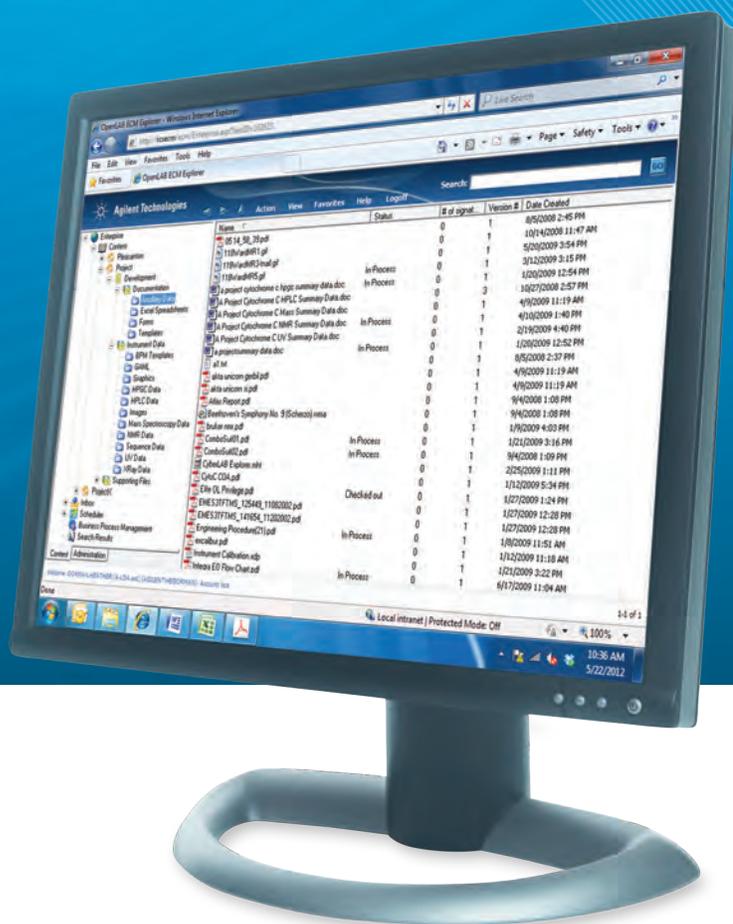


Agilent OpenLAB Enterprise Content Manager

REALIZE THE FULL VALUE OF YOUR SCIENTIFIC DATA

The Measure of Confidence



Agilent Technologies

EXPAND YOUR KNOWLEDGE BASE AND BOOST PRODUCTIVITY

Organizations around the globe recognize the tremendous gains in decision making and problem solving speed that can be achieved by integrating and sharing scientific information across disciplines and geographies. Additionally, laboratory, informatics, and IT managers gain significant cost savings and productivity benefits, such as improved security and streamlined regulatory compliance.

Achieving these gains requires the highest level of informatics capability, one that integrates scientific data from multiple sources and suppliers while protecting intellectual property.

“OpenLAB ECM is the foundation that we’ve tied all of our software to, and it is what makes our LIMS and our electronic notebook systems function by providing us with a true paperless environment for our business systems as well as our analytical and manufacturing systems.”

ED THOMPSON, PMRS PRESIDENT AND CEO

A Comprehensive Approach to Content Management

Much more than the sum of its components, Agilent OpenLAB is a rich, integrated suite of software products:

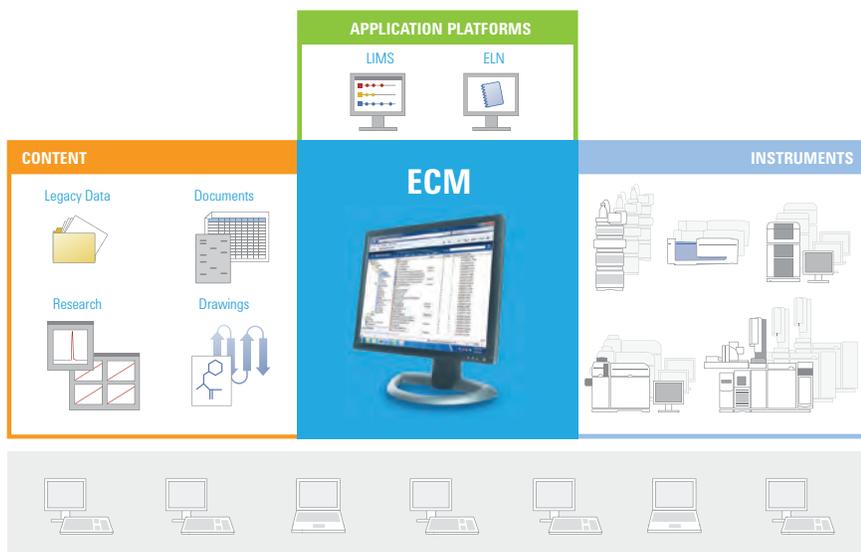
- OpenLAB Enterprise Content Manager (ECM)
- OpenLAB Chromatography Data Systems (CDS)
- OpenLAB Electronic Lab Notebook (ELN)

