

## AA / ICP / ICP-MS

**Key Benefits**

- Common cross-platform look and feel
- Modern, intuitive user interface
- Left-to-right, workflow-based design
- Single or multi-view calibrations
- Real-time monitoring through Status Panel
- Extensive QC checks
- Enhanced Security™ option for 21 CFR Part 11 compliance

## Cross-Platform Syngistix Software Simplifies the Use of Multiple Instrument Types

Until now, performing multiple analytical techniques in the lab has required familiarity with a variety of different software systems. But that's all changing with Syngistix™ Atomic Spectroscopy Software.

Designed to offer a more harmonized user experience across PerkinElmer's AA, ICP and ICP-MS platforms, Syngistix Software features a unique icon-based design that simplifies navigation and walks the user through every analysis—from setting up to acquiring data to reporting results.

Flexible and intuitive, the Syngistix interface mirrors your workflow with a left-to-right arrangement of analytical steps. Powerful yet simple, Syngistix gives you all the performance and functionality of our popular WinLab™ and NexION® software platforms in a sleek, modern, user-friendly design.

So if you're working with multiple atomic spectroscopy techniques, make things easier on your scientists and enhance productivity in your lab with a single software interface.

Syngistix Software. Easy to learn. Easy to use. Easy to love.

### **Ease-of-use meets peace-of-mind**

Behind the intuitive interface of Syngistix lies a full suite of features designed to optimize data security and ensure regulatory compliance. Safeguards and controls include user access privileges, sum checking, signature verification, and date/time stamps.

### **Create and share results quickly and easily**

Transferring and exporting data from Syngistix to applications like Microsoft® Excel, TIBCO Spotfire® or your LIMS is a fast, simple process so you can quickly and efficiently organize, manage, display and share information virtually any way you want.

# Syngistix for AA

As the world leader in AA, PerkinElmer understands the flexibility and functionality you need in a software. Building on our years of experience, we're delivering new levels of simplicity and productivity across all AA techniques with Syngistix for AA software.

## STARTUP/OPTIMIZATION

**Status Panel** displays information on key instrument components so you always know the status of everything from your autosampler to your flame or furnace at a glance. A graphic progress bar displays the percentage of an analysis that has been completed.

**Align Burner Wizard** automatically adjusts the burner head position—vertically and horizontally—for optimum performance.

## METHOD DEVELOPMENT

**Method Editor** features important checks during method development including pre- and post-digestion spike recovery and precision checks.

**Furnace Method Development Wizard** automates the data collection process required to determine the best analytical conditions for graphite furnace samples.

**Recommended Conditions Table** provides suggested analytical parameters such as wavelength, slit, sensitivity, matrix modifier and characteristic mass. The extensive information is invaluable when selecting starting conditions for method development.

## ANALYSIS/RUN

**Syngistix Offline** allows you to create methods, enter sample information, review or reprocess data, all without interrupting the active analysis.

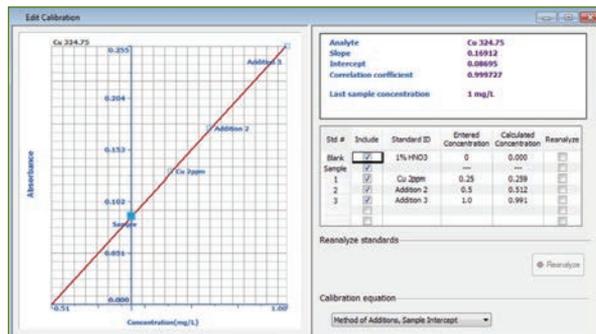
**Cross-Tab Data Viewer** gives you real-time updates of detection limits and background equivalent concentrations during a run. Single or multi-view calibrations can be displayed, giving you the information you need to make faster decisions and generate more reliable data.

**Priority Sample and Append to Analysis List** allow you to add samples at any time without interrupting the current analysis and to select when the new samples will be run.

## DATA/RESULTS

**Recall Calibration/Initial Calibration** lets you manually or automatically use a calibration previously stored with a method, eliminating the need to reconstruct the curve prior to sample analysis.

**Edit Calibration** gives you complete control over the quality of your calibration curve so you can ensure it meets your statistical requirements before proceeding with QC and sample analysis.



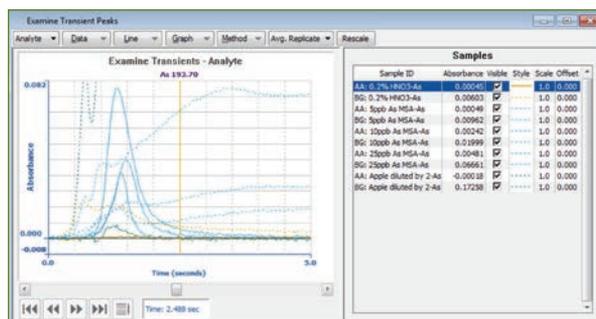
**Edit Calibration** lets you ensure the quality of your calibration curve before you proceed.

**QC Charting Wizard** helps you quickly and easily prepare quality control charts for any sample, including limit ranges, means or expected values.

