

An Integration Framework Tool for ATCAs in the ATLAS Detector Control System

ATLAS is a general purpose detector at the Large Hadron Collider at CERN, Switzerland. The current Detector Control System (DCS) consists of a highly distributed system running over many servers using the SCADA product called PVSS OA. The DCS provides multiple functionality such as automated control procedures, efficient error recognition with handling, managing communication with external systems and synchronization with the ATLAS data acquisition system. For the Phase-II upgrade in 2022 the current Versa Module Euro-cards will be replaced by the new Advanced Telecommunications Computing Architecture (ATCA) chassis. This chassis provides a new protocol, of which, has not been used in ATLAS and a new strategy is required to integrate the ATCA into the DCS. This contribution describes the ATCA framework tools and how it uses a new protocol in conjunction with WinCC OA to seamlessly integrate the ATCA into the DCS.

Summary

A new framework tool has been developed to assist developers in the integration of ATCA chassis into the detector control system. This framework automates data point creation and configuration.

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