

## SWIFT-1000 and Nova-SWIFT Application Software



SWIFT software provides application modules for wavelength scanning, reaction kinetics, quantification, multi wavelength, time drive and fraction analysis. It is written in Windows 3.1, but is compatible with Windows 95, 98 and NT.

Specific application packages are for either the Ultrospec 1000 or Novaspec II. Applications specific software include:

- Applications for wavelength scanning, reaction rate measurement studies, concentration determination
- Written for Windows 3.1, but is completely compatible with Windows 95, 98 and NT
- For Ultrospec 1000 or Novaspec II only

### Personal Computer Specification

For optimum performance, an IBM compatible 486 or greater PC with VGA graphics running Microsoft Windows version 3.1 or greater under Microsoft DOS version 5.0 or greater is required. Any printer supported by Microsoft Windows version 3.1 can be used.

### SWIFT-1000 and Nova-SWIFT Application Software

#### Modules

##### Wavelength Scanning

This module produces wavelength scans within the operating parameters of the instrument, in either absorbance or transmission mode, on a sample or series of samples. It enables high resolution (depending on instrument used) spectral scanning with real time visual display and post run manipulation of data.

##### Reaction Kinetics

This module enables both serial and parallel reaction rate measurement studies, in particular calculation of reaction rates of a sequence of enzyme-catalyzed reactions (enzyme kinetics) to calculate  $K_m$  and  $V_{max}$ . Both slow acting enzymes such as esterases and very fast acting enzymes such as peroxidases or LDH can be monitored. Reaction kinetics experiments can also be monitored at several wavelengths simultaneously.

##### Quantification

This module is for the determination of unknown concentrations in three ways:

- Factor, to produce results directly in concentration from a user entered factor
- Standard Curve, to produce a plot of the absorbances of a series of standards from which the concentrations of samples of unknown concentration can be determined
- Substrate Concentration, to enable the use of diagnostic reagent kits using the principle of NAD/NADH dependent enzyme reactions

#### Features

Multi level zoom, 1st, 2nd and 4th derivative, Log function, Overlay of spectra for spectral comparison, Peak height/area calculations, Mathematical functions, Compatibility with Multi Component Analysis software packages

Reaction times of 10 seconds to 9 hours, serial kinetics with weighted average readings, 2 point kinetics, parallel kinetics, Multi level zoom, 1st derivative, Overlay of assays, monitoring at several wavelengths simultaneously, Michaelis-Menten Plots, Lineweaver Burke, Eadie Hofstee, Hanes Woolf analysis of data, Calculation of Hill coefficient

Factor, Standard Curve, Substrate Concentration (for use with diagnostic kits), manual, linear regression, linear interpolation and spline curve fitting methods, up to 10 replicates of 20 standards, load by record identification with appending of subsequent data to the file (useful for clinical environment)

Catalog No.	Product
CGS 8185.39	Nova SWIFT (Includes: Wavelength scanning, reaction kinetics, quantification)
CGS 8186.39	SWIFT 1000 (Includes: Wavelength scanning, reaction kinetics, quantification)