**Data Reporting Wizard** allows you to save and report data in a variety of formats including word processing, spreadsheet and HTML files.

**Data Reprocessing** lets you change any method and sample information parameters after data collection and to recalculate the results.

**Examine Transient Peaks Window** lets you export peak profiles as comma-delimited ASCII files that can be read by most spreadsheet programs.



**Examine Transient Peaks window** allows you to view the effects of changing various analytical parameters for accelerated method development.

All Syngistix software packages offer an Enhanced Security option to speed and simplify regulatory compliance, including 21 CFR Part 11 mandates.

# Syngistix for ICP

Designed to optimize the performance of Avio® Max series ICP-OES instruments and improve efficiencies in the lab, Syngistix for ICP software mirrors the progression of your workflow, guiding users through each step for greater control and confidence. Flexible and easy to use, the software offers immediate benefits whether you're running the instruments, running the laboratory, or running the business.

## STARTUP/OPTIMIZATION

**Scheduler** lets you automatically schedule instrument procedures including auto-start, shut-down and warm-ups.

**PlasmaCam** streamlines and simplifies method development by offering continuous viewing of the plasma and enables remote diagnostic capabilities for maximum uptime.

**Status Panel** displays information on key instrument components in real time so you can monitor the entire system at a glance to ensure optimal performance.

**Continuous Graphics** present a unique time-versus-intensity plot that allows real-time monitoring of instrument performance while optimizing instrument parameters.

## METHOD DEVELOPMENT

**Method Editor** organizes parameters into logical groups – spectrometer, sampler, processing, calibration, checks and QC – and allows measurement times to be selected for speed and productivity.

**Built-in Wavelength Table** provides suggested analytical lines and other data to help identify potential interferences and simplify method development.

## ANALYSIS/RUN

**Express Analysis** provides quick-start capabilities in one window: turn on the plasma, select a user-defined workspace, click Analyze, and your analysis begins.

**Syngistix Offline** allows you to run multiple software sessions so you can simultaneously create methods, enter sample information, review or reprocess data, all without interrupting the active analysis.

**Cross-Tab Data Viewer** gives you real-time updates of detection limits and background equivalent concentrations during a run. Calibrations, indication of samples outside of user-defined sample limits, QC, internal standard recoveries and charting can be displayed, giving you the information you need to make faster decisions and generate more reliable data.

**SmartRinse™** removes the worry of carryover contamination and is customizable by wavelength.

**Interference Correction** is simple and reliable with a powerful Examine Spectra/MSF window that lets you view spectra, correct wavelengths, change background correction points and build Multicomponent Spectral Fitting models, and an integrated IEC Model Builder that allows you to create models from stored data—both original and reprocessed.

## DATA/RESULTS

**Universal Data Acquisition** on the Avio 550/560 Max allows you to collect all spectral data for every sample regardless of the elements being determined, with no time penalty. You then have the flexibility to retroactively determine the concentrations of elements not in the original method or at alternate wavelengths, saving precious time and resources.

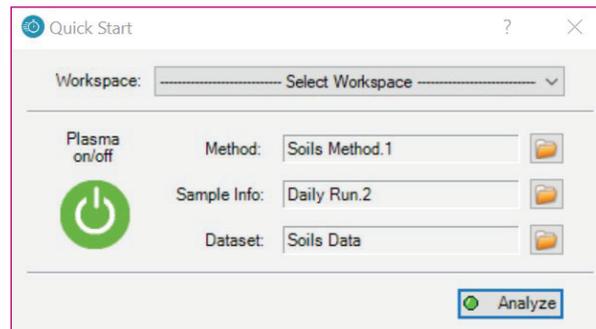
**QC Charting Wizard** helps you quickly and easily prepare quality control charts for any sample, including limit ranges, means or expected values.

**Data Reporting Wizard** allows you to save and report data in a variety of formats including word processing, spreadsheet and HTML files.

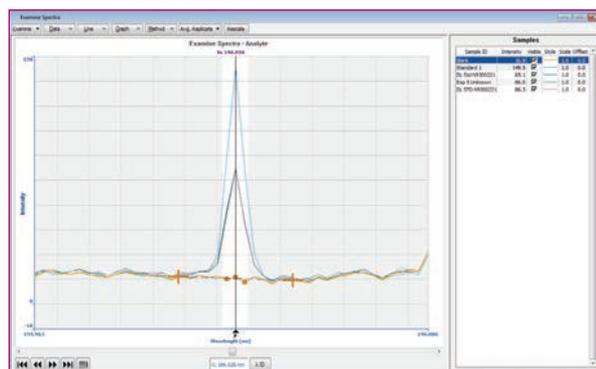
**Data Reprocessing** lets you adjust everything from background correction points to your calibration curve standards after data collection to optimize the measurement of a particular sample without having to re-run it.

