



VELO DAQ COMMISSIONING AT CERN

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- Do you need centralised support for a test-system, or will you do it yourselves?
 - Prefer the former
 - Don't want to have to move DAQ systems around
- Where will you do the tests?
 - VELO halves at Point 8 surface
 - This is a cross-check
 - Main characterisation testing will be done at Liverpool prior to transport
- When do you need the test infrastructure to be ready?
 - Module transport expected end of 2019
 - Testbeams from now (nominally twice per year)

SPECIFIC QUESTIONS

- Number of PCIe40s
 - 1 for lab; 3+ for testbeam
- event-building required?
 - for lab no; for testbeam yes
- Data need to be stored? Locally? Long-term? How much of each?
 - Some yes. A trigger is essential.
 - Local storage - yes for rapid analysis. Long term - EOS.
 - Will endeavour to be conservative with space; dump old/garbage data
 - 1-10TB
- Data need to be processed? In the FPGA? on the PC? What kind of processing?
 - Data will be processed in FPGA.
 - Non VELO specific processing not necessary. Enormous CPU bandwidth not expected

SPECIFIC QUESTIONS

- Does data need to be monitored?
 - Would be nice, let's see if we're ready
 - does this question refer to online monitoring?
 - Probably environmental monitoring is as important
- At what granularity (single channel, single board, full events)?
 - probably single board
- Do you have an existing/legacy data monitoring system that you intend to integrate?
 - Yes, we will migrate SPIDR software
- How many work-places / screens required on site? Remote access?
 - 2 normally, more for testbeam
 - Remote access = yes
- Are you interested in a small-scale miniDAQ2 reference system being available at CERN in the near-future?
 - Yes? Not sure what reference means?

GENERAL RECOMMENDATIONS

- Fibres break - have lots of spares
- SOL40 is more useful than TELL40 for test setups
- A permanently installed ECS/DAQ system would be very useful - both for testbeam and tests at Point 8