Agilent OpenLAB Chromatography Data System (CDS)

Distributed System Installation Guide

Agilent Technologies

Notices

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This product may be used as a component of an in vitro diagnostic system if the system is registered with the appropriate authorities and complies with the relevant regulations. Otherwise, it is intended only for general laboratory use.

Software Revision

This guide is valid for revision A.01.04 of Agilent OpenLAB CDS.

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Contents

1 Introduction

This chapter gives you an overview of the OpenLAB software. It also includes certain requirements before starting the installation.

Who Should Read This Guide?

This installation guide is designed to help system administrators and other users install the Agilent OpenLAB Chromatography Data System (CDS) to a distributed system quickly and correctly.

See your Agilent representative for other system configuration installation guides.

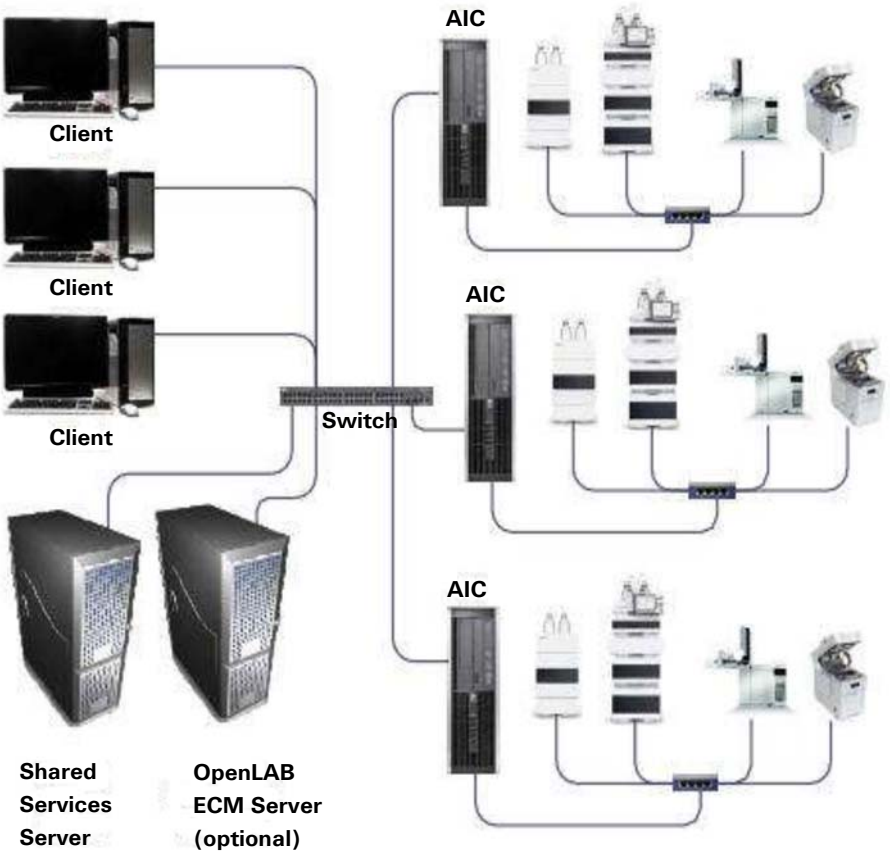

Figure 1 Distributed System Configuration

The Agilent OpenLAB CDS Software

The Agilent OpenLAB CDS, along with OpenLAB Electronic Lab Notebook (ELN), OpenLAB Enterprise Content Manager (ECM), and OpenLAB Data Store plus several add-ons make up the Agilent OpenLAB software suite.

These integrated solutions form a system designed to grow with customers' needs, from a small standalone analytical lab to a global network with hundreds of locations. Using the OpenLAB software, instruments from multiple vendors can connect to any size network – from individual workstations and workgroups to global enterprises. With full instrument control, centralized administration and ease-of-support, users can achieve lower operational costs and better instrument use. See your Agilent representative to learn how other products in the OpenLAB suite can help you.

The Agilent OpenLAB CDS software is provided on several edition-specific disks. Table 1 lists the disks you will receive for your software edition.

Table 1 OpenLAB CDS Components

Disk Name	ChemStation Edition	EZChrom Edition
OpenLAB CDS Shared Services Software	X	X
OpenLAB CDS ChemStation Edition Core Software	X	
OpenLAB CDS ChemStation Edition Drivers	X	
OpenLAB CDS EZChrom Edition Core Software		X
OpenLAB CDS EZChrom Edition Drivers		X
OpenLAB CDS Support	X	X
OpenLAB CDS Data Store Software	X	X

Before You Begin

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

1. For installing OpenLAB CDS, you need to have administrator privileges for all servers and clients. Power user privileges are not sufficient (the installation does not start).
2. Decide on a Shared Services server and a directory location to store all files related to the data system software, including data, methods, sequences, and configurations.
   - CDS clients must be connected via network to the Shared Services server.
   - If you plan to use the OpenLAB ECM, CDS client users must have read/write access to the ECM directory location.
3. If you are installing OpenLAB CDS EZChrom Edition, create an *Enterprise path* folder on the file server, with a share status **Everyone > Full permissions**. Because the system must access this folder as a *uniform naming convention (UNC)* share path, it must be created prior to actual installation. UNC paths define the common syntax pattern for share folder location and retrieval.
4. For the Shared Services Database server, obtain the:
   - Database name
   - Database administrator user name and password
   - Authentication mode
   - Administrator user credentials (domain, user name, password)
5. If you plan to use OpenLAB ECM with your system, obtain the ECM server name.
6. In order to install and configure OpenLAB ECM (Shared Services configuration on the server) the user must be both ECM administrator as well as internal OpenLAB Shared Services administrator.
7. If you plan to use the Oracle DB server, make sure to set up the Oracle DB following the description in CDS_oracle11.pdf on Disk1/docs/enu.

8 Create and define a service account for Agilent Instrument Controller (AIC) configuration. You will need to enter this service account information after you install the first AIC in your system.

9 Decide on the software delivery approach you want to use:

- *Install directly from the DVDs to your computer* — Load the disks as required directly to the workstation disk drive.
- *Copy DVDs to a network share folder for installation* — You can use the utility to copy DVD content to a network share folder or USB drive, and run an uninterrupted installation from that location. This approach will save time; when you install from the folder, you won't have to reload the disks.

10 Remember that when you launch the application, you will be able to review the following PDFs in the installer **Planning** and **Resources** menus before you install the software:

Under the Installer **Planning** menu, you will find:

- *Hardware and Software Requirements*—Use this PDF to determine whether your hardware and software will support the system.
- *Distributed System Installation Guide*—An electronic copy of this installation guide is provided in PDF format for your convenience.

Under the Installer **Resources** menu, you will find:

- *OpenLAB CDS Network Requirements*—Use this PDF to check that your settings comply with the network requirements.

11 Set up the necessary power, equipment and hardware connections to run your system, including any A/D boards, cables, GPIB boards, instrument detectors, and communication cables.

1 Introduction

Before You Begin

2 Configuration of Windows Server 2008 R2

This chapter describes the necessary installation and configuration steps to deploy an OpenLAB Shared Services server.

Install Windows Server 2008 R2

CAUTION Insufficient virus protection

Your PC might get infected.

➔ Keep your computer disconnected from the internet until you have installed the appropriate security patches and hot fixes.

➔ It is strongly recommended to install the latest security fixes as supported from Agilent Technologies and virus definitions prior to connecting to a network.

1 Install Windows Server 2008 R2 from recovery DVD or Windows Server 2008 R2 DVD. During the setup of Windows Server 2008 R2 provide the computer name, administrator password and network settings.

NOTE If you plan to use OpenLAB Data Store: Install SP1. You can download the service pack from the Microsoft web page (http://support.microsoft.com/kb/976932).

2 Select to either join an existing domain or set up the system in workgroup mode.

3 To guard your systems against viruses, install an AntiVirus program. Running AntiVirus programs might influence the behavior and performance of your computer. Agilent OpenLAB CDS was tested to run with Symantec's Norton Antivirus.

4 If you plan to use OpenLAB Data Store:

- Install Microsoft SQL Server 2008 R2 SP1 Standard or Enterprise in Mixed Mode on the server. For more information on changing the mode for an existing installation, see "Change Server Authentication to Mixed Mode" on page 100.
- When installing Microsoft SQL Server 2008 R2, do *not* select the **Reporting Services** feature. These services use port 80 and will conflict with the OpenLAB Data Store web server.

NOTE Do not install or configure any server role or feature.

Configure Windows Server 2008 R2 Settings

Most changes in the following section are mandatory for A.01.04 to work properly on a Windows Server 2008 R2 system. Some changes will optimize application performance. Other changes will have a graphical or minor impact.

