

LArSoft Coordination Meeting

Release and project report

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Today's agenda and speakers

- Release and project report (Erica)
- art 'tool' and other new features in art 2.06 (Kyle Knoepfel)
- Shower reconstruction / changes to recob::Shower (Tracy Usher on behalf of Yun-Tse Tsai)
- Radiological generator and geometry (Tom Junk)
- Optical simulation changes for SBND (Diego Gamez TBC)
- AOB

Re-scheduled for next meeting



Releases

- Last week:
 - v06.24.00
 - New neutrino cross section functional forms (via nutools)
 - Changes to develop

- This week
 - Two requested merges
 - TrajCluster update from Bruce Baller
 - New features only
 - recob::Shower update from Yun-Tse Tsai
 - New data members to be discussed today
 - Other changes to develop

art 2.06

- New version of *art* is available: v2.06.01
 - Kyle will discuss new features in this release
- **New platforms** supported with this release
 - Ubuntu 16.04 LTS
 - Mac OSX Sierra
 - SIP **disabled**, so will remain “known to work”
- Also changing with this release
 - **Migration to gcc v6.3.0**
 - Will discuss the procedure momentarily

Ubuntu support

- Ubuntu currently supported as “known to work”
 - Distribution tarballs made available on best effort basis

With *art* support for Ubuntu 16 LTS comes a new possibility

- Make Ubuntu 16 LTS a “supported platform”
 - Regular builds released at the same time as all other supported platforms
 - Automated CI tests with every push to develop branch

Both of these require a Jenkins build slave running Ubuntu

- Working with Brett Viren to set up an Ubuntu build slave at BNL
- Still a number of steps ahead, but he has a basic plan laid out

gcc 6 migration

- With art v2.06, will migrate to gcc v6.3.0
 - ups qualifier becomes **e14**
`setup larsoft -q e14:<prof|debug> <version>`
- Do not anticipate major issues with the change, although
 - Generally expect more warnings from compiler
 - Might need to change some header files

gcc 6 migration

- Proposing the following *art* / gcc migration path
 - Start with a tag / branch (TBD)
 - Ensure CI tests pass
 - Migrate art version to 2.06.01 (since it also builds with gcc 4)
 - Ensure CI tests pass
 - Migrate to gcc 6
 - Ensure CI tests pass
 - Cut two releases
 - One with code immediately before the two changes
 - One with code immediately afterward

Will create release candidate if needed to resolve CI test errors

- Expect this process to take at least two weeks from approval
 - Comments?? Objections?? Otherwise, we will proceed immediately.

Geant4 update

- A new version of Geant4 is expected in the next couple of weeks
 - v10.3.p01
 - Will include the changes for optical photon physics processes described by Hans Wenzel at the last LArSoft Coordination Meeting

- Question to the community
 - When should we migrate?
...discussion...

Change in remote connection to meetings

- Fermilab is migrating from ReadyTalk to Zoom for remote meetings
 - A number of improvements, including video and multi-platform support
 - See <https://fnal.zoom.us/> for details / FAQ etc
- This week will be the last meeting hosted on ReadyTalk
- The Zoom meeting ID for future LArSoft Coordination Meetings
 - 831-443-820
 - <https://fnal.zoom.us/j/831443820>

The full meeting instructions from Zoom:

Join from PC, Mac, Linux, iOS or Android: <https://fnal.zoom.us/j/831443820>

Or iPhone one-tap (US Toll): +16465588656,831443820# or
+14086380968,831443820#

Or Telephone:

Dial: +1 646 558 8656 (US Toll) or +1 408 638 0968 (US Toll)

Meeting ID: 831 443 820

International numbers available: https://fnal.zoom.us/join?m=SvP8nd8sBN4intZiUh6nLkW0-N16p5_b

Or an H.323/SIP room system:

H.323:

162.255.37.11 (US West)

162.255.36.11 (US East)

221.122.88.195 (China)

115.114.131.7 (India)

213.19.144.110 (EMEA)

Meeting ID: 831 443 820

SIP: 831443820@zoomcrc.com

Status of on-going sub-projects

- LArG4 re-factoring project
 - Hans Wenzel
- CI system operations
 - Vito di Benedetto
- Usability: associations
 - Saba Sehrish
- Profiling and optimization project
 - No report this week
- LArSoft documentation
 - Katherine Lato

The end