OpenLab CDS ChemStation Edition

Networked and Distributed System Installation

Notices

Document Information

Part No: M8305-90009 Rev. D
EDITION 05/2020

Copyright

Agilent Technologies
Hewlett-Packard-Strasse 8
76337 Waldbronn

Software Revision

This guide is valid for revision C.01.10 of OpenLab CDS ChemStation Edition.

Warranty

The material contained in this document is provided "as is," and is subject to being changed, without notice, in future editions. Further, to the maximum extent permitted by applicable law, Agilent disclaims all warranties, either express or implied, with regard to this manual and any information contained herein, including but not limited to the implied warranties of merchantability and fitness for a particular purpose. Agilent shall not be liable for errors or for incidental or consequential damages in connection with the furnishing, use, or performance of this document or of any information contained herein. Should Agilent and the user have a separate written agreement with warranty terms covering the material in this document that conflict with these terms, the warranty terms in the separate agreement shall control.

Technology Licenses

The hardware and/or software described in this document are furnished under a license and may be used or copied only in accordance with the terms of such license.

Restricted Rights Legend

U.S. Government Restricted Rights. Software and technical data rights granted to the federal government include only those rights customarily provided to end user customers. Agilent provides this customary commercial license in Software and technical data pursuant to FAR 12.211 (Technical Data) and 12.212 (Computer Software) and, for the Department of Defense, DFARS 252.227-7015 (Technical Data - Commercial Items) and DFARS 227.7202-3 (Rights in Commercial Computer Software or Computer Software Documentation).

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.

In this Guide ...

This installation guide provides instructions to install Agilent OpenLab CDS ChemStation Edition Networked Workstations or Distributed Systems.

Table 1 Terms and abbreviations used in this document

Term	Description
AIC	Agilent's Analytical Instrument Controller
CDS	Chromatography Data System
ChemStation	OpenLab CDS ChemStation Edition
Control Panel	OpenLab Control Panel
Microsoft Control Panel	Part of the Microsoft Windows operating system
Secure Workstation	Secure Workstation for OpenLab CDS ChemStation Edition

1 Installation Order Overview

This chapter provides an overview of the required and optional steps for the installation and configuration of Networked Workstations or Distributed Systems. For details on the upgrade procedure, see the "Upgrade to a New Software Version" chapter.

2 Prepare your PC

This chapter describes how to configure a non-Agilent-delivered PC. Agilent-delivered PC Bundle systems are delivered with the supported pre-installed Windows operating system and are configured for optimum performance. Non-Agilent PCs require some manual configuration changes in order to provide optimum performance.

3 Install the Software

This chapter describes the preparation of third-party tools and the installation of an OpenLab CDS Shared Services server, Networked Workstation, CDS Client, or Agilent's Analytical Instrument Controller (AIC).

4 Optional Procedures

This chapter contains information on the Software Verification Tool, ChemStation folder protection, and other helpful procedures.

5 Licensing

This chapter describes how to obtain and install a licence.

6 Upgrade to a New Software Version

This chapter describes the upgrade to OpenLab CDS ChemStation Edition C.01.10 in a Networked or Distributed System.

7 Uninstall the Software

This chapter contains information on the uninstallation by using the OpenLab Uninstallation Wizard.

8 Troubleshooting

The chapter gives some troubleshooting hints.

Contents

1 Installation Order Overview 7

Networked Workstation 8
Distributed System 10

2 Prepare your PC 12

Install and Update Windows 13
Run the Site Preparation Tool 16
Install and Configure Third Party Tools 18
Configure a Printer 23
Before You Begin 25
Configure the Operating System 28

3 Install the Software 40

Prepare for Installation 41
Install the OpenLab CDS Shared Services Server 42
Install a Networked Workstation 47
Install an Analytical Instrument Controller (AIC) 55
Install a Client 63
Install a Networked Workstation (Mixed Topology) 66
Scripted Installation 67
What to do Next 73

4 Optional Procedures 74

Run a Software Verification after Software Installation 75
Improve Performance on Offline Machines 76
Protect ChemStation Folders with Secure File IO 77
Copy Installation Files to a Centralized Folder for Installation 78
Install Additional Software and Drivers 79

5 Licensing 80

About OpenLab Licensing 81
Get a License 82
Install Your License 86
Windows Server Licensing 88

6 Upgrade to a New Software Version 90

Planning your Upgrade 91
Update Classic Instrument Drivers to RC.NET 93
License Upgrade 96
Upgrade a Server With OpenLab Server or OpenLab ECM XT 96
Upgrade a Server With OpenLab CDS Shared Services Server Software 97
Run the Upgrade Wizard on an AIC, CDS Client, or Networked Workstation 98
Upgrade OpenLab Control Panel 99

7 Uninstall the Software 100

About Uninstallation 101
Run the Uninstallation Wizard on a CDS Client 102
Run the Uninstallation Wizard on an Instrument Controller 103
Run the Uninstallation Wizard on the OpenLab CDS Shared Services Server 104
Run the Uninstallation Wizard on a Networked Workstation 105

8 Troubleshooting 106

About Troubleshooting 107
Consider Before Installation 108
Consider After Installation 110
Remedial Procedures 114
Reconfigure Instruments Using Classic Drivers After Upgrade to ChemStation C.01.08 or Higher 123

9 Appendix 126

Change SQL Server Authentication to Mixed Mode 127
Sales and Support Assistance 128

1 Installation Order Overview

Networked Workstation 8
Distributed System 10

This chapter provides an overview of the required and optional steps for the installation and configuration of Networked Workstations or Distributed Systems. For details on the upgrade procedure, see the "Upgrade to a New Software Version" chapter.

Networked Workstation

Follow these steps to install OpenLab CDS ChemStation on a networked system.

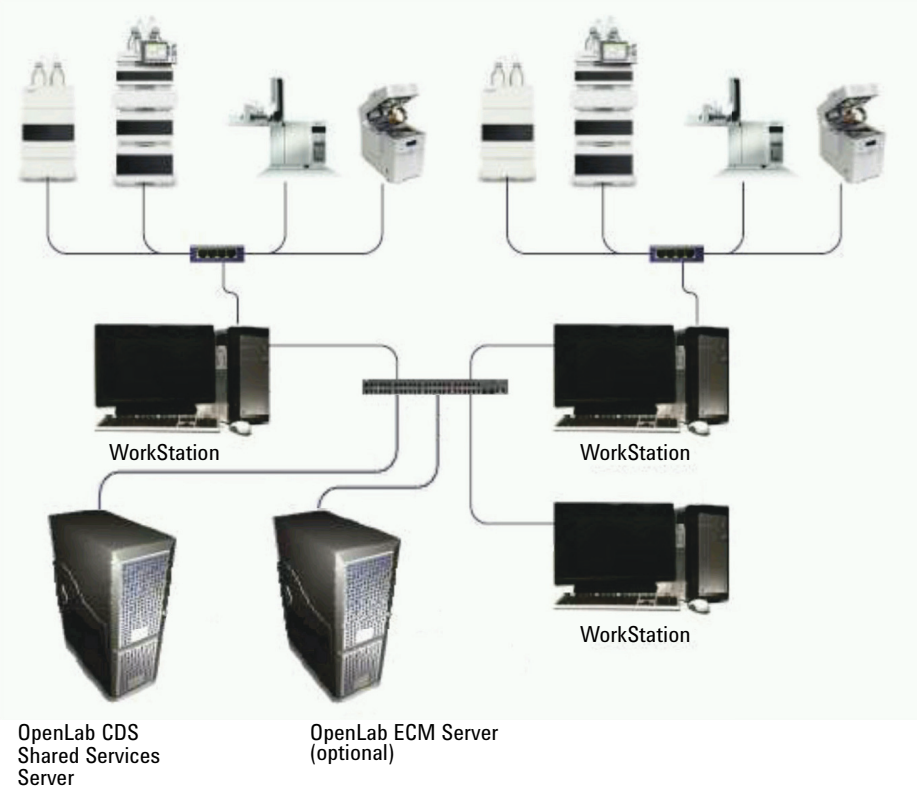


Figure 1 Networked Workstation configuration (example)

Prerequisites

- OpenLab ECM 3.x:

  If you want to connect to an OpenLab ECM 3.x server, this server must already exist. An additional server running the OpenLab CDS Shared Services Server software must be installed as described.
- OpenLab Server or OpenLab ECM XT:

  If you want to connect to a such a server, this server must already exist.

  OpenLab Server and OpenLab ECM XT include the Shared Services components. Therefore, an additional server running the OpenLab CDS Shared Services Server software is not required.
- Database for Shared Services:

  The database used by Shared Services can be hosted on Oracle, Microsoft SQL Server, or PostgreSQL. Oracle and Microsoft SQL server must be installed prior to the installation of the Shared Services server software. PostgreSQL will be installed along with the OpenLab CDS Shared Services Server software.

1. "Run the Site Preparation Tool" on page 16.
2. "Install and Configure Third Party Tools" on page 18.
3. "Configure the Operating System" on page 28.
4. If you do not connect to an existing server: "Install the OpenLab CDS Shared Services Server" on page 42.
5. Set up an Authentication Provider and Storage Location. These procedures are described in the *OpenLab CDS ChemStation Edition Configuration Guide* (CD_CS_configure.pdf).

   Alternatively, this can also be done after the installation is complete.
6. "Install a Networked Workstation" on page 47.

   After installation: "Configure the Antivirus Program" on page 52.

Distributed System

Follow these steps to install OpenLab CDS ChemStation on a Distributed System.

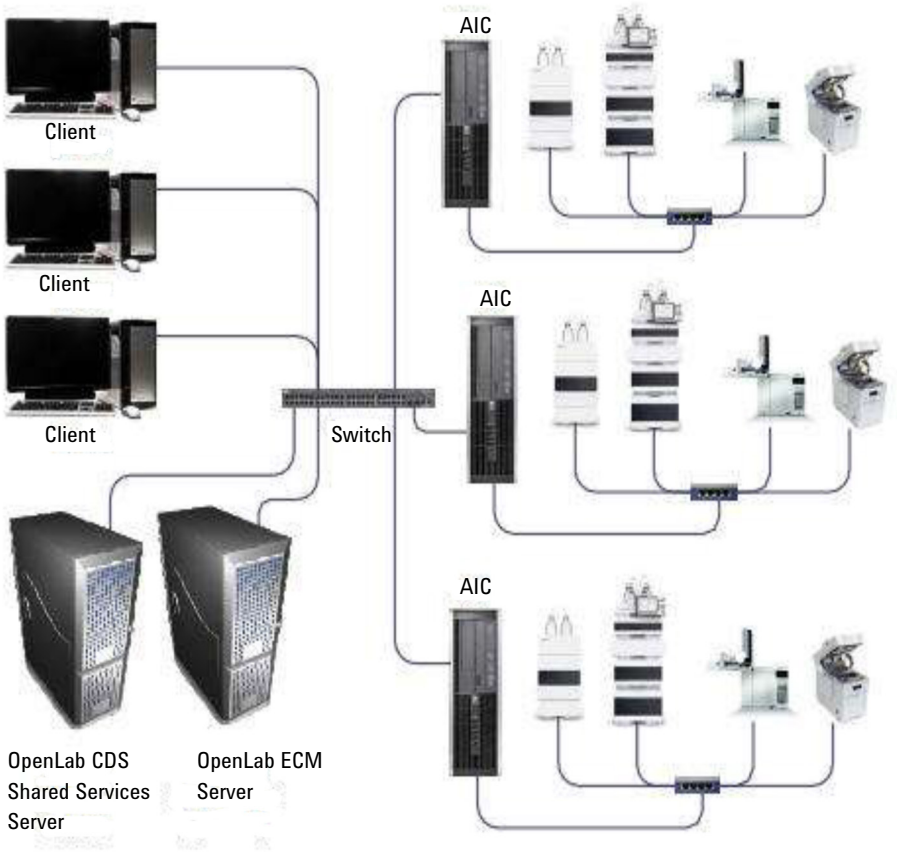


Figure 2 Distributed System Configuration (for example, with ECM)

Prerequisites

- OpenLab ECM 3.x:

  If you want to connect to an OpenLab ECM 3.x server, this server must already exist. An additional server running the OpenLab CDS Shared Services Server software must be installed as described.
- OpenLab Server or OpenLab ECM XT:

  If you want to connect to a such a server, this server must already exist.

  OpenLab Server and OpenLab ECM XT include the Shared Services components. Therefore, an additional server running the OpenLab CDS Shared Services Server software is not required.
- Database for Shared Services:

  The database used by Shared Services can be hosted on Oracle, Microsoft SQL Server, or PostgreSQL. Oracle and Microsoft SQL server must be installed prior to the installation of the Shared Services server software. PostgreSQL will be installed along with the OpenLab CDS Shared Services Server software.

1. "Run the Site Preparation Tool" on page 16.
2. "Install and Configure Third Party Tools" on page 18.
3. If you use ECM 3.x: On the OpenLab CDS Shared Services server:

   "Configure the Operating System" on page 28.
4. On the AICs and clients:

   "Configure the Operating System" on page 28
5. If you use ECM 3.x: "Install the OpenLab CDS Shared Services Server" on page 42.
6. "Install an Analytical Instrument Controller (AIC)" on page 55.

   After installation: "Configure the Antivirus Program" on page 52
7. "Install a Client" on page 63.
8. In a Distributed System, you can also install Networked Workstations in addition to the AIC and OpenLab CDS Clients, thus creating a mixed topology. For more information on Networked Workstations in Distributed Systems, refer to the *OpenLab CDS ChemStation Edition System Topologies and Architectural Concepts* guide (CDS_CS_Topologies.pdf).

2 Prepare your PC

Install and Update Windows 13
Run the Site Preparation Tool 16
Install and Configure Third Party Tools 18
Set Internet Explorer as Default Browser 18
Install and Configure Adobe Acrobat Reader 19
Install the .NET Framework 21
Install Keysight IO Libraries Suite 22
Configure a Printer 23
Add a Network Printer as a Local Printer 24
Before You Begin 25
Configure the Operating System 28
About Configuration 28
Windows Configuration Check for OpenLab CDS ChemStation Edition 29
Manual Configuration Steps 30
Edit the Security Settings for LC/MS and CE/MS Systems 38

This chapter describes how to configure a non-Agilent-delivered PC. Agilent-delivered PC Bundle systems are delivered with the supported pre-installed Windows operating system and are configured for optimum performance. Non-Agilent PCs require some manual configuration changes in order to provide optimum performance.

Install and Update Windows

NOTE On the OpenLab CDS Shared Services server, do not install or configure any server role or feature.

1. Install the Windows operating system from the Microsoft installation media or qualified PC image media provided by your IT department. During the setup, provide the computer name, administrator password and network settings. Choose to either join an existing domain or set up the system in a workgroup mode.
2. For Windows 10 Pro users: Update to the latest Windows 10 edition in accordance to the guidelines of your local IT department.
3. To secure your system against viruses please install an antivirus program. Be sure to open the firewall ports listed in the Firewall Settings in the *OpenLab CDS ChemStation Edition Requirements* guide (CDS_CS_HW-SW-Requirements.pdf).

NOTE Running antivirus programs might influence the behavior and performance of your computer. Some virus scanners might cause issues when used with OpenLab CDS. The application is tested with Symantec Endpoint Protection 14.0 MP2 and with Microsoft Security Essentials.

4. In the Microsoft Control Panel under **System> Windows activation**, click **Change product key**. Enter a valid value to activate Windows.
5. Under **Windows Update**, click **Check for updates** to check for updates and apply all critical security patches. Make sure that all Windows updates have been performed before installing ChemStation (update settings may be configured centrally by your IT department).

NOTE This setting is important to avoid data loss due to system reboot during data acquisition.

6 Disable or defer Windows updates (update settings may be configured centrally by your IT department):
   - Windows 7:
     a In the Microsoft Control Panel, select **Windows Update**.
     b Select **Change settings**.
     c In the **Important updates** section, select **Never check for updates**. Clear the other update options.
     d Restart the computer after update.
   - Windows 10:
     a Under **Settings> Update & Security**, select **Advanced options**.
     b Enter the number of days by which the update should be deferred.

7 Windows 10 and Windows 7 only: To configure remote settings: In the Microsoft Control Panel navigate to **System> Remote settings**. On the **Remote** tab:
   - In the **Remote Assistance** section, clear the check box **Allow Remote Assistance connections to this computer**.
   - In the **Remote Desktop** section, select **Don't allow connections to this computer**.

8 In the Microsoft Control Panel under **Date and Time**: Choose the time zone of your regional location.

9 In the Microsoft Control Panel under **Region** (**Region and Language** for Windows 7):
   a Regional format options should be set to **English (United States)** from the drop-down list.
   b If regional format other than **English (United States)** is used, the following settings are mandatory. The settings can be defined by clicking on the **Additional settings...** button:
     - Decimal symbol = . (point)
     - Digit grouping symbol = , (comma)
     - List separator =, (comma)

10 In the Microsoft Control Panel under **Region** (**Region and Language** for Windows 7), on the **Administrative** tab:

   a In the **Language for non-Unicode program** section, click **Change system locale...**.

   b From the drop down list, select **English (United States)**.

NOTE

Do not change the system locale if you are using an English, Japanese or Chinese Operating System.

Run the Site Preparation Tool

1. Run the installer as an administrator from the USB medium or from a centralized folder.
2. From the **Planning** screen, select **System Configuration Checker**.
3. The **Site Preparation Tool** opens. Select the correct edition and setup of the OpenLab CDS software you are installing from the drop-down list:
   - For the server configuration check, select **OpenLab CDS Shared Server Core A.02.XX**.
   - To check a networked workstation, select **OpenLab CDS ChemStation Edition C.01.XX**.
   - To check a CDS client, select **OpenLab CDS ChemStation Edition (CDS client)**.
   - To check an AIC, select **OpenLab CDS ChemStation Edition (Instrument Controller)**.
4. Select **OK**.
5. Complete page 1 of the **Contact Information—System details** by typing in the fields provided.
   - System Location fields
   - System Information fields
   - Configuration fields
6. Review the system details and make any necessary entries. The system will follow the paths specified.
7. Select the green check mark icon in the top left corner of the screen to begin the software check. A summary report is displayed showing the results for each check category. Results are expressed as **Pass**, **Warning**, **Critical Warning**, or **Fail**.

