Contribution ID: **15**   Type: **not specified**

Mu2e TDAQ and slow control systems

Thursday, 18 March 2021 12:00 (15 minutes)

The muon campus program at Fermilab includes the Mu2e experiment that will search for a charged-lepton flavor violating processes where a negative muon converts into an electron in the field of an aluminum nucleus, improving by four orders of magnitude the search sensitivity reached so far.

Mu2e's Trigger and Data Acquisition System (TDAQ) uses {\it otsdaq} as its solution. Developed at Fermilab, {\it otsdaq} uses the {\it artdaq} DAQ framework and {\it art} analysis framework, under-the-hood, for event transfer, filtering, and processing.

{\it otsdaq} is an online DAQ software suite with a focus on flexibility and scalability, while providing a multi-user, web-based, interface accessible through a web browser.

The detector Read Out Controller (ROC), from the tracker and calorimeter, stream out zero-suppressed data continuously to the Data Transfer Controller (DTC). Data is then read by a software filter algorithm that selects events considering data flux that comes from a Cosmic Ray Veto System (CRV).

A Detector Control System (DCS) for monitoring, controlling, alarming, and archiving has been developed using the Experimental Physics and Industrial Control System (EPICS) open source Platform. The DCS System has also been integrated into {\it otsdaq}.

A prototype of the TDAQ and the DCS systems has been built at Fermilab's Feynman Computing Center. We report the developments and achievements of the integration of Mu2e's DCS system into the online {\it otsdaq} software.

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Session Classification: TDAQ

Track Classification: TDAQ