Agilent

OpenLab CDS Workstation

Installation and Configuration

Notices

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This guide is valid for revision 2.5 of Agilent OpenLab CDS.

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Safety Notices

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In this Guide ...

This document provides instructions for installation, configuration, administration, and maintenance of an OpenLab CDS Workstation. It includes information on the license generation with SubscribeNet and operating system configuration.

Table 1 Terms and abbreviations used in this document

Term	Description
Control Panel	Control Panel for Agilent OpenLab software
Microsoft Control Panel	Part of the Microsoft Windows operating system
Shared Services	Set of administrative services that control, for example, the security policy and the central configuration of OpenLab CDS. Shared services are accessed via the Control Panel.

1 Prepare your PC

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

2 Install OpenLab CDS Workstation

This chapter describes the installation of the software.

3 Post Installation Tasks

This chapter describes tasks that are relevant after finishing the installation.

4 Optional Procedures

This chapter describes the installation or upgrade of additional software. It also contains information on the installation of OpenLab Help and Learning only, and on performance improvement on offline machines.

5 Licensing

This chapter provides basic information on OpenLab licensing. It describes how you generate a license file with SubscribeNet and install the license in the Control Panel.

6 Configure OpenLab CDS Workstation

This chapter describes the initial configuration steps after installing the OpenLab CDS software. All configuration tasks are performed in the Control Panel. For more details, refer to the Control Panel section in OpenLab Help & Learning.

7 About the OpenLab CDS Software

This chapter contains an overview of the software architecture and customization options.

8 System Setup and Maintenance

This chapter contains information on the Control Panel and Shared Services Maintenance. In addition, it describes various maintenance procedures.

9 Upgrade OpenLab CDS

This chapter describes the upgrade from OpenLab CDS 2.0 or higher to the current version of OpenLab CDS.

10 Uninstall OpenLab CDS With All of its Components

This chapter describes the uninstallation of the software.

Contents

1 Prepare your PC

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Install and Update Windows

1. Install the Windows operating system from the Microsoft installation media or qualified PC image media provided by your IT department. During the setup, provide the computer name, administrator password and network settings.

   For the computer name, do not use underscores; installation is not possible if the computer name contains an underscore.

   Choose to either join an existing domain or set up the system in a workgroup mode
2. In the Microsoft Control Panel under **System> Windows activation**, click **Change product key**. Enter a valid value to activate Windows.
3. Update to the latest Windows 10 edition in accordance to the guidelines of your local IT department.
4. Check for Windows updates, and apply all critical security patches. Make sure that all Windows updates have been performed before installing OpenLab CDS.
5. Check that your computer meets all requirements. You can access the *Workstation Requirements and Supported Instruments* guide (CDS_Requirements.pdf) from the Setup\Docs folder on the installation medium.

   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.
6. 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 *Workstation Requirements and Supported Instruments* guide (CDS_Requirements.pdf).
7. To configure remote settings: In the Microsoft Control Panel navigate to **System> Remote settings**. On the **Remote** tab:
   - In the **Remote Assistance** section, clear the check box **Allow Remote Assistance connections to this computer**.
   - In the **Remote Desktop** section, select **Don't allow connections to this computer**.
8. In the Microsoft Control Panel under **Date and Time**: Choose the time zone of your regional location.

Install the .NET 3.5 and 4.7 Framework

If .NET 3.5 and .NET 4.7.2 or higher are not installed on your system, their installation will automatically be triggered by the installation wizard. However, this may require a system reboot. To avoid the system reboot during installation, install .NET in advance.

1 Go to the Microsoft Control Panel.

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

2 Go to **Programs and Features**.

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

4 Enable .NET 3.5 as follows:

a Expand the **.NET Framework 3.5 (includes .NET 2.0 and 3.0)** node

b Select the **Windows Communication Foundation Non-HTTP Activation** check box

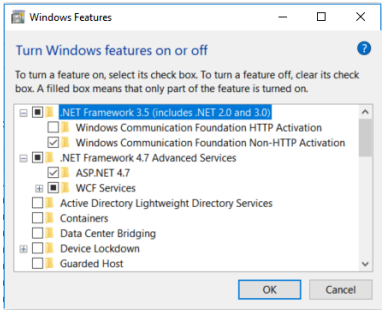


Figure 1 Enable .NET 3.5 (Win 10)

NOTE

This requires an internet connection. If it does not work as expected, or the computer has no internet access, install .NET 3.5 from the Windows installation media. For Windows 10, see details 10 at **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**.

5 Select the **.NET Framework 4.7 Advanced Services** check box. Use the default values for sub items.

Before You Begin the Installation of OpenLab CDS

To simplify installation of the software, it is helpful to decide on some configuration options before you begin the actual software installation.

1 Decide on a computer name.

   The computer name will be reflected in the license. To avoid effort, it is recommend to keep the computer name unchanged after installing OpenLab CDS.

NOTE

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

- Letters (a-z, A-Z)
- Digits (0-9)
- Hyphen (-)

  Do not use an underscore. Installation is not possible if the computer name contains an underscore.

2 Install all required hardware, including any cables, instrument detectors, and communication cables. GPIB interfaces may be required for some non-Agilent instruments.

3 Prepare an account with administrative privileges to run the installation.

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

5 Make sure .NET 3.5 and .NET 4.7 are activated as Windows features. See "Install the .NET 3.5 and 4.7 Framework" on page 9.

6 Check the Agilent Service Notes for software updates for your installation package and software products. Service Notes are available from your Agilent support representative.

7 If you use Trend Micro™ as an antivirus software, turn off **Web Reputation** to allow the installation of all components.

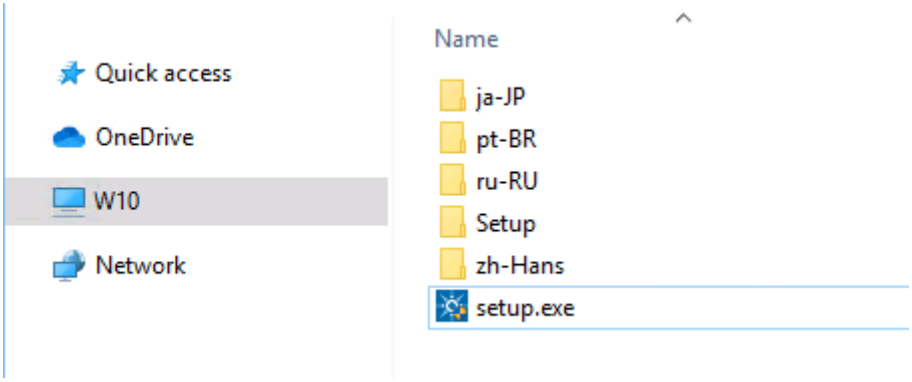
8 If you plan to upgrade from a previous version of OpenLab CDS please refer to the *Upgrade OpenLab CDS* chapter.

Run the System Preparation Tool

The System Preparation Tool (SPT) checks and applies Windows settings on your machine. The majority of the steps are automated by the tool. Applying these settings helps avoid issues during installation and use of the product.

Prerequisites Copy the entire content of the USB media to a local drive or centralized folder, then remove the USB media from the PC.

1 To open the installer, right-click the setup.exe file, and run it as administrator.

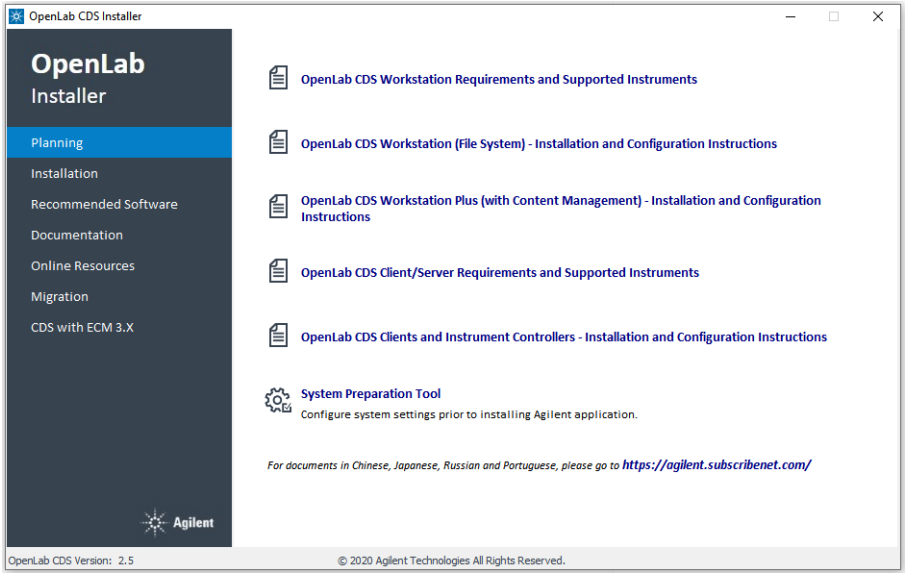


NOTE If User Account Control (UAC) is switched on, this step requires active confirmation to continue.

2 The OpenLab Installer checks if the Microsoft .NET Framework 3.5 SP1 is present and enabled. If it is not, the installer automatically tries to install and activate it.

3 On the start screen, select **OpenLab CDS**, and click **OK**.

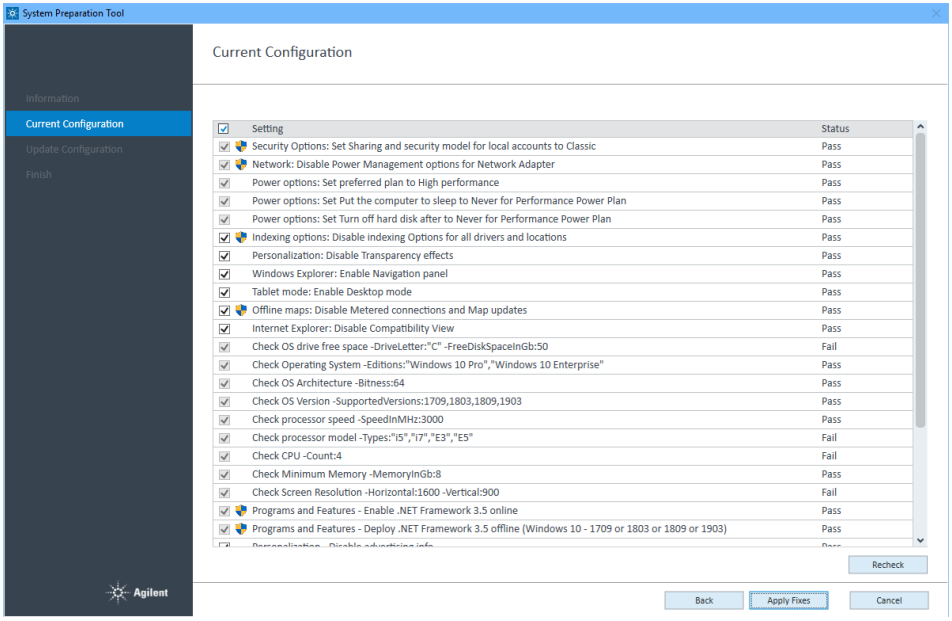
4 From the **Planning** tab, select **System Preparation Tool**. The **System Preparation Tool** window opens.



5 Select the product configuration **OpenLab CDS~2.5~Workstation~Win10** from the drop-down list, and click **Continue**.

The tool checks all settings, and displays the current status (**Pass** or **Fail**) on the **Current Configuration** page.

6 Optionally you can clear the check boxes for recommended settings. Mandatory settings cannot be cleared. The check box in the header row will clear the check boxes for all non-required settings.

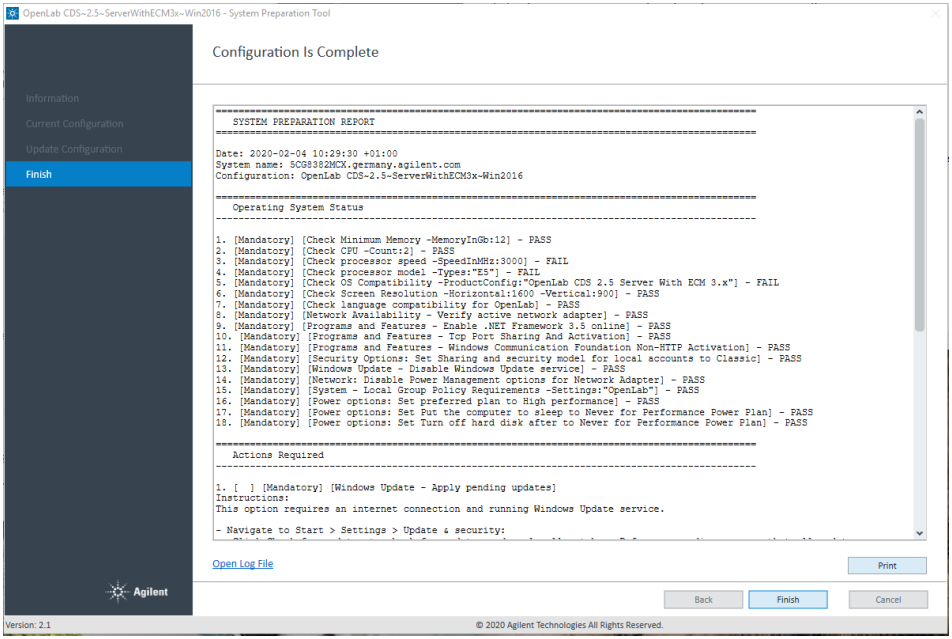


7 Click **Apply Fixes** to apply the correct settings.

The System Preparation Tool attempts to fix the selected settings and displays the new status on the **Update Configuration** page. All actions are saved to a log file.

8 Click **Next** to proceed to the **Configuration is Complete** page.

The *System Preparation Report* is displayed. It lists the new status for all selected settings.



9 Click **Print** to print the *System Preparation Report*.

You may print to a file, for example, using the *Adobe PDF* printer, and add comments.

10 Check if the *System Preparation Report* lists any *Actions Required* concerning settings that you must fix manually. These mandatory or recommended actions are not automated by the System Preparation Tool.

If yes, follow the instructions provided.

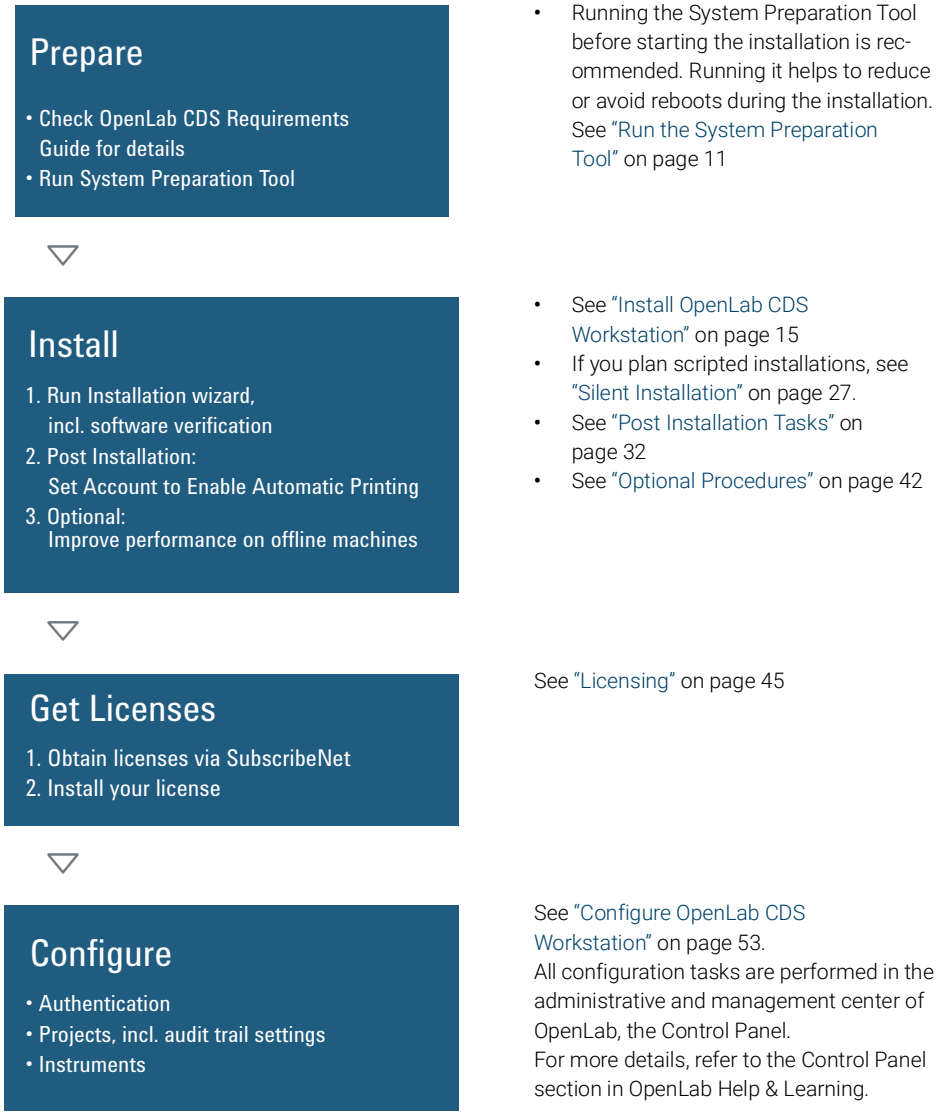
11 Click **Finish**.

