Notices

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Software Revision
This guide is valid for the 12.0 revision or higher of the MassHunter Data Acquisition for Agilent LC/TQ and compatible MassHunter Workstation programs, until superseded.

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

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

This book provides instructions to install the MassHunter Workstation software in these configurations:

- Workstation (standalone, no content management)
- Networked Workstation (networked, with content management on separate server)

Note that a Networked Workstation requires an OpenLab Server/ECM XT/ECM 3.x software product. OpenLab Server/ECM XT/ECM 3.x products provide a central secure file storage for scientific data. OpenLab Server supports the storage of data acquired, analyzed, and processed by Agilent data systems, such as MassHunter Acquisition, Quantitative Analysis, and BioConfirm. OpenLab ECM XT/ECM 3.x extends the storage scope to support data generated by third party data systems, office files, and any other type of file.

1 Preparation

This chapter describes the preparation steps to install MassHunter Workstation with Control Panel.

2 Installation

This chapter describes how to install the MassHunter Workstation software. For the Networked Workstation, an OpenLab Server, ECM XT server, or ECM 3.x server is also required.

3 OpenLab Control Panel Initialization

This chapter describes the steps you take to initialize Control Panel when you run MassHunter Workstation for the first time. If you are connecting a Networked Workstation to an existing OpenLab Server/ECM XT server/ECM 3.x server, some steps might already be done.
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1 Preparation

Step 1. Configure Windows  
Step 2. Prepare configuration options  
Step 3. Uninstall previous versions of MassHunter software  
Step 4. Install the OpenLab Server/ECM XT server/ECM 3.x server (for Networked Workstation only)  
Step 5. Configure the network interface card

This chapter describes the preparation steps to install MassHunter Workstation with Control Panel.

MassHunter Workstation with Control Panel can be installed in these configurations:

- **Workstation** (standalone system with no content management)
- **Networked Workstation** (client computer with content management on a separate server)

You prepare the MassHunter Workstation computer the same way, regardless of the configuration.
Step 1. Configure Windows

1 Decide on a computer name.

The computer name will be reflected in the license. To avoid extra effort, do not change the computer name after installing MassHunter Workstation.

<table>
<thead>
<tr>
<th>NOTE</th>
</tr>
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<tbody>
<tr>
<td>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:</td>
</tr>
<tr>
<td>- Letters (a-z, A-Z)</td>
</tr>
<tr>
<td>- Digits (0-9)</td>
</tr>
<tr>
<td>- Hyphen (-)</td>
</tr>
</tbody>
</table>

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

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

Choose to either join an existing domain or set up the system in a workgroup.

3 In Microsoft Control Panel under **System > Windows activation**, click **Change product key**. Enter a valid value to activate Windows.

4 Update to the latest Windows 10 or Windows 11 edition in accordance to the guidelines of your local IT department.

5 Make sure that the latest Windows security, quality updates, and feature updates (optional) are installed in accordance with the guidelines of your IT department.

6 Check that your computer meets all requirements. Refer to the *MassHunter Workstation Requirements* document.

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.

7 Make sure Windows Defender is properly installed and configured. Be sure to open the firewall ports listed in the Firewall Settings in the *MassHunter Workstation Requirements* document.

8 In the Microsoft Control Panel under **Date and Time**. Choose the time zone of your regional location.
Step 2. Prepare configuration options

To simplify installation of the software, decide on configuration options before you begin the actual software installation.

1. Prepare an account with administrative privileges to run the installation.
2. To allow the successful installation and activation of all components, make sure that the LAN cable is connected and a network is available. A local network is sufficient.
   For Networked Workstation, if you install the workstation without a network cable, the activation of the Content Management component will fail and return an error.
3. If needed, disable any antivirus software during the installation.
4. Check Agilent SubscribeNet service for software updates for your installation package and software products.
Step 3. Uninstall previous versions of MassHunter software

Before installing software, you need to uninstall previous versions of MassHunter LC/MS TQ Data Acquisition software or MassHunter LC/MS TQ Data Acquisition for Ultivo.

