

Interfacing to Xilinx Alveo Accelerator Cards using caproto and pyOpenCL

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Xilinx Alveo FPGA processing cards are used for DSP in beamformers for both CSIRO Parkes telescope CryoPAF and SKA-Low Telescope Correlator and Beamformer projects. The telescope control systems use EPICS and TANGO respectively. We have used pyOpenCL to create a control-system-independent layer to the beamformer firmware in the Alveo card then used caproto to create a Python IOC for interface to the Parkes control system. This talk will describe these systems with details of the caproto Python script

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