12 Reboot your system if requested to do so.

2 Install OpenLab CDS Workstation

This chapter describes the installation of the software.

Installation Workflow Overview



- Running the System Preparation Tool before starting the installation is recommended. Running it helps to reduce or avoid reboots during the installation. See "Run the System Preparation Tool" on page 11

- See "Install OpenLab CDS Workstation" on page 15
- If you plan scripted installations, see "Silent Installation" on page 27.
- See "Post Installation Tasks" on page 32
- See "Optional Procedures" on page 42

See "Licensing" on page 45

See "Configure OpenLab CDS Workstation" on page 53.
All configuration tasks are performed in the administrative and management center of OpenLab, the Control Panel.
For more details, refer to the Control Panel section in OpenLab Help & Learning.

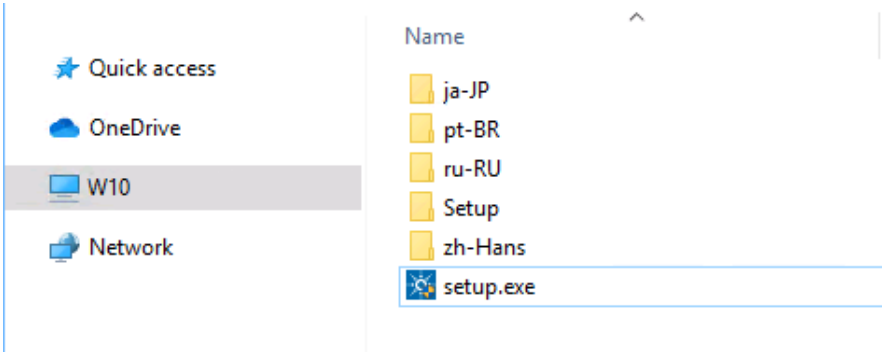
Prepare for Installation

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

   Pending reboots are indicated in the System Preparation Tool (see "Run the System Preparation Tool" on page 11).

Run the OpenLab Installer

1 To open the installer, right-click the setup.exe file, and run it as administrator.



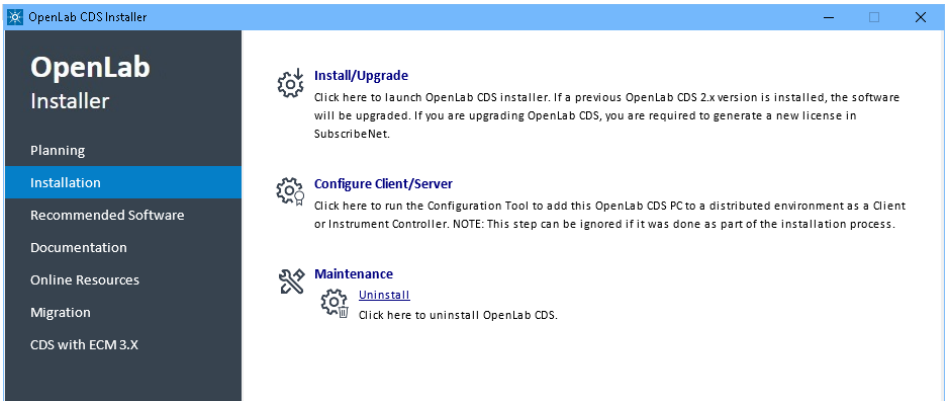
NOTE

If User Account Control (UAC) is switched on, this step requires active confirmation to continue.

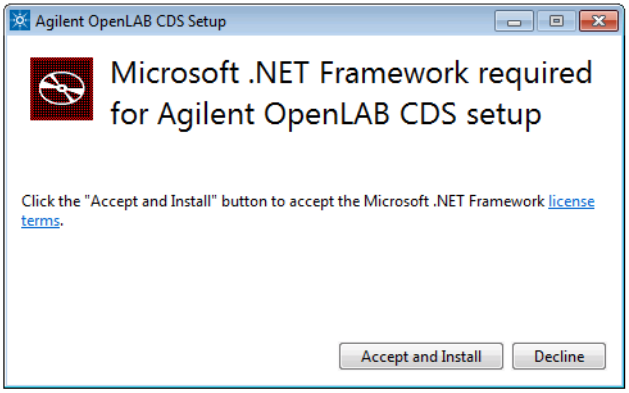
2 The OpenLab Installer checks if the Microsoft .NET Framework 3.5 SP1 is present and enabled. If it is not, the installer automatically tries to install and activate it.

3 On the start screen, select **OpenLab CDS**, and click **OK**.

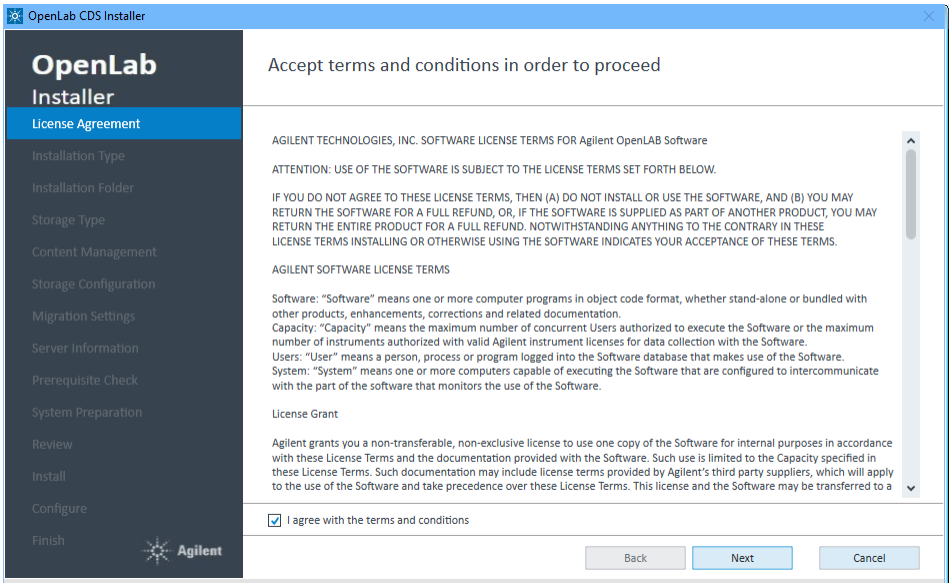
4 Click **Install/Upgrade**.



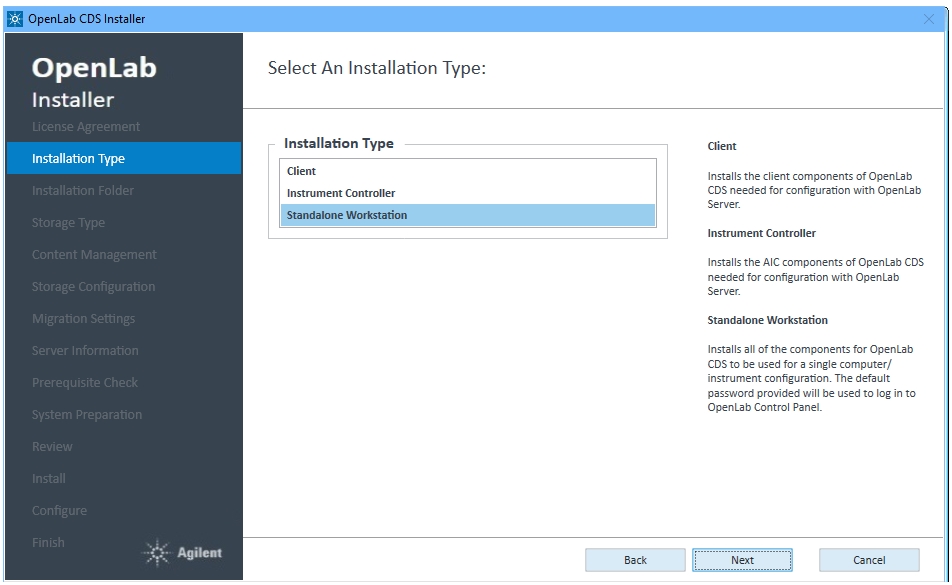
5 The OpenLab Installer checks if correct version of Microsoft .NET Framework is available. If it is not, you will be prompted to install it.



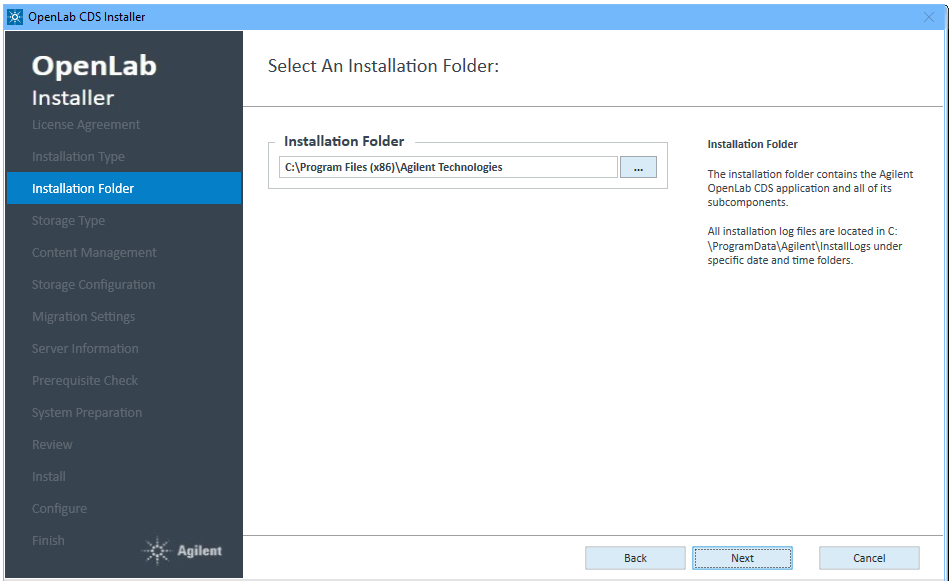
6 **License Agreement**: Read and confirm Agilent terms and conditions.



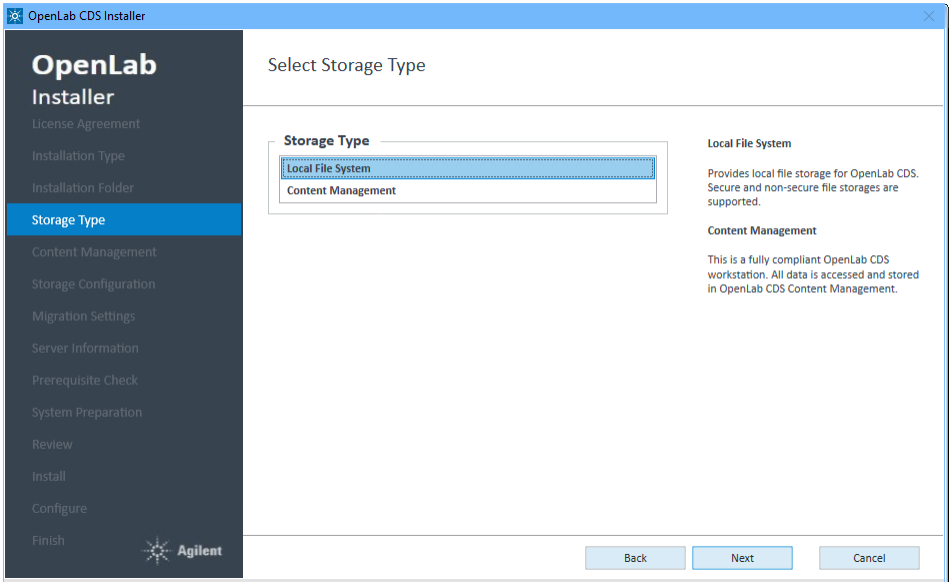
7 **Installation Type**: Select **Standalone Workstation**.



8 **Installation Folder**: Provide an installation folder for OpenLab CDS. Do not use the root folder of any drive.



9 **Select Storage Type**: Choose **Local File System**.



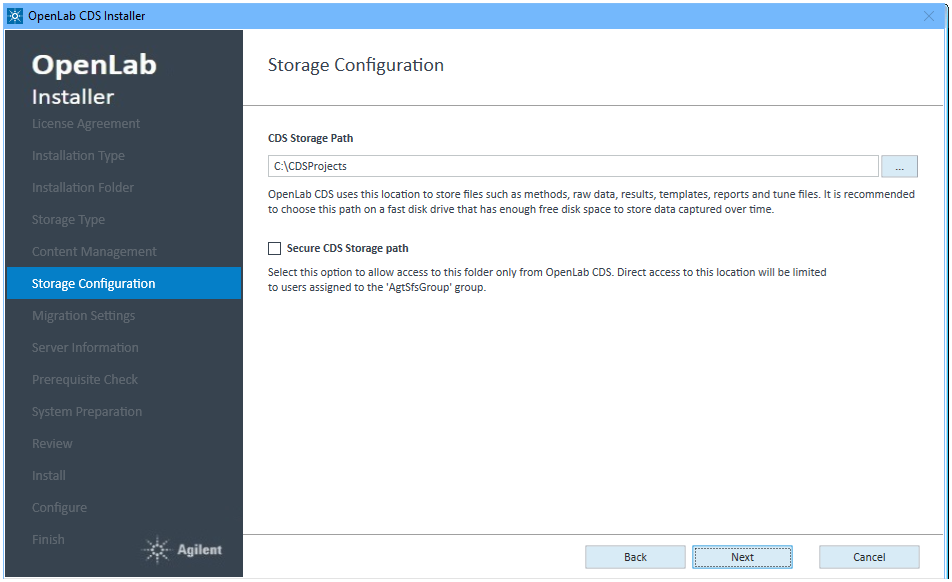
10 **Storage Configuration**: Provide a folder for storing the project data. Do not use the root folder of any drive.

NOTE

The maximum file path length is 256 characters. The characters of project folder names and file names (for example, sequences files or report templates) will also contribute to the maximum numbers of characters.

