



Contribution ID: 103

Type: **Poster**

## Monitoring in CORAL

*Thursday, May 24, 2012 1:30 PM (4h 45m)*

The CORAL software is widely used by the LHC experiments for storing and accessing data using relational database technologies. CORAL provides a C++ abstraction layer that supports data persistency for several backends and deployment models, including local access to SQLite files, direct client access to Oracle and MySQL servers, and read-only access to Oracle through the FroNTier/Squid and CoralServer/!CoralServerProxy server/cache systems.

Given the huge amount of operations executed by several CORAL clients at the same time on several database servers, it was crucial to develop a monitoring system with two main goals: first, to allow individual CORAL users to study and optimize the performance of the relational operations executed by their applications; second, to check whether the whole system is properly working and well configured. Client-level monitoring functionalities already existed in CORAL, but they have recently been reviewed and significantly improved, especially for the Oracle and Frontier plugins, and the same functionality are also being integrated into the CORAL server component (itself a CORAL-based application) and its client plugin. Work is in progress also on the monitoring of the CoralServerProxy components and on the aggregation of the monitoring information these proxies provide when deployed in a hierarchical structure, such as that used by the ATLAS High Level Trigger system. This presentation will report on the status of this work at the time of the CHEP2012 conference, covering the design and implementation of these new features and the results from the first experience with their use.

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**Session Classification:** Poster Session

**Track Classification:** Software Engineering, Data Stores and Databases (track 5)