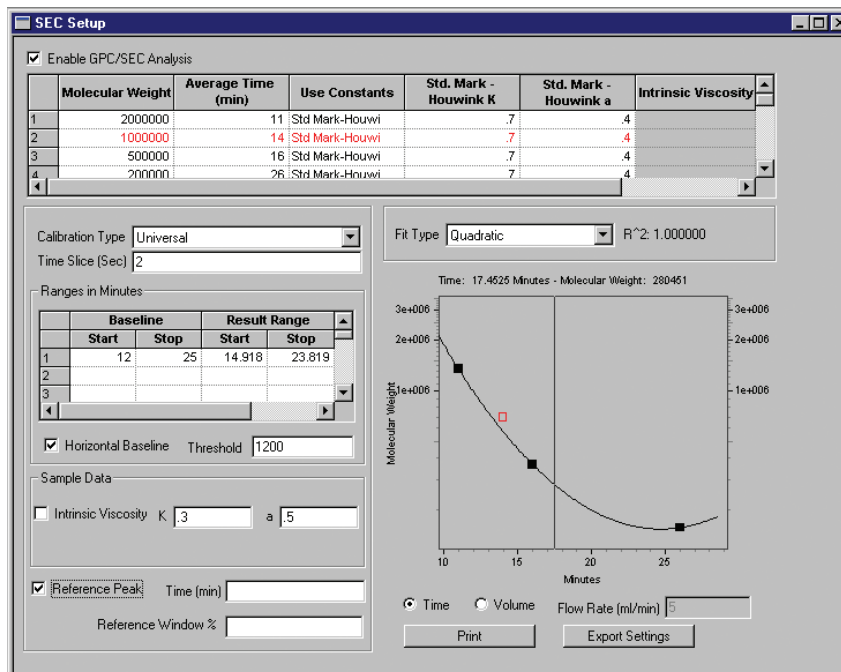




GPC/SEC Optional Software for EZChrom *Elite*™ CDS



Specifications

- Allows molecular weight, average time, and application of constants for up to 15 calibration ranges.
- Supports narrow range, universal and both broad range calibration types.
- Calibration curve fit types include point to point, linear, quadratic, cubic, 4th degree polynomial, and spline.
- Up to 10 different result ranges and associated baselines may be entered.
- Graphical programming of SEC peaks, SEC baselines, SEC result ranges and cumulative percent.
- Calculations include:
 - Weight average molecular weight
 - Number average molecular weight
 - Z average molecular weight
 - Z+1 average molecular weight
 - Polydispersity average
 - Peak molecular weight
 - Z average/weight average
 - Z+1 average/weight average
- Calibration display supports time and flow, molecular weight, curve overlay of data points, outliers.
- Reports include SEC Slice Report, SEC Summary Report, and calibration graph with coefficients.

Gel Permeation Chromatography (GPC), often referred to as Size Exclusion Chromatography (SEC), requires specific size exclusion formulas, calibration techniques, and measurements than other chromatographic measurement techniques. For laboratories interested in performing these types of calculations, Agilent Technologies' EZChrom *Elite* Chromatography Data System has an optional GPC/SEC optional software.

The optional GPC/SEC software requires an EZChrom *Elite* CDS system to handle the primary data acquisition and data processing.

Multiple SEC Calibration Techniques

The GPC/SEC optional software includes narrow range, universal, and both types of broad range calibration techniques. Since the nature of the calibration is such that the curves are rarely linear, up to five other curve fit types are available to evaluate and apply to the calibration data.

GPC/SEC calibration curves are applied against the data points of the standards directly on the SEC Setup screen, to simplify evaluation of the curve fit. Goodness of fit is calculated and displayed to provide a numerical reference to the interactive visual presentation of the curve and data points. Data points may be removed from the curve fit calculations in order to determine the impact of outliers. In this way, the software can utilize the best computer-derived calibration curve to fit the experimental data.

To simplify operation, the SEC Setup screen also displays only the parameters that apply to the active calibration type. For example, if the SEC calibration type selected is for narrow range, the choice for Mark-Houwink constants does not appear on the software screen.

Multiple SEC Result Ranges (excluded areas)

Often there may be a peak or area in the SEC chromatogram that should not be measured or included with the SEC results. This excluded area is simply excluded by measuring multiple result ranges within the SEC chromatogram; in this way the SEC calculations will apply strictly to the areas of interest, without interferences.

SEC Baseline Assignment is Simple

The SEC/GPC Option Software is linked directly to the chromatogram display of EZChrom *Elite*. SEC users can graphically define the baseline range by selecting SEC specific software controls. For greater flexibility and accuracy in the SEC measurement, a baseline setting can be entered for all result ranges.

Graphical Display of Results

SEC analysis results are conveniently displayed on the screen. Results such as the cumulative percent curve and the average molecular weight calculations for each result range are also clearly displayed. And, of course, all standard EZChrom *Elite* Method Reports can be shown on the screen as well.

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Flexible Reports

SEC reports are integrated with the highly advanced Method Report function of EZChrom *Elite*. Standard Slice and SEC Summary Reports are new templates that SEC uses for report functions. Custom features can be easily added to meet the specific requirements of virtually any laboratory.

Calibration curves may also be printed, along with a summary that discloses the coefficients and formulas used to generate them.

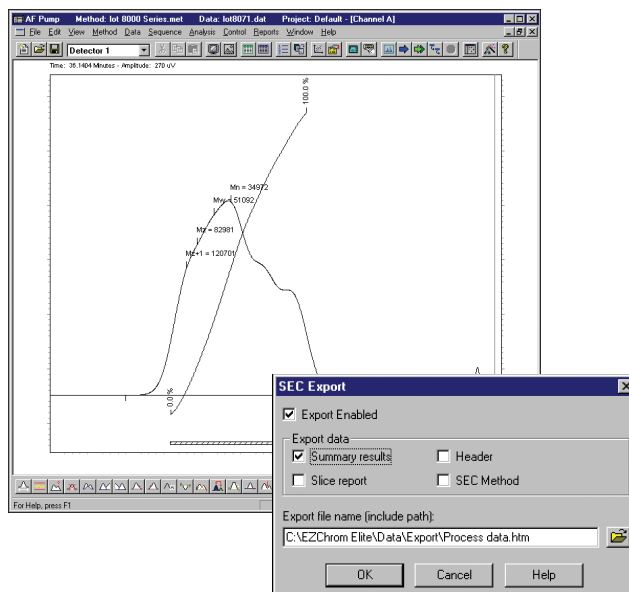


Figure 2. The chromatogram display may be customized for content and appearance. SEC reports can be exported in html format.