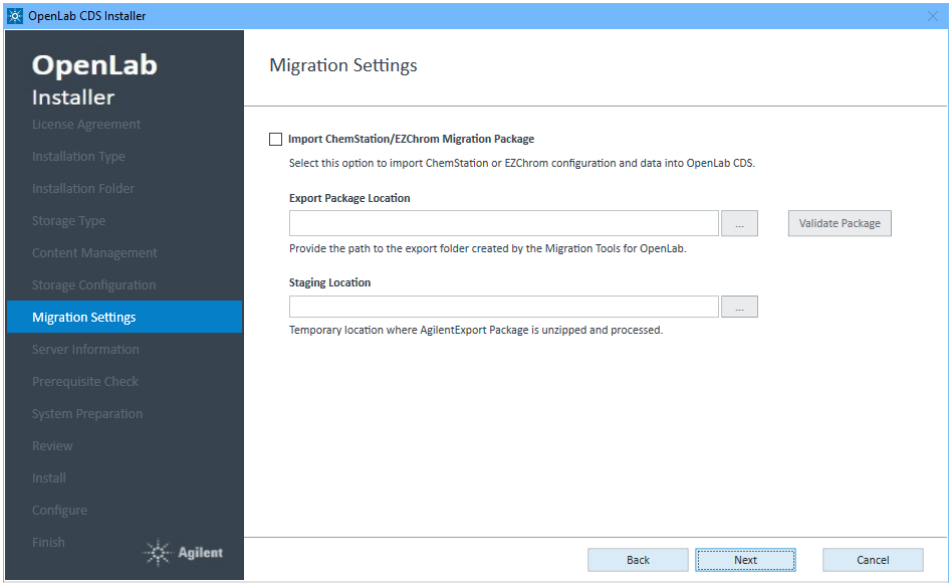
If you want allow access to the projects root path only from within OpenLab CDS, select **Secure 'Projects Root Path'**.

For more information, see "Secure Projects Folders" on page 68.

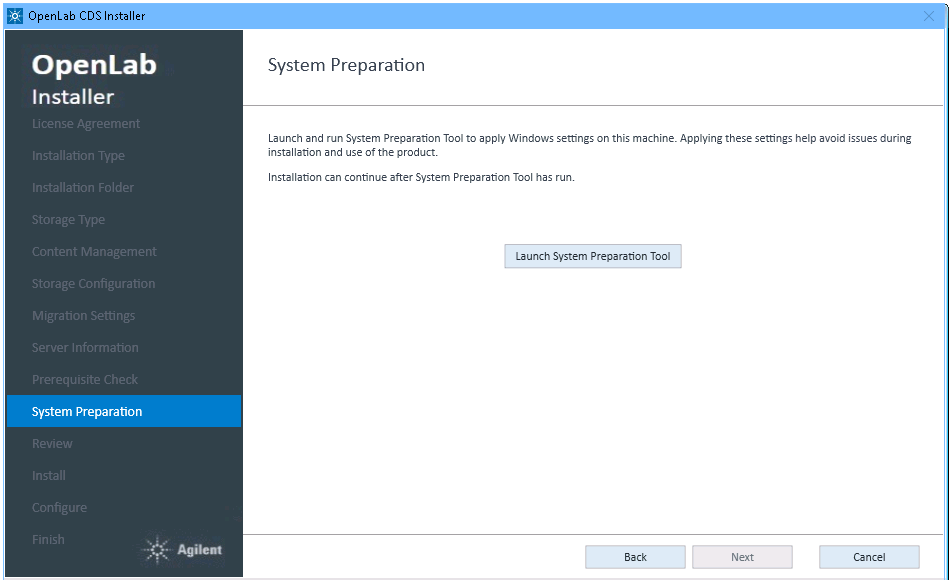


11 **Migration Settings**:

The Migration tool helps you to migrate data from ChemStation or EZChrom. If you want to import data prepared by the Migration tool, select the check box, and provide the required paths. For details, refer to "Migration guides" on page 110.



12 **System Preparation**: Launch the System Preparation Tool to fix the required and recommended settings. For details, see "Run the System Preparation Tool" on page 11. Installation can continue after the System Preparation Tool has run.

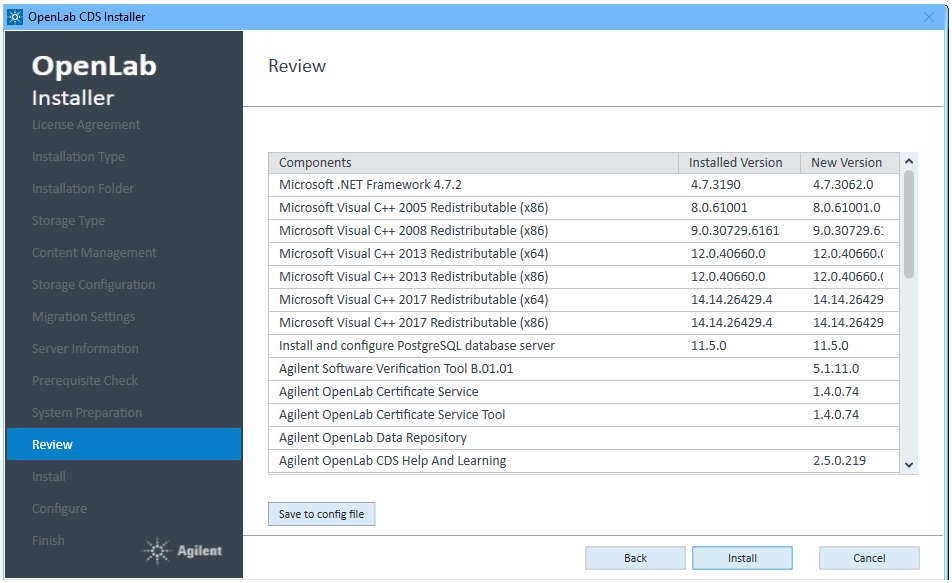


If you already ran the SPT during system preparation, you may click **Cancel** to close the SPT.

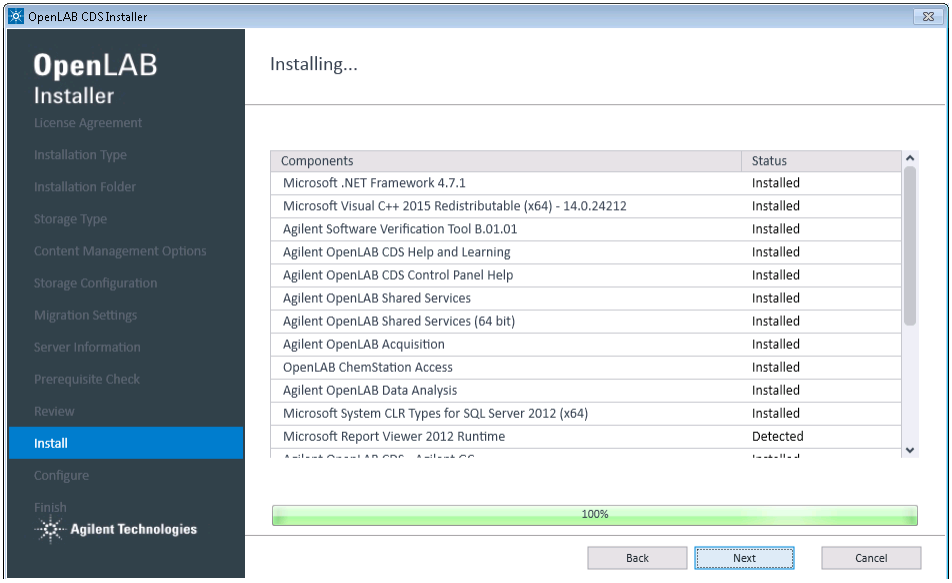
When finished, click **Next**.

13 **Review**: All components that will be installed are listed with their version numbers.

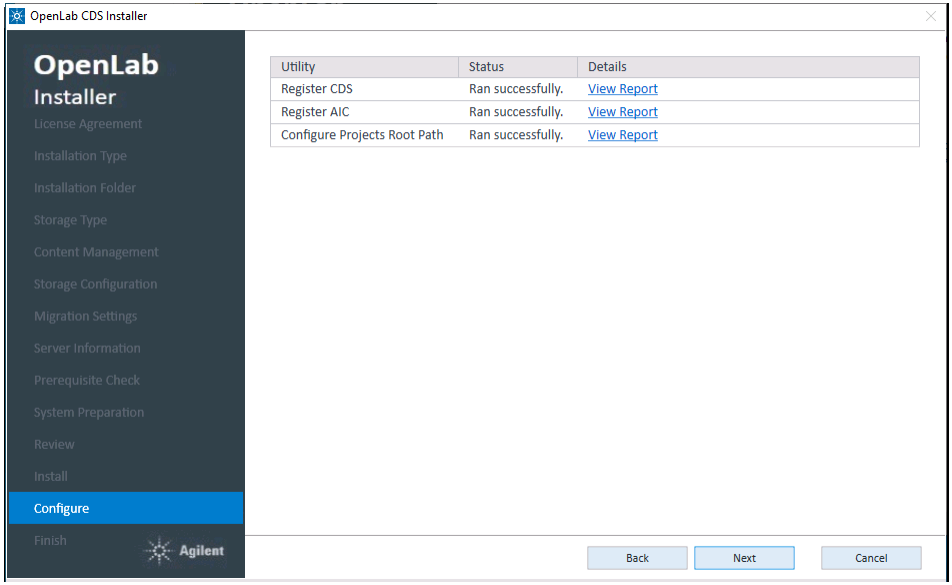
- To save a properties file for a future silent installation (see "Silent Installation" on page 27), click **Save to config File**.
- To start the installation, click **Install**.



14 Install: After the installation has completed, click **Next**.

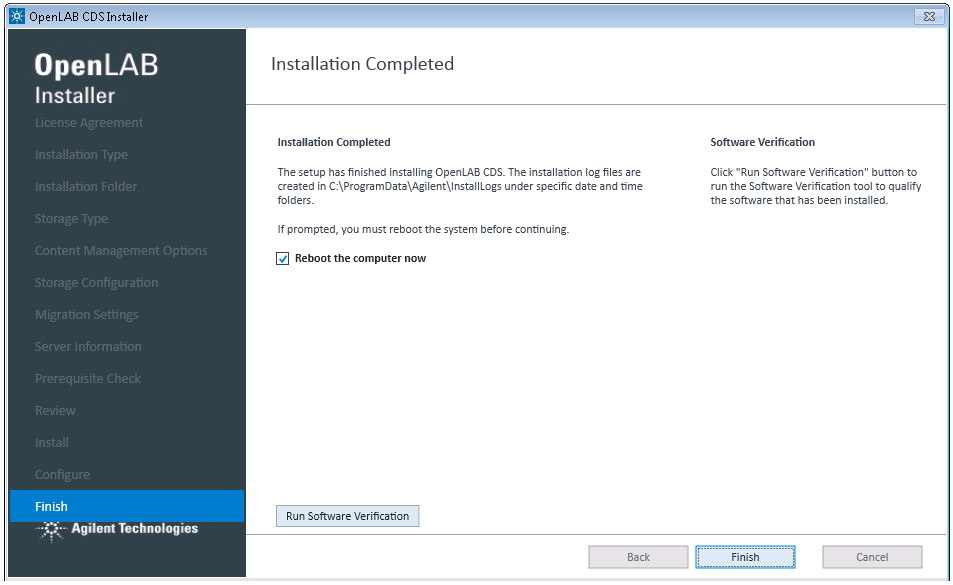


15 Configure: Configuration tools run in the background to configure the local file system. This takes about 10 min. When finished, click **Next**.



16 Finish:

- To confirm everything has been installed correctly, click **Run Software Verification**[1].
- To complete the installation, select the **Reboot the computer now** check box, and click **Finish**.



17 In case of errors during the installation: Check the installation log files under C:\ProgramData\Agilent\InstallLogs\[date and time]. Note that ProgramData is a hidden folder.

The installation includes a set of standard instrument drivers. If you need other instrument driver software, install it in a separate step. See "Install or Upgrade Driver Software" on page 30.

[1] To start the tool separately at a later point in time, select *Start > Agilent Technologies > Software Verification Tool*.

Silent Installation

OpenLab CDS supports a command-line mode for installation, also referred to as *silent installation*. This mode supports installation, upgrade, repair, and uninstallation. You can execute silent installations either manually or as part of software management systems such as LANDesk or HP CM.

Export Properties File

The OpenLab Installer supports a feature to export the installation parameters into a properties file which you can then use for the silent installation.

1. Launch the OpenLab Installer.
2. Follow the instructions of the wizard.
3. When you have reached the **Review** screen, click **Save to config file**.

   Save the file to a suitable location. The file will automatically be saved as a .properties file.

You can now use the properties file for the silent installation.

Run Installation

Prerequisites

- You have prepared a properties file for silent installation. See "Export Properties File" on page 27.
- .Net Framework is present on your system.

  If it is not present, it will automatically be installed. You must then manually select **Accept** to agree with the license agreement.

1. Copy the content of the USB media to a centralized folder.
2. Copy the properties file to the same directory as the CDSInstaller.exe.
3. Right-click the executable of the command prompt or Power shell prompt, and run it as administrator.
4. Navigate to the location where you have saved the installation files.

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

   CDSInstaller.exe -s -c <PropertiesFile>

   For example:

   CDSInstaller.exe -s -c Silent.Properties

   With this command, you start the OpenLab Installer without a user interface.
6. Wait about 5 minutes while the installation takes place. To check the process of installation, look at the log files under %ProgramData%\Agilent\InstallLogs.

   If a required installable is missing, the OpenLab Installer will create an entry in a log file, and, depending on the component type, will continue or roll back the installation. An error code will be returned in such scenarios.
7. After the installation has finished, reboot the PC.

Parameters and Return Codes

Parameters

Use the following parameters when calling CDSInstaller.exe in command-line mode:

- *-s*

  Silent mode - no user interface will be shown.

- *-c*

  Configuration file - a properties file contains all parameters.

- *<PropertiesFile>*

  The properties file contains all required inputs for the installer. Replace <PropertiesFile> with the correct file path and file name. The file must be located in the same directory as the CDSInstaller.exe.

- *-uninstall*

  Uninstall the currently installed CDS.

Return Codes

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

Table 2 Return codes

Error/return code	Return value
Success. You can see all of the information in the log file.	0
Reboot required.	3010 1641 350
Failure. Verify against the log file to see what failed.	any other number

Logging and Tracing

All exceptions, errors and information messages are logged under C:\ ProgramData\Agilent\InstallLogs\<date and time>. Note that ProgramData is a hidden folder.

Install or Upgrade Driver Software

The following driver software packages are automatically installed and configured with OpenLab CDS. For details, refer to the *OpenLab CDS Workstation Requirements and Supported Instruments* guide.

- Agilent GC & GC/MS
- Agilent LC & LC/MS
- Agilent 35900 A/D
- Agilent SS420x
- Agilent Data Player (Virtual Instruments)

Other instrument driver software, add-on software, or upgrades to existing driver software, must be installed and configured manually. Instrument driver software and add-on software can be found on the installation media under Setup\Packages\Add-Ons.

The latest Agilent drivers are available in SubscribeNet. To manage software entitlements and download software, log in to SubscribeNet by pasting this link in your browser: **http://agilent.subscribenet.com**. In the Product List, select **OpenLab Software> OpenLab Agilent Instrument Drivers**.

Install or upgrade driver software

1 Run the installer package, and follow the installation wizard.

   For details on the installation or upgrade procedures, refer to the respective driver documentation.

2 Register driver software with OpenLab CDS.

   See "Register driver software with OpenLab CDS" on page 31.

