OpenLab ChemStation LTS 01.11

Release Notes and History

Notices

Manual Part Number

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Software Revision

This guide is valid for the LTS 01.11 of
Agilent OpenLab ChemStation, until
superseded.

Warranty

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Safety Notices

CAUTION

A **CAUTION** notice denotes a hazard. It
calls attention to an operating
procedure, practice, or the like that, if
not correctly performed or adhered to,
could result in damage to the product
or loss of important data. Do not
proceed beyond a **CAUTION** notice until
the indicated conditions are fully
understood and met.

WARNING

**A WARNING notice denotes a hazard.
It calls attention to an operating
procedure, practice, or the like that, if
not correctly performed or adhered to,
could result in personal injury or death.
Do not proceed beyond a WARNING
notice until the indicated conditions
are fully understood and met.**

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1 General Information

This document provides a listing of the major feature modifications made in each minor release of the Agilent Chromatography Data System product OpenLab ChemStation.

For our Regulated Customers

When any change is made to Agilent software, the validation status of the software needs to be re-established by the user.

Whenever software is changed, a validation analysis should be conducted not just for the validation of an individual change, but also to determine the extent and impact of that change on the entire software system.

2 OpenLab ChemStation LTS 01.11

Compatibility & Infrastructure Support updates

See the *OpenLab ChemStation Requirements* guide for full details.

Shared Services Server versions 3.4, 3.5 and 3.6 are compatible

Added Support for:

- Windows 11 (64-bit): 21H2 (Enterprise or Professional)
- Windows 10 (64-bit): 21H2 or greater (Enterprise or Professional)
- PostgreSQL 14.1 (Shared Services, Content Management, and Data Repository)
- Adobe Reader 2020

Removed support of

- Secure ChemStation Workstation topologies
- Windows 10 21H1 or earlier
- Windows 7 SP1 (64bit)
- ChemStation AICs only: Windows Server 2016, 2012
- Oracle 18C, SQL 2014
- Internet Explorer 11

Branding updates

- New **OpenLab ChemStation** Branding/ Product name implemented throughout SW and documentation
- Update Launch Icon, splash screen, and login screens

ChemStation Installer

- Replaced SitePrep tool with OpenLab CDS System Preparation Tool.
- Agilent OpenLab Reverse proxy components supported

Data Integrity and Security Enhancements

Added integrity check for ssizip files

- Any change to current result set SSIZIP file outside the ChemStation application is detected when downloading, and the Shared Services activity log shows a warning
- For single runs, the run.log shows a warning
- For Sequence results sets, the sequence logbook shows a warning

Increased default CSI user password length from 20 to 64, for AIC

Allow to disable inbound communication channels (via ChemStation Admin Tool)

- The Setting disables inbound communication channels. This prevents to connect to a ChemStation instance from outside. Automation Control Panel commands remain fully functional.

- When the setting is changed all ChemStation instances need to be restarted to show the expected behavior.

Acquisition

New Option to run sequence as a series of single runs

- A new sequence execution mode **run as series of method runs** can be activated in ChemStation **Preferences**. It replaces the "unique data folder OFF", available in ChemStation C.01.09 and earlier.

  NOTE: The modification of the ChemStation preferences requires elevated user privileges.

- When selecting **Always run as a series of Method Runs** each line in the sequence table will be treated as an independent sample run, providing the full flexibility for editing. The submitted single runs are visible in the run queue and can be reviewed or modified using the edit function.
- The run queue does not maintain the sequence data integrity provided by the result set that would be generated by the sequence execution. Only the data files (.D) for single runs in the file system are generated.
- Master methods and sequence templates are not stored with the acquired data. Any automated method modification (e.g., recalibration) is directly applied to the master method

- The data file names follow the definition provided in the **Default Data File Name Pattern** field.
- Limitations:
    - A sequence with bracketing calibration is not convertible in a series of single runs.
    - An automated sequence summary in the sequence summary report is not possible

Extended Sample info dialog

- Method runs from Sample Info now supports calibration runs, barcodes, LIMS IDs, Error Method, and adding CE information. All fields available in the sequence table are now also available for the sample info dialog.

Injection Source override in single runs

- The capability to overwrite the injection source location is now available in the sample info dialog.
- If there are two injectors the user can select between the injection location:
    - as method
    - the injection sources as offered by the sampler

Overlapped injection supported with run-queue

- Single runs added to the run queue support overlapped injection feature (same as in a sequence).

Enhanced Run queue: Use Custom Commands in Run Queue

- Option to run custom command when the run queue is empty, and the instrument is idle. The defined custom command is executed after the last item in the active queue completes.

Enhanced barcode workflow

- Barcode reading is supported for single runs.
- New **Reference field** in Sequence and Sample Info, and option to **Write barcode to reference field**: During the run or sequence execution, the barcode is evaluated, or written into the selected field. Options are:
    - The barcode read is compared with the reference field. In case of a mismatch the run can either be stopped or continued
    - The barcode read is written to the reference field

- Barcode workflow now supports the usage of the LIMS Ids in addition to sample name as reference fields for barcode reading. The barcode can be used to link to other data systems.

Sequence submission: Increased number of samples that can be imported into a sequence

- The limit for the **Sequence>Import Samples...**function has been raised to 1999 lines, which is the same limit as the sequence table.

Sequence submission: Increased upper limit of Target Mass field

- Upper limit for Target Mass values in **Sample Info** and **Sequence Table** dialog is increased to allow values over 100,000.

Fixed defect for sequence wait time with CE instruments

- If a wait time is specified, it is executed after a sequence line only when the method changes.

Data Analysis and Reporting

New timed integration event "update peak height"

- This new event forces the integrator to use the highest data point as the peak height. Without this event (default), the impact of signal noise is reduced by using the maximum of an interpolated peak curve.

- The event always affects the entire chromatogram.

Driver Updates

Agilent Instrument driver packages installed automatically with OpenLab ChemStation:

RC.NET Instrument Driver	Driver Software Revision
Agilent LC & CE	3.5
Agilent ELSD	1.8
Agilent GC	3.7
Agilent Micro GC	2.3
Agilent 35900E A/D Converter	2.3

MS firmware update tool was updated to 3.02.52

3   OpenLab CDS ChemStation Edition C.01.10

OpenLab ChemStation C.01.10 Update 3

OpenLab Portfolio Support Updates

Added Support of Windows Server 2019

Support of current Agilent instrument drivers

OpenLab ChemStation C.01.10, including Update 1, 2

OpenLab Portfolio Support Updates

OpenLab CDS Shared Services Server v.3.2, and OpenLab Server / ECM XT v 2.4 are now supported with Microsoft Windows Server 2016 for OpenLab CDS ChemStation C.01.10 Networked and Distributed systems.

General UI improvements

- Status of run queue is shown in the toolbar
- Optional update of master method during sequence execution
- Load results sets from Content Management system directly in review mode for report generation
- "Pause" function for sequence reprocessing is now obsolete

Shares Services / Control Panel version 3.2
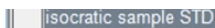
New session lock status symbols are shown for the instrument in OpenLab Control Panel

Secure Workstation for OpenLab CDS ChemStation Edition

The Secure Workstation for OpenLab CDS ChemStation Edition uses **OpenLab Server 2.4** as secured storage.

