Waters™

Waters LC Support Layer for Agilent CDS

Installation and Configuration Guide

715008538
Version 03

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1 General information

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Contact method	Information
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Corporate contact information	Waters Corporation 34 Maple Street Milford, MA 01757 USA From the USA or Canada, phone 800-252-4752 or fax 508-872-1990.

1.5 Updated information

Refer to the Waters website (www.waters.com) and click **Support > Support Documents and Downloads** for updates to this document.

2 Glossary

Term/Abbreviation	Definition
ACQUITY UPLC	ACQUITY supports UPLC separations and is purpose-built for the analysis of proteins, peptides, nucleic acids, glycans, oligonucleotides, and carbohydrates, by incorporating MaxPeak high-performance surface technology, also referred to as ACQUITY Classic.
ACQUITY UPLC H-Class /ACQUITY UPLC H-Class Bio PLUS	Originally introduced in 2010, the system was updated in 2018 to PLUS, which confers hardware and software updates (include in DP 2018 R1 and later) and is available in SS and biocompatible wetted surfaces. The system supports active solvent pre-heating, operates to 15 K PSI and is configured with 0.004" ID tubing and supports either a BSM or QSM, and FTN sample manager (TUV, PDA, eLambda PDA, PDA TS, FLR, RI, and ELSD). ACQUITY UPLC H-Class Bio is discontinued since June 2022.
ACQUITY UPLC I-Class PLUS	Originally introduced in 2015, the system was updated in 2018 to PLUS, which confers hardware and software updates (include in DP 2018 R1 and later) and is available in SS and biocompatible wetted surfaces. The system supports active solvent pre-heating, operates to 18 K PSI and is configured with 0.003" ID tubing and supports BSM only, and either a FTN or FL sample manager (TUV, eLambda PDA, FLR, RI, and ELSD).

Term/Abbreviation	Definition
ACQUITY Premier	ACQUITY Premier is Waters latest brand of UPLC systems, based upon ACQUITY UPLC H-Class Bio it includes HPS wetted surfaces. The system supports active solvent pre-heating, operates to 15 K PSI and is configured with 0.004" ID HPS tubing and supports either a BSM or QSM and a FTN sample manager. The system supports UPLC detectors (TUV, eLambda PDA, FLR, RI, and ELSD).
ACQUITY Arc/ACQUITY Arc Bio	Waters brand of UHPLC systems, available in SS (Arc) and biocompatible (Arc Bio) wetted surfaces and operates to 9,000 PSI. The system supports a QSM-R pump and a FTN -R style sample manager. The system is configured with 0.007" tubing ID and is configured with HPLC style detectors (2489, 2998, 2475, and 2414). Sales of ACQUITY H-Class Bio Series systems is ceased since June 2022 and the product is placed at Sustaining Support Status.
ACQUITY UPLC M-Class, M-Class systems	Brand name for ACQUITY UPLC systems with lowest dispersion binary solvent delivery.
AIC	Agilent Instrument Controller
Alliance/2595 System	Legacy HPLC system that includes a quaternary pump and sample manager in a single module. The product has been discontinued. This system is not controlled by ICS, but is compatible with 2489, 2998, 2475, and 2414 detectors. Since 2022, model e2695 Alliance systems though current, have a Sustaining Support Status.

Term/Abbreviation	Definition
Arc HPLC	Waters brand of UHPLC systems, available in SS (Arc) and biocompatible (Arc Bio) wetted surfaces and operates to 9,000 PSI. The system supports a QSM-R pump and a FTN-R style sample manager. The system is configured with 0.009" tubing ID and is configured with HPLC style detectors; (2489, 2998, 2475, and 2414).
Arc Premier	Arc Premier is Waters latest brand of UHPLC systems, based upon bio Arc, it includes HPS wetted surfaces and operates to 9,000 PSI. The system supports either a QSM-R or BSM-R pump and a FTN-R style sample manager. The system is configured with 0.007" HPS tubing ID and is configured with HPLC style detectors; (2489, 2998, 2475, and 2414).
ASM	ACQUITY UPLC M-Class Auxiliary Solvent Manager
CDS	Chromatography data system
ChemStation	Brand name for this Legacy third party CDS, which controls Waters LC's and controls Agilent's LCs and MS, with the current version.
CM-A	Column Manager – Active preheater

Term/Abbreviation	Definition
CM-Aux	The Auxiliary Column Manager (CM-Aux) is an extension of the Trap Valve Manager (TVM) that insulates up to two (2) columns from ambient environment variations. Temperature control is maintained for the range of 4 °C to 90 °C in two independent heat/cool zones. Two (2) columns having dimensions from 1 mm to 4.6 mm I.D. and up to 150 mm length may be inserted into the CM-Aux. The CM-Aux comes configured with two (2) active preheaters. Notes: • The CM-Aux is a supplemental unit for the TVM. It does not operate with an ACQUITY UPLC M-Class system unless the Trap Valve Manager (TVM) is configured. • The CM-Aux is not part of the ACQUITY UPLC M-Class System variant.
Console	The console is a software application that provides a convenient way to configure settings, monitor performance, run diagnostic tests, and maintain the system and its modules. It replaces the keypads and small screen displays traditionally found on the front of instruments.
Defect	A discrepancy between a computed, observed, or measured value or condition and the true, specified, or theoretically correct value or condition.
Direct Injection	The direct (non-split) automatic solvent flow control algorithms of the ACQUITY UPLC M-Class system provides pulse-less flow for increased retention time reproducibility.
DP	Driver pack
DP 2022 R1	Driver Pack 2022 Release 1 (Microscale), Driver Pack 2022 Release 1 (Analytical)
H-Class	Brand name for FTN-based system with a binary or quaternary solvent manager

Term/Abbreviation	Definition
HPLC	High Performance Liquid Chromatography
I-Class	Brand name for ACQUITY UPLC systems based on lowest dispersion binary solvent delivery.
ICS	Instrument Control Software is a software component from Waters that makes it possible for third-party software developers to control Waters LC instruments in chromatographic data systems (CDS). The ICS provides the developer with the ability to develop one adapter that can then link to every Waters module supported by the ICS.
Load ahead	During acquisition, the CDS sends the instrument Sample Manager ICS the vial position of the next injection so that the sample manager can pick the sample up while the previous injection is still completing. This functionality reduces cycle time.
Localization	A supported CDS may support other languages than English. At minimum the Waters Driver Pack in English must be supported with localized versions of the supported CDS.
.NET Framework	.NET Framework is a software development framework from Microsoft. It provides a controlled programming environment where software can be developed, installed, and executed on Windows-based operating systems.
OpenLab	Brand name for this third party CDS, which controls Waters LC's and controls Agilent's LCs and MS, with the current version.
PDA	Photodiode array detector – for example, an eλ-PDA

Term/Abbreviation	Definition
Premier	Brand name for systems containing high-performance surfaces.
PLUS	Indicates a series of updates released for ACQUITY UPLC H-Class and I-Class series systems.
QSM	Quaternary Solvent Manager
RI	Refractive Index Detector
SFT	System Functionality Test
Shutdown Functionality	An LC method that is used to bring the LC to a status that is acceptable to remain idle for no more than 1 to 3 days without running. The method should be configured depending on the instrument module configured in the LC and the type of system.
SM-FL	Sample Manager - Fixed Loop
SM-FTN	Sample Manager - Flow Through Needle
SO	Sample organizer used with rotary-tray based sample managers such as H/I-Class and ACQUITY Systems such as ACQUITY UPLC I-Class Series Systems, ACQUITY UPLC H-Class Series Systems, and ACQUITY UPLC M-Class Systems.
TUV	Tunable Ultraviolet Detector

Term/Abbreviation	Definition
TVM	The Trap Valve Manager (TVM) is equipped with two (2) 6-port, 2-position low dispersion valves. The valves are commanded through user-defined methods and can operate independently of each other. The TVM can be configured for: • Direct injection • Single-pump trapping • Dual-pump trapping The TVM will support two (2) trapping columns with internal diameters ranging from 50 µm to 500 µm and lengths up to 50 mm. The TVM will support one (1) analytical column within a separate thermally controlled environment ranging from 5 °C above ambient to 65 °C. The analytical column compartment of the Heating and Trapping Module will support one (1) column with internal diameters ranging from 75 µm to 1 mm and lengths up to 250 mm. The analytical column compartment is located within an arm that is rotated from the center of the system outward to interface more closely with the MS source.
UPLC	Ultra-Performance Liquid Chromatography
Verify Files	Verify Files contains information about the exact version of the CDS, drivers, and options that are installed on the workstation. It also contains checksum values for all program files related to installation and is used to confirm that there were no issues with installation. It is an important documentation for customers in regulated industries.
Waters Support Layer for Agilent CDS	A software component, comprising the Waters Driver Support Layer (an Agilent OpenLab CDS DDK implementation) and the DDK/OIP Transport framework, that allows the Agilent OpenLab CDS software to enable and control Waters UPLC instruments.

Term/Abbreviation	Definition
2414	Refractive Index Detector
2475	Fluorescence Detector
2489	Ultraviolet Detector
2998	Photo Diode Array Detector
µBSM	Microscale Binary Solvent Manager
µBSM, nanoBSM, BSM, BSM-R	Binary Solvent Manager for Premier, ACQUITY, M-Class, nanoACQUITY, and Arc PREMIER systems
µSM	Microscale Solvent Manager
µSM-FL	Sample manager with fixed-loop design. µSM-FL denotes a fixed-loop M-Class that can reach a maximum back pressure of 15,000 psi. This micro sample manager is available only with ACQUITY UPLC M-Class Series Systems. A biocompatible wetted path version supports up to 15,000-psi operational back pressures. Only one sample manager can be configured in a system.

3 Overview

This installation guide illustrates the installation and configuration procedures of Waters Driver Pack 2022 Release 1 (Analytical and Microscale) and Waters Support Layer for Agilent CDS on LC systems.

Notes:

- Some parameters are different from those in Waters Driver Pack - Microscale.
- To control Microscale systems, Waters Driver Pack 2022 Release 1 (Microscale) must be installed.

4 Compliance recommendations

Any time you install, change, or uninstall software or system modules in a regulated environment, Waters recommends that you follow your organization's approved change control procedure.

You must assess the impact of the changes described in the release notes on the qualification status and validation for the intended use of your system, including any impact on personnel, methods, laboratory workflows, or connected equipment, and scale your activities accordingly.

5 Driver compatibility

The release of Waters Support Layer for Agilent CDS provides support for acquisition control of the following LC systems:

5.1 Analytical systems that require the Waters Driver Pack 2022 Release 1

- ACQUITY Premier Systems
- ACQUITY H-Class PLUS Systems
- ACQUITY I-Class PLUS Systems
- Arc Premier (quaternary) Systems
- Arc HPLC Systems
- ACQUITY Arc Systems

Legacy systems

- ACQUITY UPLC Systems
- ACQUITY Arc Bio Systems
- ACQUITY H-Class Bio PLUS Systems
- Alliance HPLC Systems

5.2 Microscale systems that require the Waters Driver Pack 2022 Release 1

- ACQUITY UPLC M-Class Systems

6 ACQUITY - Overview

6.1 ACQUITY driver prerequisites

The following prerequisites must be met:

- The Workstation or AIC requires a physically separate, dedicated LAN card for the ACQUITY driver.
- It is possible to combine a Waters ACQUITY instrument with the following non-Waters modules:
  - Agilent LC/MSD iQ (G6160A)
  - Generic modules such as Agilent 35900E and SS420X

  Note: Typically, it is not possible to combine other Agilent and Waters ACQUITY modules within one instrument. This is supported with an Agilent MSD. Refer to the ***Combining Waters LC with Agilent InfinityLab LC/MSD Quick Start Guide*.**
- You can combine ACQUITY instruments with other instruments up to the maximum number of supported instruments allowed by OpenLab CDS.
- All Waters ACQUITY instruments controlled with this driver communicate through a common ACQUITY server service on the acquisition computer. The Driver Pack for Third Party Control from Waters Corporation installs this service.
- It is possible to configure and operate up to four ACQUITY systems on one AIC. However, because each ACQUITY system utilizes the same common ACQUITY Server service, an issue with one system would affect the other systems on the same AIC. Because of this dependency, Waters does not recommend operating more than one ACQUITY instrument on a single Workstation or AIC.

6.2 ACQUITY driver licensing

OpenLab CDS: When installed, the M8505BA Waters LC Control for OpenLab CDS product enables and consumes one non-Agilent instrument connection license.

OpenLab EZChrom and OpenLab ChemStation: When installed, the M8505AA Waters LC Control for OpenLab EZChrom and OpenLab ChemStation product enables and consumes one instrument control license and one Waters LC license.

6.3 ACQUITY driver localization

The driver is supported in English, Japanese, and Chinese.
Locale settings are supported as long as the decimal symbol is a dot (.) and the digit grouping is a comma (,).

6.4 Waters Support Layer for Agilent CDS driver updates

Waters Support Layer for Agilent CDS can be downloaded from the Waters website (www.waters.com) and is available for ordering. An acquisition data license for the CDS is required.

To access Agilent Support Documents, users can register and obtain this information at https://agilent.subscribenet.com/, available from Agilent.com.

7 Alliance - Overview

7.1 Alliance software platform prerequisites

The following prerequisites must be met to have a fully supported CDS system in which the Waters Alliance driver operates:

7.1.1 Supported web browsers

- Internet Explorer 10 or 11
- Google Chrome 64 bit Rev 40 or higher

Note: The Workstation or AIC requires a physically separate, dedicated LAN card for eAlliance and Alliance LAN detectors.

7.2 Alliance supported GPIB adapters

A separate inject start cable is required if modules connected with Ethernet are used such as HPLC detectors. Waters Alliance driver is supported with the following 488.2 compatible GPIB adapters:

- National Instrument 488.2 PCI-GPIB card
  The driver supports up to TWO National Instrument PCI-GPIB adapters per computer. Part for Windows OS based system, NI Part # 778032-01.
- National Instrument GPIB-USB-HS
  Supported with up to TWO National Instrument GPIB-USB-HS per computer. Part for Windows OS based system, NI Part # 778927-01.
- Keysight GPIB/USB
  Supported with up to TWO Keysight GPIB/USB per computer.
- NI GPIB-ENET device
  Part for Windows OS based system, NI Part for GPIB-ENET/1000 781630-xx, where xx denotes the country power option.

For more details on how to install the NI or Keysight 488.2 driver, refer to the *Driver Installation and User's Guide (Waters Alliance HPLC Instrument Control Add-On Installation, Upgrade and Migration Guide)*.

Note:

- Each Waters Alliance HPLC stack (Alliance + related detectors) must have its own GPIB adapter. It is not possible to share the same GPIB buses along with modules from two different HPLCs. It is not supported to mix different types of GPIB adapters on the same computer.
- A trigger cable (start cable) is required for Alliance detectors.
- The National Instrument GPIB adapters can be ordered from www.ni.com.
- The Keysight GPIB adapter can be ordered from www.keysight.com.

7.3 Alliance driver supportability

7.3.1 Driver licensing

OpenLab CDS: When installed, the M8505BA Waters Alliance Control for OpenLab CDS product enables and consumes one non-Agilent instrument connection license.

OpenLab EZChrom and OpenLab ChemStation: When installed, the M8505AA Waters Alliance Control for OpenLab EZChrom and OpenLab ChemStation product enables and consumes one instrument control license and one Waters LC license.

7.3.2 Driver globalization and localization

- Supported Driver Languages:
  English only
- Localization of driver documentation:
  English only
- Specific O/S language and regional settings:
  The driver has been fully validated for English (US) local settings/format.
  Other locale settings are supported if the decimal symbol is a dot (.) and the digit grouping is a comma (,).

7.3.3 Driver virtualization

Operating instrument drivers in a virtualized operating system is possible provided the main CDS software supports virtualization. OpenLab CDS only supports virtualization for clients, thus allowing instruments to be created, configured, and viewed.
For more details regarding supported virtualization platforms, refer to the *OpenLab CDS Requirements Guide*.

7.3.4 Driver updates and distribution

Waters Support Layer for Agilent CDS can be downloaded from www.waters.com and is available for ordering. An acquisition data license for the CDS is required.

To access Agilent Support Documents, users can register and obtain this information at https://agilent.subscribenet.com/, available from Agilent.com.

7.3.5 Driver-to-driver compatibility

Waters Alliance driver is not compatible with any other or legacy version of the same driver. You must uninstall all the previous versions of the driver before installing a new Waters Alliance driver.

7.3.6 Driver-to-driver interoperability

This table lists the known compatibilities or limitations of the Waters Alliance driver in combination with Agilent and Waters instrument drivers that may be resident or co-execute on the same controller. ACQUITY and Alliance instruments can coexist.

Driver interoperability	Waters LC Control (Alliance)	Waters LC Control (ACQUITY)	Agilent LC or GC drivers A.02.xx
Waters LC Control (Alliance)	N/A	Yes	Yes
Waters LC Control (ACQUITY)	Yes	N/A	Yes

Driver interoperability	Waters LC Control (Alliance)	Waters LC Control (ACQUITY)	Agilent LC or GC drivers A.02.xx
Agilent LC or GC drivers A.02.xx	Yes	Yes	N/A

Note:

- Agilent LC or GC drivers A.02.xx require a dedicated network switch for the Alliance instrument when controlled by LAN.
- Instrument modules from different vendors connected to the same Alliance instrument are not supported.

