CREMLIN workshop: Engineering for advanced neutron instrumentation and sample environment



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Instrument control software at the IBR-2

Monday, 14 May 2018 18:30 (1 hour)

The presentation will de devoted to the software package Sonix+, which has been developed as a unified control software for neutron instruments. It has been installed at almoust all instruments of the IBR-2 reactor, as well at some instruments at other centers of the Russian Federation (totally about 20 installations). The modular organization of the software and use of the Python language for describing the experiment script make it relatively easy to adapt it to the specific features of various instruments.

The universal GUI based on the set of PyQt widgets can be used to control the experiment without further refinement. It provides all the necessary functions, including, preparing a task for the experiment, launching it, monitoring the current values of the parameters, and spectra visualizing. In addition, there are an instrument tuning program and other useful tools.

The WebSonix service is devoted for remote measurement supervising and instrument control. It includes the central website and modules for communication with instrument control computers. Service was designed as a universal tool and can be easily adapted to the specific features of any instrument.

The Journal system provides automatic data logging of measurements.

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