Updates to Intelligent Reporting

- New icons and styles

- Updated built-in templates
- Support of Secure PDF, PDF/A-1b, CSV, XLSX and DOCX export formats
- Font type and size changes on multiple report items
- Improved Expression Editor
- Support of Custom Assemblies and Code
- Reduction of unutilized space and fewer page breaks
- Enhanced graphics
- Drill down reports are no longer supported
- Single preview mode instead of 2

Includes current Agilent Instrument driver versions

Please refer to document *Driver Revisions* available from the *User Resources & Learning* Platform (Administration>Configuration tab).

Agilent LC and CE updates

1290 Infinity II Preparative Open-Bed Sampler / Collector

Supports LC Fraction collectors with sampling capabilities:

- On-line Sampling diagram showing samples, collected fractions and fill volumes, forbidden locations, pending samples, etc.
- Re-injection workflow
- Graphical entry of sample and fraction start locations showing used locations

Resource optimization mode for large LC configurations

This mode disables the Report Layout View and the Review View for on-line instruments to save resources.

Instruments with a dashboard panel:

Most recent instrument errors and warnings are now shown in a notification bar in the dashboard

Agilent GC updates

Add support for:

- Agilent 8890 GC
- Agilent 8860 GC

Agilent Micro GC

- New label for **Micro GC System instrument** type
- Add support for Agilent 990 Micro GC

Allotrope

Removed the ADFExport functionality from core software

ADFExport Plug-in

Starting with C.01.10 the Allotrope Data Export is available as a separate product add-on.

Installation package for the ADFExport Plug-in, can be downloaded via SubscribeNet, and installed using the ChemStation Installation Wizard for OpenLab Additional Software and Drivers.

New Splash screens and shortcut icons

Splash screens and shortcut icons are redesigned to reflect the new Agilent branding. The new icons are only available for a new installation of ChemStation.

NEW user information platform "User Resources & Learning"

Provides access to all OpenLab CDS ChemStation Edition User Resources and eLearning Modules including the Report Template Editor (RTE) online help.

Documentation and Learning is accessible from Windows Start > Agilent Technologies and from the ChemStation installation media on Disk1\Docs welcome.htm page.

NOTE The eLearning modules are be available locally only if **Include e-Familiarization** was checked during installation of the software.

If you did not install the **eLearning modules** during the software installation, you can manually copy them from the USB-media as follows:

1. From the ChemStation USB media: copy the folder \Disk1\Docs\en\eFam (or respective path of your alternative language).

2. On the PC where you want to access the Learning Modules: Paste the copied folder "eFam" into the folder: C:\Program Files (x86)\Agilent Technologies\OpenLab User Documentation\Docs\en (or the respective alternative language you copied from).

   NOTE You need to have Administrator rights on the target PC.

4   OpenLab CDS ChemStation Edition C.01.09

Instrument overview improved in the OpenLab Control Panel

Introduced with OpenLab CDS ChemStation C.01.07 SR3, the OpenLab Control Panel uses the standardized Agilent user interface style.

The instrument overview is now also available for user defined locations and the instrument table can be sorted by status, instrument controller, current user, etc. Disconnected instruments appear with an empty icon for increased visibility.

Fast access to file system

A new menu item allows a direct and quick access to the instrument specific data directory shown in Windows Explorer. With Secure File I/O turned on, the file access is read-only.

Allotrope

Allotrope Data Format (ADF) is now available for file-export from OpenLab CDS ChemStation C.01.09. This is a universal data format to store raw data, results and chromatograms.

The benefits in terms of added value and quality are:

- Increased data integrity
- Reduced manual effort
- Less paper-based work
- Significantly improved ability to find, share, leverage and archive data

Files in ADF format can be viewed by Allotrope Explorer independently from CDS tools.

The ADF-Export Basic version is intended for *Research Use Only*, and the metadata of the data description is not available.

Enforcement of results set file structure

Rev. C.01.09 of OpenLab CDS ChemStation enforces the usage of the result set file structure. Copies of the master method and sequence template are always stored along with the results.

Unique folder creation preference can no longer be set to "off".

Protected custom commands for run queue and scheduler

A new mechanism to perform custom action allows privileged users to define and modify instrument specific or global commands to be used by any operator.

A set of built-in default commands helps users to customize their command set. Custom Commands can now be entered to the run queue or the reworked ChemStation scheduler. This tool could be used to turn on and prepare instruments in an unattended mode or shut down the instruments after all items in the run queue are executed.

OpenLab Portfolio Support Updates

- OpenLab CDS Shared Services Server v.2.3 is now supported with Microsoft Windows Server 2016 for OpenLab CDS ChemStation C.01.09 Networked and Distributed systems.

- Mixed Environment- ability of OpenLab CDS to be used with Rev. C.01.09 of OpenLab CDS ChemStation and OpenLab Server 2.2 or 2.3 backend.
- The Secure Workstation for OpenLab CDS ChemStation Edition uses OpenLab Server 2.3 as secured storage
- Added support of OpenLab Server 2.3, OpenLab ECM XT rev. 2.3 and OpenLAB ECM 3.5 with HF05.
- OpenLab CDS Shared Services Server 2.3 and 2.2 supported
- Discontinued support for OpenLab Server 2.1 and OpenLab CDS Shared Services Server 2.1

Operating System Support

Introduction of Windows 2016 server support for Agilent instrument controllers (AIC)

Details concerning supported operating systems are provided in the "OpenLAB CDS ChemStation Edition Requirements guide:

CDS_requirements.pdf available in folder Disk1 \Docs\<language>

Third party Software provided on install media

Keysight Technologies I/O Libraries required for MSD instrument control

Agilent LC and CE updates

Includes Agilent LC/CE RC.Net Driver Version A.02.19

Agilent LC/MS updates

- New folder structure to store MSD tune files. Secure File I/O can be used to protect tune files from deletion.
- Rev. C.01.09 also supports a fast polarity switching mode for G6125B MSD instruments.

