LArSoft Coordination Meeting

Release and project report

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Today's agenda and speakers

- Release and project report (Erica)

- Status and deployment plan for LarG4 re-factoring (Hans Wenzel)

- TrajCluster update (Tingjun Yang)

- AOB

Releases

- **Last week**

  - v06_85_00 released on July 26

    - *art* v2.11.03

    - Changes to PhotoLibrary to reduce memory footprint

    - Option to track photons in event display

    - New recob::Slice data product. Used by TrajCluster for intermediate information

- **This week**

  - v07_00_00 released July 31

    - First release with LArG4 re-factoring, but with partial functionality

      - Opted for full release rather than release candidate

    - e17 support starting with this release

      - Does not yet include TensorFlow or Caffe. See issues 20461, 20462

  - Weekly integration release to follow later this week

    - Will be part of v07 series

v07_00_00

- **First release with full LarG4 re-factoring**

  - A significant change in the simulation workflow paradigm

    - Factors Geant4 energy deposition and the various detector-dependent simulations from each other

      - Separate tools/modules for each major step in the process

    - See Hans Wenzel's next and previous LCM presentations

- **Immediate impact**

  - **A new repository** with elements interfacing to Geant4: **larg4**

    - **Need to set up larg4 v07_00_00 by hand** (our mistake!!)

  - **The previous LarG4 is still there**, unchanged!!

    - No breaking changes associated with the new code

      --BUT--

      fhicl files will need non-scriptable changes in order to use the new code

    - See the LarG4 Migration Notes wiki page for more information

  - **Partial functionality with this release**: does not simulate AuxDet's

Fixing large size of `larsim` repository

- **The problem**

  - Bloated 10+ GB history due to past accidental commits of binary files

- **Several solutions discussed at the last LCM.**

  - Freeze commits, then require everyone to check out cleaned versions

    - No code changes required

    - Difficult to ensure that everyone follows the protocol

      - Strategies to enforce the protocol seem burdensome: allowed / disallowed lists

  - Create a new repository – requires a new name for `larsim`

    - Administratively simple

    - Difficult to circumvent the protocol

    - All necessary changes can be scripted

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- **Plan to pursue changing the name of `larsim` to `lardetsim`**

    - Schedule TBD. Comments welcome!

LArSoft license

- Previously discussed putting LarSoft under license

- Have decided to proceed with Apache v2 license

  - https://www.apache.org/licenses/LICENSE-2.0

  - Few restrictions, recommended by HSF / Fermilab IP office, not viral
    - •

- The mechanics

  - Have added a LICENSE file the larsoft repository with boilerplate text
    - See the Apache v2 Appendix
    - Will add to other repositories pending discussion
  - Review dependent packages for conflicting license restrictions
    - GPL is a common issue
  - Select a copyright holder: Fermilab + all contributing institutions??
    - Need to follow-up on this item, since we might need input from all institutions…
  - Timescale for all this TBD

LArSoft license

- Current contents of LICENSE file:

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- Please send comments to larsoft-team@fnal.gov

The end