8 Installation process

8.1 License requirement

Agilent control of Waters LC instruments requires a license, refer to the following information from Agilent:

8.1.1 Generating the license file in SubscribeNet

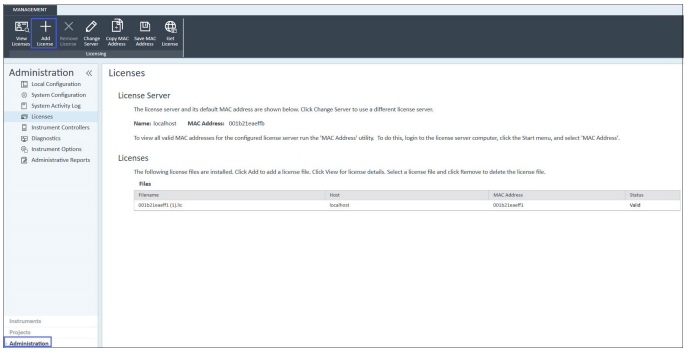
To generate the license file in SubscribeNet, refer to How to Generate the License File in SubscribeNet | Agilent.

8.1.2 Installing a license file in the Agilent OpenLab software control panel

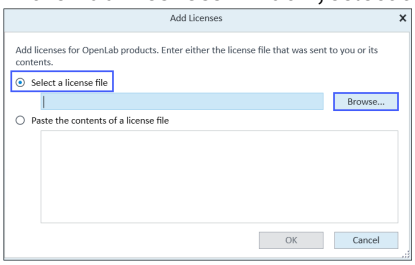
To install a license file, perform the following steps:

1. Click **Windows Start > Agilent Technologies > Control Panel** or double-click the Agilent OpenLab Control Panel icon in the Agilent OpenLab software control panel.

2. Click the **Administration** tab and then click **Add License**.



3. In the **Add Licenses** window, select the **Select a license file** radio button and then click **Browse**.



4. Navigate to the downloaded license file.

5. Click **Open > Ok**.
6. Click **Generate** or **View Licenses**.
   The license appears in the list of licenses in the Agilent OpenLab software control panel and in SubscribeNet.
7. Restart the PC.

8.2 Standalone Workstation configuration in OpenLab software

Windows 10 Operating System is required for Standalone Workstation configuration.

8.3 Client/Server configuration in OpenLab CDS

To set up an OpenLab Client/Server configuration, three PCs are required:

- OpenLab Client - Windows 10
- OpenLab AIC - Windows 10
- OpenLab Server - Windows Server 2012 R2, Windows Server 2016, and Windows Server 2019

Waters Support Layer for Agilent CDS and DP 2022 R1 must be installed in both AIC and client. You need not install them in the server.

8.4 Waters Support Layer for Agilent CDS installation media

The media shipped with the ACQUITY UPLC (I-Class and H-Class), ACQUITY Classic, Alliance HPLC, Arc-HPLC, and Microscale systems provides acquisition control and contains the following software:

- Waters DP 2022 R1 Analytical (667006771) and Microscale (667006778)

  Waters DP 2022 R1 (Analytical and Microscale) includes instrument drivers and their associated firmware files, as well as the Deployment Manager and firmware AutoLoader. The Deployment Manager installs instrument drivers and deploys firmware files on a computer. The AutoLoader updates firmware on the instruments connected to the computer.

- Waters Support Layer for Agilent CDS

Note:

- Uninstall previous installations of the ACQUITY driver (ACQUITY 2.4, Alliance 6.3.1) and the Waters Driver Pack (DP 2020 R1) before installing the Waters Support Layer for Agilent CDS and DP 2022 R1.
  - To uninstall the Waters Support Layer for Agilent CDS, refer to Uninstalling Waters Support Layer for Agilent CDS.
  - To uninstall the Waters Driver Pack (using the Start menu), refer to Uninstalling the Waters Driver Pack using the Start menu.
- After the Agilent OpenLab software is installed, you must first install the Waters DP 2022 R1, and then the Waters Support Layer for Agilent CDS.

8.5 Before installation

You must ensure that the following conditions are met before the installation begins:

1. .NET Framework is available and version 3.5 is installed.
2. Agilent OpenLab software (OpenLab CDS/OpenLab EZChrom/OpenLab ChemStation) is installed.
3. Instrument stack is available, powered-on, and connected to the Agilent Instrument Controller (AIC or workstation).

4. Exit all applications and restart the computer.
5. Log on as a user with local administrator privileges.
6. See the Waters Driver Pack 2022 Release 1 Installation and Configuration Guide (715006278) Revision A for complete information and guidelines.
7. At installation, the automatic IP address setting protocol should be set to the alternative range.

8.5.1 Connect the instrument modules

Note: Ensure that the Waters ACQUITY modules are turned off.

To connect the Waters ACQUITY modules to a Workstation or AIC:

1. Connect a LAN cable from each ACQUITY module to the network switch.
2. Connect a second LAN cable from the dedicated LAN card on the Workstation or AIC to the switch.

Note: Perform steps 1 and 2 to connect the Alliance instrument modules.

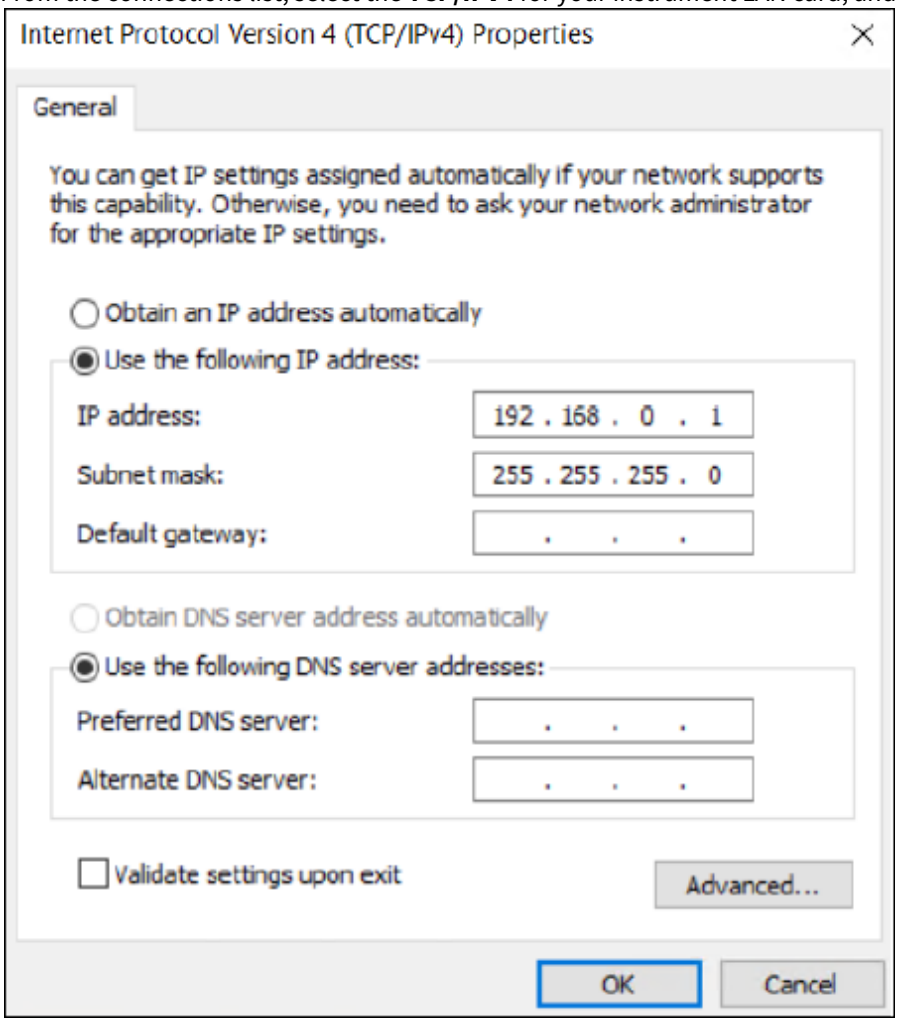
8.5.2 Configure the Workstation or AIC IP Address

The ACQUITY modules use LAN communication to connect to the Workstation or AIC. The AIC or Workstation physically requires a separate dedicated LAN card to connect to the appropriate instrument modules. You must manually configure the IP address.

To configure the IP address:

1. Go to **Microsoft Control Panel** > **Network and Sharing Center** > **Change adapter settings**.
2. Right-click your Network adapter, which is connected to the instrument.
3. To open the **Local Area Connection Properties** window, select **Properties**.

4. From the connections list, select the **TCP/IPv4** for your instrument LAN card, and then select **Properties**.



5. From the **General** tab, select **Use the following IP address**.
   a. Specify the IP address: 192.168.0.1.
   b. Specify the Subnet mask: 255.255.255.0.
6. Click **OK**.

8.5.3 Configuring Microsoft .NET 3.5 Framework

You must install Microsoft .NET Framework 3.5 manually on computers running Windows 10. The operating system installs and enables a newer version of the .NET Framework by default. To install .NET Framework 3.5 on Windows 10:

1. From Control Panel, select **Programs > Programs and Features > Installed Updates**.
   Tip: To access the Control Panel in Windows 10, type **Control Panel** in the Cortana search box.
2. Click **Turn Windows features on or off**.
3. Select the **.NET Framework 3.5 (includes .NET 2.0 and 3.0)** check box, and then click **OK**.
4. On the Windows Features page, click **Close** when the installation is complete.

Note: Windows 10 has .NET 4.7.2 pre-installed, and the .NET 4.7.2 is backward compatible with all versions back to 4.0.

8.5.4 Configuration of Sample Manager (FTN-H or FTN-I or FL-I or FTN-R) using direct Ethernet communication

1. Turn off the Sample Manager by pressing the On/Off button on the front of the device.
2. Connect the Waters ACQUITY UPLC system to the computer through LAN (Ethernet) communication from the Sample Manager to the computer.
3. Use a LAN cable to connect the Solvent Manager, the Sample Manager, and, if used, the Column Manager and/or detectors.

8.6 Firewall and DCOM settings

If you are installing the Waters Driver Pack on a Workstation or an AIC, refer to the following table for detailed DCOM settings and permissions.

The DCOM Settings and Permissions on Workstation and AIC:

Pass	Allow
Local Security Policy > Local Policies > Security Options > DCOM: Machine Access Restrictions	Local Access and Remote Access permissions for the following users: • Everyone • Domain Users* • Performance Log Users • Distributed COM Users
Local Security Policy > Local Policies > Security Options > DCOM: Machine Launch Restrictions	Local Access, Remote Access, Local Activation, and Remote Activation for the following users: • Everyone • Domain Users* • Administrators • Performance Log Users
Local Security Policy > Local Policies > Security Options > Network Access: Let Everyone permissions apply to anonymous users	Enable
Component Services > Computers > Properties of My Computer > COM Security > Access Permission/Edit Default	Local Access and Remote Access for the following users: • SELF • System • Domain Users* • Administrators

Pass	Allow
Component Services > Computers > Properties of My Computer > COM Security > Launch and Activation Permission/Edit Default	Local Access, Remote Access, Local Activation, and Remote Activation for the following users: • Everyone (select only Local Launch and Local Activation) • System • Domain Users* • Administrators

* Domain Users may or may not appear depending on how the domain is deployed at the customer site. If you use a domain environment, you must add them manually.

Refer to the following table for more firewall settings.

Firewall inbound rules on AIC:

Process	Ports
%ProgramFiles(x86)%\Waters Instruments\Bin\ACQUITYBSMServer.exe	Any
%ProgramFiles(x86)%\Waters Instruments\Bin\ACQUITYCMServer.exe	Any
%ProgramFiles(x86)%\Waters Instruments\Bin\ACQUITYConsole.exe	Any
%ProgramFiles(x86)%\Waters Instruments\Bin\ACQUITYServer.exe	Any
%ProgramFiles(x86)%\Waters Instruments\Bin\ACQUITYELSDServer.exe	Any
%ProgramFiles(x86)%\Waters Instruments\Bin\ACQUITYFLRServer.exe	Any
%ProgramFiles(x86)%\Waters Instruments\Bin\ACQUITYFTNServer.exe	Any
%ProgramFiles(x86)%\Waters Instruments\Bin\ACQUITYLCCConfig.exe	Any
%ProgramFiles(x86)%\Waters Instruments\Bin\ACQUITYLCCServer.exe	Any

Process	Ports
%ProgramFiles(x86)%\Waters Instruments\Bin\ACQUITYPDAServer.exe	Any
%ProgramFiles(x86)%\Waters Instruments\Bin\ACQUITYQSMServer.exe	Any
%ProgramFiles(x86)%\Waters Instruments\Bin\ACQUITYSMServer.exe	Any
%ProgramFiles(x86)%\Waters Instruments\Bin\ACQUITYTUVServer.exe	Any
%ProgramFiles(x86)%\Waters Instruments\Bin\ACQUITYRIServer.exe	Any
%ProgramFiles(x86)%\Waters Instruments\Bin\rACQUITYQSMServer.exe	Any
%ProgramFiles(x86)%\Waters Instruments\Bin\rACQUITYFTNServer.exe	Any
%ProgramFiles(x86)%\Waters Instruments\Bin\W2998Server.exe	Any
%ProgramFiles(x86)%\Waters Instruments\Bin\W2489Server.exe	Any
%ProgramFiles(x86)%\Waters Instruments\Bin\W2475Server.exe	Any
%ProgramFiles(x86)%\Waters Instruments\Bin\W2414Server.exe	Any
DCOM Process	TCP/UDP 135

8.7 Installing Waters DP 2022 R1 (Analytical and Microscale)

Note: If a previous version of Waters DP is installed, you must uninstall it before installing the new version.

To install Waters DP 2022 R1 (Analytical and Microscale) in Workstation, AIC, and Client PC:

1. Download Waters DP 2022 R1 with installer from the shipped media or the Waters website (www.waters.com).
2. Select and extract the zip folder "667006771reva_waters_driver_pack_2022_release_1_analytical.zip".
3. Run **Setup.exe**.
   Note: Always select Run as Administrator.
4. On the **Waters Instrument Drivers Welcome** page, click **Next**.
5. Select the **Install/Upgrade** action, and then click **Next**.
6. In the **Release Notes** section, select **I have read the product release notes** check box, and then click **Next**.
7. Select the **I agree to the License terms and Agreement** check box, and then click **Next**.
8. Select **Typical (recommended)** installation type, and then click **Next** to review the Waters Instrument Drivers listed.
9. The drivers are listed in the wizard, which shows the installation progress bar.
   Note: If you must stop the installation, click the hand icon at the end of the installation progress bar.
10. Click **Finish** after the instrument drivers install successfully.
11. A prompt appears to load the firmware.
12. Right-click the device or devices that require firmware update.
13. Select the firmware to load.
14. Click **Load firmware**.
15. After the firmware is loaded, close the window.
16. A window appears directing you to restart your PC. Click **Yes**.
17. Restart the instrument or instruments.
18. After the PC is restarted, go to **Control Panel > Programs > Programs and Features**.
    The instrument drivers installed are available in the **Control Panel > Uninstall Program** list.

Note: Install the Driver Pack and the Support Layer first on the AIC, and then on the Client PC.

8.8 Verify Files utility for DP 2022 R1 (Analytical and Microscale)

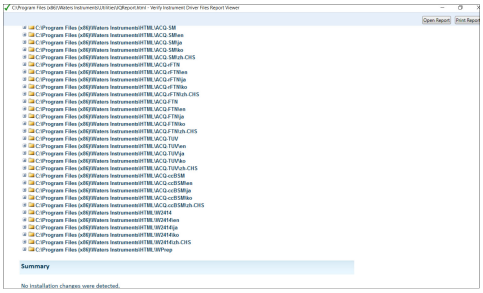
The Verify Files utility is an Installation Qualification (IQ) functionality for instrument drivers when used with the Waters Support Layer for Agilent CDS applications. This allows the application to include the instrument drivers and instrument driver utilities in the total IQ for the application.

The Installation Qualification test compares the installed files to the checksum created when building the instrument drivers and reporting the results.

To run the verification, go to **Start > Verify Instrument Driver Files**, and then run the Verify Instrument Driver Files tool. You can also run the verification tool using the file explorer. Navigate to C:\Program Files (x86)\Waters Instruments\Utilities and run the "VerifyICSFiles.exe" file.

After successful installation, a message, **No Installation changes were detected** appears.

If the installation fails, the report lists the names of the changed files along with the path where it is located. The user must uninstall and reinstall the driver pack.



8.9 Connecting the ACQUITY systems on Agilent OpenLab system

To connect the ACQUITY systems on Agilent OpenLab system:

1. Power-off all the ACQUITY instrument modules.
2. Ensure that a power cable connects each ACQUITY module to the main supply.
3. Ensure that an Ethernet cable connects each ACQUITY module to the switch on the rear of the Sample Manager.
4. Connect an Ethernet cable from the Sample Manager switch to the desired network card on the acquisition PC.
5. Use the default IP Address.

