Agilent OpenLab CDS
ChemStation Edition

Networked and Distributed System Installation and Configuration

Agilent Technologies
Notices

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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 and configure Agilent OpenLab CDS ChemStation Edition Networked Workstations or Distributed Systems.

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2 **Configure the Operating System**

This chapter describes the configuration of the different operating systems for workstations, clients, and OpenLAB CDS Shared Services Servers.

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 Instrument Controller (AIC).
4 Optional Procedures
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5 Licensing
This chapter describes how to obtain and install a licence.

6 Configure OpenLAB CDS ChemStation Edition in the Control Panel
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7 Upgrade to a New Software Version
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Installation Order Overview

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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. If you do not connect to an existing server:
   - “Configure Windows Server 2016” on page 17
     OR
   - “Configure Windows Server 2012 R2” on page 21

2. On the Workstation PCs:
   “Configure Windows 10” on page 25
   OR
   “Configure Windows 7” on page 33

3. These steps are optional:
   a “Copy Installation Files to a Centralized Folder for Installation” on page 45.
   b “Run the System Configuration Checker” on page 49.


5. If you do not connect to an existing server: “Install the OpenLAB CDS Shared Services Server” on page 51.

6. “Set up Authentication Provider and Storage Location” on page 98.
   Alternatively, this can also be done after the installation is complete.

   After installation: “Configure the Antivirus Program” on page 60 and “Configure Default Printer” on page 62.
Distributed System

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

![Distributed System Configuration](image)

**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 If you use ECM 3.x: On the OpenLab CDS Shared Services server:
   - “Configure Windows Server 2016” on page 17
     OR
   - “Configure Windows Server 2012 R2” on page 21

2 Configure the AIC. If you purchased an Agilent ChemStation AIC bundle system, see *ChemStation Edition AIC (M8304AA) Setup Guide*.

3 On the OpenLab CDS Clients:
   - “Configure Windows 10” on page 25
     OR
   - “Configure Windows 7” on page 33

4 These steps are optional:
   - a “Copy Installation Files to a Centralized Folder for Installation” on page 45.
   - b “Run the System Configuration Checker” on page 49.

5 “Install the Third Party Tools” on page 47.

6 If you use ECM 3.x: “Install the OpenLAB CDS Shared Services Server” on page 51.

7 “Install a Client” on page 64.
8. **Install an Agilent Instrument Controller (AIC)** on page 68.
   After installation: **Configure the Antivirus Program** on page 60

9. 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 Guide for Administrators*. 
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Configure the Operating System

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This chapter describes the configuration of the different operating systems for workstations, clients, 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.

Some 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 a graphical or minor impact. To indicate the relative importance of individual settings, each item is categorized as:

- MUST: These changes must be applied.
- PERFORMANCE: These changes will improve system performance.
- OPTIONAL: Most of these changes will affect the graphical display of the application.
Windows Configuration Check for OpenLAB CDS ChemStation Edition

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

The OpenLAB CDS configuration check tool helps to troubleshoot the Operating System configuration and to prevent computer problems. It checks and repairs all mandatory settings. It does not check optional settings or settings that improve the performance.

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.

To start the configuration check, call the file Agilent.Wtp.ChemStation.WindowsConfiguration.diagcab. This file is located in Disk6\Tools\OpenLAB CDS ChemStation Edition\Diagnostics\WindowsConfiguration\Cab\n
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).
2 Configure the Operating System

Security Notes

Keep your computer disconnected from the internet until you have installed the appropriate security patches and hot fixes. It is strongly recommended that you install the latest security fixes as supported from Agilent Technologies and virus definitions prior to connecting to a network.

- Install Windows from the Microsoft installation media. 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.
- On the OpenLAB CDS Shared Services server, do not install or configure any server role or feature.
- 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.

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.
Configure Windows Server 2016

The following steps are sorted by where they are done (for example, Microsoft Control Panel or other settings). Read the entire chapter and ensure that you follow at least all *Must* settings.

**In the Microsoft Control Panel:**

(Right-click the Windows Start menu and select Search. Enter "Control Panel" and choose the Control Panel app from the results. View the items by icon to see a list of all items.)

[MUST] 1 **System**: Under *Windows activation*, click *Change product key*. Enter a valid value to activate Windows.

[MUST] 2 **Administrative Tools**: Configure 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*.

[MUST] 3 **Date and Time**: Choose the time zone of your regional location.

[MUST] 4 **File Explorer Options**: 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*.

[MUST] 5 **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.
Configure the Operating System
Configure Windows Server 2016

[MUST] 6 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).

[MUST] 7 Programs and Features:
- a. Click Turn Windows features on or off.
   The Server Manager opens with the Add Roles and Features Wizard dialog.
- b. Under Server Selection, select the relevant server.
   This enables the Features page.
- c. On the Features page:
   - Enable .NET 3.5 by selecting the .NET Framework 3.5 (includes .NET 2.0 and 3.0) check box.
     This option requires an internet connection.

   NOTE If the computer has no internet access, .NET Framework 3.5 will not install. For more details see http://support.microsoft.com/kb/2785188.

   - To make sure that all the net.tcp components are properly initialized, Non-HTTP activation must be enabled. Expand the .NET Framework 3.5 (includes .NET 2.0 and 3.0) node and select the Windows Communication Foundation Non-HTTP Activation check box.
   - Enable .NET 4.5 by selecting the .NET Framework 4.5 check box.

[OPTIONAL] 8 Region: Language for non-Unicode programs:
- On the Administrative tab, click Change system locale.... From the drop down list, select English (United States).

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

Configure Windows Server 2016

[PERFORMANCE] 9 System: Change system properties:
   a Click Advanced system settings.
   b On the Advanced tab under Performance, click Settings.
      • Visual Effects tab, uncheck all entries.
      • 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.
      • Data Execution Prevention tab: Enable Turn on DEP for essential Windows programs and services only.
   c On the Advanced tab under Startup and Recovery, click Settings.
      • System startup section: Change both Time to display ... fields from 30 to 3 sec.

In the Windows Settings:
(Right-click the Windows Start menu and select Search. Enter "Settings" and choose the Settings app from the results.)

[MUST] 1 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.

[MUST] 2 Start > Settings > Update & security:
Click Check for updates to check for updates and apply all patches. Before proceeding, ensure that all updates are downloaded and installed. Ensure that there is no reboot pending.

[MUST] 3 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.
2 Configure the Operating System

Configure Windows Server 2016

[MUST] 4 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.

Other settings:

[MUST] 1 Disable Windows Update service.
   a In the Windows Start menu, enter Windows Administrative Tools in the Type here to search field, then choose the Administrative Tools Control panel; Click Component Services.
   b Select Console Root > Services (Local).
   c Double click Windows Update.
   d On the General tab, set the Startup type to Disabled. Confirm your settings.

[MUST] 2 For Agilent 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.

[MUST] 3 File Explorer (go to Start > Windows System > File Explorer), View ribbon tab:
   a Select the Details layout.

