

Collaboration Meeting

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Fermilab

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Thursday 30 January 2pm

- There will be a joint session with DAQ from 2 to 3:30pm (CERN time, i.e. 8am on the East Coast)
- Remote connection using Vidyo (not Zoom), see
 - <http://information-technology.web.cern.ch/services/fe/vidyo>
- Details of Vidyo connections are not yet available
- (I forgot whether you are allowed to use Vidyo if you just have a CERN lightweight account, in case of problems you should still be able to connect via a phone bridge)
- Meeting format
 - Presentation of DAQ view of DAQ/TPC electronics interface
 - Presentation of TPC electronics view
 - Discussion

E-mail from Roland Sipos (i)

- Topics for discussion
 - 1. Timing interface functional requirements
 - > The aim is to understand what is required from the timing system <
 - When do you need the Hardware/Firmware/Software components ready for testing your system.
 - Can you outline the tests you would like to do with respect to timing (include numbers if possible; what needs synchronization; special timing/trigger signals?)
 - 2. Readout interface functional requirements
 - > Aim of Collecting requirements from the DAQ perspective. <
 - Fibre count, bandwidth requirements, clock rates, special data taking modes etc.

E-mail from Roland Sipos (ii)

- Topics for discussion
 - 3. Error handling and recovery procedures
 - > Aiming at creating a fault-tolerant system <
 - When a unit becomes synchronized, how do you indicate the problem?
 - When data become corrupted, how do you indicate the problem?
 - What do you consider to be a warning (something needs investigation but don't stop running yet)?
 - What do you consider to be an error (more serious failure that requires reset/recovery)?
 - How should it be recovered? Is the recovery sequence quick or does it requires a full reset/reboot?
 - 4. Calibration procedures of PD
 - > We would like details on the procedures to gauge the impact on DAQ <
 - What is the frequency of calibration runs? How much of the detector is being calibrated in one "calibration run"?
 - Do you expect to take calibration data during physics runs? How often?
 - What is the impact of calibration on point 2? (bandwidth, storage volume etc.)
 - Will you keep calibration data long term?
 - Does calibration place extra requirements on timing? (Special timing signals? Special calibration hardware?)
 - 5. Slow control of hardware components
 - Could you provide an estimate of device counts ?
 - How many sensors/quantities do you expect to monitor? At what frequency and how much should they be archived?