   Note:

   To set the alternate ACQUITY IP Address through Waters DHCP Server Configuration:

   a. Navigate to C:\Program Files (x86)\Waters Instruments\Waters DHCP Server Configuration and open the application.

   b. Select **Server > Configuration Wizard** from the toolbar.

   c. Select the appropriate network connection for the Ethernet port being used and click **Next**.

   d. Select the desired IP address. Click **Next**.

   e. Click **Finish** in the wizard and restart the PC.
6. After the PC restarts, power-on all ACQUITY modules, beginning with the Sample Manager.
7. Verify that the left-hand LED on each ACQUITY module is steady green.
8. Verify that the right-hand LED on each ACQUITY module is either steady or blinking green.
9. Navigate to DHCP, and then verify the configured instrument modules.

Notes:

- The instrument LAN should be assigned to a different subnet than the corporate LAN (if it exists).
- Blinking LEDs indicate normal initialization/warm-up time. Times vary based on the model.
- An initially red LED is normal on optical detectors until the lamp lights, at which time the LED blinks green during warm-up, and then eventually turns steady green.

8.10 Installing Waters Support Layer for Agilent CDS

Install the Driver Pack and the Support Layer first on the AIC, and then on the Client PC.

To install Waters Support Layer for Agilent CDS in Workstation, AIC, and Client PC:

1. Confirm the successful installation of the Agilent OpenLab software and Waters DP 2022 R1 (Analytical or Microscale).
2. Insert the media that has the Waters Support Layer for Agilent CDS installer.
3. Open the disk and copy all the files to the local system where Agilent OpenLab CDS software is installed.
4. Run the msi file based on the desired system language and follow the wizard options.
   Note: On the Destination folder page, click **Next** to install to the default folder. Do NOT change the default path.
5. Waters Support Layer for Agilent CDS driver should be located under "Control Panel\Programs\Programs and Features".

Notes:

- For English use the WatersSupportLayerforAgilentCDS_en-us msi file.
- For Japanese use the WatersSupportLayerforAgilentCDS_ja-jp msi file.
- For Chinese use the WatersSupportLayerforAgilentCDS_zh-cn msi file.

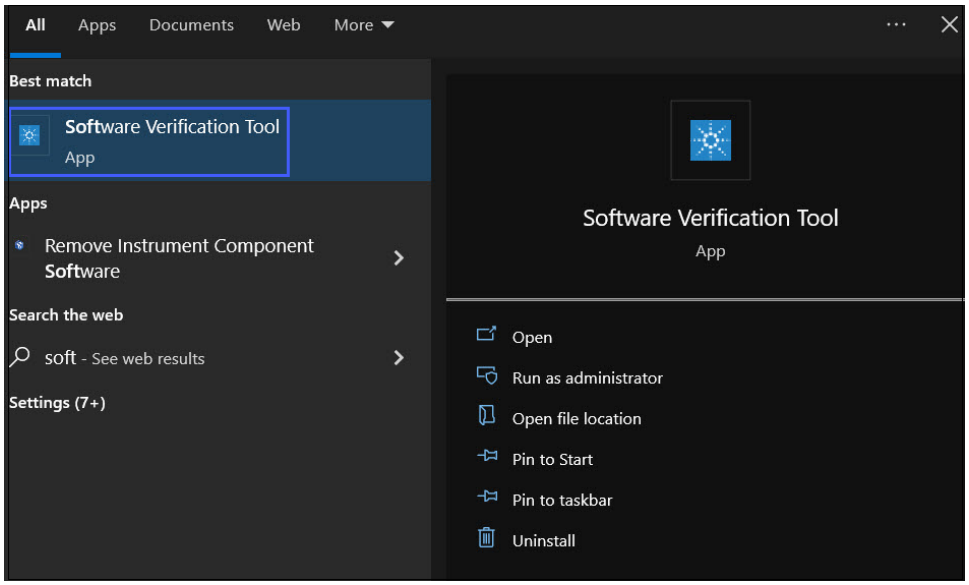
8.11 SVT report generation to verify the installation of Waters Support Layer for Agilent CDS

After the installation of the Waters Support Layer for Agilent CDS, you must run the SVT report.

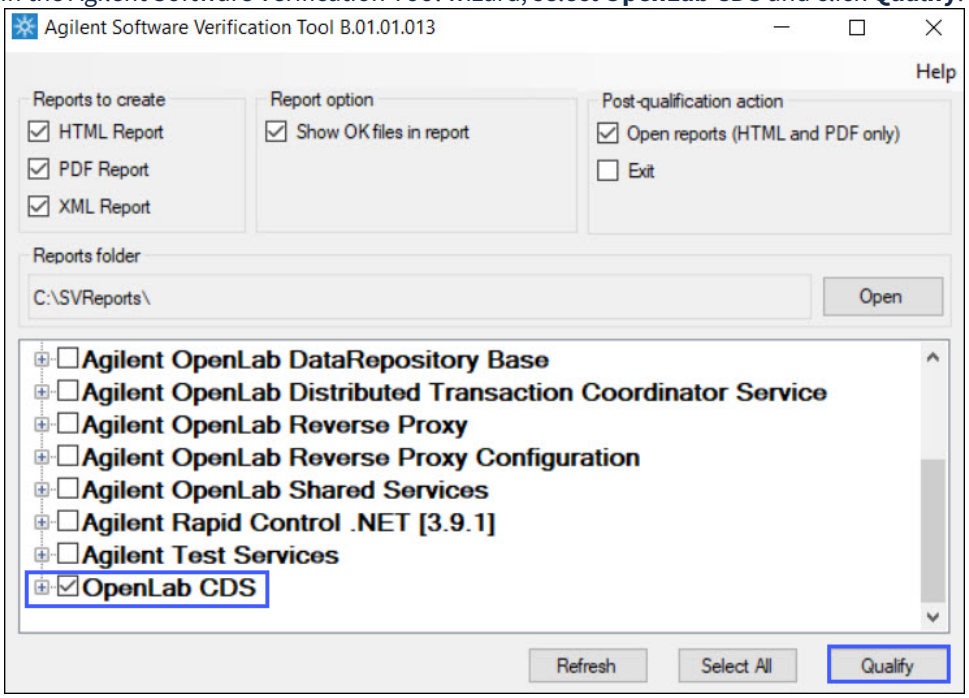
8.11.1 SVT report generation in OpenLab CDS

To generate the Software Validation Test report in OpenLab CDS:

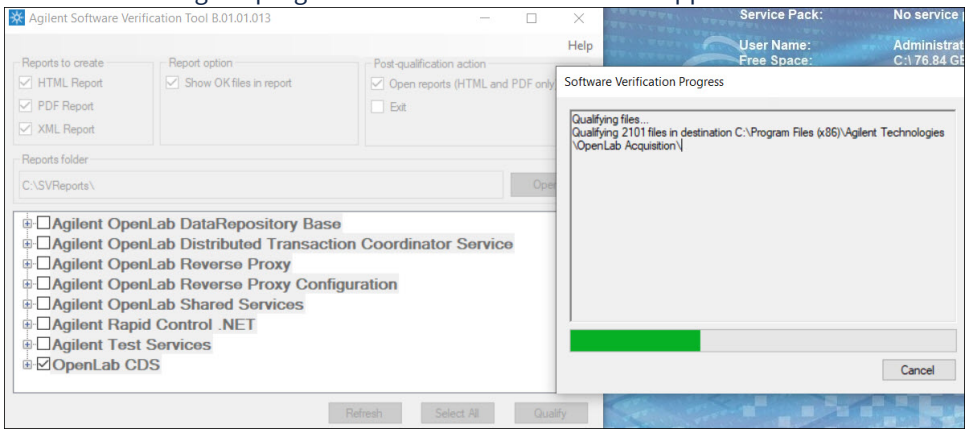
1. Launch the Software Verification Tool.



2. In the Agilent Software Verification Tool wizard, select **OpenLab CDS** and click **Qualify**.

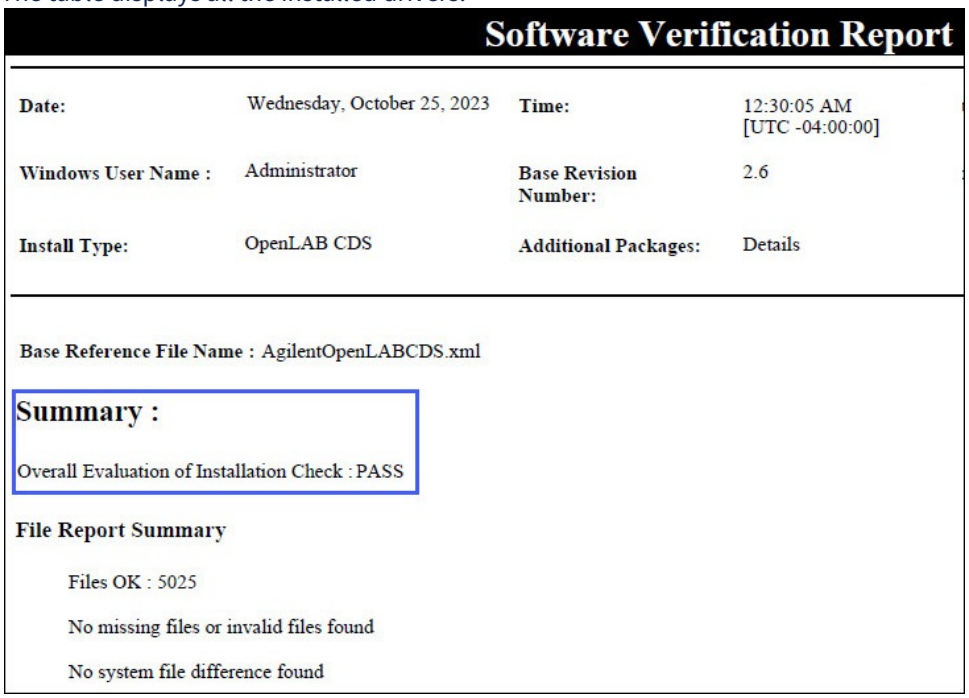


3. A window showing the progress of the software verification appears.



4. The Software Verification Report is displayed after the software verification is complete.
5. In the Software Verification Report, the Overall Evaluation of Installation Check must show **PASS**.

6. The table displays all the installed drivers.



Software Verification Report

Date:	Wednesday, October 25, 2023	**Time:**	12:30:05 AM [UTC -04:00:00]
Windows User Name :	Administrator	**Base Revision Number:**	2.6
Install Type:	OpenLAB CDS	**Additional Packages:**	Details

Base Reference File Name : AgilentOpenLABCDS.xml

Summary :

Overall Evaluation of Installation Check : PASS

File Report Summary

Files OK : 5025

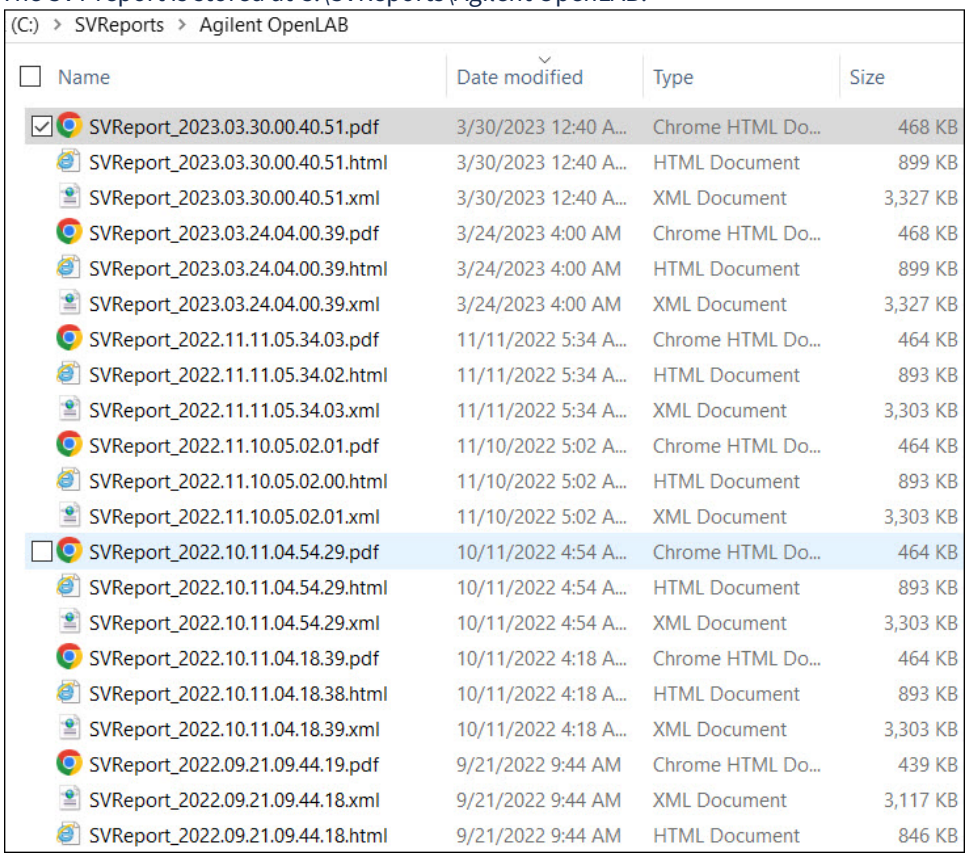
No missing files or invalid files found

No system file difference found

Details

ID	Description
55	Agilent OpenLab Data Analysis 2.207.0.801
69	Agilent OpenLAB DataStore Sequence Writer for ChemStation A.1.013 [0]
71	Agilent OpenLAB CDS - Agilent 35900 AtoD 2.3 [53]
72	Agilent OpenLab CDS - Agilent GC 3.7 [189]
73	Agilent OpenLab CDS - Agilent LC 3.4.66
10010	Agilent OpenLab CDS - Agilent Data Player 2.4.4
10016	Agilent OpenLab CDS - Agilent SS420x 1.2.0.51
10018	Agilent OpenLab CDS - Agilent LC/MS 2.5.8
10019	Agilent OpenLab CDS - Agilent GC/MS 1.4.24
10031	Agilent OpenLab CDS - Agilent eMethod Tool 1.0.26
10300	Agilent OpenLab CDS Plugin 2.7.0.683
10537	Waters Support Layer for Agilent CDS 3.0.0.22

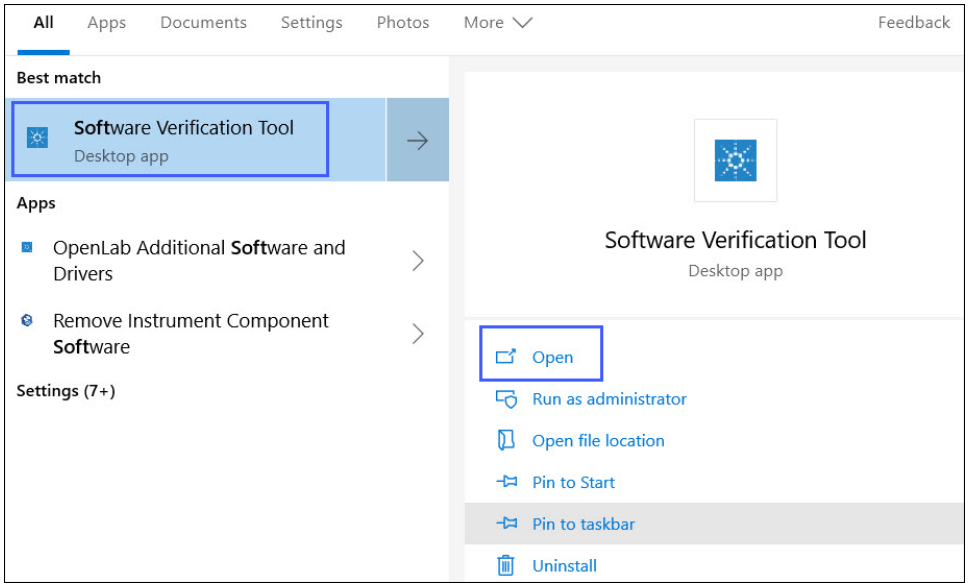
7. The SVT report is stored at C:\SVReports\Agilent OpenLAB.



