

Monitoring the LHCb data quality system

Thursday, October 13, 2016 4:30 PM (15 minutes)

Monitoring the quality of the data, DQM, is crucial in a high-energy physics experiment to ensure the correct functioning of the apparatus during the data taking. DQM at LHCb is carried out in two phase. The first one is performed on-site, in real time, using unprocessed data directly from the LHCb detector, while the second, also performed on-site, requires the reconstruction of the data selected by the LHCb trigger system and occurs with some delay.

For the Run II data taking the LHCb collaboration has re-engineered the DQM protocols and the DQM graphical interface, moving the latter to a web-based monitoring system, called Monet, thus allowing researchers to perform the second phase off-site. In order to support the operator's task, Monet is also equipped with an automated, fully configurable, alarm system, thus allowing its use not only for DQM purposes, but also to track and assess the quality of LHCb software and simulation.

Tertiary Keyword (Optional)

Secondary Keyword (Optional)

Data processing workflows and frameworks/pipelines

Primary Keyword (Mandatory)

Monitoring

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Session Classification: Posters B / Break

Track Classification: Track 7: Middleware, Monitoring and Accounting