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areaDetector: What's New?

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areaDetector: What's New?

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This talk will focus on enhancements to the areaDetector package since it was last presented at the 2014 collaboration meeting at Saclay. These include:
- New driver for cameras from QImaging.
- New driver for Dexela flat-panel CMOS detectors from Perkin Elmer.
- New driver for detectors from Princeton Instruments using their PICam library.
- New driver for the Merlin detector from Quantum detectors.
- Added the modules ffmegViewer, ffmegServer, aravisGogE, and firewireDCAM to the github repository. These modules were written at Diamond Light Source and were previously hosted there.
- NDPluginROIStat: New plugin that supports multiple regions-of-interest with simple statistics on each. It is more efficient and convenient than the existing NDPluginROI and NDPluginStats when many regions of interest with simple statistics are needed.
- NDPluginCircularBuff: New plugin that implements a circular buffer. NDArrays are stored in the buffer until a trigger is received. When a trigger is received it outputs a configurable number of pre-trigger and post-trigger NDArrays. The trigger is based on NDArray attributes using a user-defined calculation.
- NDPluginAttribute: New plugin that exports attributes of NDArrays as EPICS PVs. Both scalar (ai records) and time-series arrays (waveform records) are exported.
- iocs/simDetectorNoIOC: New application that demonstrates how to instantiate a simDetector driver and a number of plugins in a standalone C++ application, without running an EPICS IOC. Applications only need the libCom library from EPICS base and the asyn library.

The talk will also discuss future plans for the areaDetector package.

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