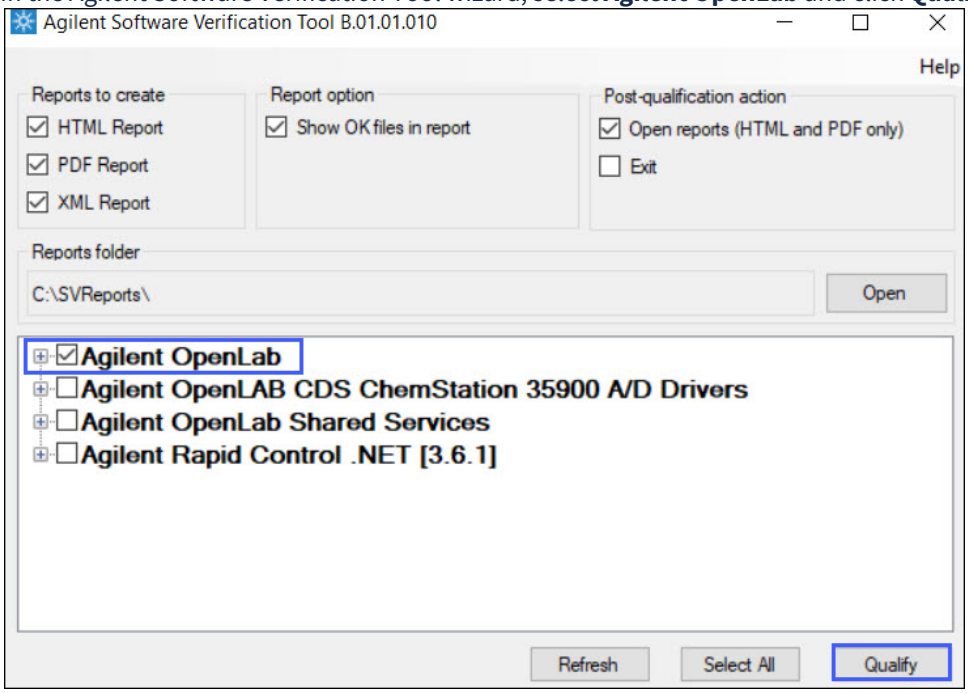
8.11.2 SVT report generation in OpenLab ChemStation

To generate the Software Validation Test report in OpenLab ChemStation:

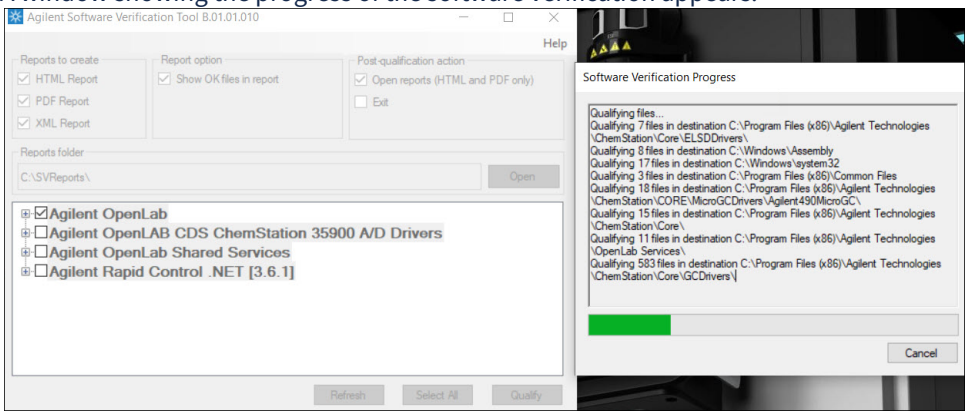
1. Launch the Software Verification Tool.



2. In the Agilent Software Verification Tool wizard, select **Agilent OpenLab** and click **Qualify**.

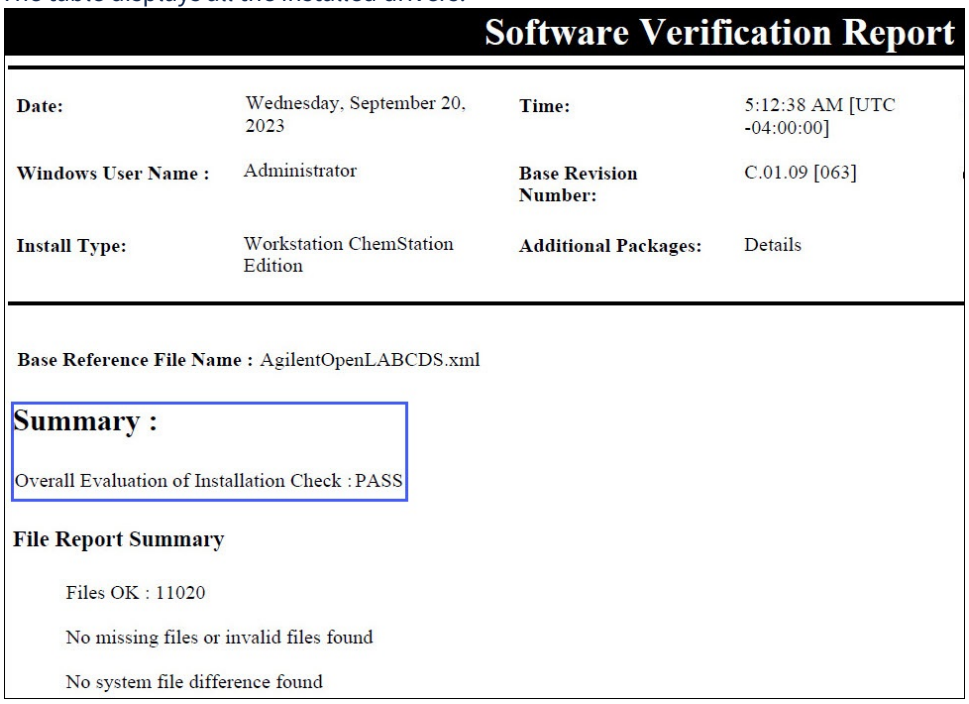


3. A window showing the progress of the software verification appears.



4. The Software Verification Report is displayed after the software verification is complete.
5. In the Software Verification Report, the Overall Evaluation of Installation Check must show **PASS**.

6. The table displays all the installed drivers.



Software Verification Report

Date:	Wednesday, September 20, 2023	**Time:**	5:12:38 AM [UTC -04:00:00]
Windows User Name :	Administrator	**Base Revision Number:**	C.01.09 [063]
Install Type:	Workstation ChemStation Edition	**Additional Packages:**	Details

Base Reference File Name : AgilentOpenLABCDS.xml

Summary :

Overall Evaluation of Installation Check : PASS

File Report Summary

Files OK : 11020

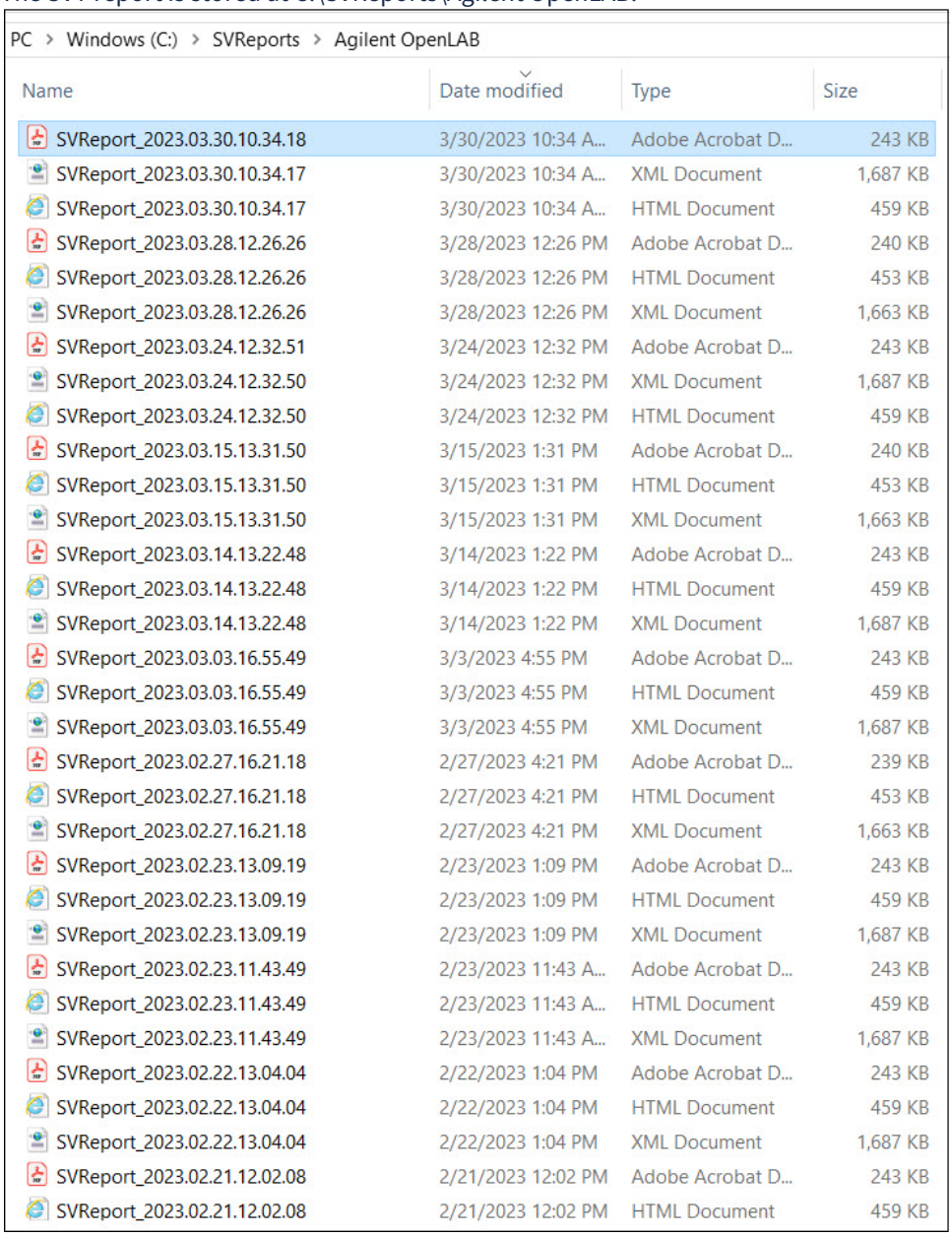
No missing files or invalid files found

No system file difference found

Details

ID	Description
66	Agilent OpenLab CDS ChemStation ELSD Drivers 1.8 [33]
69	Agilent OpenLab Data Provider for ChemStation A.1.018 [0]
95	Agilent OpenLab CDS ChemStation Micro GC Drivers 2.1.3.0
96	Agilent OpenLab ControlPanel ChemStation Plugin A.01.10 [017]
97	Agilent OpenLab CDS ChemStation GC Drivers 3.3 [65]
98	Agilent OpenLab CDS ChemStation LC and CE Drivers 3.2.23
99	Agilent OpenLab CDS ChemStation Edition C.01.10 [322]
10537	Waters Support Layer for Agilent CDS 3.0.0.22

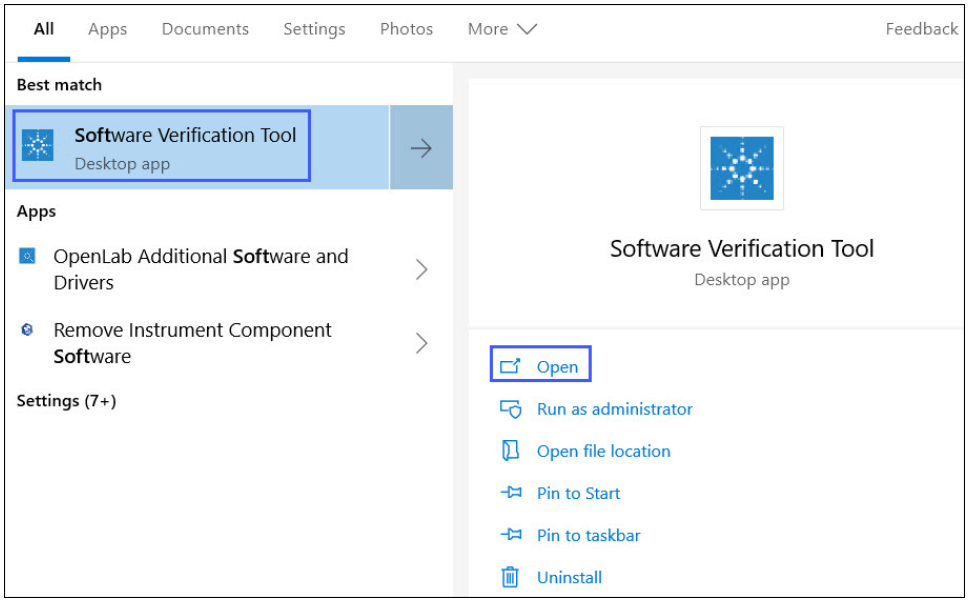
7. The SVT report is stored at C:\SVReports\Agilent OpenLAB.



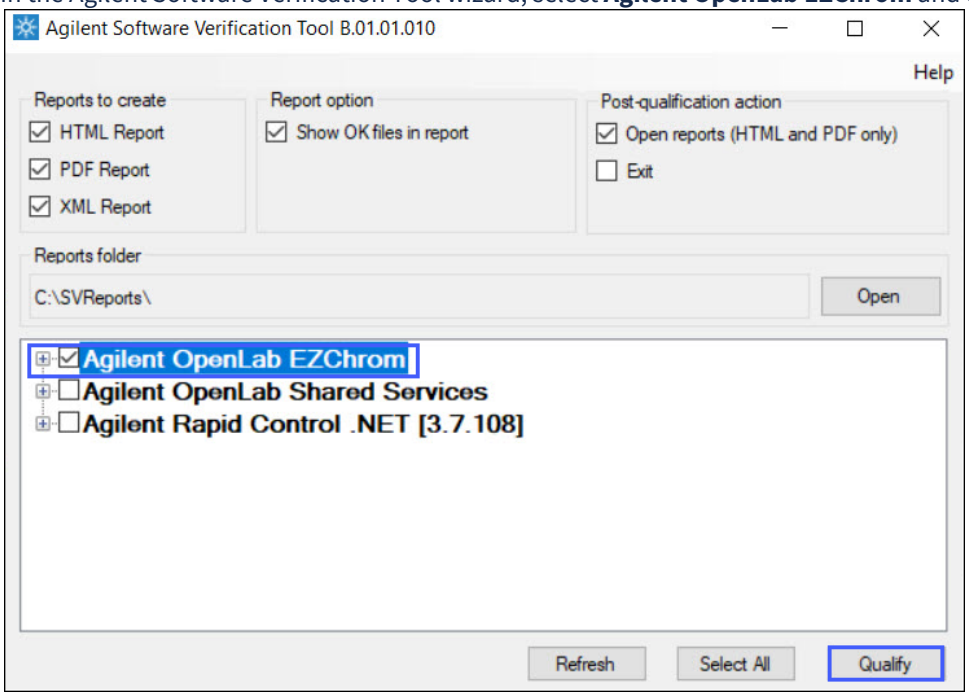
8.11.3 SVT report generation in OpenLab EZChrom

To generate the Software Validation Test report in OpenLab EZChrom:

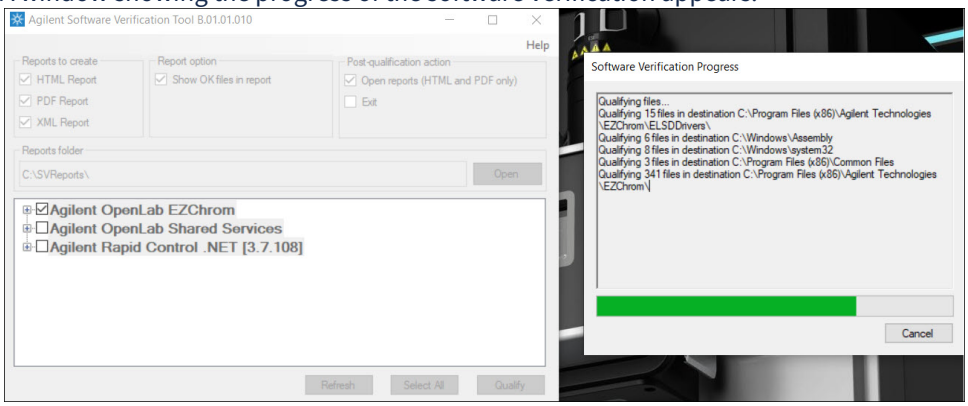
1. Launch the Software Verification Tool.



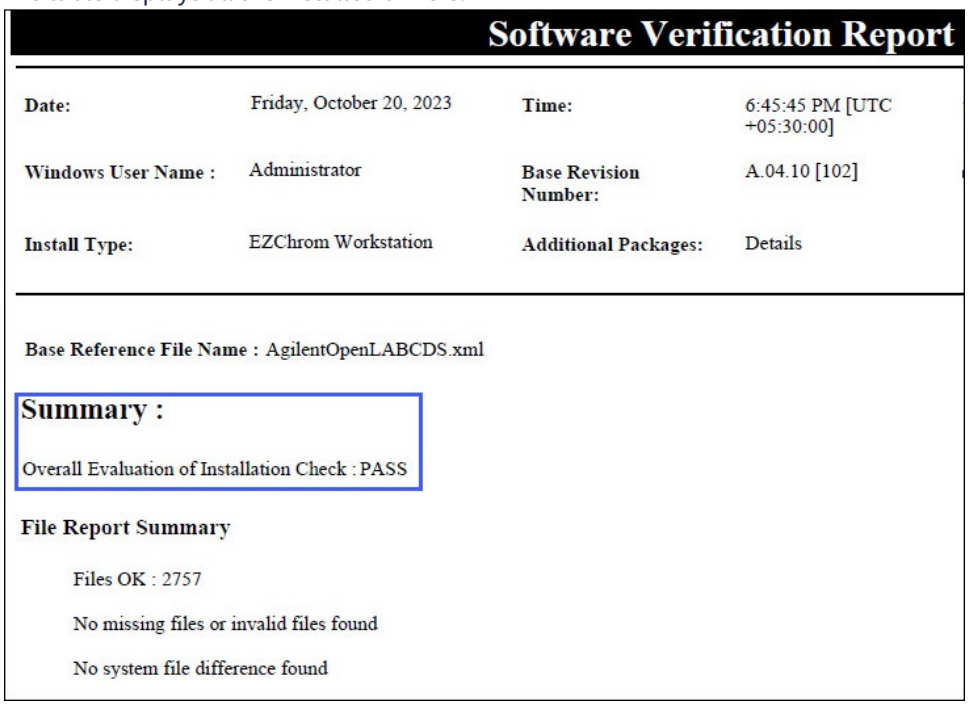
2. In the Agilent Software Verification Tool wizard, select **Agilent OpenLab EZChrom** and click **Qualify**.



