

LCG Persistency Framework (POOL, CORAL, COOL) - Status and Outlook

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The LCG Persistency Framework consists of three software packages (POOL, CORAL and COOL) that address the data access requirements of the LHC experiments in several different areas. The project is the result of the collaboration between the CERN IT Department and the three experiments (ATLAS, CMS and LHCb) that are using some or all of the Persistency Framework components to access their data. The POOL package is a hybrid technology store for C++ objects, using a mixture of streaming and relational technologies to implement both object persistency and object metadata catalogs and collections. POOL provides generic components that can be used by the experiments to store both their event data and their conditions data. The CORAL package is an SQL-free abstraction layer for accessing data stored using relational database technologies. It is used directly by experiment-specific applications and internally by both COOL and POOL. The COOL package provides specific software components and tools for the handling of the time variation and versioning of the experiment conditions data. This presentation will report on the status and outlook of developments in each of the three sub-projects. It will also briefly review the usage and deployment models for these software packages in the three LHC experiments contributing to their development.

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