

LArSoft partners / project meeting

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Today's agenda

- News and discussion (Erica)
- Status of releases (Lynn)
- Experiment reports / input
 - LBNE
 - uBooNE
 - LArIAT
 - ArgoNeut
- Project status (Ruth)
- AOB

LarSoft Continuous Integration Workshop

- June 17 and 18 (next week!!)
 - Immediately following FIFE workshop
 - Important presentations on the central build service, “worch” build tool and art on Monday afternoon
 - Agenda (almost final)
 - <https://indico.fnal.gov/conferenceDisplay.py?confId=8571>
 - Focus on testing and the use of the CI system
 - The central service is now in production
 - Prototype system for LArSoft is under development
 - Expect to have at least one end-to-end test completed and working in Jenkins
 - Mark Dykstra working with Patrick Gartung
 - LArSoft requirements will be posted to LArSoft indico page
 - Open for comments

Workshop agenda

Tuesday, 17 June 2014

- 14:00 - 14:30 **Welcome, Goals, Scope of the Workshop 30'**
Speaker: Dr. Robert Roser (Fermilab)
- 14:30 - 15:00 **The CI Infrastructure 30'**
Speaker: Erica Snider (Fermilab)
- 15:00 - 15:20 **MicroBoone Goals, Status, Needs 20'**
Speakers: Dr. Eric Church (Yale), Dr. Herbert Greenlee (Fermilab)
- 15:20 - 15:40 **LBNE Goals, Status, Needs 20'**
Speakers: Dr. Thomas Junk (Fermilab), Elizabeth Sexton-Kennedy (FNAL)
- 15:40 - 15:55 **Unit Testing - practice and experience 15'**
Speaker: Dr. James Amundson (Fermilab)
- 16:00 - 16:15 **Break**
- 16:15 - 17:45 **Demonstration of end-to-end use of CI system and how to code/integrate new tests 1h30'**

Wednesday, 18 June 2014

- 09:00 - 11:30 **Coding of New Test/Validation modules 2h30'**
- 11:30 - 12:00 **Pandora - algorithms and interface with LArSoft Discussion 30'**
Speaker: Mark Thomson (University of Cambridge)
- 12:00 - 13:00 **Lunch 1h0'**
- 13:00 - 13:30 **Data products - Needs? Ideas? 30'**
Speaker: Dr. Brian Rebel (Fermilab)
- 13:30 - 14:00 **Topic 2 30'**
- 14:15 - 14:45 **Topic 3 30'**
- 14:45 - 15:45 **Back to Coding 1h0'**

Status and discussion

- Optimization work (Gianluca)
 - High priority effort to improve memory and CPU performance for LBNE and uBooNE.
 - Enable sharing of algorithms, running standard grid jobs
 - LBNE
 - Current focus is on detector representation
 - Make representation of many TPC's "small"
 - uBooNE
 - Met with art team to discuss memory and CPU issues in art and root
 - Advice from art team on managing data products
 - Cited example of reducing 8 GB executable to 2 GB
 - Some of these cases apply to usage in LarSoft
 - A few other useful techniques noted

Gianluca will present full status at a meeting in the near future

Status and discussion

- CI system work (Mark Dykstra + Patrick Gartung)
 - Working on scripts that will run in Jenkins
 - Focusing on a small set of tests to serve as end-to-end example
 - make test (ie, unit tests)
 - A (very) simple simulation integration test
 - CPU time per module with history comparison

Will get as much running as we can

- Still a number of details to work out
- Have a set of requirements for LarSoft
 - Will post these to the indico page for comment

Status and discussion

- Clarification of procedure for merging code into develop
 - Some questions raised at the last librarians meeting
 - Require “approval” for merge into develop only for breaking changes
 - TimeService, for example, required changes to some LBNE fcl files
 - LArSoft project will assist, treat any required work as high priority
 - Want to keep development on the develop branch to the extent possible
 - Intent here is to allow rapid development and deployment, while protecting each experiment from activities of others
 - The CI system will be an integral part of making this model work.

Status of releases

- Lynn

Experiment reports

- LBNE
- uBooNE
- LArIAT
- ArgoNeuT

Project status input

- Ruth