CORAL and COOL during the LHC long shutdown

CORAL
- A software access layer for relational databases
- Same C++ or python user code for different relational back-ends – e.g. transparently switch Oracle/Frontier
- Schema design and SQL performance optimization are the responsibility of individual CORAL users

COOL
- A conditions database application to manage the time-variation and versioning of conditions data
- COOL offers a palette of configurable pre-defined relational schemas for different use cases
- Schema design and SQL performance optimization are the responsibility of the COOL development team

General news
- Move repositories from CVS to SVN (CORAL and COOL for new releases; POOL for data preservation)
- 11 releases since CHEP12, support for gcc47/48 with c++11, port to clang33, icc13, Python2.7, Boost1.53
- Integration with profiling tools (valgrind, gperftools, igprof), memory and performance improvements
- Integration with Coverity code analyzer, several fixes
- POOL is maintained (and only used) by ATLAS

COOL news
- Performance validation on Oracle 12c servers (disable new ‘adaptive optimization’ features)
- ATLAS review of COOL usage – test vector payload

Ongoing and future work
- PyCool migration to ROOT6 (without Reflex)
- Performance validation of COOL vector payload (several payload items associated to the same IOV)
- Release of CoralServer protocol enhancements
- Several API extensions and improvements
- Port to Oracle 12c client, follow up known issues
- Infrastructure migrations (cmake, jira, puppet…)
- Integration with multi-threaded frameworks

External links
- https://twiki.cern.ch/twiki/bin/view/Persistency