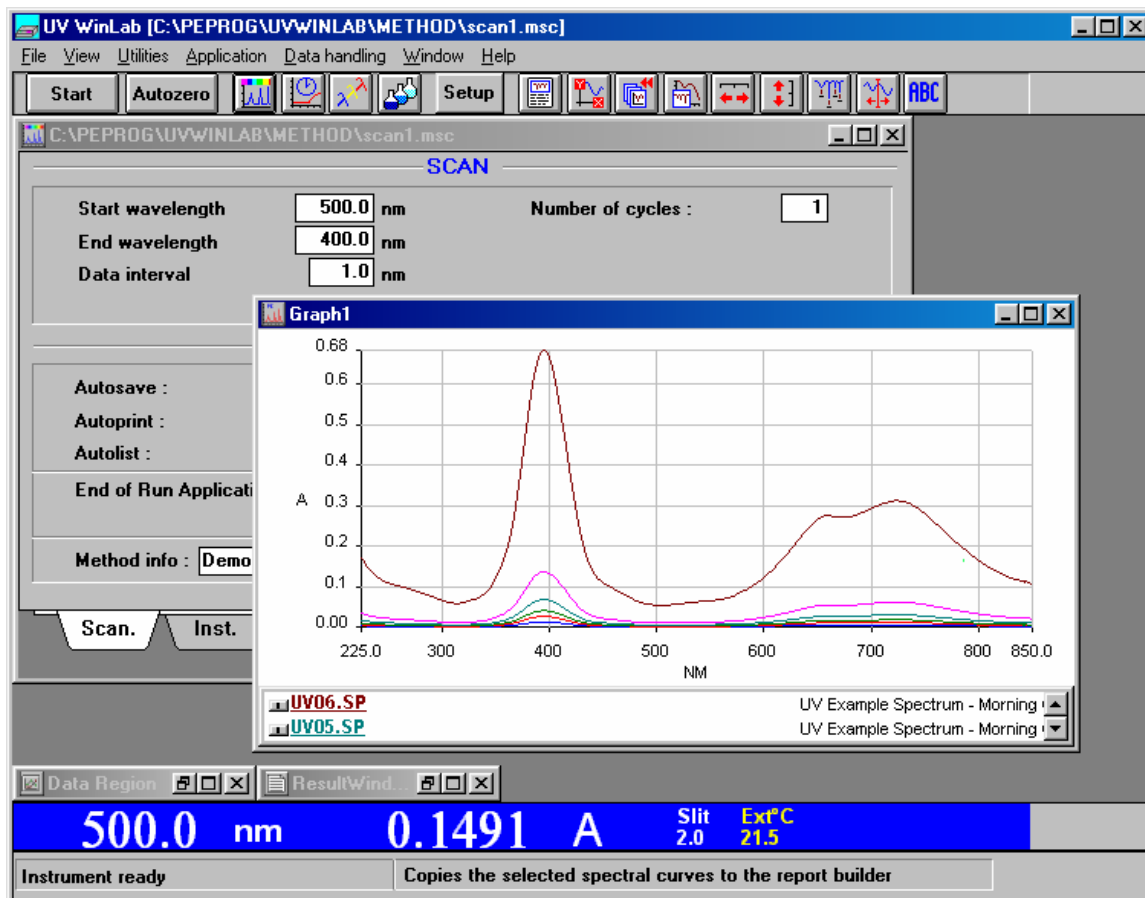# UV WinLab™ Software
The Lambda Series

Key Features

- Quality software for dependable results
- Complete instrument and accessory control
- Powerful spectral arithmetic function
- Comprehensive Kinetics package
- Instrument validation protocols
- Sophisticated graphical display
- Easy-to-use report builder

Intelligence that Works for You

Combine the elegance of the Windows® based UV WinLab™ software and the versatility of the Lambda Series spectrometers and you get powerful systems with a new dimension in performance and presentation. UV WinLab, the application software for the Lambda Series UVNIS/NIR Spectrometers, includes powerful routines for spectroscopic data handling, quantitative analysis, kinetics and instrument validation. It runs on an industry standard PC in the Microsoft® Windows environment.

The software is designed to meet the demanding needs of today's laboratories. Developed in an ISO 9001 certified environment, UV WinLab undergoes rigorous Software Quality Assurance testing. This, along with instrument and software validation, ensures accurate measurements, comprehensive reports and confidence in the analytical procedure.