NOTE

To indicate the relative importance of individual settings, each item is categorized as:

- MUST: These changes must be applied.
- PERFORMANCE: These changes will improve system performance.
- OPTIONAL: Most of these changes will affect the graphical display of the application.

NOTE

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

[MUST] **1** Folder Options (right-click **Start > Open Windows Explorer**):

a Choose **Organize > Layout**.

- Enable **Menu Bar**.
- Enable **Navigation Panel**.

b Set **View** to **Details**.

c Choose **Tools > Folder Options > View tab**.

- Disable the option **Hide extensions for known file types**.
- Enable the option **Display the full path in the title bar (Classic theme only)**.

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

[MUST] **2** Go to **Start > Control Panel > Windows Update**. Check for updates and apply all critical security patches.

3 Install additional hotfixes:

- Always install hotfix *KB2600907* (http://support.microsoft.com/kb/2600907).
- If you plan to use OpenLAB Data Store: Install hotfix *KB2577795* (http://support.microsoft.com/kb/2577795).

[MUST] 4 Register Windows Server 2008 R2 with Microsoft.

[MUST] 5 Select **Change Settings**. Set the **Important updates** selection to **Never check for updates**. Deselect the other update options.

Close the **Update** screen.

[MUST] 6 Go to **Start > Control Panel > Administrative Tools**. Select **Services**.

a Right click on the **Desktop Window Manager Session Manager** service. In the context menu select **Properties**.

- Set the startup type to **Disabled**.

b Right-click on the **Application Experience** service. In the context menu, select **Properties**.

- Set the startup type to **Disabled**.

Confirm by clicking **OK** and close the **Services** window. Close **Administrative Tools**.

[MUST] 7 Power Options: **Start > Control Panel > Change options that are currently unavailable > Power Options**.

a Enable power plan **High performance** (**Show additional plans**).

b Click **Change Plan** settings.

c Click **Change advanced power settings**.

- Open the nodes for **Hard disk**, **Turn off hard disk after** and check that Minutes are set to 0 (=**Never**).
- Click **OK**.

d Save the changes.

[MUST] 8 Local Security Policy: (**Start > Control Panel > Administrative Tools > Local Security Policy**)

a Navigate to **Security Settings > Local Policies > Security Options**.

b Double-click the following policy listed in the right hand panel: **Network Access: Sharing and security model for local accounts**.

c In the displayed dialog select the following item from the drop-down list: **Classical - local users authenticate as themselves**.

[MUST] **9** Region and Language Options (**Start > Control Panel > Regional and Language Options**):

a Regional options should be set to **English (United States)** from the drop-down list.

b If regional format other than **English (United States)** is used, the following settings are mandatory. The settings can be defined by clicking the **Customize this format** button:

- Decimal symbol = . (point)
- Digit grouping symbol = , (comma)
- List separator = , (comma)

c Language for non-Unicode programs:

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

[MUST] **10** Power Management for network devices (From **Start > Control Panel > Network and Sharing Center**):

a Select **Change adapter** settings. Click **Local Area Connection > Properties > Configure**).

b On the **Power Management** tab, uncheck all items.

[MUST] **11** Screen layout (right-click on **Start > Control Panel > Display**):

a Click on **Change color scheme**.

b Check that **Windows Classic** is selected.

[PERFORMANCE] **12** System Properties: **Start > Control Panel > System**: click **Advanced system settings**.

a On the **Advanced tab > Performance** hit the **Settings** button.

- **Visual Effects** tab, uncheck all entries.
- **Advanced tab > Virtual Memory**: For optimum performance use the **Change** button to adjust the paging file size to a value of 2 to 3 times of the physical RAM on the PC.
- **Data Execution Prevention** tab: Enable **Turn on DEP for essential Windows programs and services only**.

b **Advanced > Startup and Recovery > Settings button**:

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

c **Remote** tab

- In the **Remote Assistance** section, uncheck **Allow Remote Assistance connections to this computer**.

[OPTIONAL] **13** Welcome Center (**Start > search for 'gpedit.msc'**)

- Navigate to **Local Computer Policy > Computer Configuration > Administrative Templates > System > Logon**.
- Enable **Don't display the Getting Started welcome screen at logon**.

[OPTIONAL] **14** Recycle Bin Properties: (right-click on desktop icon Recycle Bin). Enable the following options:

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

[OPTIONAL] **15** Apply the Security Settings suggested by Microsoft at: http://technet.microsoft.com/en-us/library/cc264467.aspx

3 Configuration of Agilent Instrument Controller (AIC) Machines

This chapter describes the necessary configuration steps to deploy the OpenLAB CDS ChemStation AIC Hardware in a Distributed System.

Set up an AIC Machine for ChemStation

Specifications

Table 2 Hardware Specifications

AIC Model	CPU	RAM	Disk Space
ML150	2.00 GHz 2xQuad Core	8 GB	2x500 GB

NOTE

The OpenLAB CDS ChemStation Instrument Controller software uses the Remote Desktop Services (RDS) role in Windows Server 2008 R2.

The usage of this role requires, in addition to the Windows Server 2008 Client Access License (CAL), a Windows Server 2008 Remote Desktop Services CAL (RDS CAL) to access any application or graphical user interface remotely hosted by Windows Server 2008 R2.

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

For more informations about CAL and RDS CAL requirements, see *Windows Server 2008 R2 Licensing Overview* (http://www.microsoft.com/download/en/details.aspx?displaylang=en&id=18795).

Operating System Installation

After booting up the server, a wizard walks you through interview questions to prepare the server for operating system installation. Follow the on-screen instructions to complete the Operating System installation.

1 Boot up the server.

2 Select **English** for the language of the operating system, select the keyboard type, and click → to proceed with the next step.

3 In the **Thank You** screen, click → to proceed with the next step.

4 Read and agree with the *Microsoft End-User License Agreement*, and click → to proceed with the next step.

5 Read and agree with the *HP End-User License Agreement*, click → to proceed with the next step.

6 In the OS Partition Screen:

   a Select **Custom (475903MB)**

   b Provide an administrator password.

   c Confirm the administrator password.

NOTE

Password policy:

- Cannot be less than 8 characters
- Cannot be more than 63 characters
- Must contain at least 3 of the 4 classes of characters
- Can only contain valid characters:
  - a-z
  - A-Z
  - 0-9
  - `~!@#$%^&*()_+={}\:";'<>,./
- Cannot contain username, first name or last name

   d Click → to proceed with the next step.

7 Read and agree with the *Microsoft Software License Terms* for Microsoft Windows Server 2008 R2 Standard.

8 In the operating system contents:

a Review all settings.

b Click → when you are ready to proceed with the installation.

NOTE The server will reboot four times during the installation.

Operating System Configuration

Logon to Microsoft Windows Server 2008 R2 Standard Edition using the Administrator account and the password entered in the previous steps.

After you have completed the installation of Windows Server 2008 R2, and before you deploy the new server in your enterprise, some configuration is required to identify the computer to other computing resources on your network, to secure the computer, to enable administrators to perform tasks on the computer, and to customize the computer by adding server roles and features.

Initial Configuration Tasks for ChemStation AIC

You can finish configuring Windows Server 2008 R2 by performing the following three tasks, identified in the Initial Configuration Tasks window that is opened when the operating system installation is complete.

- Provide computer information.
- Update this server.
- Customize this server.

NOTE You can run OOBE.EXE to get back to Initial Configuration Tasks after selecting "Do not show this window at logon".

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

Provide Computer Information

1 Activate Windows.
2 Set time zone.
3 Configure Networking.
4 Provide computer name and domain (if required).

Update This Server

1 Click on **Enable automatic updating and feedback**, and select **Manually configure settings**.
2 In Windows automatic updating section:
   a Click the **change Setting...** button.
   b Select **Never check for updates (not recommended)**.
3 In Windows Error Reporting:
   a Click the **change Setting...** button.
   b Select **I don't want to participate, and don't ask me again**, or leave the default option **Ask me about sending a report every time an error occurs**.
4 In the **Customer Experience Improvement Program** section, keep the default selection **Not participating**.
5 Click the **Close** button when finished.
6 Click **Download and install updates**.

NOTE Your computer must have an available internet connection to download updates, or to configure Windows automatic updating.

NOTE Do *not* download and install Internet Explorer 9.

Customize This Server

NOTE Adding roles, features and enabling Remote Desktop is not required at this stage. The OpenLAB CDS Master Installer will configure these items during the ChemStation Instrument Controller installation.

1 Configure Windows Firewall.
   a Click **Configure Windows Firewall**.
   b In the left pane, click **Allow a program or feature through Windows Firewall**.
   c Click **Change settings**. If you are prompted for an administrator password or confirmation, type the password or provide confirmation.

