



Online Reconstruction

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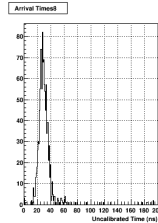
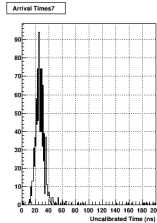
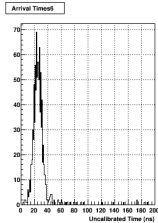
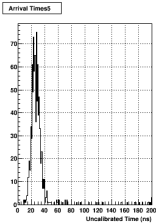
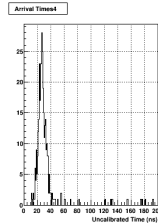
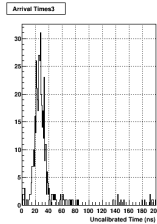
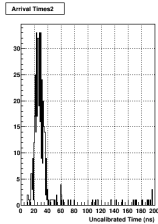
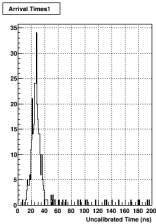
22nd June 2015

Overview

- Online Reconstruction provides fast detector reconstruction and visualisation for MICE
- Part of MAUS (ideally a copy of the latest release, in practice control version is sometimes hacked)
- Uses multiprocessor framework based on Celery
- Provides higher level plots than Online Monitoring
- Have plots for CKOV, KL, TOF and Tracker (no EMR yet)
- Good user documentation
- Supported by Software-on-Call
- Live data at: <http://micewww.pp.rl.ac.uk/dq/>

CKOV

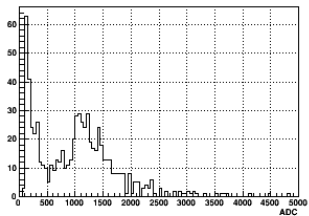
Lots of good plots present (however no data for last few weeks of running...)



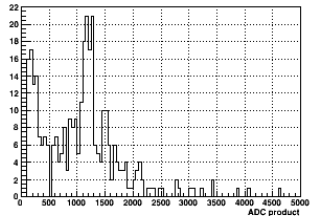
KL

Good plots present:

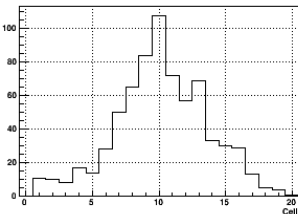
ADC



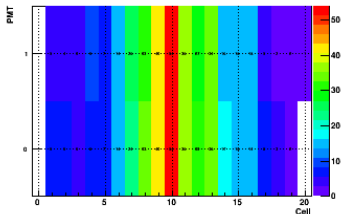
ADC Product



Beam Y-profile



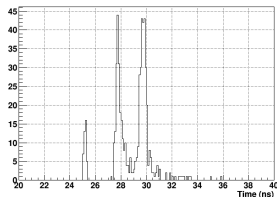
Digits



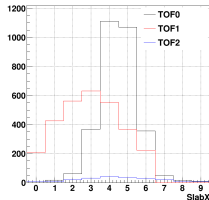
TOF

Abundance of good plots:

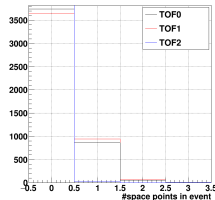
TOF0->1



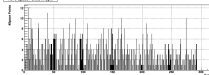
Slab Hits X-plane



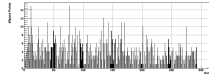
#Space Points



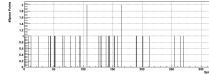
TOF0: Space Points in Slab



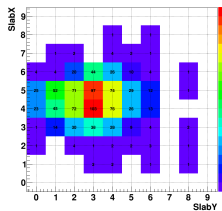
TOF1: Space Points in Slab



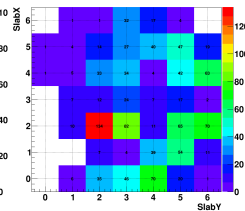
TOF2: Space Points in Slab



tof0: space points

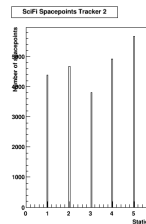
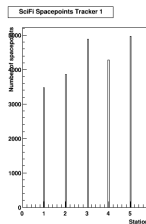
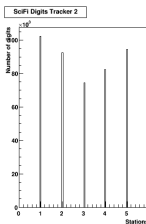
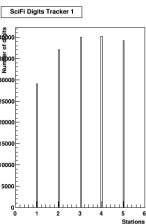
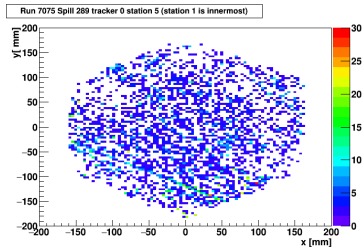
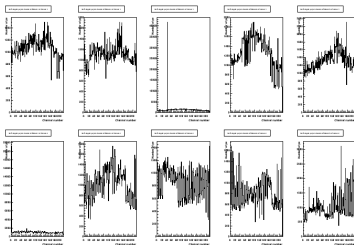


tof1: space points



Tracker

Lots of good plots present, though scope for even more (tracks):



Recent Running and To Do

- Iron out remaining issues highlighted by recent running:
 - Unpacker problems with DAQ data (mostly solved)
 - Tracker DAQ producing bad data (solved?)
 - Tracker mapping and calibration (solved)
 - Tracker plots not present (partly solved)
 - Tracker reconstruction bugs (partly solved)
- EMR plots
- Add run number to output
- New framework (live updating GUI, rather than png files, C. Rogers working on it)
- Check speed is ok