

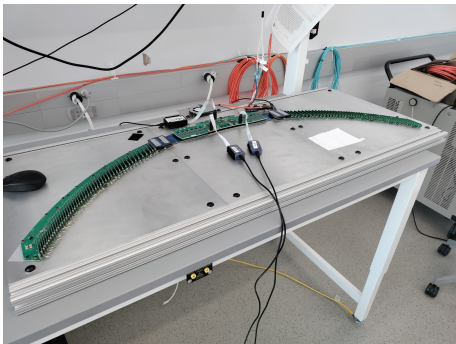
Collaboration Meeting: TDAQ Update

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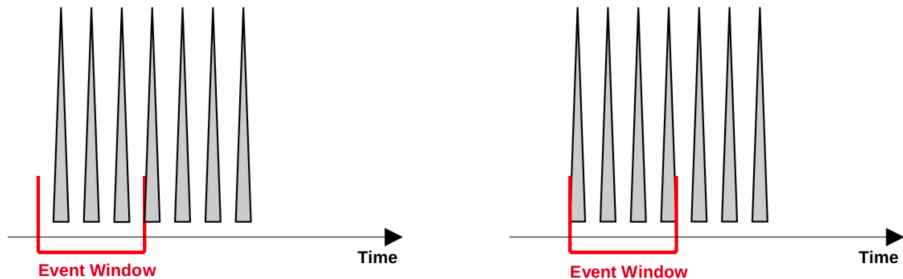
Working area



- 3 test stands (TS0,1,2) IERC;
- Optical fibers connect them to the DTC installed in the DAQ computer mu2edaq09;
- Each teststand has 96 channels;
- A pulser implemented in the DRACs is sending pulses to the preamps (CAL side) at 50 kHz;
- Pulses are digitized at 40 MHz;
- Only 12 channels pulsed per RUN (one pulse every 8 channels);
- We are using 1 or 2 ROCs at the same time.

⇒ **Data Quality Monitoring**

Description of the teststand setup

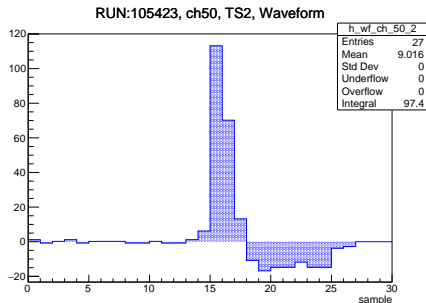


- Pulses are separated by $20 \mu\text{s}$ ($1/f_{\text{gen}}$) - trying to learn how to use it;
- EW can be varied between 700 ns and $50 \mu\text{s}$;
- ROC hit buffer stores up to 255 hits (DocDB47837);
- The timing of the readout is uncorrelated with the generator timing sequences \rightarrow number of readout pulses is variable;
- The channel readout sequence is fixed.

Waveforms

We can plot:

- Number of hits vs channel;
- waveform shape;
- first sample ($Wf_{thr} > 5$) distribution;
- charge distribution;
- pulse height distribution;
- tail charge distribution;
- Δt distribution between hits.
- Error found : XXX



Number of hits versus channel number

cross talks, in odd channels and asymmetric

features vs channel

we look at the mean value and from
there we establish the critical channels

analysis of the charge and pulse height

tmean

analysis of delta t between hits and negative waveforms

lower value of charge and pulse height

more hits in one channel than $2/3$

less hits in one channel than $2/3$