[OPTIONAL] 4 Recycle Bin Properties: (right-click on desktop icon Recycle Bin). Enable the following options:
   • Custom size; select a size corresponding to approximately 10% of the complete disk space for the drive.
   • Check Display delete confirmation dialog.
Configure Windows Server 2012 R2

The following steps are sorted by where they are done (for example, Microsoft Control Panel or other settings). Read the entire chapter and ensure that you follow all Must settings.

Make sure that Windows hotfix KB2999226 (Update for Universal C Runtime in Windows) is installed on your system before installing ChemStation.


In the Microsoft Control Panel:

(Right-click the Windows Start menu and select Search. Enter "Control Panel" and choose the Control Panel from the results. View the items by icon to see a list of all items.)

[MUST] 1 System: Under Windows activation, click Change product key. Enter a valid value to activate Windows.

[MUST] 2 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.

[MUST] 3 Administrative Tools: Disable services:
   a Double-click Services.
   b Double-click the Application Experience service. Set the startup type to Disabled.

[MUST] 4 Date and Time: Choose the time zone of your regional location.

5 Devices and Printers:
   Right-click the printer that you want to set as default, then select Set as default printer.
Configure the Operating System

Configure Windows Server 2012 R2

[MUST] 6 Display:
   a. Click *Change window colors*.
   b. Make sure that *Windows Basic* is selected.

[MUST] 7 Folder Options: In the *View* tab,
   - Enable *Always show menus*.
   - Clear *Hide extensions for known file types*.
   - Enable *Display the full path in the title bar (Classic theme only)*.

Apply these settings to all folders by selecting the *Apply to Folders* button.

[MUST] 8 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.

[MUST] 9 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).

[MUST] 10 Programs and Features:
   a. Click *Turn Windows features on or off*.

      The *Server Manager* opens with the *Add Roles and Features Wizard* dialog.

   b. Under *Server Selection*, select the relevant server.

      This enables the *Features* page.

   c. On the *Features* page:

      - Enable .NET 3.5 by selecting the * .NET Framework 3.5 (includes .NET 2.0 and 3.0)* check box.

      This option requires an internet connection.

**NOTE** If the computer has no internet access, .NET Framework 3.5 will not install. For more details see [http://support.microsoft.com/kb/2785188](http://support.microsoft.com/kb/2785188).
Configure the Operating System

Configure Windows Server 2012 R2

- To make sure that all the net.tcp components are properly initialized, Non-HTTP activation must be enabled. Expand the .NET Framework 3.5 (includes .NET 2.0 and 3.0) node and select the Windows Communication Foundation Non-HTTP Activation check box.

- Enable .NET 4.5 by selecting the .NET Framework 4.5 check box.

[OPTIONAL] 11 Region: Language for non-Unicode programs:

On the Administrative tab, click Change system locale.... From the drop down list, select English (United States).

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

[PERFORMANCE] 12 System: Change system properties:

a. Click Advanced system settings.

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

- Visual Effects tab, uncheck all entries.

- 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.

- Data Execution Prevention tab: Enable Turn on DEP for essential Windows programs and services only.

Click OK to close the Performance Options dialog.

c. On the Advanced tab under Startup and Recovery, click Settings.

- System startup section: Change both Time to display ... fields from 30 to 3 sec.


a. Check for updates and apply all critical security patches.

b. Click Change Settings. Set the Important updates selection to Never check for updates. Deselect the other update options.

NOTE: This setting is important to avoid problems due to an automatic system reboot.
2 Configure the Operating System
Configure Windows Server 2012 R2

Other Windows settings:

[MUST] 1 For Agilent 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.

[MUST] 2 File Explorer (go to Start > Windows System > File Explorer), View ribbon tab:
   a Select the Details layout.

[OPTIONAL] 3 Recycle Bin Properties: (right-click on desktop icon Recycle Bin). Enable the following options:
   • Custom size; select a size corresponding to approximately 10% of the complete disk space for the drive.
   • Check Display delete confirmation dialog.
Configure Windows 10

Configure Windows as described in the following steps. Alternatively, run the OpenLAB CDS configuration check tool (see “Windows Configuration Check for OpenLAB CDS ChemStation Edition” on page 15).

The following steps are sorted by where they are done (for example, Microsoft Control Panel or other settings). Read the entire chapter and ensure that you follow all *Must* settings.

**NOTE**
The following descriptions apply to Windows 10 Build 1709. The settings for higher builds may differ slightly.

**In the Microsoft Control Panel:**

*(In the Windows Start menu, enter "Control Panel" in the Type here to search field; choose the Control Panel Desktop app, then view the items by icon to see a list of all items.)*

1. **System**: Under *Windows activation*, click *Change product key*. Enter a valid value to activate Windows.

2. **Administrative Tools**: Configure 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*.

3. **Date and Time**: Choose the time zone of your regional location.

4. **File Explorer Options**: 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*. 
[MUST] 5 Indexing Options: Disable indexing.
Click the Modify button. Select Show all locations, and clear all drives and locations.

[MUST] 6 Network and Sharing Center:
   a Select Change adapter settings. Right-click Local Area Connection > Properties > Configure.
   b On the Power Management tab, clear all check boxes.

[MUST] 7 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).

[MUST] 8 Programs and Features:
   a Click Turn Windows features on or off.
   b Enable .NET 3.5 by selecting the .NET Framework 3.5 (includes .NET 2.0 and 3.0) check box.
      This option requires an internet connection.
   c To make sure that all the net.tcp components are properly initialized, Non-HTTP activation must be enabled. Expand the .NET Framework 3.5 (includes .NET 2.0 and 3.0) node and select the Windows Communication Foundation Non-HTTP Activation check box.
   d Select the .NET Framework 4.7 Advanced Services check box. Use the default values for sub items.
   e Select the Internet Explorer 11 check box.
   f Select the Telnet Client check box.

NOTE If this procedure does not work as expected, or the computer has no internet access, install .NET 3.5 from the Windows installation media (see details for Windows 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.
Configure Windows 10

g Select the **TFTP Client** check box.

h Reboot the PC if necessary.

[OPTIONAL] 9 **Region**: Language for non-Unicode programs:

On the **Administrative** tab, click **Change system locale**. From the drop down list, select **English (United States)**.

**NOTE**

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

[PERFORMANCE] 10 **System**: Change system properties:

a Click **Advanced system settings**.

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

- **Visual Effects** tab: 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**

- **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 On the **Advanced** tab under **Startup and Recovery**, click **Settings**.

- **System startup** section:

  Change both **Time to display ... fields from 30 to 3 sec.**

- **System failure** section:

  Select **Automatically restart**.

  In the **Write debugging information** subsection, select **Kernel memory dump** from the drop-down list.

  Click **OK** to close the **Startup and Recovery** dialog.
Configure the Operating System

Configure Windows 10

- **d** On the **System Protection** tab:
  - Make sure that **Protection** is turned off. If required, click **Configure** and select **Disable system protection**.

