

Leveraging EPICS for Control Software in the Electron-Ion Collider

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The Electron-Ion Collider (EIC) at Brookhaven National Laboratory plans to adopt EPICS as its control software, transitioning from the Accelerator Device Object (ADO)-based control system used by the Relativistic Heavy Ion Collider (RHIC). On the hardware side, the EIC intends to migrate its front-end electronics to Zynq-based general I/O boards. As a result, our ongoing efforts focus on developing a robust EPICS development and deployment environment capable of supporting a wide range of subsystems, integrating the general I/O boards, and ensuring interoperability between the EPICS-based control system and the legacy ADO-based system. This presentation will highlight the progress, challenges, and current status of these initiatives.

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