Preparative LC

- New workflow for confirmation analysis. Interactive selection of dedicated fractions for confirmation analysis on an analytical LC system.
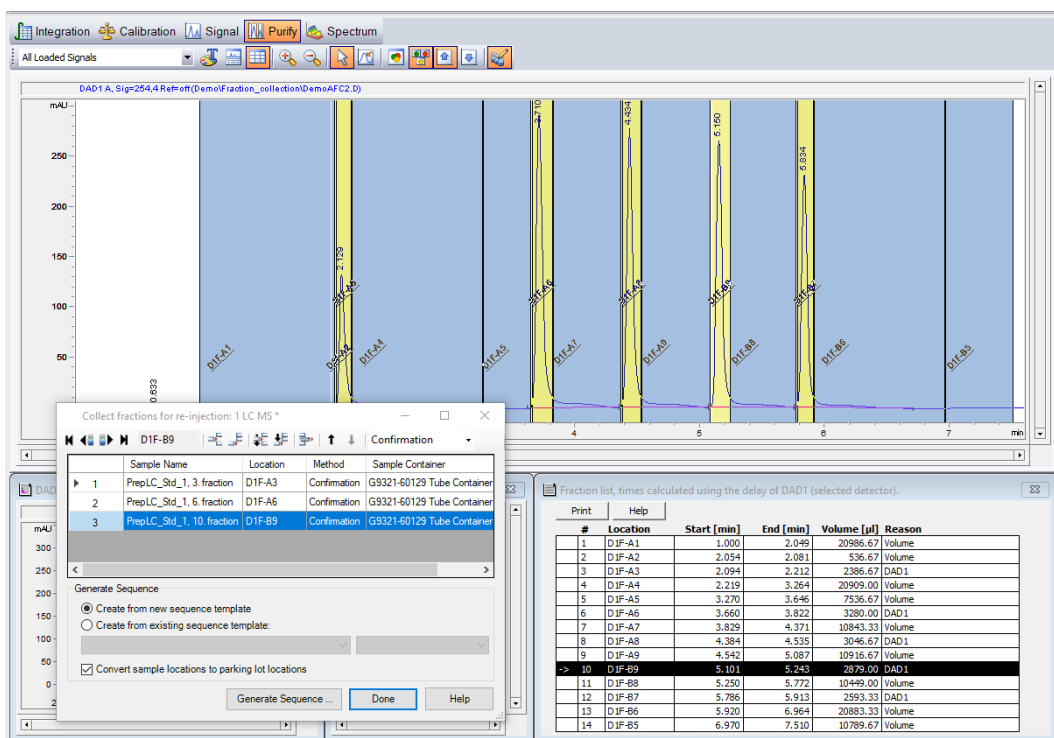
- UV- and MS spectra display in Purify task of the Data Analysis view
- Customizable fraction annotations for improved readability
- New demo data for UV-triggered fraction collection

Agilent GC updates

Includes Agilent GC Driver Version B.01.04

- Enhanced Early Maintenance Feedback (EMF)
- Support of collecting up to 8 GC signals
- New generic GC instrument types for GC instruments, Agilent GC System
- New label for the VL GC instrument type, Agilent GC Core System (VL)
- Instrument re-configuration during operation of other instruments on the same instrument controller

Increased number of configurable instruments with AIC

Configuration of back-up instrument controllers for non-dynamic load balancing offers more flexibility and better usage of your controller hardware.

Agilent Instrument Controllers (AIC) of ChemStation rev. C.01.09 allow to configure up to 40 instruments, where the number of concurrently operated on-line instruments remains at 10 (2-D detectors, like FID, ECD, VWD, RID, etc.).

Enhanced manual integration

When drawing the manual integration, the line has been changed from pale gray to a darker color to make it easier to see.

Intelligent Reporting

- Support of additional report items in the report header and footer
- Single method parameters
- Peak fill colors and axis scaling based on calculation results
- Programmable custom field values
- Flow layout of MS spectra for reduced paper consumption
- Customization of fraction result table and fraction location annotations

5   OpenLAB CDS ChemStation Edition C.01.08

Installation Path changes

The default ChemStation paths have been changed to comply with Microsoft's recommendations for the installation of program files, configuration data, and user data. Customized software add-on solutions need to be reviewed before installation.

Further details can be found in the *Agilent OpenLAB CDS ChemStation Edition - Upgrade Preparation Guide: CDS_CS-Upgrade.pdf* available on the installation media in folder Disk2\Docs\<language> or −after installation- from the START menu > All Programs > Agilent Technologies > OpenLAB CDS Documentation.

Infrastructure Support Changes

- Added support of OpenLAB Server 2.2 and OpenLAB ECM 3.5 with HF03.
- Dropped support of OpenLAB CDS Shared Services Server 2.1.

Operating System Support

- Discontinued support for Microsoft Windows Server 2008, Windows 7 (32 bit) and for Windows 8.1.

Software Requirements (provided on install media)

Microsoft .NET Framework 4.6 on Windows 7 and Windows 10

OpenLAB Control Panel

OpenLAB Control Panel comes with the user interface style that was introduced in OpenLAB CDS ChemStation C.01.07 SR3.

User Interface updates

- Instrument status indicators follow a new color scheme for seamless integration of newer instrument hardware and support of mixed configurations with OpenLAB CDS.

Gray - Not Connected
Yellow - Not Ready
Green - Idle
Teal - Standby
Purple - Pre-run/Injecting
Blue - Running
Error

- Module Panels user interface refresh to streamline LC, GC and MSD instrument appearance.

Classic Driver

Classic drivers for LC and 35900E instruments are no longer supported and need to be reconfigured with the RC.Net instrument drivers.

Agilent LC and CE updates

- Includes Agilent LC/CE RC.NET Driver **Version A.02.18**
- Non-Agilent instruments require RC.Net control. Please consult the instrument's vendor documentation concerning the availability of RC.Net drivers.
- New sampling diagram in instrument control view for visual monitoring of sequence execution progress
- Graphical selection of sample location in single run and sequence table
- New zoom function for sample entry user interface

Preparative LC

- Graphical selection of **fraction start** locations
- Support of pooling of fractions derived from multiple injections for larger amounts of sample
- Multi-submission of single runs
- Graphical representation of collected fractions for easy allocation of fraction of interest
- New report for fraction collection results

Agilent GC updates

- Includes Agilent GC Driver **Version B.01.03**
- Multi-submission of single runs
- New GC Dashboard for Agilent Intuvo 9000 GC and 78xx

Intelligent Reporting

- Support of additional report items in the report header and footer
- Single method parameters
- Peak fill colors and axis scaling based on calculation results
- Programmable custom field values
- Flow layout of MS spectra for reduced paper consumption
- Customization of fraction result table and fraction location annotations

M8370AA OpenLAB Data Analysis

The OpenLAB Data Analysis functionality is now limited to OpenLAB CDS 2.2, and no supported with OpenLAB CDS ChemStation Edition.

- OpenLAB CDS 2.2 can be used with an OpenLAB CDS ChemStation C.01.08 in a mixed environment with an OpenLAB Server 2.2 backend. Consider installing OpenLAB CDS 2.2 for this purpose

Secure Workstation for OpenLAB CDS ChemStation Edition

The Secure WorkStation for OpenLAB CDS ChemStation Edition uses OpenLAB Server 2.2 as secured storage.

6 OpenLAB ChemStation Edition C.01.07 SR4

Software quality fixes

- Details as described in the Software Release Bulletin, available in folder Disk2\Support\History\C.xx.xx\C.01.07 SR4 of your installation media.
- Rev. C.01.07 SR4 rolls-up previously released Point Patches. Agilent InfinityLab LC/MSD systems with LC/MSD (G6125B) and LC/MSD XT (G6135B) MS Detectors can be configured.

NOTE   All C.01.07 SR3 user documentation also applies to C.01.07 SR4.