UV WinLab is easy to operate: You simply select the type of application (Scan, Concentration etc.), enter your desired parameters in an easy to understand and use method editor window and then press the START button. For your convenience, a

tool bar provides buttons for the most frequently used functions such as application selection, instrument access (START / STOP / AUTOZERO) and graphics manipulation functions.

Scan

Scan is the application of choice for the UV/Vis spectroscopist. The UV WinLab software takes advantage of the full capabilities of the Lambda series of UV/Vis and UV/Vis/NIR Spectrometers. Click on the SCAN icon and the scan method editor will open a window with all the available scan parameters. Simply make your selections for the scan range, instrument parameters, sampling accessories, sample information and results output. Click on the START button to initiate the scan and a graph window will open. The spectrum of the sample while it is being recorded is displayed in the graph window. If, during

the scan, the spectrum is off scale, click on this button ⬍ and your spectrum will be rescaled.

```
C:\PEPROG\UVWINLAB\METHOD\scan1.msc                          _ □ ×
                              SCAN
   Start wavelength        500.0  nm     Number of cycles :        1
   End wavelength          400.0  nm
   Data interval             1.0  nm

                             OUTPUT
   Autosave :       ○ On  ● Off      Ordinate max. :        2.000
   Autoprint :      ○ On  ● Off      Ordinate min. :        0.000
   Autolist :       ○ On  ● Off  List…  Display :       Serial  ▼
   End of Run Application:

   Method info :  Demo scan method shipped with UV WinLab

   \ Scan. / \ Inst. / \ Acc. / \ Sample /
```

Scan method page

Concentration

UV WinLab provides concise procedures for routine quantitative analysis. Select the ordinate mode according to your analytical needs. Ordinate modes include single wavelength, wavelength difference, baseline-corrected data, derivative, ratio, and area. The calibration procedure accepts up to 25 references for calibration and calculates a least squares calibration curve of linear, quadratic or cubic shape. A self-optimizing procedure, which decides on the optimum calibration function by means of a statistical test, is offered as an option,

You can use unique sample names along with comments on the SAMPLE page. For various types of sample preparation you can enter the factors for final concentration calculation:

• Correction factor

• Dissolution factor

• Weighing factor

The weight of the sample can simply be transferred from the balance, connected to the computer.

Sample list page

Time Drive

Record a kinetic run with the lowest time interval of 0.025 s (depending on the spectrometer type) or use a cell changer accessory and analyze multiple samples in parallel. Recorded time drive data may be smoothed, subtracted from other runs or listed in tabular form. Data processing commands are available for post-run analysis of enzyme activity with variable start and end time.

Collect data with your cell changer for a long period and use the computer connected to the Lambda series instrument for other tasks. The software will collect the data in the background.