NOTE If the **Change settings** button is unavailable, you might not have permission to change some settings that are managed by your system administrator.

   d Under **Allowed programs and features**, select the check box next to **Remote Desktop**, and then use the check boxes in the columns to select the network location types you want to allow communication on.
   e Click **OK**.
2 Click **Close** on the **Initial Configuration Tasks** window when finished.

Configure Windows Server 2008 R2 Settings

1 Click to open Server Manager.
2 Go to **Storage > Disk Management** and add Disk 1 to the configuration select MBR (Master Boot Record).
3 Right-click on CD-ROM 0.
   a Select **Change Drive Letter and Paths**.
   b Click the **Change** button and assign **F** as drive letter.
   c Click **Yes** in the warning windows.
4 Right click on Disk 1.
   a Select **New Simple Volume**, and click **Next**.
   b Select **Max size 476937**, and click **Next**.
   c Select **D** as drive letter, and click **Next**.

5 Format the disk with:
- File System: **NTFS**
- Allocation unit size: **Default**
- Volume Label: **Data** (or any other label)
- Select the **Perform Quick format** check box.

Disable Services

1 In Server Manager, go to **Configuration > Services**.
2 Stop the **Application Experience** service, set its startup type to disabled, and click **OK**.
3 Stop the **Desktop Window Manager Session Manager** service, set its startup type to disabled, and click **OK**.
4 Close Server Manager.

Adjust the Screen for Best Performance

1 Open the Control Panel using **Start > Control Panel > System and Security > System**.
2 Click **Advanced system settings**.
3 On the **Advanced** tab in the **Performance** section, click the **Settings** button.
4 In the **Visual Effects** tab, select **Adjust for best performance**.

Configure the Page File Size

When you set up a 64-bit version of Microsoft Windows Server 2008 and Microsoft Windows Server 2008 R2, the operating system will create a page file that is auto managed (Automatically manage paging file size for all drives) in your computer.

For best performance, do not set the initial size to less than the minimum recommended size under **Total paging file size for all drives**. The recommended size is equivalent to 1.5 times the amount of RAM on your system. Usually, you should leave the paging file at its recommended size, although you might increase its size if you routinely use programs that require a lot of memory.

1 Select the **Advanced** tab.
2 In the **Virtual memory** section, click the **Change** button.
3 Adjust the page file size, and click **OK** to save your modifications.

For more information, please read the following article from Microsoft: *How to determine the appropriate page file size for 64-bit versions of Windows Server 2008 or Windows Server 2008 R2* (http://support.microsoft.com/kb/2021748).

NOTE Changes made for the virtual memory require a restart of the computer before they can take effect.

Data Execution Prevention

1 Select the **Data Execution Prevention** tab.
2 Enable **Turn on DEP for essential Windows programs and services only**.
3 Click **OK** to close the performance options.
4 Click **OK** to close the **System Properties** window.

Configure the Power Options for the Computer

1 Open the Control Panel using **Start > Control Panel > System and Security > Power Options**.
2 Click **Change settings that are currently unavailable**.
3 Click **High performance**.
4 Click **Change Plan settings**.
5 Click **Change advanced power settings**.
6 Open the nodes for **Hard disk**, **Turn off hard disk after** and check that Minutes are set to 0 (=Never).
7 Click **OK**.
8 Save the changes.

Disable Power Management on the Network Adapter(s)

1 Open the Control Panel using **Start > Control Panel > System and Security > System**.

2 Click **Device Manager**.

3 Expand the **Network adapters** node.

4 Double-click the listed adapter(s), select the **Power Management** tab, and deselect **Allow the computer to turn off this device to save power**.

5 Click **OK** and close the **Device Manager** tool.

6 Restart the computer.

What to do Next

The operating system installation and configuration for the OpenLAB CDS ChemStation AIC is now complete. You can now deploy the OpenLAB CDS software.

Prepare an AIC for EZChrom

Make your AIC 5000 CDS Compatible

AIC units are made CDS-compatible *before* installation of a new OpenLAB CDS system. AIC 5000 units require re-imaging of the hard drive files using the AIC Software and Utilities DVD, and use of the patching tool to fix software deficiencies.

Make sure you have the necessary PC features, hardware, software and storage devices to prepare your image controller unit for OpenLAB CDS:

- Windows XP or Windows Vista operating system
- DVD drive
- USB 2.0 port
- the AIC Software and Utilities DVD
- flash drive with minimum 2GB capacity

Preparation: Inspect your Flash Drive

1. Check to see if your flash drive contains any other bootable software.
2. If your flash drive contains other bootable software and you must use it for the AIC upgrade, perform a full format and create a FAT32 partition of the flash drive.

   This will remove any boot partitions from the drive and make it usable for the upgrade.

Step 1: Copy the Software to your Flash Drive

1. Insert the flash drive into your PC running the **Windows XP** or **Windows Vista** operating system.
2. Make note of the drive name—you will need it later.
3. Load the *AIC Software and Utilities DVD* to your PC disk drive. **Autorun** will launch the software and display the main screen.
4. Select the **OpenLAB CDS—EZChrom Edition** link.

5 On the next screen displayed, select the **AIC** link that corresponds to your AIC model number.

6 Select the **AIC—Re-Image to Firmware Version 15.0.3** link corresponding to your AIC model number.

7 Type **y** and select **enter** to confirm that you are making a bootable flash drive for the AIC.

8 Enter the drive name for your flash drive.

9 Select **enter.**

10 If the drive name you entered is correct, confirm by typing **y** in the field provided.

11 Select **enter.**

The software will format the flash drive, making it bootable, and copy the image files to the flash drive.

12 Close any popup windows that may appear during this process– they won't apply to your upgrade.

13 When the copying process is complete, remove your flash drive from the PC. Using the *safely remove storage device* function is recommended.

Step 2: Run the Software on your AIC

1 Turn on the AIC.

2 Press **F10** to display the BIOS screen.

3 Verify that **USB devices** is listed first on the BIOS screen (this means that the controller is set to boot from USB devices first).

If it is not, modify the list order so that **USB devices** is first.

4 If you made changes, select **save**.

5 Select **exit**.

6 Turn off the AIC.

7 Insert the flash drive into one of the two USB ports just under the keyboard/mouse ports, on the back of the AIC. Do *not* use the red or blue USB ports.

8 Turn on the AIC. The AIC will boot up to the flash drive. The boot process takes approximately *ten minutes*.

9 At the instrument controller **Welcome** screen, select option **C**, **OpenLAB CDS—EZChrom Edition**.

10 Select **enter**. The system will display a window indicating image transfer progress. When the process is complete, you'll be returned to the previous screen.

11 Remove the flash drive from the AIC.

12 Type
`exit` in the field provided, and select enter. The AIC will automatically reboot.

Step 3: Run the AIC Patching Tool

1 When the AIC has fully booted up after re-imaging, re-insert the flash drive into the USB port on the back of the AIC (not one of the red or blue ports). Disregard the dialog box that appears after booting up, asking whether the AIC will be used for OpenLAB or EZChrom Elite. It will disappear when you re-insert the flash drive.

2 If a **Systems Settings Change** screen appears asking you if you want to restart the computer, select **No**.

3 At the **AIC Patching Tool** screen, select **Apply Patches**.

- Note the listing of patches that will be applied to the AIC, including .NET 3.5 SP1 installation.
- The .NET 3.5 SP1 installation takes approximately ten minutes and runs silently. A message will display when all patches have been applied. *Do not close* the **AIC Patching Tool** screen until you are prompted to do so.

4 When you see the message indicating that all patches have been applied, remove the flash drive from the AIC.

5 Close the **AIC Patching Tool** screen.

6 Reboot the AIC.

Make your AIC 7800 or 7900 CDS Compatible

AIC units are made CDS-compatible *before* installation of a new OpenLAB CDS system, AIC 7800 and 7900 units are re-imaged using *Windows XP SP3* software. The patching tool is not used, but users must verify that the units meet all software requirements for *OpenLAB CDS workstations*.

Make sure you have the necessary PC features, hardware, software and storage devices to prepare your image controller unit for OpenLAB CDS:

- Windows XP SP3 operating system
- Windows software DVDs supplied with unit
- OpenLAB CDS manuals for software requirements and installation instructions

Step 1: Understand PC-specific Concerns

The steps below include a hardware drive re-imaging process. Re-imaging results in the following:

1. An *image file* of your hard drive is created, and saved on your hard drive.
2. *Current data is removed* from your computer. This includes all installed programs.
3. Your computer is *reset* to a 'newly installed' condition, with its *original settings*.

   Though *User files* will be saved to a **Windows.old** folder on the hard drive you should, as a precaution, back up your user files before re-imaging. If you have any *encrypted files*, you may not be able to access them after re-imaging and reinstallation.

