

LArSoft Steering Group meeting December 13, 2017  
Attendees: Erica Snider, Katherine Lato, Thomas Junk, Sam Zeller

The LArSoft work plan for 2018 is available at: <https://indico.fnal.gov/event/15293/material/1/0.pdf> Erica discussed each topic in the plan. While the order does not represent priority, investigating a common Event Display framework was listed first because multiple experiments requested it. We will carry out the investigation, working closely with the experiments, with the goal to create a project to implement the recommended solution. We have commitments from people in the experiments to develop features and data product / detector display code to run in the framework.

Two items that have been added to the plan since it was first circulated:

- Re-architecture of art services in LArSoft to ensure thread safety
- Support for transitioning code to art-independent repositories, making them available to run in external frameworks such as gallery, in order to meet the growing demand to run LArSoft code in art-independent contexts. LArsoft will provide a written policy for managing this code.

Clarification questions were asked during the presentation of the items, but nothing that changed the structure or scope of the plan.

Question: how can the experiments help with resources? Discussion: It would help if the experiments provided service credit to their respective experiments for work in support of LArSoft community solutions. Experiments often find this difficult to do because they have other types of indirect work that is not currently counted as service credit. Managing this situation can present problems. Would carefully matching the project to the experiment that most needs it allow it to be counted? Maybe.

Round Robin:

- LArG4 re-factoring is important and DUNE wants that to be top priority. FLUKA people are waiting for it. LArSoft has dedicated staff working on it, and we don't believe it can be made to go faster with more people.
- The global wire/drift coordinate may be very close to addressing the TPC locality issue which is now in the long term plan.
- ProtoDUNE is interested in the functionality to load into memory data products only from selected part of the detector, e.g. selected TPCs; this may be a feature request to art however.
- For the Event Display, DUNE is interested in:
  - Adding an option that flips the y-axis (time axis). Right now, events appear flipped (the top of the detector appears on the bottom for the two views).
  - At least for dual phase (or detectors with two readout views), it is nice and more intuitive to have the two views side by side (instead of on top of each other).
  - Display RMS for the selected channel. Need clarification as to which data the RMS value applies -- pedestal? Hit? Region of interest/above threshold?

The LArSoft Work Plan Wrapup for 2017 is available at: <https://indico.fnal.gov/event/15293/material/2/0.pdf> While a couple of projects are carrying over into 2018, SPACK and LArG4 re-factoring, most of the items were completed including some work on long-term priorities that influenced the 2018 work plan.

If you have any questions or comments, please let us know.

Katherine & Erica