3. A window showing the progress of the software verification appears.



4. The Software Verification Report is displayed after the software verification is complete.
5. In the Software Verification Report, the Overall Evaluation of Installation Check must show **PASS**.
6. The table displays all the installed drivers.



Software Verification Report

Date:	Friday, October 20, 2023	**Time:**	6:45:45 PM [UTC +05:30:00]
Windows User Name :	Administrator	**Base Revision Number:**	A.04.10 [102]
Install Type:	EZChrom Workstation	**Additional Packages:**	Details

Base Reference File Name : AgilentOpenLABCDS.xml

Summary :

Overall Evaluation of Installation Check : PASS

File Report Summary

Files OK : 2757

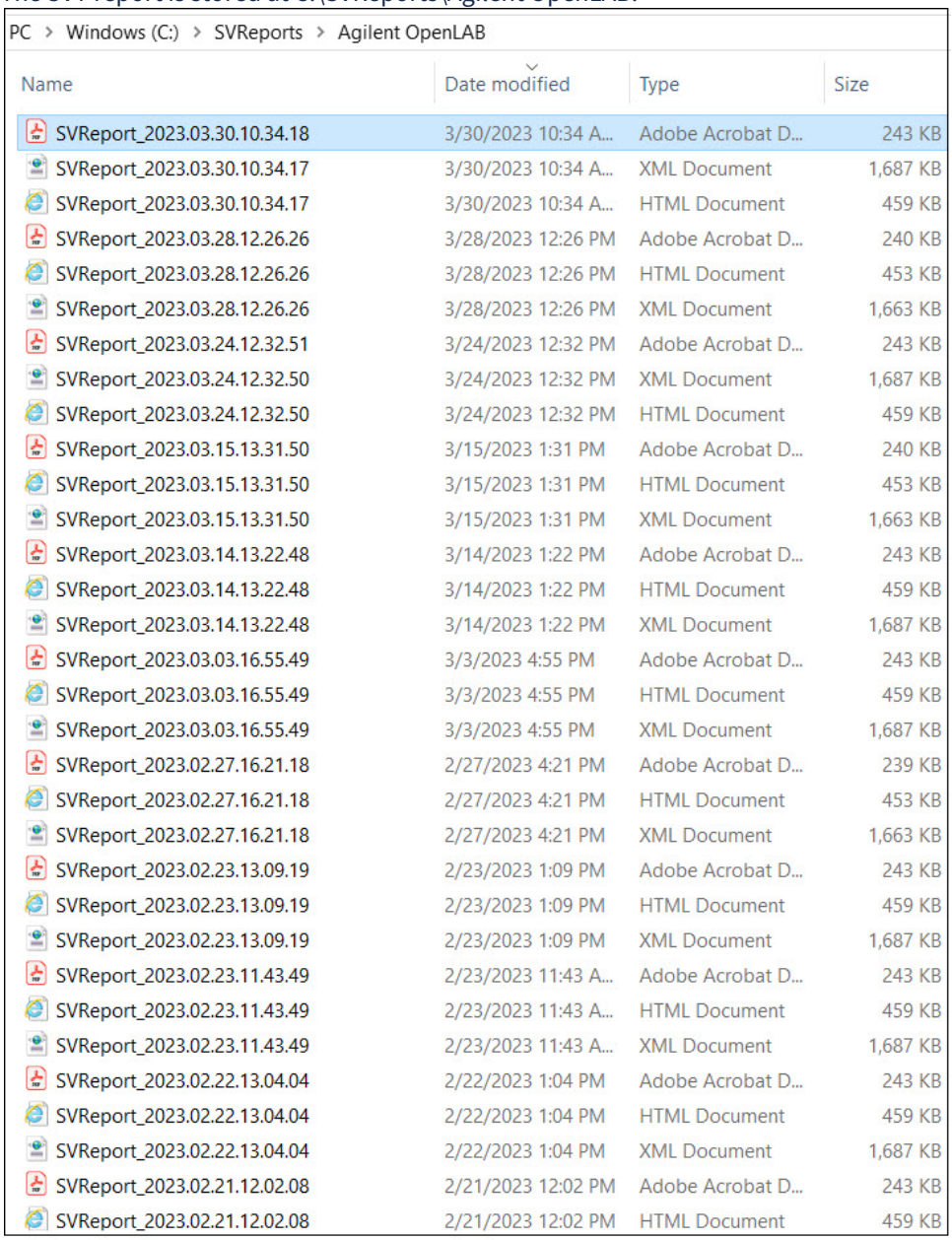
No missing files or invalid files found

No system file difference found

Details

ID	Description
66	Agilent OpenLab CDS EZChrom ELSD Drivers 1.8 [33]
71	Agilent OpenLAB CDS EZChrom Edition - Agilent 35900 AtoD Drivers 2.3 [53]
72	Agilent OpenLab CDS EZChrom Edition - Agilent GC 3.3 [65]
73	Agilent OpenLAB CDS EZChrom Edition - Agilent LC 2.19.20
88	Agilent OpenLab EZChrom A.04.10[32]
95	Agilent OpenLab CDS EZChrom Edition - Micro GC Drivers 2.2.7.0
10537	Waters Support Layer for Agilent CDS 3.0.0.22
1	CDSEE0410Update01 1.1.0.0
2	CDSEE0410Update02 1.1.0.0
3	CDSEE0410Update03 1.1.0.0

7. The SVT report is stored at C:\SVReports\Agilent OpenLAB.



Name	Date modified	Type	Size
SVReport_2023.03.30.10.34.18	3/30/2023 10:34 A...	Adobe Acrobat D...	243 KB
SVReport_2023.03.30.10.34.17	3/30/2023 10:34 A...	XML Document	1,687 KB
SVReport_2023.03.30.10.34.17	3/30/2023 10:34 A...	HTML Document	459 KB
SVReport_2023.03.28.12.26.26	3/28/2023 12:26 PM	Adobe Acrobat D...	240 KB
SVReport_2023.03.28.12.26.26	3/28/2023 12:26 PM	HTML Document	453 KB
SVReport_2023.03.28.12.26.26	3/28/2023 12:26 PM	XML Document	1,663 KB
SVReport_2023.03.24.12.32.51	3/24/2023 12:32 PM	Adobe Acrobat D...	243 KB
SVReport_2023.03.24.12.32.50	3/24/2023 12:32 PM	XML Document	1,687 KB
SVReport_2023.03.24.12.32.50	3/24/2023 12:32 PM	HTML Document	459 KB
SVReport_2023.03.15.13.31.50	3/15/2023 1:31 PM	Adobe Acrobat D...	240 KB
SVReport_2023.03.15.13.31.50	3/15/2023 1:31 PM	HTML Document	453 KB
SVReport_2023.03.15.13.31.50	3/15/2023 1:31 PM	XML Document	1,663 KB
SVReport_2023.03.14.13.22.48	3/14/2023 1:22 PM	Adobe Acrobat D...	243 KB
SVReport_2023.03.14.13.22.48	3/14/2023 1:22 PM	HTML Document	459 KB
SVReport_2023.03.14.13.22.48	3/14/2023 1:22 PM	XML Document	1,687 KB
SVReport_2023.03.03.16.55.49	3/3/2023 4:55 PM	Adobe Acrobat D...	243 KB
SVReport_2023.03.03.16.55.49	3/3/2023 4:55 PM	HTML Document	459 KB
SVReport_2023.03.03.16.55.49	3/3/2023 4:55 PM	XML Document	1,687 KB
SVReport_2023.02.27.16.21.18	2/27/2023 4:21 PM	Adobe Acrobat D...	239 KB
SVReport_2023.02.27.16.21.18	2/27/2023 4:21 PM	HTML Document	453 KB
SVReport_2023.02.27.16.21.18	2/27/2023 4:21 PM	XML Document	1,663 KB
SVReport_2023.02.23.13.09.19	2/23/2023 1:09 PM	Adobe Acrobat D...	243 KB
SVReport_2023.02.23.13.09.19	2/23/2023 1:09 PM	HTML Document	459 KB
SVReport_2023.02.23.13.09.19	2/23/2023 1:09 PM	XML Document	1,687 KB
SVReport_2023.02.23.11.43.49	2/23/2023 11:43 A...	Adobe Acrobat D...	243 KB
SVReport_2023.02.23.11.43.49	2/23/2023 11:43 A...	HTML Document	459 KB
SVReport_2023.02.23.11.43.49	2/23/2023 11:43 A...	XML Document	1,687 KB
SVReport_2023.02.22.13.04.04	2/22/2023 1:04 PM	Adobe Acrobat D...	243 KB
SVReport_2023.02.22.13.04.04	2/22/2023 1:04 PM	HTML Document	459 KB
SVReport_2023.02.22.13.04.04	2/22/2023 1:04 PM	XML Document	1,687 KB
SVReport_2023.02.21.12.02.08	2/21/2023 12:02 PM	Adobe Acrobat D...	243 KB
SVReport_2023.02.21.12.02.08	2/21/2023 12:02 PM	HTML Document	459 KB

Note: If the SVT report status displays **Failed**, then look for the files that have been changed and then reinstall the respective installer.

8.11.4 Powering-on the instrument devices in the ACQUITY System

Power-on modules in the following order:

1. Sample Manager
2. Sample Organizer, if present
3. Solvent Manager
4. Column Manager

5. Optional detectors, if present
   Note: Ensure that the flow cells have mobile phase flowing through them before powering-on the detectors.

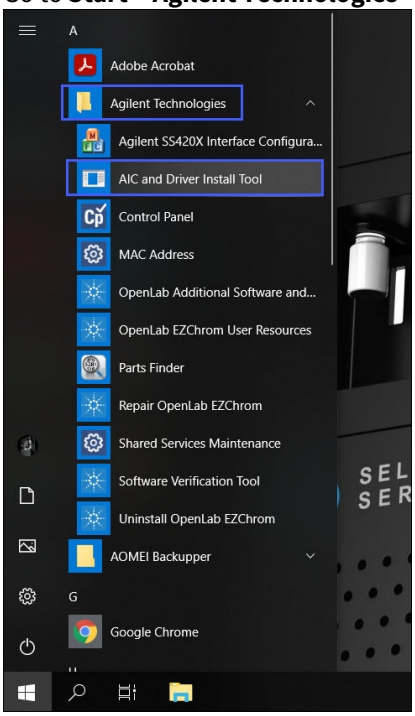
8.12 Driver registration

After the Waters Support Layer for Agilent CDS installation is complete, you must register the driver with the Agilent CDS.

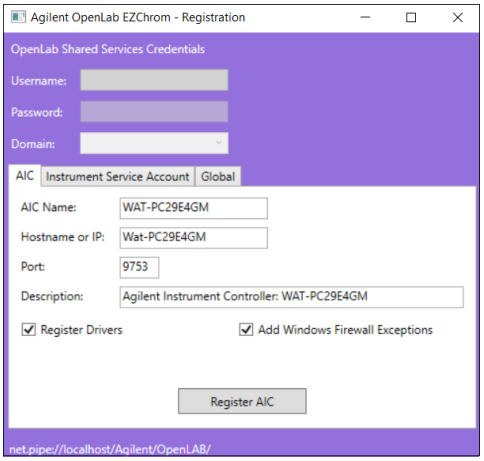
8.12.1 Driver registration in OpenLab EZChrom

To register the driver in OpenLab EZChrom:

1. Go to **Start > Agilent Technologies > AIC and Driver Install Tool**.

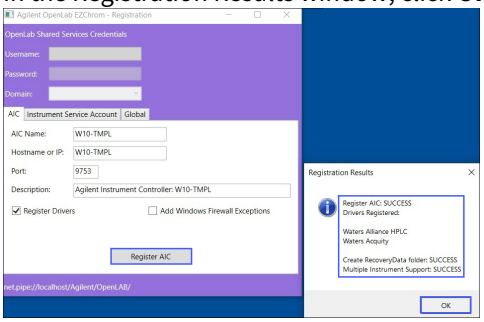


2. The Agilent OpenLab EZChrom - Registration window appears.



Note: If you have one or several Workstations, you must register the driver for each Workstation. In a Client/ Server environment, it is sufficient to register the driver on only one AIC.

3. Add the required details and click **Register AIC**.
4. In the Registration Results window, click **OK**.

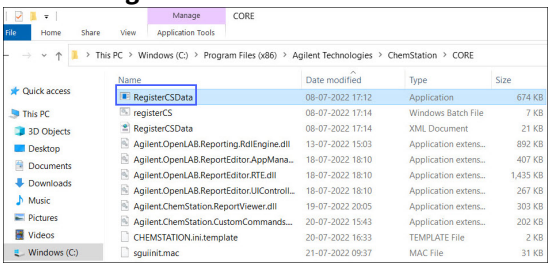


The driver registration is successful.

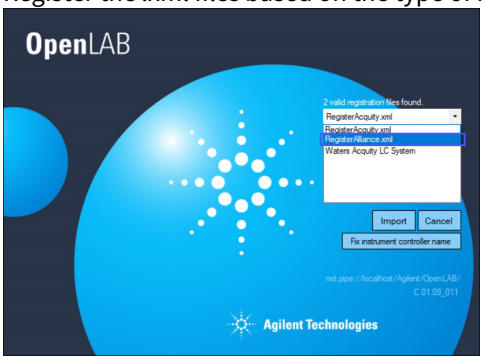
8.12.2 Driver registration in OpenLab ChemStation

To register the driver in OpenLab ChemStation:

1. Navigate to C:\Program Files (x86)\Agilent Technologies\ChemStation\CORE.
2. Run the **RegisterCSData.exe**.

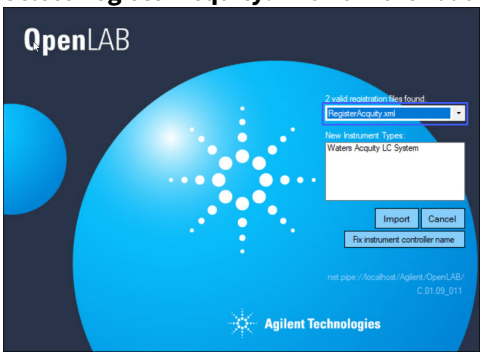


3. Register the .xml files based on the type of instrument (ACQUITY or Alliance).



4. Click **Import > OK**.

5. Select **RegisterAcquity.xml** from the valid registration files drop-down list.



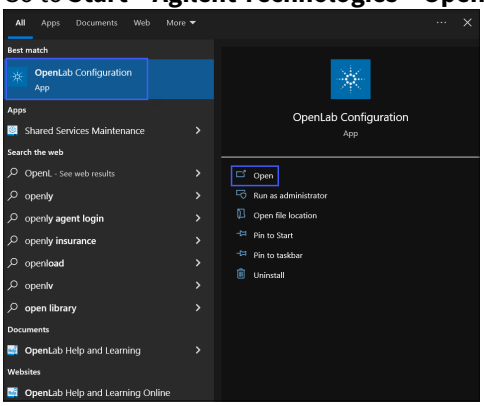
6. Click **Import > OK**.

The driver registration is successful.

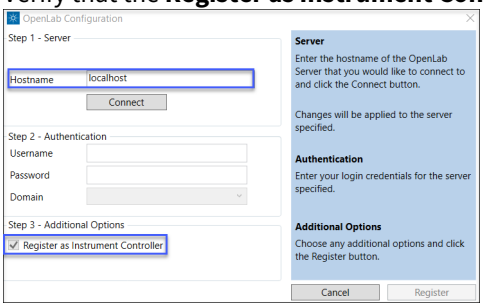
8.12.3 Driver registration in OpenLab CDS (Standalone Workstation)

To register the driver in OpenLab CDS (Standalone Workstation):

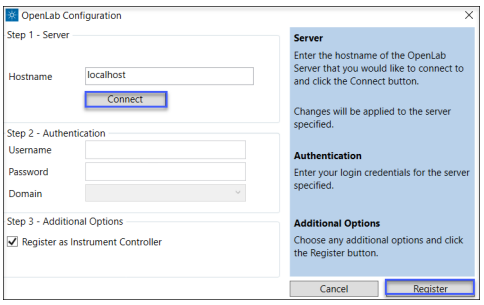
1. Go to **Start > Agilent Technologies > OpenLab Configuration**.



