Contribution ID: **86** Type: **Oral**

The ALICE data quality control system

Monday 4 November 2019 15:15 (15 minutes)

The ALICE Experiment at CERN LHC (Large Hadron Collider) is undertaking a major upgrade during LHC Long Shutdown 2 in 2019-2020, which includes a new computing system called O^2 (Online-Offline). The raw data input from the ALICE detectors will then increase a hundredfold, up to 3.4 TB/s. In order to cope with such a large amount of data, a new online-offline computing system, called O2, will be deployed.

One of the key software components of the O2 system will be the data Quality Control (QC) that replaces the existing online Data Quality Monitoring and offline Quality Assurance. It involves the gathering, the analysis by user-defined algorithms and the visualization of monitored data, in both the synchronous and asynchronous parts of the O2 system.

This paper presents the architecture and design, as well as the latest and upcoming features, of the ALICE O2 QC. In particular, we review the challenges we faced developing and scaling the object merging software, the trending and correlation infrastructure and the repository management. We also discuss the ongoing adoption of this tool amongst the ALICE collaboration and the measures taken to develop, in synergy with their respective teams, efficient monitoring modules for the detectors.

Consider for promotion

No

Authors: Mr VON HALLER, Barthelemy (CERN); KONOPKA, Piotr (CERN, AGH University of Science and Technology (PL))

Presenter: KONOPKA, Piotr (CERN, AGH University of Science and Technology (PL))

Session Classification: Track 1 –Online and Real-time Computing

Track Classification: Track 1 –Online and Real-time Computing