Agilent 1100 and 1200 LC Control Software for EZChrom Elite CDS and Agilent OpenLAB Operating System for the Laboratory

Data Sheet

Software control of the Agilent LC DAD. Full DAD spectra can be collected and presented in a variety of post-analysis views with the chromatography data.

Specifications

- Control the Agilent 1100 and 1200 LC including the Agilent DAD through EZChrom Elite software along with over 330 other instrument modules from more than 25 different manufacturers.
- Deploy a flexible, scalable EZChrom Elite CDS for a variety of different lab needs — from single user/single instrument configurations and networked workstations, to multi-user/multi-instrument client/server configurations.
- Built-in software features address GLP/GMP needs including complete records of instrument settings with each result; full method and sequence audit trails; and electronic signature and signoff for 21 CFR Part 11.
- Perform special automated control of the Agilent LC with EZChrom Elite’s Smart-Sequence™ technology, which automates responses to recalibrate, run shutdown methods and even email messages to users.

Control the Agilent 1100, 1120 and 1200 LC with EZChrom Elite and Agilent OpenLAB Instrument Control Module

The Agilent 1100 and 1200 Series LCs can be controlled by Agilent Technologies’ EZChrom Elite Chromatography Data System and Agilent OpenLAB Operating System for the Laboratory. Full control is offered for these highly versatile LCs, which are used in major pharmaceutical and chemical laboratories. The Agilent 1100/1200 LC Control Software is a software add-on that provides integrated instrument control for Agilent 1100 series and 1200 series modules, including autosamplers, pumps, column compartments and 2D detectors. An additional Diode Array Detector (DAD) Control Software option is available for those Agilent LC systems with DADs.
Easy Auto Configuration
Configuring the Agilent LC modular systems has never been simpler. A special “Auto Configuration” mode in EZChrom Elite and Agilent OpenLAB can automatically detect the connected Agilent 1100 and 1200 components to configure the instrument in the software. The software identifies all powered on modules and even verifies the serial numbers and firmware versions. The configuration is saved, and the user subsequently can develop methods specifically for those modules rather than for a generic configuration.

Built-in Agilent Pump Control
When controlling Agilent LC pumps, all gradient information and flow and maximum pressure programs are presented in a tabular view. A graphic display provides quick and easy visual comparison of flow rates and gradient composition.

Advanced parameters such as minimum stroke settings, compressibility, gradient acceleration and 1200 series solvent calibration settings are easy to find.

Powerful Diode Array Data Handling
The optional Agilent LC Diode Array Detector (DAD) Control Software provides unlimited number of analysis and data acquisition channels for the Agilent DAD. 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 DAD 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.

Single View Display Makes Things Easy
The software graphical displays can show chromatogram plots, gradient, flow, temperature and other valuable information in a single screen view. When controlling the Agilent DAD, the additional DAD software option can show the spectrum at a specific time, a mixed view plot, or all of the extracted chromatogram channels.

Autosampler Control is Simple and Sophisticated
For simple operation, just load the autosampler and start. For more involved operation, the user may go to advanced mode, and define customized injector programs by selecting from a variety of different available functions, including mixing, moving vials, and performing dilutions.

These advanced routines may be saved as a pretreatment file; a sophisticated pre-injection sequence can be developed just once and then used with any other method or sample that applies.

Multi-vendor LC Control
In addition to full control for the Agilent 1100 series and 1200 series LC components, EZChrom Elite and Agilent OpenLAB can provide control of other instruments and modules. This unprecedented level of support for instruments from different manufacturers provides laboratories with freedom to use the best hardware for their particular application with the confidence of controlling and processing information through a single software platform.

Whether you adopt EZChrom Elite or Agilent OpenLAB, you have the freedom to control more than 330 different instrument modules from over 25 different manufacturers, including hardware from Agilent, Shimadzu, Hitachi, Varian, Waters, PerkinElmer, Thermo Electron and more. Specialty devices and detectors from leading manufacturers such as CTC Analytics, ESA, Grace/Vydec (Alltech) and others allow you to customize your hardware solution and still control the instruments through the same software platform.
Chromatogram Reports are Easily Modified

The custom report editor has the ability to graphically resize graphs and objects in the report. In order to see a zoomed-in section of the graph, just select the area with the mouse and it is resized.

No more guessing about scale settings. Objects can be resized and moved in templates for the perfect presentation. The trace and the zoomed sections – and even previous runs – can be included in the report.

Communications Options

The Agilent 1100 and 1200 Series components can be controlled via a rugged Ethernet LAN (TCP/IP) interface.

The Agilent Instrument Controller can be used for EZChrom Elite Client/Server or the Agilent OpenLAB Software Framework to provide remote control and buffered network data acquisition.

Fully Protected Data Acquisition and Control

Agilent's unique data acquisition and instrument control architecture for EZChrom Elite Client/Server and Agilent OpenLAB make it possible to perform data collection even in the event the host computer network is down. The special Agilent Instrument Controller network appliance can take control of each Agilent LC and run injections, thus collecting and protecting the data completely. If the network is down, these injections will be stored securely and protected in memory in each instrument controller.

The data storage in each Agilent Instrument Controller allows multiple injections from entire sequences (including injections based on different methods) to be safely stored and protected so your instrument runs can continue under such serious network problems.

Up to four (4) Agilent LCs with 2D detectors can be connected to a single Agilent Instrument Controller; up to two (2) Agilent LCs with PDA can be connected to a single Agilent Instrument Controller.

Manage All Instrument Data with Agilent OpenLAB

The unique Agilent OpenLAB Software Framework provides powerful content management of all raw data and results from the Agilent 1100 and 1200 LC instruments. “Smart” electronic filters specific for the analysis results are used to extract key metadata from each LC run and store that information in a 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. Three different types of database searches are provided in Agilent OpenLAB to accommodate different situations and make it easy for users to find the results of their searches.

Agilent OpenLAB manages all the electronic information in the laboratory. In addition to all Agilent LC raw data and results, Agilent OpenLAB can manage Microsoft Office files, e-mails, Adobe .pdf files, chromatography data from EZChrom Elite and other CDS packages, mass spectrometry files and much more. So you can conduct quick, focused searches across all your data to find hits from various Agilent LC results, as well as Excel spreadsheets, Word documents, .pdf reports and more. No other package offers this powerful capability to handle all electronic information and documents generated in the laboratory.

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

Convenient instrument status screens for the Agilent LC make it easy to understand the current state of the instrument. These real-time displays can be seen on PC Clients in EZChrom Elite, or when using Agilent OpenLAB, they can be viewed across the enterprise on Agilent OpenLAB clients.
<table>
<thead>
<tr>
<th>Agilent LC</th>
<th>Model Number</th>
<th>Module Name</th>
<th>Communication</th>
<th>Firmware Needed</th>
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<td>G1312B</td>
<td>Binary Pump SL</td>
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<td>Oven</td>
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<td>Column Compartment, Including Column Selection Valve</td>
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