   Fail results must be corrected before continuing with the installation. Agilent recommends investigating and correcting any **Critical Warnings** and **Warnings** whenever possible before proceeding.

NOTE

If the firewall is controlled by security software, the Site Preparation Tool cannot read the firewall settings because of security limitations and will display **Status "Fail"** for the firewall settings.

In this case, make sure the firewall is disabled and enter the status in the Site Preparation Tool report manually.

8 To view details of the report, select the appropriate link: **System Hardware Details**, **Operating System and Software Details**, or **Manual Verification Required**.

9 To save the report, select the **Save** icon at the top left of the screen.

10 E-mail the saved report to your Agilent Service Representative for evaluation, and for validation of your personal computer for Agilent Software Systems Installs.

Install and Configure Third Party Tools

Certain third party tools must be installed and configured on your PC. Some of these tools can be installed directly from the **Installation** screen if you run the **OpenLab CDS ChemStation Edition Installer**.

Set Internet Explorer as Default Browser

1. Windows 7, Windows Server 2016 and 2012 R2 only: In the Microsoft Control Panel under **Programs> Default Programs> Set default programs**, select Internet Explorer from the list, and click **Set this program as default**.

   Windows 10 only: Navigate to **Settings> Apps> Default Apps> Web browser**, select Internet Explorer as default Web browser.
2. If you are using ECM, you must disable Compatibility View in Internet Explorer:
   a. Open Internet Explorer.
   b. Click the Tools icon, and then click **Compatibility View Settings**.
   c. Clear the **Display intranet sites in Compatibility View** check box.

Install and Configure Adobe Acrobat Reader

Check if an existing Acrobat Reader version must be uninstalled

1 If Acrobat Reader is already installed, check its version number.

   a Open Acrobat Reader.

   b Select **Help> About Adobe Acrobat Reader**.

2 The version number has several ranges. The *Continuous* or *Classic* track is indicated by the first two digits of the third range.

   20 = Continuous track

   30 = Classic track

NOTE

If an older version of Acrobat Reader (2016 or lower, XI or lower) or a Reader version from the *Continuous* track (even with Acrobat Reader 2017) is installed on your system, you must uninstall it first. Otherwise, the installation below would result in an Acrobat Reader version that pushes automatic updates.

Install Adobe Acrobat Reader 2017 (Classic Track)

1 From the OpenLab CDS ChemStation Edition Installer, select **Installation**.

2 Under **Third Party Tools**, select **Adobe PDF Reader**.

3 The Acrobat Reader setup screen appears. Click **Install** to continue.

4 If Acrobat Reader was successfully installed, click **Finish** to exist the setup screen.

   Alternatively, you can install Acrobat Reader from the ChemStation installation medium. It is available under Disk1/Tools/Adobe Reader.

   Run AcroRdr_MUI.bat and follow the instructions of the Adobe Reader Setup wizard.

   During the installation, several Adobe Acrobat Reader settings are adjusted automatically. For more details on the adjusted settings, see "Script to Apply Adobe Acrobat Reader Settings" on page 20.

NOTE

When you open either Acrobat Reader or the ChemStation Report Viewer for the first time, you will be asked to confirm the Adobe Reader license agreement. On a Networked WorkStation, this dialog appears only once. On an AIC, this dialog will appear for each newly configured instrument.

Set Adobe Acrobat Reader as your default PDF viewer

Windows 7: In the Microsoft Control Panel, navigate to **Default Programs> Set default programs**, select Adobe Acrobat Reader from the list, and click **Set this program as default**.

Windows 10: Navigate to **Settings> Apps> Default Apps**, select **Choose default apps by file type**. In the list, navigate to **.pdf** and select **Adobe Acrobat Reader** as default.

Update Acrobat Reader regularly

1. Update Adobe Acrobat Reader on a regular basis to avoid push notifications from Adobe.

   We recommend to include Acrobat Reader updates in a regular update schedule. Acrobat Reader updates usually come on a quarterly basis.
2. To update, open Acrobat Reader, and click **Help> Check for Updates...**.

Script to Apply Adobe Acrobat Reader Settings

When you install Adobe Acrobat Reader, it will use default settings. However, ChemStation requires several specific settings in Adobe Acrobat Reader to integrate it smoothly, for example, to show reports from within ChemStation.

A script is available on the ChemStation installation media to apply all relevant settings. This script runs automatically when you install Acrobat Reader from the OpenLab CDS ChemStation Edition Installer.

The script is available under Disk1\Tools\Adobe ReaderAdobeReader2017ProtectedModeFeaturesSettings.bat.

It applies the following settings:

- Disable the Adobe Update Service (**Adobe Acrobat Update Service**).
- In the Acrobat Reader **General** settings:
  - Clear the **Show me messages when I launch Adobe Acrobat Reader** check box.
- In the Acrobat Reader **Security (Enhanced)** settings:
  - Select the **Enable Protected Mode at startup** check box.
  - Select the **Enable Enhanced Security** check box.
- In the Acrobat Reader **Tracker** settings:
  - Clear the **Show notification icon in system tray** check box.

Install the .NET Framework

Install .NET 3.5

If .NET 3.5 is not installed on your system, its installation will automatically be triggered by the installation wizard. Follow the procedure below to install it in advance.

1 Go to the Microsoft Control Panel.

In the Windows Start menu, enter "Control Panel" in the **Search programs and files** field (alternatively, press [Win+R] and enter "Control panel"). To view all items in the Control Panel view, select **Small icons** in the **View by** field.

2 Go to **Programs and Features**.

3 Go to **Turn Windows features on or off**.

4 Enable .NET 3.5 as follows:

This requires an internet connection.

- For Windows 10: Expand the **.NET Framework 3.5 (includes .NET 2.0 and 3.0)** node,
- For Windows 7: Expand the **Microsoft .NET Framework 3.5.1** node,

in both cases select the **Windows Communication Foundation Non-HTTP Activation** check box.

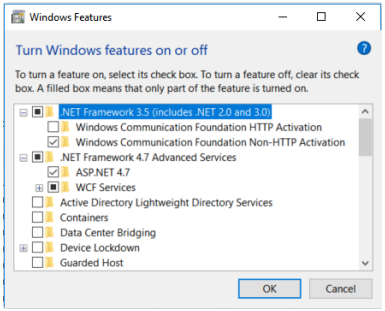


Figure 3 Enable .NET 3.5 (Win 10)

NOTE

If this does not work as expected, or the computer has no internet access, install .NET 3.5 from the Windows installation media. For Windows 10, see details 10 under **https://support.microsoft.com/en-us/kb/2734782**.

If you do not have installation media, create them as described under **https://www.microsoft.com/en-us/software-download/windows10**.

Install .NET 4.7

If .NET 4.7.2 is not installed on your system, its installation will automatically be triggered by the installation wizard. When manually installing .NET 4.7.2, Windows requires write access to the installation files. Direct installation from USB media is therefore not possible.

1. Copy the folder Disk1\Tools\DotNet4.7 to a local disk.
2. Run dotNetFx_Full_x86_x64.bat.
3. Follow the installation wizard.
4. Restart the computer.

Install Chinese or Japanese Language Packs

For Agilent's Analytical Instrument Controllers (AICs) with a Chinese or Japanese operating system: Install the required .NET Framework Language Pack.

1. Copy the folder Disk1\Tools\DotNet4.7 to a local disk.
2. Run LanguagePacks\<Language>\Setup.exe.
3. Follow the installation wizard.

Install Keysight IO Libraries Suite

IO Libraries are required only for LC/MS and CE/MS instruments.

To install IO Libraries:

1. From the installer, select **Installation**.
2. Under **Third Party Tools**, select **Keysight IO libraries**.The Keysight IO libraries setup screen opens.
3. Click **Install** to continue.
4. When Keysight IO libraries have been successfully installed, click **Finish** to exit the setup screen.

Configure a Printer

Physical Default Printer

Make sure that a default printer is configured in Windows. Every Windows user who runs ChemStation needs a default printer configured in the user profile. The printer driver must be for a physical printer, even if the printer is not connected. Configuring a to-file printer such as a PDF or XPS writer is not sufficient.

This is done via the Microsoft Control Panel. If no default printer is configured the following problems may occur:

- Printing of a report preview will fail
- the **Copy To Clipboard** menu will have an error
- the **Custom Report View** will have problems with new templates

PDF XChange printer

During the installation of ChemStation C.01.10, a PDF XChange 6 printer driver is installed (revision 6.0.317.1).

Print Limitations

The maximum number of pages for one print job is 1500; for example, a sequence summary report is one print job.

When printing Multi-Page chromatograms (specified in the **Specify Reports** dialog box), the maximum number of pages that can be printed properly depends on the resolution of the printer. 300 dpi allows ten pages per chromatogram, 600 dpi allows up to six pages per chromatogram.

Add a Network Printer as a Local Printer

Use *physical* printers to ensure correct function. Follow the steps below to add a network printer as a local printer. In OpenLab CDS ChemStation Edition, you will be able to choose this printer as a default printer when configuring instruments.

1. In the Microsoft Control Panel, navigate to **Devices and Printers**.
2. Click **Add a Printer**.
3. Click **The printer I want isn't listed**, then select **Add a local printer** and click **Next**.
4. Select **Create a new port**, then select **Local Port** for the port type and click **Next**.
5. For **Port Name**, enter the network path to the printer. The network path consists of two slashes, the computer name or local IP address of the PC sharing the printer, and the share name of the printer. For example, *PTPRINT\PG5-B* or *192.168.1.100\hpprinter*.
6. Select the appropriate printer driver and click **Next**. If the exact model is not listed, try the closest model number or a generic printer.
7. Follow the rest of the wizard.

NOTE

The print quality of graphics and pictures depends on the printer hardware, maintenance state, configuration, printing options, and paper quality. Resizing pictures and graphics during the print process may lead to a reduced print quality. Choose paper format and page margins that are suitable for your printer.

Before You Begin

Please read this section before you begin the actual software installation. Certain Information and setup steps need to be done.

1 Decide on computer names for all required machines.

It is recommended to keep the computer names unchanged after installing OpenLab CDS ChemStation Edition.

The computer name of an AIC, for example, will be reflected in the instrument configuration. Changing it afterwards leads to a considerable configuration effort.

To make sure that a DNS server can resolve the computer name, follow the internet standard for protocols(*RFC952*) and use only the following characters:

A-Z, a-z, 0-9, - (hyphen)

Do not use an underscore.

2 Make sure that you use only the following characters for user names:

A-Z, a-z, 0-9, _ (underscore), - (hyphen)

3 For installing OpenLab CDS, you need to have administrator privileges for all servers and clients. Power user privileges are not sufficient (the installation does not start).

4 If you plan to use a Shared Services server, OpenLab Server, or OpenLab ECM XT server with a higher revision number: Check the latest Service Notes for compatibility information.

5 Decide on a Shared Services server and a directory location to store all files related to the data system software, including data, methods, sequences, and configurations.
   - ChemStation AICs and Clients must be connected via network to the Shared Services server.
   - If you plan to use a central data storage, ChemStation users must have read/write access to the repository location.
   - If you plan to use an existing Oracle DB server, make sure to set up the Oracle database as described in CDS_CS_oracle12.pdf on Disk1/docs/enu.

     If you plan to use an existing SQL Server in combination with a server running OpenLab Server or OpenLab XT: Change the SQL Server authentication to Mixed Mode (see "Change SQL Server Authentication to Mixed Mode" on page 127).

     If you plan to use the default PostgreSQL database, no additional setup steps are required. PostgreSQL will be installed by the OpenLab CDS ChemStation Edition Installer.

6 For the Shared Services database, obtain the:
   - Database name
   - Database administrator user name and password
   - Authentication mode
   - Administrator user credentials (domain, user name, password)

7 If you plan to use OpenLab Server/OpenLab ECM XT, refer to the *OpenLab ECM XT Installation Guide*.

8 If you plan to use OpenLab ECM 3.x with your system, obtain the ECM server name.

9 In order to install and configure OpenLab ECM 3.x (Shared Services configuration on the server), the installing user must be both ECM administrator as well as internal OpenLab CDS administrator.

10 Decide on a directory location to store all files related to the data system software, including data, methods, sequences, and configurations. The directory must always be accessible to the PC running the software.

11 Before you install the software, check that your computer meets all requirements. You can access the *OpenLab CDS ChemStation Edition Requirements* guide (CDS_CS_HW-SW-Requirements.pdf) from the *Documentation and Learning* platform.

   a On the installation media, go to Disk1\DOCS\ and open welcome.html to access *Documentation and Learning*.

   b Select your language.

   c On the **Welcome** page, navigate to **Site Preparation> Site Preparation and Requirements**, and select **CDS ChemStation Edition Hardware and Software Requirements**.

   Use this PDF to check that your settings comply with the network requirements, and to determine whether your hardware and software will support the system.

12 Set up the necessary power, equipment and hardware connections to run your system. Connections could include any A/D boards, cables, GPIB boards, instrument detectors, and communication cables. For detailed requirements, refer to the *OpenLab CDS ChemStation Edition Hardware and Software Requirements* guide (CDS_CS_HW-SW-Requirements.pdf).

13 Ensure that the latest graphic card driver is installed. Install the latest vendor-specific driver. Do not use any generic driver.

14 On AICs, disable hardware acceleration. Ensure that the following registry key is present and correctly set:

   [HKEY_CURRENT_USER\SOFTWARE\Microsoft\Avalon.Graphics]

   "DisableHWAcceleration"=dword:00000001

15 Make sure .NET 3.5 and .NET 4.7 are activated as Windows features.

   For installation instructions, see “Install .NET 3.5” on page 21 and “Install .NET 4.7” on page 22.

Configure the Operating System

This chapter describes the configuration of the different operating systems for workstations, clients, Analytical Instrument Controllers (AICs), and OpenLab CDS Shared Services Servers.

About Configuration

The procedures in this document describe all parameters necessary to configure a non-Agilent Windows system for use with OpenLab CDS.

OpenLab CDS needs to be installed using an operating system Administrator user account. To run the system with the configured options outlined in this document, all users and power users should use the same settings.

NOTE If User Account Control (UAC) is switched on, some configuration steps will require active confirmation to continue.

NOTE For all server-based products, dedicated servers are strongly recommended in order to avoid conflicts with other applications and maximize performance.

Windows Configuration Check for OpenLab CDS ChemStation Edition

NOTE

The OpenLab CDS Configuration Checker is only available for Windows systems on workstations and clients.

The OpenLab CDS ChemStation Edition configuration check tool helps to prepare or troubleshoot the Operating System configuration and to prevent computer problems.

This tool offers two types of configuration checks:

- Mandatory: It checks and repairs all *mandatory* settings which should be applied before installing OpenLab ChemStation Edition.
- Optional: It checks the settings for performance and usability. The configuration settings are user-specific and must be set separately for each user.

The tool comes as .diagcab file, which is a file format used with the Microsoft Windows Troubleshooting Platform (WTP) program. The Microsoft Windows Troubleshooting Platform (WTP) is a platform to locate and fix hardware and software settings in Windows. It is used specifically for diagnosing and repairing computer settings.

In general, .diagcab files are useful for deploying troubleshooting packs because they are self-contained and require no installation. The .diagcab file name extension is a registered file name extension that can be executed by WTP.

Depending on whether it is a configuration check for mandatory or optional settings, different .diagcab files must be executed:

- To perform the configuration check for mandatory settings, you must use the file *Agilent.Wtp.ChemStation.WindowsConfiguration.diagcab*. This file is located in Disk1\Tools\Windows Configuration Tools\Mandatory Settings.
- To perform the configuration check for optional settings, you must use the file *Agilent.Wtp.ChemStation.WindowsConfiguration.diagcab*. This file is located in Disk1\Tools\Windows Configuration Tools\Optional Settings.

1 Before starting the configuration check, copy the .diagcab files to a local disk.

2 Run the tool as administrator to ensure all settings will be applied: On the start page, select **Advanced**, then click **Run as administrator**.

   After the settings have been applied, you can generate a report to see which settings have been changed.

3 To create the report:
   a On the **Troubleshooting Complete** page, click **View details**.
   b Click on the print button to generate the report.
4 Reboot the PC after running the configuration tool.

NOTE

While using the Configuration Checker:

- Ensure that this computer is not turned off by another user.
- Win 7: Ensure that the menu bar is enabled (click **Organize> Layout**, and select **Menu bar**).
- It is very important that you reboot the PC after running the configuration tool.

Manual Configuration Steps

Some Windows changes within this document are mandatory for OpenLab CDS ChemStation Edition to work properly on a Windows system. Some changes will optimize application performance. Other changes will have an impact on usability.

The configuration settings are grouped according to their relevance for the Windows system in the Mandatory, Performance, and Usability categories. Depending on your operating system, some special configuration steps may be required.

The following sections describe the configuration steps for each category separately. Configure your Windows system accordingly. Alternatively, run the OpenLab CDS configuration check tool (see "Windows Configuration Check for OpenLab CDS ChemStation Edition" on page 29).

NOTE

The following Windows 10 descriptions apply to Windows 10 Build 1809. The settings for other builds may differ slightly.

NOTE

For Windows 7 users:

Ensure that Windows hotfix KB2999226 (**Update for Universal C Runtime in Windows**) is installed on your system before installing ChemStation. See **https://support.microsoft.com/en-us/help/2999226/update-for-universal-c-runtime-in-windows**.

Mandatory Configuration Steps

In the Microsoft Control Panel:

In the Windows Start menu, enter "Control Panel" in the **Search programs and files** field (alternatively, press [Win+R] and enter "Control panel"). To view all items in the Control Panel view, select **Small icons** in the **View by** field.

1 **Administrative Tools**: Configure security options:
   - **a** Double-click **Local Security Policy**.
   - **b** Navigate to **Security Settings> Local Policies> Security Options**.
   - **c** Double-click the following policy listed in the right hand panel: **Network Access: Sharing and security model for local accounts**.
   - **d** In the displayed dialog select the following item from the drop-down list: **Classic - local users authenticate as themselves**.

