Agilent Cary UV Workstation and Workstation Plus

Requirements and Supported Instruments
Notices

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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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In this Guide

This document details the minimum hardware and software required to run the Agilent Cary UV Workstation, and Cary UV Workstation with OpenLab software configured, herein referred to as Cary UV Workstation Plus. It includes operating system configuration.

Terms and abbreviations used in this document.

<table>
<thead>
<tr>
<th>Term</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Content Management</td>
<td>Secure central repository for long term record and report retention</td>
</tr>
<tr>
<td>Control Panel</td>
<td>Control Panel for user management and system administration</td>
</tr>
<tr>
<td>Microsoft Control Panel</td>
<td>Part of the Microsoft Windows operating system</td>
</tr>
<tr>
<td>Shared Services</td>
<td>Set of administrative services that control, for example, the security policy and the central configuration of OpenLab software. Sharedservices are accessed via the Control Panel.</td>
</tr>
</tbody>
</table>

In this Guide

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2 Hardware and Software Requirements

Introduction

Depending on the type of installation, you may need different PC hardware components. Both Cary UV Workstation and Cary UV Workstation Plus have all required software components configured on a single PC (refer to Figure 1) that is connected to the Cary 3500 UV-Vis spectrophotometer system.

The software that is installed on the PC includes:

- Cary UV Workstation for instrument control and data analysis
- OpenLab Control Panel
- OpenLab Content Management (Cary UV Workstation Plus only)

Supported Agilent UV-Vis systems

All Cary 3500 UV-Vis systems can be controlled with the current version of Cary UV Workstation.
Hardware and Software Requirements

The following table lists the supported UV systems.

<table>
<thead>
<tr>
<th>Product Number</th>
<th>Instrument Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>G9871A, G9861AA</td>
<td>Cary 3500 Compact UV-Vis</td>
</tr>
<tr>
<td>G9872A, G9862AA</td>
<td>Cary 3500 Compact Peltier UV-Vis</td>
</tr>
<tr>
<td>G9873A, G9865AA</td>
<td>Cary 3500 Multicell UV-Vis</td>
</tr>
<tr>
<td>G9874A, G9866AA</td>
<td>Cary 3500 Multicell Peltier UV-Vis</td>
</tr>
<tr>
<td>G9867AA</td>
<td>Cary 3500 Multizone Peltier UV-Vis</td>
</tr>
</tbody>
</table>

**HINT** Check for the product number at the lower right of each module or system.

Figure 1. All software components are installed and configured on a single PC connected to the instrument.
Hardware and Software Requirements

General software requirements

As well as the installed software components, the PC will require additional software.

<table>
<thead>
<tr>
<th>Component</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>.NET framework</td>
<td>NET 3.5.1 must be enabled on systems running on Microsoft Windows 10</td>
</tr>
<tr>
<td></td>
<td>.NET 4.7.2 or above. If needed, it will be installed automatically by the</td>
</tr>
<tr>
<td></td>
<td>System Prep Tool.</td>
</tr>
<tr>
<td>Web browser</td>
<td>Google Chrome 40 or higher</td>
</tr>
<tr>
<td></td>
<td>Microsoft Edge</td>
</tr>
<tr>
<td>Antivirus software¹</td>
<td>Symantec Endpoint Protection</td>
</tr>
</tbody>
</table>

¹The listed antivirus software has been tested and is recommended by Agilent. Check with your Agilent service person in case you want to use other software.

You will need a PDF viewer to open PDF manuals in Cary UV Workstation and Control Panel Help and Learning. We recommend Adobe Reader DC. The PDF viewer is not required for the system to function correctly.

Agilent software

Cary UV Workstation and Cary UV Workstation Plus are compatible with Agilent Automated Compliance Engine (ACE) for Analytical Instrument Qualification (AIQ) services provided by Agilent.

This version of Cary UV Workstation and Cary UV Workstation Plus cannot be installed or used in a client-server configuration with direct file transfer or storage with the following Agilent software:

- OpenLab Basic Server
- OpenLab Server
- OpenLab ECM XT
- OpenLab ECM v3.X
Hardware and Software Requirements

Language compatibility

The English version of Cary UV Workstation and Cary UV Workstation Plus is validated on Microsoft Windows English language operating systems. Regional settings (locales) can be adjusted as required.

Localized versions of Cary UV Workstation are supported on localized language versions of Microsoft Windows, using the default system font:

- Chinese: Microsoft YaHei
- Japanese: Yu Gothic UI

Disc space

Agilent recommends providing enough disk space for one year of lab operation, in addition to the operating system and OpenLab software requirements.

Based on 100 samples over a 450 nm wavelength scan range, typical disc size requirements are outlined in the table below.

<table>
<thead>
<tr>
<th>Analysis type</th>
<th>Expected data size</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scan</td>
<td>0.5 – 1.5 MB</td>
</tr>
<tr>
<td>Kinetics / Kinetics Scan</td>
<td>3.0 – 10 MB</td>
</tr>
</tbody>
</table>

Operating system configuration

The following operating systems are supported.