You also must uninstall Quantitative Analysis if it is earlier than version 12.0.

You do not have to uninstall the MassHunter Qualitative Analysis program.

1. Close all MassHunter Workstation programs, including the Data Acquisition, Qualitative Analysis, BioConfirm, Quantitative Analysis, and Report Builder programs.
2. Open the Microsoft Control Panel program.
3. Double-click the Programs and Features icon.
4. Find and click Agilent MassHunter Workstation Acquisition (TQ). The version number is listed after the program.
5. Click Uninstall.
6. Find and click Agilent MassHunter Workstation Quantitative Analysis. The version number is listed after the program.
7. Click Uninstall.
8. Reboot the computer. You are now ready to install new software.

Step 4. Install the OpenLab Server/ECM XT server/ECM 3.x server (for Networked Workstation only)

The OpenLab Server/ECM XT server/ECM 3.x server stores data for Networked Workstations in a manner that supports compliance with 21 CFR Part 11. It provides secure data storage with access control and an audit trail. Data files are versioned to ensure data integrity and traceability.

- If you don’t already have one installed, install an OpenLab Server/ECM XT server/ECM 3.x server for your work group.
  Refer to the OpenLab Server/ECM XT server installation guide.
Step 5. Configure the network interface card

The computer that is shipped with your instrument is equipped with two network cards (LAN-cards). The first LAN-card is for connection to the “house network” (via 10/100/1000 Base-T network card). The IP address for this card can either be “static” or dynamically assigned (e.g. obtained by a DHCP server). By default, TCP/IP is configured as the network protocol for this card, which is built-in to the PC.

The second LAN card (in slot #1) is dedicated for instrument communication with the mass spectrometer and the InfinityLab Series LC system. This network card should NOT be connected to the site LAN.

To verify that the Instrument LAN network card settings are correct, follow these steps.

1. Click Start > Settings > Control Panel.
2. Double-click Network Connections.
3. Right-click the icon for the network card for the house LAN, click Properties, and then configure the network card as needed.

   This network card is independent from the card used for instrument control, it may be configured using a static IP address or using a DHCP server.

4. Right-click the icon for the network card for the mass spectrometer, click Properties, and then check that these parameters are set:
   - IP Address (Default): 192.168.254.1
   - Subnet Mask 255.255.255.0
   - Gateway - leave blank

   **NOTE**

   Network configurations vary widely from site to site, get assistance from an IT representative when you connect to the site network. Configuration by an Agilent Field Service Engineer is on a best-effort basis only.
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Installation

This chapter describes how to install the MassHunter Workstation software. For the Networked Workstation, an OpenLab Server, ECM XT server, or ECM 3.x server is also required.

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Follow these steps regardless of your MassHunter Workstation configuration.


For Networked Workstations, you must be an OpenLab Shared Services user with the System Administrator role to complete the MassHunter Workstation installation.
Step 1. Install MassHunter Data Acquisition

If you do not plan to install MassHunter Data Acquisition on your computer, you can skip this step. You can also install MassHunter programs in any order.


1. From the installation media, run the setup program SetupMH.exe.
2. Read and agree to the License Terms and mark the check box next to I accept the terms in the license agreement.
3. Click Next.
**Installation**

Step 1. Install MassHunter Data Acquisition

If OpenLab Shared Services have never been installed on your PC, you are prompted for the data storage type. Configure the data storage as appropriate, and then click **Next**.

The choices are:
- **Workstation** - Files are stored on the local file system with no content management.
- **Networked Workstation** - Files are stored on an external OpenLab content management server.

**CAUTION**

Once the Data Storage Configuration has been set and installed to disk, this setting can be safely changed only by removing and re-installing the software, and by deleting the OLSS databases which have been installed.

Re-imaging the PC is the safest way for most cases when you want to change the Data Storage Configuration.

