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Upgrade of HADES data acquisition and event building software for FAIR phase 0

Thursday 14 June 2018 15:50 (15 minutes)

The High Acceptance Di-Electron Spectrometer (HADES) is a versatile detector system that has been operational at the GSI heavy ion accelerator facility for about 15 years.

For the "FAIR phase 0"beam time campaign in summer 2018 a number of HADES components are being upgraded, such as the RICH and the ECAL. Both detectors will be read out by dedicated front-end boards with FPGA-based TDCs of the TRB3
family. These TDCs provide an excellent timing precision of about 15 ps. The expected increased data rates, and the necessary software calibration of each TDC channel in the new systems, require significant changes in the DAQ set-up.

This contribution will discuss the software aspects of the DAQ system, such as the network topology of front-end and event builders, implementing TDC calibration directly in event builder nodes, and reducing the amount of data stored on the disks.

Minioral

No

Description

DAQ boards

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