2 **Network and Sharing Center**:
   - **a** Select **Change adapter settings**. Right-click your Ethernet Adapter, then select **Properties**. On the **General** tab, click **Configure**.
   - **b** On the **Power Management** tab, clear all check boxes.

3 **Power Options**:
   - **a** As preferred plan select **High performance**.
   - **b** Click **Change Plan settings**.
   - **c** Set the option **Put the computer to sleep** to **Never**.
   - **d** Click **Change advanced power settings**.
   - **e** Open the nodes for **Hard disk> Turn off hard disk after**.
   - **f** Set the Minutes to 0 (=Never).

4 **Programs and Features**:
   - **a** Click **Turn Windows features on or off**.
   - **b** Select the **Telnet Client** check box.
   - **c** Select the **TFTP Client** check box.
   - **d** Reboot the PC if necessary.

5 Windows 7 only:

Administrative Tools: Disable Services.

- Double-click **Services**.
- For the following services, set the startup type to **Disabled**:
  - **Application Experience**
  - **Desktop Window Manager Session Manager**

6 For Windows Server 2012 R2 only: **Display**:

a Click **Change window colors**.

b Make sure that **Windows Basic** is selected.

7 For Windows Server 2012 R2 only: **Devices and Printers**:

Right-click the printer that you want to set as default, then select **Set as default printer**.

Other Windows settings:

1 For Windows Server 2016 and 2012 R2 only: For Agilent's Analytical Instrument Controllers (AICs) only: Remote Desktop Services (**Start> search for 'gpedit.msc'**):

a Navigate to **Local Computer Policy> Computer Configuration> Administrative Templates> Windows Components> Remote Desktop Services> Remote Desktop Session Host> Connections**.

b Set **Restrict Remote Desktop Services users to a single Remote Desktop Services session** to **Enabled**.

2 To configure Windows logon options, right-click **Start**, select **Run** from the context menu, then type **gpedit.msc** in the **Run** field.

a Navigate to **Local Computer Policy> Computer Configuration> Administrative Templates> System> Logon**.

b Set **Hide entry points for Fast User Switching** and **Always use classic logon** to **Enabled**.

3 Windows 10 only: **Start> Settings> Update & Security> Windows Security**:

   a Under **App & browser control**:

   Turn off SmartScreen under **Check apps and files**, **SmartScreen for Microsoft Edge**, and **SmartScreen for Windows Store apps**.

   b Under **Virus & threat protection**:

   Ensure that a protection tool is turned on.

   If you want to use Windows Defender: Enable and configure it in the Windows Control Panel under **Windows Defender Firewall> Advanced Settings**.

4 Windows 10 and Windows Server 2016 only: **Start> Settings> Devices> Printers & scanners**: Choose default printer.

   a Turn off **Let Windows manage my default printer**.

   b Click the printer that you want to set as default, then click **Manage**.

   c In the printer settings, click **Set as default**.

5 Windows 10 version 1903 only:

   If the Net.TCP Port Sharing Service is disabled, enable it by running the PowerShell command:

```
Enable-WindowsOptionalFeature -online -All -FeatureName
WCF-TCP-Activation45
```

Performance Configuration Steps

About Performance Configuration Steps

The following procedures of this section contain all the configuration steps that improve system performance. These settings are optional.

Configure Settings to Improve Performance

In the Microsoft Control Panel:

1 **System**: Change system properties:

   a Click **Advanced system settings**.

   b On the **Advanced** tab under **Performance**, click **Settings**.

   - **Advanced** tab > **Virtual Memory**: For optimum performance use the **Change** button to adjust the paging file size to a value of 2 to 3 times of the physical RAM on the PC. If possible locate the paging file on a drive different from the system installation drive.
   - **Data Execution Prevention** tab: Select **Turn on DEP for essential Windows programs and services only**.

   Click **OK** to close the **Performance Options** dialog.

   c For Windows 10 and Windows 7 only: On the **System Protection** tab:

   Make sure that **Protection** is turned off. If required, click **Configure** and select **Disable system protection**.

2 Windows 10 and Windows 7 only: **Indexing Options**: Disable indexing.

   Click the **Modify** button. Select **Show all locations**, and clear all drives and locations.

Other Windows settings:

1 Windows 10 only: **Start> Settings> Personalization> Colors**: Turn **Transparency effects** off.

Usability Configuration Steps

About Usability Configuration Steps

The following procedures of this section contain all the configuration steps that improve the usability of the Windows application. These settings are optional.

Configure Settings to Improve Usability

In the Microsoft Control Panel:

1 **File Explorer Options** (**Folder Options** for Windows 7 and Windows Server 2012 R2): In the **View** tab:
   - Select **Always show menus**.
   - Select **Display the full path in the title bar**.
   - Clear **Hide extensions for known file types**.
   - Clear **Use Sharing Wizard** (not for Windows Server 2012 R2).

2 **System**: Change system properties:
   a Click **Advanced system settings**.
   b On the **Advanced** tab under **Startup and Recovery**, click **Settings**.
      - In the **System startup** section:
        Change both **Time to display ...** fields from **30** to **3** sec.
      - For Windows 10 and Windows 7 only: In the **System failure** section:
        a Select **Automatically restart**.
        b In the **Write debugging information** subsection, select **Kernel memory dump** from the drop-down list.

      Click **OK** to close the Startup and Recovery dialog.

c On the **Advanced** tab under **Performance**, click **Settings**. On the **Visual Effects** tab:

- Windows Server 2016 and 2012 R2 only: Uncheck all entries.
- Windows 10 and Windows 7 only: Select **Adjust for best performance**, then click **Apply**.

  Select **Custom**, then select the following check boxes for better usability:

  - **Show shadows under mouse pointer**
  - **Show shadows under windows**
  - **Smooth edges of screen fonts**

Click **OK** to close the Performance Options dialog.

Other Windows settings:

1 Enable the navigation pane:

- Windows 10: Open Windows Explorer, then select **View> Navigation pane** from the ribbon and make sure that Navigation pane is selected.
- Windows 7: Open Windows Explorer, then select **Organize> Details> Layout** and make sure that Navigation pane is selected.
- Windows Server 2016 and 2012 R2: Go to **Sart> Windows System> File Explorer**, then select **View** from the ribbon. Under **Details> Layout** make sure that Navigation pane is selected.

2 **Recycle Bin Properties**: (right-click on desktop icon **Recycle Bin**, then select **Properties**) Select the following options:

- **Custom size**: Select a size corresponding to approximately 10% of the complete disk space for the drive.
- Select **Display delete confirmation dialog**.

Repeat these steps for all drives of your computer.

3 Windows 10 and Windows 7 only: Configure Windows logon options: Right-click **Start**, select **Run** from the context menu, then type **gpedit.msc** in the Run field.

a Navigate to **Local Computer Policy> Computer Configuration> Administrative Templates> System> Logon**.

b Set **Don't display the Getting Started welcome screen at logon** to **Enabled**.

4 Windows 10 and Windows Server 2016 only: **Start> Settings> System> Tablet Mode**:

   a For **When I sign in**, select **Use desktop mode**.

   b For **When this device automatically switches tablet on or off**, select **Don't ask me and don't switch**.

5 Windows 10 only: **Start> Settings> Privacy**:

   a On the **General** page, turn off the following:

   - **Let apps use advertising ID to make ads more interesting to you based on your app usage (turning this off will reset your ID)**
   - **Let website provide locally relevant content by assessing my language list**
   - **Let Windows track app launches to improve Start and search results**

   b On the **Location** page, make sure Location for this device is off. If not, click **Change** to turn it off.

6 Windows 10 only: **Start> Settings> Apps> Offline Maps**: Turn **Metered connections** and **Map updates** off.

7 Windows 10 only: **Start> Settings> Personalization**: Disable advertising info:

   a On the **Lock screen** page:

   - Under **Background**, select **Picture** or **Slideshow**.
   - Turn off **Get fun facts, tips, tricks, and more on your lock screen**.
   - Turn off **Show lock screen background picture on the sign-in screen**.

   b On the **Start** page:

   Turn off **Occasionally show suggestions in Start**.

8 Windows 10 only: **Start> Settings> Personalization**: In the **Taskbar** tab, under **Taskbar buttons** select **Combine when taskbar is full**.

   This will simplify switching between open CDS instances.

Edit the Security Settings for LC/MS and CE/MS Systems

The following sections summarize all security settings required for LC/MS and CE/MS. All other security settings are set automatically by the OpenLab CDS ChemStation Edition Installer.

OpenLab CDS ChemStation Edition needs to be installed using an operating system Administrator user account. To run the system with the configured options outlined in this document, all users and power users should use the same settings.

Firewall

On PCs controlling LC/MS or CE/MS systems, it is recommended that you turn off the firewall.

Advanced Network Settings

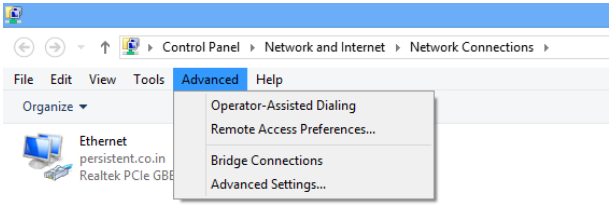
The communication with the MS is sensitive to the order NICs in the **Adapters and Bindings** dialog.

1 Go to **Start> Control Panel**.

Go to **Network and Sharing Center**[1].

2 Click **Change adapter settings**.

3 Press **ALT** to bring up the menu.



[1] View the items by icon to see a list of all items.

4 Select **Advanced Settings...**.

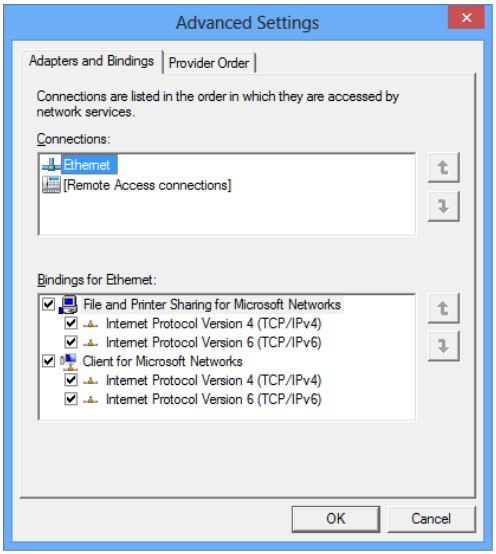


Figure 4 Advanced Settings dialog, Adapters and Bindings tab

5 In the **Adapters and Bindings** tab (see Figure 4 on page 39):

a Make sure that the Local Area Connection pertaining to the **LC/MS** or **CE/MS** NIC is the first item in the list of connections

NOTE

The names of your LAN cards may differ from those shown in the example. You can tell which LAN card is the Instrument LAN by comparing the IP addresses assigned to the LAN cards.

The LAN pertaining to the company intranet > internet will typically have an IP address assigned by organizations Static IP policy or by a DHCP server. Check with your network administrator.

3 Install the Software

Prepare for Installation 41

Install the OpenLab CDS Shared Services Server 42

License Agreement Screen 42
Installation Folder Screen 43
Installation Type Screens for Shared Services Server 43
Summary Screen: Server Software Installation 45
Post Installation Tasks on the Server 46

Install a Networked Workstation 47

License Agreement Screen 47
Installation Folder Screen 48
Installation Type Screens 48
Summary Screen 50
Post Installation Tasks on the Networked Workstation 51

Install an Analytical Instrument Controller (AIC) 55

License Agreement Screen 55
Installation Folder Screen 55
Installation Type Screens 56
Summary Screen 58
Post Installation Tasks on the AIC 59

Install a Client 63

License Agreement Screen 63
Installation Folder Screen 64
Installation Type Screens 64
Summary Screen 65

Install a Networked Workstation (Mixed Topology) 66

Scripted Installation 67

About Scripted Installation 67
Export as XML 67
Parameters and Return Codes 68
Installation, Upgrade, or Repair 71
Uninstallation 72
Logging and Tracing 72

What to do Next 73

This chapter describes the preparation of third-party tools and the installation of an OpenLab CDS Shared Services server, Networked Workstation, CDS Client, or Agilent's Analytical Instrument Controller (AIC).

Prepare for Installation

1. Make sure that the antivirus software is disabled during the installation.
2. Do not run the Windows Update Service during installation. Make sure that no Windows updates are performed during the installation of ChemStation.
3. Make sure that no system reboot is pending.

   Pending reboots are indicated both in the Configuration Checker (see "Windows Configuration Check for OpenLab CDS ChemStation Edition" on page 29) and in the Site Preparation Tool (see "Run the Site Preparation Tool" on page 16).
4. If you use a DVD media set: Copy all DVDs to your hard disk or to a network share.

   Direct installation from DVD is not supported.
5. To begin installation, navigate to \Disk1\Setup.bat. Right-click the file and run it as administrator to proceed to the **Planning** screen.

Install the OpenLab CDS Shared Services Server

NOTE

Agilent recommends that you record and store the selections that you use during this installation in a different physical location. The information will be needed to restore your system in the unlikely case of your system becoming inoperable due to a hardware or software failure.

License Agreement Screen

1. If you plan to host the Shared Services database by an Oracle database management system, make sure to set up the Oracle database as described in CDS_oracle12.pdf on Disk1/docs/enu.
2. From the OpenLab CDS ChemStation Edition Installer, select **Installation**.
3. Select **OpenLab CDS ChemStation**.
4. The **OpenLab CDS Installation Wizard** opens. Read the terms of the **License Agreement**. The installer provides a printable PDF of the license agreement under the **Resources** option of the main menu.
5. Select **I agree with the terms and conditions**. You cannot proceed with installation unless you agree to these terms.
6. Select **Next** to proceed to the **Installation Folder** screen.

Installation Folder Screen

1 Type the folder name or browse to the directory where you want to store the application components (typically this is in the programs folder). Folders must have English names.

NOTE

Installations into the root of a drive may cause problems during operation and are not supported.

2 To run an installation verification as part of this Shared Services server installation, select **Run Software Verification**.

Because there can be several separate installation procedures for networked or distributed systems, you may prefer to run the Software Verification Tool during the last installation, or sometime after your system is completely installed (see the "Optional Procedures" on page 74).

3 Select **Next** to proceed to the **Installation type** screens.

Installation Type Screens for Shared Services Server

1 Under the **Installation type** screen, select **Networked System**.

2 Select **Next** to proceed to the **Networked system** screen.

3 Select **Shared Services Server (w/o Content Management)**.

4 Select **Next**.

5 Complete the **Database Type Selection** screen by selecting the a database type and the installation type. Configure the database as described in the following steps.

6 If you selected **New database server** with **PostgreSQL**:

- **a** Type the path or browse to the directory where you want to store the application components. Directory names must be entered *without spaces*.
- **b** Select **Next** to proceed to the **OpenLab Shared Services Database** screen.
- **c** Complete the **Database name** field.
- **d** Provide the required user credentials.
- **e** Select **Next** to proceed to the **Additional items** screen.

7 If you connect to an existing **PostgreSQL** or **Microsoft SQL Server** database server:

   a Type the database server name in the field provided.

   If the database resides on the same computer use **localhost** as database server name.

   b For Microsoft SQL Server: Select **Use default instance** or **Use named instance**.

   If you select **Use named instance**, complete the **Database instance name** field.

   c Select **Next** to proceed to the **OpenLab Shared Services Database** screen.

   d Select either **Create new database** or **Connect to existing database**.

   e Provide the required database name and user credentials.

   f Click **Test Connection...** to run a connectivity check.

   The system will display a **Connection succeeded** message if the check is successful. Click **OK** to close the message.

   g Select **Next** to proceed to the **Additional items** screen.

8 If you connect to an existing **Oracle** database server:

   a Type the database server name in the field provided.

   b Select **Next** to proceed with the server connection type.

   c Select the **Initialize data** check box.

   d Provide the required database name, user credentials, and the Listener port number. By default, the Listener port number is 1521.

   e Click **Test Connection...** to run a connectivity check.

   The system will display a **Connection succeeded** message if the check is successful. Click **OK** to close the message.

   f Select **Next** to proceed to the **Additional items** screen.

9 In the **Additional Items** screen, select either **No Central Storage**, or **ECM 3.x Server**.

   a If you select **ECM 3.x Server** the **Server name** field will be enabled. Enter the server name *without spaces*.

   b Click **Test Connection...** to run a connectivity check. The system will verify that the connection from this machine to the ECM server is functioning.

   The system will display a **Connection succeeded** message if the check is successful. Click **OK** to close the message.

10 Under **OpenLab Shared Services Language**, select the correct language from the drop-down list.

11 Select **Next** to proceed to the **Summary** screen.

Summary Screen: Server Software Installation

1 Review the installation settings that you have selected in the preceding steps. Select **Back** as necessary to change installation settings, or **Cancel** to cancel the installation.

2 Select **Start** to begin installation.

3 The system performs an automated system check before it proceeds with the listed activities.

If a *system check passed* message appears, installation continues.

If a *system check failed* message appears, you can either:

- Decline to view the system report, and continue installation.
- Decline to view the system report and postpone installation.
- View the system report, and decide to continue installation.
- View the system report and postpone installation until the problem is fixed.

NOTE

To view the system report as PDF file, Adobe PDF Reader must be installed.

4 If an installation verification was completed as part of this installation, review the *Software Verification Report*. If the report indicates failure, verify the computer requirements and reinstall the data system. Do not use the system until the Software Verification Report gives a 'pass' result.

5 Click **Next** to proceed to the **Installed Features** screen.

6 Click **Finish** to close the installation wizard.

7 Reboot the server after the installation.

Post Installation Tasks on the Server

After installing OpenLab CDS Shared Services on the server, you can already set up the authentication provider, storage location, and security policy. Alternatively, this can also be done after the installation of Networked Workstations or Clients is complete. The procedure is the same. See chapter *Configure Security Policy* in the *OpenLab CDS ChemStation Edition Configuration Guide* (CDS_CS_configure.pdf).

Install a Networked Workstation

Use these procedures to install the software to any number of workstations linked to the Shared Services server.

NOTE

Configure a default printer in Windows before installing OpenLab CDS ChemStation Edition. The printer driver must be for a physical printer, even if the printer is not connected.

