

ALICE Overwatch: Online monitoring and data quality assurance using HLT data

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ALICE Overwatch is a project started in late 2015 to provide augmented online monitoring and data quality assurance utilizing time-stamped QA histograms produced by the ALICE High Level Trigger (HLT). The system receives the data via ZeroMQ, storing it for later review, enriching it with detector specific functionality, and visualizing it via a web application. These provided capabilities are complementary to the existing Data Quality Monitoring (DQM) system. In addition to basic visualization, additional processing options are accessible to the user, including requests for data within a particular time range or reprocessing of a particular run with different processing parameters. For example, the first ten minutes of a particular run could be investigated for a transient hot trigger channel.

Due to similarities between the Overwatch architecture and that which will be used for Quality Control (QC) in LHC Run 3 and beyond, Overwatch will be utilized to develop and test various QC components during LHC Run 2. Some of the areas of QC development include testing possible database options, as well as the development of a trending and alarm framework. We report on the project's design, development, and status.

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