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Thu. 03. 09., 16⁴⁰-17⁰⁰**Solaris control and IT systems towards beamline users**

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The National Synchrotron Radiation Centre Solaris has been built in Krakow and is now in commissioning stage. Number of control and IT services has been already provided. These allow for commissioning and operation of the accelerator and both beamlines. In parallel to commissioning there is ongoing development of new services to facilitate convenient operation and usage of the systems for synchrotron light users.

Tango CS control system, well established at European synchrotron laboratories, has been deployed and all controlled devices and systems has been integrated. There are three separate instances of the Tango running at Solaris. One serves accelerator and two other serve two beamlines. Several high level application has been prepared. Graphical user interfaces for beamlines are mostly prepared with usage of Sardana package and Taurus libraries. At current stage end stations are provided with vendor software and are not yet integrated into the common Tango systems. However, the integration is planned for near future.

Already operational network infrastructure will be soon enhanced to provide full 10 Gb/s uplinks to enable smooth data treatment for experiments producing large amount of data. It is planned to allow direct export of experiment results from an experimental station to the PL-Grid infrastructure. This will give users possibility to process data on the clusters using large number of tools provided there.

A Digital User Office, which is important from the user perspective, is being prepared in collaboration with ACK Cyfronet AGH. It will be a point of access for scientists looking for experiments opportunities and letting them send and manage applications for beam time.

The current status of the control and IT systems with respect to beamlines will be presented as well as plan for future services.

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S-01

Tue. 01. 09., 16⁴⁰-17⁰⁰**New developments in small spot and imaging Near Ambient Pressure XPS**

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Over the last 15 years, Near Ambient Pressure (NAP) XPS has demonstrated its promising potential in a wide variety of applications. Starting from the Catalysis and Ice paradigm, the focus has shifted towards solid-liquid interfaces, liquid jets and *in-situ* electrochemistry. Initially, the experiments had to be carried out using advanced synchrotron sources to reach reasonable count rates. This is still state-of-the-art for most sensitive analyses under NAP conditions. The windowless beam entrance stages, that have been developed by SPECS over the last years utilize all capabilities of modern synchrotron beamlines for NAP-XPS. Furthermore, SPECS PHOIBOS 150 NAP offers optimized transmission for electrons, even at pressures up to and above 100mbar, so researchers can now use it with conventional X-ray and UV sources in their own laboratories, as well. Because of the widened application fields, standard XPS is now also attainable when combined with easily adjustable monochromated X-ray sources that offer stable operation, small excitations spots, and high photon flux densities, even in Near Ambient Pressure conditions. The latest designs and results are presented showing small spot performance for spot sizes < 30 μm, while also showcasing the latest implementations of imaging NAP-XPS that uses a new concept allowing for lateral resolved measurements without a compromise in count rate and usability. Highlighting on how sample environments (*in situ* cells for gases and liquids, electrochemical cells, gas inlets) and integration are both absolutely essential to obtain relevant results from well-defined samples, the presentation will demonstrate the use of NAP-XPS systems for high throughput-XPS measurements, as well as a variety of applications.