License Agreement Screen

1. From the OpenLab CDS ChemStation Edition Installer, select **Installation**.
2. Select **OpenLab CDS ChemStation**.
3. The **OpenLab CDS Installation Wizard** opens. Read the terms of the **License Agreement**. The installer provides a printable PDF of the license agreement under the **Resources** option of the main menu.
4. Select **I agree with the terms and conditions**. You cannot proceed with installation unless you agree to these terms.
5. Select **Next** to proceed to the **Installation Folder** screen.

Installation Folder Screen

1 Type the folder name or browse to the directory where you want to store the application components (typically this is in the programs folder). Folders must have English names.

NOTE

Installations into the root of a drive may cause problems during operation and are not supported.

2 To run an installation verification as part of this installation, select **Run Software Verification**. The Software Verification Tool provides documentary evidence that your system has been built and installed correctly, and that all design specifications have been met. You can run the Software Verification Tool at a later time if you prefer (see "Run a Software Verification after Software Installation" on page 75).

3 Select **Next** to proceed to the **Installation type** screens.

Installation Type Screens

1 Under the **Installation type** screen, select **Networked System**.

2 Select **Next** to proceed to the **Networked system** screen.

3 Select **Networked Workstation** and hit **Next**.

4 In the **OpenLab Shared Services Settings for Registration** screen complete the **Server name** field.

   a Choose the authentication service provider which you configured on the OpenLab CDS Shared Services server.

   b Provide the corresponding user credentials defined during the configuration of OpenLab CDS ChemStation Edition in the Control Panel. For more information, see *OpenLab CDS ChemStation Edition Configuration Guide* (CDS_CS_configure.pdf).

5 Select **Next**. The system will perform a connectivity check for the server.

   If the connectivity test fails, verify that the server name was entered correctly, without spaces, and select **Next** to run the test again. If the test is still unsuccessful, call internal support for assistance.

6 Under **OpenLab CDS ChemStation Edition**, provide the following folder paths:

- **Installation folder**: directory where you want to store the ChemStation application components. Typically this is in the programs folder. Folder names must be entered without spaces.
- **Instrument data folder**: Instrument specific data such as methods, sequences, and results. The default data path is the public documents folder. If you plan to activate the Secure File I/O feature, this folder must not be shared at a later point in time. If your PC is equipped with a second disk drive, it is recommended to change the default data path to this alternative drive. Using a second disk drive increases the performance.

7 Select **Next** to proceed to the **Additional Items** screen.

8 In the **Additional Items** screen, select the required storage type.

a If you select **ECM 3.x Server** the **Server name** field will be enabled. Enter the server name in the correct syntax and *without spaces*.

NOTE

The correct syntax for the servername is http://servername.

b Click **Test Connection...** to run a connectivity check. The system will verify that the connection from this machine to the ECM server is functioning.

The system will display a **Connection succeeded** message if the check is successful. Click **OK** to close the message.

9 Select **Next** to proceed to the **Summary** screen.

Summary Screen

1 Review the installation settings that you have selected in the preceding steps. Select **Back** as necessary to change installation settings, or **Cancel** to cancel the installation.

2 Before starting or canceling the installation, you can save an XML file with your installation settings. This XML can then be used for a scripted installation (see "About Scripted Installation" on page 67).

To save the XML file, click the file symbol  in the **Summary** screen.

3 Select **Start** to begin installation.

4 The system performs an automated system check before it proceeds with the listed activities.

If a *system check passed* message appears, installation continues.

If a *system check failed* message appears, you can either:

- Decline to view the system report, and continue installation.
- Decline to view the system report and postpone installation.
- View the system report, and decide to continue installation.
- View the system report and postpone installation until the problem is fixed.

NOTE

To view the system report as PDF file, Adobe PDF Reader must be installed.

5 If an installation verification was completed as part of this installation, review the *Software Verification Report*. If the report indicates failure, verify the computer requirements and reinstall the data system. Do not use the system until the Software Verification Report gives a 'pass' result.

6 Click **Next** to proceed to the **Installed Features** screen.

7 Click **Finish** to close the installation wizard.

Post Installation Tasks on the Networked Workstation

Allow ChemMain Through Firewall

Carry out the following procedure to prevent ChemStation from functioning incorrectly due to firewall restrictions. Consider using a second network card to isolate the instrument's data traffic, and carry out the following procedure for that second network card only.

Alternatively, ensure that all required firewall ports are open. For details, refer to the *OpenLab CDS ChemStation Edition Requirements* guide (CDS_CS_HW-SW-Requirements.pdf).

1 In the Microsoft Control Panel, click **Windows Defender Firewall**[1].

2 Click **Allow an app or feature through Windows Defender Firewall**.

3 Click **Change settings**.

The **Allow another app...** button becomes active.

4 Click **Allow another app...**.

5 Click **Browse...** and navigate to C:\Program Files (x86)\Agilent Technologies\ChemStation\CORE.

6 Select ChemMain.exe and click **Open**.

7 Click **Add**.

8 In the list of allowed apps and features, find **ChemStation ChemMain**, and select the check boxes for all three network types.

9 Confirm your changes.

10 Repeat the procedure for ChemMainAcq.exe.

[1] View the items by icon to see a list of all items

Configure the Antivirus Program

Be sure to open the firewall ports listed in the Firewall Settings in the *OpenLab CDS ChemStation Edition Hardware and Software Requirements* guide (CDS_CS_HW-SW-Requirements.pdf).

NOTE

Running antivirus programs might influence the behavior and performance of your computer. Some virus scanners might cause issues when used with OpenLab CDS ChemStation Edition. The application is tested with Symantec Endpoint Protection 14.0 MP2 and with Microsoft Security Essentials.

In order for the OpenLab software to function correctly, you should configure any antivirus real time protection software with the following folder exclusions. They should only be scanned while the instruments are idle and no data acquisition takes place. Refer to your specific antivirus software documentation on how to configure folder exclusions.

Process	Directory	File name
Data acquisition	%public%\Documents\ChemStation (or the corresponding folder for instrument data that you provided during installation)	Data, methods, sequences, reports etc.
ECM upload/download (if applicable)	%temp% for Windows users (=Users' temp directory)	*.ssizip
Standard reports	%temp% for Windows users (=Users' temp directory)	~p3d*.tmp ~job*.tmp Hpspl00.que
CDS intelligent reports	%LOCALAPPDATA% %APPDATA% %PROGRAMDATA%	Files on: • Agilent • Agilent Technologies • Agilent_Technologies,_Inc • IsolatedStorage • Temp e.g.: C:\Users\xxxxx\AppData\Local\ Agilent Technologies\Intelligent Reporting\RawDataFileCache

If your antivirus software includes program or executable deny execution settings, ensure that the following program files are not denied execution. You can use the windows search feature to find the specific folder each program file is located in.

- agilentiolibrariesservice.exe
- chemmain.exe
- chemmainacq.exe
- apg_top.exe
- iprocsvr.exe
- iproc8491.exe
- msinsctl.exe
- httpdmsd.exe
- epcsetup.exe
- AcroRd32.exe
- Acrobat.exe

NOTE Depending on your specific configuration, some of the listed folders or files may not exist on your system.

Add Shortcut to Public Folder

By default, user data such as master methods, sequence templates, report templates, raw data etc. is located in the public documents folder C:\Users\Public\Documents\ChemStation. You define this folder during the installation. The system creates a shortcut to the defined folder under **Instrument Data** in the Windows Start menu.

In Windows 7, a shortcut to public documents is automatically available in the Windows Explorer.

In Windows 10, the Windows Explorer is organized differently. To provide easy access to that folder, we recommend that you pin the Instrument Data folder to the Start menu.

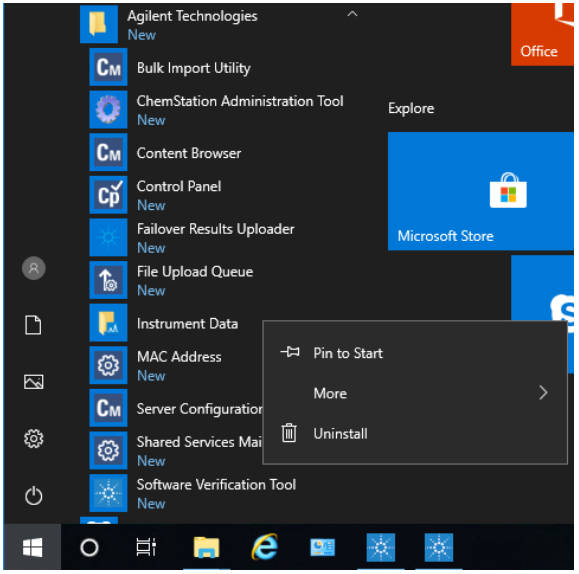


Figure 5 **Windows Start menu in Windows 10**

1 Navigate to the **Instrument Data** shortcut in the Start menu.

2 Right-click the icon, then select **Pin to Start**.

Install an Analytical Instrument Controller (AIC)

NOTE Configure a default printer in Windows before installing the OpenLab CDS Instrument Controller. The printer driver must be for a physical printer, even if the printer is not connected.

License Agreement Screen

1. From the OpenLab CDS ChemStation Edition Installer, select **Installation**.
2. At the **Installation** screen, select **OpenLab CDS ChemStation**.
3. The **OpenLab CDS Installation Wizard** opens. Read the terms of the **License Agreement**. The installer provides a printable PDF of the license agreement under the **Resources** option of the main menu.
4. Select **I agree with the terms and conditions**. You cannot proceed with installation unless you agree to these terms.
5. Select **Next** to proceed to the **Installation Folder** screen.

Installation Folder Screen

1. Type the folder name or browse to the directory where you want to store the application components.
2. To run an installation verification as part of this *Instrument Controller* installation, select **Run Software Verification**.

   Because there can be several separate installation procedures for a distributed system, you may prefer to run the Software Verification Tool during the last installation, or sometime after your system is completely installed (see "Optional Procedures" on page 74 in this manual).
3. Select **Next** to proceed to the **Installation type** screens.

Installation Type Screens

1 Under the **Installation type** screen, select **Networked System**.

2 Select **Next**.

3 Select **Instrument Controller**.

4 Select **Next**.

5 In the **OpenLab Shared Services Settings for Registration** screen complete the **Server name** field.

   a Choose the authentication service provider which you configured on the OpenLab CDS Shared Services server.

   b Provide the corresponding user credentials defined during the configuration of OpenLab CDS ChemStation Edition in the Control Panel. For more information, see *OpenLab CDS ChemStation Edition Configuration Guide* (CDS_CS_configure.pdf).

6 Select **Next**. The system will perform a connectivity check for the server.

   If the connectivity test fails, verify that the server name was entered correctly, without spaces, and select **Next** to run the test again. If the test is still unsuccessful, call internal support for assistance.

7 Under **OpenLab CDS ChemStation Edition**, provide the following folder paths:

   - **Installation folder**: directory where you want to store the ChemStation application components. Typically this is in the programs folder. Folder names must be entered without spaces.
   - **Instrument data folder**: Instrument specific data such as methods, sequences, and results. The default data path is the public documents folder. If you plan to activate the Secure File I/O feature, this folder must not be shared at a later point in time. If your PC is equipped with a second disk drive, it is recommended to change the default data path to this alternative drive. Using a second disk drive increases the performance.

8 Under **Instrument accounts** you can choose how you want to create instrument accounts.

   - To use auto-generated accounts, clear the **Use customized instrument accounts** check box.

     The system will create local accounts with passwords consisting of 20 characters. The passwords will never expire. The created accounts are stored in a users.xml file under <BaseInstallDirectory>\Logs. Note that the

passwords in this file appear encrypted and are only readable by the software. You can use this file to restore a system.

- To use your own accounts, select **Use customized instrument accounts**, and provide the path to a users.xml file in the input field **Accounts file**.

  This xml file must contain your customized instrument accounts and passwords. Directory names must be entered *without spaces*.

  You can take Disk1\Setup\CSAICFiles\users.xml as a template.

NOTE

To delete a customized XML file after use (recommended), select the **Delete customized accounts XML file after use** check box.

If you keep the XML file, passwords in the xml file will become encrypted.

9 Select **Next** to proceed to the **Additional Items** screen.

10 In the **Additional Items** screen, select the required storage type.

a If you select **ECM 3.x Server** the **Server name** field will be enabled. Enter the server name in the correct syntax and *without spaces*.

NOTE

The correct syntax for the servername is http://servername.

b Click **Test Connection...** to run a connectivity check. The system will verify that the connection from this machine to the ECM server is functioning.

The system will display a **Connection succeeded** message if the check is successful. Click **OK** to close the message.

11 Under **Installation folder**, type the path or browse to the directory where you want to store the application components. Directory names must be entered *without spaces*.

NOTE

For disk performance reasons, the installation folder of a ChemStation AIC should be different from the physical drive hosting the operating systems. Use *drive D:* for installing a ChemStation AIC.

12 Select **Next** to proceed to the **Summary** screen.

Summary Screen

1 Review the installation settings that you have selected in the preceding steps. Select **Back** as necessary to change installation settings, or **Cancel** to cancel the installation.

2 Select **Start** to begin installation.

3 The system performs an automated system check before it proceeds with the listed activities.

If a *system check passed* message appears, installation continues.

If a *system check failed* message appears, you can either:

- Decline to view the system report, and continue installation.
- Decline to view the system report and postpone installation.
- View the system report, and decide to continue installation.
- View the system report and postpone installation until the problem is fixed.

NOTE

To view the system report as PDF file, Adobe PDF Reader must be installed.

4 If an Software Verification Tool was completed as part of this installation, review the *Software Verification Report*. If the report indicates failure, verify the computer requirements and reinstall the data system. Do not use the system until the Software Verification Report gives a 'pass' result.

5 Click **Next** to proceed to the **Installed Features** screen.

6 Click **Finish** to close the installation wizard.

NOTE

The installation of a ChemStation AIC requires two reboots. It is very important that the installing user logs on again to the AIC *after* each reboot to complete registration and configuration steps. A success message will be shown when finished. Otherwise the CDS clients cannot configure or launch any ChemStation instrument on this machine.

Post Installation Tasks on the AIC

Allow ChemMain Through Firewall

Carry out the following procedure to prevent ChemStation from functioning incorrectly due to firewall restrictions. Consider using a second network card to isolate the instrument's data traffic, and carry out the following procedure for that second network card only.

Alternatively, ensure that all required firewall ports are open. For details, refer to the *OpenLab CDS ChemStation Edition Requirements* guide (CDS_CS_HW-SW-Requirements.pdf).

1. In the Microsoft Control Panel, click **Windows Defender Firewall**[1].
2. Click **Allow an app or feature through Windows Defender Firewall**.
3. Click **Change settings**.

   The **Allow another app...** button becomes active.
4. Click **Allow another app...**.
5. Click **Browse...** and navigate to C:\Program Files (x86)\Agilent Technologies\ChemStation\CORE.
6. Select ChemMain.exe and click **Open**.
7. Click **Add**.
8. In the list of allowed apps and features, find **ChemStation ChemMain**, and select the check boxes for all three network types.
9. Confirm your changes.
10. Repeat the procedure for ChemMainAcq.exe.

[1] View the items by icon to see a list of all items

Configure the Antivirus Program

Be sure to open the firewall ports listed in the Firewall Settings in the *OpenLab CDS ChemStation Edition Hardware and Software Requirements* guide (CDS_CS_HW-SW-Requirements.pdf).

NOTE

Running antivirus programs might influence the behavior and performance of your computer. Some virus scanners might cause issues when used with OpenLab CDS ChemStation Edition. The application is tested with Symantec Endpoint Protection 14.0 MP2 and with Microsoft Security Essentials.

In order for the OpenLab software to function correctly, you should configure any antivirus real time protection software with the following folder exclusions. They should only be scanned while the instruments are idle and no data acquisition takes place. Refer to your specific antivirus software documentation on how to configure folder exclusions.

Process	Directory	File name
Data acquisition	%public%\Documents\ChemStation (or the corresponding folder for instrument data that you provided during installation)	Data, methods, sequences, reports etc.
ECM upload/download (if applicable)	%temp% for Windows users (=Users' temp directory)	*.ssizip
Standard reports	%temp% for Windows users (=Users' temp directory)	~p3d*.tmp ~job*.tmp Hpspl00.que
CDS intelligent reports	%LOCALAPPDATA% %APPDATA% %PROGRAMDATA%	Files on: • Agilent • Agilent Technologies • Agilent_Technologies,_Inc • IsolatedStorage • Temp e.g.: C:\Users\xxxxx\AppData\Local\ Agilent Technologies\Intelligent Reporting\RawDataFileCache

If your antivirus software includes program or executable deny execution settings, ensure that the following program files are not denied execution. You can use the windows search feature to find the specific folder each program file is located in.

- agilentiolibrariesservice.exe
- chemmain.exe
- chemmainacq.exe
- apg_top.exe
- iprocsvr.exe
- iproc8491.exe
- msinsctl.exe
- httpdmsd.exe
- epcsetup.exe
- AcroRd32.exe
- Acrobat.exe

NOTE Depending on your specific configuration, some of the listed folders or files may not exist on your system.

Retain File with Instrument Users and Passwords

During installation of OpenLab CDS, the instrument users names and passwords are configured via an XML file. This XML file is stored under *<BaseInstallDirectory>\Logs\users.xml*.

By default, the installer creates the users.xml file automatically to generate local instrument users with passwords that never expire. The file has the following structure:

```
<?xml version="1.0" encoding="utf-8" ?>

<users>

<user UserName="AICHostName\CSIUser0" Password="xxxxxxxxxxx" />

<user UserName="AICHostName\CSIUser1" Password="xxxxxxxxxxx" />

<user UserName="AICHostName\CSIUser2" Password="xxxxxxxxxxx" />

<user UserName="AICHostName\CSIUser3" Password="xxxxxxxxxxx" />

[...]

<user UserName="AICHostName\CSIUser37" Password="xxxxxxxxxxx" />

<user UserName="AICHostName\CSIUser38" Password="xxxxxxxxxxx" />

<user UserName="AICHostName\CSIUser39" Password="xxxxxxxxxxx" />

<user UserName="AICHostName\CSIUser40" Password="xxxxxxxxxxx" />

</users>
```

The installer fills the structure with the auto-generated passwords and the machine-prefixed user names. After creating the accounts the passwords become encrypted and are only readable by the software.