7 OpenLAB ChemStation Edition C.01.07 SR3

Infrastructure Support Changes

- Support of OpenLAB Server 2.1 and OpenLAB ECM 3.5 with HF02
- Support of OpenLAB CDS Shared Services Server 2.1
- Software is provided on USB media

Operating System Support

- Windows 10 Professional or Enterprise (64-bit)
- Windows 8.1 Professional or Enterprise (64-bit) (32-bit for upgrade installations only)
- Windows 7 SP1 Professional or Enterprise (32-bit / 64-bit)
- Microsoft Windows Server 2008 SP1 Standard or Enterprise
- Microsoft Windows Server 2012 R2 Standard or Datacenter

Added Database Support

- Microsoft SQL Server 2014
- PostgreSQL 9.3

Software Requirements (provided on install media)

- Adobe Acrobat Reader DC Classic
- Microsoft .NET Framework 4.5.2 (4.6 on Windows 10)
- PDF-Xchange 6 printer driver

OpenLAB Control Panel 2.1

OpenLAB ChemStation Edition C.01.07 SR3 introduces a new OpenLAB Control Panel user interface (OpenLAB Control Panel 2.1).

This new version of the Control Panel includes 2 new privileges:

- Administrative > System Administration > **Manage Instrument Controllers**

This privilege allows the user to delete an Instrument Controller in the OpenLAB Control Panel

- Project > Project Management > **Access content using web client**

This privilege allows the user to access the Content Management web client interface used with Secure WorkStation for OpenLAB CDS ChemStation Edition or Networked/Distributed systems with an OpenLAB Server backend.

- OpenLAB Control Panel 2.1 will be deployed for new installations and upgrades for versions prior to C.01.07.
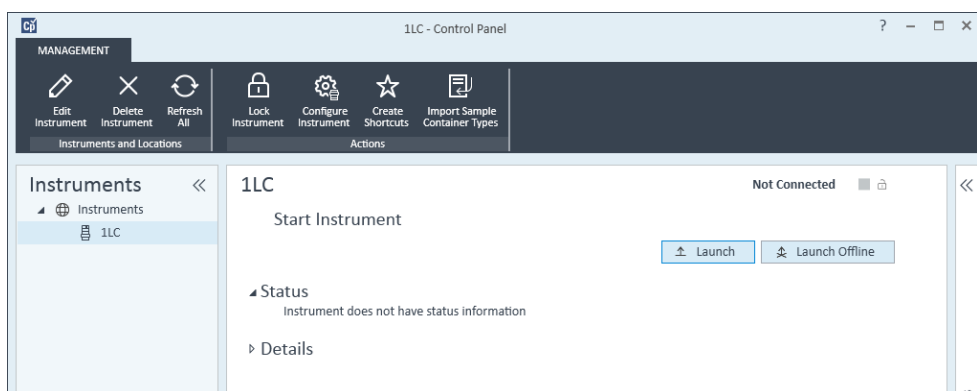
- The OpenLAB Control Panel remains unchanged when upgrading from C.01.07, C.01.07 SR1, or C.01.07 SR2.
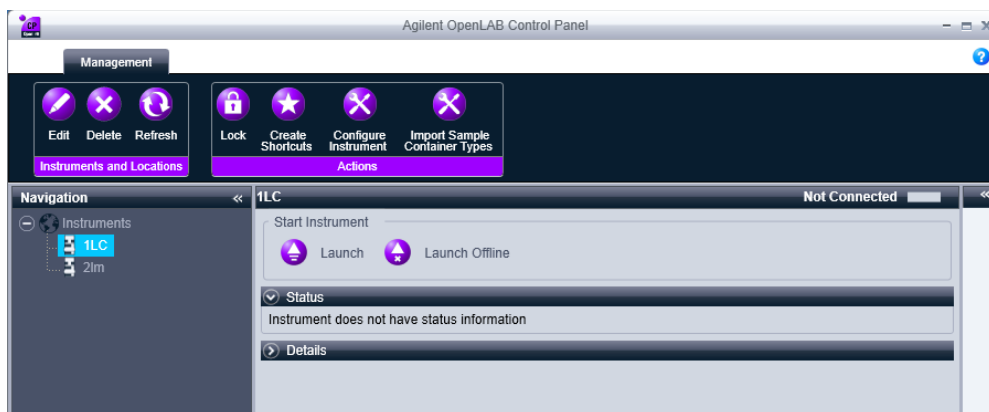
OpenLAB CDS Shared Services

- Added support for SQL Server 2014 and Windows 10.
- Refreshed user interface based on the new Agilent design guidelines.
- "Windows Local" authentication mode is no longer available with new installation
- Activity log filtering based on event type.

Data Acquisition

New option to override the method injection volume for single runs

A new injection volume field has been added to the sample info dialog. It is equivalent to the function available in the sequence table and allows users to overwrite the method setting without modifying the method. The modified injection volume gets marked on the report.

Agilent LC and CE updates

- Includes Agilent LC/CE RC.NET Driver Version A.02.15
- Support for G7159B 1290 Infinity II Preparative Open-Bed Fraction Collector
- Support for G7166A 1260 Infinity II Prep. Valve-based Fraction Collector

Automated Fraction Collection

- Classic instrument drivers for fraction collector modules are obsolete. Instruments containing these modules need to be reconfigured with RC.Net instrument drivers
- New delay calibration wizard for MS- and UV- based fraction triggering
- Fraction times in Data Analysis are adjusted by the respective delay time for multi-detector systems

Agilent GC updates

- Includes Agilent GC Driver Version B.01.01
- Agilent 9000 GC System added as an Instrument type in Control Panel
- User Interface refresh
- 7820 EPX support
- Improved usability in the Backflush Wizard
- Ability to switch layer order for sandwich injections

Compliance Feature Enhancements

- New session lock design for improved usability
  The new session lock indicates the lock status in the title bar of the locked window. Whenever a user tries to interact with the software, the login panel appears, and the user needs to unlock the session with valid credentials.
- Administrative changes to the ChemStation Administration tool settings are tracked in the OpenLAB Control Panel activity log.

Intelligent Reporting

- Review mode now able to report unique and non-unique storage path(s)
- New Field: Peak Width at 10% Peak Height

M8370AA OpenLAB Data Analysis

Not supported with Windows 10.

The OpenLAB Data Analysis functionality is part of OpenLAB CDS 2.1. Consider installing OpenLAB CDS 2.1 for this purpose. OpenLAB CDS 2.1 can be used with an OpenLAB CDS ChemStation C.01.07 SR3 in a mixed environment with an OpenLAB Server 2.1 backend.

Secure Workstation for OpenLAB CDS ChemStation Edition

The Secure WorkStation for OpenLAB CDS ChemStation Edition uses OpenLAB Server 2.1 as secured storage.

8 OpenLAB ChemStation Edition C.01.07 SR2

Infrastructure Support Changes

Support of OpenLAB CDS A.02.02 SR2 and OpenLAB CDS 2.0 sharing the same OpenLAB Data Store server

Support of OpenLAB Data Store 2.0 and ECM 3.4.1 SP2

Data Analysis

- AreaSumSlice enhanced for SIMDIS application
- Modified calculation of Foley-Dorsey peak parameters (Peak symmetry and column plate numbers)
- System Suitability / Extended performance calculations are now available for negative peaks

Agilent LC and CE Updates

- Agilent LC/CE RC.NET Driver Version A.02.13
- Newly inserted columns with column tags are now automatically transferred to the ChemStation core columns database. The columns are then shown in the core columns table dialog and are immediately reported and calculated in the system performance calculation.
- G7116B Multi Column thermostat now supports up to 8 tagged columns
- Export/Import function for LC column catalog or inventory
- Sequence validation of the injection volume for the Multisampler Dual needle now considers the method specified in the sequence line to validate the injection volume

Agilent GC updates

- Agilent GC Driver Version A.03.02
- 7890B supports Agilent 8355 Sulfur (G3488A) and 8255 Nitrogen (G3489A) Chemiluminescence Detectors.
- G7300AA Easy SamplePrep no longer provided as a separate software add-on, it is included in the Setup Method for 6890 and 7890, using a 7693 ALS.
- GC Method Editor provides a Navigation Tree of the available instrument devices such as inlets, detectors, oven, and signals for 78xx only.

