DAQ for TPC with electrons

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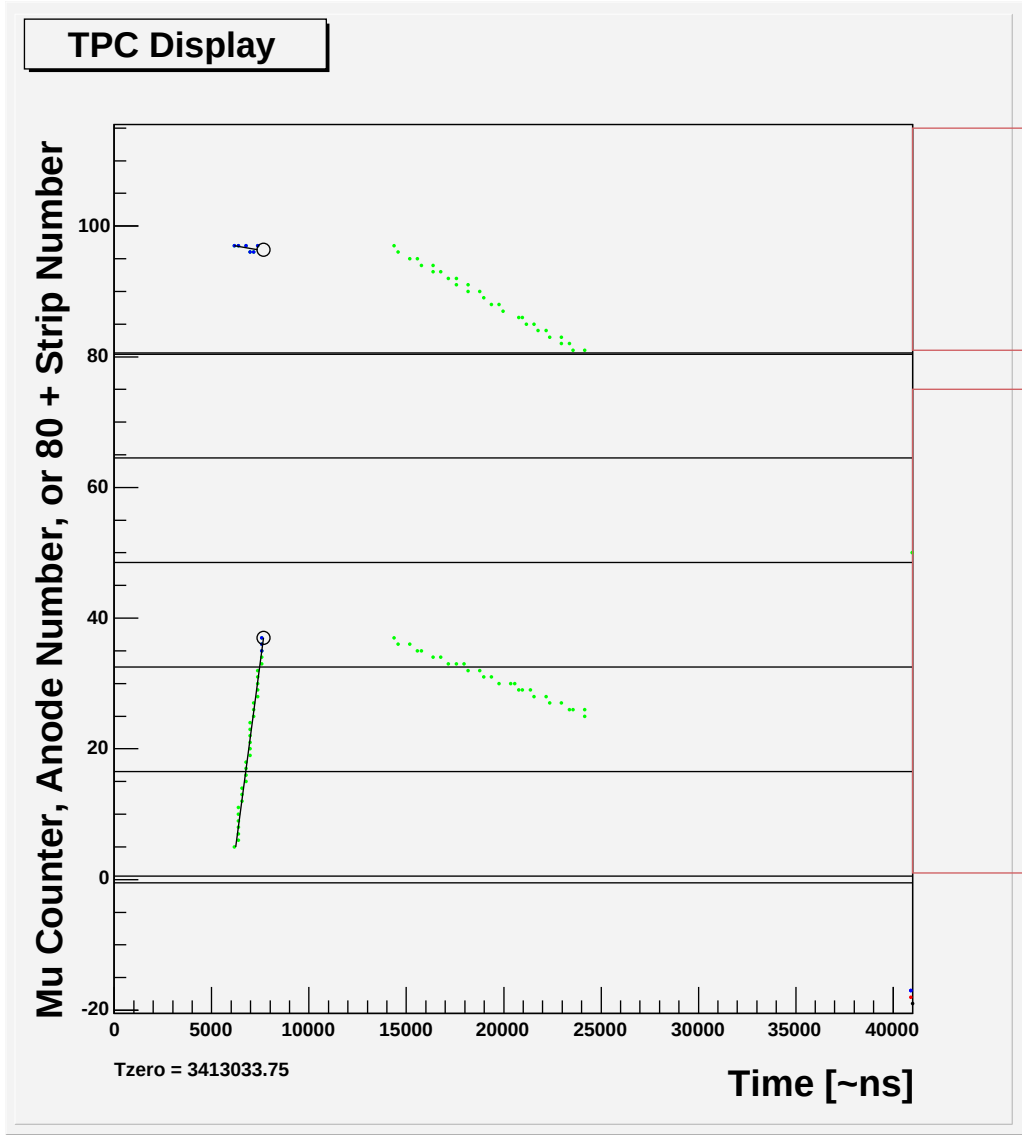
μCap collaboration meeting, Urbana, April 30-May 3, 2005

Electron tracks



Estimated rates

- From technical proposal: 30 MB/s (???)
- From current Monte Carlo:

	Run 8 data	Electron-free MC	Electron MC
Raw	4.2 MB/s	1 U	1.9 U
From TPC	3.0 MB/s	0.7 U	1.4 U
Compressed	2.2 MB/s	0.4 U	0.8 U
Compression ratio	1.9	2.4	2.5

- Projection: 8.0 MB/s before compression (6.0 MB/s from TPC), 4.2 MB/s after
- Current system is tested to $\sim$8 MB/s per TDC400 crate. No problem!

Future DAQ plans

- Stability improvements
  - Update to latest MIDAS version
  - Increase ODB size
  - Automatic watchdog/restart mechanism
  - Long-term testing
- FADC installation
- μLan WFDs on eSC
- Radical alternative – bypass TDC400 if it becomes problematic
  - All TPC channels are on FADCs! Use them with firmware thresholds for simultaneous digital and analog readout