Alternatively, you can specify instrument users names and passwords as required, and define domain users instead of local users. In this case, a security policy may require changing the passwords on a regular basis (see "Change Passwords for ChemStation Instrument Users" on page 115).

Install a Client

Use these procedures to install the software to any number of CDS clients connected to the Shared Services server.

ChemStation itself is installed directly on the AIC. You can access the ChemStation instance from any ChemStation CDS client via a Remote Desktop Services connection.

Here again you will be running your installation(s) either using the USB medium directly, or from a centralized folder.

License Agreement Screen

1. From the OpenLab CDS ChemStation Edition Installer, select **Installation**.
2. Select **OpenLab CDS ChemStation**.
3. The **OpenLab CDS Installation Wizard** opens. Read the terms of the **License Agreement**. The installer provides a printable PDF of the license agreement under the **Resources** option of the main menu.
4. Select **I agree with the terms and conditions**. You cannot proceed with installation unless you agree to these terms.
5. Select **Next** to proceed to the **Installation Folder** screen.

Installation Folder Screen

1 Type the folder name or browse to the directory where you want to store the application components (typically this is in the programs folder). Folders must have English names.

NOTE

Installations into the root of a drive may cause problems during operation and are not supported.

2 To run an installation verification as part of this *CDS client installation*, select **Run Software Verification**.

Because there can be several separate installation procedures for a distributed system, you may prefer to run the Software Verification Tool during the last installation, or sometime after your system is completely installed (see "Optional Procedures" on page 74 in this manual).

3 Select **Next** to proceed to the **Installation type** screens.

Installation Type Screens

1 Under the **Installation type** screen, select **Networked System**.

2 Select **Next** to proceed to the **Networked system** screen.

3 Select **CDS client**.

4 Select **Next**.

5 In the **OpenLab Shared Services Settings for Registration** screen complete the **Server name** field.

   a Choose the authentication service provider which you configured on the OpenLab CDS Shared Services server.

   b Provide the corresponding user credentials defined during the configuration of OpenLab CDS ChemStation Edition in the Control Panel. For more information, see *OpenLab CDS ChemStation Edition Configuration Guide* (CDS_CS_configure.pdf).

6 Select **Next**. The system will perform a connectivity check for the server.

If the connectivity test fails, verify that the server name was entered correctly, without spaces, and select **Next** to run the test again. If the test is still unsuccessful, call internal support for assistance.

7 Choose **OpenLab ChemStation Edition**:

a In the **Additional Items** screen, select the required storage type.

- If you select **ECM 3.x Server** the **Server name** field will be enabled. Enter the server name in the correct syntax and *without spaces*.

NOTE

The correct syntax for the servername is http://servername.

- Click **Test Connection...** to run a connectivity check. The system will verify that the connection from this machine to the ECM server is functioning.

The system will display a **Connection succeeded** message if the check is successful. Click **OK** to close the message.

b Select **Next** to proceed to the **Summary** screen.

Summary Screen

1 Review the installation settings that you have selected in the preceding steps. Select **Back** as necessary to change installation settings, or **Cancel** to cancel the installation.

2 Select **Start** to begin installation.

3 The system performs an automated system check before it proceeds with the listed activities.

If a *system check passed* message appears, installation continues.

If a *system check failed* message appears, you can either:

- Decline to view the system report, and continue installation.
- Decline to view the system report and postpone installation.
- View the system report, and decide to continue installation.
- View the system report and postpone installation until the problem is fixed.

NOTE

To view the system report as PDF file, Adobe PDF Reader must be installed.

4 If an installation verification was completed as part of this installation, review the *Software Verification Report*. If the report indicates failure, verify the computer requirements and reinstall the data system. Do not use the system until the Software Verification Report gives a 'pass' result.

5 Click **Next** to proceed to the **Installed Features** screen.

6 Click **Finish** to close the installation wizard.

Install a Networked Workstation (Mixed Topology)

In a Distributed System, you can also install Networked Workstations in addition to the AIC and OpenLab CDS Clients, thus creating a mixed topology. For more information on the mixed topology, refer to the *System Topologies and Architectural Concepts* guide (CDS_CS_Topologies.pdf).

Scripted Installation

This chapter describes the syntax and parameters for an installation or uninstallation in command line mode.

About Scripted Installation

The OpenLab CDS ChemStation Edition Installer supports a command line mode for installation, the *scripted installation*. This mode supports installation, upgrade, repair, and uninstallation. You can execute scripted installations either manually or as part of software management systems such as LANDesk or HP CM. With the corresponding parameter (-q), the scripted installation completes unattended.

Export as XML

The installer supports a feature to export the installation parameters into an XML file which you can then use for the scripted installation.

This feature is also supported for upgrade and repair. However, for these cases the exported installation XML file is not appropriate. For scripted repair and upgrade, you must prepare specific XML files using the respective installer wizards.

1 Launch the OpenLab CDS ChemStation Installation Wizard.

2 Follow the installation instructions.

3 When you have reached the **Summary** screen, click the icon  on the top right corner to export the installation parameters to XML. Save the file on a physical drive.

NOTE

Installation file and XML file must not be in the same file path.

You can now use the XML file for the scripted installation.

Parameters and Return Codes

Parameters

You can call Agilent.OpenLab.CDSInstaller.exe in command line mode with the following parameters:

- *-i*

  Install or upgrade
- *-r*

  Repair
- *-u*

  Uninstallation
- *-q*

  Silent mode — no installation or uninstallation wizard will be shown.
- *-reboot*

  Reboot automatically after successful installation, repair, upgrade, or uninstallation. The system will reboot if the return code is either 0 or 17.

  A warning message will be shown in the command prompt 10 min before the system is rebooted. In addition, a Windows dialog opens 2 min before reboot.
- *KeepComponents*

  Optional parameter for the uninstallation process, which can contain one or more shared components that should stay on your system. Without this parameter, all OpenLab CDS components will be removed from your system. To keep certain shared components, list the corresponding IDs from the table below in double quotes and separated by comma.

Component Name	Id
Software Verification Tool	IQT
Microsoft SQL Server	SQLServer
IO Library	IOLibraries

- *ConfigurationXML="<ConfigurationXMLFilePath>"*

  The XML file contains all required inputs of the installer to install, upgrade, or repair a certain topology (see "Export as XML" on page 67). Replace <ConfigurationXMLFilePath> with the correct file path and XML file name.

NOTE

Do not enter a blank before or after the equals (=) sign. The scripted installation and uninstallation mode will not work as expected.

Return Codes

After installation, uninstallation, upgrade, or repair in the command line mode, the system will return a number code which is explained below.

Table 2 Return codes

Error/Return Code	Return value
Unknown (default)	-1
Success	0
CoreComponentFailure	1
NonCoreComponentFailure	2
TestConnectivityFailure	3
ExpectedWindowsInstallerNotInstalled (WI 4.5 missing)	4
ParameterMismatchError	5
CannotProceedWithFreshInstallation	6
CannotProceedWithUpgrade	7
CannotProceedWithUninstallation	8
CannotProceedWithRepair	9
CannotProceedWithReRegistration	10
ReRegistrationNotSupported	11
IncompleteTopologyFound	12
InvalidUNCPath	13
MissingInstallable	14
NotAStrongPassword	15
DowngradeNotSupported	16
RestartRequired	17

Table 2 Return codes

Error/Return Code	Return value
RegistryCleanupError	18
InvalidInputXML	19
InvalidMode	20
SitePrepFailure	21
DatabaseConnectionFailed	22
DotNetFramework4NotInstalled	23
OLSSConnectionFailed	24
PDFReaderNotInstalled	25
AllComponentsInstallationFailed	26
SomeComponentsInstallationFailed	27
Failed	28
AddOnListEmpty	29
EULANotAccepted	30
ScriptedNotSupported	31

Installation, Upgrade, or Repair

In installation mode, the installer checks if .Net Framework is present on your system. If not, it will automatically be installed. Select **Accept** to agree with the license agreement.

The installer evaluates the products already installed on your system. Depending on the installed components, the installer will offer one of the following options:

- Start a fresh installation
- Upgrade
- Repair

If a required installable is missing, the installer will create an entry in a log file, and, depending on the component type, will continue or rollback the installation. A corresponding error code will be returned in such scenarios.

Preparations

You must have copied all installation files to a centralized folder (see "Copy Installation Files to a Centralized Folder for Installation" on page 78). This step is mandatory for scripted installation.

1. Right-click the executable of the command prompt or Power shell prompt, and run it as administrator.

   You will get a return code for the scripted installation only if you start it as administrator.
2. Navigate to the location where you have saved the installation files.

   For example: C:\CDS
3. To start the installation, call Agilent.OpenLab.CDSInstaller.exe with the following syntax:

   Agilent.OpenLab.CDSInstaller.exe -i ConfigurationXML="<path to xml file>" -q -reboot

   For example:

   Agilent.OpenLab.CDSInstaller.exe -i ConfigurationXML="c:\settings\ConfigurationXML.xml" -q -reboot

   With this command, you start the installation wizard without a user interface, and automatically reboot the system.

Uninstallation

1 Right-click the executable of the command prompt or Power shell prompt, and run it as administrator.

You will get a return code for the scripted uninstallation only if you start it as administrator.

2 Navigate to the location where you have saved the installation files.

For example: C:\CDS

3 To start the uninstallation, call Agilent.OpenLab.CDSInstaller.exe with the following syntax:

Agilent.OpenLab.CDSInstaller.exe -u KeepComponents="<list of components>" -q -reboot

For Example:

Agilent.OpenLab.CDSInstaller.exe -u KeepComponents="IQT,IOLibraries" -q -reboot

With the KeepComponents parameter, you can specify a list of shared components that you want to keep on the system (see "Parameters" on page 68). With the command given in the example, the OpenLab CDS components Software Verification Tool (IQT) and IO Library (IOLibraries) will be kept.

Logging and Tracing

All exceptions, errors and information messages are logged in the following locations:

- During installation, upgrade, or repair: under <BaseInstallDirectory>\Logs
- During uninstallation: under <User's Temp>\<Company Name>\Logs\<Log folder>\<Wizard Name>.txt

What to do Next

The basic installation of the data system software is complete.

There is a *60-day Startup License* for this system, and the expiration period starts with the installation.

To request and download your *final software license* and add the *license file* to your system, see the *Licensing* chapter in this guide.

After you have acquired and installed your *final software license*, you will continue to prepare your data system for operation by end users by configuring users and instruments. This is accomplished through the *OpenLab Control Panel*, see the *OpenLab CDS ChemStation Edition Configuration Guide* (CDS_CS_configure.pdf).

4 Optional Procedures

Run a Software Verification after Software Installation 75
Improve Performance on Offline Machines 76
Protect ChemStation Folders with Secure File IO 77
Copy Installation Files to a Centralized Folder for Installation 78
Install Additional Software and Drivers 79

This chapter contains information on the Software Verification Tool, ChemStation folder protection, and other helpful procedures.

Run a Software Verification after Software Installation

The Software Verification Tool (SVT) provides documentary evidence that your system has been built and installed correctly, and that all design specifications have been met. You do not need to run the software verification again if it has run successfully at the end of the installation.

1. Using your Windows operating system, go to **Start> All Programs> Agilent Technologies> Software Verification Tool**.
2. Select the components to qualify.
3. Select **Qualify**.

   The system will run the application and generate a Software Verification Report.
4. If the report indicates failure, verify the computer requirements and reinstall the data system.

   Do not use the system until the Software Verification Report gives a 'pass' result.

Improve Performance on Offline Machines

Computers running OpenLab CDS ChemStation Edition may exhibit slow performance when they are not connected to the Internet.

The windows operating system has routines built into its operation that causes it to continuously search for an online connection in order to update to all the latest Windows security certificates when using secure software.

Use the following system settings on all workstations, clients, AICs, and servers to remedy this problem.

1. Open Internet Explorer and select **Tools> Internet Options**. In the **Advanced** tab, clear the following check boxes:
   - **Security> Check for publisher's certificate revocation**
   - **Security> Check for server certificate revocation**
2. Change the following registry keys:
   - [HKEY_LOCAL_MACHINE\SOFTWARE\Policies\Microsoft\SystemCertificates\AuthRoot]

     "DisableRootAutoUpdate"=dword:00000001
   - [HKEY_LOCAL_MACHINE\SOFTWARE\Wow6432Node\Policies\Microsoft\SystemCertificates\AuthRoot]

     "DisableRootAutoUpdate"=dword:00000001
3. Document that you turned off the Root Certificates, as this can prevent users from installing other applications.

NOTE

If you connect the computer to the internet again, you must remove the registry keys.

Protect ChemStation Folders 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 I/O* function. If you enable this function, all folders will be protected against modifications from outside ChemStation or in **Open** or **Save As** dialogs.

For more information, refer to the *Folder Protection with Secure File I/O* chapter in the *OpenLab CDS ChemStation Edition Configuration Guide* (CDS_CS_configure.pdf).

Copy Installation Files to a Centralized Folder for Installation

Completing this step will enable you to run an installation from a network share.

1 From the installer **Planning** screen, select **Installation** from the sidebar menu.

2 Select **Preparation of an Installation from Network Share**.

3 At the **Network Share** screen, browse to a directory and create a destination folder as follows:

NOTE

Installations into the root of a drive may cause problems during operations and are not supported.

   a Select the button with the three dots.

   b Navigate to the directory where you want to create the folder.

   c Select **Make New Folder**.

   d Type in the folder name.

   e Select **OK**. The system will return you to the **Network Share** screen, with the path displayed.

   f Select **Start.**

4 When processing is complete, copy the files to the local drive or map the location to a network drive.

5 Close the application and navigate to the directory and folder you created. Open the folder.

6 Select the Disk 1 folder, then execute Setup.bat to run the application.

   The system will display the installer **Planning** screen.

Install Additional Software and Drivers

OpenLab CDS ChemStation Edition offers a wizard to help you installing additional software, such as the ADFExport Plug-in, or drivers for third-party instruments. To open the wizard, go to **Start> All programs> Agilent Technologies> OpenLab Additional Software and Drivers**. Follow the wizard to install the required software.

Prepare Network Drives

If the additional software is located on a network drive, you must prepare the network drive to make it accessible by the wizard. Without this preparation, Windows security prevents the wizard from accessing those drives.

1 Map the drive to a letter.

   For example, map the drive as **Z:** using the shared path "\\<machine-name>\OpenLabCDS".

   This maps the drive for the logged-in user.

2 Open the command prompt in elevated mode (run as administrator), and map the drive using the **net use** command.

   For example,

   ```
   net use Z: "\\<machine-name>\OpenLabCDS"
   ```

   This maps the drive for the local administrator account. The mapped drive is now visible to both logged-in user and administrator, and can be selected in the wizard.

5 Licensing

About OpenLab Licensing 81
License Types 81
License File 81
Get a License 82
Obtain a License with SubscribeNet 82
Other Ways to Obtain a License 84
Install Your License 86
Windows Server Licensing 88
Client Access License (CAL) 88
Remote Desktop Services CAL (RDS CAL) 88

This chapter describes how to obtain and install a license.

About OpenLab Licensing

License Types

The license file is a collection of Product, Instruments and Add-on licenses (or activation keys), and is installed to your OpenLab CDS System.

The licenses or activation keys in the license file can either be Shared or Counted:

- Shared licenses — system computers and other components can have shared, or add-on, licenses — because they share a core license.
- Counted licenses — these licenses are part of the OpenLab CDS ChemStation Edition floating licensing strategy. They are not permanently assigned to any one component. Instead they are automatically assigned to components, such as AICs and instruments, while the components are starting up. The licenses are automatically returned when the component is closed. The license management program controls license issuance and retrieval.

  In this case, the only requirement is that a component is licensed while running. You only need enough licenses for all components running concurrently, rather than for each installed component.

A startup license for the system allows you to run OpenLab CDS for 60 days after the installation. In order to run the data system software after the 60-day period, you must install your license file.

License File

A license file will contain your software license. This file is installed on the workstation. The license file is bound to this computer, and cannot be moved to another workstation without regenerating the license in SubscribeNet.

Information in the license file defines the number of instruments and other options that may be used concurrently with your system.

The most efficient way to manage and maintain your licensing is through the Internet.

Get a License

Obtain a License with SubscribeNet

Use the following procedure to generate and download your license. In case you do not have internet access, skip to the section "Other Ways to Obtain a License" on page 84.

If you are a new user who has not registered with SubscribeNet, continue with the section *New Users*.

If you have registered with SubscribeNet, skip to the section *Users registered with SubscribeNet*.

Prerequisites

To generate, download, and install a final license for your product, you will need:

- The authorization code label provided in the lavender envelope containing your Software Entitlement Certificate.

  If you have not received a lavender envelope for your product, contact your vendor or internal support.
- The URL for SubscribeNet from the Software Entitlement Certificate.
- The host name of the computer where the Control Panel is running.
- The MAC address.

  To retrieve your MAC address from a computer where OpenLab CDS ChemStation Edition is already installed, open the Control Panel and browse to the **Administration> Licenses** section. Use the **Copy MAC Address** or **Save MAC Address** function to obtain the MAC address for license generation.

  During this process you will have to enter the MAC address of your license server. For workstations, this is the local computer. For client/server systems, this is the server.

NOTE

If any changes are made to the computer name or domain reference after the license is installed, remove the license. A new license will need to be created in SubscribeNet, downloaded, and installed.

NOTE

If the network adapter that provides the MAC address used during license creation is removed from the machine, your license will no longer be valid. A new license will need to be generated with a currently available MAC on the license server.

New Users

1. Go to **https://agilent.subscribenet.com/control/agil/AgilRegisterToAccount** to register the product with SubscribeNet.
2. On the registration page, enter the authorization code from the label and complete the profile information (required fields are marked with an asterisk *).

   The email address you enter will become your login ID.
3. Click **Submit**. The system will generate and display an account name for you.

   SubscribeNet will send a welcome email with your login ID and password.
4. Log in to SubscribeNet using your login ID and password.