- 7820A supports FPD, FPD+, COC and the TCD timed events.
- Retention Time Locking supported with 7820A

Third Party Instrument control drivers

- M8505AA Waters Acquity Driver support
- M8239AA Waters Alliance LC Add-On support for Alliance and e-Alliance including the Waters 2998 PDA and 2489 Dual Wavelength Detector

Agilent 35900E RC.Net control driver now available

- Supports separating the 35900 channels between 2 independent instruments on a ChemStation AIC

Compliance Feature Enhancements

Securing ChemStation files with Secure File IO

- ChemStation files such as data, methods, or sequences are stored in various local folders. To ensure data integrity, ChemStation offers the Secure File IO function. If you enable this function, all folders will be protected against modifications from outside ChemStation or in Open or Save As dialog.
- Three new user privileges are introduced to control access to unprotected folders

For more information, refer to the Folder Protection with Secure File IO chapter in the OpenLAB CDS Administration Guide.

Sequence Audit Trail

- Sequence audit trail viewer can now display the sequence as initially submitted
- Improved tracing

Improved notification for data transfer to central storage and queue management

- Data files in the queue waiting to be uploaded are now marked with an Asterisk
- Improved Queue Management Messaging when deleting an entry from the Queue

Secure Workstation for OpenLAB CDS ChemStation Edition

- The Secure WorkStation for OpenLAB CDS ChemStation Edition uses OpenLAB Data Store 2.0 as secured storage
- A new archiving option called **Offline Archive** allows removal of selected files or Folders from the OpenLAB Data Store database for offline archival. The offline archived files will be stored in a folder created during the installation (e.g. D:\DSArchive)
- New User Interface based on the new Agilent design guidelines.

9 OpenLAB ChemStation Edition C.01.07 SR1

Name Pattern for Data file naming

A new data file naming option allows the selection of tokens like vial number or sequence line for the data file name. This option is the default for new sequence templates.

Intelligent Reporting

New Sample Order Number field added that can be used to group multiple (replicate) injections from the same vial with identical parameters.

Usage of the <user name> token in the ECM/Data Store data path

Data now stored under the <user name> token of the user who submitted the sequence.

10 OpenLAB ChemStation Edition C.01.07

Updated Agilent LC/CE RC.NET Driver, Version A.02.10, support of independent driver release A.02.11

- Support for the new Agilent 1290 Infinity II Multisampler (G7167A/B)
- Driver Version A.02.11 adds support for new Agilent Infinity II modules
- 2D-LC with heart cutting: Switch easily between single dimensional LC and 2D-LC for challenging separations

Updated Agilent GC Driver install package A.02.05

- Agilent 78xx RC.Net GC driver, version 5.05
- Agilent 68xx RC.Net GC driver, version 6.25

New Graphical Sample Entry (LC only)

Introduces a graphical representation of autosamplers and sample containers (tray and plate) to simplify the task of creating sequences or sample lists.

New OpenLAB CDS VL Product Option

An Agilent LC Core system driver is bundled with the OpenLAB CDS VL core license. This driver can run a full 1260 Infinity LC Instrument with selected modules (for details, see the "Supported Instruments and Firmware" guide).

Added Database Support

- Microsoft SQL Server 2012 SP2 Standard or Enterprise Ed.
- PostgreSQL 9.2
- Oracle 12c R1
- Microsoft SQL Server 2008 R2 SP2 Standard, Enterprise or Express Edition (Express Edition supported for upgrades only)
- Oracle 11g R2 supported for upgrades only

Operating System Support

- Windows 7 SP1 professional or Enterprise (32-bit / 64-bit)
- Windows 8.1 professional or Enterprise (32-bit / 64-bit)
- Microsoft Windows Server 2012 R2
- Microsoft Windows 8.1 (64-bit) with M8313AA Secure Workstation for OpenLAB CDS ChemStation Edition C.01.07

OpenLAB Control Panel

Lab-at-a-glance view now has a column called "Current Sample" which displays the name of the running sample.

GC Classic driver

The 68xx GC classic driver can no longer be selected or used to acquire data. After an upgrade, the 68xx series GC must be re-configured to use the RC.NET driver in Agilent OpenLAB Control Panel. GCs using GPIB must update to LAN. There will be no new updates or hotfixes for the 68xx GC Classic driver.

Additional Features

- Sequence Audit Trail
- Remote ChemStation Termination on an AIC
- Import sample container types from OpenLAB Control Panel

11 OpenLAB ChemStation Edition C.01.06

Licensing

With OpenLAB CDS A.02.01, Agilent is increasing the license version. With OpenLAB CDS ChemStation Edition C.01.06, the license version will increment to 1.6. The license must be upgraded before installing the new OpenLAB CDS ChemStation Edition C.01.06. For customers with a valid SMA, an upgrade button is shown in SubscribeNet, which allows upgrading the license to license version 1.6.

New Product Options

- 490 micro GC driver available under VL-licensing
- M8390AA OpenLAB CDS ChemStation Data Analysis only license added
- M8313AA Secure Workstation for OpenLAB CDS ChemStation Edition

Operating System Support

- Windows 8.1 professional or Enterprise (32-bit / 64-bit)
- Windows 7 SP1 professional or Enterprise (32-bit / 64-bit)
- Microsoft Windows 7 SP1 (64 bit) with M8313AA Secure Workstation for OpenLAB CDS ChemStation Edition C.01.06
- Microsoft Windows XP no longer supported

M8620AA OpenLAB Data Store Software A.02.01

- OpenLAB Data Store has its own Installer
- Support for PostgreSQL Database
- Support for up to 30 instruments. See Data Store hardware and software requirements guide for details.
- Support of OpenLAB CDS ChemStation Edition and ICP-MS Workstations on the same server
- Lab Applications is not supported with this release

OpenLAB CDS Shared Services

- Updates to OpenLAB Shared Services Login, Failover and Local Configuration Screens
- Support for PostgreSQL Database

OpenLAB CDS Installer

OpenLAB CDS Installer now deploys ELSD drivers for the G4260A (Agilent 380 ELSD) / G4261A (Agilent 385 ELSD), G4260B (Agilent 1260 Infinity ELSD) and G4261B (Agilent 1290 Infinity ELSD).

M8370AA OpenLAB Data Analysis A.01.02

OpenLAB Data Analysis is a product for chromatographic data from OpenLAB CDS ChemStation and EZChrom Editions. OpenLAB Data Analysis A.01.02 adds productivity, calibration and quantification enhancements, user interface improvements for data review and reprocessing and more. Refer to the Release Notes on Disk 7 for a detail list of enhancements.

