Contribution ID: **26**   Type: **Talk**

Improvements in ChimeraTK DeviceAccess

Thursday 9 December 2021 12:50 (15 minutes)

In the past year, ChimeraTK's DeviceAccess library has seen some major improvements. A new backend is available for the Xilinx XDMA PCI express driver. This brings direct support for all recent Xilinx FPGAs, not only for data I/O but also for PCI express user interrupts. The latter was possible by introducing support for push-type variables to all built-in backends, which means a processing thread can wait for new data instead of actively polling the device.

The combination of ChimeraTK's DeviceAccess, ApplicationCore and the ControlSystemAdapter allows to write device applications which seamlessly integrate into various control systems. Just by configuration, without changing a single line of C++ code, devices based on ChimeraTK can be used at different facilities. This makes ChimeraTK an ideal tool to foster collaborations which are beneficial for hardware vendors, application programmers and end users of the MicroTCA platform.

Summary

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Session Classification: Session 7