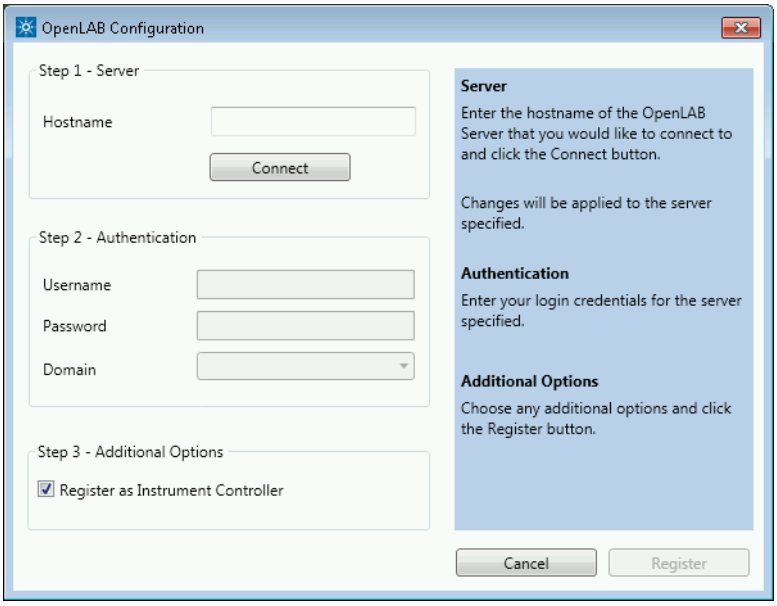
The **OpenLab Configuration** will find all newly installed or updated instrument drivers and register them with the Shared Services. New instrument types will be available in the Control Panel.

Register driver software with OpenLab CDS

The following procedure must be carried out after installing drivers other than the ones listed above, and after upgrading any driver. With these steps you make the new drivers available in OpenLab CDS.

1 In Windows, select **Start> All Programs> Agilent Technologies> OpenLab Configuration**.

2 In the **OpenLab Configuration** tool, enter *localhost* as a server hostname.



3 Click **Connect** to enable the input boxes for the user credentials.

4 Under **Step 2 - Authentication**, enter your user credentials.

5 Make sure the **Register as Instrument Controller** check box is cleared.

6 Click **Register**.

3 Post Installation Tasks

This chapter describes tasks that are relevant after finishing the installation.

Run an Software Verification after Software Installation

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

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

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

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

Create Account to Access Network Share

OpenLab CDS allows you to automatically process your data during acquisition, without opening Data Analysis. During this processing specific domain user privileges to access a network share/network printer and log on as a service are required:

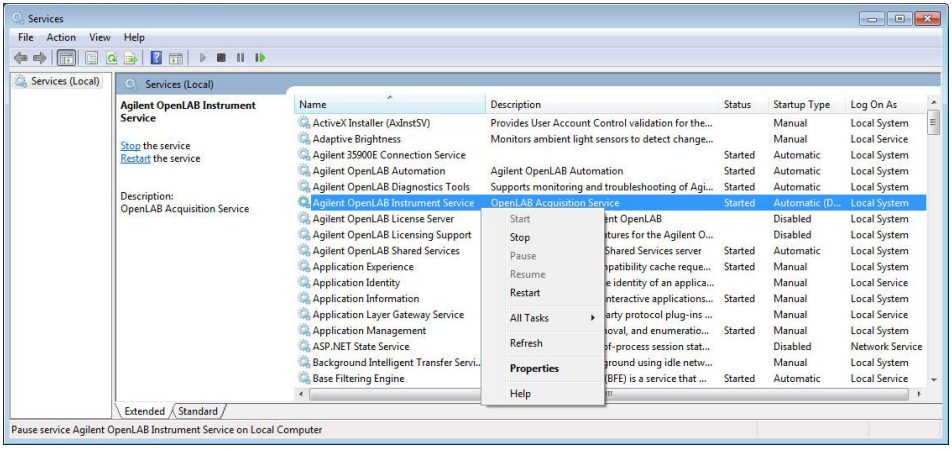
- You can generate reports and print them to printer or save them as files. Exporting the reports to a network share is a typical way how they are sent to an external system (for example, LIMS).
- You can export raw data or results during a run, and save the files to a network share.

Set up the domain user account

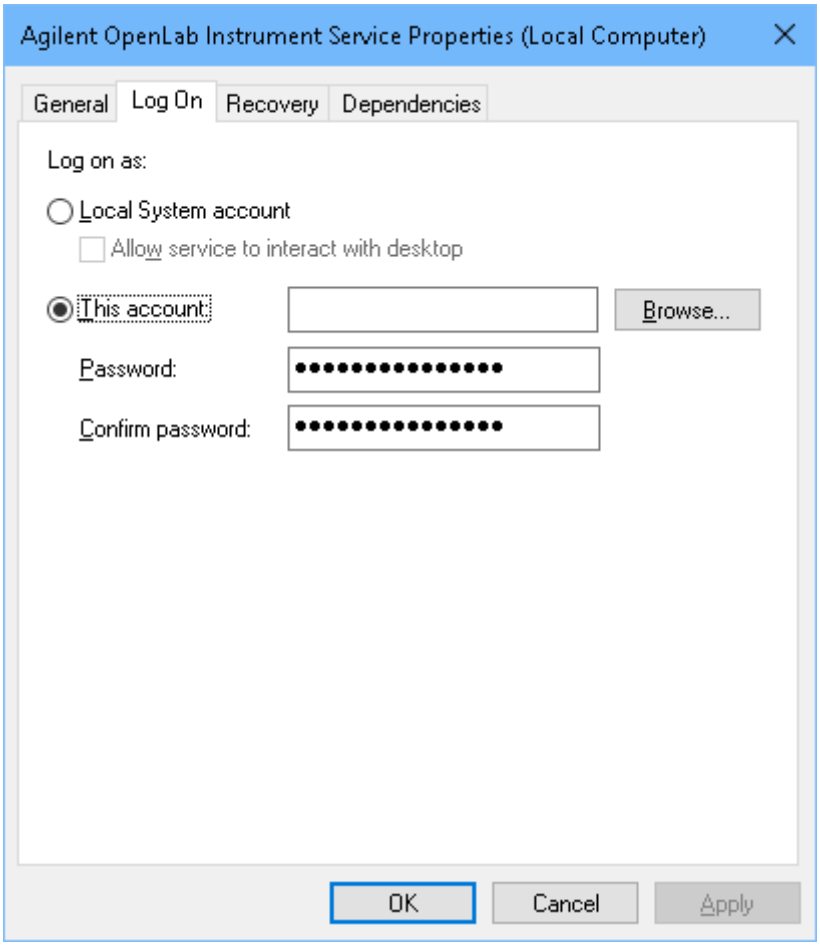
1 Log in as Windows domain user who has local administrative privileges.

2 Go to **Control Panel> All Control Panel Items> Administrative Tools** and double-click **Services**. Make sure the status of **Agilent OpenLab Instrument Service** is **Started** or **Running**. If not, right-click and select **Start**.

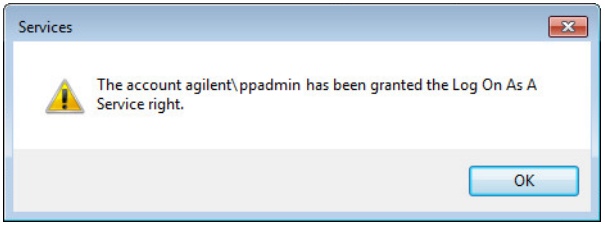
3 Right-click **Agilent OpenLab Instrument Service** and select **Properties**.



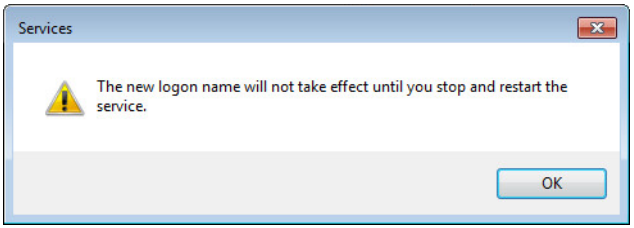
4 Click the **Log On** tab, select **This account** and enter the login credentials of a domain user who has network printing privileges. Click **OK**.



5 The **Services** window confirms that the account has been granted the **Log On As A Service** right. Click **OK**.



6 Click **OK** in the Services window to acknowledge that **The new logon name will not take effect until you stop and restart the service**.



7 Restart the PC. This will enable the *Log On* user specified in Instrument Service to automatically print reports in Data Acquisition.

8 After the PC reboots, log in using the same domain user account (for example, agilent\ppadmin) specified in the **Log On** tab of **Agilent OpenLab Instrument Service Properties** window.

Enable automatic printing

If you plan to acquire a single sample or a sequence that specifies a processing method that has **Printer** report destination, add a default printer to the PC to enable automatic printing of reports.

Prerequisites You have set up a domain user account (see "Set up the domain user account" on page 34).

1. Go to **Control Panel> All Control Panel Items> Devices and Printers** and click **Add a printer**.
2. Select **Add a network, wireless or Bluetooth printer** and browse or type a shared printer name that you want to add. Once the printer is added, print a test page and set it as a default printer.

Configure the Antivirus Program

1. Be sure to open the firewall ports listed in the Firewall Settings in the *OpenLab CDS Workstation Requirements and Supported Instruments* guide (CDS_Requirements.pdf).
2. The following folders should be excluded from Antivirus scan. If you want to have these folders scanned, you should do this while the system is not acquiring or doing data Analysis as scanning may cause slowness and runs to be aborted due to concurrent access to the same file by the anti-virus program and the CDS application.
   - [C:\]CDSProjects
   - [C:\]Program Files (x86)\Agilent Technologies
   - [C:\]ProgramData\Agilent
   - [C:\]ProgramData\Agilent IPB Files
   - [C:\]ProgramData\Agilent Technologies
   - [C:\]ProgramData\ChromatographySystem
   - [C:\]ProgramData\Firebird
   - [C:\]ProgramData\IsolatedStorage

   Refer to your specific antivirus software documentation on how to configure folder exclusions.

Settings for Trend Micro™ antivirus software

OpenLab CDS can be used with other antivirus programs as well. If you use Trend Micro™, the following settings are recommended to optimize system performance.

1. If your version of Trend Micro has **Web Reputation**: Turn off to maximize performance.

   The risk of turning off Web Reputation is that web traffic through browsing from the machine will not be checked.

   Ensure that there is another URL/web scanner on the gateway level to protect the endpoint, or ensure that the endpoints have limited access to Internet. These production machines should not have access to Internet websites where most of the infections are coming from.

2 **Real time scan**: Add exclusions, and modify scan direction from **Created/Modified/Retrieved** to **Created/Modified**.

   Exclusions ensure that the working directory of Agilent Technologies will not be scanned, thus improving performance.

   The risk is that only files that are created and changed on this machine are scanned. Files that are just accessed will be bypassed. Dormant Files that got infected without being noticed at the time they were created or written to the machine will not be scanned.

   Increase scheduled scan to daily to ensure all files on the machine are being checked for infections that are dormant or not moving.

3 **Behavior Monitoring**: Add below list of programs to **Approved programs**.

   C:\Program Files (x86)\Agilent Technologies\...

   - OpenLab Acquisition\ Agilent.OpenLab.Acquisition.AcqInstrumentService.exe
   - OpenLab Acquisition\Agilent.OpenLab.AcquisitionClient.exe
   - OpenLab Data Analysis\Bin\ Agilent.Chromatography.DataAnalysis.Processing.ProcessingServer.exe
   - OpenLab Data Analysis\Bin\ Agilent.Chromatography.DataAnalysis.UI.CustomCalculationDesigner.exe
   - OpenLab Data Analysis\Bin\Agilent.OpenLab.DataAnalysis.exe
   - OpenLab Data Analysis\Bin\Reporting\ Agilent.OpenLab.Reporting.RdlDescriptor.exe
   - OpenLab Data Analysis\Bin\Reporting\ Agilent.OpenLab.Reporting.RdlDescriptorContextMenu.exe
   - OpenLab Data Analysis\Bin\Reporting\ IntelligentReporting.RenderServiceHost.exe
   - OpenLab Data Analysis\Bin\Reporting\TemplateDocumentation.exe
   - OpenLab Services\Automation\AutomationServerHost.exe
   - OpenLab Services\Diagnostics\DiagnosticsToolsServiceHost.exe
   - OpenLab Services\Licensing\Flexera\lmadmin.exe
   - OpenLab Services\Licensing\Licensing.Service.Host.exe
   - OpenLab Services\Server\SharedServicesHost.exe
   - OpenLab Services\UI\Agilent.OpenLab.ControlPanel.exe

   The risk is that if any of the excluded files get infected, it will not be detected. For example, trigger a schedule on a daily basis to cover these files.

4 **Realtime monitoring**: Add below folder to the exclusion list of Realtime Monitoring setting:

C:\Program Files (x86)\Agilent Technologies\

Local Windows Group for Secure Projects Root Folder

If you installed OpenLab CDS using the **Secure 'Projects Root Path'** option, your projects folder (by default, C:\CDSProjects) and anything within this folder is locked. Only the local Windows system user and the local Windows group **AgtSfsGroup** are able to browse this folders. The **AgtSfsGroup** group is created during installation.

To ensure that the system is working properly do not delete the **AgtSfsGroup** group.

CAUTION

The application may become unusable

If you change file access privileges, Windows 10 removes the default ownership. As a result, OpenLab CDS will be unable to access your data.

- ✓ **Request Agilent's support if you need to change privileges on file system level.**

4 Optional Procedures

This chapter describes the installation or upgrade of additional software. It also contains information on the installation of OpenLab Help and Learning only, and on performance improvement on offline machines.

Install OpenLab Help and Learning Only

Use this option to install OpenLab Help and Learning content without installing OpenLab CDS applications.

Do not use this option on a machine where OpenLab CDS is, or will be, installed.

1. Insert the USB media, right-click the setup.exe file, and run it as administrator.
2. On the start screen, select **OpenLab CDS**, and click **OK**.
3. In the OpenLab CDS Installer, click **Documentation**.
4. Click **Install OpenLab Help and Learning Only**.
5. Select your language, and click **Next**.
6. On the welcome screen, click **Next**.
7. Accept Agilent terms on the **License agreement** page, and click **Next**.
8. Review the installation directory. If desired, click **Change...** to specify a different directory.
9. Click **Install**.
10. When the installation is complete, click **Finish**.
11. If you plan to use Internet Explorer to view the content, make the following settings to ensure that OpenLab Help and Learning is opened without showing a confirmation prompt. No configuration is required for Google Chrome or Edge.
    a. In Internet Explorer, click **Tools> Internet Options**.
    b. Select the **Advanced** tab.
    c. Under **Security**, select **Allow active content to run in files on My Computer**.
    d. Confirm your settings.
    e. Reboot the computer to make the settings effective.

    Without these settings, you will need to click **Allow blocked content** when opening the help.

You can uninstall or repair OpenLab Help and Learning from the same link in the installer (see "Uninstall OpenLab Help and Learning Only" on page 99).

Improve Performance on Offline Machines

Computers running OpenLab CDS 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 to remedy this problem.

1. Open Internet Explorer and select **Tools> Internet Options**. In the **Advanced** tab, clear the following check boxes:
   - **Security> Check for publisher's certificate revocation**
   - **Security> Check for server certificate revocation**
2. Change or add 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.

5 Licensing

This chapter provides basic information on OpenLab licensing. It describes how you generate a license file with SubscribeNet and install the license in the Control Panel.

About OpenLab CDS Licensing

Software subscriptions and Software Maintenance Agreement (SMA)

Bundled into OpenLab CDS is a one-year software subscription which provides access via SubscribeNet to new software updates, product upgrades, familiarization and media.

As a best practice, we recommend customers to renew subscriptions annually so as to maintain their licenses and have full access to the newest updates, upgrades, media and familiarization. To manage software entitlements and download software, log in to SubscribeNet by pasting this link in your browser: **http://agilent.subscribenet.com/**

Software subscriptions do not include installation services. Installation or upgrade services must be purchased by contacting your sales representative in your region.

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 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 50.

