

## Upgrade of EAST Data Acquisition System

*Wednesday, 7 July 2021 15:30 (10 minutes)*

After the 2020 campaign, EAST (Experimental Advanced Superconducting Tokamak) facility carried out maintenance. EAST data acquisition system (EAST DAQ), which is responsible for the unified diagnostic data acquisition and long-term data storage, also has been upgraded. This article will present an overview of the upgrade data acquisition system. About 20 diagnostic systems and some other systems realize the pulse data acquisition through EAST DAQ. EAST DAQ consists of a DAQ console, DAQ nodes, and data storage server cluster. The DAQ console is used to manage the data acquisition configuration information and control the data acquisition workflow. The old DAQ console has been developed many years, and with increasing of data acquisition nodes, it has become inadequate. After upgrade, the new DAQ console provides a data acquisition management website based on Spring Boot frame for administrator and diagnostic users to manage the DAQ nodes, data storage servers, and signal conditioning equipment, while the data acquisition workflow control part runs backstage. Up to 65 DAQ nodes with about 3500 channels are distributed in different physical positions for different diagnostic systems. The raw diagnostic data acquired by DAQ nodes are quasi-real-time transferred to the data server cluster. The data server cluster will save these data with MDSPlus for long-term storage. The upgraded data acquisition system will be used in the 2021 EAST campaign.

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**Session Classification:** Data Acquisition and signal processing 1

**Track Classification:** Data Acquisition and Signal Processing