Step 2: Re-image your Hard Drive and Reinstall Windows

1. Using your Windows operating system, go to **Start > Control Panel**.
2. Type
   `recovery` in the search box. The **Recovery** option will appear in the window.
3. Select **Recovery**.
4. Select **Advanced recovery methods**.

5 Select **Return Windows or your computer to original settings**.

Windows will display one of these two manufacturer-set options:

- **Return your computer to the factory setting**.
- **Reinstall Windows**.

6 Select the option, and follow the ensuing prompts. Regardless of the option provided, at some point you will have to insert the *Windows DVD* supplied to you with your PC, and follow the prompts to reinstall Windows.

Step 3: Verify Prerequisites and Install OpenLAB CDS

1 When reinstallation of Windows is complete, verify the system prerequisites for OpenLAB CDS workstations (e.g. .NET SPL, Windows Installer, etc.) in the OpenLAB CDS manual.

2 Install **OpenLAB CDS** using the manual instructions.

Your PC is now compatible with OpenLAB CDS when it is installed to the distributed system.

What to do Next

You have now upgraded your AIC for use with the OpenLAB CDS EZChrom Edition. You can now install the OpenLAB CDS software.

4
Install the Software

The installation is automated for you by the included OpenLAB CDS Master Installer. This tool installs the various components of OpenLAB CDS.

Step 1: Run the Application

To run the application for the first time on a server computer or networked workstation:

1. For the direct DVD approach, insert the OpenLAB CDS Installation disk. Autorun.inf will automatically run Agilent. OpenLABCDSSetupFromDVD.exe and display the installer **Planning** screen.
2. For the portable data storage device approach, insert the device in a computer USB port, navigate to \Disk1\Setup.bat and run the application to proceed to the **Planning** screen.
3. For the share file approach, navigate to the share file folder. Make sure the share is mapped to a drive letter; otherwise copy the files to an appropriate share on your computer. Then navigate to \Disk1\setup.bat and run the application to proceed to the **Planning** screen.

Step 2: Copy DVDs to a Network Share Folder for Installation (Optional)

Completing this step will enable you to run an uninterrupted installation directly from a folder—i.e., you will not have to load individual disks during actual installation.

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

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

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

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

   a Select the button with the three dots.

   b Navigate to the directory where you want to create the folder (you can navigate to a USB drive port to create the folder on a USB drive).

   c Select **Make New Folder**.

   d Type in the folder name.

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

   f Select the disks you want to copy to the folder: **All disks**, **ChemStation disks**, or **EZChrom disks**.

   g Select **Start.**

   h Follow the prompts to insert new disks as they appear.

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

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

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

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

Step 3: Run the System Configuration Checker

1 At the **Planning** screen, select **System Configuration Checker**.

2 For the server configuration check, select **OpenLAB CDS Shared Server Core A.01.XX** from the drop-down list.

3 If you want to install OpenLAB Data Store: Select **OpenLAB Data Store Server (All-In-One) A.01.01** to check the server.

4 If you want to install ChemStation Edition:

- Select **OpenLAB CDS ChemStation Edition (CDS client)** to check a CDS client.
- Select **OpenLAB CDS ChemStation Edition (Instrument Controller)** to check an AIC.

5 If you want to install EZChrom Edition: Select **OpenLAB CDS EZChrom Edition A.04.XX** to check a CDS client or AIC.

6 Select **OK**.

7 Complete page 1 of the **Contact Information—System details** by typing in the fields provided.

- System Location fields
- System Information fields
- Configuration fields

NOTE The regional settings must be configured to use the dot ('.') as a decimal separator.

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

9 Select the green check-mark icon in the top left corner of the screen to begin the software check. A summary report is displayed showing the results for each check category. Results are expressed as **Pass**, **Warning**, **Critical Warning**, or **Fail**.

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

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

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

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

Step 4: Run OpenLAB CDS Installation Wizard on the Shared Services Server

At this point, you will be installing to the Shared Services server either directly from the DVDs or from a local drive (mapped to either USB/eSATA drive or a network location). The installation steps are identical until you start the installation wizard: you won't be prompted to load the DVDs if you are installing from a centralized location.

License Agreement Screen

1. If you will be using a local database for the server, you must have Windows Installer 4.5 installed. To install it from the **Installation** screen:
   a. Select **Third Party Tools** and then **Windows Installer 4.5**.
   b. Read the licensing agreement.
   c. Select **Accept** to accept the agreement and begin Windows Installer 4.5 installation.
   d. When installation is complete, click **OK** to return to the **Installation** screen.
2. Select **OpenLAB CDS**.
3. If your Shared Services server is running under Windows 2003 Server R2 and if .NET 3.5 SP1 is not on your system, the **Agilent OpenLAB CDS Prerequisites Setup** screen appears.
   a. Read the licensing agreement.
   b. Select **Accept** to accept the agreement and begin .NET 3.5 SP1 installation.

NOTE If you select **Don't Accept** at this screen, the install program will exit. You will have to install .NET 3.5 SP1 or higher at a later time to proceed with OpenLAB CDS installation.

If your Shared Services server is running under Windows 2008 Server R2, .NET 3.5 SP1 will be installed automatically.

4 The **OpenLAB CDS Installation Wizard** opens. Read the terms of the **License Agreement**. Master Installer provides a printable PDF of the license agreement under the **Resources** option of the main menu.

5 Select **I agree with the terms and conditions**. You cannot proceed with installation unless you agree to these terms.

6 Select **Next** to proceed to the **Installation Folder** screen.

Installation Folder Screen

1 Type the folder name or browse to the folder where you want to store the application components.

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

NOTE The installation folder of ChemStation on the AIC must not be shared. Doing so will disable launching the instrument from the CDS client.

2 To run an installation qualification as part of this *Shared Services server* installation, select **Run Installation Qualification**.

Because there can be several separate installation procedures for a distributed system, you may prefer to run the IQ during the last installation, or sometime after your system is completely installed (see "Optional Procedures" on page 75 in this manual).

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

Installation Type Screens for Shared Services Server

Follow this procedure to install the OpenLAB Shared Services server without Data Store. To install the Data Store server, skip this step and continue with "Installation Type Screens for Data Store Server" on page 41.

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

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

3 Select **Shared Services Server**.

4 Select **Next**.

5 Complete the **Database type** screen by selecting either **New SQL Server installation**, **Existing SQL Server** or **Existing Oracle Server**.

The **New SQL Server installation** option requires Windows Installer 4.5, as described in the *License Agreement Screen* steps above.

6 Configure the database as described in the following steps.

7 If you selected **New SQL Server installation**:

a Type the path or browse to the directory where you want to store the application components. Directory names must be entered *without spaces*.

b Select **Next**.

c Complete the **Database name** field.

d Select the authentication mode.

NOTE If you select the **Use SQL server authentication** mode, complete the **DB user name**, **DB user password**, **Administrator name**, and **Administrator password** fields.

e Select **Next** to proceed to the **Additional items**, **Language**, and **Register applications** screens.

8 If you selected **Existing SQL Server**:

a Type the database server name in the field provided.

b Select **Use default instance** or **Use named instance**.

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

c Select **Next**.

d Complete the **Server connection type** screen. Select either **Create new database** or **Connect to existing database**. If you select **Connect to existing database**:

- Enter the **Database name** in the field provided.
- Select the authentication mode. If you select the **Use SQL server authentication** mode, complete the **DB user name**, **DB user password**, **Administrator name**, and **Administrator password** fields.
- Click **Test Connection...** to run a connectivity check. The system will verify that the connection from this machine to the SQL server is functioning.

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

e Select **Next**. If you entered **Connect to existing database** in the previous step, the system will proceed to the **Additional items** screen. If you selected **Create New Database** in the previous step, the system will display an **OpenLAB Shared Services database** screen.

- Enter the **Database name** in the field provided.
- Select the authentication mode. If you select the **Use SQL server authentication** mode, complete the **DB user name**, **Database user password**, **Administrator name**, and **Administrator password** fields.
- Select **Next** to proceed to the **Additional items** screen.

9 If you selected **Existing Oracle Server**:

a Enter the **Database server name** in the field provided.

b Select **Next**.

c In the **Server connection type** screen, select the **Initialize data** check box if you want to write configuration data, like standard permissions and roles, into the database.

d Enter the **Database name** and the **Database user name** in the field provided.

The database user name is the administrator name that was defined during the Oracle Server installation.

e Enter the Database administrator password.

f Check the **Listener port number**. By default, it is set to 1521.

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

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

10 If you want to use **OpenLAB ECM** with your data system:

- **a** Check the **ECM Server** option button. The system will activate a **Server name** field.
- **b** Enter the server name *without spaces*.
- **c** Click **Test Connection...** to run a connectivity check. The system will verify that the connection from this machine to the ECM server is functioning.

