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## A Search Engine for the Engineering and Equipment Data Management System (EDMS) at CERN

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CERN, the European Laboratory for Particle Physics, located in Geneva - Switzerland, is currently building the LHC, a 27 km particle accelerator. The equipment life-cycle management of this project is provided by the Engineering and Equipment Data Management System (EDMS) Service. Using Oracle, it supports the management and follow-up of different kinds of documentation through the whole life cycle of the LHC project: design, manufacturing, installation, commissioning data etc...

The equipment data collection phase is now slowing down and the project is getting closer to the "As-Built" phase; the phase of the project consuming and exploring the large volumes of data stored since 1996.

Searching through millions of pieces of information (documents, pieces of equipment, operations...) multiplied by dozens of points of view (operators, maintainers...) require an efficient and flexible search engine. This paper describes the process followed by the team to implement the search engine for LHC As-built project in the EDMS Service. The emphasis is put on the design decision to decouple the search engine from any user interface, potentially enabling other systems to also use it. Projections, algorithms, and the planned implementation are described in this paper. The implementation of the first version started in early 2007.

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