Beamline I04 at Diamond Light Source - A powerful toolkit for iNEXT macromolecular crystallography users

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As one of a suite of macromolecular crystallography beamlines at Diamond Light Source, beamline I04 provides the iNEXT user community with a flexible, tuneable, high throughput facility. It is equipped with a SmarGon multiaxis goniometer combined with the fast, high capacity BART sample changer and Pilatus 6M-F detector. The high throughput capabilities are coupled with the ability to provide users a rapidly selectable focussed beam from <5 to 100 microns across the energy range 6 - 18 keV. This allows users to access efficiently a broad range of experiments and crystal sizes in the same experimental session. Full remote access is available at all times (> 50% of sessions are via this mode) and it is used by a world-wide user base of academic and industrial scientists. A battery of data analysis and structure solution pipelines are deployed to provide rapid and thorough feedback on experiment progress to the user via web interfaces. The beamline will be enhanced further by upgrading to the latest generation Eiger detector technology later this year.