SpecsLab Prodigy

DATA ACQUISITION AND EXPERIMENT CONTROL
SOFTWARE PACKAGE

KEY FEATURES

- Ease of Operation
- Multidimensional Data Analysis
- User Authorization and Settings
- Modular Software Concept
- Optional Automation Modules

SPECS™

SpecsLab Prodigy

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SpecsLab Prodigy sets a new standard in electron spectroscopy. The modular software concept allows 1-, 2- and 3-dimensional data handling, fully integrated with optional Remote Device Control and Experiment Automation.
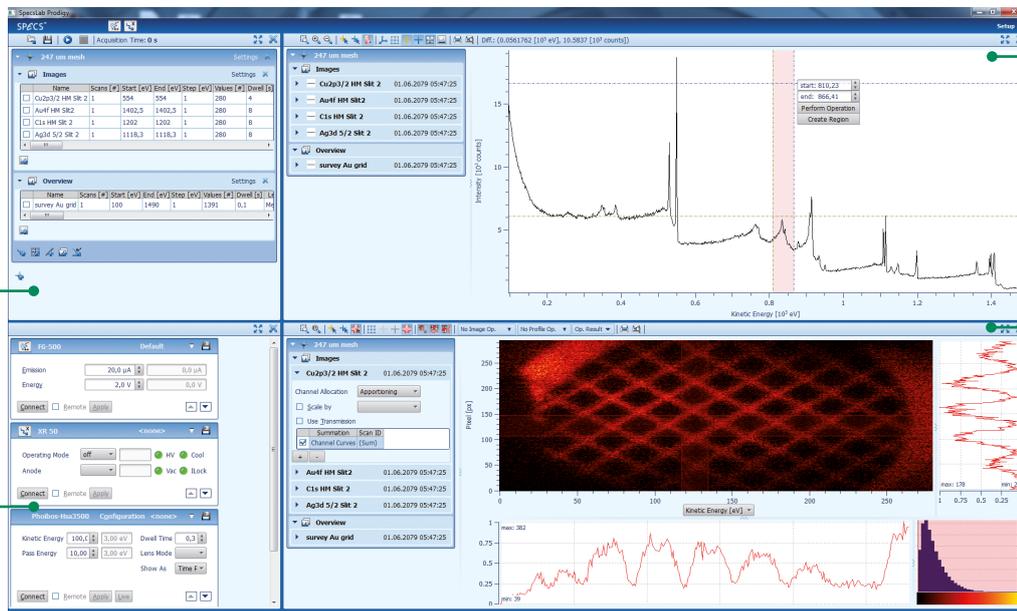
Beyond the limits of acquisition

Since more than ten years the SpecsLab 2 data acquisition software package has been an excellent tool set giving comprehensive access to the revolutionary technical capabilities of the PHOIBOS electron analyzer series. PHOIBOS and SpecsLab 2 together have redefined data and experiment control in electron spectroscopy. Continuous development kept SpecsLab 2 at the forefront of analyzer development with every user taking advantage from the newly released benefits in data acquisition.

SpecsLab Prodigy sets a new standard in data acquisition and experiment control. Nowadays, materials research requires performance, and handling far beyond mere data acquisition. SpecsLab Prodigy offers a modular, integrated acquisition and automation package for scientific tasks with stunning new handling concept. This includes angle resolved photoemission spectroscopy, chemical mapping of surfaces, automation of experiments by integration of different experimental techniques and sample treatments.

SpecsLab Prodigy in operation: Experiment Editor, Remote Device Control and 1D and 2D Data View windows

Experiment Editor

Remote Device Controls for Experiment Automation

1D Data View window for Line Spectra

2D Data View window for Bandstructure or Imaging Data

Software Features

SpecsLab Prodigy Base Package

The base package of SpecsLab Prodigy consists of the Spectrometer Control part, to operate all PHOIBOS analyzers with any detector or power supply. Access is provided to all parameters, like lens modes, detector settings, energy settings. For Synchrotron users, interfaces to all beamline control software packages are available. Also included is the data acquisition part for 1D, 2D and 3D data. Databases in form of a periodic library help the operator with peak identification and quantification. Tools for simple data evaluation, like normalization, linear operations, intensity evaluation are already included. Besides the generic xml based SpecsLab data format export routines are included for HDF5, VAMAS, IgorPro and x/y-ASCII data. A variety of add-on modules are already available. Further modules are in progress and can be added into the package at any time.

Unique Handling

An optimized graphic users interface with a groundbreaking new window handling concept allows a revolutionary ease of use. Experience the new way – refocus on your scientific tasks.
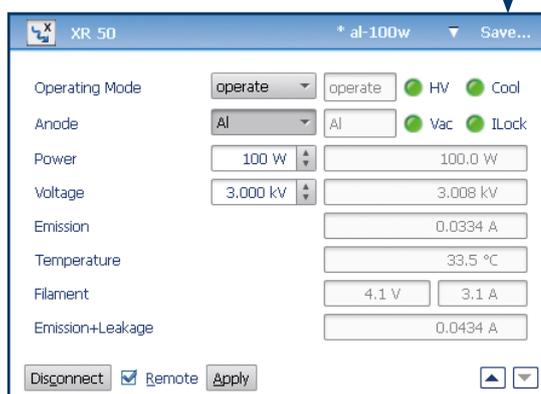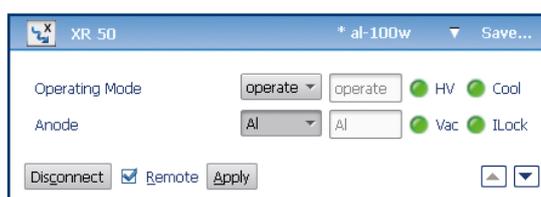
Modular Software Concept

Data Analysis Modules

Different data analysis modules will be available. Besides the SpecsProfiler module for non-destructive depth profiling, that has proven its superior performance in the latest interlaboratory study, a data quantification module and an expert system module will be available. The latter two modules will be designed to give online guidance, allowing the system operator to concentrate on sample treatment and data acquisition.

Experiment Automation Modules

Acquisition automation is provided by Remote Device Control for X-ray sources, electron sources, sample neutralization, ion sources for ISS or sputter depth profiling. Furthermore, a motion control module allows fully automated manipulator operation, like multipoint analysis, multi-sample analysis, surface chemical mapping and angle dependent measurements. A System Control Module, that operates vacuum pumps, gauges, gas inlets and gate valves, make the automation complete. For multiuser operation, the automation is user sensitive with different authorization levels. SpecsLab Prodigy: system automation to exactly the point you need.

User Authorization and Settings for X-ray source control
upper: Operator level
mid: Specialist level
lower: Service level

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