

The LHCb Conditions Database Framework

Monday, 13 February 2006 17:20 (20 minutes)

The LHCb Conditions Database (CondDB) project aims to provide the necessary tools to handle non-event time-varying data. The LCG project COOL provides a generic API to handle this type of data and an interface to it has been integrated into the LHCb framework Gaudi. The interface is based on the Persistency Service infrastructure of Gaudi, allowing the user to load it at run-time only if needed.

Since condition data are varying with time, as the events are processed, condition objects in memory must be kept synchronized to the values in the database for the current event time. A specialized service has been developed independently of the COOL API interface to provide an automated and optimized update of the condition objects in memory.

The High Level Trigger of LHCb is a specialized version of an LHCb reconstruction/analysis program and as such it will need conditions, like alignments and calibrations, from the conditions database. For performance reasons, the HLT processes running on the Event Filter Farm cannot access the database directly. A special Online implementation of the CondDB service is thus needed under supervision of the LHCb Control system.

Primary authors: PALACIOS, Juan (CERN); CLEMENCIC, Marco (CERN); GILARDI, Nicolas (University of Edinburgh, Edinburgh, UK)

Presenter: CLEMENCIC, Marco (CERN)

Session Classification: Software Components and Libraries

Track Classification: Software Components and Libraries