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 is already installed, open the Control Panel and browse to the **Administration> Licenses** section. Use the **Copy MAC Address** or **Save MAC Address** function to obtain the MAC address for license generation.

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

NOTE

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

NOTE

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

New Users

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

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

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

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

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

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

Users registered with SubscribeNet

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

   Lost your SubscribeNet password? Use **https://agilent.subscribenet.com/control/agil/password** to have it emailed to you.
2. Select the SubscribeNet account associated with this authorization code, if you have more than one account.
3. From the SubscribeNet navigation pane, select **Register Authorization Code**.

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

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

Other Ways to Obtain a License

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

Offline Licensing

If an internet connection is not available in your laboratory:

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

Required Customer Information for Agilent License Support:

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

1 Collect Account Information:

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

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

2 Collect Authorization Code(s):

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

3 Receiving your license:

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

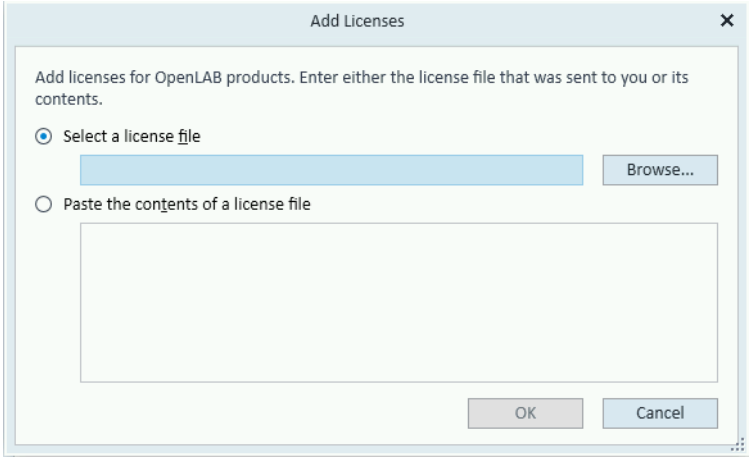
Install Your License

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

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

2 Navigate to **Administration> Licenses**.

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



4 Choose to install the license by:

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

5 Click **OK**.

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

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

6 Configure OpenLab CDS Workstation

This chapter describes the initial configuration steps after installing the OpenLab CDS software. All configuration tasks are performed in the Control Panel. For more details, refer to the Control Panel section in OpenLab Help & Learning.

CAUTION

This chapter is not applicable if you are migrating from OpenLab CDS ChemStation Edition or OpenLab CDS EZChrom Edition.

✓ **If you are upgrading from OpenLab CDS ChemStation Edition or EZChrom Edition, be sure to refer to the corresponding migration guide (see Appendix) prior to configuring OpenLab CDS ("Migration guides" on page 110).**

Configure Authentication

OpenLab CDS supports the following authentication providers:

- **None** (default setting after installation)

  In this mode, no login screen is shown when you access the Control Panel. The user is automatically logged in to the application with security disabled. All log entries record the user as "Anonymous". With the authentication provider **None**, the Security Policy and User Management nodes are unavailable in the Control Panel.

NOTE

With the authentication provider **None**, any activity logs will display a generic **System** operator with no additional identification. This is not recommended for compliant setups.

- **Internal**

  In this mode, the user's credentials are stored in the OpenLab CDS system. You are asked to create an administrator account for OpenLab CDS before setting up other users. This is the only mode in which you can create new users within the system; in all other modes you can only map to users that exist in a different system.

- **Windows Domain**

  You import existing Windows users into OpenLab CDS system. The authentication is done either by Windows Active Directory domain or NT 4.0 Domain within the Enterprise. OpenLab CDS only uses the identity and password of the mapped users; roles and privileges for OpenLab CDS are still configured in the Control Panel.

1 Launch the Control Panel.

2 Navigate to **Administration**.

3 In the navigation pane, select **System Configuration**.

4 In the ribbon, click **Edit System Settings**  .

5 Select the required authentication provider from the drop-down list, then click **Next**.

NOTE

Do not change the storage type.

6 Provide user credentials:

a For **Windows Domain**: Select the check box to use a domain user, and provide user credentials with the rights to obtain user and group information. Then click **Select Account** to open the **Search Users** dialog and select an administrator account.

b For **Internal**: Click **Create Account** to create a new administrator account for OpenLab CDS.

7 Confirm your settings. When complete, the Control Panel will restart.

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 (Windows Domain), you can only set the inactivity time in the Control Panel; all other parameters are defined by the external system.

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**.
4. Set the parameters as required, and confirm your changes.

   Restart the Control Panel to apply your changes.

Configure users, roles, and privileges

With internal authentication, you create the required users in the Control Panel. With Windows domain as an external authentication system, you import the Windows domain users.

To define what users are allowed to view or do, OpenLab CDS offers predefined roles and allows you to define your own specific roles. Roles are equipped with numerous specific privileges.

Each user can be member of multiple groups. You must assign one or more specific roles to each group. You can also assign roles to single users; however, for the sake of clarity, it is strongly recommended to assign roles only on the group level. Every member of a group automatically has all roles of this group.

1 Launch the Control Panel and navigate to **Administration**.

2 In the navigation pane, select **Users**, **Groups**, or **Roles**.

3 Create new items, or edit the existing ones.

Create or import users

Use the 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 of access.

Add users (Internal Authentication only)

1 From the navigation pane, click **Administration> Users**.

2 In the ribbon, click **Create User**.

3 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**.

4 Click **OK**.

Import users (Windows Domain Authentication only)

To add 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 User**.
3. In the **Search Users** dialog box, enter search string for the Windows domain 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 to 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, 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, project, project group 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 or Projects" on page 60). For example, a user can have the role **Instrument Administrator** for one instrument, and **Instrument User** for another instrument.

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 or Projects" on page 60). 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.

For more information on privileges, see the Appendix.

Table 3 Description of role types

Role Type	Description
Administrative privileges	These privileges are globally assigned to a user or group and cannot be changed on the instrument/location level. They are the typical administration privileges such as **Backup and restore**, **Manage security**, **Manage printers**, etc.
Instrument privileges	These privileges can be assigned globally or on the instrument/location level. Privileges for instruments are, for example, **View instrument or location** and **Run instrument**. Users need the **View instrument or location** privilege on the global level to see the locations and instruments tree in the Control Panel.
Project privileges	Privileges for accessing or modifying different levels of data. You can assign these privileges globally or on project or project group level.

Add users or groups to a role

1. From the navigation pane, click **Administration> Roles**.
2. In the **Roles** window, select the role you want to assign to users or groups.
3. In the ribbon, click **Edit Role**.
4. In the **Edit Role** dialog box, click the **Members** tab.
5. Click **Add user or group**.
6. In the **Search Users and Groups** dialog box, enter the name of a user or group, and click **Search** to view a list of all users and groups that meet the search criteria.
7. Under **Search Results**, select a user or group, and click **Add**.
8. Click **OK**.

Specific Roles for Individual Instruments or Projects

By default, the roles of users or groups are globally set for all locations, instruments, project groups, or projects. The role settings are inherited from the root node **Instruments** or **Projects**, respectively. 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.

If you use projects, you can assign **Project** roles to individual project groups or projects.

Administrative roles are always set globally.

Configure the Storage Location

All project data is stored on the local file system. Each project has its own project folder, but all project folders are located in the **Projects Root Path**. The following procedure explains how to change Projects Root Path.

Prerequisites To be able to change the Projects Root Path, the directory must be empty. You have not yet created any projects.

NOTE

If you already created projects, move the data away temporarily, then delete the project. After you have set the correct path, create the projects again and move the data back.

1. Launch the Control Panel.
2. Navigate to **Administration**.
3. In the navigation pane, select **System Configuration**.
4. In the ribbon, click **Edit System Settings**  .
5. Select the storage location **File System** from the drop-down list, then click **Next**.
6. Provide the new Projects Root Path.
7. Confirm your settings. When complete, the Control Panel will restart.

Enable File System Security

With File System Security, you prevent users from modifying OpenLab files outside OpenLab CDS. File System Security may have been enabled already during installation, but you can enable it at any time. File System Security is optional.

1. Launch the Control Panel.
2. Navigate to **Administration**.
3. In the navigation pane, select **System Configuration**.
4. In the ribbon, click **Edit System Settings**  .
5. Select the storage location **File System** from the drop-down list, then click **Next**.
6. Select the **Secure project folder** check box, then click **Next**.
7. Confirm your settings.

Configure Initial Project

1. Launch the Control Panel and navigate to **Projects**.
2. Click **Create** in the ribbon to create a new project.

   On the **CDS Settings** tab:

   - Enter the locations for Methods, Sequences, Results, Sequence Templates and Report Templates.
   - Consider the required audit trail settings for this project.

For more details, refer to the Control Panel section in OpenLab Help & Learning.

Configure Initial Instrument

1. Launch the 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 (if available) to configure your instruments: Click **Auto Configuration**, and provide the instrument's IP address or hostname.

For more details, refer to the Control Panel section in OpenLab Help & Learning.

Other settings in the Control Panel

Consider also other settings in the Control Panel, such as:

- Changing the instrument status reporting frequency
- Changing audit trail settings for a project
- Editing signature levels for a project (only accessible from an OpenLab CDS Workstation or Client)

For more details, refer to the Control Panel section in OpenLab Help & Learning.

7 About the OpenLab CDS Software

This chapter contains an overview of the software architecture and customization options.

Software Architecture

OpenLab CDS is a data system solution for analytical workflows that controls a wide variety of instruments including the industry-leading GC and GC/MS-SQ instruments, along with best-in-class LC and LC/MS-SQ. By combining chromatography and single-quad mass spectrometry into a single scalable solution with centralized system administration, you can streamline your laboratory workflows and maximize productivity. A tailored and simplified user interface with a new state-of-the-art user experience, along with e-learning tools, to help you to get up to speed and productive as fast as possible.

The Agilent OpenLab CDS software is provided on read-only USB media that contains all required executable files and documents. This includes:

- Acquisition
- Data Analysis and Reporting
- Shared Services
- Content Management
- Custom Calculation Editor
- Help and Learning Platform
- User documentation
- Instrument driver software for Agilent LC, GC, LC/MS, GC/MS, or A/D
- Instrument driver software for virtual instruments (Data Player)
- Agilent Parts Finder
- Third party tools

On a standalone *Workstation*, all components are on a single PC. The results are stored in the local file system. A Workstation supports up to four instrument connections.

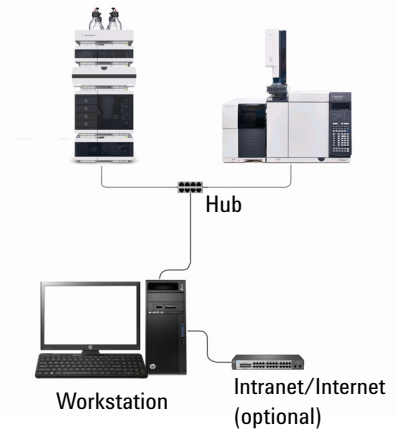


Figure 2 OpenLab CDS Workstation overview

Components on a Workstation

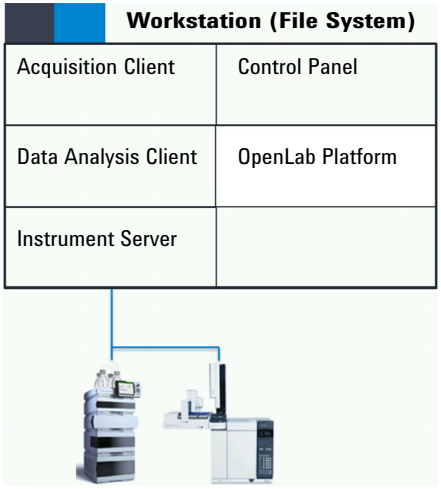


Figure 3 Components installed on a Workstation

Acquisition client	Acquire raw data with a configured instrument.
Data Analysis Client	Analyse acquired data.
Instrument Server	Control connections to all configured instruments.
Control Panel	User interface to access Shared Services control features.
OpenLab Platform	Provides services and tools that run in the background.

OpenLab Platform Services and Components

The following services and components are installed as part of the OpenLab Platform:

- Audit Trail Service

  Service that encapsulates the retrieval and display of Audit Trail content. Currently not used by OpenLab CDS.

- Certificate Service

  Serves as a solution to secure network traffic in case commercial certificates are not available. Installed and running, even though not used on a Workstation.

- Data Collection Service/Agent

  Service to collect system and topology related information in distributed systems.
- Data Repository

  Storage infrastructure to store diagnostic and topology related information.
- Shared Services

  Set of services and tools that offer system configuration, security, application configuration, licensing, logging, and notification capabilities.

Secure Projects Folders

All project data such as methods, raw data, results, templates, or reports are stored in the local file system. Each project has its own folder. All project folders are located in one specific *Projects Root Folder*.

By default, the content of the Projects Root Folder is not protected against modification or deletion from local file browsers. To ensure data integrity, select **Secure project folder** during installation, or select **Secure project folder** in the system settings of a ready installed Workstation.

When the project folder is secured, normal windows file operations are restricted to only members of the **AgtSfsGroup** user group. For more information, see "Local Windows Group for Secure Projects Root Folder" on page 41.

Customization

OpenLab CDS can be customized to support various workflows and applications. Customizing capabilities are available via different approaches.

For more information on how to use the different tools, refer to OpenLab Help & Learning.

Customization via custom calculations

Data Analysis can be enriched by calculating additional values. The calculations are done with the Custom Calculator Designer and referenced by or embedded in a processing method.

These calculations can be quite complex. The calculation results are directly visible in Data Analysis, no report generation is needed.

Custom calculations are processed on result set level. They are only computed if all injections of the result set are processed together.

Customization via report templates

In a report template you can call calculation results from a method-specific custom calculation, or define additional, template-specific calculation expressions. The template-specific values are only visible in the report preview or the final report.

Reports are generated on either injection level, result set level, or across multiple result sets. Reports can be used for automated result evaluation on all the mentioned levels.

Example report templates for typical petrochemical or pharmaceutical applications are provided with the application and can be imported in Data Analysis (see *Import default templates* in OpenLab Help & Learning).

Customize application to start external programs

The customization capabilities allow to add ribbon groups and icons in the **Data Selection** and **Data Processing** views of OpenLab Data Analysis.

It is possible to start an external program via an icon and to hand over the project data path and the path of the current injection as parameters to the program.

The customization is based on a file CustomToolsConfiguration.xml at C:\ProgramData\AgilentTechnologies\OpenLab DataAnalysis\ that needs to be created by the user. An example CustomToolsConfiguration.xml file is included on the media at **Setup> Tools> Support> UCL> Customization** folder.

For more information, refer to OpenLab Help & Learning.

Export raw data and results

Data Analysis offers the possibility to execute post processing plug-ins as part of the processing method. These post processing plug-ins allow to export raw data or results as part of the processing routine of single runs as well as sequence runs, also in unattended mode. Scripts are available for the export in the following formats:

- ChemStation Export (.D/.ch format)
- AIA Export (OpenLab CDS v2 raw data and peak results as netCDF format (revision 3.4) according to AIA Chromatography Data Standard Specification V1.0)
- ASR Export (OpenLab CDS v2 raw data as an ASR (Analytical Studio Reviewer) file format)
- OpenLab CDS 2 raw data export (native .dx files for ACE)
- CSV export (OpenLab CDS v2 raw data as comma separated values in .csv file format)

Other plug-ins such as the Allotrope Data Format (ADF) plug-in are available via SubscribeNet.

8 System Setup and Maintenance

This chapter contains information on the Control Panel and Shared Services Maintenance. In addition, it describes various maintenance procedures.

Control Panel

Using the Control Panel, you can access Shared Services control features such as security policy, central configuration, or lab status at a glance.