- **e** 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**.

**In the Windows Settings:**

**[MUST]** 1. **Start > Settings > Update & security**:
   - Click **Check for updates** to check for updates and apply all patches. Before proceeding, ensure that all updates are downloaded and installed. Ensure that there is no reboot pending.

**[MUST]** 2. **Start > Settings > Update & security > Windows Defender**:
   - a. Click **Turn on Windows Defender Antivirus**.
   - b. Click **App & browser control**.
      - Turn off SmartScreen under **Check apps and files**, **SmartScreen for Microsoft Edge**, and **SmartScreen for Windows Store apps**.

**[MUST]** 3. **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**.

**[MUST]** 4. **Start > Settings > Apps > Offline Maps**: Turn **Metered connections** and **Map updates** off.

**[MUST]** 5. **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.
Configure Windows 10

   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.

[PERFORMANCE] 7 Start > Settings > Apps > Default Apps: Select Internet Explorer as default Web browser.

[PERFORMANCE] 8 Start > Settings > Personalization > Colors: Turn Transparency effects off.

[OPTIONAL] 9 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.

[OPTIONAL] 10 Start > Settings > Personalization: In the Taskbar tab, under Taskbar buttons select Combine when taskbar is full.
   This will simplify switching between open CDS instances.

Other Windows settings:

[MUST] 1 Disable Windows Update service.
   a In the Windows Start menu, enter Windows Administrative Tools in the Type here to search field, then choose the Administrative Tools Control panel; Click Component Services.
   b Select Console Root > Services (Local).
   c Double click Windows Update.
   d On the General tab, set the Startup type to Disabled. Confirm your settings.

[MUST] 2 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.
2 Configure the Operating System
Configure Windows 10

[MUST] 3 Enable the navigation pane:
Open Windows Explorer, then select **View > Navigation pane** from the ribbon and make sure that **Navigation pane** is selected.

[MUST] 4 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**.

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

[OPTIONAL] c Set **Don’t display the Getting Started welcome screen at logon** to **Enabled**.

[OPTIONAL] 5 **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.

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**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 Master 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.

2. Click Change adapter settings.

3. Press ALT to bring up the menu.

4. Select Advanced Settings....

   ![Advanced Settings dialog, Adapters and Bindings tab](image)

   Figure 3   Advanced Settings dialog, Adapters and Bindings tab

   

   View the items by icon to see a list of all items.
5 In the **Adapters and Bindings** tab (see Figure 3 on page 31):

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.
Configure Windows 7

Configure Windows as described in the following steps. Alternatively, run the OpenLAB CDS configuration check tool (see “Windows Configuration Check for OpenLAB CDS ChemStation Edition” on page 15).

The following steps are sorted by where they are done (for example, Microsoft Control Panel or other settings). Read the entire chapter and ensure that you follow all Must settings.

**NOTE**

Make sure that Windows hotfix KB2999226 (*Update for Universal C Runtime in Windows*) is installed on your system before installing ChemStation.


In the Microsoft Control Panel:

(In the Windows Start menu, enter "Control Panel" in the Search programs and files field; choose the Control Panel Desktop app, then view the items by icon to see a list of all items.)

**[MUST]** 1 System: Under Windows activation, click Change product key. Enter a valid value to activate Windows.

**[MUST]** 2 Windows Update:

a Click Check for updates to check for updates and apply all critical security patches.

b Click Change settings. In the Important updates section, select Never check for updates. Clear the other update options.

**NOTE**

This setting is important to avoid data loss due to system reboot during data acquisition.
2 Configure the Operating System

Configure Windows 7

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

[MUST] 4 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**.

[MUST] 5 Date and Time: Choose the time zone of your regional location.

[MUST] 6 Folder Options: 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**.

[MUST] 7 Indexing Options: Disable indexing.
   Click the **Modify** button. Select **Show all locations**, and clear all drives and locations.

[MUST] 8 Network and Sharing Center:
   a Select **Change adapter settings**. Right-click **Local Area Connection > Properties > Configure**.
   b On the **Power Management** tab, clear all check boxes.

[MUST] 9 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).
Configure the Operating System

Configure Windows 7

### 10 Programs and Features:
- **a** Click *Turn Windows features on or off*.
- **b** Expand the *Microsoft .NET Framework 3.5.1* node and select the *Windows Communication Foundation Non-HTTP Activation* check box.
- **c** Select the *Internet Explorer 11* check box.
- **d** Select the *Telnet Client* check box.
- **e** Select the *TFTP Client* check box.
- **f** Reboot the PC if necessary.

### 11 Region and Language:
- **a** Regional 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)

### 12 Region and Language (Optional):
- Language for non-Unicode programs: On the *Administrative* tab, click *Change system locale...*. 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.

### 13 System:
- Change system properties:
  - **a** Click *Advanced system settings*.
  - **b** On the *Advanced* tab under *Performance*, click *Settings*.
    - *Visual Effects* tab: 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
Configure the Operating System

Configure Windows 7

- **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 On the **Advanced** tab under **Startup and Recovery**, click **Settings**.

  - **System startup** section:
    
    Change both **Time to display ...** fields from 30 to 3 sec.

  - **System failure** section:
    
    Select **Automatically restart**.

    In the **Write debugging information** subsection, select **Kernel memory dump** from the drop-down list.

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

  d On the **System Protection** tab:

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

  e 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**.

**Other Windows settings:**

**[MUST]** 1 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.

**[MUST]** 2 Enable the navigation pane:

Open Windows Explorer, then select **Organize > Navigation pane** and make sure that Navigation pane is selected.
[MUST] 3 Windows logon options: Right-click Start, select Run from the context menu, then type `gpedit.msc` in the Run field

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

[OPTIONAL] c. Set Don't display the Getting Started welcome screen at logon to Enabled.

[OPTIONAL] 4 General Layout: (right-click Start > Properties)
   a. Start Menu Tab: In the Privacy section select both items
   b. Start Menu Tab > Customize button: In Customize Start Menu dialog:
      • Clear the following option:
         • Favorites menu
      • Select the following options:
         • Computer Display as a link
         • Connect To
         • Control Panel: Display as a menu
         • Default Programs
         • Devices and Printers
         • Documents: Display as a link
         • Enable context menus and dragging and dropping
         • Games: Don't display this item
         • Help
         • Highlight newly installed programs
         • Music: Don't display this item
         • Network
         • Open submenus when I pause on them with the mouse pointer
         • Personal folder: Display as a link
         • Pictures: Display as a link
         • Run command
         • Search other files and libraries Search with public folders
         • Search programs and Control Panel
2 Configure the Operating System
Configure Windows 7

- Sort All Programs menu by name
- System administrative tools: Display on the All Programs menu and in the Start menu
- Use large icons

[OPTIONAL] 5 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.

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 Master 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 Center¹.
2 Click Change adapter settings.

¹ View the items by icon to see a list of all items.
3 Press **ALT** to bring up the menu.