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

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

12 Under **Register applications**, check the edition that applies. If you check the EZChrom Edition, the system will activate an **Enterprise path** field. This is the *UNC path* you created in the *Before you Begin* steps. Type in the path name, or browse to the directory. Path names must be entered without any spaces.

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

Installation Type Screens for Data Store Server

Preparations

- Microsoft SQL Server 2008 R2 Standard or Enterprise must be installed in Mixed Mode on the server.
- Port 80 must be open for OpenLAB Data Store to function correctly.

1. Under the **Installation type** screen, select **Networked System**.
2. Select **Next** to proceed to the **Networked system** screen.
3. Select **Data Store Server**.
4. Select **Next** to proceed to the **Database type** screen.
5. Type the database server name in the field provided.
6. Select **Use default instance** or **Use named instance**.

   If you select **Use named instance**, complete the **Database instance name** field.
7. Select **Next**.
8. Complete the **Server connection type** screen. Select either **Create new database** or **Connect to existing database**. If you select **Connect to existing database**:
   a. Enter the **Database name** in the field provided.
   b. Select the authentication mode. If you select the **Use SQL server authentication** mode, complete the **DB user name**, **DB user password**, **Administrator name**, and **Administrator password** fields.
   c. Click **Test Connection...** to run a connectivity check. The system will verify that the connection from this machine to the SQL server is functioning.

   The system will display a **Connection succeeded** message if the check is successful. Click **OK** to close the message.
9. Select **Next**.
10. If you entered **Connect to existing database** in the previous step, the system will proceed to the **Additional items** screen. If you selected **Create New Database** in the previous step, the system will display an **OpenLAB Shared Services database** screen.
    a. Enter the **Database name** in the field provided.
    b. Select the authentication mode. If you select the **Use SQL server authentication** mode, complete the **DB user name**, **DB user password**, and **Administrator password** fields.
11. Select **Next** to proceed to the **Additional items** screen.

12 In the **Content files directory** field, enter a suitable location to upload all data from OpenLAB CDS applications.

This location will hold the content files for OpenLAB Data Store. Therefore, the location must be on a disk that has plenty of storage space.

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

14 Under **Register applications**, check the edition that applies. If you check the EZChrom Edition, the system will activate an **Enterprise path** field. This is the *UNC path* you created in the *Before you Begin* steps. Type in the path name, or browse to the directory. Path names must be entered without any spaces.

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

Summary Screen

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

NOTE Before starting or canceling the installation, you can save an XML file with your installation settings. This XML can then be used for a scripted installation (see "About Scripted Installation" on page 66).

2 Select **Start** to begin installation.

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

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

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

- Decline to view the system report, and continue installation.
- View the system report, and decide to continue installation.

- View the system report and postpone installation until the problem is fixed.

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

- Decline to view the system report and postpone.

3 Your installation settings determine which disks need to be copied during installation. If you are installing directly from the DVDs, follow the Insert Disk prompts as they appear.

If you are installing from a local drive, you won't insert disks or browse to disk folders – the entire installation will run automatically, based on your installation settings.

If the *OpenLAB CDS Installation Wizard* cannot locate a necessary file (whether on a disk or in a folder), a **Disk or File not found** prompt will appear.

For disks, follow the prompts to:

- **Retry** using the same disk.
- Insert the correct disk (if you made an error), and select **OK**.
- Select **Cancel** to cancel the installation. The system will uninstall any components installed so far.

If a file in a centralized folder cannot be found, you may have to recreate the folder. See "Step 2: Copy DVDs to a Network Share Folder for Installation (Optional)" on page 33.

If the installation of any vital application or component fails, the installation will roll back (uninstall). If a failed component can be installed at a later time without affecting basic installation (e.g. ECM API, Driver) the installation will proceed. In this case, you will be notified of any failure, and that further steps are necessary to fully complete installation.

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

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

6 Reboot the server after the installation.

Step 5: Set up OpenLAB CDS Administration

1. From the Shared Services server, open OpenLAB CDS from the OpenLAB CDS Control Panel shortcut on the desktop or go to **Start > All Programs > Agilent Technologies > OpenLAB > OpenLAB Control Panel**.
2. From the navigation pane, select **Administration > System Configuration**.
3. In the **System Configuration** toolbar, select **Edit System Settings**.
4. In the **Edit System Settings** window, select your authentication provider from the drop-down list.

   If you installed a Data Store server, you can only choose between **Internal**, **Windows Local**, or **Windows Domain**.
5. Select your storage provider from the drop-down list.

   The storage type **Data Store** is available only if Data Store has been deployed.
6. Select **Next**.
7. Select a user to administrate the system.
   - **a** If you selected **Internal** as an authentication provider:
     - Select **Create Account**.
     - In the **Create Administrator Account** dialog box, enter a **Name** and a **Password**.
   - **b** If you selected **Windows Local** as an authentication provider:
     - Select **Select Account**.
     - Enter a search string.
     - In the **Search Users** dialog box, select **Search** to view a list of users.
     - Select a user.
   - **c** If you selected **Windows Domain** as an authentication provider:
     - Select the check box to activate the input fields.
     - Enter a **Domain**, **User**, and **Password**.
     - Select **Select Account**.
     - Enter a search string.

- In the **Search Users** dialog box, select **Search** to view a list of users.
- Select a user.

d If you selected **ECM** as an authentication provider:

- Provide the **ECM Server URL** and enter the ECM user credentials.
- Select **Select Account**.
- Enter a search string.
- In the **Search Users** dialog box, select **Search** to view a list of users.
- Select a user.

8 Select **OK**.

9 If you selected **Data Store** as the storage provider: Activate Data Store.

a Enter the URL of the Data Store server (*http://<server name>*).

b Enter the credentials required for activation.

c Click **Activate**.

A success message is shown. Click **OK** to confirm.

If activation fails:

- Verify URL and credentials.
- Restart the AlfrescoTomcat service.
- Check the firewall.
- Check for port conflicts. Port 80 must be open.

10 Select **Next**.

11 Review your settings and select **Apply**.

Step 6: Run the OpenLAB CDS Installation Wizard on a CDS Client

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

Other than EZChrom, ChemStation is not installed directly on the CDS client but on the AIC. You can access the ChemStation instance on the AIC machine from any ChemStation CDS client via a Remote Desktop Services connection.

Here again you will be running your installation(s) either using the DVDs directly, or from a centralized folder. The installation steps are identical until you start the installation wizard: *you won't be prompted to load the DVDs if you are installing from a centralized location.*

License Agreement Screen

1 From the OpenLAB CDS Master Installer screen, select **Installation**.

2 Select **OpenLAB CDS**.

3 If .NET 3.5 SP1 is not on your system, the **Agilent OpenLAB CDS Prerequisites Setup Screen** appears.

   a Read the licensing agreement.

   b Select **Accept** to accept the agreement and begin .NET 3.5 SP1 installation.

NOTE If you select **Don't Accept** at this screen, the install program will exit. You will have to install .NET 3.5 SP1 or higher at a later time to proceed with OpenLAB CDS installation.

4 The **OpenLAB CDS Installation Wizard** opens. Read the terms of the **License Agreement**. Master Installer provides a printable PDF of the license agreement under the **Resources** option of the main menu.

5 Select **I agree with the terms and conditions**. You cannot proceed with installation unless you agree to these terms.

6 Select **Next** to proceed to the **Installation Folder** screen.

Installation Folder Screen

1 Type the folder name or browse to the directory where you want to store the application components.

2 To run an installation qualification as part of this *CDS client installation*, select **Run Installation Qualification**.

Because there can be several separate installation procedures for a distributed system, you may prefer to run the IQ during the last installation, or sometime after your system is completely installed (see "Optional Procedures" on page 75 in this manual).

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

Installation Type Screens

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

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

3 Select **CDS client**.

4 Select **Next**.

5 Under **CDS Edition** select the OpenLAB CDS edition you want to install:

- ChemStation or
- EZChrom

6 Select **Next**.

7 If you chose the ChemStation edition:

a In the **OpenLAB Shared Services Settings for Registration** screen complete the **Server name** field.

b Choose the authentication service provider which you configured on the OpenLAB Shared Services server.

c Provide the corresponding user credentials (see "Step 5: Set up OpenLAB CDS Administration" on page 44).

d When you type in the **Server name**, the **Test Connection...** button will be activated. You can test connectivity for this server before completing the rest of this screen.

e Continue with step 9.

8 If you chose the **OpenLAB EZChrom Edition**:

   a Under **OpenLAB CDS EZChrom Edition**, select the **Install print server** check box if you want to install the OpenLAB CDS print server.

   b Select **Next**.

   c In the **OpenLAB Shared Services Settings for Registration** screen complete the **Server name** field.

   d Choose the authentication service provider which you configured on the OpenLAB Shared Services server.

   e When you type in the **Server name**, the **Test Connection...** button will be activated. You can test connectivity for this server before completing the rest of this screen.