Make sure you select the correct configuration before you continue.

You will be prompted for the password that you enter here if you reinstall the software. Make sure to remember it for future installations.
2 Installation
Step 1. Install MassHunter Data Acquisition

**Workstation**

All MassHunter files (such as data, methods, studies, report templates, and reports) will be stored on the local file system. For Storage Path, enter or browse for the folder where you would like to store all of your user-generated data, including methods and reports. Enter a Password for use with the DataStore database which hosts the Compound Database Service, a core component of the Optimizer workflow.

**Networked Workstation**

All MassHunter files (such as data, methods, studies, report templates, and reports) will be stored on an external OpenLab Server/ECM XT server/ECM 3.x server. For this configuration type, you need to enter the name of the server that you want to connect to. After you enter the name of the server, click **Connect** to verify the connection to this server.
5 In the Installation Folders page, select the folders for your installation files and MassHunter Workspace, and then click **Next**. The workspace is used to store the instrument configuration, log files, and the chemical data dictionary.

**NOTE**
If a MassHunter application has been installed previously, the option to select a different MassHunter Workspace is disabled and cannot be changed.

6 In the **Review** page, review the applications that will be installed, and then click **Install**.

When you click **Install**, the installation of required packages will start.
Installation
Step 1. Install MassHunter Data Acquisition

7 If you are prompted whether to allow the publisher to make changes to your device, click Yes.

The installation continues, displaying the progress of the installation.

8 Continue the installation as prompted.
- If prompted, select Restart the computer now each time you see it. This can happen multiple times. The computer is restarted immediately after you click Next or Finish.
- Click Next or Finish to continue the installation each time you are prompted.

9 When the installation is complete, the Control Panel icon is displayed on your desktop.
Step 2. Install other MassHunter programs

If you selected **Networked Workstation**, install the Compound Database Services on the server side.

Install other MassHunter programs as needed, such as **Quantitative Analysis**, and **Qualitative Analysis**.

1. If Networked Workstation is selected, install the Compound Database Service Software:
   a. For ECM XT/ OpenLab Server configuration, double-click **CompoundDBInstaller** on the Compound Database installation media. The installation happens on that server.
   b. For ECM 3.x and OpenLab Shared Services Server configuration, click **CompoundDBInstaller** on the Compound Database installation media. The installation happens on the OLSS server.
   c. Follow the instructions that are presented to you.

2. Run the installation program on the media for each program. Follow the instructions that are presented to you.

3. For Quantitative Analysis on a Networked Workstation only, register OpenLab Shared Services.
   - For **Quantitative Analysis**, click Start > Agilent MassHunter Quantitative > Quantitative Analysis Tools. Then, run Setup ECM Server. All default users/roles/groups are added, and permissions for Quantitative Analysis are loaded into the OpenLab Control Panel. This step is not offered as part of the Quantitative Analysis installation, so it must always be done.
Step 3. Run Software Verification

The Software Verification Tool (SVT) provides documentary evidence that your system has been built and installed correctly, and that your system has been installed correctly.

1. From the Windows Start menu, go to Agilent Technologies > Software Verification Tool.

2. Mark the components to qualify. You can click Select All to qualify all components.

3. Click 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.
Step 4. Configure Windows Defender

Agilent supports the use of Microsoft Windows Defender to protect your MassHunter system from viruses and other malware and threats.

**NOTE**

Agilent does exhaustive testing on a variety of software and hardware configurations to ensure that every configuration that Agilent sells works as designed. However, Agilent is not able to test every combination of 3rd party computer security (antivirus, anti-malware, and firewall) programs for compatibility. The customer is responsible for determining the compatibility of any 3rd party software that runs with an Agilent product. If a 3rd party computer security program causes problems for an Agilent product, Agilent can request that such program be disabled or removed before Agilent provides support.