![Image of Advanced Settings dialog](image)

4 Select **Advanced Settings**.

![Image of Advanced Settings dialog, Adapters and Bindings tab](image)

5 In the **Adapters and Bindings** tab (see Figure 4 on page 39):
   - 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.
Configure a Printer

ChemStation offers the possibility to configure a default printer.

In a Distributed System, use physical printers to ensure correct function from all clients. Prepare the printer configuration in your Windows operating system. You will select the printer after OpenLab CDS ChemStation Edition installation, when configuring your instruments.

Follow the steps below to add a network printer as a local printer.

1. On the AIC Server, open the Microsoft Control Panel, and 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.
3

Install the Software

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Install a Client 64
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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 Instrument Controller (AIC).
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.

2. 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).

3. 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.
   - CDS clients must be connected via network to the Shared Services server.
   - If you plan to use a central data storage, CDS client 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_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 144).
   - If you plan to use the default PostgreSQL database, no additional setup steps are required. PostgreSQL will be installed by the OpenLAB CDS Installer.

4. For the Shared Services database, obtain the:
   - Database name
   - Database administrator user name and password
   - Authentication mode
   - Administrator user credentials (domain, user name, password)
3 Install the Software
Before You Begin

5 If you plan to use OpenLab Server/OpenLab ECM XT, refer to the Agilent OpenLAB ECM XT Installation Guide.

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

7 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.

8 Decide on the software delivery approach you want to use:
   - Install directly from the USB medium — Insert the USB medium directly at the workstation computer. (Recommended)
   - Copy installation files to a centralized location — You can use the utility to copy the installation files, for example, to a network share folder, and run the installation from that location. However, some networks may interfere with installation.

9 When you launch the application, you will be able to review the following PDFs in the installer Planning menu before you install the software:
   - OpenLAB CDS 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.
   - OpenLAB CDS Networked Workstation and Distributed System — A link to this installation guide in PDF format is provided for your convenience.

10 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 Requirements guide.

11 Make sure that the antivirus software is disabled during the installation.

12 Make sure that no upgrades will run for any software during the installation.

13 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 15) and in the Site Preparation Tool (see “Run the System Configuration Checker” on page 49).

14 Make sure .NET 3.5 and .NET 4.6 are activated as Windows features.
   For installation instructions, see “Install .NET 4.6” on page 48.
Prepare for Installation

To prepare for an installation on a server computer or networked workstation:

1. For the direct approach, insert the installation medium.
2. For the shared file approach, copy all installation files to a centralized folder as described below.
3. For the portable data storage device approach, insert the device in a computer USB port.

To begin installation, navigate to `\Disk1\Setup.bat`. Right-click the file and run it as administrator to proceed to the Planning screen.

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 Master 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:
   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.

NOTE: Installations into the root of a drive may cause problems during operations and are not supported.
Install the Software
Prepare for Installation

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 the Third Party Tools

The OpenLAB CDS ChemStation Master Installer offers a list of tools that can be installed directly from the Installation screen.

Install Adobe PDF Reader

You need Adobe Reader DC Classic to ...

- view site prep or administrative reports (such as system reports)
- use the Report Viewer feature
- view Software Verification Reports

NOTE
If an older version of Acrobat Reader (11 or earlier) is installed on your system, you must deinstall it first. Otherwise, the installation below would result in an Acrobat Reader version that pushes automatic updates on a regular basis.

To install Adobe Reader DC Classic:

1 In the Master Installer, select Installation.
2 Under Third Party Tools, select Adobe PDF Reader.
   a The Adobe Reader setup screen appears. Click Install to continue.
   b If Adobe Reader was successfully installed, click Finish to exit the setup screen.

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

Run AcroRdr2017_MUI.bat and follow the instructions of the Adobe Reader Setup wizard.

NOTE
If you install Adobe PDF Reader directly from the installation medium: When you open a PDF file for the first time, you will be asked to confirm the Adobe Reader license agreement. This dialog will appear for each newly configured instrument.
3 Install the Software  
Install the Third Party Tools

NOTE Ensure that PDF documents are not opened as new tabs in the same window. To verify, click Edit > Preferences in Acrobat Reader. In the General category, the Open documents as new tabs in the same window check box must be cleared. If you change this setting, using the Report Viewer feature will cause an error.

Install .NET 4.6

If .NET 4.6.1 is not installed on your system, its installation will automatically be triggered by the installation wizard. However, Windows requires write access to the installation files. Installing directly from the USB medium will therefore not be possible.

1. Copy the folder Disk1\Tools\DotNet4.6 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 Instrument Controllers (AICs) with a Chinese or Japanese operating system: Install the required .NET Framework Language Pack.

1. Copy the folder Disk1\Tools\DotNet4.6 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, visit the Keysight download page: http://www.keysight.com/upload/cmc_upload/All/readme_IOLS_17_2_20605_2.htm.
Run the System Configuration Checker

1. Run the Master Installer from the USB medium or from a centralized folder. From the Planning screen, select System Configuration Checker.

2. 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).

3. Select OK.

4. Complete page 1 of the Contact Information—System details by typing in the fields provided.
   - System Location fields
   - System Information fields
   - Configuration fields

5. Review the system details and make any necessary entries. The system will follow the paths specified.

6. 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.
3 Install the Software
Run the System Configuration Checker

**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.

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

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

9 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 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 Master Installer, select Installation.
3. Select OpenLAB CDS ChemStation.
4. The OpenLAB CDS Installation Wizard opens. Read the terms of the License Agreement. Master 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.
3 Install the Software
Install the OpenLAB CDS Shared Services Server

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 85).

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.
Install the Software

Install the OpenLAB CDS Shared Services Server

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.
3 Install the Software
Install the OpenLAB CDS Shared Services Server

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.

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.

**NOTE**
To view the system report as PDF file, Adobe PDF Reader must be installed (see “Install Adobe PDF Reader” on page 47).
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 “Set up Authentication Provider and Storage Location” on page 98 and “Configure Security Policy” on page 100.
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 Master Installer, select **Installation**.
2. Select **OpenLAB CDS ChemStation**.
3. The **OpenLAB CDS Installation Wizard** opens. Read the terms of the **License Agreement**. Master 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.
Install the Software
Install a Networked Workstation

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 86).

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 (see “Set up Authentication Provider and Storage Location” on page 98).

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, you can:

• Enter a new server and try another test.
• Call internal support for assistance if you cannot connect to a server.
3 Install the Software
Install a Networked Workstation

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.

   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 76).

   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.

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 crashes.

1 In the Microsoft Control Panel, click Windows Defender Firewall1.
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....

1 View the items by icon to see a list of all items
3 Install the Software

Install a Networked Workstation

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.

**Configure the Antivirus Program**

Be sure to open the firewall ports listed in the Firewall Settings in the OpenLAB CDS ChemStation Edition Requirements guide.

**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 12.x 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.
Install the Software

Install a Networked Workstation

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

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.