(NEW) M8313AA Secure Workstation for OpenLAB CDS ChemStation Edition

The Secure Workstation for OpenLAB CDS ChemStation Edition is a combination of two existing products (OpenLAB CDS ChemStation Edition C.01.06 and OpenLAB Data Store A.02.01) running on the same computer for 2 instruments maximum.

New Software Verification Tool

The Installation Qualification (IQT) and Installation Qualification Report name have been updated to Software Verification and Software Verification Report. There is no change to functionality.

Methods and Sequences

New layout of the Sequence table User Interface
- New intuitive sequence table setup wizard
- Copy and paste to and from external programs such as Excel

- Excel like editing of table
- New injection source selection in table for GC; alternate between front and back injections now supported in one table
- Dual injection setup in one table
- Multiple ISTD (up to 8 available)
- Enhancements to Barcode reading

Run Queue

- New privileges for queue handling
- Delete entries from run queue
- Change priority in run queue

Editing running sequences

- Sequence lines are converted to a run-by-run list once a sequence template is submitted to the queue.
- Multiple injections are no longer grouped by sequence line. For example, 4 injections per locations will be shown as 4 individual sequence lines for easy preview. Once a sequence is started, adding a multiple injection per location sequence line is no longer possible. A separate line per injection must be entered. The "Filldown Wizard" can be used to add a separate line per injection.
- When adding or editing a run in a running sequence, the data file name will be set to **OnlineEdited#.D** where # is a number.

OpenLAB CDS Upgrade

OpenLAB CDS A.02.01 allows for lab operation during an upgrade phase to minimize lab down time. This mode supports running different versions of OpenLAB CDS on the same Networked or Distributed environment (for details, see "OpenLAB CDS Administration" guide).

def_gc.m now writable for 78xx and 68xx

The def_gc.m can now be updated with the instrument settings.

Intelligent Reporting Enhancements

- Enhanced printing of calibration curves
- Enhanced scaling and new coloring options for chromatograms

- Change of font properties for multiple report items at the same time
- Printing instrument curves without the need to include UV signals
- Direct access to properties of a table column
- Expression support for chart axis scaling
- Simple peak filter for chart control (like table/matrix)
- Change of paper size and orientation at any time
- Improved alignment tools
- Date/time filter for the report template audit trail viewer
- Basic support of LC/MS reporting:

- LC/MS chromatograms (TIC and EIC as defined in the method)
- LC/MS Spectra (Peak Apex and averaged spectra)
- LC/MS quantitative results

Manage Rules and Alerts

Configurable pre-injection error handling (missing vial for a tray; plunger error for injector)

- Skip the vial
- Pause
- Stop
- Configurable action after pressing GC stop button
- (New) Pushing the stop key at the GC keyboard will stop the current run and generate a report then continue to the next line in the sequence.
- Abort

Enhancements to Barcode reading for GC

Read Barcode automatically before each injection during the sequence. The sequence is run with blank sample names. The barcode is read before each injection and written into the Sample Name field of the report.

Fill in sample name from barcode directly into the Sequence table automatically. Highlight the sample name column and select the barcode icon to automatically write the barcode to each sample name field in the sequence table unattended.

Updated Agilent 78xx GC Driver, Version 5.03

- Hydrogen sensor support for calibration, reporting and hydrogen shutdown when hydrogen leak detected

- Improved operation following short LAN interruptions
- NPD adjust setup now available in the Maintenance dialog
- Capillary Flow Technology software wizard installed with 78xx Driver and available as a menu
- Method migration (68xx to 7890)
- 7697A headspace to 7890B GC communication shown in status
- Improved direct communications between 7890B GC & 7697A headspace for EMF and Sleep/Wake and Vent methods

Updated Agilent LC and CE Driver (RC.NET Drivers A.02.09)

- ISET 3 (Intelligent System Emulation Technology) - using 1290 Quaternary Pump [G4204A]. The 1290 Quaternary Pump can now be used to emulate other pumps with ISET 3.
- Support of the HDR feature for DAD detectors (G4212A/B)
- Support of the Valve Head 5067-4214 (2ps/4pt-4pt, 1200 bar) with the UVD G1170A and the Flexible Cube G4227A

Updated Agilent 68xx GC Driver, Version 6.23

- Extend the run time during acquisition via a menu item
- Ability to do column compensation for the 6850 GC from the software
- Data files now contain the current signals if the front inlet is connected to a back detector
- Ability to configure autosampler error handling available from the Configuration tab/ALS in the Method Editor.

GC classic driver no longer supported

The GC classic driver is not tested and no longer supported.

68xx series GC upgrades must re-configure the 6890/6850 to use the RC.NET driver in Agilent OpenLAB Control Panel. There will be no new updates or hotfixes for the GC Classic driver.

Product and instrument driver versions available in the Help "About" box

Detailed product and driver versions are now available.

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Methods and Sequences

Users can now review acquisition methods in Method & Run Control View using the Acquisition Method Viewer. The viewer does not load the method to the instrument and does not trigger method resolution.

Data Analysis

Data Analysis Workflow for Single Samples

The Navigation Table now shows the acquisition method as well as the data analysis method for single samples. The system automatically loads the respective master method for a single run. A fly-over indicates the path to the data analysis method.

Last Result Mode

The Last Result Mode can now be accessed from the view menu or via the new icon in the Data Analysis view. Using the Last Result Mode, it is now possible to save the data analysis parameters last used from the DA.M method into a master method. The user has three options:

- to update any master method with the data analysis parameters,
- update the loaded master method with the data analysis parameters, or
- save as new master method by combining the data analysis parameters with acquisition parameters from any master method.

In the Last Result Mode, users may only modify the data analysis method DA.M and create a report when saving the modified data analysis parameters to a master method.

Recalculate Mode

The Recalculate menu now lists the same actions that are provided by the icons.

In the Preferences, the user has the choice whether to automatically load the master method used for the last data analysis. This option is applied for the loading of single runs.

Reporting

Intelligent Report Enhancements

Table columns can now be formatted using conditional formatting based on expression results. Expressions may include custom variables and parameters.

Users can now select to include EMF counters and advanced run information in reports.

Display or Printing of chromatograms

A new printing option optimizes the printout of chromatograms for black and white printers. All signals are drawn with black color.

The drawing of baselines has been improved. For a series of overlaid signals, the user may choose to limit the peak annotation to a single signal or annotate all.

Users may turn off bitmap data compression for high detector sampling rates. This option does not affect the acquired raw data. Switching off data compression only improves the display and printing of the signal.

The new reporting option "fraction delay" allows correction for the delay time between fraction collector and detector when marking the fractions in the chromatogram printout.

Printing performance has been improved by now reading audit trail information from the ChemStation register files instead of the ACAML file. The audit trail still gets reported as expected.

Previewing Intelligent Reports

Interactively updated report previews can be printed as a hard copy or saved as PDF.

