

Control Application Interfacing with ChimeraTK and Python

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Our ChimeraTK software framework enables rapid development of servers interfacing control applications. It abstracts details of hardware access, turning them into a matter of configuration, and provides immediate integration with the FWK firmware framework. In the style of a tutorial, we show how to quickly configure an OPC UA server that talks to the firmware application. We show how the framework supports readout triggering via user interrupts, and extensions of business logic in software. In particular, we show how to use our new PyApplicationCore bindings to create a server module in Python. In this way, our readily packaged Generic Server can be extended to include application logic by just adding configuration files and Python code. Finally, we demonstrate how ChimeraTK grants freedom of choice of control system integration, such as OPC UA, DOOCS, EPICS or Tango.

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