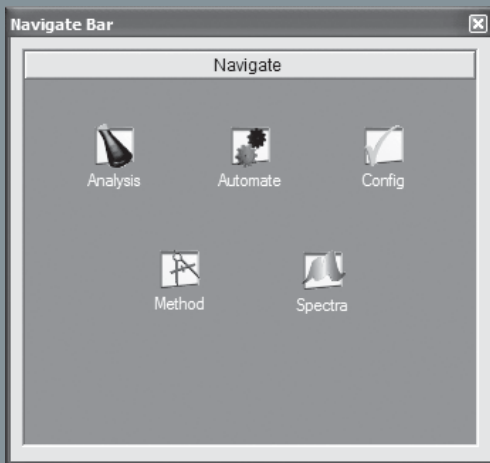


SPECTRO SMART ANALYZER VISION



*Intuitive,
Intelligent,
Powerful:
Software for
Maximum
Analysis
Productivity*



The basic software structure is divided into five main, job oriented views; unattended operation, quantitative measurements, spectrum exploration, method development and system configuration.

Routine Analysis

With a keen focus on functions required for routine analysis tasks, SPECTRO SMART ANALYZER VISION offers a multiplicity of useful tools to efficiently handle the daily workload. Simply by logging in, the individual settings for the completely customizable user-interface are activated. The user can toggle between an average view showing all results for a single sample and the replicate view displaying previous samples together with the current measurement. Versatile options for template and report generator based output, export and connection to superordinated computer systems are available. To ensure data integrity, different levels of access rights can be granted. Inputs, events, actions and changes are stored in log files for complete traceability. User Manager and the Audit Trail are compliant to US FDA 21 CFR Part 11.

SPECTRO ICP Software SMART ANALYZER VISION

The SPECTRO SMART ANALYZER VISION software is the flexible and powerful user interface to the SPECTRO CIROS® VISION CCD ICP spectrometers. It combines simple "one-click" routine operation with new functionalities to take full advantage of the unique SPECTRO CIROS VISION analytical capabilities.

The intuitive MS-Office-like design and interactive help wizards make the SPECTRO SMART ANALYZER VISION easy to use and self-explanatory. Complete instrument control, whether for manual or unattended automatic operation, along with logging of commands and events, results in increased productivity and reliable operation.

Method development

Predefined method templates for a wide range of applications and an intelligent method wizard guarantee fast and easy development of new methods. Additionally, the user is assisted by ICP Expert knowledge databases for easy parameter selection, powerful line analysis options, multi-rational regression calculation, an automatic background interpolation mode and a hardware-independent method import.

Automation

The SMART ANALYZER VISION software offers easy and straightforward automation. For standard tasks the samples are simply entered or imported into a sequence list, for complex tasks a powerful script editor can be used in addition. Remote access via network and extended control mechanisms for remote monitoring are excellent tools to ensure a reliable, unattended 24 h continuous operation with high sample throughput.

- Intuitive M
- "One-click
- Comfortabl
- Advanced
- Fully autom
- intelligent
- Full compli
- and regula
- User Mana
- US FDA 21

Smart Analyzer Vision - [Analysis View]

Sample	Type	Ag	Al	Al ₂	Au	B	Be	Ce	Cd	Ce
mg/L		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
87897	1	0.250	0.999	250000	1.000	1.000	1.000	1.000	0.999	1.000
87897	2	0.250	1.000	250000	1.000	1.000	1.000	1.000	0.998	0.999
87897	3	0.250	1.000	250000	0.999	0.999	1.000	1.000	0.999	1.000
87897	4	0.250	1.000	250000	1.000	1.000	1.000	1.000	0.999	1.000

A user dependent analysis view for routine operation might only contain the results of the actual and previous samples. For advanced users this same view can be configured to simultaneously display generator parameters, calibration functions, spectra and autosampler tray information, even a WebCam view can be integrated, if required.

Smart Analyzer Vision - [Analysis View]

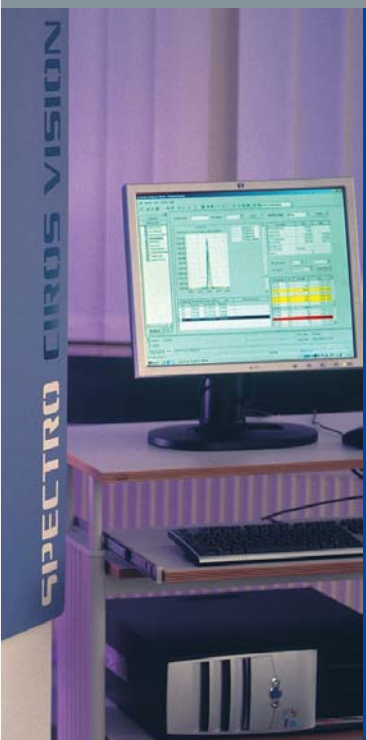
Element Concentration

Type	Ag	Al	Al ₂	Au	B	Be
mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
1	0.250	0.999	250000	1.000	1.000	1.000
2	0.250	1.000	250000	1.000	1.000	1.000
3	0.250	1.000	250000	0.999	0.999	1.000
4	0.250	1.000	250000	1.000	1.000	1.000

Smart Analyzer Vision - [Method View]

Background positions can be set interactively and the result of the fitting previewed using linear or quadric functions as well as spline background modeling.

S-Office-like design
 " routine operation
 e method development
 reprocessing of original measurement data
 atomatic unattended operation with
 event handling
 ance with EPA, CLP and other standards
 tions
 ger and Data Management compliant to
 CFR Part 11



The novel automation concept fulfils all wishes. For standard analytical tasks the samples are simply entered or imported into a sequence list. Control samples, sample logic and list parameters are defined through self explanatory dialogue menus. With the script editor sophisticated protocols including mathematical and logical functions can be prepared.