- agilentiolibriesservice.exe
- chemmain.exe
- apg_top.exe
- iprocsvr.exe
- iproc8491.exe
- msinsctl.exe
- httpdmsd.exe
- epcsetup.exe
3 Install the Software
Install a Networked Workstation

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

Configure Default Printer

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.

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.
Install the Software

Install a Networked Workstation

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.

Check Acrobat Reader Settings

Ensure that PDF documents are not opened as new tabs in the same window. If you change this setting, using the Report Viewer feature will cause an error.

To verify, click Edit > Preferences in Acrobat Reader. In the General category, the Open documents as new tabs in the same window check box must be cleared.
3 Install the Software

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 Master Installer, select Installation.
2. Select OpenLAB CDS ChemStation.
3. The OpenLAB CDS Installation Wizard opens. Read the terms of the License Agreement. Master 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 85 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 (see “Set up Authentication Provider and Storage Location” on page 98).
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, you can:
      • Enter a new server and try another test.
      • Call internal support for assistance if you cannot connect to a server.
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.

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.

---

**NOTE** To view the system report as PDF file, Adobe PDF Reader must be installed (see “Install Adobe PDF Reader” on page 47).
Install an Agilent 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 Master Installer, select **Installation**.
2. At the Installation screen, select OpenLAB CDS Installation.
3. The **OpenLAB CDS Installation Wizard** opens. Read the terms of the **License Agreement**. Master 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 85 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.
   - Choose the authentication service provider which you configured on the OpenLAB CDS Shared Services server.
   - Provide the corresponding user credentials (see “Set up Authentication Provider and Storage Location” on page 98).
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, you can:
     - Enter a new server and try another test.
     - Call internal support for assistance if you cannot connect to a server.
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.
   - If you clear the **Use customized instrument accounts** check box, the system will use default instrument accounts with passwords consisting of 12 characters.
Install the Software
Install an Agilent Instrument Controller (AIC)

If you select the check box, provide the path to a users.xml file under Accounts file. This xml file must contain your customized instrument accounts and passwords. You can take Disk1\Setup\CSAICFiles\users.xml as a template.

Directory names must be entered without spaces.

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.

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

**NOTE**

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 (see “Install Adobe PDF Reader” on page 47).

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.
3 Install the Software
Install an Agilent Instrument Controller (AIC)

Post Installation Tasks on the AIC

Allow ChemMain Through Firewall

Carry out the following procedure to prevent ChemStation crashes.

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

Configure the Antivirus Program

Be sure to open the firewall ports listed in the Firewall Settings in the OpenLAB CDS ChemStation Edition Requirements guide.

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 12.x 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.

1 View the items by icon to see a list of all items
Install an Agilent Instrument Controller (AIC)

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
- apg_top.exe
- iprocsrvr.exe
- iproc8491.exe
- msinsctl.exe
- httpdmsd.exe
- epcsetup.exe

<table>
<thead>
<tr>
<th>Process</th>
<th>Directory</th>
<th>File name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Data acquisition</td>
<td>%public%\Documents\ChemStation</td>
<td>Data, methods, sequences, reports etc.</td>
</tr>
<tr>
<td></td>
<td>(or the corresponding folder for instrument data that you provided during installation)</td>
<td></td>
</tr>
<tr>
<td>ECM upload/download (if applicable)</td>
<td>%temp% for Windows users (=Users' temp directory)</td>
<td>*.ssizip</td>
</tr>
<tr>
<td>Standard reports</td>
<td>%temp% for Windows users (=Users' temp directory)</td>
<td>~p3d*.tmp, ~job*.tmp, Hpspl00.que</td>
</tr>
<tr>
<td>CDS intelligent reports</td>
<td>%LOCALAPPDATA%, %APPDATA%, %PROGRAMDATA%</td>
<td>Files on: Agilent, Agilent Technologies, Agilent_Technologies_Inc, IsolatedStorage, Temp e.g.: C:\Users\xxxxx\AppData\Local\Agilent Technologies\Intelligent Reporting\RawDataFileCache</td>
</tr>
</tbody>
</table>
3 Install the Software
Install an Agilent Instrument Controller (AIC)

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

Configure Default Printer

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.

Check Acrobat Reader Settings

Ensure that PDF documents are *not* opened as new tabs in the same window. If you change this setting, using the Report Viewer feature will cause an error.

To verify, click *Edit > Preferences* in Acrobat Reader. In the General category, the *Open documents as new tabs in the same window* check box must be cleared.
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 *OpenLAB CDS ChemStation Edition Guide for Administrators.*
Scripted Installation

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

About Scripted Installation

The OpenLAB CDS Master 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 Master 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 Master Installer wizards.

1. Launch the OpenLab CDS 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.

<table>
<thead>
<tr>
<th>Component Name</th>
<th>Id</th>
</tr>
</thead>
<tbody>
<tr>
<td>Software Verification Tool (IQT)</td>
<td>IQT</td>
</tr>
<tr>
<td>Microsoft SQL Server (SQLServer)</td>
<td>SQLServer</td>
</tr>
<tr>
<td>IO Library (IOLibraries)</td>
<td>IOLibraries</td>
</tr>
</tbody>
</table>
Install the Software
Scripted Installation

- `ConfigurationXML="<ConfigurationXMLFilePath>"`
  
  The XML file contains all required inputs of the Master Installer to install, upgrade, or repair a certain topology (see “Export as XML” on page 76). 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

<table>
<thead>
<tr>
<th>Error/Return Code</th>
<th>Return value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unknown (default)</td>
<td>-1</td>
</tr>
<tr>
<td>Success</td>
<td>0</td>
</tr>
<tr>
<td>CoreComponentFailure</td>
<td>1</td>
</tr>
<tr>
<td>NonCoreComponentFailure</td>
<td>2</td>
</tr>
<tr>
<td>TestConnectivityFailure</td>
<td>3</td>
</tr>
<tr>
<td>ExpectedWindowsInstallerNotInstalled (WI 4.5 missing)</td>
<td>4</td>
</tr>
<tr>
<td>ParameterMismatchError</td>
<td>5</td>
</tr>
<tr>
<td>CannotProceedWithFreshInstallation</td>
<td>6</td>
</tr>
<tr>
<td>CannotProceedWithUpgrade</td>
<td>7</td>
</tr>
<tr>
<td>CannotProceedWithUninstallation</td>
<td>8</td>
</tr>
<tr>
<td>CannotProceedWithRepair</td>
<td>9</td>
</tr>
<tr>
<td>CannotProceedWithReRegistration</td>
<td>10</td>
</tr>
<tr>
<td>ReRegistrationNotSupported</td>
<td>11</td>
</tr>
<tr>
<td>IncompleteTopologyFound</td>
<td>12</td>
</tr>
<tr>
<td>InvalidUNCPATH</td>
<td>13</td>
</tr>
</tbody>
</table>
### Table 2  Return codes