<table>
<thead>
<tr>
<th>Operating System</th>
<th>Cary UV Workstation</th>
<th>Cary UV Workstation Plus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Microsoft Windows 10 64-bit Enterprise or Pro</td>
<td>✔</td>
<td>✔</td>
</tr>
</tbody>
</table>

Run the System Preparation Tool prior to installation to minimize the required configuration tasks. Refer to the Installation Guide for more information on the System Preparation Tool.
Hardware and Software Requirements

Standalone workstations

Workstation storage options

The Cary UV Workstation is available with storage of application files in the local database (Cary UV Workstation software). Cary UV Workstation uses PostgreSQL database for application data storage. It is installed and configured automatically. Agilent does not support the use of a PostgreSQL version other than the one installed.

When configured with the OpenLab software, there is an additional built-in Content Management database for secure long-term report and record storage (Cary UV Workstation Plus software). Cary UV Workstation Plus also uses a version of PostgreSQL database for both Shared Services and Content Management. It is installed and configured automatically. Agilent does not support the use of a PostgreSQL version other than the one installed by the OpenLab software.

PC recommendation

The table below provides the recommended hardware configuration.

<table>
<thead>
<tr>
<th>Item</th>
<th>Cary UV Workstation</th>
<th>Cary UV Workstation Plus with Content Management</th>
</tr>
</thead>
<tbody>
<tr>
<td>Processor speed (CPU)</td>
<td>Intel i5, i7, or Xeon E3 or equivalent</td>
<td>Intel i5, i7, or Xeon E3 or equivalent</td>
</tr>
<tr>
<td></td>
<td>3.0 GHz or greater 4 Core</td>
<td>3.0 GHz or greater 4 Core</td>
</tr>
<tr>
<td>Physical memory (RAM)</td>
<td>16 GB</td>
<td>16 GB</td>
</tr>
<tr>
<td>Hard disk</td>
<td>1 x 500 GB 7200 RPM SATA drive minimum or equivalent solid-state drive</td>
<td></td>
</tr>
<tr>
<td></td>
<td>See Disc Space</td>
<td>1 x 500 GB 7200 RPM SATA drive minimum or equivalent solid-state drive</td>
</tr>
<tr>
<td></td>
<td>See Disc Space</td>
<td>See Disc Space</td>
</tr>
<tr>
<td>Graphic Resolution</td>
<td>1600 x 900 minimum</td>
<td>1600 x 900 minimum</td>
</tr>
<tr>
<td></td>
<td>1920 x 1080 recommended</td>
<td>1920 x 1080 recommended</td>
</tr>
<tr>
<td>USB port</td>
<td>USB 2 required for installation via provided media</td>
<td>USB 2 required for installation via provided media</td>
</tr>
<tr>
<td>LAN card</td>
<td>100 MB/1 GB LAN for instrument control</td>
<td>100 MB/1 GB LAN for instrument control</td>
</tr>
<tr>
<td></td>
<td>2nd LAN card required for lab intranet connection</td>
<td>2nd LAN card required for lab intranet connection</td>
</tr>
</tbody>
</table>
Hardware and Software Requirements

Recommended PC bundle for a workstation is HP z2G5 or equivalent, with 16 GB RAM.

More information
For more details, please contact your Agilent representative.
This chapter describes the network requirements that must be met in order to support the environmental computing needs of Cary UV Workstation and Cary UV Workstation Plus.

**Introduction**

Cary UV systems can use network infrastructure in order to support the communication between PC and instrument. This communication is based on standard TCP/IP protocols and requires no configuration or minimum performance requirements.

**LAN connectivity**

When using LAN communications to connect PCs to an instrument, use one of these methods:

- Connect via an isolated switch using standard CAT-5 or CAT-6 network cabling
- LAN communication hardware should be 100/1000 Mbps (or higher) speed capable.
- LAN communication must be on the same subnet as instruments, and preferably on the same segment.
Network Requirements

Domain requirements

Domains support the flow of information and user access rights across machines in the network. This means that all machines and instruments within the networked Cary UV Workstation Plus system must reside within the same domain or have the appropriate cross domain trusts to allow name-based communications between all components in the system. In the case of a workstation installation, domains are only relevant if you are using a Microsoft Windows domain-based authentication model. In this case the workstation must always be able to communicate with domain components in order to function as expected.

Installing Cary UV Workstation Plus will apply network exceptions to the Microsoft Windows firewall under the domain profile to result in a functional system. The components necessary to support Cary UV Workstation Plus on a domain are:

- Domain controller — broadcasts the domain name and negotiates access to machines.
- Domain name server (DNS) — maintains records of what hostnames belong to which IP on the network. This component is always required for effective components communications in networked systems.
- Active directory — maintains the list of users and their access rights on the domain.

The domain name server (DNS) must be able to resolve the IPv4 address of all instrument controllers and instruments. Any unresolved instrument controller or instrument will disrupt the functionality of OpenLab resulting in errors or delays. IPv6 is not supported and must be deactivated.

The domain components above host a variety of services and settings that must be configured appropriately to allow communication across machines. The following services and settings will need to be configured to fit your domain. Your internal IT group is responsible for proper configuration of any custom domain solutions. These include settings for:

- Lookup zones and hostnames
- Group and security policies
- Subnet masks and Virtual LANs
- IP reservation (static or DHCP)
Network Requirements

Specific requirements

If you intend to use your system in an environment subject to data security regulations, ensure the following settings related to time synchronization:

- Your network must have a time synchronization service to make sure that all systems are using a consistent and valid time.
- To ensure that users cannot change the time, users must not operate using an administrator account.
In This Book

The manual describes the following:

- In this Guide
- Hardware and Software Requirements
- Network Requirements