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

   If the connectivity test fails, verify that the server name was entered correctly, without spaces, and select **Next** to run the test again. If the test is still unsuccessful, you can:

   - Enter a new server and try another test.
   - Call internal support for assistance if you cannot connect to a server.

   When a connectivity test has run successfully, the system will proceed to the **Additional items** screen.

10 Choose the required Data Storage Location.

11 If you want to use **OpenLAB ECM** with your data system:

   a Check the **ECM Server** option button. The system will activate a **Server name** field.

   b Enter the server name *without spaces*.

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

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

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

Summary Screen

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

NOTE Before starting or canceling the installation, you can save an XML file with your installation settings. This XML can then be used for a scripted installation (see "About Scripted Installation" on page 66).

2 Select **Start** to begin installation.

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

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

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

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

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

- Decline to view the system report and postpone.

3 Your installation settings determine which disks need to be copied during installation. If you are installing directly from the DVDs, follow the Insert Disk prompts as they appear.

If you are installing from a local drive, you won't insert disks or browse to disk folders – the entire installation will run automatically, based on your installation settings.

If the *OpenLAB CDS Installation Wizard* cannot locate a necessary file (whether on a disk or in a folder), a **Disk or File not found** prompt will appear.

For disks, follow the prompts to:

- **Retry** using the same disk.
- Insert the correct disk (if you made an error), and select **OK**.
- Select **Cancel** to cancel the installation. The system will uninstall any components installed so far.

If a file in a centralized folder cannot be found, you may have to recreate the folder. See "Step 2: Copy DVDs to a Network Share Folder for Installation (Optional)" on page 33.

If the installation of any vital application or component fails, the installation will roll back (uninstall). If a failed component can be installed at a later time without affecting basic installation (e.g. ECM API, Driver) the installation will proceed. In this case, you will be notified of any failure, and that further steps are necessary to fully complete installation.

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

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

Step 7: Run the OpenLAB CDS Installation Wizard on an Instrument Controller

License Agreement Screen

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

Installation Folder Screen

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

   Because there can be several separate installation procedures for a distributed system, you may prefer to run the IQ during the last installation, or sometime after your system is completely installed (see "Optional Procedures" on page 75 in this manual).
3. Select **Next** to proceed to the **Installation type** screen.

Installation Type Screens

1 Under the **Installation type** screen, select **Networked System**.
2 Select **Next**.
3 Select **Instrument Controller**.
4 Select **Next**.
5 Under **CDS Edition** select the OpenLAB CDS edition you want to install:
   - ChemStation or
   - EZChrom
6 Select **Next**.
7 If you choose the ChemStation edition:
   a Complete the configuration options screen.

CAUTION Installation folder must not be shared.

➔ The installation folder of ChemStation on the AIC must not be shared. Doing so will disable launching the instrument from the CDS client.

   b Under **Installation folder**, type the path or browse to the directory where you want to store the application components. Directory names must be entered *without spaces*.
   c Under **Instrument accounts** you can choose to select the **Use customized instrument accounts** check box.

   If you clear the check box, the system will use default instrument accounts.

   If you select the check box, type the path in the **Accounts file** field, or browse to the directory where your customized instrument accounts are stored. Directory names must be entered *without spaces*.
   d Select **Next** to proceed to the OpenLAB Shared Services Settings screen.
   e Complete the **Server Name**, **Domain**, **OLSS Server Username**, and **OLSS Server Password** by typing in the fields provided. Server names must be entered *without spaces*.
   f When you type in the **Server Name**, the **Test Connectivity** button will appear. You can test connectivity for this server before completing the rest of this screen.

8 If you choose the EZChrom edition:

   a The **Install printer server** check box in the **OpenLAB CDS EZChrom** screen is deactivated, because the print server installation is not supported for AICs.

   b Select **Next** to proceed to the OpenLAB Shared Services Settings screen.

   c Complete the **Server Name**, **Domain**, **OLSS Server Username**, and **OLSS Server Password** by typing in the fields provided. Server names must be entered *without spaces*.

   d When you type in the **Server Name**, the **Test Connectivity** button will appear. You can test connectivity for this server before completing the rest of this screen.

9 If you want to use **OpenLAB ECM** with your data system:

   a Check the **ECM Server** option button. The system will activate a **Server name** field.

   b Enter the server name *without spaces*.

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

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

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

   If the connectivity test fails, verify that the server name was entered correctly, without spaces, and select **Next** to run the test again. If the test is still unsuccessful, you can:

   - Enter a new server and try another test.
   - Call internal support for assistance if you cannot connect to a server.

   When a connectivity test has run successfully, the system will proceed to the **Additional items** screen.

Summary Screen

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

NOTE Before starting or canceling the installation, you can save an XML file with your installation settings. This XML can then be used for a scripted installation (see "About Scripted Installation" on page 66).

2 Select **Start** to begin installation.

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

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

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

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

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

- Decline to view the system report and postpone.

3 Your installation settings determine which disks need to be copied during installation. If you are installing directly from the DVDs, follow the Insert Disk prompts as they appear.

If you are installing from a local drive, you won't insert disks or browse to disk folders – the entire installation will run automatically, based on your installation settings.

If the *OpenLAB CDS Installation Wizard* cannot locate a necessary file (whether on a disk or in a folder), a **Disk or File not found** prompt will appear.

For disks, follow the prompts to:

- **Retry** using the same disk.
- Insert the correct disk (if you made an error), and select **OK**.
- Select **Cancel** to cancel the installation. The system will uninstall any components installed so far.

If a file in a centralized folder cannot be found, you may have to recreate the folder. See "Step 2: Copy DVDs to a Network Share Folder for Installation (Optional)" on page 33.

If the installation of any vital application or component fails, the installation will roll back (uninstall). If a failed component can be installed at a later time without affecting basic installation (e.g. ECM API, Driver) the installation will proceed. In this case, you will be notified of any failure, and that further steps are necessary to fully complete installation.

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

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

NOTE The installation of a ChemStation AIC requires a reboot. It is very important that the installing user logs on again to the AIC *after* the reboot. Otherwise the CDS clients cannot configure or launch any ChemStation instrument on this machine.

EZChrom Only: Identify a Domain Account for Running Instrument Services

-first AIC installation only-

This essential step must be completed for EZChrom edition after you have installed your *first* instrument controller using the procedures above.

1 Go to **Start > Programs > Agilent Technologies > OpenLAB CDS EZChrom Edition > AIC and Driver Install Tool**.

2 At the **OLSS EZChrom Tool —Login** screen, type your **User Name**, **Password**, and **Domain** in the fields provided.

3 Select **Login**.

4 At the **OpenLAB Shared Services EZChrom Registrations Functions** screen, select the **Instrument Service Account** tab.

5 Type the **Service Account Credentials** in the fields provided:

- User name
- Password
- Domain

The user specified for this service account must be set as a local administrator on all AICs.

6 Select **Store**.

7 Close the tool.

From this point forward you can install the software to any number of additional instrument controllers linked to the network server and instruments, *omitting* this step—the system will retrieve the domain account information automatically.

Optional: Install Acrobat Reader

In order to view site prep or administrative reports (such as system reports), or to use the new Report Viewer Feature (ChemStation Edition only) you need a PDF reader.

If a PDF reader is not installed on your system, you can install Adobe Reader version 10.1.0 from the OpenLAB CDS installation DVDs. It is available on disk6/Adobe Reader in 4 language versions (English, Japanese, Chinese and Portuguese).

Run the self-extracting exe-file of your choice and follow the instructions of the Adobe Reader X Setup wizard.

What to do Next

The basic installation of the data system software is complete.

There is a *60-day Startup License* for this system, and the expiration period starts with your first launch of an application.

To request and download your *final software license*, and add the *license file* to your system, see the *Software License Installation Guide*.

After you have acquired and installed your *final software license*, you will continue to prepare your data system for operation by end users by configuring projects, users, and instruments. This is accomplished through the *OpenLAB CDS Control Panel*, which features an *online help* resource. For more information, please contact your Agilent representative.

5
Uninstall the Software

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

About Uninstallation

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

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

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

Step 1: Run the Master Installer

To run the Master Installer on your workstation choose one of the following approaches:

- To run the uninstallation from disk, insert the OpenLAB CDS Installation disk (Disk 1).

  Autostart will automatically run Agilent.OpenLABCDSSetupFromDVD.exe and display the installer **Planning** screen.

- For the *portable data storage device* approach, insert the device in a computer USB port, navigate to \Disk1 and run Setup.bat to proceed to the **Planning** screen.

