Contribution ID: **31**   Type: **not specified**

Developing and Integrating EPICS Drivers in Python: Leveraging PCASpy and BOS at the Berkeley Center for Structural Biology (BCSB)

Tuesday 17 September 2024 15:50 (20 minutes)

This talk will provide a comprehensive introduction to PCASpy, a powerful Python framework that simplifies the development of EPICS drivers. We will explore the fundamental concepts of PCASpy, the process of using it to create EPICS drivers in Python, including the creation and management of Process Variables (PVs), and demonstrate its practical application through real-world examples at the Berkeley Center for Structural Biology (BCSB). Additionally, we will delve into the integration of EPICS IOCs within the BCSB Beamline Control System, which manages eight beamlines at the Advanced Light Source (ALS). By integrating BOS (Beamline Operating System), much like Bluesky, with EPICS, we enhance services such as locking, synchronization, automation, process control, and security. By the end of this session, attendees will gain the knowledge and confidence to start developing and integrating their own EPICS drivers using PCASpy, and effectively leverage Python's flexibility to enhance beamline control systems.

Primary author: FELIPE MACHADO GAZOLLA, Joao Gabriel (Lawrence Berkeley National Laboratory)

Co-author: Mr TAYLOR, John (Lawrence Berkeley National Laboratory)

Presenter: FELIPE MACHADO GAZOLLA, Joao Gabriel (Lawrence Berkeley National Laboratory)

Session Classification: EPICS Meeting Talks

Track Classification: Hardware, Driver/Device support