

# **Data Acquisition and User Interfaces at Modern Synchrotron User Facilities**

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Brookhaven National Laboratory

The National Synchrotron Light Source II is designed to provide unprecedented experimental capabilities based on high brightness, high flux, and exceptional beam stability over a broad range of photon energies, from far infrared to hard x-rays. Such capabilities, coupled with modern photon detectors, are expected to lead to unparalleled data rates and data-set quantities for many state-of-the-art experiments in a broad range of diverse scientific fields.

The purpose of this workshop was (a) to discuss recent advances in user interfaces and experiment control, (b) to hear about modern techniques for data acquisition and detector data capture and visualization, (c) to consider requests from User groups that are difficult to accommodate and (d) to develop strategies and approaches to meet such needs at the future NSLS-II facility. Topics discussed covered all aspects of user interfaces and data acquisition, including:

- The practicalities of standardization of user interface software
- Data formats / visualization / analysis / backup and retention policy