<table>
<thead>
<tr>
<th>Error/Return Code</th>
<th>Return value</th>
</tr>
</thead>
<tbody>
<tr>
<td>MissingInstallable</td>
<td>14</td>
</tr>
<tr>
<td>NotAStrongPassword</td>
<td>15</td>
</tr>
<tr>
<td>DowngradeNotSupported</td>
<td>16</td>
</tr>
<tr>
<td>RestartRequired</td>
<td>17</td>
</tr>
<tr>
<td>RegistryCleanupError</td>
<td>18</td>
</tr>
<tr>
<td>InvalidInputXML</td>
<td>19</td>
</tr>
<tr>
<td>InvalidMode</td>
<td>20</td>
</tr>
<tr>
<td>SitePrepFailure</td>
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<tr>
<td>DatabaseConnectionFailed</td>
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<td>DotNetFramework4NotInstalled</td>
<td>23</td>
</tr>
<tr>
<td>OLSSConnectionFailed</td>
<td>24</td>
</tr>
<tr>
<td>PDFReaderNotInstalled</td>
<td>25</td>
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<tr>
<td>AllComponentsInstallationFailed</td>
<td>26</td>
</tr>
<tr>
<td>SomeComponentsInstallationFailed</td>
<td>27</td>
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<tr>
<td>Failed</td>
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</tr>
<tr>
<td>AddOnListEmpty</td>
<td>29</td>
</tr>
<tr>
<td>EULANotAccepted</td>
<td>30</td>
</tr>
<tr>
<td>ScriptedNotSupported</td>
<td>31</td>
</tr>
</tbody>
</table>
Installation, Upgrade, or Repair

In installation mode, the OpenLAB CDS Master 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 Master Installer evaluates the products already installed on your system. Depending on the installed components, the Master Installer will offer one of the following options:

- Start a fresh installation
- Upgrade
- Repair

If a required installable is missing, the Master 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 45). 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 77). 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 `<BaselInstallDirectory>\Logs`
- During uninstallation: under `<User's Temp>\<Company Name>\Logs\<Log folder>\<Wizard Name>.txt`
Install Additional Software and Drivers

OpenLAB CDS ChemStation Edition offers a wizard to help you installing additional software, such as drivers for third-party instruments. To open the wizard, go to **Start > All programs > Agilent Technologies > OpenLAB > 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.
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 projects, users, and instruments. This is accomplished through the OpenLAB CDS Control Panel, see the Configure OpenLAB CDS ChemStation Edition in the Control Panel chapter in this guide.
3 Install the Software

What to do Next
4 Optional Procedures

Run a Software Verification after Software Installation  86
Improve Performance on Offline Machines  87
Protect ChemStation Folders with Secure File IO  88

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.

1. Using your Windows operating system, go to Start > All Programs > Agilent Technologies > Software Verification Tool.

2. Select Qualify.
   The system will run the application and generate a Software Verification Report.

3. 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. Windows 7: 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.
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 Guide for Administrators.
This chapter describes how to obtain and install a licence.
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 93.

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.
Get a License

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 a list of numbers for various countries.

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 +.
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.

Click OK.

The Administration interface in the Control Panel will now display the status of installed licenses.
This chapter describes the initial configuration steps after installing the software. Refer to the online help for more information.
Configure OpenLAB CDS ChemStation Edition in the Control Panel
Set up Authentication Provider and Storage Location

Set up Authentication Provider and Storage Location

1. Open OpenLAB Control Panel from the OpenLAB Control Panel shortcut on the desktop, or go to Start > All Programs > Agilent Technologies > OpenLAB > OpenLAB Control Panel.

2. From the navigation pane, select Administration > System Configuration.

3. In the System Configuration toolbar, select Edit System Settings.

Figure 6  Edit System Settings dialog in the OpenLAB Control Panel

4. In the Edit System Settings window, select your authentication provider from the drop-down list.

If you installed a server, the Internal authentication provider is automatically configured during the installation. If required, you can change the authentication provider to Windows domain.
Configure OpenLAB CDS ChemStation Edition in the Control Panel
Set up Authentication Provider and Storage Location

5 Select your storage provider from the drop-down list.
   The storage type **Content Management** is available only if OpenLab Server/OpenLAB ECM XT has been deployed.

6 Select **Next**.

7 Select a user to administrate the system.
   a If you selected **Internal** as an authentication provider:
      • Select **Create Account**.
      • In the **Create Administrator Account** dialog box, enter a **Name** and a **Password**.
   b If you selected **Windows Domain** as an authentication provider:
      • Select the check box to activate the input fields.
      • Enter a **Domain**, **User**, and **Password**.
      • Select **Select Account**.
      • Enter a search string.
      • In the **Search Users** dialog box, select **Search** to view a list of users.
      • Select a user.
   c If you selected **ECM** as an authentication provider:
      • Provide the **ECM Server URL** and enter the ECM user credentials.
      • Select **Select Account**.
      • Enter a search string.
      • In the **Search Users** dialog box, select **Search** to view a list of users.
      • Select a user.

8 Select **OK**.

9 Select **Next**.

10 Review your settings and select **Apply**.
Configure Security Policy

If you need to comply with specific standards, adjust the security policy as required.

With the authentication provider **Internal**, you can set all parameters in the Control Panel. With an external authentication provider, you can only set the inactivity time and enable Single Sign-On in the Control Panel; all other parameters are defined by the external system.

The Single Sign-On setting is only available for the authentication provider **Windows Domain**. With Single Sign-On enabled, you will not see the Control Panel login screen. However, an inactivity timeout of 10 min will be set for the ChemStation software.

1. Launch the Control Panel and navigate to **Administration**.
2. In the navigation pane, select **Security Policy**.
3. In the ribbon, click **Edit Security Policy**.
Configure Users/Groups/Roles

1. Launch the OpenLAB Control Panel and navigate to Administration.
2. Select Users in the Navigation Window. Import/Create Users that will have access to the OpenLAB CDS Workstation.
3. Select Groups in the Navigation Window. Import or Create Groups that will have access to the OpenLAB CDS Workstation.
4. Select Roles in the Navigation Window. Create/edit Roles and assign Users or Groups to those Roles.
5. If you use ECM: There are several default roles in both ECM and ChemStation Edition. In both systems, you must assign a specific role to each group. Roles and privileges must be configured separately for ECM and ChemStation:
   - The privileges set in ECM define the accessible content and functions in ECM.
   - The privileges set in the OpenLAB Control Panel define the instrument privileges, the functions that are available in ChemStation, and also which administrative tasks can be carried out in the OpenLAB Control Panel.

For details, refer to the Users, Roles, and Privileges Concept with ECM section in the OpenLAB CDS ChemStation Edition with Central Data Storage User's Guide (CDS_CS-with-DataStorage.pdf).
Create or import users

Use the OpenLAB Control Panel to manage the roles and privileges. You can create custom roles, or assign one or more of the predefined roles to give users varying degrees access.