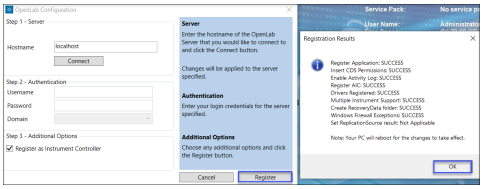
2. The registration window appears.
3. Specify the Hostname as **localhost**.
4. Verify that the **Register as Instrument Controller** check box is selected.



5. Click **Connect** to enable the **Register** button.



6. Click **Register**.
7. Click **OK**.

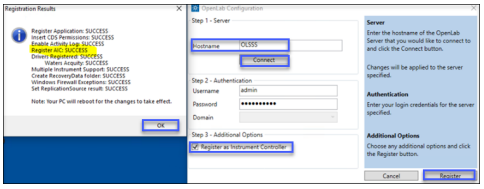


The system will reboot. The driver registration is successful.

8.12.4 Driver registration in Client/Server environment

To register the driver in AIC:

1. In the registration window, ensure that the Hostname is the machine name of the server.
2. Specify the Username, Password, and Domain if needed.
3. Verify that the **Register as Instrument Controller** check box is selected.
4. Click **Connect** to enable the **Register** button.
5. Click **Register**.
6. Click **OK**.



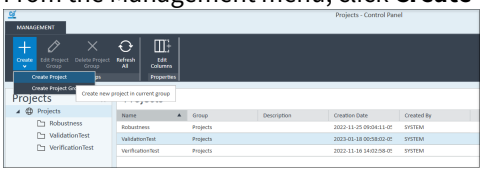
Note: Ensure that the time clock is set same for Client, AIC, and Server.

8.13 Instrument device configuration

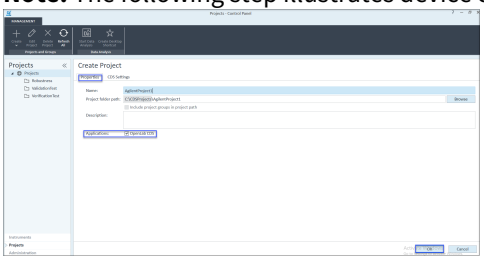
To acquire data, the devices are first configured in the Agilent OpenLab software.

1. Ensure that the Waters LC device is switched on and ready to connect.
2. Launch the OpenLab Control Panel.
   a. Double-click the Control Panel icon on the Windows Desktop or go to **Start > All Programs > Agilent Technologies > Control Panel**.
3. Log in using your user credentials.

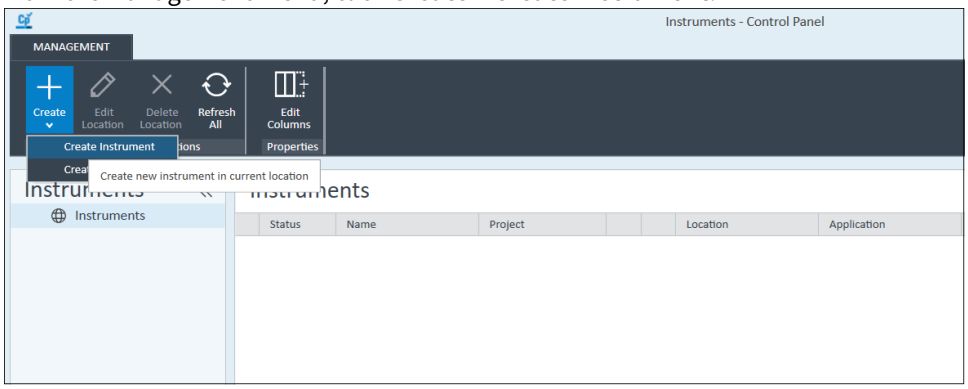
4. In the left-hand pane, click **Projects**.
5. From the Management menu, click **Create** > **Create Project** to create a project.



6. In the right-hand pane, select the **Properties** tab.
7. Specify a Name and a Project folder path.
8. In the Applications field, select the check box for the appropriate CDS, and then click **OK**.
   Note: The following step illustrates device configuration in OpenLab CDS.

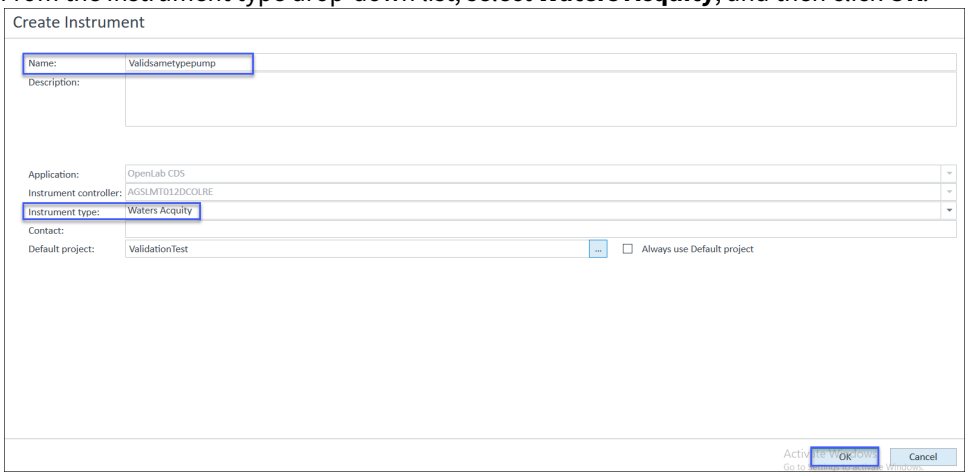


9. In the left-hand pane, click **Instruments**.
10. From the Management menu, click **Create** > **Create Instrument**.

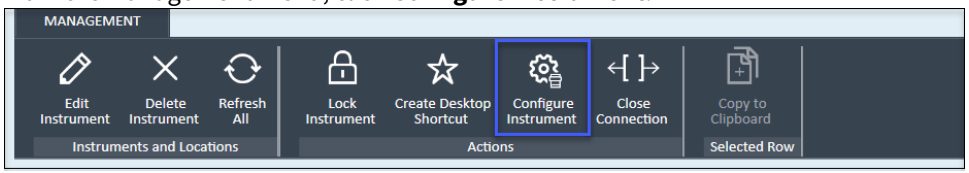


11. Specify the name of the instrument in the Name field.
12. Verify that the Instrument controller field contains the name of the host PC/AIC.
    Note: The Instrument controller field for Standalone workstation must display localhost, and for Client/Server it must display the AIC name.

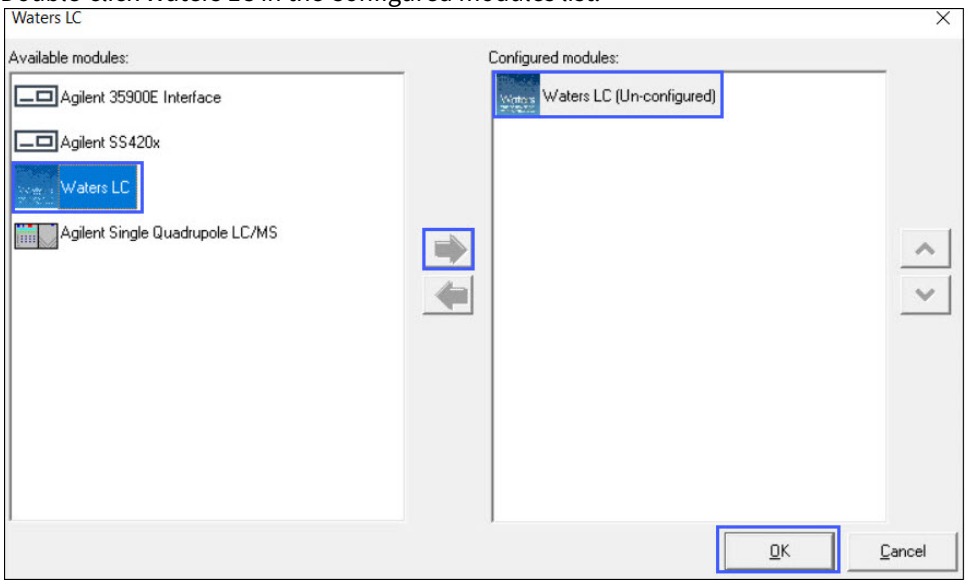
13. From the Instrument type drop-down list, select **Waters Acquity**, and then click **OK**.



14. A new system name appears in the left-hand pane under Instruments.
15. From the Management menu, click **Configure Instrument**.

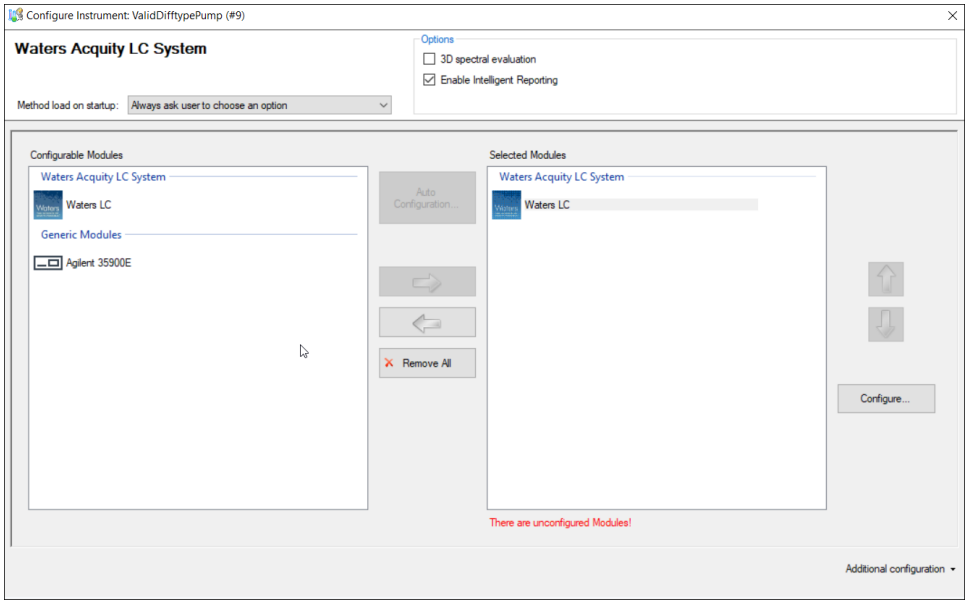


16. In the Configuration dialog box, select Waters LC from the list of Available modules.
17. Click the arrow to transfer the Waters LC to Configured modules.
18. Double-click Waters LC in the Configured modules list.

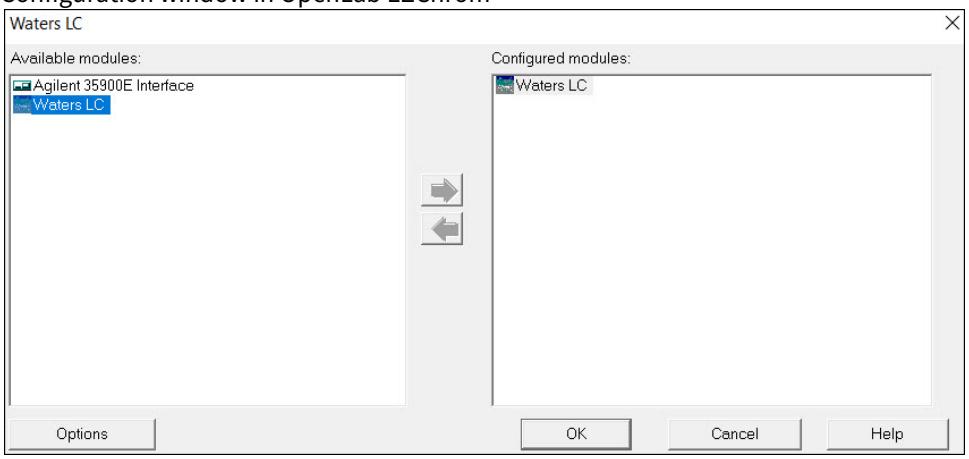


Note: The configuration window in OpenLab ChemStation and OpenLab EZChrom is shown below:

Configuration window in OpenLab ChemStation

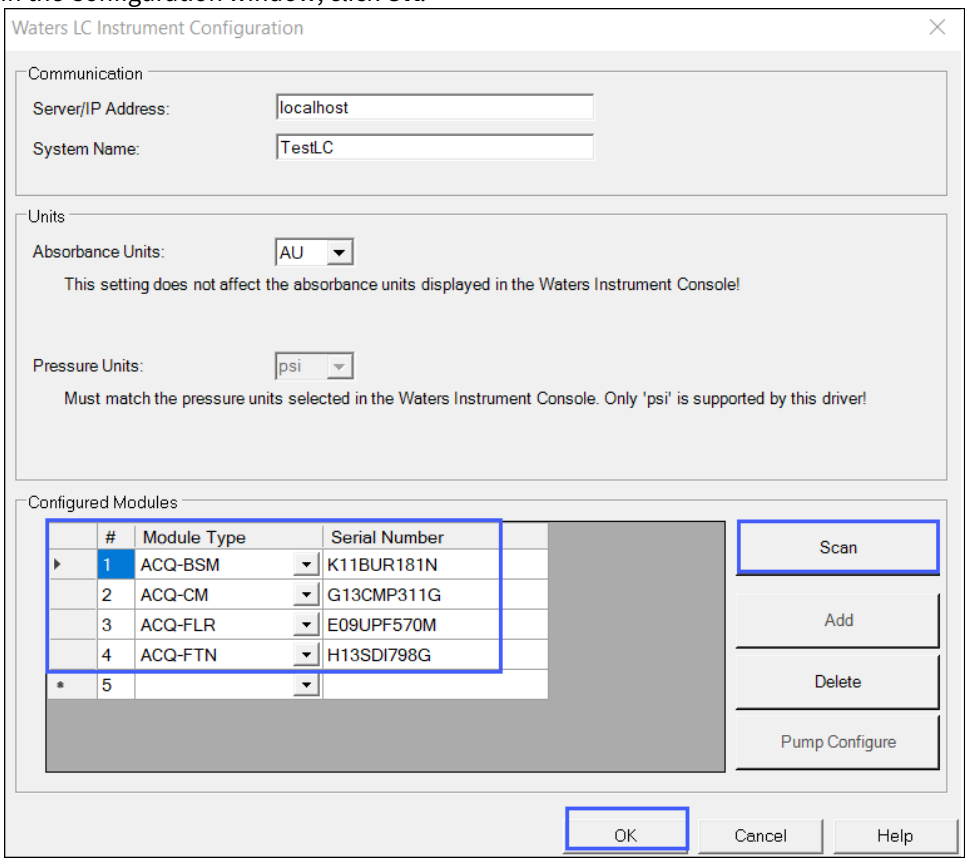


Configuration window in OpenLab EZChrom

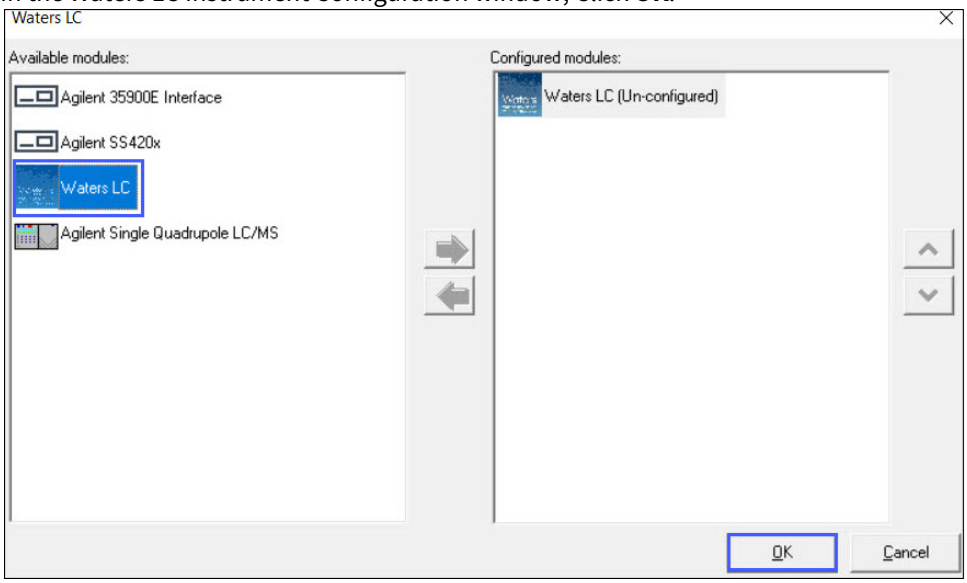


19. The Waters LC Instrument Configuration window appears.
20. In the Waters LC Instrument Configuration window, click **Scan** to view the connected instrument modules.
21. Select the required instruments and delete the remaining instruments.
22. Verify that the Waters LC settings match the settings configured at the connected Waters LC device.
23. In the Server/IP Address field, add a name.
    a. For Workstation, use localhost.
    b. For a Distributed System, use the computer name or IP address of the AIC.
24. Specify a name in the System Name field and click **OK**.
    Note: Specify a unique system name.

