xtalPiMS is a tool for managing crystallization experiments, and in particular the large numbers of images that can be produced by automated imaging systems. xtalPiMS is built on top of the Protein Information Management System (PiMS), a laboratory information management system for protein production. xtalPiMS groups images taken from particular plates at particular times into “inspections”. It adds specialized and intuitive interfaces to PiMS for finding plates and inspections, and a viewer that allows scientists to rapidly scan through the set of images in an inspection. Each image can be scored from a drop-down menu or using keyboard shortcuts. xtalPiMS is optimized for 96-well plates but is capable of handling plates of different sizes and also multiple crystallization trials per well.

xtalPiMS is installed in the Oxford Protein Production Facility (OPPF) and the University of Oulu, where it has been integrated with automated imaging systems from Formulatrix. xtalPiMS manages >65,000,000 crystal trial images from > 25,000 trial plates in the OPPF. xtalPiMS underpins the OPPF’s new facilities in the Research Complex at Harwell, adjacent to Diamond. Like PiMS, xtalPiMS is a web-based application that runs on widely-available open source software. xtalPiMS is accessed using a web browser, typically requiring no additional software to be installed on the client. xtalPiMS is available under the same terms as PiMS.

To try xtalPiMS, visit http://pimstrak1.dl.ac.uk:8080/xtal/loginhome.jsp (user name “demo”, password “demo”).

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