Application of DAQ Configuration in Readout

T. Cao
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Parameters
Relative to the Trigger System in the Current Readout System

- Parameters relative to digitization and pulse integration: thresholds, pedestals and gains are from DB.

- Parameters relative to VTP clustering, hodoscope pattern building and trigger cuts: set in the steering file

DAQ Configuration Management System in hps-java

- A parser parses DAQ configuration banks in evio data, and then the management system could access parameters from parser.

- To apply the management system in readout, we could read configuration from evio banks, and save them in text files as resources in hps-java, and then configuration in text files could be parsed and parameters could be accessed by the system. Codes are ready in hps-java.

To-do lists

- Make text files for DAQ configurations as resources of hps-java. Name of text files include run number, while run number represents version of DAQ configuration.

- Comprehensively update drivers in readout:

  - Digitization drivers: apply threshold, pedestals and gains in DAQ to replace parameters from DB

  - Raw conversion drivers: apply threshold, pedestals and gains in DAQ to replace parameters from DB

  - Drivers in the trigger system: direct apply trigger cut parameters from the DAQ management system instead of setting in steering file; Correspondingly, all steering files need to be updated.

- The current readout system should be still available, so that readout still works for 2016 and cases without application of the configuration management system. We should be able to set options if the system is applied.