TEL62 and Cedar

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Tests and current working conditions

Tests:

- TR and 2 DryRuns with tel62cedar: it worked, with some issue (ccpc freezing, rebooting, sometimes not running ..)
- high rate test during DryRun using TDCB pulser: poor rate resolution
- 2 new tel62 used last week for testing during the installation: some script issue, 1 TDCB replaced for blocking 1 PP, 8 GbE ports tested, no noisy channel on one of the 2
- mesured time resolution between 2 tel62s (in Birmingham)

Status:

- 1 tel62 (200) fully populated and temporarily cabled with 16 TDC cables (no splitters)
- 2nd tel62 (200) up and running, but no input cables
- ccpcs of new tel62 take ages to get IP (30mins)

Installation and integration

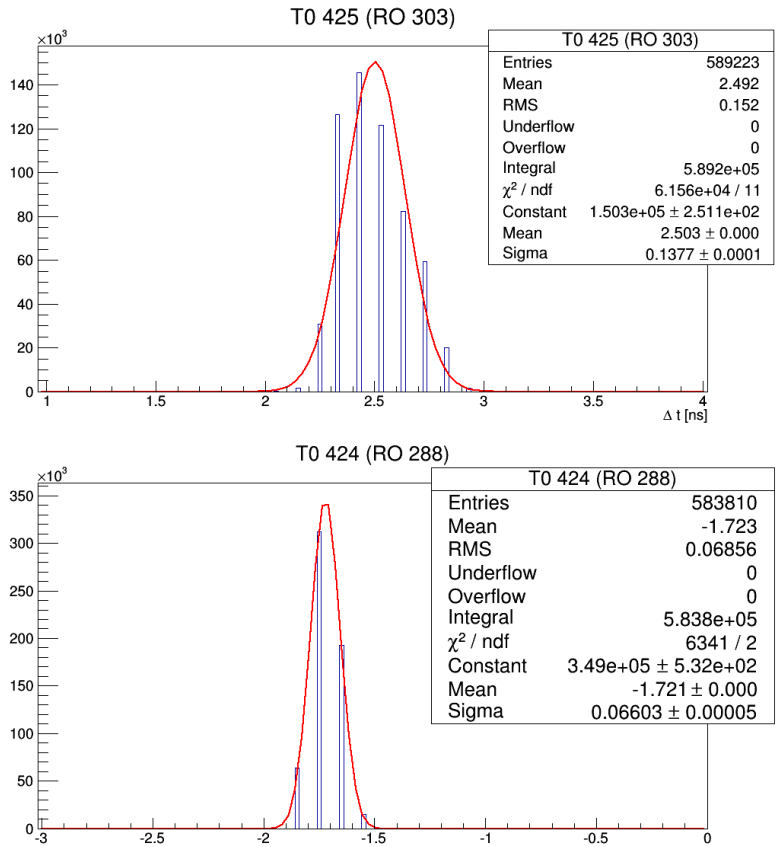
- KTAG should be fully equipped by the end of September
- All patch panels, cables, cable supports and splitters are available and tested
- The installation will be completed at the end fo September, if TEL62s (+4) and TDCBs (+16) will be available
- After TR, 2 DryRuns and some software work the integration is complete:
  - Hardware
  - Data to farm and daq
  - Online monitor
  - DCS: HV, LV, thresholds, gas system, pressure scan (to be tested), alignment (half tested)
- Minor debugging to be done here and there

Time resolution measurement (TEL62a - TEL62b)

Verify the contribution of QPLL synchronization to time resolution across the experiment

Mesurements:

- 1 split NIM pulse → TEL62a, TEL62b
- 1 split NIM pulse → TEL62a on TDCBa (2 HPTDCs)
- 1 NIM pulse + 1 PM signal (laser driven) → TEL62a
- 1 NIM pulse + 1 PM signal (laser driven) → TEL62a, TEL62b