Updated Agilent 78xx GC Driver, Version 5.01

- Support for new Agilent 7890B GC instrument
- Improved handling of Autosampler (ALS) errors such as a missing vial; ALS abort/retry option provided in GC status user interface
- New Resource Conservation (Sleep/Wake) with 7890B
- New Early Maintenance Feedback (EMF) with 7890B
- New Barcode Scanning with Auto-Input with 7890B
- Updated Column Configuration, including the ability to lock the column
- New Syringe and Liner Configuration

- Support for the 7667A Mini Thermal Desorber (TD)
- GC Calculators integrated into the method editor
- Updated Columns Database
- New Syringe and Liner Databases
- New Keypad Lock Options

Resource Conservation (7890B)

Users may now reduce gas and power consumption with the new Resource Conservation functionality. The instrument can be put to sleep manually or by scheduling the time in the Wake and Sleep methods.

Early Maintenance Feedback EMF (7890B)

User-defined EMF counters can now be set in OpenLAB CDS based on the configuration of the GC. Warnings and Service Due notifications are provided based on the configured thresholds. EMF exceptions can be printed on Intelligent Reports.

Barcode Scanning (7890B)

Barcode scanning enables automatic transfer of column, liner and syringe information into the method.

Agilent Parts Finder

The new Agilent Parts Finder Tool is tightly integrated with OpenLAB CDS ChemStation Edition. It can be called from the Instrument menu and allows users to quickly locate the part number and add it to the parts list or favorites and then print the parts list or save it to a file. The parts finder supports the 7693A and 7650A ALS, 7890A and 7890B GC.

Updated Agilent LC Drivers (RC.NET Drivers A.02.07)

Support for Agilent 1260 Preparative LC Systems including:

- 1260 Isocratic Preparative Pump (G1361A)
- Cluster of up to four 1260 Isocratic Preparative Pumps (G1361A)
- Fraction Collector (G1364A)

- Cluster of up to three Fraction Collectors (G1364A/B/C or G5664A) and additionally one as Recovery Fraction Collector (G1364A/B/C or G5664A)
- 1260 Dual Loop Autosampler (G2258A)
- 1260 Preparative Autosampler (G2260A)

Updated Agilent 68xx GC Driver, Version 6.21 (August 2013 release)

- Ability to do column compensation for the 6850 GC from the software
- Data files now contain the current signals if the front inlet is connected to a back detector
- Ability to configure autosampler error handling available from the Configuration tab/ALS in the Method Editor.

3rd Party Drivers: Support for Waters Acquity

The Waters Acquity driver allows the control of the following Waters Acquity and Acquity H-Class modules in OpenLAB CDS ChemStation Edition C.01.05:

- ACQUITY Sample manager
- ACQUITY Binary solvent manager
- ACQUITY Column manager (CM)
- ACQUITY H-Class Sample manager FTN
- ACQUITY H-Class Quaternary solvent manager
- ACQUITY H-Class Column manager (CM-A)
- ACQUITY H-Class Column manager AUX
- ACQUITY and ACQUITY H-Class Sample organizer
- ACQUITY and ACQUITY H-Class TUV detector
- ACQUITY and ACQUITY H-Class PDA detector
- ACQUITY and ACQUITY H-Class PDA eLambda detector
- ACQUITY and ACQUITY H-Class Fluorescence detector
- ACQUITY and ACQUITY H-Class ELSD detector

5890 Series II GC is available but no longer supported

The ability to configure a 5890 Series II GC has been re-introduced into the software. There will be no new updates or hotfixes for the 5890 Series II.

M8620AA OpenLAB Data Store A.01.02

With OpenLab Data Store A.01.02, the Lab Applications have been introduced to accommodate common laboratory workflows and includes two applications:

Sample Submission

- Request an analysis - Prepare a chromatography sequence and assign it to the analyst through Data Store.
- Accept and complete the analysis - The analyst receives the sequence, runs it on an instrument using an Agilent CDS system, and stores the results into Data Store.
- Review results - Import the results, review, approve or reject them in Data Store.

Lab Journal

- Manage lab assets, such as instruments and columns.
- Capture important lab events such as instrument service, replacements, calibrations, etc.
- Review the operations that occurred on a specific instrument or column.

Display simple usage statistics for instruments or columns.
In addition, the Data Store user interface has been redesigned to support the new applications.

New M8370AA OpenLAB Data Analysis A.01.01

With OpenLAB Data Analysis, Agilent introduces a new data analysis package to create sample reports, sequence summary reports, and cross-sequence summary reports. It is fully integrated and compatible with data from EZChrom and ChemStation Edition.

The first release is designed for data analysis in Chemical and Petrochemical laboratories and Hydrocarbon Processing Industry. Version A.01.01 features:

- Very fast reprocessing (more than 10 times faster than OpenLAB CDS).
- Intuitive operation with "flat" user interface.
- Microsoft-style function ribbons and improved data selection tree allow fast access to main functions and data. Select data from multiple folders, load complete result sets, or select single samples.
- One-click peak integration tool for fast review.

- Easy sample review: New data viewing concept allows overlaying and comparing hundreds of signals. Work with both LC and GC instruments at the same time and use multiple methods and data sets in parallel.
- Automatically scale to a specific peak, ignore main peaks, or scale to the baseline.
- Supports customization of screen layout based on four predefined configurable layouts.

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OpenLAB Data Store A.01.01 Supported with CDS

OpenLAB Data Store is a central repository where you can safely archive, store, and share electronic files.

OpenLAB CDS ChemStation Edition and Shared Services support the use of OpenLAB Data Store as the storage location for your scientific data. Use of Data Store storage is supported in networked and distributed configurations of OpenLAB CDS and provides several benefits for your system:

- Central Storage with security for small to medium sized labs
- Handles localized Chinese/Japanese content
- Web based data access for search, share, and review
- 21 CFR 11 Compliant e-signatures and audit trail

Master Installer Updates

- Master Installer now supports installation on top of an existing C.01.03 system resulting in an automatic upgrade.
- Master Installer now supports the installation of either Data Store or ECM for central data storage system components including servers, AICs, and clients.
- Software installation repair is now supported using the repair utility found in the maintenance section of the Master Installer.
- A new additional software installation tool is now available in the maintenance section of the Master Installer. This currently only supports the addition of OpenLAB Data Store components to an AIC or client upgraded from a previous revision.
- Scripted installation of clients and AICs is now supported. An XML file may be exported at the end of installer parameter definition which can then be used to install an identical configuration on other machines.

OpenLAB Control Panel/Shared Services Updates

- Enhancements to the Licensing User Interface

- Generic projects for Data Store
- Authentication for Data Store
- Data Store Synchronization

Updates to the Intelligent Reporting Report Template Editor (RTE)

- User-entered report parameters
- Protection of individual report items in report templates
- Double row table
- Document map
- Export report as DOC and TXT

Method and Sequence Queue

- Single Sample Queuing
- Enhanced options for single run data file naming

Method Download Options at Instrument startup

User options for method download on startup of ChemStation

Data Analysis Improvements

- Calculation of relative retention time, Resolution, Number of theoretical plates, S/N ratio, and Peak-to-valley ratio according to European Pharmacopeia and Japanese Pharmacopeia and reporting of these values using Intelligent Reporting.
- Peak Performance
- Enhancements to Area Summing

Updated Agilent LC Drivers

- Improved status dashboard for enhanced control and interaction
- 1290 Quaternary Pump (G4204A)
- 1220 Infinity LC with DAD (G4294B)
- Flexible Cube (G4227A) (Standalone Driver)
- Universal Interface Box II (G1390B)

Updated Agilent 78xx and 68xx GC Drivers

- Support for the (G4567A) 7650 Injector with 78xx GCs (Version 4.02)
- Method menu item added to extend the run time or change oven temperature during a run for 68xx GC (Version 6.11)
- GC Tray user interface enhanced (RC.NET only)
- Method Audit Trail and Method Resolution Audit Trail.