Instrument Management / Lab Status at a Glance

The **Instruments** view in the Control Panel offers an overview of all instruments in the network or on the workstation. You can see the following information for all instruments, summarized on one page:

- Status of the instrument with related color code
- Instrument name
- Instrument location
- Instrument type
- Last change of configuration

Depending on the configuration, this information may be accessed from a single workstation PC or from multiple clients in a network.

You can create a tree of different locations in the Control Panel, and add instruments to these locations. Using locations, you can organize your instruments for example by department, by laboratory, or by lab bench. For each instrument, you can provide basic information such as the name, description, and instrument type.

Depending on your privileges in OpenLab CDS, you can perform several operations on the instruments:

- View instrument information (instrument status, instrument details, activity log)
- View the locations and instruments tree
- Edit the instrument information
- Configure the instrument

The instrument configuration is stored in the Shared Services database. You access the configuration tool from the Control Panel.

- Launch the instrument

  On a Workstation, you can only launch instruments that are configured on this PC.

  With a Client/Server system, you can launch instruments remotely from any OpenLab CDS client in the network.

Your privileges can differ for the different locations and instruments (see "Specific Roles for Individual Instruments or Projects" on page 60).

License Management

This service includes the administration of all licenses that are required for your system.

Before adding a license file, you must first purchase the license and generate the license file using SubscribeNet. For more information on generating new license files, see "Obtain a License with SubscribeNet" on page 48.

License Management in the Control Panel provides the following functions:

- You can add license files to the license server.
- You can navigate to the license monitor and view the properties of all licenses installed on a given license server.
- You can remove license files from the license server. This may be useful if an invalid license file has been added.
- You can view or change the license server.
- You can view, copy, or save the MAC Address of the license server.
- You can navigate to the Agilent Electronic Software and License Delivery web page to obtain a license.

The following properties are shown for installed licenses:

- **Feature**: This indicates the type of license used.
- **Version**: If a license is versioned, you can see the version number. For licenses that are not versioned, the version is always shown as 1.0.
- **In Use (Available)**: This indicates the number of licenses that are currently in use and, in brackets, the total number of licenses. With the OpenLab CDS

licensing strategy, a license is only in use as long as a software instance is running (see "License Types" on page 46).

- **Expiration**: If the license is only valid for a certain period of time, the expiration date is displayed.

In the **Alerts** pane, you are informed if the number of available licenses has gone down to zero for a specific feature, or if you have started a software instance which requires a license that is unavailable.

For more information on adding license files and viewing the license properties, refer to the Control Panel section in OpenLab Help & Learning.

System Activity Log

The System Activity Log allows you to centrally access all system activities. It contains information on the various events associated with Shared Services or with specific instruments. You can filter the list in order to view only events of a specific type, in a specific time range, created by a specific user, or containing a specific description.

The following types of events are recorded:

- System
- Instrument Management
- Instrument
- Project Management
- Instrument Controller
- User
- Group
- Security
- Printer
- License

The messages can come from other components, such as the user management, or from an instrument module. Instrument messages include error messages, system messages, or event messages. The System Activity Log records these events irrespective of whether you have been alerted to them or not. To get more information on an event, expand the line of interest in the activity logbook viewer.

Diagnostics

The **Diagnostics** view allows you to access several reports and tools for diagnostic purposes:

- Ping the server.
- Create a report, either for the local system or for the server, with information on the operation system, processors, disk drives, processes, network, and connections.
- Centrally access and download all the log files, trace files, etc. that are created by the registered modules.

Administrative Reports

In the **Administrative Reports** view, you can additionally create and export various XML or PDF reports related to the system configuration:

Instrument Controllers Report

Detailed information of all Instrument Controllers. When this report is generated on a Workstation, the information presented relates to the local system. When this report is generated on a client-server system, all Instrument Controllers are included.

Instruments Report

Provides detailed information about configuration and access privileges for all instruments on the system. On client-server systems, this report includes all instruments on all Instrument Controllers.

Projects Report

Provides detailed information about configuration and access privileges for all projects on the system.

Roles and Privileges Report

Describes all roles defined on the system, including details of all privileges included in each role.

System Report

This report provides a consolidated view of the system, which includes all information about instrument controllers, instruments, projects, roles, users, and groups.

User's and Group's Role Assignment Report

This report provides an overview of all users and groups with their assigned roles.

Authentication Provider

The authentication provider is described under *Configure an OpenLab CDS File System Workstation*. For details, see "Configure Authentication" on page 54.

Security Policy

The security policy is described under *Configure OpenLab CDS*. For details, see "Configure Security Policy" on page 56.

User Management

The user management is described under *Configure OpenLab CDS*. For details, see "Configure users, roles, and privileges" on page 57.

Shared Services Maintenance

The **Shared Services Maintenance** program is automatically installed with your OpenLab software to help administrators manage the system.

To open the utility, select **Start> Agilent Technologies> Shared Services Maintenance**. A user must have Windows administrator rights to access this utility.

Server Settings tab

The **Server Settings** tab can be used to manage different server connections. In a workstation configuration, there is typically only the connection to the local machine.

Windows Domain tab

In this utility, the **Windows Domain** tab is relevant if you use windows domain authentication to identify your OpenLab users.

OpenLab CDS must be given access to the server where these credentials are stored. In the **Windows Domain** tab, you specify or change the credentials that OpenLab CDS will use to access your windows domain server.

For client/server systems: This feature can only access credentials that are stored on the computer where you launched the **Shared Services Maintenance** program. To specify or change the **Domain**, **User name**, or **Password** for the windows account that will be used to access your windows domain server, use the **Shared Services Maintenance** program that is installed on the server.

Backup and Restore tab

The Shared Services database contains information that is accessed by the Control Panel (such as users, roles, permissions, projects, instruments etc.). In order to simplify backup and restore tasks for the Shared Services database, the **Backup and Restore** tab provides a simple interface for performing these tasks.

To backup the Shared Services database see "Shared Services Backup" on page 85

To restore a Shared Services data files, see "Shared Services Restore" on page 90.

Maintenance Procedures

Introduction

Disaster Recovery Planning

Prepare a recovery plan for the unlikely case of OpenLab CDS becoming inoperable due to a hardware or software failure. This plan must include information and procedures for completely restoring the operating system, the software, and data. Make sure that the disaster recovery plan has been tested and confirmed to be working.

The Disaster Recovery Plan must include the following:

- Hardware information: CPU, Memory, and Hard disk configuration information.
- Computer identity: Name, IP, domain, URI, etc.
  - Computer administrator information: username and passwords for logging in to the server
- Software information: OS version, Patch level.
- Installation parameters:
  - Installation folder
  - Project folder
  - Installation log files
  - Shared Services language
- Installed licenses
- Registered applications
- 3rd party software information: applications and their revisions and install paths.
- Backup procedures (see "Software backup procedure" on page 79, "Data Backup Procedure" on page 84)
- Backup media location and organization details.
- Restore procedures (see "Software Restore Procedure" on page 88, "Data Recovery Procedure" on page 89)

Backup and Restore Procedure Overview

The backup procedure for an OpenLab CDS Workstation with local file system includes all software and data. It describes how to create an image of the current system on a portable USB hard drive and a Windows system repair disc. The USB drive and repair disc are used together to restore your system to the original state, if needed.

It is mandatory that every workstation is backed up regularly. Periodic full backups and differential backups between the full backups must be created by administrators. These backups are the only way to restore a system in the event of a hardware or software failure. It is also mandatory that a disaster recovery plan and restore procedures are tested to confirm that the backups are sufficient to restore your system.

The data backup procedure does not cover other products or databases, such as the GC Column Database. Create a new system image after changing other products or databases.

This procedure requires that the user has administrative rights on the workstation.

Software backup procedure

Before the backup, make sure that the Run Queue on all active instruments is in idle state (no active run items in the queue) and all Acquisition client application are closed. Use **Close Connection** in the Control Panel to close any acquisitions that may still be running.

Start Windows Services

Open **Windows Services** (services.msc) and **Start** the services in the order listed below. See Services Microsoft Management Console help for more information on starting a service.

1 Agilent OpenLab Shared Services

2 Agilent OpenLab Instrument Service

You might need to wait a couple of minutes for the services to fully start.

Create an Image of the Current System

Create a new system image after any change in your instrument configuration.

1 Connect a portable USB drive to a (blue) 3.0 USB port on the computer.

NOTE

The AutoPlay window displays the first time the drive is connected to the PC. Close the AutoPlay window.

2 Use the appropriate Windows program to create a system image. See Windows Help for more information.

In *Windows 10*, click **File History** in the Microsoft Control Panel, then click **System Image Backup**.

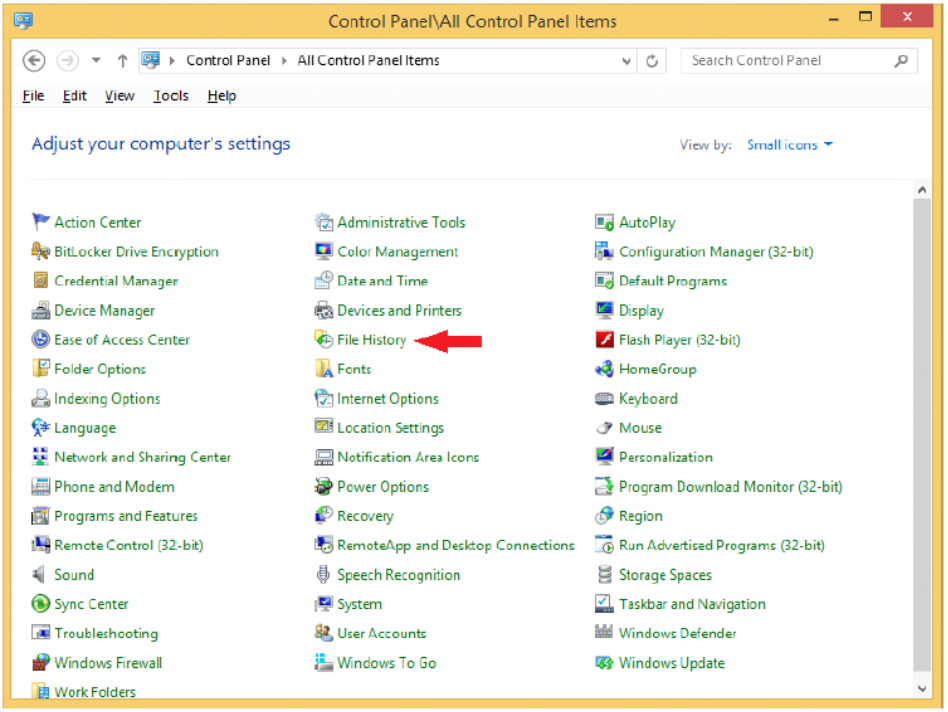


Figure 4 Windows File History

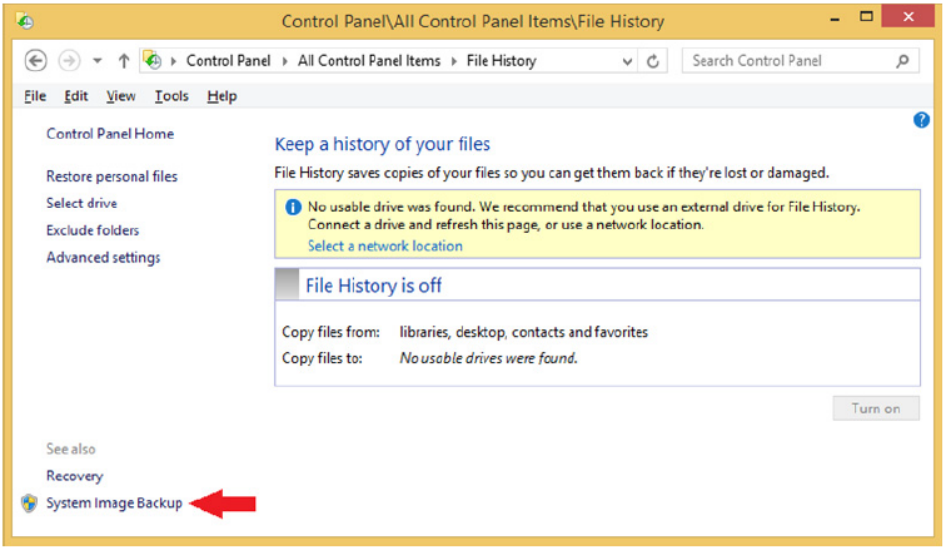


Figure 5 **Windows System Image Backup**

3 Click **Create a system image**.

4 Click **Next**.

5 Select the drives you want to include in the backup.

If the OpenLab product was installed in a location other than C:\ drive, you must select that particular drive when asked **Which drives do you want to include in the backup?**

6 Click **Next**.

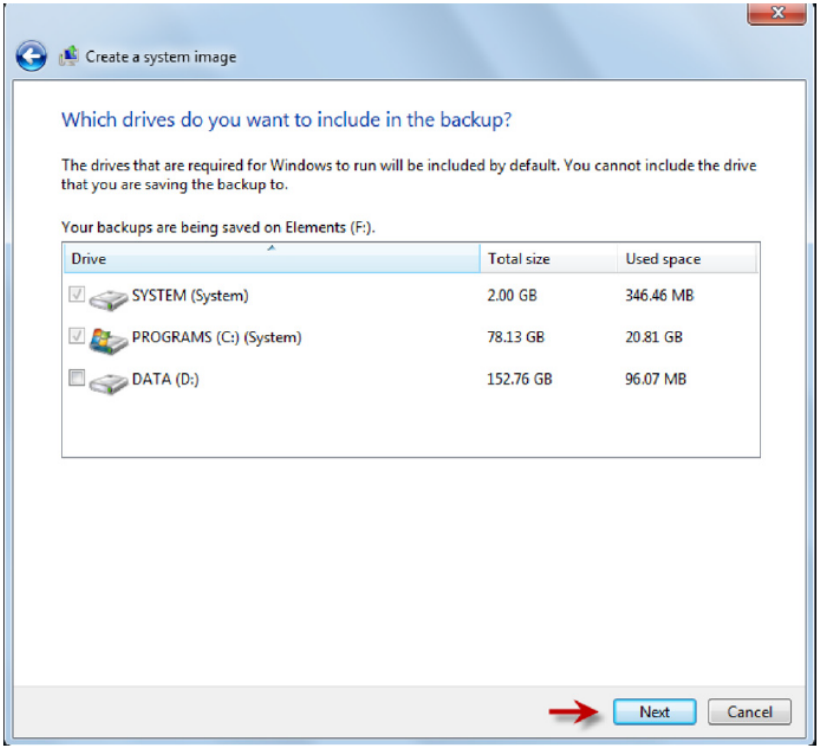


Figure 6 Drives included in the backup

7 Click **Start backup**.

8 Use the **Recovery** program from the Microsoft Control Panel and create a recovery drive according to the Windows instructions.

9 Close all remaining windows.

10 Eject the newly created Windows Recovery disc.

11 Disconnect the USB drive.

12 Complete the backup Solution Checklist.

13 Keep the USB drive, Windows Recovery disc, completed Backup Solution checklist, Backup Guide, and Backup Solution Recovery checklist in a safe place.

Stop Windows Services

Open Windows Services and **Stop** the following services in the order listed below. See Microsoft Management Console help for more information on stopping these services.