25. In the Configuration window, click **OK**.



26. In the Waters LC Instrument Configuration window, Click **OK**.



Notes:

- Reboot the PC after the configuration is complete.
- The Waters LC module and Agilent Single Quadrupole LC/MS combination is supported and can be configured together. Refer to the *Combining Waters LC with Agilent InfinityLab LC/MSD Quick Start Guide*.

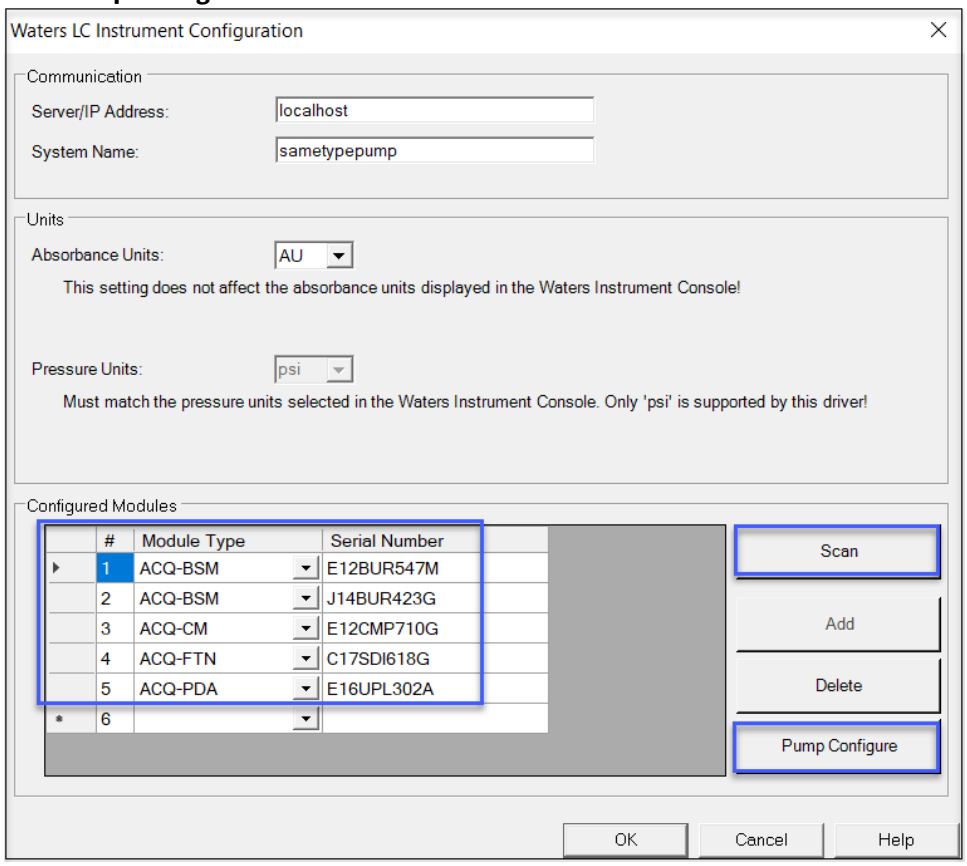
- When you launch an online LC System (for Waters ACQUITY from Waters) in the context of OpenLab CDS Client/Server for the first time, wait for at least one minute before using the system. The Client/Server system needs this time to load all configuration settings.
- You can configure multiple instrument systems if multiple instruments are available.

8.13.1 Configuring multiple Waters integrated systems

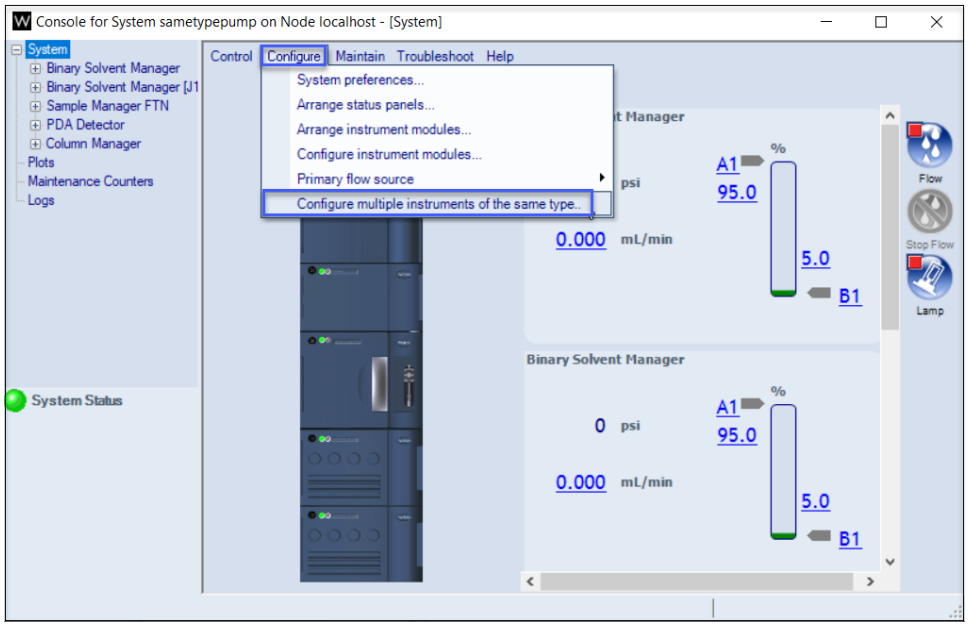
You can configure multiple pumps of the same type or of different types.

To configure multiple pumps of the same type, perform the *Instrument device configuration* steps (steps 1 through 20):

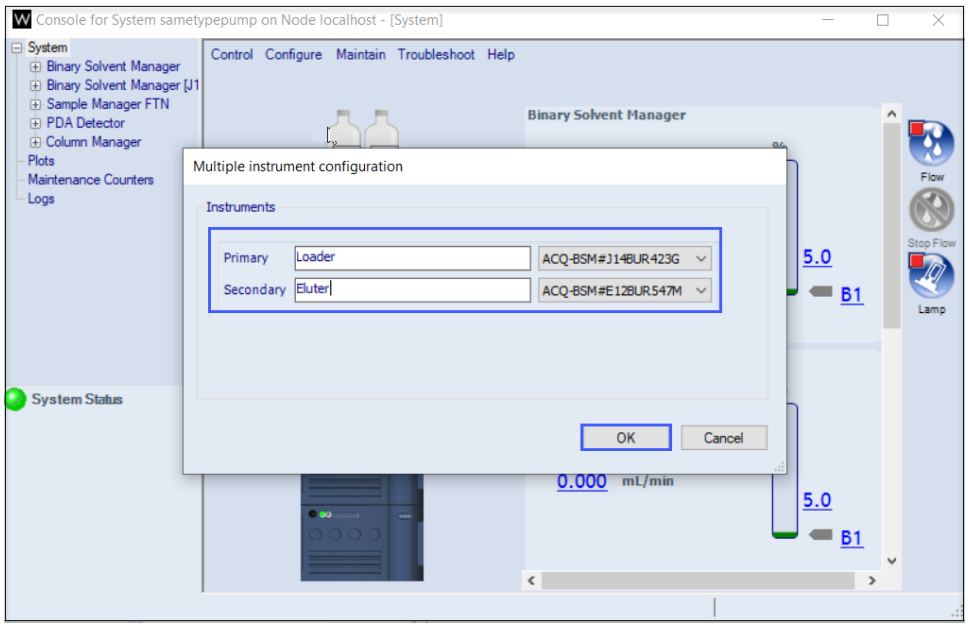
1. In the Waters LC Instrument Configuration window, multiple solvent managers of the same type, along with their serial numbers, are shown in the **Configured Modules** section.
2. Verify that Pump Configure is enabled.
3. Click **Pump Configure**.



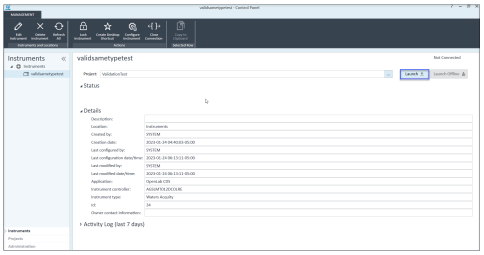
4. The ACQUITY Console opens.
5. Navigate to the System tree and in the right-pane, select **Configure > Configure multiple instruments of the same type**.



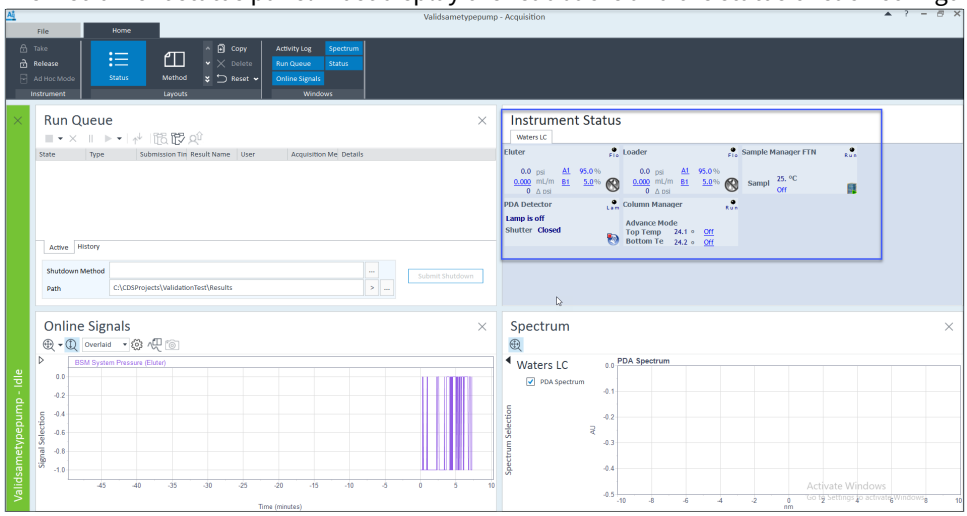
6. The Multiple instrument configuration window appears.
7. For the primary and the secondary instruments, specify the pump name and select the serial number from the drop-down list.
8. The drop-down list must display the serial numbers of the connected solvent managers.
9. Click **OK** to close the console.



10. Click **Launch** to launch the instrument system.

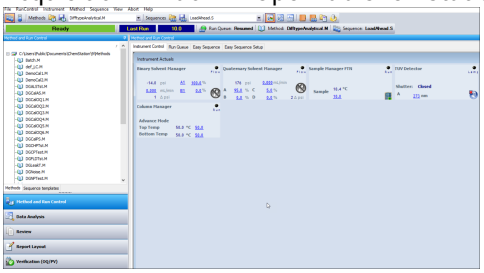


11. The instrument system launches successfully in the acquisition space and the status shows as idle without errors.
12. The instrument status panel must display the readbacks and the status of each configured instrument.

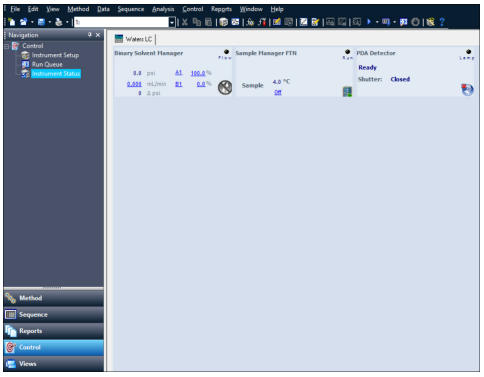


Note: The acquisition windows in OpenLab ChemStation and OpenLab EZChrom are shown below:

Acquisition window in OpenLab ChemStation



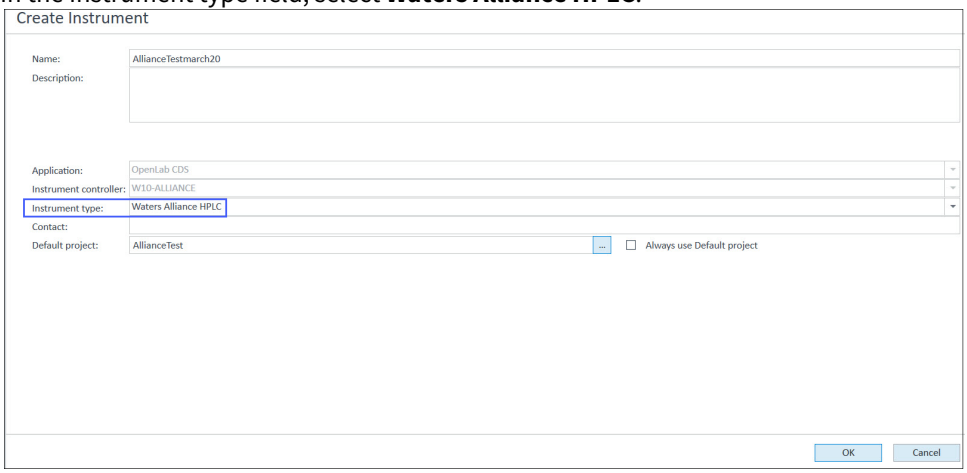
Acquisition window in OpenLab EZChrom



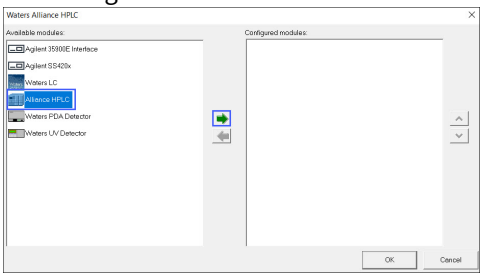
Note: To configure multiple pumps of different types, perform the steps in the section Instrument device configuration.

8.13.2 Instrument device configuration in Alliance HPLC

1. Create a new instrument in the OpenLab Control Panel.
2. In the Instrument type field, select **Waters Alliance HPLC**.



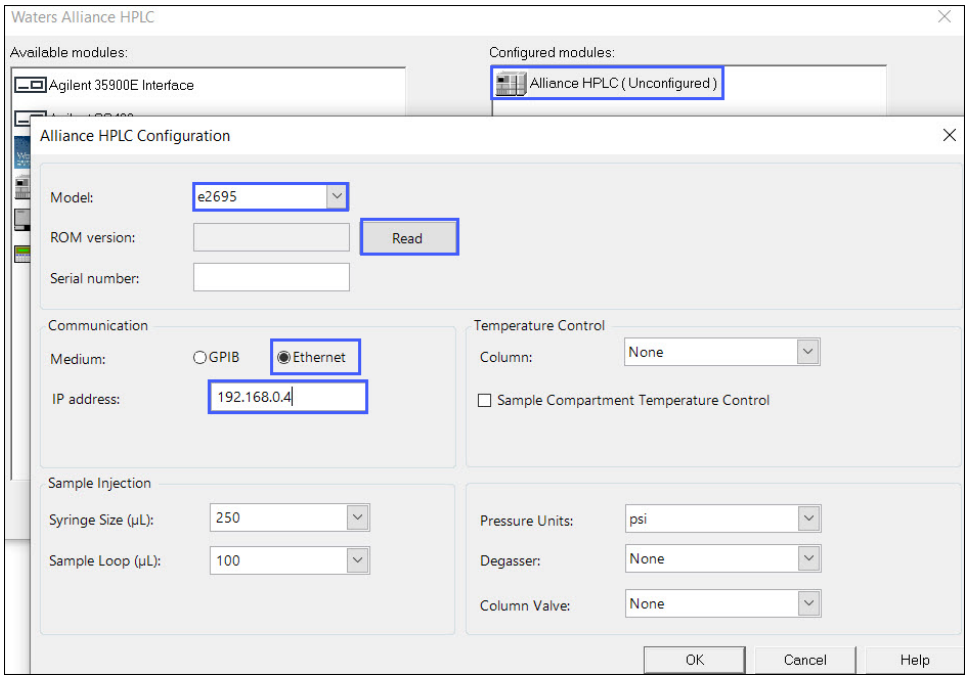
3. Click **Configure Instrument** to configure the Waters Alliance HPLC modules.
4. In the Configuration dialog box, select Alliance HPLC from the list of Available modules.
5. Click the green arrow to transfer the Alliance HPLC to Configured modules.