The OpenLAB architectural framework is built upon a customer-driven set of guiding principles, and is designed to be highly adaptable, scalable, and open to meet today’s, as well as tomorrow’s, laboratory needs. This framework exemplifies Agilent’s commitment to delivering unsurpassed value across each step in the scientific data lifecycle.

CAPTURE. SHARE. MANAGE. ARCHIVE.

Agilent OpenLAB Enterprise Content Manager (ECM) is a centralized, secure scientific content management solution that fits quite well into a small workgroup, but is also designed to scale up to very large enterprises, dramatically expanding your organization's knowledge base and boosting its productivity.

- Integrate information from a variety of instruments and software applications from multiple suppliers
- Share results across your business and around the globe
- Meet the demands of increasing regulatory requirements
- Protect your intellectual property investment
- Retain data and information to follow company compliance policies



OpenLAB ECM dramatically simplifies software connectivity within the laboratory and across the enterprise.

Key Features & Benefits

Key Features

- Automated file indexing and storage
- Secure, centralized content management
- Automated review and approvals
- Easy, laboratory-wide reporting
- PDF report capture
- Powerful search capabilities

Key Benefits

- Data and information is immediately available
- Secure file management for the entire lifecycle of scientific data
- Lower implementation and training costs
- Supports regulatory compliance efforts and intellectual property management
- Shorter time to process data and generate reports
- Reduced paper usage

BRING ANALYTICAL WORKSTATIONS AND DATA TOGETHER

OpenLAB ECM is the only SDMS solution available today that brings together analytical data and content across your enterprise to facilitate collaboration and productivity.

OpenLAB ECM features an intuitive Internet Explorer-based user interface, so you can capture, share, manage, and archive important information — anytime, from anywhere around the world — with unsurpassed ease. Any raw data and human-readable document captured as an electronic record is automatically indexed, allowing rapid searching and retrieval. Tools include a web-based text search and search query generator, so you can build, save, and edit search queries to quickly locate files.

Connect just a few workstations to form a small workgroup or many workstations across your enterprise. Share methods, sequences and data, capture reports, and report data across users and instruments. Data and methods are stored centrally for easy backup and archiving, while easy search tools allow any data to be found quickly for an audit or a historical review.

OpenLAB ECM enhances enterprise-wide data security and compliance with:

- Centralized, secure content storage
- Audit trail
- e-signature
- Version control
- Data archival and record retention

Enhance data security and facilitate regulatory compliance

As a central data repository, OpenLAB ECM ensures the integrity and security of electronic content. OpenLAB ECM offers the data security and compliance capabilities needed to conform to workflow needs, enterprise policies, and regulatory requirements--including US FDA 21 CFR Part 11 compliance. Additionally, by integrating applications, instruments, and data, OpenLAB ECM is the only solution available today that offers multi-vendor compliance.

Manage legacy data regardless of vendor

Most laboratories have instruments and data systems from multiple vendors. Regulatory requirements require data retention periods of 10-30 years for data, and even longer for documents.

OpenLAB ECM provides multiple ways to gather data from multi-vendor systems: a simple web based interface, OpenLAB ECM Print Services that captures anything printed to it as a PDF file, schedulers that fully automate the data transfer, and the OpenLAB ECM API that allows for programmatic integrations. As files are uploaded, OpenLAB ECM filters extract key pieces of information such as operator names and sample IDs that are used for searching. OpenLAB ECM also provides the option to extract and store the data in Technology Neutral Formats (TNF), which are kept along with the original data for long term archiving. The preserved data is accessible with existing systems and is stored in a format that allows future access after application and operating systems have been retired.

