

areaDetector: Software for 2-D detectors in EPICS

- High-pressure synchrotron beamlines use 2-D detectors
 - Visible light CCD cameras for imaging
 - CCD detectors for optical spectroscopy
 - X-ray detection using online image plates, CCDs, pixel array detectors and amorphous silicon flat panel detectors.
 - Need to be controlled from the beamline control system,
 - Most COMPRES beamlines use the EPICS control system
- areaDetector provides a common set of control variables (EPICS PVs), a single display viewer and single set of analysis plugins can be used with any of these detectors.
- Drivers have now been written for most detectors in use on COMPRES beamlines, including:
 - marCCD (Rayonix) CCD detector
 - mar345 online imaging plate
 - Firewire (IEEE 1394 DCAM) cameras
 - Prosilica Gigabit Ethernet cameras
 - Pilatus pixel-array detector
 - Princeton Instruments and Photometrics CCD cameras (using WinView and WinSpec programs)
 - Perkin-Elmer amorphous silicon flat-panel detectors
- Plugins
 - Region-Of-Interest extraction and analysis
 - File saving (in netCDF, TIFF and JPEG formats)
 - Color conversion
 - EPICS records for image display in clients like ImageJ and IDL.
- Demo with Prosilica camera will be running – see yourself on camera!