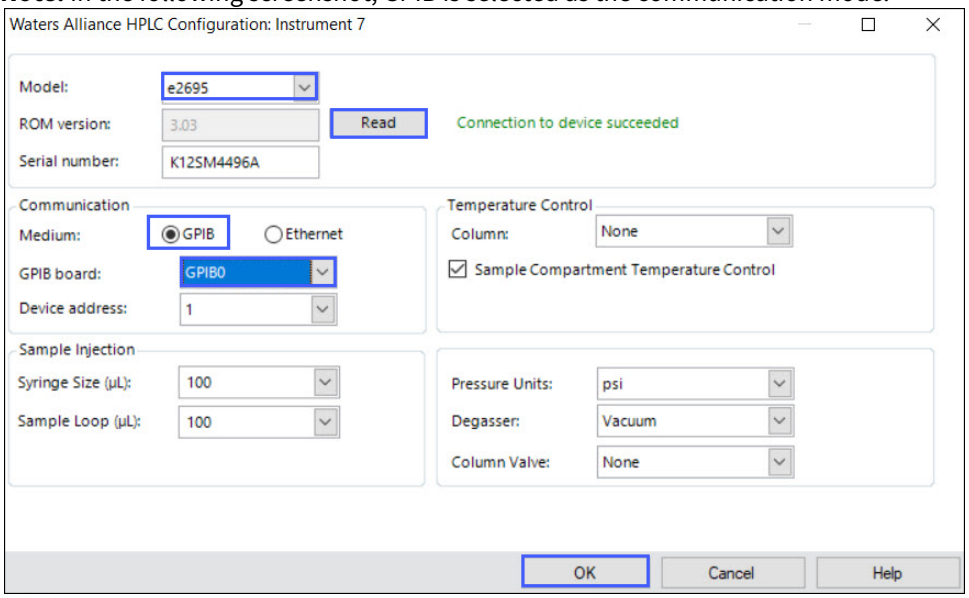
6. Double-click **Alliance HPLC** in the Configured modules list.
7. When using an e2695 Alliance instrument:
   a. Select the communication mode: GPIB or Ethernet.

b. Set up either the IP address or the GPIB board and the device address (depending on the communication mode) of the Alliance module for 2690/2695.

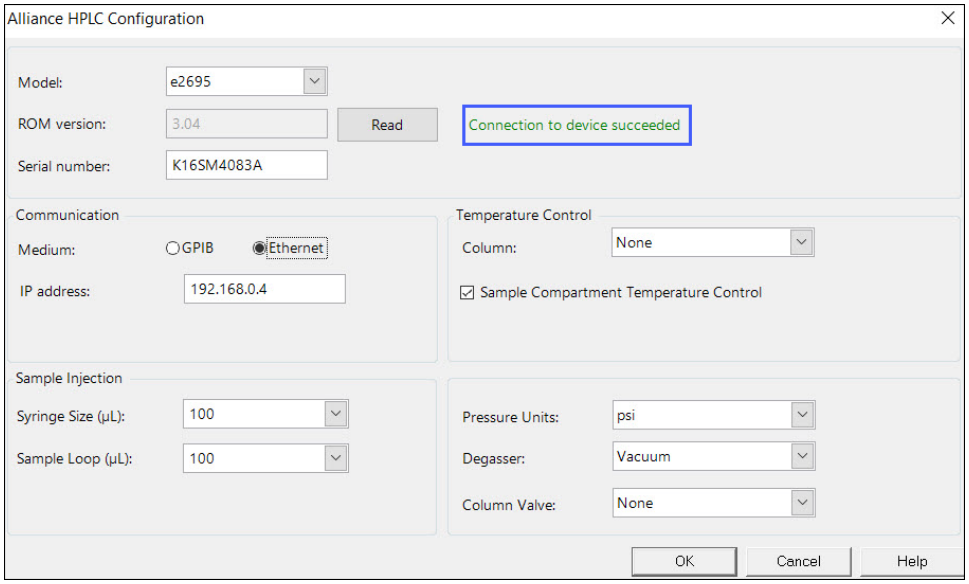
8. Click **Read**.



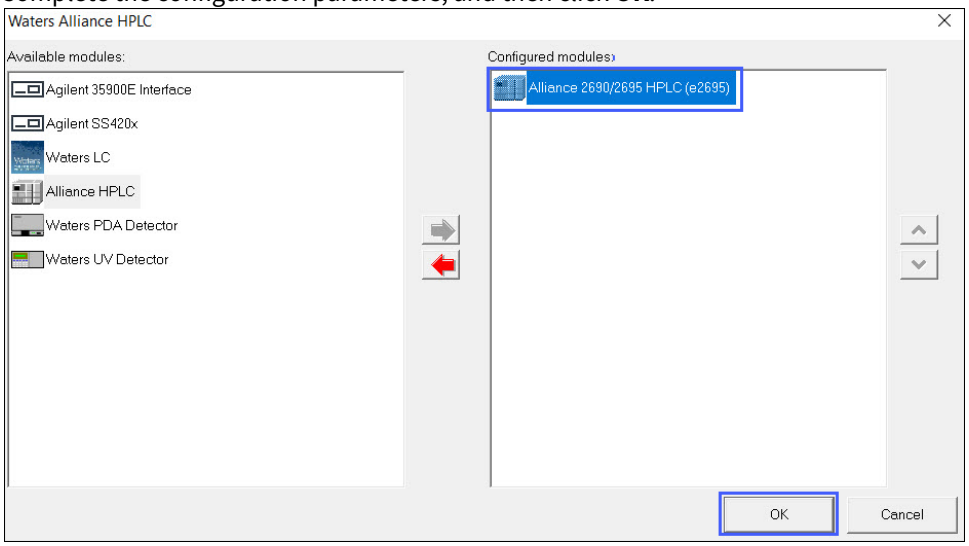
Note: In the following screenshot, GPIB is selected as the communication mode.



9. The message **Connection to device succeeded** appears when the module communicates properly with the driver.

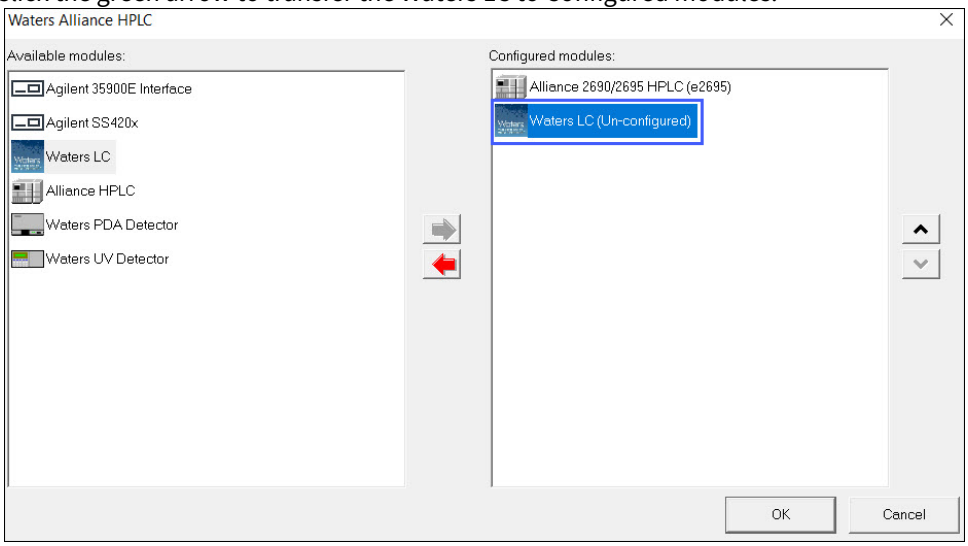


10. Complete the configuration parameters, and then click **OK**.



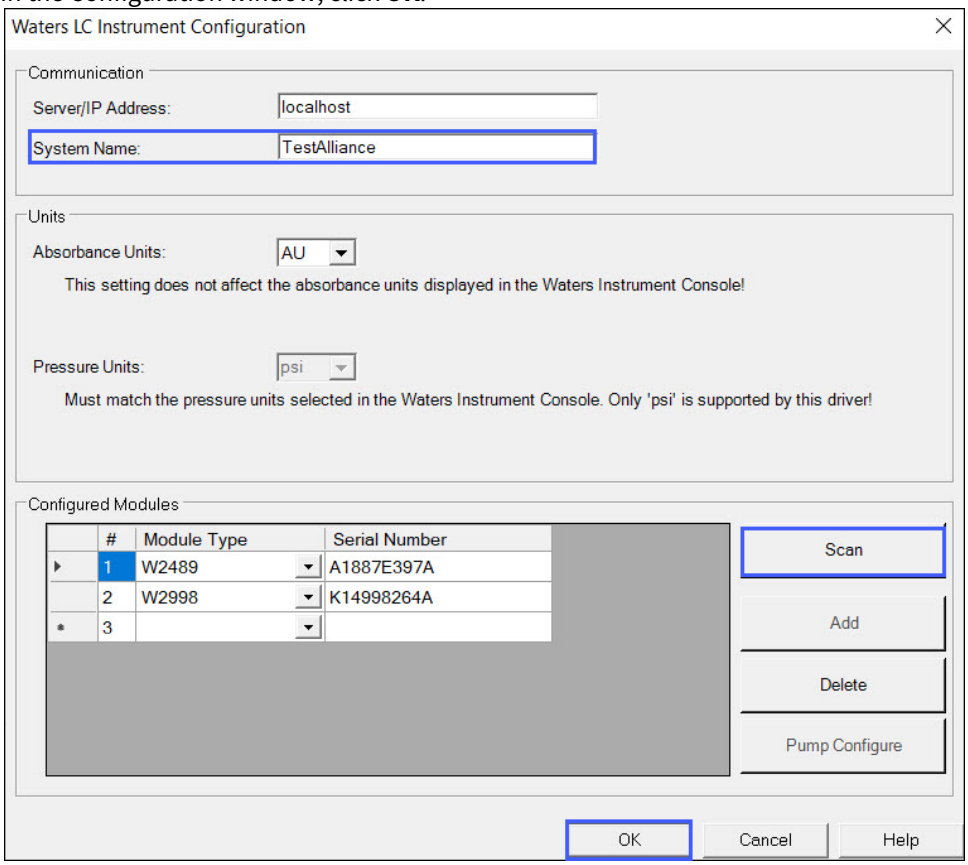
11. To configure detectors, select Waters LC from Available modules.

12. Click the green arrow to transfer the Waters LC to Configured modules.

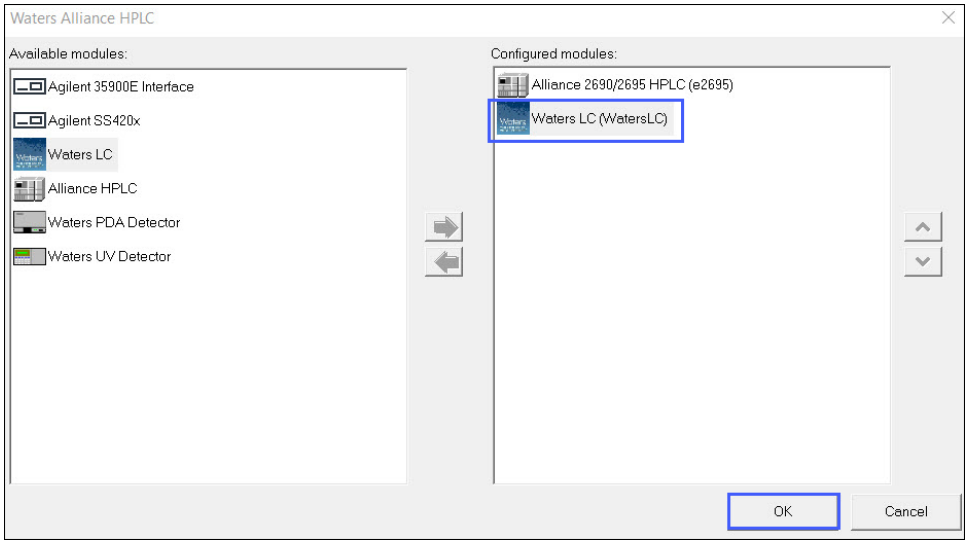


13. In the Server/IP Address field, add a name.
    a. For Workstation, use localhost.
    b. For a Distributed System, use the computer name or IP address of the AIC.
14. In the Waters LC Instrument Configuration window, click **Scan** to view the connected instrument modules.
15. Select the required instruments and delete the remaining instruments.
16. Verify that the Waters LC settings match the settings configured at the connected Waters LC device.
17. Specify a name in the System Name field and click **OK**.
    Note: Specify a unique system name.

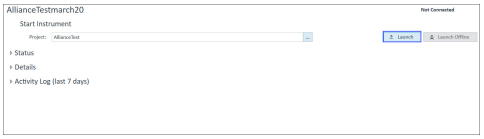
18. In the Configuration window, click **OK**.



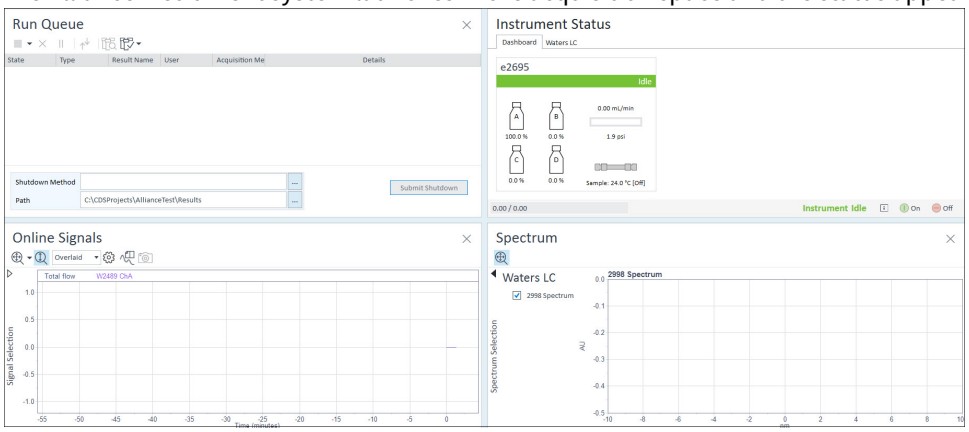
19. Click **OK**.



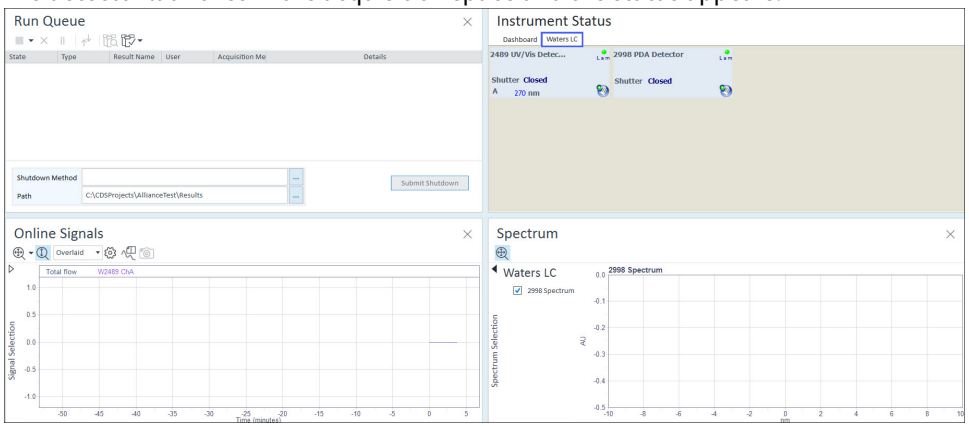
20. Click **Launch** to launch the instrument system.



21. The Alliance instrument system launches in the acquisition space and the status appears.



22. The detector launches in the acquisition space and the status appears.

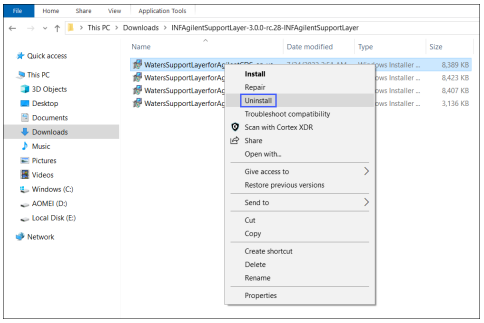


8.14 Uninstalling Waters Support Layer for Agilent CDS

1. Launch Agilent OpenLab software.
2. From the OpenLab CDS home, select the required online instrument and select **Close connection**.
3. Close the Agilent OpenLab software application.
4. Go to **Control Panel > Programs > Programs and Features**.
5. Right-click the program **Waters Support Layer for Agilent CDS**, and then select **Uninstall**.
6. Click **OK** in the warning message window.

Notes:

- Perform steps 1 through 6 to uninstall Waters Support Layer for Agilent CDS from Client and AIC.
- To uninstall the Waters Support Layer for Agilent CDS msi:
  a. Navigate to the respective (language) msi file.
  b. Right-click the msi file and then select Uninstall.



8.15 Uninstalling the Waters Driver Pack using the Start menu

1. Go to **Start > Waters Instruments > Remove Instrument Component Software**.
2. In the **Maintenance Mode** window, select **Typical**.
   A list of all Waters software opens.
3. Ensure that the list is correct, and then click **Next** to proceed.
4. Wait until the uninstallation is complete.
5. Click **Finish** and restart the computer.
   Note: Do not proceed before restarting the computer.
6. Go to **\Program Files (x86)**.
7. Delete the **Waters Instruments** directory.

9 Software validation

After you install or uninstall the software on a qualified system, determine if the system requires re-qualification according to your laboratory's standard operating procedures.

Requirement: If this is the initial installation, perform a full qualification of the software.

Recommendation: Run the Verify Files utility, and then review the resulting file for an entry that states "No installation changes were detected".