**Add users (Internal Authentication only)**

1. From the navigation pane, click *Administration > Users*.
2. In the *Create User* dialog, provide the relevant parameters:
   - Enter the name and password for the new user.
   - By default, the new user will need to change the password at next logon. If this is not required, clear the *User must change password at next logon* check box.
   - In the *Role Membership* tab, assign the user to an appropriate role. You can use the default roles, or prepare your own roles in the Control Panel under *Administration > Roles*.
3. Click *OK*.

**Import users**

To add Windows domain users to your system, you must have privileges to obtain user and group information from the domain.

1. From the navigation pane, click *Administration > Users*.
2. In the ribbon, click *Import*.
3. In the *Search Users* dialog box, enter search string for the username.
4. From the *Search Results* list, select the user you want to import, and click *Add*. The user is added to the *Selected Users* list.
5. Repeat steps 2 through 4 until you have added all the user names that you want to import to the *Selected Users* list, then click *OK*.
Groups

If you use an external authentication provider, you can either import the names of groups that exist in the external system, or create new internal groups. There is no limit on the number of groups that can be mapped or created.

Assign users to groups either in the external system or in the Control Panel. If you need additional user assignments that are relevant only for OpenLab CDS ChemStation Edition, create them in the Control Panel. Otherwise it is sufficient to only import the groups and assign the required roles to the groups.

If you delete or unmap a group, the users who were members in this group remain unchanged.

Roles and Privileges

Roles are used to assign privileges to a user or a user group globally or for a specific instrument or location. The system contains a list of predefined roles which are installed as part of the system installation (for example, Instrument Administrator, Instrument User, or Everything). Each role has certain privileges assigned.

Privileges are grouped according to the three main role types (Project role, Instrument role, and Administrative role). When you assign privileges to a role, you first select the required role type and then select the privileges related to this role type. Each role can only have privileges of one specific role type; the only exception is the predefined role Everything, which has all privileges of all role types. Users or groups may require multiple roles to perform system functions. For example, a user with the role Chemist may need another role such as Instrument User with the privilege to run an instrument.

You can create a tree of different locations in the Control Panel, and add instruments to the relevant locations. For each instrument or instrument group, you can assign different Instrument roles (see also “Specific Roles for Individual Instruments” on page 104). For example, a user can have the role Instrument Administrator for one instrument, and Instrument User for another instrument.
Configure OpenLAB CDS ChemStation Edition in the Control Panel
Configure Users/Groups/Roles

You can also create a tree of different projects or project groups in the Control Panel, and assign different Project roles for different projects (see also “Specific Roles for Individual Instruments” on page 104). For example, a user can have the role **Project Administrator** in one project, so that he can manage the settings in the Control Panel. In a second project, he may have a role that allows him to edit the content of a project, but not to change the project settings.

**Table 3** Description of role types

<table>
<thead>
<tr>
<th>Role Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Administrative privileges</td>
<td>These privileges are globally assigned to a user or group and cannot be changed on the instrument/location level. They are the typical administrative privileges such as <strong>Backup and restore</strong>, <strong>Manage security</strong>, <strong>Manage printers</strong> etc.</td>
</tr>
<tr>
<td>Instrument privileges</td>
<td>These privileges can be assigned globally or on the instrument/location level. Privileges for instruments are, for example, <strong>View instrument or location</strong> and <strong>Run instrument</strong>. Users need the <strong>View instrument or location</strong> privilege on the global level to see the locations and instruments tree in the Control Panel.</td>
</tr>
<tr>
<td>Project privileges</td>
<td>Privileges to control the available options inside the ChemStation application.</td>
</tr>
</tbody>
</table>

**Specific Roles for Individual Instruments**

By default, the roles of users or groups are globally set for all locations or instruments. The role settings are inherited from the root node **Instruments**. In order to assign a different role to a user or group for one specific node, you can deselect the **Inherit privileges from parent** check box in the **Edit Privileges** dialog for the required node. Afterwards, you can assign a different role that will be valid only for the specific node.

You can assign **Instrument** roles to individual locations or instruments.

**Administrative** roles are always set globally.
Configure Instruments

1. Launch the OpenLAB Control Panel and navigate to **Instruments**.
2. Click **Create** in the ribbon to create a new instrument.
3. Select the new instrument, and click **Configure Instrument** in the ribbon.
4. It is recommended that you use Auto Configuration to configure your instruments: Select a module, click **Auto Configuration**, and provide the instrument's IP address or hostname.
5. If you use a Distributed System: Configure a default printer for your instrument.
   a. Click **Additional configuration** in the bottom right corner of the **Configure Instruments** dialog.
   b. Select **Default Printer**, then select the required printer.

**NOTE**
Select a physical printer to ensure correct function on all clients.

6. Confirm your settings

Configure OpenLAB CDS ChemStation Edition in the Control Panel
Configure Instruments
This chapter describes the upgrade to OpenLAB CDS ChemStation Edition C.01.09 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 “Configure the Operating System” on page 13.

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 110.

**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.
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 2.2 or 2.3 Networked Workstation. Data Analysis is then available on the 2.x Networked Workstation. For details on this scenario, refer to Networked Workstations in Distributed Systems in the OpenLab CDS ChemStation Edition Guide for Administrators (CDS_Admin.pdf).

### Backward Compatibility During Upgrade

During an upgrade project there might be different versions of OpenLAB CDS 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 OpenLAB CDS ChemStation Edition Guide for Administrators (CDS_Admin.pdf).
Update Classic Instrument Drivers to RC.NET

With C.01.08, only RC.NET drivers are available (with exception of LC/MS drivers).

Instruments and methods with Classic drivers are not converted automatically during the ChemStation upgrade to C.01.08. You must convert them manually to RC.NET driver (for example, for 35900E or 6890 instruments). To do that, perform the following steps before upgrading to C.01.08.

1. Record the IP address for each Classic driver instrument.
2. Print the Classic Driver method settings or save the method listing to disk.
3. Back up the methods and data to another location.
4. To reconfigure the instrument, select the instrument in the Agilent 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.
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.

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**.

![Configuration mismatch: Default parameters loaded for 'Agilent 35900E Interface'.](image)

The method is converted to the RC.NET.

Methods updated to RC.NET have an additional Agilent folder and RapidControl.InstrumentConfig file.

11 Review the method.
   
   **a** Select **Method > Edit Entire Method**.
   
   **b** Review the modified settings, and save the method.
   
   **c** Make a test run to verify the method.
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 145 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 to a New Software Version
Upgrade a Server With OpenLab CDS Shared Services Server Software

Upgrade a Server With OpenLab CDS Shared Services Server Software

To upgrade to C.01.09, 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 upgrade as the same user who initially installed OpenLab CDS ChemStation Edition.

1. Run the Master Installer. From the Master Installer Planning screen, switch to the Installation screen.
2. Click OpenLAB CDS ChemStation. If OpenLAB CDS ChemStation Edition is already installed, this automatically opens the upgrade wizard.
3. In the Upgrade Type screen, enter the credentials for OpenLAB Shared Services.
4. Select Next to proceed to the Summary screen.
5. 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.

6. 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 Master Installer. From the Master Installer Planning screen, switch to the Installation screen.

