

LBNE Continuous Integration (Software Infrastructure)

LArSoft Continuous Integration Workshop
June 2014

High-level LBNE CI Infrastructure Plans
Supported Platforms
Open Questions

LBNE Continuous Integration Plans

From a high-level, software infrastructure view

- 1 Continue involvement in Fermilab CI group
- 2 Provide CI clients covering LBNE "supported" platforms
- 3 Set up triggered CI build jobs
 - tags LBNE package releases
 - tags LArSoft/*art* package release
 - commits LBNE package master branches
- 4 Develop CI jobs with from existing unit test/validation code.
- 5 Encourage more unit tests and validation code.
- 6 GOTO 4

Also:

- Will explore ways to leverage build job output to provide software installations for sites hosting the CI clients.
 - this is a site-specific special case and not inherent in the CI system.

LBNE Supported Platforms

- LBNE has a geographically diverse, international collaboration.
- Lots of institutional computing power in multiple flavors.
 - **Mac OS X** major **developer** platform is Mac
 - **Sci. Linux** major **cluster** platform
 - **Deb/Ubu** major **MY** platform!
 - **others** including SUSE are important
- Requirements for “supported” platforms w.r.t. CI:
 - At least one technically capable person as “champion”
 - Responsible for setting up and monitoring platform CI host(s)
 - Triage failures that are platform-specific

Some Open Questions for LBNE CI/SI

- Advertise one specific unit test framework on collaboration?
 - Probably. Leaning toward Boost Unit.
- Require it?
 - No, best to keep bar low to accept any/all tests.
- How to balance CI resources for test coverage?
 - Need to gain some experience.
- How to get developers to write tests?
 - That's the \$64K questions!