INTEGRATE. CENTRALIZE. MAINTAIN. QUALIFY.

Integrate software across your business enterprise

OpenLAB ECM is a centralized data and report repository for integration with your LIMS, ELN, and ERP systems. OpenLAB ECM can be tightly integrated with many Agilent software solutions, including OpenLAB CDS (both ChemStation and EZChrom Editions), ChemStation, MSD Productivity ChemStation, and MassHunter, making it a seamless part of laboratory workflows with little to no additional training. OpenLAB ECM also smoothly integrates with Microsoft and Adobe software products. With integrated drop-down menus and function keys located within OpenLAB CDS, Microsoft Word, Excel, and PowerPoint, as well as within Adobe Acrobat, users can retrieve and store files directly to and from OpenLAB ECM.

Go paperless

OpenLAB ECM makes the paperless laboratory a reality. It can automatically capture and store printed files generated by any software in PDF. By using the PDF Filter, all text within PDF documents is searchable. The PDF Template tool enables users to define and associate meaning to information extracted from PDF files, so you can design document-specific metadata PDF templates capable of extracting both static and dynamic information.

Centralize data management

By bringing together analytical workstations and their data, as well as enterprise-level software, such as LIMS and ELN, OpenLAB ECM centralizes data storage for easy access and retrieval, protecting data from loss and facilitating compliance. Data and methods are stored centrally, and powerful search capabilities allow any data to be found and retrieved quickly and easily.

Keep instruments maintained and qualified

Agilent OpenLAB Business Process Manager (BPM) add-on software can be used to ensure that laboratory instruments are maintained and calibrated, and that software is compliant and qualified. By designing specific OpenLAB BPM workflows, appropriate personnel are notified when an

instrument is due for a specific maintenance or calibration task. If the required task is not performed within a designated time frame, the software can be set to take the instrument offline. Notification is triggered at time intervals specified by management, and can be delivered with the appropriate SOPs and validation documentation. The results of maintenance, calibration, and qualification tasks are captured electronically, also facilitating compliance.



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|---|------|---|
| Enterprise Edition Compliance Review | | |
| Test Summary | | |
| Purpose: This section includes a status for each scheduled test and the overall qualification. For each test that is run, (1) the status is automatically determined based on predefined limits, and (2) the total number of days the test was run is displayed. For detailed results and specifications for a test, refer to the test result sections in the body of this ECM. | | |
| Details | | |
| Pump Flow Accuracy - G1312A, Channel B | PASS | 1 |
| Pump Flow Accuracy - G1312A, Channel A | PASS | 1 |
| Pump Flow Precision - G1312A, Channel B | PASS | 1 |
| Pump Flow Precision - G1312A, Channel A | PASS | 1 |
| Column Temperature Accuracy - G1319C | PASS | 1 |
| Column Temperature Stability - G1319C | PASS | 1 |
| Scaling Run - G1319C UV or UV-Vis | PASS | 1 |
| Steady-State Accuracy - G1319C UV or UV-Vis | PASS | 1 |
| Noise and Drift - G1319C UV or UV-Vis | PASS | 1 |
| Injection Precision - G1317A Injector, G1319C UV or UV-Vis | PASS | 1 |
| Injection Carry Over - G1317A Injector, G1319C UV or UV-Vis | PASS | 1 |
| Signal to Noise - G1319C UV or UV-Vis | PASS | 1 |
| Response Linearity - G1319C UV or UV-Vis | PASS | 1 |
| Student Comparison - Binary, G1319C UV or UV-Vis | FAIL | 1 |
| Overall Qualification Status | | |
| FAIL | | |