   Once you log in, you can use the online user manual link for help with any questions you have.
5. Select **Generate or View licenses** from the left navigation bar.
6. Follow the prompts to generate your new license.

   You will be prompted for the HOST NAME of the computer. The host name you enter must match with the network name of the computer where the Control Panel is running. Do not include any DNS suffix (*domain.com*) references in the entered machine name.
7. When the system generated the license, view its details, then click **Download License File**. Save the license file to your computer and to a backup location (such as a portable storage device).

   Use your login ID and password when you revisit the Agilent SubscribeNet site to regenerate a license file, add new authorization codes, or further configure the license for your system.

Users registered with SubscribeNet

1 If you already have a SubscribeNet account, use **https://agilent.subscribenet.com/**.

   Lost your SubscribeNet password? Use **https://agilent.subscribenet.com/control/agil/password** to have it emailed to you.

2 Select the SubscribeNet account associated with this authorization code, if you have more than one account.

3 From the SubscribeNet navigation pane, select **Register Authorization Code**.

   This will allow you to enter your new authorization code and make available the new license entitlements.

4 Follow steps 5 through 7 in the previous procedure, *New Users*, to *generate or view* your new licenses.

Other Ways to Obtain a License

If you are unable to generate a license, contact your nearest Agilent technical support office. A representative will tell you how to submit an OpenLab CDS License Generation Form in your location.

Offline Licensing

If an internet connection is not available in your laboratory:

You or your local on-site service engineer will collect the necessary information from you to allow Agilent to create a license account on your behalf. For phone support in your region, call the sales and service number for your region. See the Appendix for contact information.

Required Customer Information for Agilent License Support:

The following information must be provided to Agilent in order to enable us to create a licensing account on your behalf.

1 Collect Account Information:

Your account name will be your company name and Lab name separated by a comma. Employee information provided here will be used to define the first administrator of your account for future access to the system as required. Please prepare the following pieces of information prior to contacting your local Agilent sales and service center in order to expedite service:

- Company Name
- Lab/Department Name
- First Name
- Last Name
- E-mail address
- Job Title
- Phone #
- Address, City, State/Province, Postal Code, Country

2 Collect Authorization Code(s):

The authorization code is an alpha-numeric code provided on a label which is enclosed in a lavender envelope. If you have received more than one code you must provide all codes to ensure that all ordered licenses are granted to your account.

3 Receiving your license:

Once the above information is provided Agilent will then work on your behalf to generate a license file through SubscribeNet. The license file will either be sent to your shipping address (on a CD), or your local FSE will deliver it in person (usually on USB media). Once your license is received follow the below section on “Install your License” to finish installing your license on your CDS system(s).

Install Your License

Configure License Server

1 Select **Licenses** in the navigation window. Add a valid license file or server to activate the OpenLab CDS Workstation Software.

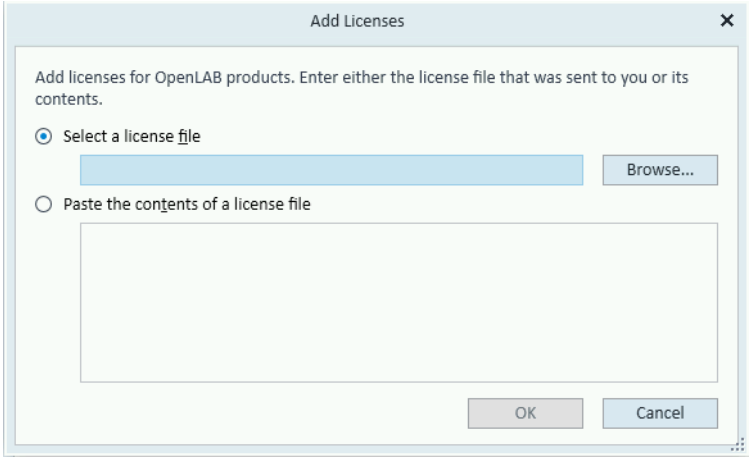
Install Your License

The license must be added to your system using the Control Panel.

1 Start the **Control Panel** shortcut on the desktop or go to **Start> All Programs> Agilent Technologies> OpenLab Shared Services> Control Panel**.

2 Navigate to **Administration> Licenses**.

3 In the ribbon, click **Add License** + .



4 Choose to install the license by:

- Using the license file option to browse to and open the license file (.lic) saved from the license generation process in SubscribeNet.
- Selecting the License Text option and copying the license text from a text file received into the provided field.

5 Click **OK**.

The **Administration** interface in the Control Panel will now display the status of installed licenses.

NOTE A full restart is required in order for any license to have an immediate effect.

Windows Server Licensing

OpenLab CDS ChemStation Edition Distributed Systems are taking advantage of Microsoft Remote Desktop Services. In addition to the Client Access Licenses, this technology requires additional licenses called Remote Desktop Services Client Access License (RDS CAL).

Client Access License (CAL)

A Client Access License permits client computers to connect to Microsoft server hosting shared resources.

Remote Desktop Services CAL (RDS CAL)

The OpenLab CDS ChemStation Instrument Controller (AIC) software uses the Remote Desktop Services (RDS) role in Windows Server. Using this role requires a Windows Server Remote Desktop Services CAL (RDS CAL), in addition to the Windows Server Client Access License (CAL), to access any application or graphical user interface remotely hosted by Windows Server.

You need at least one Remote Desktop Services Licensing Server deployed and activated in your environment. During a grace period of 120 days no license server is required. At the end of the grace period, remote connections will be refused.

Both the Client Access License (CAL) and Remote Desktop Services CAL (RDS CAL) can apply to a device or to a user.

For more information about CAL and RDS CAL requirements, see:

- Client Access Licenses and Management Licenses (**https://www.microsoft.com/en-us/licensing/product-licensing/client-access-license.aspx**)
- Understanding Remote Desktop Licensing (**http://technet.microsoft.com/en-us/library/cc772298.aspx**)
- Licensing Windows Server 2012 R2 Remote Desktop Services (**http://download.microsoft.com/download/3/D/4/3D42BDC2-6725-4B29-B75A-A5B04179958B/Licensing-Windows-Server-2012-R2-RDS-and-Desktop-Apps-for-RDS.pdf**)

  Client Access Licenses and Management Licenses (**http://download.microsoft.com/download/3/D/4/3D42BDC2-6725-4B29-B75A-A5B04179958B/Licensing-Windows-Server-2012-R2-RDS-and-Desktop-Apps-for-RDS.pdf**)

6 Upgrade to a New Software Version

Planning your Upgrade 91
Backward Compatibility During Upgrade 92
Update Classic Instrument Drivers to RC.NET 93
License Upgrade 96
Upgrade a Server With OpenLab Server or OpenLab ECM XT 96
Upgrade a Server With OpenLab CDS Shared Services Server Software 97
Run the Upgrade Wizard on an AIC, CDS Client, or Networked Workstation 98
Upgrade OpenLab Control Panel 99

This chapter describes the upgrade to OpenLab CDS ChemStation Edition C.01.10 in a Networked or Distributed System.

Planning your Upgrade

For Networked Workstations, CDS Clients and AICs, a direct upgrade using the Upgrade Wizard is supported from ChemStation C.01.07 SR3 or higher. Older ChemStation revisions must be upgraded to C.01.07 SR3 or higher in a first step.

For the OpenLab CDS Shared Services Server software, a direct upgrade is supported from version 2.2.

For details on the upgrade to C.01.07 SR3 or SR4, please refer to the *Networked and Distributed System Installation and Configuration* guide from version C.01.07 SR3.

The upgrade process for a Networked or Distributed system starts with the server upgrade. If you need to upgrade an ECM server, it must be upgraded first before the Shared Services Server. The OpenLab CDS Shared Services Server of OpenLab Server software must be upgraded to version 2.3 first before upgrading other components. After the server is upgraded, continue as follows:

- Upgrade the Networked Workstations, or
- In a Distributed System: Upgrade AICs first, then upgrade the CDS Clients.

As of C.01.08, *Windows 7 32 bit*, *Windows 8.1* or *Windows Server 2008* are not supported anymore. Please note that the in-place upgrade to a higher Windows version is not supported.

Before upgrading a system, make sure that the Windows configuration meets all requirements. See *OpenLab CDS ChemStation Edition Requirements* (CDS_CS_HW-SW-Requirements.pdf).

Classic instrument drivers, with exception of MSD instrument drivers, are no longer supported. It is recommended that you convert the corresponding instrument methods to RC.Net driver methods prior to the upgrade. See "Update Classic Instrument Drivers to RC.NET" on page 93.

NOTE

OpenLab CDS ChemStation Edition C.01.08 or higher does no longer control Agilent 5890 GC instruments. If you need these instruments, do not upgrade. Keep using rev. C.01.07 SR3 instead.

NOTE

The *M8370AA OpenLab CDS Data Analysis Add-On* is no longer supported in combination with ChemStation C.01.08 or higher.

If you need the Data Analysis functions from that Add-On, consider a mixed environment including an OpenLab CDS 2.x client. Data Analysis is then available on the 2.x client. The server version must be compatible to both ChemStation and CDS 2.x clients. You do not need to install a 2.x AIC as long as you do not acquire 2.x data.

For more information, refer to *Mixed Environment with ChemStation and OpenLab CDS 2.x* in the *System Topologies and Architectural Concepts* guide (CDS_CS_Topologies.pdf).

Backward Compatibility During Upgrade

During an upgrade project there might be different versions of ChemStation in your environment. Please note that the analysis and reprocessing of data is supported only on versions same as or higher than the one used for the acquisition or last reprocessing.

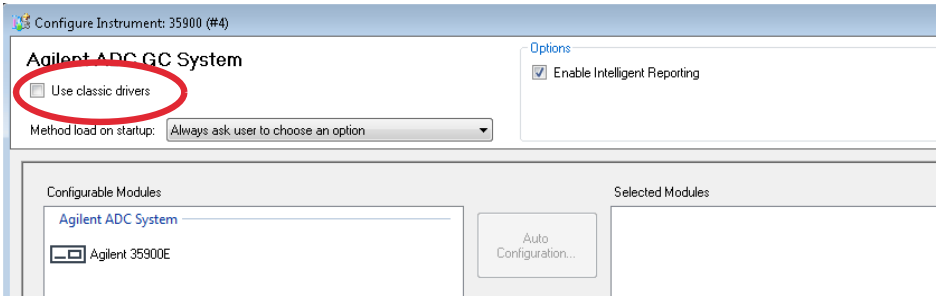
Agilent recommends that an environment with different versions should be used only during the upgrade phase. For more information, please refer to the *System Topologies and Architectural Concepts* guide (CDS_CS_Topologies.pdf).

Update Classic Instrument Drivers to RC.NET

With C.01.10, only RC.NET drivers are available (with exception of MSD instrument drivers). Instruments using the classic driver must be reconfigured to use the RC.net driver. Agilent recommends to do this before upgrading to C.01.10.

To determine which instruments are using the classic driver, go to the OpenLab Control Panel and select the instrument. Select **Configure Instrument** in the ribbon. The instrument is using the classic driver if the **Use classic drivers** check box is selected. Perform the following steps to reconfigure the instrument to use RC.NET.

1. Record the IP address for each classic driver instrument.
2. Verify there is a backup of the methods and data to another location.
3. For your reference: Print the classic driver method settings or save the method listing to disk.
4. To reconfigure the instrument, select the instrument in the **OpenLab Control Panel**.
5. In the ribbon, click **Configure Instrument**.
6. In the configuration dialog, clear the **Use classic drivers** check box.



The instrument is moved from the **Selected Modules** panel to the **Configurable Modules** panel.

7. Select the instrument in the **Configurable Modules** panel, then click the arrow to add the instrument to the **Selected Modules** panel again.

NOTE

- If a current RC.NET driver is not yet available, you must install it manually before upgrading OpenLab CDS ChemStation.
- For example, follow these steps to install the 35900E ADC RC.NET driver:
  - **a** Run the installer.
  - **b** Go to Installation and open OpenLab Additional Software and Drivers.
  - **c** When asked for the Add-on software, browse to Disk3 of the installation media, and to the Agilent 35900E RCNet folder to find the Agilent OpenLab CDS ChemStation 35900 AtoD Drivers.msi file. The corresponding software will then be listed in the installer.
  - **d** Select the software in the list, and continue to install. The installation verification will automatically follow and should complete without errors.

8 Double-click the instrument under **Selected Modules**, and configure the previously recorded IP address. Click **Get Serial Number and Firmware** to get the corresponding entries.

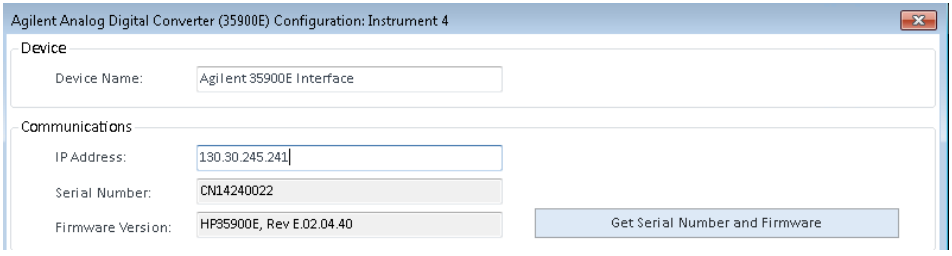
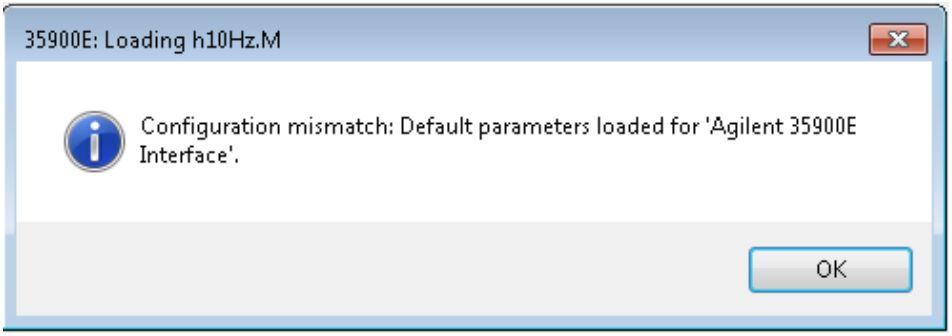


Figure 6 **Example for 35900 configuration**

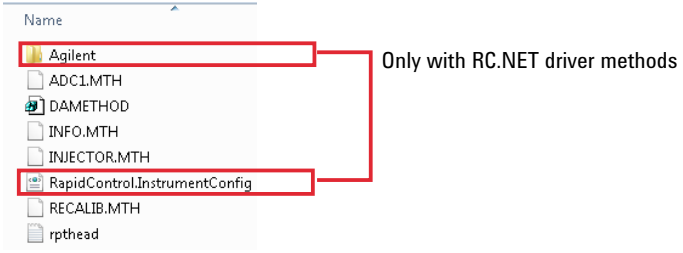
9 Launch the newly configured instrument.

10 To convert a method to RC.NET driver, load the method. If a dialog like the following opens, click **OK**.



Review the method, and if no updates are needed, add a comment such as "Updated to RC.NET" to the method when saving it.

Methods are converted to RC.NET when loaded. After saving to disk, converted methods have an additional Agilent folder and RapidControl.InstrumentConfig file.



License Upgrade

You will need to get a new license to upgrade to the new version of the software.

Do not perform a license upgrade on a Networked Workstation, an AIC, or Distributed System, without the assistance of an engineer!

See "Sales and Support Assistance" on page 128 to find a sales representative in your region.

Upgrade a Server With OpenLab Server or OpenLab ECM XT

For details on upgrading the server software to OpenLab Server 2.3 or OpenLab ECM XT 2.3, please refer to the *OpenLab Server and OpenLab ECM XT Installation Guide* (ECM_XT_InstallationGuide.pdf).

Upgrade a Server With OpenLab CDS Shared Services Server Software

To upgrade to C.01.10, perform the following steps:

Prerequisites You are using OpenLab CDS ChemStation Edition rev. C.01.07 SR3 or higher. Older revisions must first be upgraded in a separate step.

NOTE If your OpenLab system connects to an SQL Server that uses Windows authentication: Make sure that the SYSTEM user is the owner of the *OLSharedServices* database, and run the uüpgrade as the same user who initially installed OpenLab CDS ChemStation Edition.

1. Run the installer from the same media type (for example, USB or network share) as you used to install the current version.
2. From the installer **Planning** screen, switch to the **Installation** screen.
3. Click **OpenLab CDS ChemStation**. If OpenLab CDS ChemStation Edition is already installed, this automatically opens the upgrade wizard.
4. In the **Upgrade Type** screen, enter the credentials for OpenLab Shared Services.
5. Select **Next** to proceed to the **Summary** screen.
6. In the **Summary** screen of the Upgrade Wizard, the components for the upgrade are listed. Select **Start** to start the upgrade.

   If an error occurs during the upgrade, an error message appears. When a component is upgraded correctly, the status shown in the **Status** field changes from **Installed** to **Successfully Upgraded**.
7. After the upgrade is completed, a warning message appears, stating that you must restart Windows for some changes to take effect.

   Select **Yes** to restart Windows.

   Select **No** if you want to restart Windows at a later time.

After the upgrade, check the settings in the OpenLab Shared Services Maintenance tool. For more information on server administration, refer to the *OpenLab CDS ChemStation Edition Guide for Administrators*.

Run the Upgrade Wizard on an AIC, CDS Client, or Networked Workstation

Prerequisites

You are using OpenLab CDS ChemStation Edition rev. C.01.07 SR3 or higher. Older revisions must first be upgraded to C.01.07 SR3 in a separate step.

For AICs and Networked Workstations: To preserve the instrument's column table during the upgrade, go into each of the existing instrument folders (C:\ProgramData\Agilent Technologies\ChemStation\1\, C:\ProgramData\Agilent Technologies\ChemStation\2\, ...) and rename the file **Config.reg** into **Config.bak**. This step is *not* required if you use LC column tags to store the LC column information, or if GC column injection counts are irrelevant.

