

Data Quality Monitoring for the CMS Silicon Tracker

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The CMS silicon tracker, consisting of about 17,000 detector modules divided into micro-strip and pixel sensors, will be the largest silicon tracker ever realized for high energy physics experiments. The detector performance will be monitored using applications based on the CMS Data Quality Monitoring (DQM) framework and running on the High-Level Trigger Farm as well as local DAQ systems. The monitorable quantities of this large number of modules are divided into hierarchical structures reflecting the detector sections. In addition, they are organized into structures corresponding to the levels of data processing. The produced information are delivered to client applications according to their subscription requests. These applications summarize and visualize the received quantities. We describe here the functionalities of the CMS tracker DQM applications and report preliminary performance tests.

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