

LArSoft Coordination Meeting

Release and project report

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Today's agenda and speakers

- Release and project report (Erica)
- LArG4 re-factoring project (Bill Seligman)

Releases

- Last week
 - v06_56_01 released on Nov 14
 - Only changes to develop

- This week
 - Integrating new versions of several products
 - ifdhc v2.2.0
 - dk2nu v01.05.01
 - makefile changes only - **none to physics**
 - genie v212.8a
 - ROOT_INCLUDE_PATH improvement that should eliminate root/cling messages
 - ups v6.0.6
 - Allows builds within docker containers (by ignoring kernel version during setup)
 - **Needed for art 2.09.02**
 - Promises to **allow full support for Ubuntu 16 LTS (!)** on existing Jenkins SLF slaves
 - Will be made “current” on Monday, Nov 27

Releases

- Also this week
 - Merging changes to include fhicl validation for SingleGen module

Comment on the schedule this week

- Plan to have a release this week, but cannot guarantee it will happen due to the Thanksgiving holiday

Comment on holiday schedule

- **There will be no weekly releases between Dec 18 and Dec 31** except by request.

Releases

- New version of *art*
 - *art* 2.09.02 is ready
 - Fixes `std::array` bug
 - Plan to integrate *art* 2.09.02 the week after next (assuming there is a release this week)
 - Want to separate this from change to `ups`

Question about gallery features

- A question has arisen about the information accessible within gallery environment
 - Would like to gather information from LArSoft community to determine whether the project should take a position
- Should data objects in run and sub-run records be accessible within gallery?
 - Easy to say “yes”, but there is a cost to doing this, so want to make sure that there is sufficient benefit

Discussion?...

Other items

- Proposing to move to “VIGILANT” compiler flags
 - Currently using **CAUTIOUS** as defined in cetbuildtools.
 - Using **VIGILANT** generates errors on a larger set of questionable practices
 - Will catch more bugs at compile time
 - VIGILANT adds
 - **-Wextra** : turns on lots of other warnings (**which trigger build errors**)
 - **-Wclobbered -Wempty-body -Wignored-qualifiers -Wmissing-field-initializers**
 - **-Woverride-init -Wtupe-limits -Wuninitialized -Wshift-negative-value**
 - **-Wunused-parameter -Wunused-but-set-parameter**
 - Also warnings when
 - *A pointer is compared against integer zero with <, <=, >, or >=.*
 - *An enumerator and a non-enumerator both appear in a conditional expression.*
 - *Ambiguous virtual bases.*
 - *Subscripting an array that has been declared register.*
 - *Taking the address of a variable that has been declared register.*
 - *A base class is not initialized in a derived class’s copy constructor.*
 - **-Wno-long-long -Winit-self -Woverloaded-virtual -Wnon-virtual-dtor**
 - **-Wdelete-non-virtual-dtor**

See [GCC documentation](#) for more details

Other items

- Proposing to move to “VIGILANT” compiler flags (cont'd)
 - Schedule for this is not yet set
 - Some repositories are ready
 - **Now seeking comments on this proposal**

- Removing MemoryPeakReporter module (in lardata)
 - Obsolete. All functionality replaced by MemoryTracker in *art*
 - See <https://cdcvs.fnal.gov/redmine/issues/18220>
 - This is a breaking change. From [the breaking change page in LArSoft wiki](#):
 - Affects jobs that configure MemoryPeakReporter
 - Failure to fix will cause run-time failures when *art* fails to find the module
 - Plan to integrate this change into v06_57_00

The end