1. Run the installer from the same media type (for example, USB or network share) as you used to install the current version.
2. From the installer **Planning** screen, switch to the **Installation** screen.
3. Select **OpenLab CDS ChemStation**.

   If OpenLab CDS ChemStation Edition is already installed, this automatically opens the upgrade wizard.
4. Acknowledge that the license has been upgraded and click **Next** to continue.

   For details on upgrading the license, see "License Upgrade" on page 96.
5. Select **I agree with the terms and conditions**. You cannot proceed with the upgrade unless you agree to these terms. Click **Next**.
6. If an Authentication Provider has been configured: Enter the username and password of a user with system administration privileges in the **OpenLab Shared Services Settings for Registration** screen. Click **Next**.
7. In the **Summary** screen of the Upgrade Wizard, the components for the upgrade are listed. Click **Start** to proceed with the upgrade.

   If an error occurs during the upgrade, an error message appears.
8. Select **Finish** to close the upgrade wizard.
9. For AICs and Networked Workstations: After the upgrade, check if the settings in the **ChemStation Administration Tool** still match your original system settings before the upgrade.

Upgrade OpenLab Control Panel

Follow this procedure if you are using a mixed environment where the server has been upgraded. This procedure will upgrade the OpenLab Control Panel to the corresponding version on your Networked Workstation, Agilent Instrument Controller (AIC) or CDS client. This is important to avoid a mix of different OpenLab Control Panel versions in the same system.

Prerequisites

Your Networked Workstation, Agilent Instrument Controller (AIC) or CDS client uses the OpenLab Control Panel that has been installed with ChemStation C.01.10.

Your server has been upgraded to OpenLab CDS Shared Services Server 3.2 or OpenLab Server 2.4.

1. Run the installer from the same media type (for example, USB or network share) as you used to install the current version.
2. From the installer **Planning** screen, switch to the **Maintenance** screen.
3. Click **Upgrade OpenLab Control Panel**.
4. Follow the wizard.

7 Uninstall the Software

About Uninstallation 101
Run the Uninstallation Wizard on a CDS Client 102
Run the Uninstallation Wizard on an Instrument Controller 103
Run the Uninstallation Wizard on the OpenLab CDS Shared Services Server 104
Run the Uninstallation Wizard on a Networked Workstation 105

This chapter contains information on the uninstallation by using the OpenLab Uninstallation Wizard.

About Uninstallation

Like the installation, the uninstallation of OpenLab CDS ChemStation Edition is automated by the OpenLab CDS ChemStation Edition Installer.

NOTE

If the installer was not used for installation, any manually installed additional software such as Headspace, PAL, or third party drivers must be uninstalled using the Windows Control Panel before the OpenLab CDS ChemStation Edition can be uninstalled.

For your convenience, the installer uses the same user interfaces for the software uninstallation of all OpenLab CDS ChemStation configurations (standalone or networked workstation). The **OpenLab Uninstallation Wizard** under the **Maintenance** section of the installer guides you through the uninstallation steps.

For uninstalling OpenLab CDS ChemStation Edition, you need to have administrator privileges for all servers and clients. Power user privileges are not sufficient (the uninstallation does not start).

NOTE

Do not use the Windows uninstallation tool.

Run the Uninstallation Wizard on a CDS Client

1. Select **Start> All Programs> Agilent Technologies> Uninstall OpenLab CDS**.

   The **OpenLab Uninstallation Wizard** opens.
2. In the **Shared Components** screen, select the **Uninstall Software Verification** and **Uninstall PostgreSQL** check box.

   Note: Software Verification Tool needs to be uninstalled if you wish to re-install OpenLab CDS ChemStation Edition at a later time.
3. In the **Summary** screen under **Uninstallation of OpenLab CDS ChemStation Components**, there is a list of the components you want to uninstall.
4. Select **Start** to start the uninstallation.

   If you want to abort the uninstallation, select **Cancel**. If you want to change any settings, select **Back**.

   All listed components are automatically uninstalled, one after another.
5. When the uninstallation has finished, click **Finish** to close the uninstallation wizard.

Run the Uninstallation Wizard on an Instrument Controller

1 Select **Start> All Programs> Agilent Technologies> Uninstall OpenLab CDS**.

The **OpenLab Uninstallation Wizard** opens.

2 In the **Shared Components** screen, select the **Uninstall Software Verification** and **Uninstall PostgreSQL** check box.

Note: Software Verification Tool needs to be uninstalled if you wish to re-install OpenLab CDS ChemStation Edition at a later time.

3 In the **Summary** screen under **Uninstallation of OpenLab CDS ChemStation Components**, there is a list of the components you want to uninstall.

4 Select **Start** to start the uninstallation.

If you want to abort the uninstallation, select **Cancel**. If you want to change any settings, select **Back**.

All listed components are automatically uninstalled, one after another.

5 When the uninstallation has finished, click **Finish** to close the uninstallation wizard.

Run the Uninstallation Wizard on the OpenLab CDS Shared Services Server

1 Select **Start> All Programs> Agilent Technologies> Uninstall OpenLab CDS**.

The **OpenLab Uninstallation Wizard** opens.

2 In the **Shared Components** screen, check **Uninstall Software Verification**.

Under **SQL Instance**, select the instance that you want to uninstall from the drop-down list.

NOTE

The Software Verification Tool needs to be uninstalled if you want to reinstall OpenLab CDS at a later time.

3 Select **Next** to proceed to the **Summary** screen.

4 In the **Summary** screen under **Uninstallation of OpenLab CDS Components**, there is a list of the components you want to uninstall.

5 Select **Start** to start the uninstallation.

6 If you want to abort the uninstallation, select **Cancel**. If you want to change any settings, select **Back**.

All listed components are automatically uninstalled, one after another.

When a component is uninstalled correctly, the status shown in the **Status** field of the **Maintenance** screen changes from **Installed** to **Uninstalled successfully**.

When the uninstallation has finished, click **Finish** to close the **Uninstallation Wizard**.

Run the Uninstallation Wizard on a Networked Workstation

1 Select **Start> All Programs> Agilent Technologies> Uninstall OpenLab CDS**.

The **OpenLab Uninstallation Wizard** opens.

2 In the **Shared Components** screen, select the **Uninstall Software Verification** and **Uninstall PostgreSQL** check box.

Note: Software Verification Tool needs to be uninstalled if you wish to re-install OpenLab CDS ChemStation Edition at a later time.

3 In the **Summary** screen under **Uninstallation of OpenLab CDS ChemStation Components**, there is a list of the components you want to uninstall.

4 Select **Start** to start the uninstallation.

If you want to abort the uninstallation, select **Cancel**. If you want to change any settings, select **Back**.

All listed components are automatically uninstalled, one after another.

5 When the uninstallation has finished, click **Finish** to close the uninstallation wizard.

8 Troubleshooting

About Troubleshooting 107

Consider Before Installation 108

Password Policy not Satisfied by Default Passwords 108
Configure a Network Printer 108

Consider After Installation 110

Login Delay 110
Network Level Authentication Required 110
Performance Monitoring and Optimization on OpenLab CDS ChemStation AICs 111

Remedial Procedures 114

Change Passwords for ChemStation Instrument Users 114
Privilege "Allow Log-on Through Remote Desktop Services" not Granted for Remote Desktop Users Group by Group Policy 116
Not Possible to Launch the Instrument from the CDS Client 117
Remote Desktop Users Group is Emptied by Group Policy 117
No Access to Domain Printers 118
Error Message "Your Credentials did not Work" when Configuring or Launching an Instrument 119
Error Message "Program Execution Failed" when Configuring or Launching an Instrument 119
Fail Over Procedures 120
Change the PC Name of an AIC or Networked Workstation 120

Reconfigure Instruments Using Classic Drivers After Upgrade to ChemStation C.01.08 or Higher 123

The chapter gives some troubleshooting hints.

About Troubleshooting

The OpenLab CDS ChemStation Edition Installer configures a Windows Server machine with the minimum footprint and effort, so its Remote Desktop Services functionality can be used to remotely control ChemStation instruments.

This comprises the creation of a number of local users required for launching the ChemStation instruments from a remote client. It also comprises configuring the machine as a Remote Desktop Services host and performing the registration tasks necessary to access and run ChemStation from a remote client.

Experience shows that there are numerous ways to restrict access to a server machine and local network so that the default installation will no longer work. This chapter is intended to list the known restrictions and provide means to get the AIC working even if there are several restrictions.

Consider Before Installation

Password Policy not Satisfied by Default Passwords

The local users created during installation by default have a password consisting of a random mixture of 3 uppercase letters, 3 lowercase letters, 3 digits and 3 special characters. This should satisfy almost any password restriction rules.

To check if the user password matches the password restriction rules:

- Create a test user on the AIC.
- Set the test user's password to “uK0%wJ8+kA6+” for example.

If the password does not conform to the password rules:

- Create 9 compliant passwords and enter them during installation of the AIC (see section “Change Passwords for ChemStation Instrument Users” on page 114 under Remedial Procedures).

Configure a Network Printer

1. Click **Start> Devices and Printers**.
2. Click tool button **Add a Printer**.
3. Click **Add a local or network printer as administrator**.
4. Click **Add a local printer** or **Add a network**, **wireless** or **Bluetooth printer**.
5. For network printers: Select **Configure a new port**, and in the drop-down box select **Standard TCP/IP Port**.
6. Click **Next**. Verify that the box **Query the printer and automatically select the driver to use** is checked.
7. Enter the hostname or IP address (use fully qualified name: e.g. <printer name>.germany.agilent.com). The port name is displayed identically.
8. Click **Next**. Windows will communicate with the printer and install the driver if required. Then select **Use this driver that is currently installed (recommended)** (default). Optionally it can be replaced.
9. Click **Next**. Use the default displayed printer name or change it to a suitable expression if required.
10. Click **Next**. The printer will be installed.

11 After installation, verify that the radio button **Do not share this printer** is selected.

12 Click **Next**. Check the box **Set as the default printer** if required. Print a test page.

13 Click **Finish** when test page is successfully printed.

Consider After Installation

Login Delay

If you are experiencing high response times during logon to the system or reconnecting after a session lock, the following causes might apply:

- DNS not set up correctly.

  Check that the name resolution is working properly for all affected computers.
- Ports blocked by firewall.

  Check that the ports listed in OpenLab CDS Requirements are not blocked by your firewall.

Network Level Authentication Required

Remote Desktop Services provides a higher level of security if the client's access is checked by the domain controller before actually accessing the AIC. Your IT department may require the use of this security level.

To switch an AIC to Network Level Authentication, perform the following steps:

1. Start **Server Manager**.
2. Select **Roles> Remote Desktop Services> RD Session Host Configuration> RDPTCP Properties**.
3. Under **General**, mark the check box **Allow connections only from computers running Remote Desktop with Network Level Authentication**.
4. Click **OK**.

Performance Monitoring and Optimization on OpenLab CDS ChemStation AICs

Whenever attempting to increase ChemStation AIC performance it is important to monitor and classify potential performance issues carefully.

A simple method for monitoring disk performance is by reprocessing a large example sequence data for benchmarking purposes. The run time of the reprocessing cycle can be graphically displayed by importing the sequence logfile to Microsoft® Excel® and plotting the start time versus the sequence line number.

By repeating these benchmark tests on a regular base – ideally after performing a maintenance procedure – slow digression of performance can be identified earliest.

Software operations typically start a whole chain of processes where the slowest step determines the overall performance. If the slowness of this step is exceeding the other processes by magnitudes this single bottleneck might be corrected by a single action.

In cases where the individual processes along the chain show equivalent performance the bottleneck may become hard to identify as it jumps along the chain as soon as a single parameter gets optimized. A multi-step optimization becomes necessary then.

The following parameters do have potential impact on AIC performance and can be tuned for performance optimization:

- Network configuration
- Memory configuration
- Disk configuration

Network Configuration

Please refer to the *OpenLab CDS ChemStation Edition Hardware and Software Requirements* guide (CDS_CS_HW-SW-Requirements.pdf) on the installation medium.

Memory Configuration

Troubleshooting: Monitor the overall memory usage and the private Bytes used by each ChemMain.exe process. If memory usage exceeds 95% of the available memory Windows starts to swap memory content into virtual memory – which is a slow process as the pagefile (virtual memory) is typically hosted by a spinning disk.

Possible Causes for insufficient free memory: The memory usage increases with the server load or the application in use may also suffer from memory leaks.

As the server load is typically constant on larger time scales the memory consumption due to memory leaks increases over time. If performance and free memory can be re-gained by rebooting the AIC the system might suffer from memory leaks. Please ensure that Microsoft hot fix 2636613 is installed (**http://support.microsoft.com/kb/2636613/en-us**).

If 95% of the memory is already consumed after a reboot of the AIC and all instruments connected more physical memory should be added.

If a ChemStation instance is operated for several weeks in a row with no shut-down the chemmain.exe process associated with this instrument may allocate 500 MB private memory or even more. Hence it is recommended that you restart every instrument instance after 2-3 weeks of operation. This does also trigger the clean-up of temporarily stored files with positive impact on disc performance.

Disc Configuration

Troubleshooting: In order to identify disc-related performance problems it is recommended that you monitor the average disk queue for logical and physical disks (http://technet.microsoft.com/en-us/library/cc938625.aspx). With a volume set a queue that is never shorter than the number of active physical disks indicates that you are developing a bottleneck.

Another method for monitoring disk performance is by reprocessing a large sequence of example data. The reprocessing time on an idle system may increase over time, indicating a disk-related problem.

Possible causes for disc-related performance problems:

- If OpenLab CDS ChemStation gets installed on a single disc drive, this disc has to handle the following I/O intensive processes:
  - Windows pagefile (virtual memory)
  - Windows user's temp directories (unzipping of data downloaded from OpenLab ECM 3.x)
  - ChemStation raw data writing
- The load on this disk gets additionally increased if the ChemStation data storage location is not excluded from real-time protection of virus scanners as recommended.
- The main goal is to keep the AIC disks as empty as possible and to distribute I/O intensive processes across multiple disk drives. This can be achieved by various means:
  - Delete locally stored data after transfer to the data repository.
  - Install or configure OpenLab CDS ChemStation on a drive that does not host the Windows page file or the Windows user's temp directories (default: c:\users\<current user\AppData\Local\Temp).
  - Install OpenLab CDS ChemStation on the C: drive and change the default paths for sequences methods and data files after configuring a new instrument.

Remedial Procedures

Change Passwords for ChemStation Instrument Users

During installation of OpenLab CDS, the instrument users names and passwords are configured via an XML file. This XML file is stored under *<BaseInstallDirectory>\Logs\users.xml*.

By default, the installer creates the users.xml file automatically to generate local instrument users with passwords that never expire. The file has the following structure:

```
<?xml version="1.0" encoding="utf-8" ?>

<users>

<user UserName="AICHostName\CSIUser0" Password="xxxxxxxxxxxx" />

<user UserName="AICHostName\CSIUser1" Password="xxxxxxxxxxxx" />

<user UserName="AICHostName\CSIUser2" Password="xxxxxxxxxxxx" />

<user UserName="AICHostName\CSIUser3" Password="xxxxxxxxxxxx" />

[...]

<user UserName="AICHostName\CSIUser37" Password="xxxxxxxxxxxx" />

<user UserName="AICHostName\CSIUser38" Password="xxxxxxxxxxxx" />

<user UserName="AICHostName\CSIUser39" Password="xxxxxxxxxxxx" />

<user UserName="AICHostName\CSIUser40" Password="xxxxxxxxxxxx" />

</users>
```

The installer fills the structure with the auto-generated passwords and the machine-prefixed user names. After creating the accounts the passwords become encrypted and are only readable by the software.

Alternatively, you can specify instrument users names and passwords as required, and define domain users instead of local users. In this case, a security policy may require changing the passwords on a regular basis (see "Change Passwords for ChemStation Instrument Users" on page 115).

Change Passwords for ChemStation Instrument Users

If you specified your own user names or passwords during the installation of an AIC, and you used *domain* users, it may become necessary to change their passwords on a regular basis.

1 Specify different user names or passwords in a *users.xml* file:

a Provide local users in the form: *UserName="<AIC host name>\<user name>"*.

OR

Provide domain users in the form: *UserName="<domain name>\<user name>"*.

NOTE

Specify the same type of users (local or domain users) as during the AIC installation

Make sure that at least 41 different user names are provided. If you provide the same username twice, instrument access conflicts will arise.

b Provide special passwords in the form: *Password="<user defined password>"*. At this stage, write the passwords in clear text. Encryption will take place when registering the accounts with Shared Services.

Make sure that the password complies with the domain policy for passwords. Special characters must be escaped as follows:

Character	Escaped Character
<	<
>	>
"	"
'	'
&	&

c Enforce addition of users to the Local Administrators group by setting the users attribute:

```
<users unsafe="true”>
```

2 In order to meet any requirement for an initial password change, change domain user passwords in Windows for each user in the users.xml.

3 Register the new passwords with Shared Services:

   a On the AIC, select **Start> Command Prompt**.

   b Type *cd <ChemStation installation directory>\Core* and press **Enter**.

   c Type *registerCSData.exe /remote /InstrumentUsers="<Path to users.xml file>" /URL="net.tcp://<OpenLab Shared Services server>:6577/Agilent/OpenLAB/" /User="<name of OpenLab Shared Services admin user>" /password="<password of OpenLab Shared Services admin user>"* and press **Enter**.

   After registration, the passwords in the users.xml file will appear encrypted and will be only readable by the software.

4 Restart OpenLab Control Panel before launching the reconfigured instruments.

Privilege "Allow Log-on Through Remote Desktop Services" not Granted for Remote Desktop Users Group by Group Policy

Some IT departments revoke the privilege Allow log-on through Remote Desktop Services from the Remote Desktop Users group (to which it is granted by default) by domain policy.

To check if the logon privilege is granted:

1 Select **Start> Run...**

2 Type secpol.msc.

3 Check the security setting for **Local Policy> User Rights Assignment> Allow log-on through Remote Desktop Services**. If the security setting does not include the Remote Desktop Users group:

   a Negotiate with the local IT department to get an exception for this policy (preferred solution).

