

# DAQBroker - A general purpose instrument monitoring framework

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The current scientific environment has experimentalists and system administrators allocating large amounts of time for data access, parsing and gathering as well as instrument management. This is a growing challenge with more large collaborations with significant amount of instrument resources, remote instrumentation sites and continuously improved and upgraded scientific instruments.

DAQBroker is a new software framework adopted by the CLOUD experiment at CERN. This framework was designed to monitor CLOUD's network of various architectures and operating systems and collect data from any instrument while also providing simple data access to any user. Data can be stored in one or several local or remote databases running on any of the most popular RDBMS (MySQL, PostgreSQL, Oracle). It also provides the necessary tools for creating and editing the meta data associated with different instruments, perform data manipulation and generate events based on instrument measurements, regardless of the user's know-how of individual instruments. DAQBroker is a software package focused on three major components: Storage, communication and user interface. This submission will present an overview of each of DAQBroker's components as well as provide preliminary performance results of the application running on high and low performance machines.

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