1. Open the firewall ports listed in the Firewall Settings in the MassHunter Workstation Requirements document.

2. Exclude these folders from the antivirus scan. If you want to scan these folders, do this while the system is not acquiring or analyzing data.
   - [C:\]DsData\DsArchive
   - [C:\]DsData\DsContent
   - [C:\]DsData\DsIndex
   - [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
   - [C:\]Users\admin\AppData\Local\Temp
   - [D:\]Projects - projects folder

   Scanning causes slowness and runs to be aborted due to concurrent access to the same file by the AV program and MassHunter application.

   Refer to the antivirus software documentation to configure folder exclusions.

3. Add **bin** to the list of exclusions.
Refer to the antivirus software documentation to exclude files of type bin.

4 **Behavior Monitoring**: Add these programs to Approved programs.
   
   C:\Program Files (x86)\Agilent Technologies\...
   - OpenLab Services\Automation\AutomationServerHost.exe
   - OpenLab Services\Diagnostics\DiagnosticsToolsServiceHost.exe
   - OpenLab Services\Licensing\Flexera\Imadmin.exe
   - OpenLab Services\Licensing\LicensingService.Host.exe
   - OpenLab Services\Server\SharedServicesHost.exe
   - OpenLab Services\UI\Agilent.OpenLab.ControlPanel.exe
   
   C:\Program Files (x86)\Agilent\MassHunter\Workstation\...
   - Acq\bin\AgtVoyAcqEng.exe
   - Acq\bin\AgtVoyWklsEng.exe
   - Acq\bin\AgtMassHunterAcquisition.exe
   - Acq\bin\AgtDAREprocessing.exe
   - Acq\bin\AgtStudyEng.exe

   If any of the excluded files become infected, it will not be detected. Make sure to routinely scan these files when the instrument is not running. For example, configure a scheduled AV scan to occur on a daily or weekly basis during a period when the instrument is not used.

5 **Realtime monitoring**: Add this folder to the exclusion list of Realtime Monitoring setting:
   
   C:\Program Files (x86)\Agilent Technologies\...
Improving performance on standalone MassHunter Workstations

Computers running MassHunter Workstation can show 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.

Do this step to disable continuous search.

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. Make a note that you turned off the Root Certificates, as this can prevent users from installing other applications.
3 OpenLab Control Panel Initialization

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This chapter describes the steps you take to initialize Control Panel when you run MassHunter Workstation for the first time. If you are connecting a Networked Workstation to an existing OpenLab Server/ECM XT server/ECM 3.x server, some steps might already be done.
Step 1. Start OpenLab Control Panel and add license

You have two options to get a license:
• From SubscribeNet
• Offline (from an Agilent representative)

Before you begin, make sure you have:
• 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 OpenLab Control Panel is running.
• The MAC address.

To retrieve your MAC address from a computer where MassHunter Workstation is already installed, refer to the MassHunter Help & Learning.

During this process you need to provide the MAC address of your license server. For MassHunter Workstation, this is the standalone computer. For Networked Workstation, this is the content management server.

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.

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.

1 On the desktop, double-click the Control Panel icon.
3 OpenLab Control Panel Initialization

Step 1. Start OpenLab Control Panel and add license

For Networked Workstation, the server login dialog box is displayed. Log in as a user with an account on the OpenLab Server/ECM XT server/ECM 3.x server to continue.

The Control Panel initializes and then opens.

2 Add licenses for each MassHunter program that is installed. Refer to the MassHunter Help & Learning for details.

You can get and add a license at a future date. Your included startup license enables full use of MassHunter programs for 60 days.
Step 2. Set storage path

This section does not apply to ECM XT / OpenLab Server.

ECM provides a four-level data storage model with the structure of Location, Cabinet, Drawer, Folder (LCDF). The Location, Cabinet, Drawer and Folder names comprise the path name (called either LCDF path or Remote Data Path) of the storage location. Data is stored at the Folder level only. To set a valid project path in ECM 3.x to follow LCDF file structure, the Storage path during system configuration must be at “Location” level of ECM.