- For the *share file* approach, copy the contents to the local drive and navigate to the respective share file folder. Then navigate to \Disk1 and run Setup.bat to proceed to the **Planning** screen.

Step 2: Run the OpenLAB CDS Uninstallation Wizard on a CDS Client

1 From the Master Installer **Planning** screen, select **Maintenance** from the side bar menu.

2 Select **OpenLAB CDS Uninstallation**.

The **OpenLAB CDS Uninstallation Wizard** opens.

3 In the **Shared Components** screen:

a Check the **Uninstall Installation Qualification** check box.

NOTE IQ needs to be uninstalled if you want to reinstall OpenLAB CDS at a later time.

b If you want to remove IO Libraries as well, select the **Uninstall IO Library** check box.

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

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

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

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

All listed components are automatically uninstalled, one after another.

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

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

Step 3: Run the OpenLAB CDS Uninstallation Wizard on an Instrument Controller

1 From the Master Installer **Planning** screen, select **Maintenance** from the side bar menu.

2 Select **OpenLAB CDS Uninstallation**.

The **OpenLAB CDS Uninstallation Wizard** opens.

3 In the **Shared Components** screen:

a Check the **Uninstall Installation Qualification** check box.

NOTE IQ needs to be uninstalled if you want to reinstall OpenLAB CDS at a later time.

b If you want to remove IO Libraries as well, select the **Uninstall IO Library** check box.

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

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

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

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

All listed components are automatically uninstalled, one after another.

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

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

Step 4: Run the OpenLAB CDS Uninstallation Wizard on the OpenLAB Shared Services Server

1. From the Master Installer **Planning** screen, select **Maintenance** from the side bar menu.
2. Select **OpenLAB CDS Uninstallation**.

   The **OpenLAB CDS Uninstallation Wizard** opens.
3. In the **Shared Components** screen, check **Uninstall Installation Qualification** and **Uninstall MS SQL Server 2008 R2**.

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

NOTE IQ needs to be uninstalled if you want to reinstall OpenLAB CDS at a later time.

4. Select **Next** to proceed to the **Summary** screen.
5. In the **Summary** screen under **Uninstallation of OpenLAB CDS Components**, there is a list of the components you want to uninstall.
6. Select **Start** to start the uninstallation.
7. If you want to abort the uninstallation, select **Cancel**. If you want to change any settings, select **Back**.

   All listed components are automatically uninstalled, one after another.

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

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

6
Scripted Installation

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

About Scripted Installation

The OpenLAB CDS Master Installer supports a command line mode for installation, the so-called *scripted installation*. This mode supports installation, upgrade, repair, and uninstallation. You can execute scripted installations either manually or as part of software management systems such as LANDesk or HP CM. With the corresponding parameter (-q), the scripted installation is completely UI-less.

Export as XML

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

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

1 Launch the OpenLab CDS Installation Wizard.

2 Follow the instructions as described under *Install the Software* in this manual.

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

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

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

Parameters and Return Codes

Parameters

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

- *-i*

  Installation, upgrade or repair

- *-u*

  Uninstallation

- *ConfigurationXML="<ConfigurationXMLFilePath>"*

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

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

- *KeepComponents*

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

Component Name	Id
Installation Qualification	IQT
Microsoft SQL Server	SQLServer
IO Library	IOLibraries

- *-q*

  Silent mode – no installation or uninstallation wizard will be shown.

Return Codes

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

Table 3 Return codes for installation, upgrade, or repair

Error/Return Code	Return value
Unknown (default)	-1
Success	0
CoreComponentFailure	1
NonCoreComponentFailure	2
TestConnectivityFailure	3
ExpectedWindowsInstallerNotInstalled (WI 4.5 missing)	4
ParameterMismatchError	5
CannotProceedWithFreshInstallation	6
CannotProceedWithUpgrade	7
CannotProceedWithRepair	9
CannotProceedWithReRegistration	10
ReRegistrationNotSupported	11
IncompleteTopologyFound	12
InvalidUNCPath	13
MissingInstallable	14
NotAStrongPassword	15
DowngradeNotSupported	16
RestartRequired	17
InvalidInputXML	19
InvalidMode	20
SitePrepFailure	21

Table 4 Return codes for uninstallation

Error/Return Code	Return value
Unknown (default)	-1
Success	0
CannotProceedWithUninstallation	8
RegistryCleanupError	18

Installation, Upgrade, or Repair

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

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

- Start a fresh installation
- Upgrade
- Repair

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

Preparations

You must have copied all disks to a centralized folder (see "Step 2: Copy DVDs to a Network Share Folder for Installation (Optional)" on page 33). This step is mandatory for scripted installation.

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

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

2. Navigate to the drive where you have saved the disks.

   For example: C:\CDS_DVD

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

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

   For example:

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

   With this command, you start the installation wizard without a user interface.

Uninstallation

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

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

2. Navigate to the drive where you have saved the disks.

   For example: C:\CDS_DVD

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

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

   For Example:

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

   With the KeepComponents parameter, you can specify a list of shared components that you want to keep on the system (see “Parameters” on page 68). With the command given in the example, the OpenLAB CDS components Installation Qualification (IQT) and IO Library (IOLibraries) will be kept.

Further Information

Logging and Tracing

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

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

Scripted Installation Report

You can see a report of the scripted installation result summary. This report is generated for installation, upgrade, repair, or uninstallation under <BaseInstallDirectory>\Logs\<Log folder>\<WizardName>.txt

7
Optional Procedures

This chapter includes information on how to use the Installation Qualification Tool, how to disable the Application Experience service, and how to configure the Advanced File Security (AFS).

Run the IQ After Software Installation

The installation qualification (IQ) provides documentary evidence that your system has been built and installed correctly, and that all design specifications have been met.

1 Using your Windows operating system, go to **Start > All Programs > Agilent Technologies > Installation Qualification Tool**.

2 Select **Qualify**.

The system will run the application and generate an Installation Qualification Report.

3 If the report indicates failure, verify the computer requirements and reinstall the data system.

Do not use the system until an Installation Qualification Report gives a 'pass' result.

Disable the Application Experience Service

It is highly recommended to disable the **Application Experience** service. Otherwise it can sporadically happen that the instrument session is closed during a reconnect and ChemStation is shut down unexpectedly. This can result in a data loss when acquisition is ongoing.

By default, the start type **manual** is selected for the **Application Experience** service. To ensure that it does not get started accidentally, set the start type to **disabled**.

1 Start **Server Manager** on the AIC.

2 Go to **Server Manager > Configuration > Services**.

3 Right-click **Application Experience service**.

4 Select **Properties**.

5 Set the start type to **Disabled**.

6 Click **OK**.

Configure Advanced File Security (AFS)

Advanced file security is an optional configuration for OpenLAB CDS EZChrom Edition networked systems. It provides enhanced security on the enterprise path in order to prevent any unauthorized access to project data outside of the data system. This configuration sets the appropriate Windows sharing and security settings to allow only a defined group to access the enterprise data from Windows Explorer. This may *only* be configured if your system is configured to use Windows Domain as the Shared Services authentication provider.

Enable Advanced File Security

1 Prepare your system.

   a Verify that your system is configured to use Windows Domain as the authentication provider. (See **Configure Security and Storage > Set the authentication provider and the storage system** in the online help.)

   b Verify that your system is configured to use a storage path that is directly beneath the defined enterprise path.

   c Create or define a Windows Domain group that will have access to the enterprise path outside of the data system.

   d Define a minimum of two users who are members of the group defined above.

   e Close all connections to the OpenLAB CDS system (i.e. clients, instrument runs, control panels).

   f Obtain the login credentials of a domain user that has administrative rights to edit the enterprise path in its current state.

   g Obtain the administrative login credentials of the OpenLAB Control Panel that were defined during the configuration of domain authentication.

2 On any OpenLAB CDS EZChrom Edition client, browse to the directory where the software was installed.

   (by default: C:\Program Files\Agilent Technologies\EZChrom)

3 Launch EnterpriseConfig.exe.

4 An **Enterprise Setup Login** dialog will display:

   a In the **OpenLAB Control Panel Login** section enter the user name, password, and domain of the OpenLAB Control Panel Administrator.

   b In the **Windows User Information** section enter the user name and password of the user with edit permission to the enterprise path.

      - If this is a domain user account, select **Logon from Windows Domain** and enter the domain name (recommended).
      - If this is a local PC account, select **Windows Local PC**. This may only be an account local to the machine where the EnterpriseConfig.exe program is being run.

   c Click **OK**.

5 The system will process the above credentials. If they are valid, a warning will display to advise that once this process is completed, it cannot be reversed.

   Click **OK** if you are prepared to proceed.

