

The CMS Dataset Bookkeeping Service Query Language (DBSql)

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The CMS experiment has implemented a flexible and powerful approach enabling users to find data within the CMS physics data catalog. The Dataset Bookkeeping Service (DBS) comprises a database and the services used to store and access metadata related to its physics data. In addition to the existing WEB based and programmatic API, a generalized query system has been designed and built. This query system has a query language that hides the complexity of the underlying database structure. This provides a way of querying the system that is straightforward for CMS data managers and physicists. The DBS Query Language uses the ANTLR tool to build the input query parser and tokenizer, then a query builder using a graph representation of the DBS schema constructs the actual SQL sent to underlying database. We will describe the design of the query system and provide details of the language components. We will also provide an overview of how this component fits into the overall data discovery system, as well as providing access to information about Data Quality and Luminosity.

Author: Dr LUEKING, Lee (FERMILAB)

Co-authors: AFAQ, Anzar (Fermilab); KUZNETSOV, Valentin (Cornell University); SEKHRI, Vijay (Fermilab)

Presenter: Dr LUEKING, Lee (FERMILAB)

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