   OR

   Check if the logon privilege is granted to the Local Administrators group (workaround solution).

   b If the privilege is granted: Set the **unsafe="true"** switch during installation of the AIC (see "Change Passwords for ChemStation Instrument Users" on page 114).

NOTE

It is not possible to configure or launch ChemStation instruments remotely on this AIC if the instrument user does not have the described privilege.

Not Possible to Launch the Instrument from the CDS Client

Make sure that the ChemStation installation folder is not shared. Doing so will disable launching the instrument from CDS client.

Remote Desktop Users Group is Emptied by Group Policy

Some IT departments empty the **Remote Desktop Users** group periodically by Group Policy.

To check if the Remote Desktop Users group is emptied:

1. Create a local test user.
2. Add the test user to the **Remote Desktop Users**.
3. Wait until the Group Policy application period has elapsed (in most cases within 24 hours).
4. Check in the **Computer Management** tool under **Local Users and Groups> Groups> Remote Desktop Users** if the test user is still present in this group. If the user is not present:
   a. Negotiate with the local IT department to get an exception for this policy (preferred solution).

      OR

      Check whether the security setting for **Local Policy> User Rights Assignment> Allow log-on through Remote Desktop Services** includes the Local Administrators group (workaround solution).

   b. If the security setting includes the Local Administrators group: Set the **unsafe="true"** switch during installation of the AIC (see "Change Passwords for ChemStation Instrument Users" on page 114).

NOTE

It is not possible to configure or launch ChemStation instruments remotely on this AIC if the instrument users do not have the described privilege.

No Access to Domain Printers

Some IT departments allow the use of network printers only for domain users but not for local users.

1 Select **Start> Devices and Printers**.

2 Check the security properties of the printers set up on the AIC.

If the **Local Users** group or **Remote Desktop Users** group does not have **Print** privilege on the selected printer, do one of the following:

- Install and use a local printer (preferred solution, see below for instructions).
- Negotiate with the local IT department to get an exception for this security setting.
- Use domain users as instrument users:
  - Create 11 domain users.

    This requires domain administrator privileges.
  - Register the users and passwords during installation of the AIC (see "Change Passwords for ChemStation Instrument Users" on page 115)
- Check whether the security setting includes the **Local Administrators** group (workaround solution).

  If this is the case: Set the **unsafe="true"** switch during installation of the AIC (see)."Change Passwords for ChemStation Instrument Users" on page 114

NOTE

It is not possible to use the redirected printers that are installed on the client. These printers might become inaccessible when the instrument control is switched to a different client PC.

Error Message “Your Credentials did not Work” when Configuring or Launching an Instrument

After selecting the **Configure Instrument** or **Launch** button in the **OpenLab Configuration Panel** an error message appears, stating that the logon to the AIC failed.

1 Log on by selecting **Use another account**.

2 Type in the user name and password from the retained users.xml file (see “Change Passwords for ChemStation Instrument Users” on page 114).

   If this logon attempt succeeds, the logon information registered on the OpenLab CDS Shared Services server for this AIC is corrupt.

3 Re-register the users.xml file as described in “Change Passwords for ChemStation Instrument Users” on page 115.

4 Check if the ChemStation instrument user still has the necessary access rights (see “Privilege “Allow Log-on Through Remote Desktop Services” not Granted for Remote Desktop Users Group by Group Policy” on page 116 and “Remote Desktop Users Group is Emptied by Group Policy” on page 117):

   a Apply the remedy or workaround as described in the sections mentioned above.

   b On the AIC check if this account is locked out, using the **Computer Management** tool under **Local Users and Groups> Users**.

   c Uncheck the box **Account is disabled**.

Error Message “Program Execution Failed” when Configuring or Launching an Instrument

After selecting the **Configure Instrument** or **Launch** button in the **OpenLab Configuration Panel** an error message appears, stating that program execution failed.

1 On the AIC, start **Server Manager**. Select **Roles> Remote Desktop Services> RemoteApp Manager Properties**.

2 Check that the **RemoteApp** Programs list **SetupWizardLauncher** with the attribute **Unrestricted** in column **Arguments**.

3 On the AIC, start **Windows Explorer** and check that the **instrument users** or **Local Users group** or **Remote Desktop Users group** have read/write and execute access to the ChemStation installation directory.

Fail Over Procedures

If there is no connection to the Shared Services server, you can use a fail over procedure. For details, refer to the *OpenLab CDS ChemStation Edition Configuration Guide* (CDS_CS_configure.pdf).

Change the PC Name of an AIC or Networked Workstation

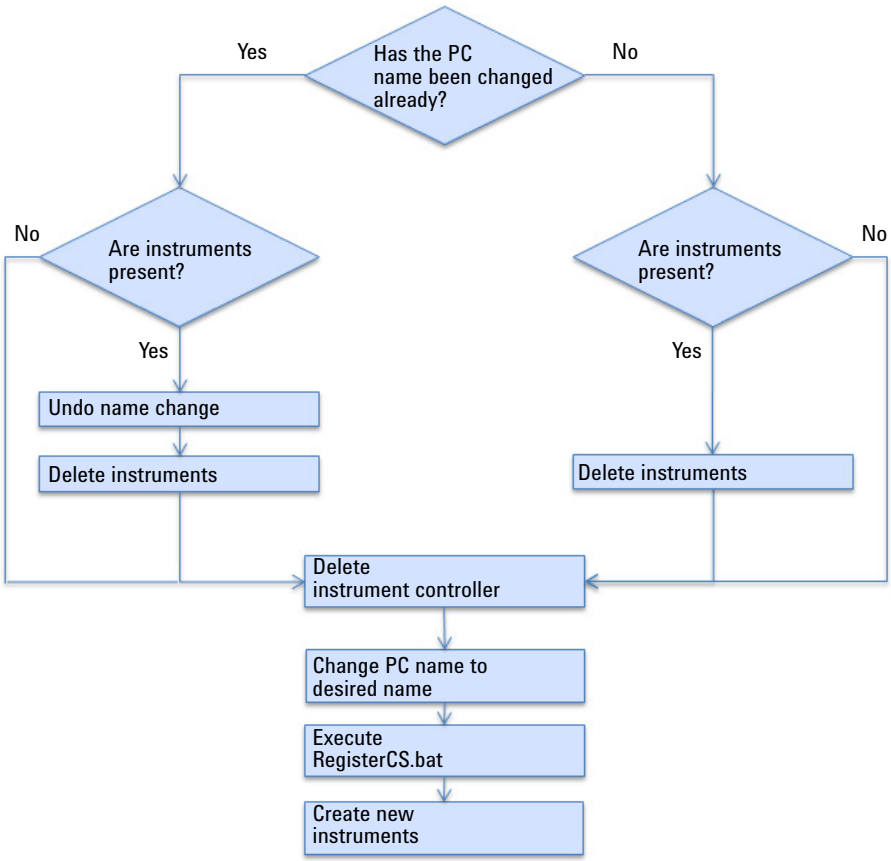


Figure 7 PC name change - flow chart

1 In the OpenLab Control Panel, navigate to the **Instruments** section and delete all instruments that are connected to the relevant AIC or Networked Workstation.

2 In the OpenLAB Control Panel, navigate to **Administration> Instrument Controllers**. In the list of instrument controllers, select the entry with the old pc name, then click **Delete Instrument Controller** in the ribbon to remove it.

3 Rename the AIC or Networked Workstation and restart the machine.

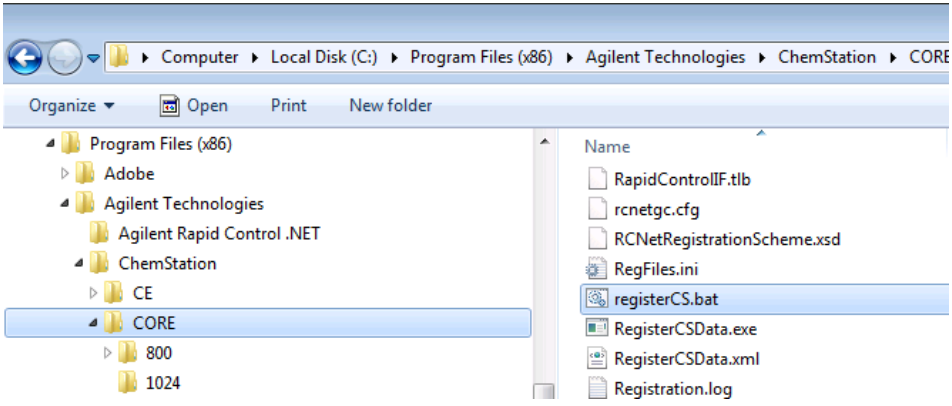
4 If you renamed an *AIC*, and you use local instrument accounts: Adjust the users.xml file.

   By default, the installer creates the users.xml file automatically to generate local instrument users. You find this file under *<BaseInstallDirectory>\Logs\users.xml* (see step about *Instrument accounts* under "Installation Type Screens" on page 56). If you used your own users.xml file, open the file from the location where you stored it.

   Change the old pc name (for example, AICHostname) to the new pc name. Do not touch the encrypted passwords. Note down the path to the adjusted file, as you will need it in the next step.

5 Copy, update, and run adapted copy of **RegisterCS.bat**.

   a Find the file **RegisterCS.bat** in the ChemStation Core folder:



   b Copy the file, and edit the new file.

   If you change the original file, the Software Verification Tool will show an error when you run it the next time.

   c In the remarks at the top, find the section **#1 for AIC** or **#2 for NetworkedCS** respectively.

   This section lists all parameters that you must adjust.

d Activate the entries by removing the **rem *** prefix, and adjust the values as required.

e Run the updated copy of the registerCS.bat file.

6 Log in again to the OpenLab Control Panel. Navigate to **Administration> Local Configuration** and ensure that the correct name is used in the address.

7 Go to **Start> All Programs> Agilent Technologies> Shared Services Maintenance**.

a Select the **Server Settings** tab and check if the correct PC name was registered. It is contained in the **Connection** string.

8 If the correct PC name was *not* registered, click **Add Server**, and provide the correct PC name.

9 If you renamed an *AIC*: Ensure that the RDS and its license service and the **ChemStation** RDS remote collection are available on the AIC again.

Otherwise neither remote access to the ChemStation instrument configuration nor to the ChemStation application will be possible.

If the RDS and its license service are working correctly, but the **ChemStation** RDS remote collection is missing: Create a backup copy of your adjusted users.xml; uninstall ChemStation from the AIC; reinstall ChemStation on the AIC using your adjusted users.xml file to use the correct instrument accounts.

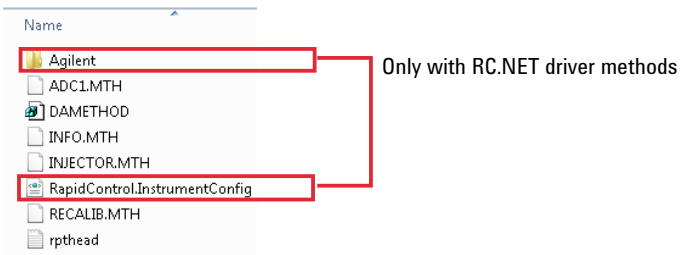
10 Create new instruments.

Reconfigure Instruments Using Classic Drivers After Upgrade to ChemStation C.01.08 or Higher

If you missed the recommendations from the driver preparation described in the *OpenLab CDS ChemStation Edition Upgrade Guide* (CDS_CS-Upgrade.pdf), ChemStation will start up, but instruments with the Classic driver will no longer be available. You will receive a notice that you need to reconfigure your instrument.

The classic driver instruments and methods are not updated to RC.NET automatically. To adjust them, perform the following steps.

To check if a classic method is used, go to Windows Explorer and view the contents of the corresponding method folder. The classic method will not have the Agilent folder listed.

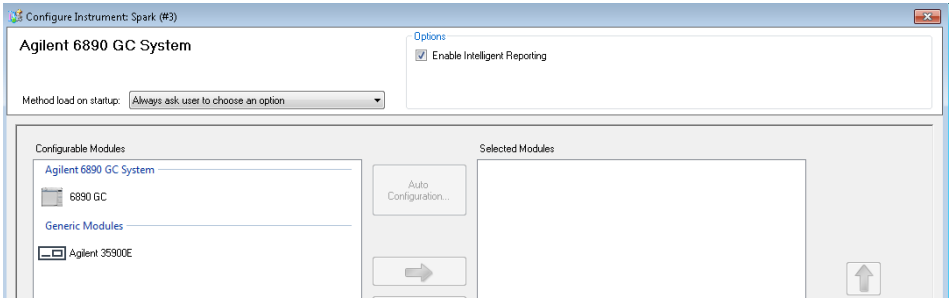


1. Record the IP address for each classic driver instrument.
2. Verify there is a backup of the methods and data to another location.
3. To reconfigure the instrument, select the instrument in the **OpenLab Control Panel**.
4. In the ribbon, click **Configure Instrument**.

   A message is displayed, requesting you to reconfigure your instrument.

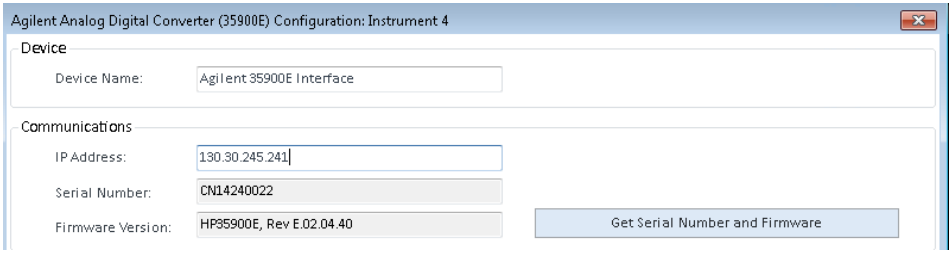
5 Click **OK**.

The **Configure Instrument** panel opens. The **Use classic drivers** check box is no longer shown.



6 To update the instrument to use the RC.net driver, select the instrument in the **Configurable Modules** panel, then click the arrow to add it to the **Selected Modules** panel.

7 Enter the IP Address. *Only for 35900E A/D instrument:* Click **Get Serial Number and Firmware** to get the corresponding entries. For the example below the serial number and firmware version are updated upon successful connection to the 35900E A/D instrument.



This completes the setup of the instrument.

8 Click **OK** to load the instrument configuration.

9 Specify the **Method Load on Startup** option and select one of the following options:

a **Always ask the user to choose an option**

b **Download method to instrument on start up** (select this option to match the behavior of the classic driver)

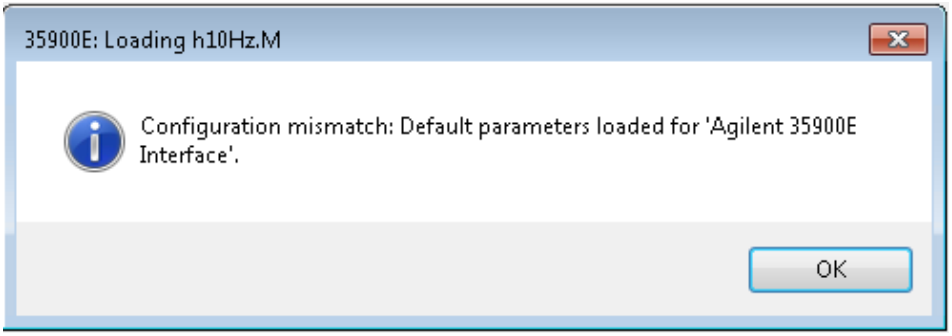
c **Upload method from instrument**

d **New method from instrument**

10 Click **OK** to complete.

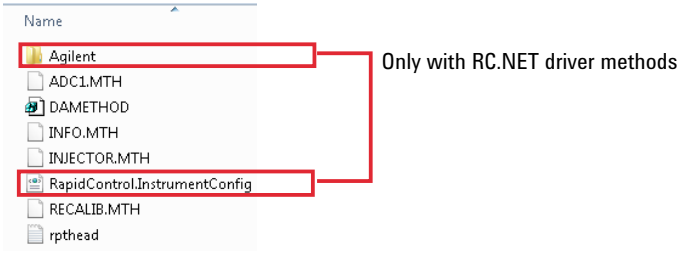
11 Launch the newly configured instrument.

12 To convert a method to RC.NET driver, load the method. If a dialog like the following opens, click **OK**.



Review the method, and if no updates are needed, add a comment such as "Updated to RC.NET" to the method when saving it.

Methods are converted to RC.NET when loaded. After saving to disk, converted methods have an additional Agilent folder and RapidControl.InstrumentConfig file.



9 Appendix

Change SQL Server Authentication to Mixed Mode 127
Sales and Support Assistance 128

Change SQL Server Authentication to Mixed Mode

This procedure describes how you can switch to Mixed Mode in an existing Microsoft SQL Server 2012 installation.

1. Start SQL Server Management Studio.
2. In the Object Explorer, right-click the server name, and select **Properties** from the context menu.
3. In the **Server Properties** dialog, select the **Security** page.
4. Under **Server authentication**, select **SQL Server and Windows Authentication mode**.
5. Click **OK**.
6. Enable login for user *sa*.
   a. In the Object Explorer, navigate to **Security> Logins**.
   b. Right-click the user sa, and select **Properties** from the context menu.
   c. In the **Login Properties** dialog, select the **General** page.
   d. Provide a strong password.
   e. Select the **Status** page.
   f. Under **Login**, select Enabled.
   Click **OK**.
7. Restart the SQL Server service, and log in with SQL Server Authentication.

Sales and Support Assistance

Please check the following web site for your local sales and support contact:

http://www.chem.agilent.com/en-US/Contact-US/Pages/ContactUs.aspx

If you have purchased a networked configuration and have purchased a Software Maintenance Agreement (SMA) from Agilent, you are also entitled to priority support at:

https://www.agilent-labinformatics.com/support

Register your SMA and receive a number of benefits including:

- Online Ticket Submission, Prioritization and Status Tracking
- Online Feature Request Submission and Tracking
- Readily available self-help tools and useful links

In This Book

This installation guide provides instructions to install Agilent OpenLab CDS ChemStation Edition Networked Workstations or Distributed Systems.

www.agilent.com

Published in Germany
05/2020

Part No: M8305-90009 Rev. D

Agilent