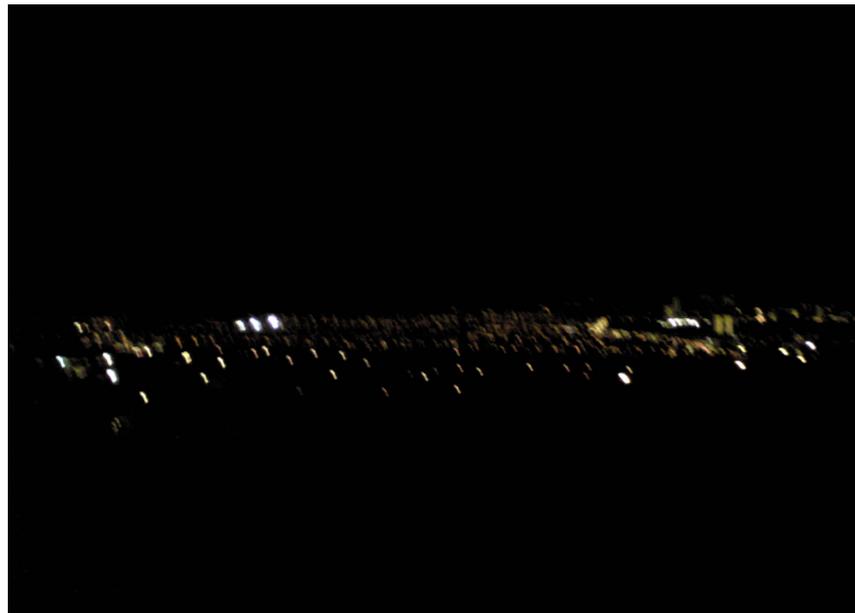
1. Revisit TRG/DAQ \leftrightarrow detector FEE interface and find short-comings in current design so as to fix/improve them as soon as possible.
-> Issues in Belle2link have been clarified and further works should be made.
2. Clarify design of control scheme of DAQ, consisting of run control and slow control.
-> Still many things to do.....
3. Revisit trigger/data reduction strategy in Belle II DAQ and have a consensus in TRG/DAQ people. Then bring it to the discussion with physics group in next B2GM.
-> Got an consensus among participants. Bring the idea to physics group for further discussion
4. Update our schedule to match with new “target dates”.
-> Homework for TRG/DAQ groups.

Please be prepared for the new
target dates.

Let's thank Gary and his company
for managing this great workshop!

Excellent coordination and Excellent party....!!!!

Gary's house was really really a nice place!



What a “high” life!!!!!!

Next Workshop. When and Where?

- TRG/DAQ workshop series has been started from 1997 and workshops were annually held until 2006 at various places **outside KEK in Japan.**
- After 3-year intermission, the WS series was restarted from 2010 at the place **outside Japan.**
- History:
 - 2010 : Seoul (Korea Univ. hosted by E.Won)
 - 2011 : Beijing (Peking Univ. hosted by Z.-A.Liu)
 - 2012 : Hawaii (U. of Hawaii hosted by G.Varner)
- When and where to have the next workshop?
- To keep the tradition, it should be held at somewhere **outside Japan.**

- The original idea on the place is
 - * Somewhere in Asia (Hawaii is supposed to belong to Asia!)
 - <- because of limited travel budget for related people
 - * Outside Japan!
 - * Go through participating institutions/countries.
- We went through: Korea -> China -> US.

My proposal:

- * How about coming back to Korea for next workshop?
- * I personally talked with B.G.Cheon on the possibility to have the workshop in Hanyang university and I got a positive impression from him.
- * We would like to avoid “January in Seoul”, it's freezing cold!
 - > How about having next workshop sometime in fall.
(October or November, 2012).
- * For next-next workshop, I propose to have it in Taiwan in 2013 fall.



Workshop adjourns.

Thank you for joining the meeting.

See you soon in March B2GM.