**LArSoft Steering Group Meeting - 12/16/21 - revised 12/23/21**

Attendees: Tracy Usher, Tom Junk, Wesley Ketchum, Tingjun Yang, Herb Greenlee, Erica Snider, Katherine Lato

Thanks to all who attended and approved the 2022 work plan for LArSoft. We began by discussing the feedback that we received on the draft plan circulated in November and how it was incorporated into the document, mainly by re-establishing two items as high priority.

A question was raised about expected timelines for the high priority items.

- The plan document is not an appropriate place for detailed timelines, since the items are usually quite broad with multiple sub-projects. Typically, we develop detailed timelines only for these specific sub-projects under a given plan item.

- Much, but not all sub-project work is carried out with accompanying Redmine issue tickets. Our current practice, however, does not always include specific timeline targets in those tickets. Can try to make that more transparent in cases where it is important.

- In other cases, work is tracked via other means, such as shared documents. This is how much of the thread safety work is being carried out. Those pages are not generally circulated to the community, so are not transparent to the experiments, except when reported at bi-weekly Coordination Meetings. Moving forward, we will advise the experiments of these tracking documents via email or Coordination Meetings. More generally, the Project will try to be more transparent on our timelines. We request that the experiments make it clear to us when having this information is important to them.

Another topic was work on HPC and multi-threading. Much of this is experiment-specific.

- The Project focuses this work on “critical production workflows”, where the expectation is that the experiments will tell LArSoft which ones these are.
- [not stated at the meeting] The Project has committed to investing effort into carrying out this work even when the code in specified critical workflows is experiment-specific. The external reconstruction frameworks are not at present included under this.
- Tom commented that Pandora dominates execution time for ProtoDUNE, but that data prep dominates for DUNE FD. Making that workflow thread safe, multi-threaded, run on HCP and on GPUs is still a good thing.
    - Also noted that BNL is looking for co-investigators (for a funding call?) to make Wire-cell GPU-friendly. This would feed into the dataprep workflow.

Pixels in DUNE

- Noted that there are many separate efforts working on pixels, often using different frameworks and technologies (e.g., python frameworks, GPUs, etc.). While some of these groups have run large-scale simulation and reconstruction at HPC centers that have been used for detector design studies, the experiment would like to ensure that these efforts develop into production solutions for the experiment
- The Project has not done a good job of engaging with those efforts. We agree with the importance of this, so will continue to try.

No other comments, and no suggestions for changes. All present signed-off on the current draft plan, which is therefore approved. It is available at: https://indico.fnal.gov/event/51795/ Please let us know if you have any comments or corrections.

Erica & Katherine