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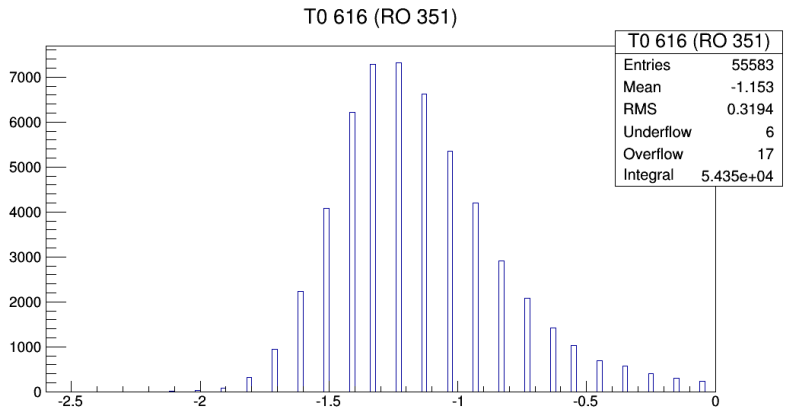

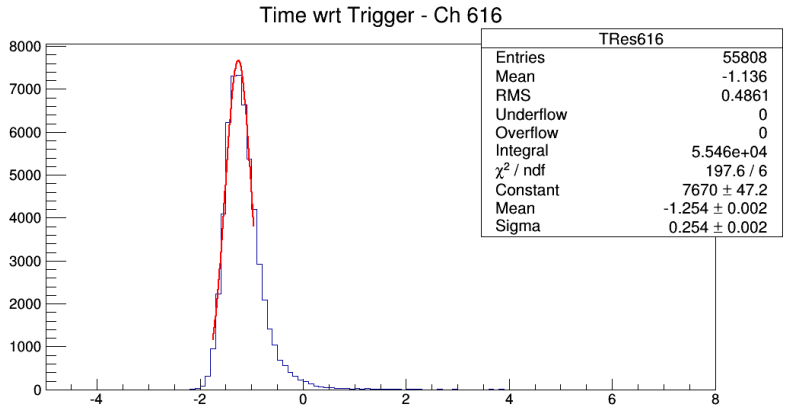

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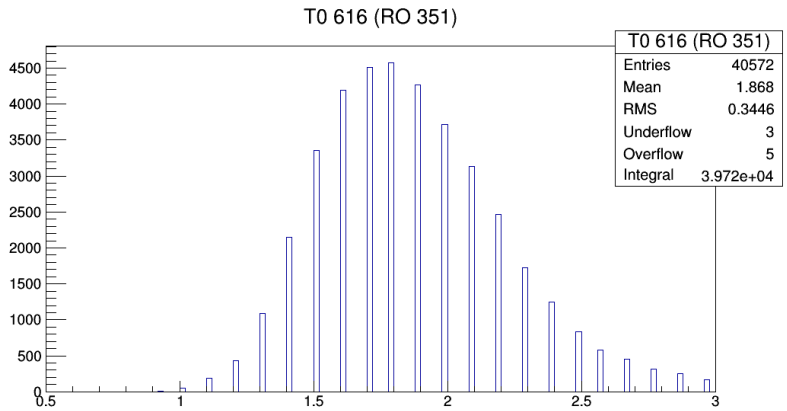

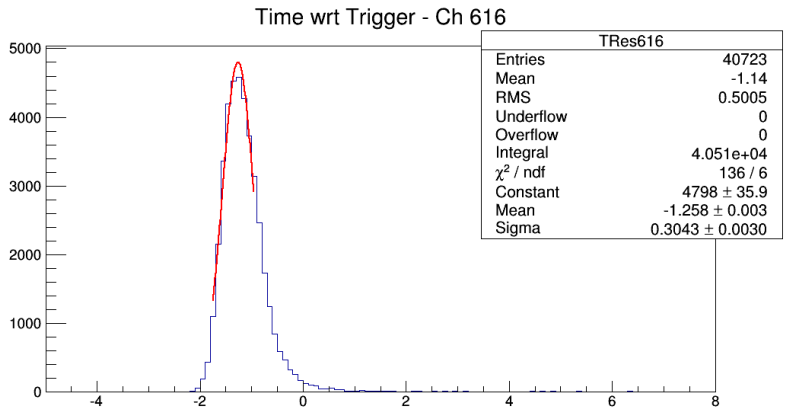

Summary and prospects

- KTAG tested with partial readout
- Latest readout components tested, but 2/3 still missing
- High rate test to be redone once PATTI clock is fixed
- Integration status is fine
- DCS is operational, although to be refined
- Waiting for XML template for runcontrol
- Full installation and functionality foreseen for the end of September
- Some basic DCS information already foreseen in the SOB/EOB data
- Alignment and Pressure scan procedures will need some debugging with the beam
- QPLL contribution to time resolution measurements estimated around 140ps