NEW html-page for accessing OpenLAB Documentation and Manuals

New html-page for OpenLAB CDS Documentation can accessed from the START menu > All Programs > Agilent Technologies > OpenLAB CDS Documentation.

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Sequence Planner

The **Queue Planner** is used to set up an ordered set of sequences (either ChemStation sequence templates or Easy Sequences) and pauses. The **Queue** Planner allows you to schedule lengthy routine tasks to run overnight or over a weekend.

Updated Agilent LC Driver

- Support for ISET
- RC.NET drivers for single G1364A/B/C and D Automated Fraction Collectors,
- Low-flow Samplers, pumps and valves (G1377A, G1389A, G1376A, G2226, G1162A, G1163A)
- New LC hardware G5664A Bio-inert AFC, 1290 UVD (G1170A),

Updated Agilent GC Drivers

78xx Driver Version 4.02[023]

Updates to Low Thermal Mass II (LTM-II) Rapid Heating/Cooling System for 7890A GC. This release integrates complete control of the Low Thermal Mass II (LTM II) system into the 7890A GC and ChemStation. The added support of ID tags on the LTM II columns allows for automatic configurations loaded in the GC and ChemStation and the ability to track number of runs, over temperatures, and excursions.

68xx Driver Version 6.11[008]

New G3581A 490 micro GC support

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Agilent OpenLAB ECM connectivity

With the C.01.02 release of OpenLAB CDS ChemStation Edition, ECM is supported as a data storage location. With this feature you get the following enhancements for your data system:

Store and retrieve data directly in the Agilent OpenLAB Enterprise Content Management (ECM) system from the CDS with ECM as a valid storage location and authentication provider.

This provides the following benefits:

- Keyword searches for data, methods and sequences
- Web based data access for sharing and review
- Automated data archival
- Result package version control
- Enhanced security
- Consolidate CDS data with all laboratory content
- Thin client configuration support

Master Installer Updates

Automated uninstall of all OpenLAB CDS components is now available from the master installer.

Support for LC/MS and CE/MS on Workstation and Networked Workstation

New Topology:

Distributed Systems (Networked AIC and Clients)

Updated Agilent GC Drivers, 78xx Version 4.01, 68xx Version 6.10

- Barcode support with the 68xx Software Driver version 6.10 has been updated to transfer the vial from the barcode reader directly to the turret for injection. The intermediate stop back to the tray location has been eliminated.
- Instrument parameter actuals are now available next to the set points in method edit user interface
- 7890A: Digital Signal Switching, Signal Zero, Signal Freeze/Resume available in the Signal Event Table (7890A requires a minimum Firmware revision of A.01.12.)
- Hide and display the instrument actuals view and graphic plot
- 7890A: Shutdown events such as Hydrogen shutdown now included in Software Status (7890A requires a minimum Firmware revision of A.01.12.)
- Column User interface includes Constant Flow, Constant Pressure, Ramped Pressure, and Constant Flow for the Control Mode selections
- G4514A 7693A tray support for 7820A GC
- Start run from GC by pressing the start button now available for 68xx GC

Agilent Support information

- All instrument sessions come with a support information tool that is started from the Help menu. This is a troubleshooting tool that can be used to collect information about the current status of the system, log software and hardware error messages, and the revision of the operating system. The information is collected in the instrument's Temp folder.
- The tool will not collect names, addresses, or personal information.

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Intelligent Reporting

OpenLAB CDS provides a new Intelligent Reporting feature for GC and LC ChemStation data. The new intelligent reporting is provided in addition to classic reporting. The new Intelligent Reporting allows you to create state-of-the-art reports in an industry standard reporting format. You can easily create and modify report templates with the new Report Template Editor built into the system that has an easy to use WYSIWYG interface. Report templates are saved in the standardized Report Definition Language (RDL) format that is also used by Microsoft Business Intelligence Studio.

When Intelligent Reporting is activated, a new Review view is available. It allows you to apply any report template to any combination of data files.

OpenLAB Control Panel / OpenLAB Shared Services

OpenLAB Shared Services allow the management of users, instruments and licenses. OpenLAB Shared Services is managed using the OpenLAB Control Panel.

- **Instrument Management:** OpenLAB Control Panel allows you to set up and configure instruments. Instruments are launched from the OpenLAB Control Panel. In addition, the Control Panel provides a lab-at-a-glance overview of the status of the instruments on a workstation or networked workstation.
- **User Management:** OpenLAB Control Panel allows you to manage users, groups, roles, and privileges. If you manage your users within an ECM system or a Windows domain, you can map those existing users into OpenLAB Shared Services.
- **License Management:** This service includes the administration of licenses that are required for your instrument modules and Add-Ons. You can add or remove licenses and view the status of all licenses.

New licensing

With OpenLAB CDS ChemStation Edition, a new licensing strategy is introduced that helps you use your licenses more effectively. All instrument control, driver and Add-on licenses are floating licenses. Any instrument that starts up requests licenses from License Management, and when the instrument is closed, it returns the licenses. The new licensing is based on Flexera Software™ SubScribeNet® technology. It simplifies your software license management and license tracking and allows you to receive new or urgent software and patch download information immediately after release.

New Data Analysis Workflows

OpenLAB ChemStation C.01.01 provides two Data Analysis modes: The Recalculation mode and the Reprocessing mode. The reprocessing mode allows you to reprocess samples in the context of a sequence (e.g. for a bracketed calibration). The recalculation mode allows you to quickly recalculate a sample or a set of samples with a different method.   The required functions associated with each mode are available in separate toolbars.

Result sets: Containers are now called result sets. Methods that are used in result sets may be modified during acquisition. You can create your own result sets using any collection of existing data. You can use the user-assembled result sets, for example, for cross sample calculations.

Method Handling: It is possible to directly load master methods and sequence methods from the ChemStation explorer.   The Update Methods dialog box allows you to synchronize master methods and sequence methods.

17 Important Support Information

The software status bulletin (SSB) documents known limitations and information about available fixes or workarounds for this and previous versions of **OpenLab ChemStation**.
Please visit our Website for the latest version at

https://www.agilent.com/cs/library/support/Patches/SSBs/M83xxAA.html

For known issues that have been resolved and/or closed with a workaround, see the Software Release Bulletin file named *M83xxAA-SRB.html* located under the Disk2\Support\History\C.xx.xx folder of the OpenLab ChemStation Installation media.

Check the Agilent Software Support Lifecycle Policy at https://www.agilent.com/en/support/agilent-openlab-software-support-lifecycle-policy so you can schedule the updates to keep your version up to date.

In This Book

This document provides a listing of the major feature modifications made in each minor release of the Agilent Chromatography Data System product OpenLab ChemStation.

Agilent