Data Quality Monitoring for the CMS Silicon Tracker

Thursday, 16 February 2006 15:12 (18 minutes)

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.

Primary authors: Dr DUTTA, Suchandra (Scuola Normale Superiore, INFN, Pisa); Dr CHIOCHIA, Vincenzo (University of Zurich)

Co-authors: Dr BRUNO, Giacomo (Universite Catholique de Louvain); Dr ZITO, Giuseppe (Sezione INFN Bari,Italy); Dr MENNEA, Maria Santa (Universita' di Bari, Italy); Dr BAINBRIDGE, Robert John (Imperial College London); Dr TAYLOR, Russell (Brunel University)

Presenters: Dr DUTTA, Suchandra (Scuola Normale Superiore, INFN, Pisa); Dr CHIOCHIA, Vincenzo (University of Zurich)

Session Classification: Event Processing Applications

Track Classification: Event processing applications