

October 2014 SBN Quarterly Report

1. MicroBooNE DAQ Commissioning (Wes Ketchum)

Wes is the leader of the MicroBooNE DAQ Commissioning effort, and Figure 1 shows the current status of the DAQ system, where the solid circles show tasks that have been completed and dotted circles show tasks that are in progress. The DAQ has successfully readout 2 TPC racks and 1 PMT rack at LArTF, established near 10 Gb/s data rates to the EVB, and run 10 SEB processes. In addition, the DAQ has exercised the ability to start and stop SEB/assembly processes and the ability to take data via run control. By the end of the month, the DAQ will verify readout with the full online monitoring apparatus and will read trigger module data.

DAQ - Wes

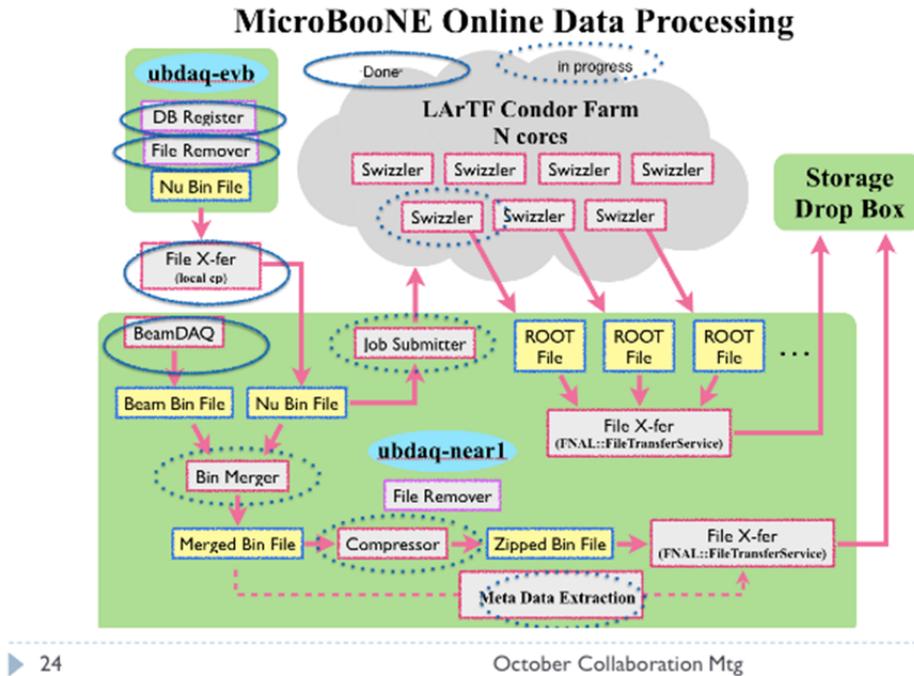
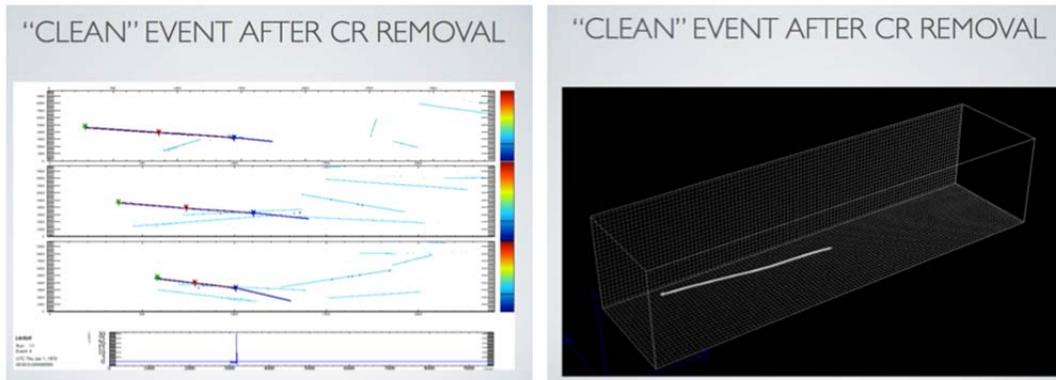


Figure 1: Current status of the DAQ system..

2. MicroBooNE Cosmic Ray Tagging (Wes Ketchum)

Wes is co-convener of the MicroBooNE event reconstruction working group, and the group is continuing to improve the tagging and removal of cosmic ray induced Monte Carlo events. Figure 2 shows a typical Monte Carlo generated neutrino event after cosmic ray removal. At present, cosmic-ray tracks are rejected by a factor of 10 with only 6% of neutrino events rejected. Further improvement is expected.

Cosmic tagging 2



9.5/10.5 rejection of CRs in 3 windows. (7.8 of 9.5 are "easy")
6% rejection of Neutrino evts
(10.5 is the factor 2-3 low we've been talking about today...)

Figure 2: A typical Monte Carlo generated neutrino event after cosmic ray removal.