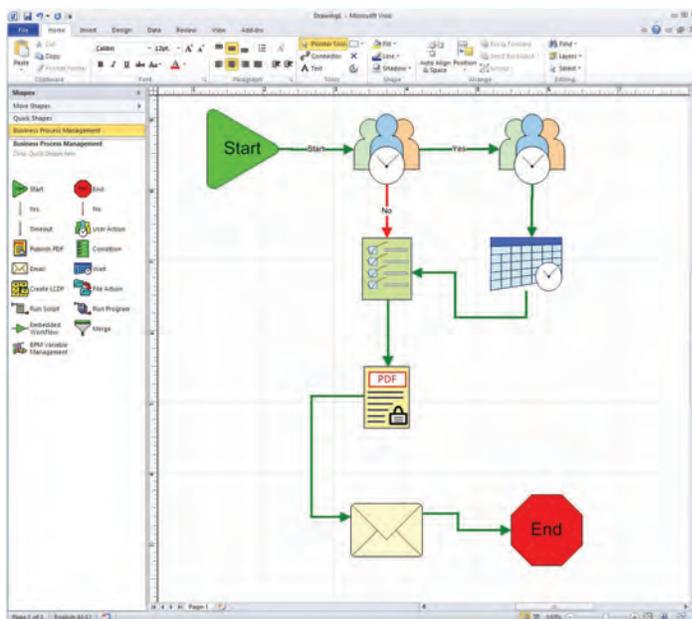
The test summary screen shows PASS/FAIL status for each individual instrument.

ENRICH OPENLAB ECM CAPABILITIES WITH ADD-ON SOFTWARE

Agilent OpenLAB BPM

OpenLAB BPM automates, streamlines, and optimizes key business processes relating to employee productivity, cost containment, risk management, and compliance. It dramatically reduces document routing, review, and completion time by automatically collecting reports from many analytical sources, evaluating the results against specifications, and routing these reports to users' inboxes or through multi-step review processes.

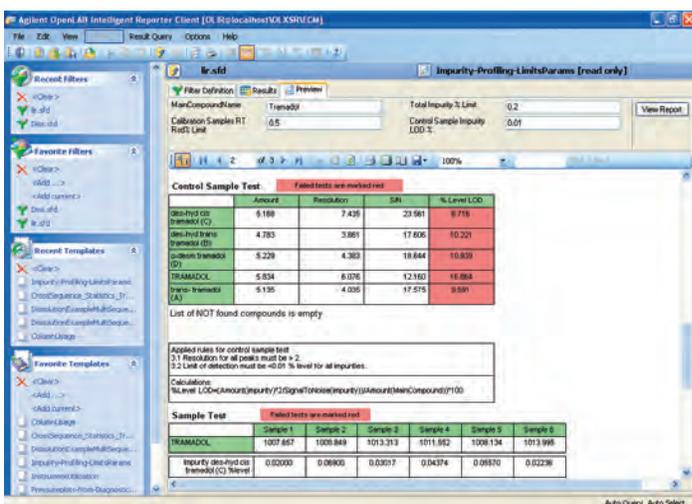
The BPM module integrates easily into OpenLAB ECM, and with drag and drop capability, it simplifies the creation of workflows.



Microsoft Visio's drag-and-drop capability lets you define, configure, and deploy a business process without additional coding, simplifying your workflow design.

Agilent OpenLAB ECM Intelligent Reporter

OpenLAB ECM Intelligent Reporter makes it easy to design and generate complex reports from instrument data and sample results from OpenLAB CDS and Waters Empower. It is based on Microsoft's Business Intelligence Development Studio, and has an intuitive reporting engine that easily combines data gathered from single or multiple sequence experiments. Its rich functionality includes search-based content selection and custom calculations, such as summary calculations and statistics, and complex tests including dissolution, impurity profiling, and gas analysis. This software can also report lab-wide trends, such as instrument usage and productivity, and help you visualize and interpret results in trend, bar, and pie charts.



Produce reports containing complex calculations with ease or capture instrument usage trends and display them graphically.

PUT IT ALL TOGETHER WITH SERVICES AND SUPPORT

With decades of experience assisting the world's leading life sciences and chemical analysis companies, Agilent Professional Services is uniquely positioned to enhance customer experiences and increase the return from their software investment. Our service professionals combine a deep understanding of business processes and industry knowledge with the ability to integrate and implement a complete OpenLAB solution that is aligned with customer needs.

**To maximize adaptability, scalability, performance, and value,
Agilent Professional Services offers:**

- Systems integration consulting
- Technology consulting and architecture services
- Change management, migration programs, and business process management

Once installation and configuration are complete, Agilent Professional Services provides familiarization and training to speed system adoption. Validation services are also available for customers requiring validation of a new or upgraded system.

Learn more

www.agilent.com/chem/openlabecm

To learn more about the OpenLAB
Laboratory Software Suite

www.agilent.com/chem/openlab

Find an Agilent customer center

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Printed in the USA, June 5, 2012
5991-0538EN



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