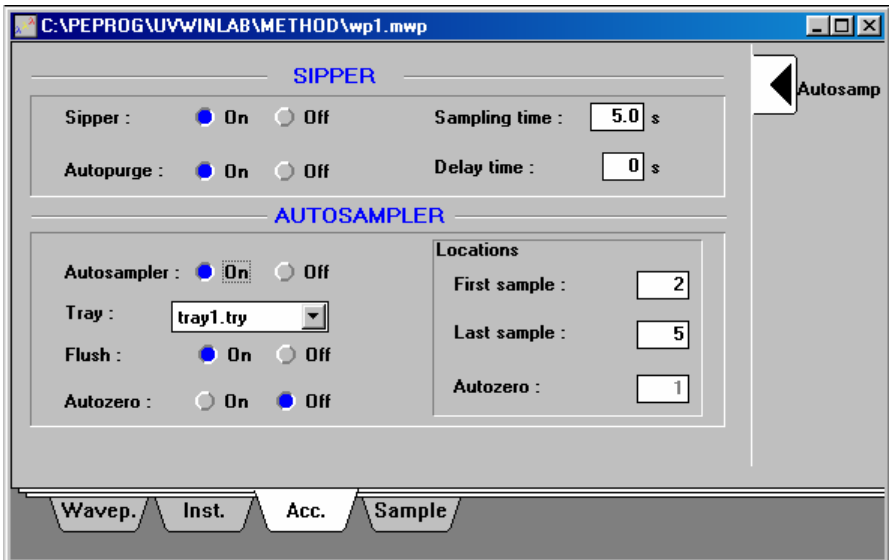*Instrument page*

Wavelength Program

Several analytical procedures require data recording at a number of specific wavelengths, e.g. DNA purity checks use the ratio of absorbances at 260 nm and 280 nm. The UV WinLab wavelength program mode reads data at up to 8 wavelengths in one cycle. Simple calculations can be performed within the report.
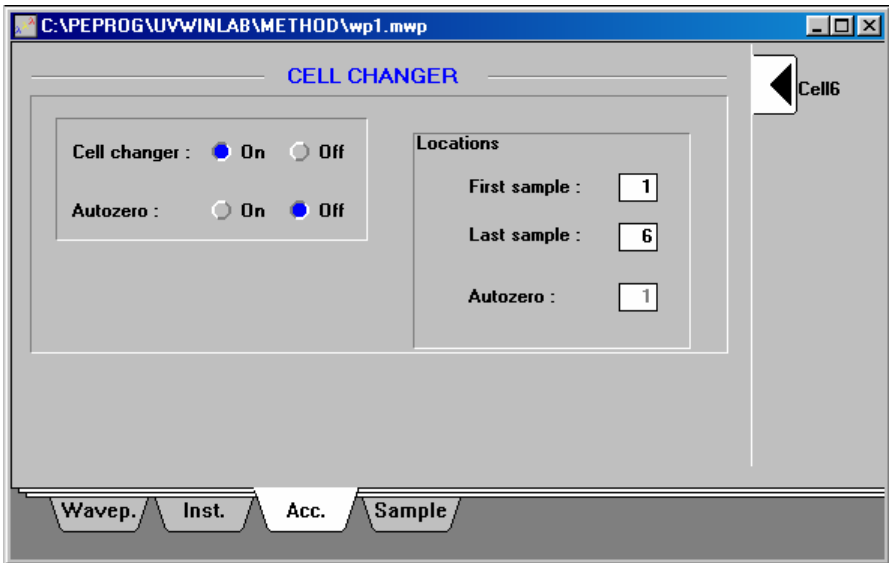
Accessory cell-changer control page

Accessory Control

In all applications, UV WinLab supports sampling accessories connected to the instrument. The whole range of sippers and cell changers for the Lambda Series Spectrometers can be used. The autosampler allows the unattended, automatic analysis of more than 200 samples with full documentation.

Accessory sipper / auto-sampler control page

Manual Control
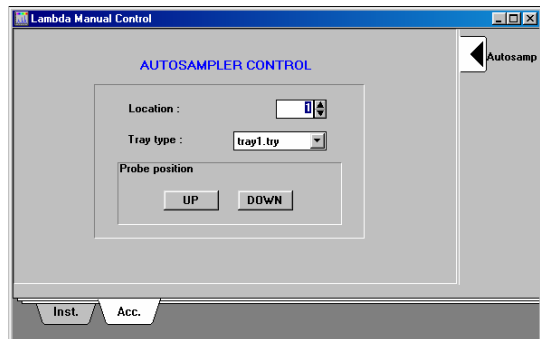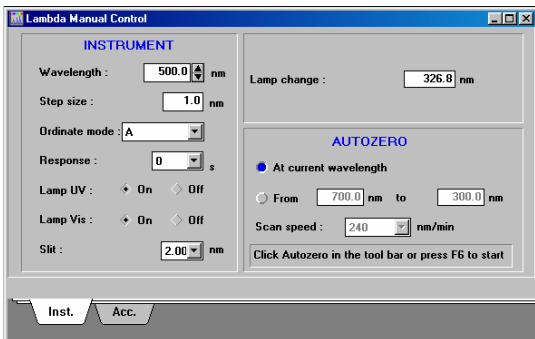
Manual control pages

For quick instrument setup, the MANUAL page provides you immediate control of the system. Select the measurement parameters and read the measured absorbance directly on the real-time display.

Real-time display

Instrument Validation

To comply with ISO 9001 requirements, measurement devices must be calibrated at regular time intervals. Perkin-Elmer aids you with this task. Complete routines for the performance check of your instrument are included in the basic UV WinLab software. When used with calibration standards, the wavelength accuracy as well as the ordinate accuracy are checked. A printed report summarizes the results.


Instrument validation window

Viewing Graphics

Spectroscopists rely heavily on graphical presentation of data. UV WinLab offers a wealth of graphics functions:

•You can display multiple spectra overlaid or split spectra in several different windows. Activate the vertical cursor and you get the ordinate values at the selected abscissa.

•Zoom into the details of the spectrum while at the same time a RADAR window displays which area of the full spectrum is currently open.

•Label peaks directly in your spectrum.

