

Waters[®] Alliance[®] HPLC Control Software for EZChrom *Elite*[™] CDS and Agilent OL Operating System for the Laboratory



Figure 1. EZChrom Elite and Agilent OL conveniently display instrument control parameters of the Waters Alliance for easy method construction. In this example, an Agilent OL Client is in the process of initializing a Waters Alliance HPLC on the enterprise network. Graphic depiction of the entire system makes it easy to view real time status of all current conditions in the system and also to easily access specific screens for parameter setting.

Control the Waters Alliance HPLC with EZChrom Elite or Agilent OL

Waters Alliance HPLC systems are in widespread use in HPLC laboratories throughout the world. They are used routinely in research, QA/QC and method development environments. Agilent Technologies has released instrument control software for the Waters Alliance HPLC for its EZChrom *Elite* Chromatography Data System and Agilent OL Operating System for the Laboratory. This provides instrument control of the Waters 2690 Alliance Pump, Alliance valves, Autosampler and Column Oven, the Waters Model 2487 UV Dual Wavelength detector the Waters Model 2996 PDA detector and the Waters Model 996 PDA detector.

The Waters Alliance HPLC can be controlled through EZChrom *Elite* or Agilent OL along with many other commercial HPLC and GC systems. Over 300 different instrument modules

Specifications

Waters Alliance HPLC control software supports the following modules:

- Waters Alliance Model 2690 HPLC (firmware revision 1.20 or later)
- Waters Alliance Model 2695 HPLC (firmware revision 2.0.3 or later)
- Waters Model 2487 Dual Wavelength Detector (firmware revision 5.01 or later)
- Waters Model 2996 PDA Detector (firmware revision 3.5 or later)
- Waters Model 996 PDA Detector (firmware revision 2.3 or later)



from over 25 different manufacturers can be controlled in EZChrom or Agilent OL to provide laboratories with a flexible choice in laboratory instrumentation while using a single strategic software platform. Whether you are controlling the Waters Alliance HPLC, the Agilent 1100 series HPLC, or the Varian CP-3900 GC, laboratory users work with the same uniform software interface to create methods, setup autosamplers, and direct data reports for ease of use and improved laboratory productivity.

Flexible Control of Waters Alliance System and UV Detector

The control software supports the column oven heater and heater/ cooler options as well as the sample compartment heater/cooler of the Alliance HPLC. The Alliance Pump can be programmed with multiple pump events to create any desired pump time program. In addition, 2487 UV Detector programming is provided to set desired wavelengths as a function of run time.

Instrument settings are stored with each collected raw data file so that users can easily read the "embedded" method in a result to view the instrument settings that produced the run or even redownload those method conditions to setup the instrument.

Special Direct Control Mode Displays All Information

The Direct Control screen for the Alliance HPLC shows all status information in a single view. Users can easily see check an Alliance instrument setpoint and, if desired, make modifications directly from the EZChrom *Elite* workstation or client or, in the case of Agilent OL, through a web client on the network.

Autosampler Control is Simple and Sophisticated

The Alliance 2690/2695 autosampler control includes support for all autosampler parameters. Sequences can be setup by clicking on vials in a graphical display of the trays.

Powerful features such as Agilent's exclusive SmartSequence[™] in EZChrom and Agilent OL enable laboratories to employ automated actions that can control the Autosampler and Alliance system to rerun calibrations, re-inject, or even shutdown in the event certain conditions are encountered.

Simple and Easy Connections of All Modules

Digital data from the Alliance Model 2487 UV Dual Wavelength Detector is read directly by the software. No intermediate analog to digital converters are needed to take data from the Alliance detector. Moreover, each Alliance HPLC connects to the data system by industry standard IEEE cables.

Powerful Data Analysis Through EZChrom Elite or Agilent OL

Waters Alliance HPLC data can be subjected to a full range of flexible data analysis. Overlay runs, perform System Suitability calculations, and create a wide variety of data reports. Built in GLP/ GMP features in ensure that Waters Alliance HPLC methods, sequences, and results are complete audit trailed. Additionally, built-in features for Electronic Signature enable all electronic results to be handled according to 21 CFR Part 11 rules.

Powerful Diode Array Data Handling

The optional Waters LC Photo Diode Array (PDA) Control Software provides unlimited number of analysis and data acquisition channels for the Waters PDA. All data are saved in one file, so any spectrum or wavelength chromatogram can be recalled for review after analysis. You'll never lose a compound because it was below the threshold. Views showing the PDA contour chromatogram, spectrum, and similarity (peak profile and purity) are provided. Analysis options include spectral library searches, peak purity/analysis, spectral filtering and processing and more.

Special EZChrom SI (Single Instrument) Version

A special EZChrom SI version for users who have only one Waters Alliance HPLC and who require only basic EZChrom *Elite* features is available. This provides instrument control for a Waters Alliance HPLC with basic chromatography data reduction at a very attractive price.



Figure 2. Alliance instrument control screens are organized on easy to access tabs to specify control of the pump, degasser, oven, autosampler and UV detector.

Manage All Instrument Data with Agilent OL

The unique Agilent OL Operating System fo the Laboratory provides powerful content management of all raw data and results from the Waters Alliance HPLC as well as from all other instruments.

"Smart" electronic filters specific for the Alliance results are used to extract key metadata from each LC run and store that information in the Agilent OL database. All results are automatically deposited in a safe, secure repository and made fully searchable.

Users can readily find their data based on queries that not only specify criteria such as instrument, username and Sample ID, but even extend to detailed results such as component names and concentration ranges.

Agilent OL manages all the electronic information in the laboratory. In addition to all Waters Alliance raw data and results, Agilent OL can manage results from any of the other instruments and chromatography systems controlled by Agilent OL, including systems from other manufacturers such as Agilent Technologies, Shimadzu, Hitachi, Varian, PerkinElmer, Thermo Electron and more. This extensive support for multiple vendors allows Waters Alliance users to integrate their hardware onto a single software platform for improved laboratory efficiency. However, Agilent OL can also manage all electronic information from the laboratory including non-instrument information such as, Microsoft Office files, e-mails, Adobe pdf files, mass spectrometry data, and much more. No other package offers this powerful capability to handle all electronic information and documents generated in the laboratory. Conduct quick, focused searches across all your data to find hits from various Waters Alliance HPLC results, as well as Excel spreadsheets, Word documents, pdf reports, and more.

Furthermore, Agilent OL's management of the information makes it easier and safer to collaborate and share results with others with its powerful "check-in/check out" capabilities and electronic signoff capabilities.

Agilent OL's unique architecture allows network access to all instruments through web clients. This powerful design enables laboratories to flexibly setup Agilent OL– accessing the software freely and easily from any networked PC – rather than having to pre-load extensive software on each and every computer. Designed as a .NET framework application, Agilent OL has built-in features to accommodate laboratory growth and expansion. Supporting a variety of archiving and backup systems through its N-tier architecture, Agilent OL can flexibly accommodate data storage needs for any sized laboratory operation.

Visit **www.agilent.com/chem/scisw** or call toll free **1-800-227-9770** (U.S. and Canada).

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