A Roadmap to Continuous Integration for ATLAS Software Development

J. Elmsheuser, A. Krasznahorkay, E. Obreshkov, A. Undrus
for the ATLAS Collaboration

Brookhaven National Laboratory, USA;

CERN, Switzerland; University of Texas, Arlington, USA
Current ATLAS software infrastructure is package-oriented

- SVN code repository
- Tag Collector web-interfaced tool for version management
- 70 branches of nightly releases composed of various package sets and versions defined in the Tag Collector on daily fixed schedule

ATLAS software infrastructure is adopting Continuous Integration (CI) practices

- Git code repository with CI workflow support
- Jenkins CI automation server for nightly jobs
- RPM-based deployment scheme relying on the CernVM-FS file system
- Open source tools for testing and monitoring, such as CTest and CDash

Goals of ATLAS software infrastructure development:

- Build nightly releases early and often, with rigorous unit and integration testing
- Rationalize hardware resource use
- Reduce human effort for infrastructure support