• With a single click send the spectrum to the Report Builder where you can add information as you've defined it and then send it to the printer.
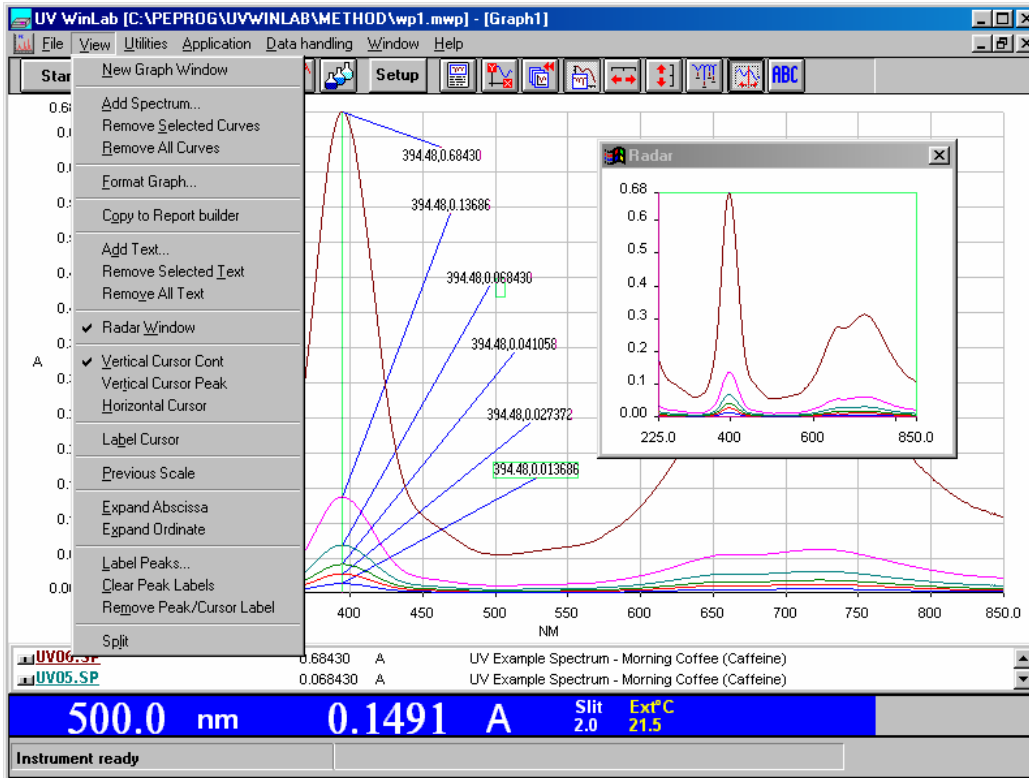
Printing the Data

Printing data can be performed in several ways.

- Data can be printed directly by clicking on the printer icon within each application.

- Data can be transferred to a Windows based software package using the clipboard and printed from there.

- Data can be imported into customized reports using the Report Builder

The Report Builder is a powerful tool for creating the final printed report. It allows you to create customized reports using simple mouse operations. Simply define the size of the graph on the page and place your text where you want it. All GLP relevant parameters can be included in the report. The text can be easily customized to your local language.
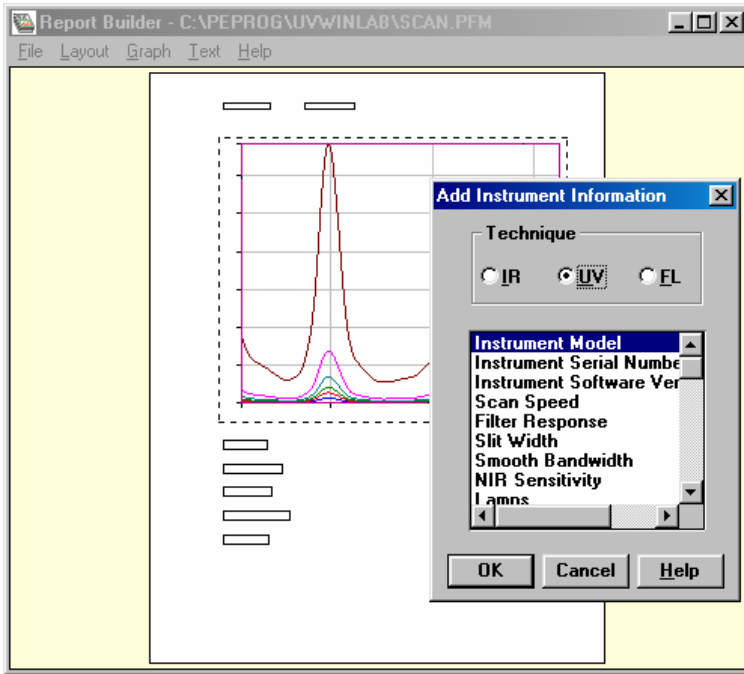
Report builder window

