

Application of the ATLAS DAQ and monitoring system for MDT and RPC commissioning

Wednesday, 15 February 2006 09:00 (20 minutes)

The ATLAS DAQ and monitoring software are currently commonly used to test detectors during the commissioning phase. In this paper, their usage in MDT and RPC commissioning is described, both at the surface pre-commissioning and commissioning stations and in the ATLAS pit. Two main components are heavily used for detector tests.

The ROD Crate DAQ software is based on the ATLAS ReadOut application. Based on the plug-in mechanism, it

provides a complete environment to interface any kind of detector or trigger electronics to the ATLAS DAQ system. All the possible flavors of this application are used to test and run the MDT and RPC detectors at the pre-commissioning and commissioning sites. Ad-hoc plug-ins have been developed to implement data readout via VME, both with ROD prototypes and emulating final electronics to read out data with temporary solutions, and to provide trigger distribution and busy management in a multi-crate environment. Data driven event building functionality is also used to combine data from different detector technologies. Monitoring software provides a framework for on-line analysis during detector test. Monitoring applications have been developed for noise and cosmic tests and for pulse runs. The PERSINT event display has been interfaced to the

monitoring system to provide an on-line event display for cosmic runs in the ATLAS pit.

Primary author: Dr PASQUALUCCI, Enrico (Istituto Nazionale di Fisica Nucleare (INFN), Roma)

Presenter: Dr PASQUALUCCI, Enrico (Istituto Nazionale di Fisica Nucleare (INFN), Roma)

Session Classification: Poster

Track Classification: Online Computing