1 Agilent OpenLab Shared Services

2 Agilent OpenLab Instrument Service

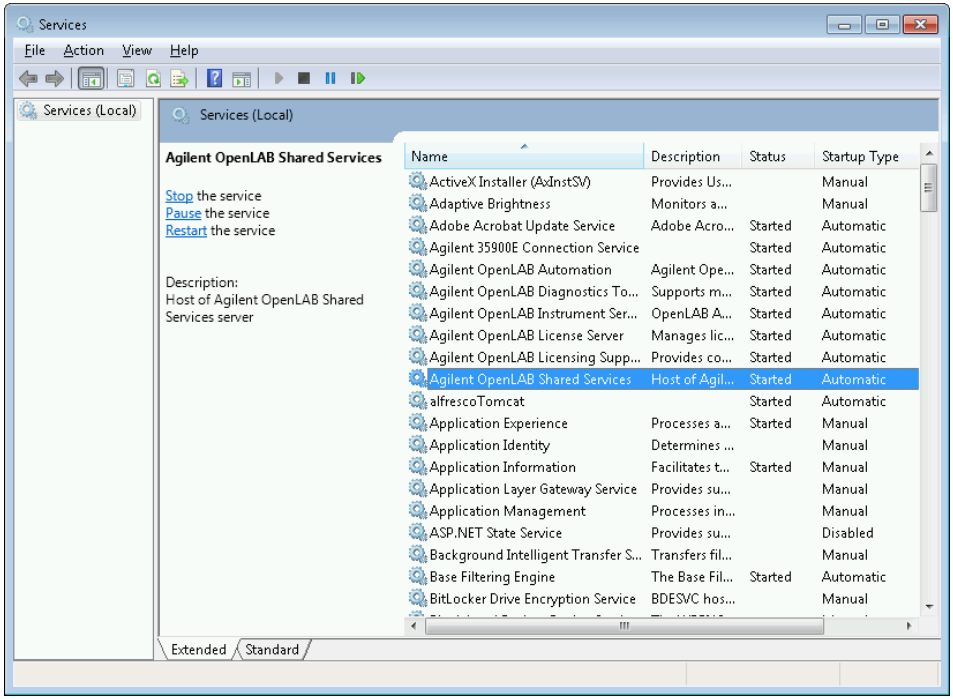


Figure 7 **Stop Services**

Data Backup Procedure

Before the backup, make sure that the Run Queue on all active instruments is in idle state (no active run items in the queue) and all Acquisition client application are closed. Use **Close Connection** in the Control Panel to close any acquisitions that may still be running.

Stop Windows Services

Open Windows Services and **Stop** the following services in the order listed below. See Microsoft Management Console help for more information on stopping these services.

1 Agilent OpenLab Shared Services

2 Agilent OpenLab Instrument Service

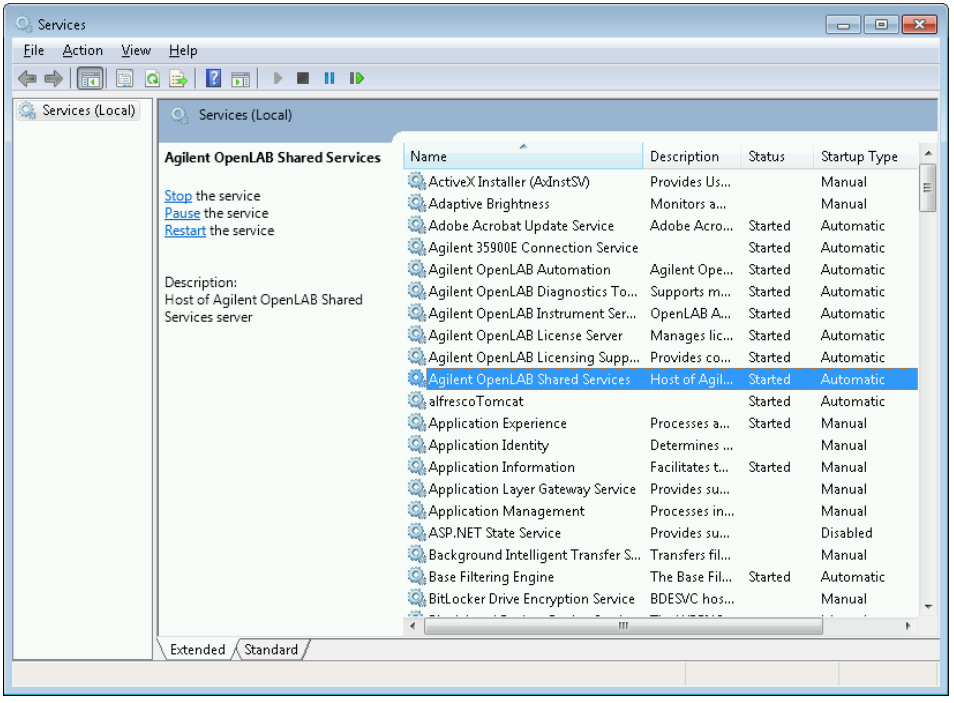


Figure 8 **Stop Services**

Shared Services Backup

1. To open the **Shared Services Maintenance** utility, select **Start> Agilent Technologies> Shared Services Maintenance**. A user must have Windows administrator rights to access this utility.
2. Select the **Backup and Restore** tab.
3. Specify the backup directory and retention time.?When a new backup is performed, the currently set retention time is used to delete any files older than specified.

NOTE

It is recommended that you use a safe location as the backup directory (for example, a thumb drive, a network location, or an external storage device).

4. Select the type of backup to perform, **Full** or **Differential**
5. Click **Backup**.

   The backup is placed in the specified backup directory. Backups older than the retention time are deleted.

Data Repository Backup

The Data Repository provides a storage infrastructure used to store diagnostic and topology related information.

Prerequisites

Your Windows user must have read/write access to the backup directory.

PowerShell execution is enabled.

1. Run Windows PowerShell.
2. Navigate to the backup script path. By default, this is C:\Program Files (x86)\Agilent Technologies\OpenLab Platform\Data Repository\OpenLab DataRepository\Base\Scripts\PostgreSQL\Backup\.
3. Enter the following command:

   ```
   ./dr-db-backup.ps1 -user druser -path <backup path>
   ```

   For example:

   ```
   ./dr-db-backup.ps1 -user druser -path C:\temp
   ```

PostgreSQL backup files are created in the given location.

Return codes:

- 0: Success
- 1: Other error
- 2: Backup directory is invalid

NOTE

If the script returns an execution policy error, try the following commands in a Command window before running the script again:

```
PowerShell.exe Set-ExecutionPolicy RemoteSigned -Force
```

```
PowerShell.exe Unblock-File <script path>
```

If there is still an error, see **https://docs.microsoft.com/en-us/powershell/module/microsoft.powershell.core/about/about_execution_policies?view=powershell-5.1** for details on the execution policy.

Content Backup

Copy the contents of the project folder specified during installation into a safe location (for example, a thumb drive, a network location, or an external storage device).

NOTE

If you are using Secure Storage, either run the backup as the Windows system user, or add your current Windows user to the **AgtSfsGroup** local group.

Start Windows Services

Open **Windows Services** (services.msc) and **Start** the services in the order listed below. See Services Microsoft Management Console help for more information on starting a service.

1. Agilent OpenLab Shared Services
2. Agilent OpenLab Instrument Service

You might need to wait a couple of minutes for the services to fully start.

Scheduled Backup

To automate the data backup procedure, you can use **Windows Task Scheduler** to create a batch file and schedule it to run regularly.

For your convenience, an example is available in the installation folder (usually: C:\Program Files (x86)\Agilent Technologies) under \BackupScripts. Please examine it carefully and adjust according to your system configuration. Note that this example saves the Shared Services Database and all project data. The Data Repository backup is not part of the example.

NOTE

The script needs to be run with administrative privileges and as a user who has access to the project folder. If the project folder is secure, the user must be a member of the **AgtSfsGroup** local group.

Software Restore Procedure

Use this procedure to restore your system from an existing backup system image. See the Windows Installation documentation for detailed information.

1 Connect the recovery USB drive to a (blue) USB 3.0 port and insert the Windows Recovery DVD in the DVD drive.

2 Start or restart the PC and watch the PC monitor carefully during the restart process for the message **Press any key to boot from CD or DVD...**. Press the space bar or any other key when the message appears.

The PC will boot from the DVD.

3 Enter the appropriate information to start the **Install Windows** program.

4 Select **Repair your computer**.

5 Specify system recovery options.

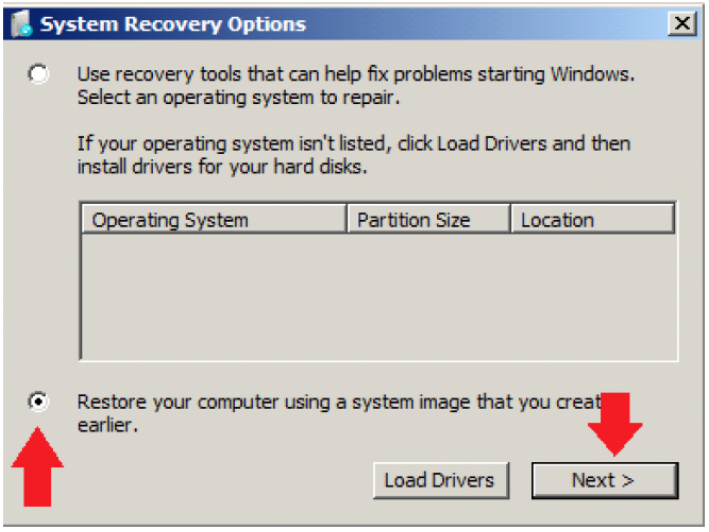


Figure 9 **System recovery options**

6 In the **Select a system image backup** screen, **Use the latest available system** image is selected by default.

- If the auto-filled information is correct, click **Next.**
- If no image match is found,
  a Select **Select a system image** and click **Next**
  b Select the appropriate image and click **Next**.
  c Select the date and time and click **Next**.

7 Select **Format and repartition disks** and click **Next**.

8 Click **Finish**.

9 When the re-image process is complete, restart the system to finish the restoration.

Data Recovery Procedure

Stop Windows Services

Open Windows Services and **Stop** the following services in the order listed below. See Microsoft Management Console help for more information on stopping these services.

1 Agilent OpenLab Shared Services

2 Agilent OpenLab Instrument Service

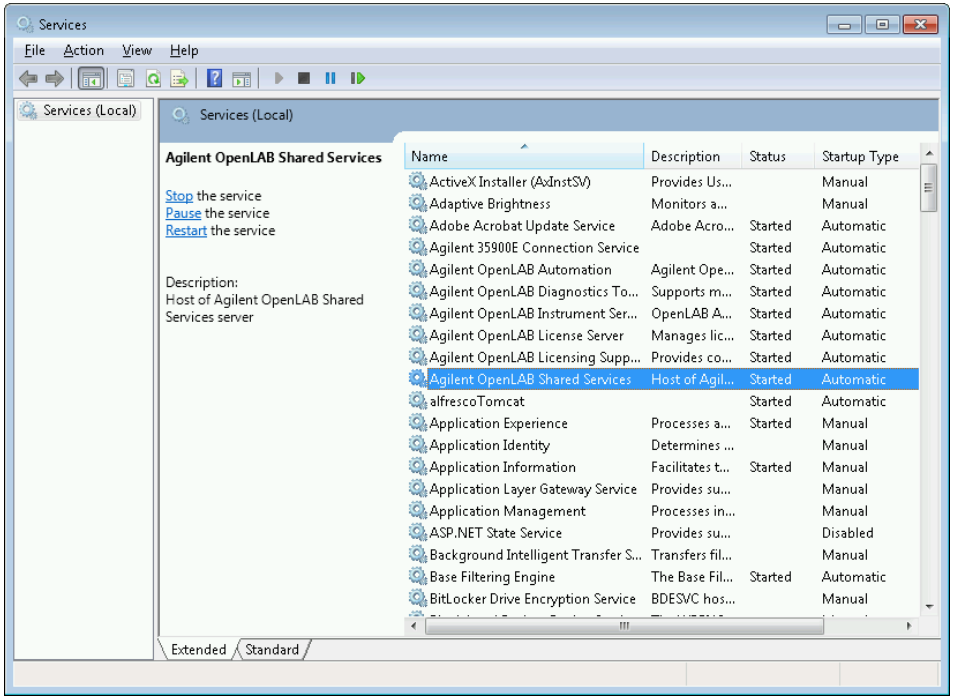


Figure 10 **Stop Services**

Content Restore

1 Copy the contents of previously preserved project folder to the location used at the moment of backup.

2 To restore a system with secured project folder:

   a Your current Windows user needs to be a member of the **AgtSfsGroup** local group.

   b Open an Administrative command prompt (type **cmd** into the Windows Start Menu search, right click **cmd.exe**, then select **Run as administrator**).

   c Execute the following commands:

```
cd C:\Program Files (x86)\Agilent Technologies\OpenLab Services\Server

SecureFolder.exe /group C:\CDSProjects
```

NOTE

In case of a non-default installation, replace *C:\Program Files (x86)\Agilent Technologies* and *C:\CDSProjects* with the OpenLab CDS installation path and project folder selected during installation.

NOTE

Incorrect usage of the **SecureFolder.exe** utility (specifying folder other than the Project Root) can harm other applications or even your operating system, and potentially prevent it from starting up.

Shared Services Restore

1 Verify that all connections to the system are shut down before performing a restore.

2 To open the **Shared Services Maintenance** utility, select **Start> Agilent Technologies> Shared Services Maintenance**. A user must have Windows administrator rights to access this utility.

3 Select the **Backup and Restore** tab.

4 Click **Browse** to select the folder with previously created backups.

NOTE

Backups older than the retention time will not to be shown.

5 Select the backup you want to restore, and click **Restore**.

Data Repository Restore

Prerequisites

Your Windows user must have read access to the backup directory.

PowerShell execution is enabled.

1. Run Windows PowerShell.
2. Navigate to the restore script path. By default, this is C:\Program Files (x86)\Agilent Technologies\OpenLab Platform\Data Repository\OpenLab DataRepository\Base\Scripts\PostgreSQL\Backup\.
3. Enter the following command:

   ```
   ./dr-db-restore.ps1 -user druser -path <backup path>
   ```

   For example:

   ```
   ./dr-db-restore.ps1 -user druser -path C:\temp
   ```

The Data Repository database is restored.

Return codes:

- 0: Success
- 1: Other error
- 2: Backup directory is invalid

NOTE

If the script returns an execution policy error, try the following commands in a Command window before running the script again:

```
PowerShell.exe Set-ExecutionPolicy RemoteSigned -Force
```

```
PowerShell.exe Unblock-File <script path>
```

If there is still an error, see **https://docs.microsoft.com/en-us/powershell/module/microsoft.powershell.core/about/about_execution_policies?view=powershell-5.1** for details on the execution policy.

Start Windows Services

Open **Windows Services** (services.msc) and **Start** the services in the order listed below. See Services Microsoft Management Console help for more information.

1 Agilent OpenLab Shared Services

2 Agilent OpenLab Instrument Service

NOTE

In case of a successful restore, the Shared Services service will start automatically.

9 Upgrade OpenLab CDS

This chapter describes the upgrade from OpenLab CDS 2.0 or higher to the current version of OpenLab CDS.

CAUTION

This chapter is not applicable if you are migrating from OpenLab CDS ChemStation Edition or OpenLab CDS EZChrom Edition.

✓ **If you are upgrading from OpenLab CDS ChemStation Edition or EZChrom Edition, be sure to refer to the corresponding migration guide (see Appendix) prior to configuring OpenLab CDS ("Migration guides" on page 110).**

License Upgrade

Get Upgraded License File

You will need to upgrade your licenses in SubscribeNet prior to upgrading to the next version of OpenLab CDS. We strongly recommend upgrading your workstation licenses *before* upgrading the core software. Standalone workstations which are upgraded to the new core software version, without a new workstation license, will not work until the new workstation licenses are added to the OpenLab Control Panel.

