



SPECTRO XRF Analyzer Pro

SPECTRO XRF Analyzer Pro software lifts the **SPECTRO xSORT** handheld to a whole new level of performance.

Unique combination. Unprecedented possibilities.

For the first time, SPECTRO brings the unique power and ease of full-fledged benchtop analysis to the handheld world. For a decade, SPECTRO XRF Analyzer Pro (XAP) software has provided outstanding analytical performance in advanced laboratory instruments from SPECTRO XEPOS to SPECTROCUBE. Now a new, improved XAP version, installed on an external desktop or laptop PC, can be optionally paired with the SPECTRO xSORT handheld XRF analyzer.

The combination overcomes the limitations of previous XRF handhelds, enabling advantages such as

- Total data storage & searchability
- Full post-processing
- Customizable output/export
- Qualitative analysis
- User calibration

Its superior performance may not be needed for standard metals applications such as positive material identification (PMI) or sorting. However, XAP is ideal for advanced analysis of alloys and of coating thickness, as well as for geology & mining, environmental testing, and compliance screening. In these demanding tasks, XAP delivers analysis that's intuitive, fast, comprehensive, and customizable.

Powerfully pairs with SPECTRO xSORT

Installed on a laptop or desktop PC, optional SPECTRO XRF Analyzer Pro (XAP) software easily connects — via WiFi or Bluetooth — with the latest SPECTRO xSORT to deliver ultra-reliable analysis of diverse samples on the spot.

The SPECTRO xSORT XHH04 handheld X-ray fluorescence (XRF) spectrometer is packed with a host of features to maximize speed, ease, and convenience. In standard use with its onboard XRF Analyzer Mobile operating software, this flexible, grab-and-go handheld provides outstanding spectral coverage for common metals, alloys, and coatings. Models that add the XAP software connection upgrade the instrument's capabilities to furnish advanced analytical performance as well for geology & mining, environmental testing, and compliance screening.

Database of all measurements, analyses, results

XAP offers boundless backup of all collected data, limited only by a given PC's storage capacity. Set the software for automatic synchronization on connection (via Bluetooth or WiFi) with SPECTRO xSORT. Even with large numbers of samples collected over years, XAP's improved search functions furnish easy tracking of any and all analyzed samples — selectable by method, user, date, etc. Users get immediate access to all measurements and analytical information.

Results can also be delivered to a connected laboratory information management system (LIMS).

Post-processing and optimized calibration

With traditional handheld analyses, if changes or corrections occur anytime after initial analysis, data can't be reprocessed without performing brand-new measurements. In worst cases, new samples must be acquired. All at the cost of extra time, effort, and expense.

By contrast, SPECTRO XRF Analyzer Pro provides the power to reprocess without remeasuring. Should measurement or analysis errors be recognized even years later, SPECTRO — or, optionally, users themselves — can optimize the calibration accordingly. The user then simply runs the analysis again, reevaluating the measured data. If, for example, geochemistry samples are cross-analyzed in a reference laboratory to yield even more accurate results, XAP can improve future (and retrospective) accuracy by optimizing the installed geochem method.

Output flexibility

Until now, handheld software limited flexibility in output/export and reporting. But with XAP, users can easily add multiple customizable output profiles (elements, order, concentration units, defined grade tables, etc.) — perhaps according to samples' major concentration types (iron versus copper ores, for example).

Advanced options let users define reporting formats (txt, csv, tab, PDF, etc.). They can display and output average and standard deviations for multiple samples. They can illustrate reports with photos or spectral segments from given areas of a sample: useful proofs for applications such as elemental or purity compliance.

As with other XAP features, the above functions, once defined on a single software installation, can be effortlessly "cloned" onto others. That can be a valuable benefit for organizations that field multiple instruments.

Qualitative analysis

Even with a relatively large 5-inch screen, the SPECTRO xSORT, like other handhelds, doesn't have the space to display significant details of measured spectra. But on a larger laptop or desktop, the powerful XAP spectra viewer allows detailed single-spectra investigation of samples — critical for many applications. It can also check for differences such as concentration levels by comparing spectra overlays from other field samples, or from reference samples using offline "fingerprint" analysis; as well as by subtracting spectra for comparison.

User calibration

Many organizations rely on SPECTRO for expert calibration services. But when users possess analytical expertise in-house, XAP also adds the option of customer calibration.

Users can calibrate the software for given concentration and matrix ranges. They may implement options such as freeing xSORT onboard storage and keeping all data on their PC. And they may choose from a wide array of calibration functions, including

- Empirical
- Compton-Normalization
- Influence Coefficients
- Fundamental parameters (FP)
- Coating thickness, single-layer (empirical)

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