Method Job Parameter Dialog

Autosampler Tray Definition | Global Parameter | Job Control Parameter

Text	x-Pos	y-Pos	z-Pos	Radius
1067	217	2317	800	140
1068	534	437	800	140
1069	534	767	800	140
1110	534	1077	800	140
1111	534	1387	800	140
1112	534	1697	800	140
1113	534	2007	800	140
1114	534	2317	800	140
2001	1017	437	800	140
2002	1017	767	800	140

Method Job Parameter Dialog

Autosampler Tray Definition | Global Parameter | Job Control Parameter

End Sequence: Rinse
 Rinse Pos: Rinse
 Rinse Time (sec): 10
 Plasma: On
 Method Rinse: Rinse
 Rinse Pos: Rinse
 Rinse Time (sec): 10
 Backtiting: Element: Cycles: 0

Dilute Settings: Rinse: Waste: Rinse Cycles: Rinse Volume (ml): 10.0
 Measuring Volume (ml): 10.0
 Conditional Dilution Factor: 1/V: 10.0
 Volume (ml): 25.0
 Cycles: 1

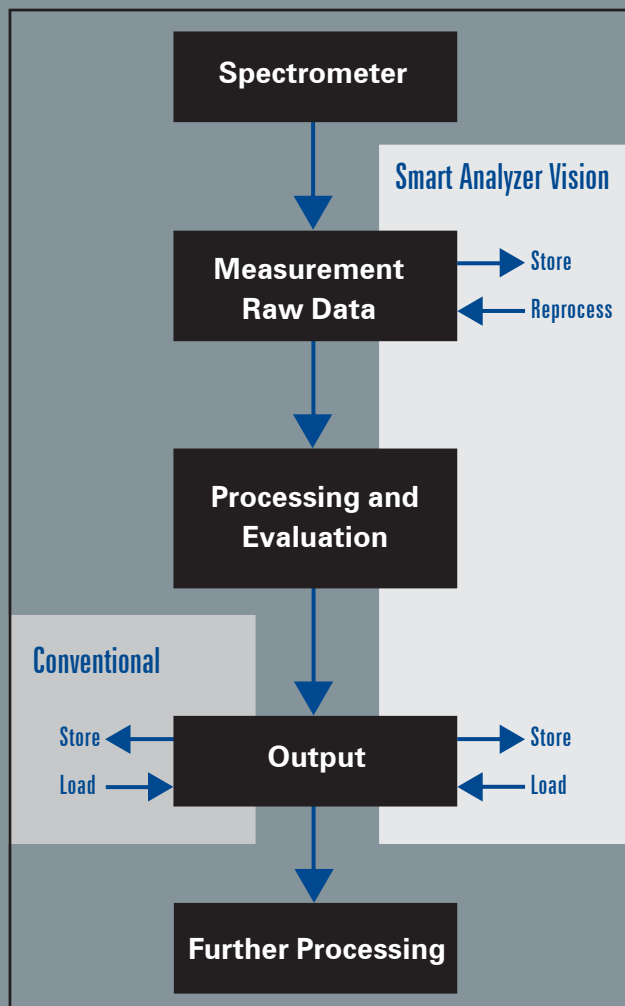
Method Job Parameter Dialog

Autosampler Tray Definition | Global Parameter | Job Control Parameter

Events: Measure Control Sample [3.3003]
 Measure Control Sample [3.3003]
 Tasks: Measure Control Sample Every 3 Samples
 Control Type: GuC3r
 Hint: Please take care that adding Tasks can cause recursion (e.g. the "Event Calibration" with "Task Calibration")

Reprocessing

Due to full spectra storage of the original raw data, SPECTRO SMART ANALYZER VISION offers the unique possibility of advanced data reprocessing with full method and full sample recalculation at a later date, allowing answers to new questions long after the actual analysis took place.



Technical Specifications

Minimum system requirements

- Windows XP Professional
- Pentium 4, 1GHz, 512 MB RAM
- Harddisk 10 GByte
- CD-RW drive
- Video resolution 1024 x 768

System

- MS-Office-like design with user configurable multiple document interface
- Simple access to all functions with context sensitive menus
- User administration and management of access rights
- Databases for wavelengths, standards, measurement results, units
- Logging and traceability of events in automatic and manual operation
- Alarm system with automatic email reporting
- Intuitive, interactive help system using MS Agent™ technology
- US FDA 21 CFR Part 11 compliant user and data management

Measuring

- "One Click" routine analysis
- Result window with multi sample and data viewing
- Spectrum Viewer for line monitoring during analysis
- True real-time internal standardization
- SMARTQUANT semiquantitative measurement mode
- Powerful report generator with layout templates
- Extensive file export possibilities including; PDF, HTML, XML, RTF, ASCII...

Reprocessing

- Unique recalculation possibilities of methods and samples at a later date
- New and modified element and line selection
- New and modified peak, peak area and background settings
- New and modified internal references
- New and modified standards
- New and modified calibration models

Method development

- Method templates for a wide range of applications
- Intelligent method development assistant
- Global emission line library with line recommendations and interference description
- Automatic background interpolation mode
- Multi-rational regression calculation
- Method Import/Export, also for method transfer between instruments

Automation

- Novel automation concept
- Sequence list for standard tasks
- Additional editor with powerful script language for full instrument control including event dependent command processing
- Extended control mechanisms
- Event Manager with configurable alarm system and email function
- Remote WebCam observation of plasma and sample introduction system
- Compliant control sample logic (EPA, CLP)

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