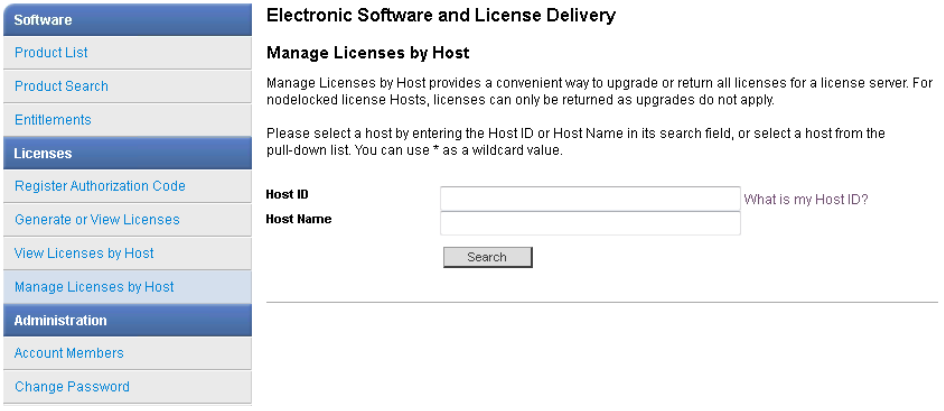
If you are under SMA subscription, proceed as follows to upgrade your licenses:

1. During the following process, you will be prompted in SubscribeNet for the host name or MAC address of the workstation where OpenLab CDS is already installed.

   To retrieve this hostname and MAC address, open the Control Panel and browse to the **Administration> Licenses** section. Note down the host name and use the **Copy MAC Address** or **Save MAC Address** function to obtain the MAC address.

2. Log into the Agilent Electronic Software and License Delivery (**https://agilent.subscribenet.com/**).

3. Navigate to **Manage Licenses by Host**. In the **Host ID** field, enter the previously noted MAC address, and click **Search**.



If the relevant host name does not appear, you may be managing your licenses in multiple SubscribeNet accounts. You will need to log into those accounts to upgrade those licenses.

4 If your license(s) are eligible for an upgrade, you will see the **Upgrade All** button. Otherwise you will need to contact your Agilent Sales Representative to renew your Software Maintenance Agreement (see "Sales and Support Assistance" on page 111). To proceed with generating your upgrade license, click the button.

5 On the **Upgrade All Licenses for License Host** page, review the data, and confirm by clicking **Upgrade All**.

This upgrades the license file to the most current version. SubscribeNet will send you an email with a new license file.

6 Put the new license file on your system (see "Add Upgraded License File to the System" on page 95.

If you have multiple standalone Workstations, repeat this step for each individual workstation.

Note that each workstation's MAC address is the file name. This helps identify the correct license file to import into the workstation's Control Panel.

Add Upgraded License File to the System

If you have purchased new options, such as additional instrument controls or client license and regenerated your license in SubscribeNet, the upgraded license file must be re-applied to the system.

1 Start the Control Panel from any machine connected to the system you want to install the license for.

2 Navigate to **Administration> Licenses**.

3 Select a license, then click **Remove License** ✕ .

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

5 Browse to and open the license file saved from the license generation process in SubscribeNet.

NOTE

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

Upgrade OpenLab CDS Workstation to Latest Version

You can upgrade an OpenLab CDS standalone workstation to the latest version using the OpenLab CDS Installation Wizard. A direct upgrade is supported from OpenLab CDS rev. 2.2 or higher.

1. Run the setup.exe file from the installation media as a user with administrative rights.
2. Select **OpenLab CDS**.
3. In the OpenLab CDS Installer, select the **Installation** screen.
4. Click **Install/Upgrade**.
5. In the **System Preparation** screen, click **Launch System Preparation Tool**. After execution of SPT checks and adjustments, return to the OpenLab CDS upgrade window.
6. Provide your OpenLab CDS credentials.
7. In the **Review** screen, click **Upgrade** (it can take several minutes).
8. In the **Upgrade** screen, click **Next** to start the upgrade.
9. In the **Configuration** screen, click **Next** to start the reconfiguration.
10. On the **Finish** page, click **Run Software Verification**.
11. On the **Finish** page, keep the **Reboot** check box selected, and click **Finish**.
12. If you use a GC/MS instrument: Upgrade the GC/MS firmware to the latest revision. The upgrade is required for the GC/MS software to work properly with OpenLab CDS 2.5.

    The supported GC/MS firmware is available after installation of OpenLab CDS in Program Files (x86)\Agilent Technologies\OpenLab Acquisition\GCMS\ Firmware. Open the appropriate MS folder (5977 or 5975) and run msupdate.exe to upgrade the MS firmware.

    For more information on driver upgrades, see "Install or Upgrade Driver Software" on page 30.

    It is recommended that you reconfigure the instrument in the Control Panel.

NOTE

Upgrading an OpenLab CDS 2.2 system with GPC/SEC Software ver 1.0 installed (G7860AA)

If upgrading an OpenLab CDS 2.2 system with GPC/SEC Software ver 1.0 installed, the GPC/SEC software must also be upgraded to Ver 1.1 after completing the upgrade process of the CDS. If the GPC upgrade is not updated the Data Analysis program will crash on loading.

NOTE

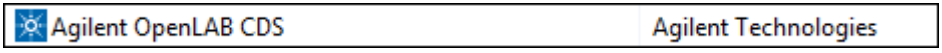
After the upgrade completes, the Activity Log Index will be rebuilt. The time required to rebuild the index depends on the number of Activity Log records. It and can take up to a few hours. During this interim period, Activity Log searches in the application provide a user-friendly message about indexing.

10 Uninstall OpenLab CDS With All of its Components

This chapter describes the uninstallation of the software.

Uninstall OpenLab CDS

1 Log in as an administrator.
2 In the Windows Settings, open **Apps> Apps & features**.
3 Select the following apps, and confirm to uninstall them:
   a **Agilent OpenLab CDS**.



   The Agilent Uninstallation Wizard opens. In the wizard, click **Uninstall**.

   The OpenLab CDS instrument drivers are automatically uninstalled together with OpenLab CDS.

   b **Agilent Software Verification Tool**
4 Reboot.

NOTE

Drivers installed by OpenLab CDS are uninstalled automatically. Other drivers must be uninstalled manually.

Uninstall OpenLab Help and Learning Only

If you installed OpenLab Help and Learning only, follow this procedure to uninstall it.

1 From the installation media, right-click the setup.exe file, and run it as administrator.
2 On the start screen, select **OpenLab CDS**, and click **OK**.
3 On the **Documentation** page, select **Install OpenLab Help and Learning Only**.

   The **Agilent OpenLab CDS Help and Learning** wizard opens.
4 Click **Remove**.

   The wizard removes OpenLab Help and Learning from your system.

Troubleshooting Tips

Required Disk Space

For upgrading a Workstation Plus to revision 2.5, approximately 9 GB of free disk space are required.

Failure due to low disk space

If there is insufficient free disk space, the installation fails midway, and the logs indicate failure due to low disk space.

How to recover

If there is not enough space for installation, proceed as follows:

1. Uninstall OpenLab CDS 2.5
2. Uninstall OpenLab CDS 2.4
3. Run the installation of OpenLab CDS 2.5 again

11 Appendix

Privileges in the Control Panel

The privileges described in the following can be associated with different roles in the Control Panel. The following roles are available:

Everything
System Administrator
Instrument Administrator
Project Administrator
Instrument User
Technician
Chemist

In the Control Panel under **Administration> Roles**, you can view or change the associated privileges, or create your own roles.

Project Privileges

Table 4 Project Management

Name	Description
Manage project or project group	User can create or edit project properties and can move the project but cannot view or edit the project access settings.
Manage project or project group access	User can view and edit the project access settings.
View project or project group	User can see a project and project details but cannot edit. *Note:* This privilege is required for all users.
Access content using web client	User can view the data via the Content Management web interface.
Edit content of project	User can create new versions of documents (e.g. data, methods, or templates).

Table 5 E-Signature

Name	Description
E-Signature Sign Data Files	User can sign data files
Revoke E-Signature	User can revoke the e-signature.
Change method status	User can change the status (Generic, Approved, Obsoleted) of sample prep methods, acquisition methods and processing methods.

Table 6 Sample Prep

Name	Description
Create and modify sample prep	View, edit, and save an autosampler sample prep file
Use generic sample prep methods	Use sample prep methods that have the status **Generic**.

Table 7 Acquisition Method

Name	Description
Create and modify acquisition method	Create, edit and save an acquisition method file (*.amx)
Use generic acquisition methods	Use acquisition methods that have the status **Generic**.

Table 8 Processing Method

Name	Description
Create processing method	Create a new processing method (*.pmx), or save a method under a new name.
Save master method	Save changes to a processing method in the Methods folder.
Save result set method	Save changes to a processing method in the result set folder.
Edit integration parameters	View and edit the parameters in the **Integration Events** section of a method.
Edit identification parameters	View and edit the parameters in the **Compounds> Identification** section of a method.

Table 8 Processing Method

Name	Description
Edit chromatogram extraction parameters	View and edit the parameters in the **Extraction> Chromatogram** section of a method.
Edit spectrum extraction parameters	View and edit the parameters in the **Extraction> Spectrum** section of a method.
Edit MS library search parameters	View and edit the parameters in the **MS Library Search> Properties** section of a method.
Edit calibration parameters	View and edit the parameters in the **Compounds> Calibration** section of method.
Edit spectra parameters	View and edit the parameters in the **Compounds> Spectra** section of method.
Edit system suitability parameters	View and edit the parameters in the **Compounds> System Suitability** section of method.
Edit custom calculation parameters	View and edit the parameters in the **Tools> Custom Calculation** section of a method.
Edit signal parameters	View and edit the parameters in the **General> Signals** section of a method.
Edit sample purity parameters	View and edit the parameters in the **MS Sample Purity** section of a method.
Edit reporting parameters	View and edit the parameters in the **Reports> Injection Report** section of a method.
Edit general parameters	View and edit the parameters in the **General> Properties** section of a method.
Load older master method	With Content Management, load an older version of a master method.
Edit Post Processing Plugins parameters	View and edit the parameters in the **Post Processing Plugins** section of a method.
Use generic processing methods	Use processing methods that have the status **Generic**.

Table 9 Report Template

Privilege	Description
Unlock/lock report template items	Lock and unlock report template items (tables, chromatograms, groups of items, ...) to control who is allowed to modify those.
Validate report template	Confirm usage of report templates that have been modified outside OpenLab CDS.
Create report template	Create and edit report templates in the Reporting view.

Table 10 Sequence Template

Name	Description
Create and modify sequence template	Create, edit and save sequence creation templates (*.stx).

Table 11 Sequence

Name	Description
Edit any users running sequence	Edit any user's running sequence (status **Acquiring** in the Run Queue).
Create and modify sequence	Create, edit and save sequences (*.sqx)
Edit users own running sequences	Edit your own running sequences (status **Acquiring** in the Run Queue).
Edit method override parameters	Override parameters in a predefined acquisition method.

Table 12 Audit Trail

Name	Description
Change method audit trail settings	Edit and save method audit trail settings (project properties in the Control Panel).
Review audit trail	Confirm that you reviewed a changed audit trail.
Add manual audit trail entry	Add a manual entry to document your own actions in the audit trail.

Table 13 Control

Name	Description
Abort any running sample	Abort any running sequence or single run.
Manual control (in run)	Access manual control functions while the instrument is running.
Manual control (only when instrument idle)	Access manual control functions while the instrument is idle.
MS autotune and manual tuning	Access all MS tune and maintenance functionality, including manual tune, autotune, and check tune.
MS autotune	Perform MS autotune and check tune.
Delete any pending run	Delete pending runs in the run queue submitted by any user. No privilege is required for a user to delete own pending runs
Reorder pending runs	Reorder pending run queue items in the run queue. Moving items around in the run queue.
Run priority sample	Submit *Priority* single samples.

Table 14 Data Processing

Name	Description
Reprocess data	Reprocess injections or result sets.
Do manual compound identification	Manually assign a compound to a peak.
Do manual integration	Activate manual integration in the **Chromatograms** window.
Do manual chromatogram extraction	Manually extract MS (TIC-SIM/TIC-SCAN) chromatograms from your data.
Do manual spectrum extraction	Manually extract UV or MS spectra from your data.
Do manual MS library search	Manually search for matches in an MS library.
Update master processing method	Save changes from a result set method to the corresponding master processing method in the Methods folder.
Create new result set	Combine single samples or sequences from different sources in a new, self-assembled result set.

Table 14 Data Processing

Name	Description
Print results reports	Create reports for your methods or results.
Launch Custom Calculation Editor	Start the Custom Calculation Editor from Data Analysis.

Table 15 File and Folder Operations

Name	Description
Delete report templates	Delete report templates (*.rdl) in the **Data Selection** view of Data Analysis.
Delete sequence templates	Delete sequence templates (*.stx) files in the **Data Selection** view of Data Analysis.
Delete methods	Delete processing methods (*.pmx) or acquisition methods (*.amx) in the **Data Selection** view of Data Analysis.

Table 16 Data

Name	Description
Export data	Export data into an OpenLab archive (*.olax).
Import data	Import data from OpenLab archives (*.olax) into the OpenLab system.
Save reports to disk	Save or export a report to a location on a disk or network share.
Edit sample information	Edit information in the **Injection List** window.

Table 17 Lock

Name	Description
Lock Results	Lock a result set to protect it from being changed.
Unlock Results	Unlock a locked result set.

Table 18 Custom Tools

Name	Description
Access Custom Tools section	Start external programs that were added to the application via the customization tool

Table 19 Snapshot

Name	Description
Review snapshot results	From Acquisition, open a currently running sample in Data Analysis.

Instrument Privileges

Table 20 Instrument Management

Name	Description
View instrument or location	User can view and access a location in the tree, but not edit access security, can view properties.
Manage Instrument or location	User can create and move locations and edit properties (name, description, etc).
Manage instrument or location access	User can view and edit the location access settings.
Run instrument	User can start an instrument session.
Service instrument	User can lock or unlock an instrument (to service it).

Administrative Privileges

Table 21 System Administration

Name	Description
Manage printers	Can add/remove printers and print server.
Edit activity log properties	Can change the Activity log Settings in the Control Panel (that is, can turn logging on for the System Activity Log).
Create administrative reports	Can create any of the system admin reports.
Manage system components	Can install/remove components (applications).
Manage security	Can change security settings and assign security roles. Can edit (add, change etc) users, groups and roles. In the Content Management database: can move files and folders; can delete files and folders that are *not* in a project. *Note:* To delete files and folders that are under a project, this privilege is not sufficient; the role **Everything** must be granted! *Note:* A user with this privilege can grant himself access to all settings in Shared Services. Be careful who you grant the Manage Security privilege.
Manage instrument controllers	Can edit Instrument Controllers in the Control Panel.
Unlock any locked UI	Can log in to another user's locked session.

Table 22 Content Management

Name	Description
Archive content	User can archive the content of the Content Management data repository.
Manage Templates	View, create, update and delete PDF templates.

Migration guides

The following guides provide instructions for migrating data, instrument information, and user information. For migration from OpenLab CDS, the Migration Tool simplifies the migration process. You find these guides on the installation medium under \Setup\Tools\Migration\User Guides.

- *Agilent Migration Tools for OpenLab - Workstations to OpenLab CDS Client/Server* (MigrationTools_Workstations_To_ClientServer.pdf)
- *Agilent Migration Tools for OpenLab - Workstations to OpenLab CDS Workstation* (OpenLabMigrationTool_en.pdf)

Sales and Support Assistance

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

https://www.agilent.com/en/support

In This Book

This document provides instructions for installation, configuration, administration, and maintenance of an OpenLab CDS Workstation. It includes information on the license generation with SubscribeNet and operating system configuration.

The manual describes the following:

- Install OpenLab CDS Workstation with Local File System
- Generating and Downloading Your Software License
- Configure OpenLab CDS Workstation
- Optional Procedures
- Customization
- About the OpenLab CDS software
- System Setup and Maintenance

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