2 Select OpenLAB CDS ChemStation.

   If OpenLAB CDS ChemStation Edition is already installed, this automatically opens the upgrade wizard.

3 Acknowledge that the license has been upgraded and click Next to continue.

   For details on upgrading the license, see “License Upgrade” on page 113.

4 Select I agree with the terms and conditions. You cannot proceed with the upgrade unless you agree to these terms. Click Next.

5 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.

6 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.

7 Select Finish to close the upgrade wizard.

8 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.
7 Upgrade to a New Software Version

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Uninstall the Software

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

Like the installation, the uninstallation of OpenLAB CDS is automated by the OpenLAB CDS Master Installer.

**NOTE**

If the Master 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 can be uninstalled.

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

For uninstalling OpenLAB CDS, 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 > Agilent Technologies > OpenLAB > Uninstall OpenLAB CDS.
   The OpenLAB CDS 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 at a later time.

3. In the Summary screen under Uninstallation of OpenLAB CDS 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.
Uninstall the Software

Run the Uninstallation Wizard on an Instrument Controller

Run the Uninstallation Wizard on an Instrument Controller

1. Select **Start > Agilent Technologies > OpenLAB > Uninstall OpenLAB CDS**.
   
The **OpenLAB CDS 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 at a later time*

3. In the **Summary** screen under **Uninstallation of OpenLAB CDS 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 > Agilent Technologies > OpenLAB > Uninstall OpenLAB CDS. The OpenLAB CDS 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.
8 Uninstall the Software
Run the Uninstallation Wizard on a Networked Workstation

Run the Uninstallation Wizard on a Networked Workstation

1 Select Start > Agilent Technologies > OpenLAB > Uninstall OpenLAB CDS.
   The OpenLAB CDS 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 at a later time
3 In the Summary screen under Uninstallation of OpenLAB CDS 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.
Networked and Distributed System Installation and Configuration

9 Troubleshooting

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The chapter gives some troubleshooting hints.
About Troubleshooting

The OpenLAB CDS Master 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 “Configure ChemStation Instrument Users via XML” on page 131 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.
Click Next. Use the default displayed printer name or change it to a suitable expression if required.

Click Next. The printer will be installed.

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

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

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 Requirements guide (CDS_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

Configure ChemStation Instrument Users via XML

During installation of OpenLAB CDS, the instrument users names and passwords can be configured by an XML file.

The default XML file has the following structure:

```xml
<xml version="1.0" encoding="utf-8">
  <users>
    <user UserName="CSIUser0" />
    <user UserName="CSIUser1" />
    <user UserName="CSIUser2" />
    <user UserName="CSIUser3" />
    <user UserName="CSIUser4" />
    <user UserName="CSIUser5" />
    <user UserName="CSIUser6" />
    <user UserName="CSIUser7" />
    <user UserName="CSIUser8" />
    <user UserName="CSIUser9" />
    <user UserName="CSIUser10" />
  </users>
</xml>
```
OpenLAB CDS Master Installer fills the structure with the created passwords and the machine-prefixed user names:

```xml
<?xml version="1.0" encoding="utf-8" ?>
<users>
  <user UserName="wwadpl03\CSIUser0" Password="aZ1=kE4$nP8#" />
  <user UserName="wwadpl03\CSIUser1" Password="hM6%cB2!kE4#" />
  <user UserName="wwadpl03\CSIUser2" Password="yU7&lF9$oG6(" />
  <user UserName="wwadpl03\CSIUser3" Password="rS3=bC3!jE4)" />
  <user UserName="wwadpl03\CSIUser4" Password="xS8%vM8=qX0)" />
  <user UserName="wwadpl03\CSIUser5" Password="nW9%uM7!xZ7^" />
  <user UserName="wwadpl03\CSIUser6" Password="uK0%wJ8+kA6+" />
  <user UserName="wwadpl03\CSIUser7" Password="lM5!mT9+vQ3#" />
  <user UserName="wwadpl03\CSIUser8" Password="gZ2[nJ8{aL6&" />
  <user UserName="wwadpl03\CSIUser9" Password="rT8%vM9-qX0" />
  <user UserName="wwadpl03\CSIUser10" Password="hM6%cY1!kE5#" />
</users>
```

Please retain this file in a safe location for later troubleshooting.
Change Passwords for ChemStation Instrument Users

OpenLAB CDS Master Installer offers the option to specify different user names or passwords during the installation of an AIC. When using domain users, it might become necessary to change their passwords on a regular basis.

1 Specify different user names or passwords:
   a Provide domain users in the form: *UserName*="*<domain name>*\<*user name>*".

2 Change domain user passwords:
   a Press Ctrl-Alt-Del and select **Change a Password**.
   b Enter *<domain>*\<*user name>* in the **User name** box, together with the old password and new password (2 times) in the respective boxes.
   c Repeat step 2b for each instrument user.
   d Copy the passwords to the users.xml file (make sure the passwords comply with the domain policy for passwords).
   e Register the new passwords with Shared Services as described in section “Register ChemStation Instrument Users with Shared Services” on page 134.
   f Restart OpenLAB Control Panel before launching the reconfigured instruments.

---

**NOTE**

Make sure that at least 11 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>*".

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

```
<users unsafe="true"/>
```

---

Make sure that at least 11 different user names are provided. If you provide the same username twice, instrument access conflicts will arise.
Register ChemStation Instrument Users with Shared Services

To re-register the retained, if necessary edited, users.xml file perform the following steps:

1. On the AIC, select **Start > Command Prompt**.
2. Type `cd <ChemStation installation directory>\Core` and press **Enter**.
3. 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**.
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 “Configure ChemStation Instrument Users via XML” on page 131).

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
   b. 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 “Configure ChemStation Instrument Users via XML” on page 131).

**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.

   **NOTE**
   This requires domain administrator privileges.

   - Register the users and passwords during installation of the AIC (see “Register ChemStation Instrument Users with Shared Services” on page 134)
   - 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 “Configure ChemStation Instrument Users via XML” on page 131).

   **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 “Configure ChemStation Instrument Users via XML” on page 131).
   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 “Register ChemStation Instrument Users with Shared Services” on page 134.
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 135 and “Remote Desktop Users Group is Emptied by Group Policy” on page 136):
   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.


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

If you missed the recommendations from the driver preparation (see “Update Classic Instrument Drivers to RC.NET” on page 110), 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 Agilent 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:
   - **Always ask the user to choose an option**
   - **Download method to instrument on start up** (select this option to match the behavior of the classic driver)
   - **Upload method from instrument**
   - **New method from instrument**

10 Click **OK** to complete.
9 Troubleshooting
Reconfigure Instruments Using Classic Drivers After Upgrade to ChemStation C.01.08 or Higher

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.

![Configuration mismatch: Default parameters loaded for 'Agilent 35900E Interface'.]

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.
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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.
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:


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 and configure Agilent OpenLab CDS ChemStation Edition Networked Workstations or Distributed Systems.