

LArSoft minutes, 31-Aug-2011. -- Eric Church

LArSoft minutes appear at <https://cdcvs.fnal.gov/redmine/projects/activity/larsoftsvn>. (The location presumably at which you found these!) For further details of matters reported here drill down into the wiki, etc, at that redmine site. Everyone is welcome to attend the bi-weekly meetings. Next meeting will be 13-Sep-2011. It will be back in the Racetrack, 7X0.

There are pdfs from Eric and Herb in the Documents link on redmine.

Eric requests users to add new run problems and their resolutions to the Troubleshooting link on the wiki: https://cdcvs.fnal.gov/redmine/projects/larsoftsvn/wiki/Trouble_Shooting. No repeats, please, but new unique situations that caused some amount of headache and then the cathartic solution you discovered, to save us all time when we're stuck.

We discussed the need to please keep diagnostics in Analyze routines and out of Produce routines where possible. Some diagnostics that must be done in Produce classes under the control of a switch, preferably defaulted to FALSE, will be tolerated. Also, let's minimize the *if (!realData) {}* clauses to do extra/different things when reconstructing MC vs data, please.

Eric showed that uBooNE muon MC evts take almost an hour to reconstruct, and DBCluster is the culprit, taking 95% of that time. Kinga and Eric agree to look at this. Obviously, such a time-consuming algorithm can not be used.

Herb gave a nice full presentation on progress in time distribution tightening as seen in his SpacePointService(). With changes lately to ArgoNeuT code the y and z true-reco distributions are now close to theoretical limits. The ArgoNeuT x recon position remains shifted by a few millimeters for reasons to do with the convolution/deconvolution, as Herb demonstrated by inputting a delta function signal on a given wire and showing that the output hit comes back shifted by a consistent few mm. We think this is a known problem, and await Mitch to weigh in. Herb tracked down the weirdo uBooNE collection plane time difference that he showed last wk to the fact that CalWire is deconvolving its collection plane with the induction response. That root response file had bins in induction and collection that were parsed oppositely. Herb checked in the fix after the meeting. Herb showed that both the ArgoNeuT and uBooNE Induction planes, after deconvolution, produce pulses with undershoots. We'd thought Brian P had in fact created new, improved smoother functions with which he convolved the original pulse to create the signals, and with which he deconvolves to produce that pulse. Where is that new code? Generally, Brian, Herb, Eric, Shulamit all decided to help in the effort to expand the institutional knowledge of DetSim/CalWire going forward

Details for the next meeting:

>>> video: 85LARSW

>>> phone: 510 423 9220 (ID 85LARSW)

>>> fnal location: Racetrack, 7th floor x-over