

CASTOR end-to-end monitoring system

Monday 23 March 2009 08:00 (20 minutes)

We present the new monitoring system for CASTOR (CERN Advanced STORage) which allows an integrated view on all the different storage components. With the massive data-taking phase approaching, CASTOR is one of the key elements of the software needed by the LHC experiments. It has to provide a reliable storage machinery for saving the event data, as well as to enable an efficient reconstruction and analysis, making the monitoring of the running CASTOR instances essential. The new CASTOR monitoring system is built around a dedicated database schema which allows to perform the appropriate queries in an efficient way. The monitoring database is currently populated using SQL procedures running on the CASTOR Distributed Logging Facility (DLF) which is a database where the log messages created by the different CASTOR entities are stored. In the future releases, it is envisaged to move to a SYSLOG-based transport and to have the monitoring database to be directly populated by Python scripts parsing and pre-processing the log messages. A web interface has been developed for the presentation of the monitoring information. The different histograms and plots are created using PHP scripts which query the monitoring database. The modular approach of the new monitoring system makes it easy to change the method of populating the monitoring database, or to change the web interface, without modifying the database itself. After a short introduction about the CASTOR architecture, we will discuss in details the CASTOR monitoring database and present the new web interface.

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Session Classification: Poster session

Track Classification: Software Components, Tools and Databases