6 An Enterprise Service Account dialog will display:

   a Enter the user name, password, and domain of a user defined to be a member of the AFS group.

   b Enter the group name that will have access to the enterprise path under the restrictions of AFS.

   c Click **OK**.

8
Upgrade to New Software Version

This chapter describes the upgrade from different revisions to OpenLAB CDS A.01.04.

Upgrade from Different Revisions

OpenLAB Shared Services Server and ChemStation machines

If you currently have a revision older than A.01.04 installed on the OpenLAB Shared Services server or on a ChemStation machine, the **OpenLAB CDS Upgrade Wizard** will upgrade the existing installation. You need to first upgrade the OpenLAB Shared Services server before upgrading the instrument controllers and CDS clients.

EZChrom machines

On EZChrom machines, OpenLAB CDS A.01.01 needs to be uninstalled before installing A.01.04. Upgrading from A.01.02 or higher does not require an uninstallation.

Upgrade the OpenLAB Shared Services Server

To upgrade the OpenLAB Shared Services server to A.01.04, perform the following steps:

1. From the Master Installer **Planning** screen, switch to the **Installation** screen.
2. Select **OpenLAB CDS** Installation. As OpenLAB CDS is already installed, this automatically opens the **OpenLAB CDS Upgrade Wizard**.
3. In the **Upgrade Type** screen, select **Next** to proceed to the **Summary** screen.
4. In the **Summary** screen of the Upgrade Wizard, the components for the upgrade are listed. Select **Start** to start the upgrade.

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

   Select **Yes** to restart Windows.

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

9 Troubleshooting

The chapter gives some elementary troubleshooting hints.

About Troubleshooting

NOTE The following refers to ChemStation AIC only.

The OpenLAB CDS Master Installer configures a Windows Server 2008 R2 machine with the minimum footprint and effort, so its Remote Desktop Services functionality can be used to remotely control ChemStation instruments.

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

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

Consider Before Installation

Network Level Authentication Required

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

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

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

NOTE Network Level Authentication is available for clients running Windows Vista and above. With KB951608, Microsoft provides a solution to enable Network Level Authentication on Windows XP SP 3. However, this solution does not work for an AIC client.

Password Policy not Satisfied by Default Passwords

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

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

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

If the password does not conform to the password rules:

- Create 9 compliant passwords and enter them during installation of the AIC (see section "Configure ChemStation Instrument Users Manually" on page 94 under Remedial Procedures).

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

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

To check if the logon privilege is granted:

1. Select **Start > Run...**
2. Type secpol.msc.
3. Check the security setting for **Local Policy > User Rights Assignment > Allow log-on through Remote Desktop Services**. If the security setting does not include the Remote Desktop Users group:
   a. Negotiate with the local IT department to get an exception for this policy (preferred solution).

      OR

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

   b. If the privilege is granted: Set the **unsafe="true"** switch during installation of the AIC (see "Configure ChemStation Instrument Users Manually" on page 94).

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

Not Possible to Launch the Instrument from the CDS Client

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

Remote Desktop Users Group is Emptied by Group Policy

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

To check if the Remote Desktop Users group is emptied:

1 Create a local test user.

2 Add the test user to the **Remote Desktop Users**.

3 Wait until the Group Policy application period has elapsed (in most cases within 24 hours).

4 Check in the **Computer Management** tool under **Local Users and Groups > Groups > Remote Desktop Users** if the test user is still present in this group. If the user is not present:

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

   OR

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

   b If the security setting includes the Local Administrators group: Set the **unsafe="true"** switch during installation of the AIC (see "Configure ChemStation Instrument Users Manually" on page 94).

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

No Access to Domain Printers

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

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

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

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

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

NOTE This requires domain administrator privileges.

  - Register the users and passwords during installation of the AIC (see "Register ChemStation Instrument Users with OpenLAB Shared Services" on page 97)
- Check whether the security setting includes the **Local Administrators** group (workaround solution).

  If this is the case: Set the **unsafe="true"** switch during installation of the AIC (see "Configure ChemStation Instrument Users Manually" on page 94).

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

Install a Local or Network Printer

1. Click **Start > Devices and Printers**.
2. Click tool button **Add a Printer**.
3. Click **Add a local or network printer as administrator**.
4. Click **Add a local printer** or **Add a network**, **wireless** or **Bluetooth printer**.
5. For network printers: Select **Configure a new port**, and in the drop-down box select **Standard TCP/IP Port**.
6. Click **Next**. Verify that the box **Query the printer and automatically select the driver to use** is checked.
7. Enter the hostname or IP address (use fully qualified name: e.g. <printer name>.germany.agilent.com). The port name is displayed identically.
8. Click **Next**. Windows will communicate with the printer and install the driver if required. Then select **Use this driver that is currently installed (recommended)** (default). Optionally it can be replaced.
9. Click **Next**. Use the default displayed printer name or change it to a suitable expression if required.
10. Click **Next**. The printer will be installed.
11. After installation, verify that the radio button **Do not share this printer** is selected.
12. Click **Next**. Check the box **Set as the default printer** if required. Print a test page.
13. Click **Finish** when test page is successfully printed.

Consider After Installation

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

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

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

2 Type in the user name and password from the retained users.xml file (see "Configure ChemStation Instrument Users Manually" on page 94).

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

3 Re-register the users.xml file as described in "Register ChemStation Instrument Users with OpenLAB Shared Services" on page 97.

4 Check if the ChemStation instrument user still has the necessary access rights (see "Configure ChemStation Instrument Users Manually" on page 94 and "Remote Desktop Users Group is Emptied by Group Policy" on page 89):

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

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

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

Error Message "Program Execution Failed" when Configuring or Launching an Instrument

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

1. On the AIC, start **Server Manager**. Select **Roles > Remote Desktop Services > RemoteApp Manager Properties**.
2. Check that the **RemoteApp** Programs list **SetupWizardLauncher** with the attribute **Unrestricted** in column **Arguments**.
3. On the AIC, start **Windows Explorer** and check that the **instrument users** or **Local Users group** or **Remote Desktop Users group** have read/write and execute access to the ChemStation installation directory.

Login Delay

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

- DNS not set up correctly.

  Check that the name resolution is working properly for all affected computers.

- Ports blocked by firewall.

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

Remedial Procedures

Configure ChemStation Instrument Users Manually

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

The default XML file has the following structure:

```
<xml version="1.0" encoding="utf-8">
<users>
<user UserName="CSIUser0" />
<user UserName="CSIUser1" />
<user UserName="CSIUser2" />
<user UserName="CSIUser3" />
<user UserName="CSIUser4" />
<user UserName="CSIUser5" />
<user UserName="CSIUser6" />
<user UserName="CSIUser7" />
<user UserName="CSIUser8" />
<user UserName="CSIUser9" />
<user UserName="CSIUser10" />
</users>
```

OpenLAB CDS Master Installer fills the structure with the created passwords and the machine-prefixed user names:

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

Please retain this file in a safe location for later troubleshooting.

Configure ChemStation Instrument Users Manually

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

1 Specify different user names or passwords:

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

NOTE Make sure that at least 11 different user names are provided. If you provide the same username twice, instrument access conflicts will arise.

   b Provide special passwords in the form: *Password="<user defined password>"*.

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

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

2 Change domain user passwords:

   a Press Ctrl-Alt-Del and select **Change a Password (Change Password...** on Windows XP).

   b Enter *<domain>\<user name>* in the **User name** box, together with the old password and new password (2 times) in the respective boxes.

   c Repeat step 2b for each instrument user.

   d Copy the passwords to the users.xml file (make sure the passwords comply with the domain policy for passwords).

   e Register the new passwords with OpenLAB Shared Services as described in section "Register ChemStation Instrument Users with OpenLAB Shared Services" on page 97.

   f Restart OpenLAB Control Panel before launching the reconfigured instruments.

Register ChemStation Instrument Users with OpenLAB Shared Services

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

1. On the AIC, select **Start > Command Prompt**.
2. Type *cd <ChemStation installation directory>\Core* and press **Enter**.
3. Type *registerCSData.exe /remote /InstrumentUsers=<Path to users.xml file> /url=net.tcp://<OpenLAB Shared Services server>:6577/Agilent/OpenLAB/ /user:<name of OpenLAB Shared Services admin user> /password:<password of OpenLAB Shared Services admin user>* and press **Enter**.

10
Appendix

This chapter contains additional information on Microsoft SQL Server 2008 R2.

Change Server Authentication to Mixed Mode

This procedure desribes how you can switch to Mixed Mode in an existing Microsoft SQL Server 2008 R2 installation.

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

   Click **OK**.
7. Restart the SQL Server service, and log in with SQL Server Authentication.

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In This Book

This installation guide is designed to help system administrators and other users install the Agilent OpenLAB Chromatography Data System (CDS) to distributed systems quickly and correctly.

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