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Acquaman: Scientific Software as the Beamline Interface

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The Acquaman project (Acquisition and Data Management) was started in early 2010 at the Canadian Light Source. Over the past four years, the project has grown to support five beamlines by providing beamline control, data visualization, workflow, data organization, and analysis tools. Taking advantage of modular design and common components across beamlines, the Acquaman team has demonstrated that a framework dedicated to synchrotron beamlines can deliver high quality interfaces while also reducing overall development cost and production time. Acquaman supports scientific researchers by allowing them to focus on the scientific techniques they know while reducing the need to understand specific hardware, which changes from beamline to beamline. Focus will be given to this topic in the broader context of how to manage a modular, scalable, and flexible framework. Additionally, two small case studies –the IDEAS and SXRMB beamlines – will be used to demonstrate the ease of deployment on new beamlines.

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