SpectraMax™ Software

SpectraMax™ Software:

SpectraMax is a fully integrated software package for data acquisition and analysis. It is designed specifically for data acquisition from Jobin Yvon spectroscopy systems. The software provides complete control of all aspects of Jobin Yvon's imaging and high-resolution spectrometers, scientific grade CCD systems, single channel detector and data acquisition electronics, and JY's full line of automated spectroscopic accessories.

Integrated Software:

SpectraMax is a general purpose data acquisition and analysis software for spectroscopic systems. All data acquisition and analysis from arrays or single channel detectors, can be completed using the same software application.

Easy to Use:

SpectraMax provides a user-friendly environment for acquiring spectroscopic data. All spectrometer functions can be accessed by point and click operations. Online help provides quick access to information and instructions.

Automated Data Acquisition:

SpectraMax provides complete control over your data collection procedures. After experimental methods have been established, SpectraMax allows for all the components in your system to be automatically set up for your experiment. Users only need to select the method and SpectraMax will collect the data with all appropriate instrument settings.
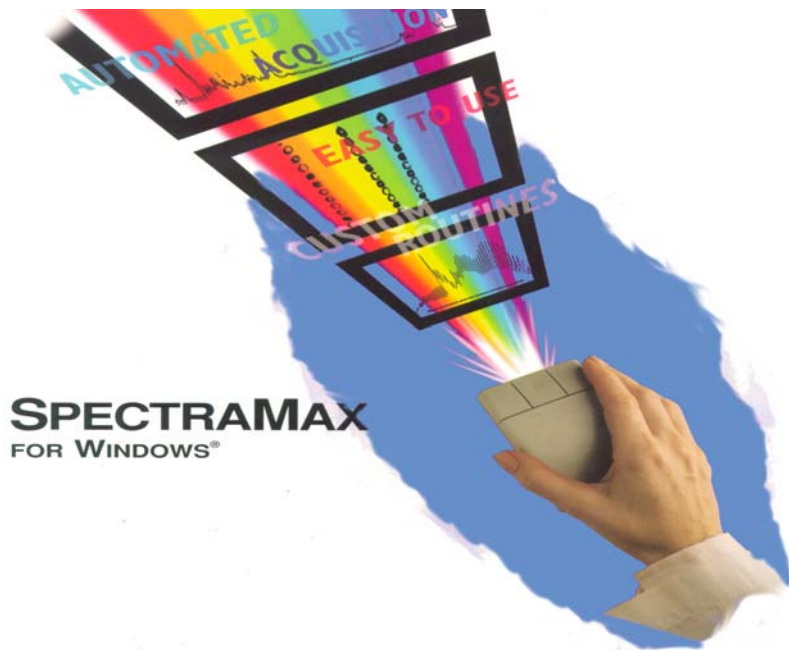
Data Presentation:

SpectraMax offers a variety of data presentation capabilities to allow for quick and powerful data interpretation. Multiple overlaid spectra, 3D plots, CCD images, contour maps, and many other tools are available for data viewing. Peak selection, peak labels, zooming, and data selection can be accomplished with point and click ease.

Custom Reporting:

Custom reports can be designed and saved to provide standard formatting of spectra and experimental reports. All experimental parameters are stored with the data and can be automatically incorporated into any report.

Features

- Integrated, easy to use software for data acquisition and analysis

- Complete control of Jobin Yvon spectrometers, CCD's, data acquisition electronics, and automated accessories

- Powerful data analysis

- Full customization capabilities for acquisition, display, analysis, and data reporting.

SpectraMax™ Software:

Specifications:

Spectrometer Control

Simultaneous control over any two spectrometers including the TRIAX series, M-series, and many older JY and SPEX systems.

- Control includes the grating position, turrets, automated slits and mirrors.
- Control over various motorized accessories, filter wheels and XY translational stages.
- Batch experiment operation: performs a set of pre-defined experiments where each experiment can have different accessory positions.

CCD Detector Systems

Compatible with all Jobin Yvon Spectrum-One CCD and i-Spectrum ONE ICCD detectors.

- Control X and Y binning parameters.
- Selection of up to 20 non-overlapping active areas.
- Software selectable gain.

Single Channel Detector Systems

- Gain selection and high voltage.
- Software calibration of data values to known signal level.
- Control over selected lock-in amplifiers: Stanford Research Systems SR510, SR810, SR530, SR830, SR850.

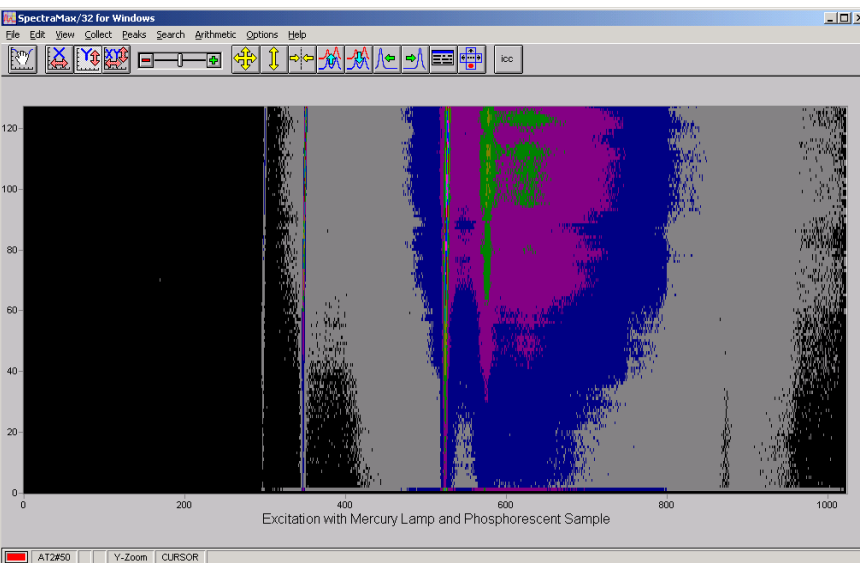Excitation with Mercury Lamp and Phosphorescent Sample

Data Analysis and Presentation:

View Manipulation and creation:

Create custom views or select one of several standard predefined views. Choice of line widths, styles and colors. Label peaks, axis, graphs. Add text comments to the display.

Data Import and Export:

Import and export data from and to various file formats including ASCII, SpectraMax (DOS), SPEX DM3000, ISA PRISM, DILOR and thirty five other scientific equipment manufacturers.

Data processing:

- General math functions: addition, subtraction, multiplication, division, integral, derivative.
- Curve fitting, smoothing, derivative, integration, baseline offset, X and Y axis unit conversion, X axis correction, peak deconvolution, interpolation, spectral editing and splicing, averaging.

External Software:

- Cut and paste screens as bitmaps for use in word processing and data presentation programs.
- Cut and paste data values to spreadsheets.