You can only change this folder when you do not have projects in the system. If you have projects, you must delete them before you can change the Storage path.

There is no localization support with ECM 3.X storage.

This procedure removes all existing users and groups from the system.

1. In the navigation pane, select Administration.
2. Select System Configuration.
3. On the ribbon click Edit System Settings.
4. If you chose ECM as the authentication provider, provide the Authentication Parameters. Click Next.
5. Click Browse to change the folder that is used for all projects.
6. Select a storage folder. You can click New Folder to create a new folder. When a folder is selected, click OK. This folder is at the location level.
OpenLab Control Panel Initialization

Step 2. Set storage path

7 Click **Next** to use the selected folder.

8 Click **Apply** to save the changes.

9 Click **OK** in the Confirmation message.

The **Storage path** is changed to `\LocationLevel`. 
Step 3. Create initial Project

In this example, the Storage path is set to C:\Projects.

1. In the navigation pane, select Projects.
2. On the ribbon, click Create > Create Project.
3 OpenLab Control Panel Initialization
Step 3. Create Initial Project

3 In the Properties tab, specify a Name, Project folder path, Description, and the Application (MassHunter Workstation). Click OK.

4 In the navigation pane, select the Project that you just created and verify the values.
5 On the ribbon click **Edit Project**. In the **MassHunter Workstation** tab:

- Confirm the **Global File Locations and Settings**.
- In the **All** tab, select **Prompt for reason** to require the user to enter a reason when saving MassHunter objects. You can also require the user to enter a reason for specific MassHunter objects, on the appropriate tab. If you select **Allow users to type their own reason**, users will be allowed to manually enter a reason.
- If needed for this project, under **Audit Trail Settings**, add default reasons for methods, worklists, studies, results, and reports on the appropriate tab. You can also add general reasons to the **All** tab, which will display in all contexts.
3 \hspace{1cm} \textbf{OpenLab Control Panel Initialization}

\hspace{1cm} \textbf{Step 3. Create Initial Project}

6 \hspace{1cm} Expand \textbf{Study Settings}. Several different types of studies are enabled by default. Mark or clear the study types that you want to be able to use.

7 \hspace{1cm} Click \textbf{OK}.
Step 4. Import Quantitative Analysis report templates

Quantitative Analysis report templates must be imported to the MassHunter project before you can generate Quant reports.

**Workstation configuration**
1. Open File Explorer.
2. Copy the contents of the folder `D:\MassHunter\Report Templates\Quant` into the folder `D:\Projects\projectname\Report Templates`. Make sure to copy all subfolders.

**Networked Workstation configuration**
1. From the Start menu, click Agilent MassHunter Quantitative > Quantitative Analysis Tools.
2. In the Tools folder, double-click Upload Files.
OpenLab Control Panel Initialization
Step 4. Import Quantitative Analysis report templates

3 When prompted, log into the server as a user who has the privilege to upload Quant report templates, and has permission to modify the content of the project.

4 Select the destination project for the report templates.

5 For Upload from, click Add Report Templates to automatically select the report templates folder. This folder exists on the Networked Workstation only if MassHunter Quantitative Analysis is installed.

6 For Destination, create a new folder in the Project folder for the report templates, such as Report Templates.

7 Mark Recursive: check to upload sub folders recursively.

8 Click Import to begin the import.
Step 5. Initialize instrument and start MassHunter Acquisition

1. In the navigation pane, select **Instruments**.
2. On the ribbon, click **Edit Instrument**.
3. If needed, rename the instrument to suit the needs of your organization.
4. Click **OK**.

5. Click **Configure Instrument > Online** to set the IP addresses for your LC and TQ instruments. Refer to the MassHunter Help & Learning for more details to configure instruments.

   **NOTE**
   
   If you are informed that a project must be selected, next to the **Project** option, click the browse button to select your project. Do this even if the project is already displayed as the Project option.

6. Click **Launch** to start the LC/MS instrument.
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In This Book

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