DAQ activities during LS1

- ROD firmware : need to adapt to new Sector Logic raw data format, following introduction of EI/FI

- RCD (ROD Crate Daq)
  - No major change in data acquisition itself
  - Monitoring being improved
  - BIG thing: brand new DQ, needing redesign of configuration files, panels, …. UNDER WORK
  - Second BIG thing : SA (Shifter Assistant).
    - Plan is to use the tool which plays back old messages issued during problematic runs and devise which advices should have been given to the shifter in such a situation

DAQ activities during LS1

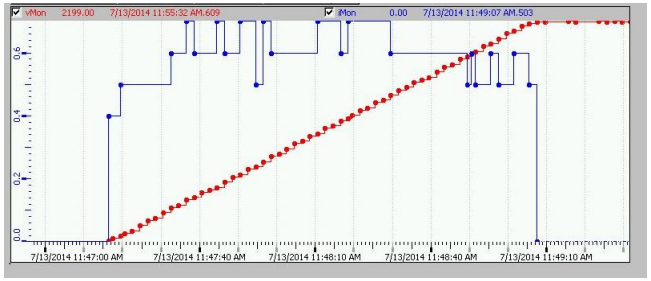
- Condition and DQ-Flags Data Base:
  - Follow “party-line” and use COOL: more central support, though inefficient (see next slide on DCS)

- A few words on the “ROD-Busy” saga:
  - Flagged as concern by ATLAS run coords, management….
  - Hard time to convince people to call it “TGC busy”
  - Japanese colleagues have identified the problem: SSW overflow caused by bursts of very noisy events across all the muon system
  - Building a dedicated “Run Merger” h/w, which detects n hits in m consecutive L1A. Will be first deployed as a signal to CTP. Then “we’ll see”.

DCS LS1 Activities overview

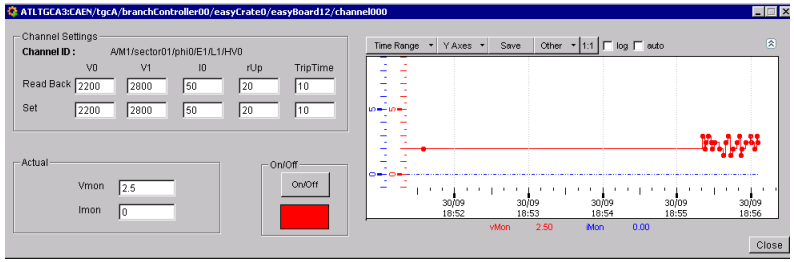
Hardware replacement and software upgrade

- Replace 4 out of 7 TGC DCS computers
- OS migration/upgrade to linux (SLC6) and Windows 2008
- Upgrade the underlying software to WinCC OA 3.11 (ex PVSS)
- CAN bus:
  - move from Kvaser to Systec interface
  - port TGC custom driver (threshold settings) from Windows XP to Linux SL6
  - move to OPC UA for standard ELMBs (temperature & alignment)
- CAEN Mainframe: move from SY1527 to SY4527 (fast OPC reporting)



DCS ongoing activities

- Background scripts:
  - Remove all calls to TGC custom DB, rely on PVSS archive and PVSS to COOL
  - Replace PVSS timed functions with a different frequency mechanism
  - Streamline and sub-divide scripts according to functionality
  - Documentation (ONGOING)
- FSM:
  - Changes to the structure (move CCMC, TMP & DCS to infrastructure node)
  - Investigating Automation for tripped channel disabling, mail to expert
  - LV & shifter-friendly panels
- HV:
  - New trip recovery script (step wise)
  - Interactive mode (Super expert mode)
  - Add logging facility for channel



Schedule, still tentative

- Milestone runs
  - M6 13 to 17 Oct: TGC out
  - M7 24 Nov to 7 Dec: Cosmic run with partial shift crew, etc…
  - M8 26 Jan to 15 Feb: Cosmic run with full shift crew, etc…
- LHC
  - 9 Mar to 3 May commissioning. Shifts restart with possible cancellations
  - 4 May Physics