Data Handling / Arithmetic

For over two decades, PerkinElmer has earned a reputation for excellence with its spectroscopic data handling software. UV WinLab continues in this long tradition. Whatever your needs - from a simple abscissa or ordinate conversion to more sophisticated algorithms for smoothing, derivative or area calculations, UV WinLab does it all. The data handling commands include correction functions for reflectance measurements as well as evaluation procedures for kinetic runs.
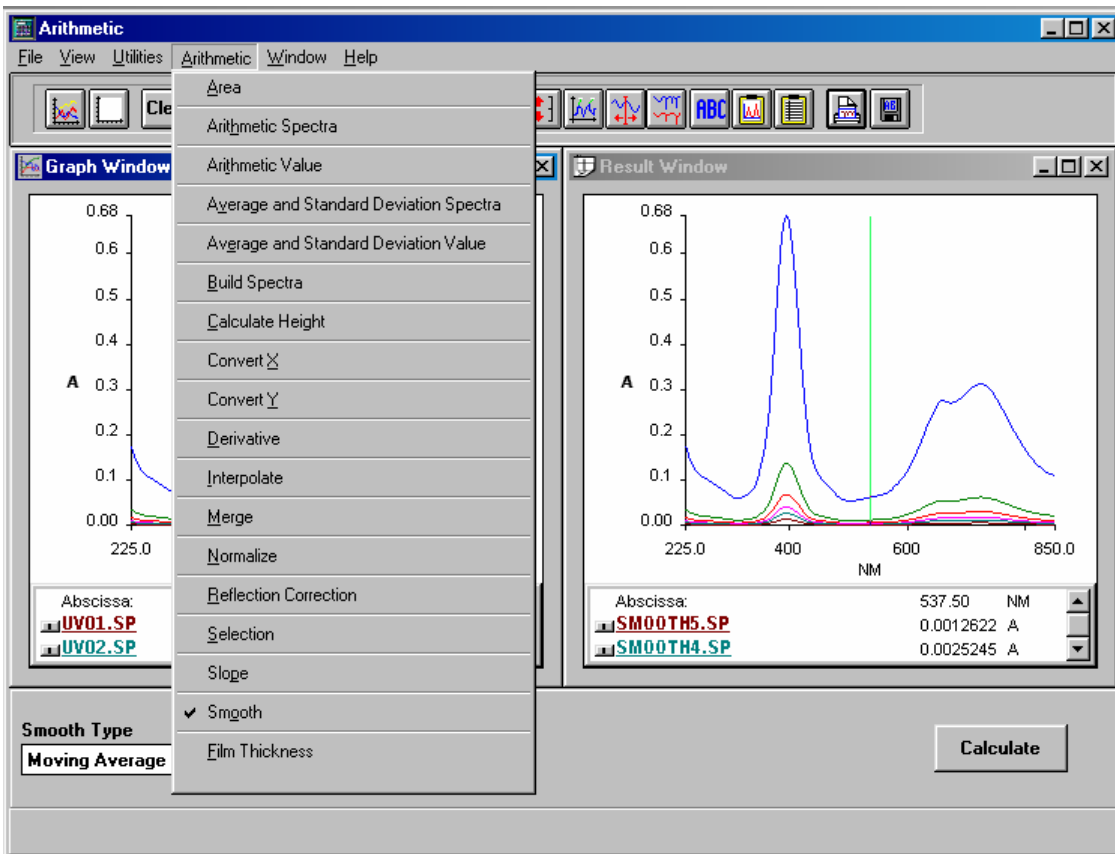
Arithmetic Software

Software

UV WinLab software is included with all Lambda Series Spectrometers.

Operating system

Computer Requirements

- Microsoft Windows 98 or Windows NT® 4.0
- Industry-standard PC, Pentium processor recommended minimum 200 MHz
- 32 MB RAM memory recommended
- 800 x 600 SVGA graphics at 256 colors
- Minimum 200 MB free space on hard drive
- Quad Speed CD-ROM drive
- Mouse
- RS-232 communication port