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## Addressing the persistency patterns of the time evolving HEP data in the ATLAS/LCG MySQL Conditions Databases

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The size and complexity of the present HEP experiments represents an enormous effort in the persistency of data. These efforts imply a tremendous investment in the databases field not only for the event data but also for data that is needed to qualify this one - the Conditions Data.

In the present document we'll describe the strategy for addressing the Conditions data problem in the ATLAS experiment, focusing in the ConditionsDB MySQL for the ATLAS/LCG project. The need for a persistent engine for structured conditions data has motivated the studies for an relational backend that maps transient structured objects in the relational database persistent engine. This paper illustrate the proposal for the storage of Conditions data in the LCG framework using it both to store only the Interval Of Validity (IOV) and a reference that represents the 'path' to an external persistent storage mechanism, and to archive the IOV and the data in relational tables mapping the customizable CondDBTable objects. This allow to take advantages of all the relational features and also to directly map between transient objects and tables in the database server.

The issue of distributed data storage and partitioning, is also analyzed in this paper, taking into account the different levels of indirection that are provided by the ConditionsDB MySQL implementation. These features represent a very important built in functionality in terms of scalability, data balance in a system that aims to be completely distributed and with a very high performance for hundreds of users.

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