LArSoft Coordination Meeting

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Today's agenda and speakers

- Releases and project report (Erica)

- Status of architecture work (Gianluca Petrillo)

- `larreco` changes (Bruce Baller)

- Event display improvements + fix to photon detector flash width (Karl Warburton)

- Changes to handling of AuxDetGeo in the Geometry (Brian Rebel)

- AOB

LAr TPC software forum

- ## LArForum.org/forum

  - A new forum created (or the old LArForum has been resurrected)

    - Hosted at Manchester by Andrzej Szelc

  - Aimed at discussing software for LArTPC detectors

  - Contains all of the content from the previous forum

  - Lots of tools, feature plugins available for the phpBB application used

    - If there are features you want, please let us know

  We strongly encourage people to sign up and participate

art / LArSoft course

- art / LArSoft class August 3 – 7

    - See https://indico.fnal.gov/conferenceDisplay.py?confId=9928

    - Last day of the class will be devoted to LArSoft

    - Class is now full!

        - Register for waiting list: t
          https://indico.fnal.gov/confRegistrationFormDisplay.py/display?confId=9928

    If you have registered, but know you cannot attend, please let us know!

Send suggestions, comments to ssehrish@fnal.gov and erica@fnal.gov

LArSoft logo contest!!

- We're seeking suggestions for a LArSoft logo!

- Are you artsy / design minded behind that analytical physicist exterior?

  - Create something! Send it in!

- We'll solicit contributions for the next month or so
  (exact timetable to be determined) then vote on what we like the best

- Some early entries (thanks to Tia Miceli and Katherine Woodruff)

Releases

- Released v04.15.00 last week

  – Normal weekly release

- This week

  – New version of art is available

    • v1.15.01

    • Addresses an important issue raised by LArIAT

    • We plan to move to this version with the next LArSoft release

  – New version of nutools

    • Based on a new build, but no changes to code

    • Required due to issues raise while working on builds at CERN

  – The next LArSoft will include these + regular contributions

    • v04.16.00

    Comments??

Status of on-going sub-projects

- Architecture report (Gianluca)

- LArSoft CI system v2 upgrade

- LArLite integration project

- Profiling and optimization project

- worch build system evaluation

LArSoft CI system v2 upgrade

- The v2 upgrades are complete except for one requirement

    - Enable certificate authentication for access to both Jenkins and the reporting DB

        - Not critical for current configuration, but will be as slave nodes move off-site

    - Two new projects will be established to pursue the following

        - v3 upgrade

            - Inclusion of tools that can assist with physics validation
            - Per prior agreement, will adopt a solution based on systems for CMS and GENIE/GEANT4

        - GUI enhancements

            - Bringing in a graphical design team to help with creating an the intuitive, well-crafted end-user interface that people expect

http://lar-ci-history.fnal.gov:8080/LarCI/app/view_builds/index

Short reports

- ## LArSoft / LArLite integration project
  Leaders: Chris Jones and Marc Paterno

  - The initial report has been posted to the indico page for the last Coordination Meeting

    (https://indico.fnal.gov/conferenceDisplay.py?confId=10108)

    Please direct any feedback to Chris Jones and Marc Paterno (please cc Erica too!)

  - No report this week due to other on-going work, except to note that:

    The integration team has been cleared to proceed with work

Short reports

- **Profiling and optimization**

  Leader: Jim Kowalkowski

  - Have a draft charter for the next phase of this effort

  - The scope of the work:

    - Evaluate the use of GEANT4 through LArSoft using LArIAT simulation as a model

    - Look at:
      - physics lists
      - geometry use and energy deposition
      - stepping and other GEANT4 parameters
      - code speed
      - upstream detector integration (if time allows)

  - Expect to have two people working full time for one week

  - Will produce a report with recommendations for follow-up – much like previous profiling project.

  - Start date TBD. Target completion is mid-August

Short reports

- worch build system evaluation
  Leader: Jim Amundson

  - The evaluation has been completed
    - See the report posted to the indico page for the previous Coordination Meeting
      https://indico.fnal.gov/conferenceDisplay.py?confId=10108
  - Work now proceeding within the context of HEP Software Foundation (see packaging sub-group
    - HSF: http://hepsoftwarefoundation.org/
    - Packaging sub-group:
      http://hepsoftwarefoundation.org/content/software-packaging
    - Just getting organized…
  - Will report as needed as project evolves

The end