	Elem.	State	Wavelength (nm)	Pref. Order	BEC (mg/L)	DL (mg/L) (W, P, SF)	Rel Sens(B)	Sig/Noise (S & T)	Intensity (W)
1	Ag	I	328.068	1	0.26	0.0070	170000	2040.2	4200.0
2	Ag	I	338.289	2	0.43	0.0130	82000	1261.2	2200.0
3	Ag	II	243.778	3	4.00	0.1200	4200	28.2	23.0
4	Ag	II	224.874	4		0.5000	880		3.0
5	Al	I	396.153	1	0.95	0.0280	64000	268.4	2050.0
6	Al	I	308.215	2	1.52	0.0450	23000	79.2	780.0
7	Al	I	394.401	3	1.59	0.0470	32000	145.8	1050.0
8	Al	I	237.313	4	1.00	0.0300		28.8	130.0
9	Al	I	309.271	5	0.77	0.0230		141.0	1400.0
10	Al	II	167.022	6	0.05				23.0
11	Ar	I	420.069	1				297.2	750.1
12	Ar	I	363.268	2					23.0
13	As	I	188.979	1	4.55		2100		1.7
14	As	I	193.696	2	1.79	0.0530	5800		6.5
15	As	I	197.197	3	2.56	0.0760	4300		5.8
16	As	I	228.812	4	2.78	0.0830	4000	16.0	36.0

A built-in Wavelength Table helps you identify interferences and select specific analytical lines.



Easy setup with Express Analysis quick-start capability.



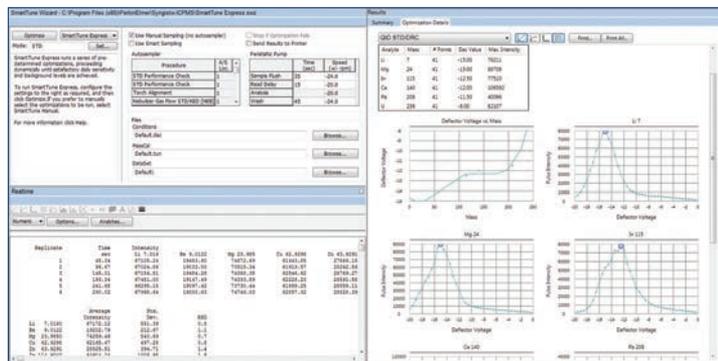
The Examine Spectra feature in Syngistix makes it easier to correct interferences by displaying your peaks alongside the associated analytical data. It also offers a zooming capability when careful examination of the spectra is required.

# Syngistix for ICP-MS

Even the most complex ICP-MS analyses are streamlined and simplified with Syngistix for ICP-MS software. No matter what your analysis type—qualitative, semi-quantitative, quantitative or specialized (isotope-ratio, isotope-dilution)—Syngistix for ICP-MS software offers all the tools to help you generate faster, more actionable information.

## STARTUP/OPTIMIZATION

**SmartTune™ Express** automatically sets up all your tuning procedures and specs before a run, initiating the analysis if all parameters are met, or performing a system optimization if not.



With **SmartTune Express**, all system parameters are checked and optimized before a run, eliminating inefficiencies like torch alignment failures and ensuring more accurate results.

**Routine Maintenance Alerts** remind you when it's time for simple preventative maintenance tasks such as oil changes and tubing replacement to keep your instrument running at peak performance. The system will even display how many hours of use you have received to date from various components and when they may need attention.

## METHOD DEVELOPMENT

**Method Environment** organizes parameters in logical groups—sampling, processing, calibration, QC, reporting—and features a built-in periodic table for isotope selection.

**TotalQuant™** gives you a quick estimate of the concentration of all elements in a sample simultaneously.

## ANALYSIS/RUN

**Flexible Quality Control Checks** ensure reliable data by automatically monitoring calibration, checking standard responses and taking action to correct any problems during an analysis.

**Scheduler** lets you automatically schedule instrument optimizations and procedures including auto-start and shut down, warm-ups, instrument tuning and analysis of samples using multiple methods.

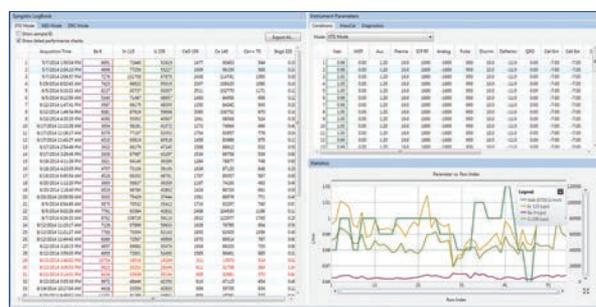
**Reviewer** displays all the files in your workspace, allowing you to see everything at a glance—from your method and sample list to your mass calibration—before the start of a run.

**Application-Specific Plug-Ins** and seamless integration with a variety of external software packages extend the flexibility and functionality of Syngistix, tailoring the software to workflows such as nanoparticle analysis and speciation.

## DATA/RESULTS

**Reporter™** displays real-time updates of detection limits and background equivalent concentrations during a run for in-depth calibration reporting. Single or multi-view calibrations are shown, giving you the information you need to make faster decisions and generate more reliable data.

**Logbook** lets you review your complete instrument performance history in a single panel, displaying previous optimization data and changes made to conditions.



Using **Logbook**, you can quickly check parameters used on a specific day and have a constant resource against which to correlate everything from sensitivity to results, and to track current comparative performance data in real time.

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