A Working DAQ

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- The DAQ itself is closed out
  - That's been true for ~3 months
- However, the uB Project is still tracking final TPC Assembly, which means a functioning DAQ
- We've been told May 23 (30?) for the past many months
  - I think that date derives from a time when we thought the cryostat would be installed and insulated by about now.
  - We are clearly N months behind.
  - Nevertheless, that seems not to change the idea that the DAQ — at some level of functionality — is to be done by end of May.

- The monthly progress is estimated in a capricious manner (by me)
- For example, at end of January we were at 20%
- End of February, after getting LArTF basically networked, PCIe cards installed, Online monitoring working, establishing long run times, ubdaq-prod-smc working, I said 35%.
- Two days ago, for end of March report, despite non-obvious leaps in progress I said 45%. Run Control is “working,” SN mode works in parallel to triggered mode, etc., two test racks, 3 crates, are ORC’d at LArTF, many slowmoncon check-ins

But, what do we really need working by end of May?

- The (most essential parts of the) DAQ should be functional as a system

- We have spec'd out tweaks to the state machine, which Gennadiy has agreed to have reworked by 1-May. Basically to allow for not needing to reconfigure the FEMs for every run, and other features: like a graceful Stop transition, e.g.

- The run control needs to be more robust. It needs to allow to fire up and heartbeat and shutdown online_monitor and dispatcher. It should do the same with beamdaq.

- Swizzling needs to be on-shell. We once said we'd have our own LArSoft install on ubdaq-prod, running N instances on our own condor farm, shipping out to enstore.

SlowMonCon

- The KSU guys should tell us here what should be up at LArTF to signify an essential working slowmoncon system.
  - A working CSS/BOY display of the fan speeds, temperatures of a Rack, and same for a server or two.
  - Use of CSS/BOY GUIs for the now-in-computer-room Wiener power supplies
  - Harvesting of the ganglia-produced rrd files. And inserts thereof into EPICS dB.
  - Demonstration of EPICS dB queries
  - … ?

More components

- All previous can be done with N fake data crates, but we should connect the 2 TPC crates and the 1 PMT crate, with fanned-out trigger and clock.
  - Can we pulse the PMT system with coincident IRM beam pulse and fake a trigger?
  - What else can be done with no actual TPC ??
- Should have the GPS time collected, in the system. Code is there, ready to use. Antenna almost installed.
- fcl files should be assembled from dB calls. We should have basic inserts/queries of dB used in Run Control.
- SN mode “works”. Compression mode — for both Triggered and SN — at least tested.

The fuller itemized list

- https://cdcvs.fnal.gov/redmine/projects/uboonedaq/wiki/TasksRO

  - is the so-called pre-commissioning list. Meaning that stuff should be checked off by, say, 1-Sep-2014.
  - There are names by the items there.
  - I actually think there's been real progress on those items and it seems close to complete.
  - I need to make additions to that list: requesting the central FNAL tibs back-ups of valuable disk areas, arranging dB replications …

- Without the TPC out at LArTF it's hard to know just what is a working DAQ …