LArSoft Coordination Meeting

Release and project report

Erica Snider
Vito di Benedetto
Giuseppe Cerati
Lynn Garren
Katherine Lato
Paul Russo
Saba Sehrish
Fermilab

Feb 12, 2019



Today's agenda and speakers

- Release and project report (Erica)
- Status of multi-threaded LArSoft work (Mike Wang)
- Exploring a 2D drift simulation in LArSoft (Leon Rochester, Tracy Usher)
- AOB



Releases

- Last week
 - v08_07_01 released Feb 5
 - Updated to art v3_01_01
 - The working bug fix for "illegal instruction" errors in art
 - Corrects an incorrect attempt to fix the problem in art v3_01_00
 - v08_08_00 released Feb 8
 - Changes to avoid discarding createEngine's returned reference, per presentation at previous LCM
 - Added ability to iterate over ChannelID_t within a TPC
 - GeometryCore::ChannelsInTPCs() returns std::vector<raw::ChannelID_t>, a sorted list of unique channels in TPCs
 - Updates to shower track fits



Releases

This week

- Decoupling classes with geometry information from the source of that information (currently GDML)
 - A new geo:GeometryBuilder class tasked with reading, interpreting the source
- Space charge service interface improvements
 - As discussed at previous LCM

Next week

- Will work to accommodate MicroBooNE production release freeze schedule
- The plan at this point
 - Integrate changes requested by MicroBooNE into develop / weekly release + v08_00_00 production branch
 - Migrate v08_00_00 production branch to art v3.01.02
 - Cut two releases:
 - the usual weekly release
 - v08 00 00 02 for MicroBooNE

Feb 12, 2019 4



art v3.02

- Expect that art v3.02 is now available
 - Decouples art libraries from root, root-based I/O
 - Introduces a new umbrella ups product, critic, that will set up root + associated dependencies
 - critic product depends on art and new art_root_io product
 - Various breaking changes as noted on the art breaking changes page
- Earliest time estimate for LArSoft migration is end of February
 - Plan to migrate as soon as possible, preferably after Genie v3 migration
 - Seeking input from experiments on issues that might affect this schedule

Side note: the next Spack-based "minimally viable product" test will be based on LArSoft + art v3.02, so requires migration before it is available



Genie v3

• Test release for Genie v3: v08_01_00_01 (released Jan 7)

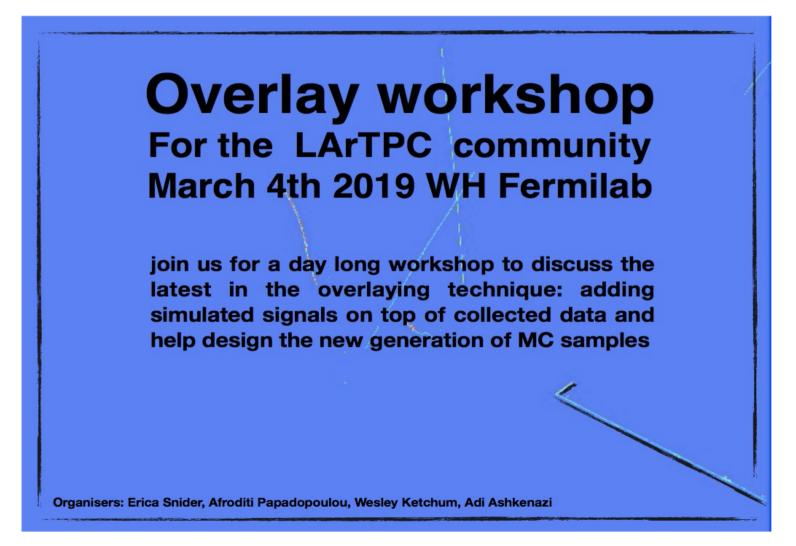
Need sign-off from every experiment before migrating

- As of the last LCM four weeks ago
 - MicroBooNE anticipated a decision in 1 2 weeks

We've received no other input, guidance as to when to expect decisions Plans?



LArTPC data overlay workshop March 4



Register here: https://indico.fnal.gov/e/lartpc-overlay-workshop-march-2019



LArTPC data overlay workshop March 4

Potential topics

- Introduction to the issues of data overlays
- Experiment presentations
- Adding signals
- Calibrating simulation to match data
- Timing in the simulation and data
- Production workflows for producing samples

Register here: https://indico.fnal.gov/e/lartpc-overlay-workshop-march-2019



The end