

## State of Controls at the KIT Accelerator Facilities

*Tuesday, 8 April 2025 11:00 (20 minutes)*

The two accelerators KARA and FLUTE at the Karlsruhe Institute of Technology operate have been using EPICS for many years. In anticipation of our upcoming cSTART project, major upgrades are being made to our control system infrastructure on all levels. This includes the introduction of a fully digital camera setup based on areaDetector, migration to Phoebus for the GUI, transition to a different OPC-UA module for PLC communication, and integration of new devices, many with embedded EPICS IOCs. This is paired with a major consolidation effort in terms of server infrastructure, automated pipelines and logging services. Last but not least, we are also working on our Python layer. The main focus of this work is improving and simplifying access to the control system for a diverse group of users, from students to domain experts, and providing tools for a wide range of applications, from accessing accelerator data to the integration of machine-learning solutions. This talk will try to present the current status and outlook.

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