

# The nightly build and test system for LCG AA and LHCb software

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The core software stack both from the LCG Application Area and LHCb consists of more than 25 C++/Fortran/Python projects build for about 20 different configurations on Linux, Windows and MacOSX. To these projects, one can also add about 20 external software packages (Boost, Python, Qt, CLHEP, ...) which have also to be build for the same configurations. In order to reduce the time of the development cycle and increase the quality insurance, a framework has been developed for the daily (nightly actually) build and test of the software.

Performing the build and the tests on several configurations and platform allows to increase the efficiency of the unit and integration tests.

Main features:

- flexible and fine grained setup (full, partial build) through a web interface
- possibility to build several "slots" with different configurations
- precise and highly granular reports on a web server
- support for CMT projects (but not only) with their cross-dependencies.
- scalable client-server architecture for the control machine and its build machines
- copy of the results in a common place to allow early view of the software stack

The nightly build framework is written in python for portability and it is easily extensible to accommodate new build procedures.

## Presentation type (oral | poster)

oral

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