LArSoft Coordination Meeting

Release and project report

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Today's agenda and speakers

- Release and project report (Erica)
- Docker as an alternative to supporting Mac OSX (Pengfei Ding)
- AOB



Releases

- Last week
 - v06_65_00 released Jan 23, 2018
 - First release with art v2.09.06 and nutools v2.17.02
 - Includes only changes needed for art v2.09.06. Otherwise identical to v06_64_00
 - Branches feature/team_for_art209 provided for experiment code
 - Included some breaking changes due to changes in art
 - The script UpdateArt209.sh provided to update local code
 - Will be in \$PATH after setting up larsoft v06_65_00 or later
 - See release notes for full details
 - v06_66_00 released on Jan 24, 2018
 - Introduced support for associations with metadata to proxy classes
 - Added MCInformation about beam particles to Pandora for ProtoDUNE



Migration to art 2.10 and qualifier e15

- art 2.10 series releases
 - The first to use non-native clang for builds on Mac OSX
 - This is needed to support builds on High Sierra
 - Drops support for gcc 6.3 in favor of gcc 6.4
 - gcc 6.4 fixes a significant compiler bug in gcc 6.3
 - Though we know of only one instance where it had adverse effects,
 - That one was isolated to the build phase
 - LArSoft / cetbuildtools qualifier e14 uses 6.3
 - Qualifier e15 uses gcc 6.4
- art 2.10.01
 - Fixes a provenance bug when parent data product is dropped from output



Migration to art 2.10 and qualifier e15

- The plan
 - Migrate LArSoft build to e15 this week
 - Migrate to art 2.10.01 as soon as possible thereafter
 - Some breaking changes due to *art*. Details on the art breaking changes wiki
 - Introducing support for clang may itself take two weeks or more
 - Preliminary estimate is two to four weeks, depending on how things go



Platform support

- Recently approached by DUNE about support model for OSX
 - All are aware of the difficulties *art* / LArSoft has dealing with Mac OSX
 - The need to disable SIP has long prevented promotion to "supported platform" status.
 - Promises to be a show-stopper for the release after High Sierra
- Virtualizing the build environment is a possible solution
 - Build under SLF in virtual environment hosted on Mac OSX
 - Involves dropping support for the (quasi-) native builds we currently have
 - Docker is one way to do this.
 - An example of this is what we will hear today



Platform support





The end

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