Agilent ChemStation for GC Systems, Data Analysis, and 35900E A / D Converter

Installing Your ChemStation

Agilent Technologies

Notices

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Acknowledgements

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Safety Notices

CAUTION

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

In This Manual...

This manual describes how to install the ChemStation software, how to add additional instrument modules to an existing system, how to configure your analytical system, and how to verify that the installation and configuration are complete and operational.

Chapters included in this manual are:

1 - Installation Preparation - This chapter gives an overview of the Agilent Technologies ChemStation. It lists PC requirements, upgrade requirements, and instrument communications information.

2 - Installing the Agilent ChemStation - This chapter gives procedures for installing and upgrading the Agilent ChemStation software.

3 - Configuring the Instruments - This chapter describes how to use the Configuration Editor to configure your instruments.

4 - Validating and Starting the Agilent ChemStation - This chapter describes how to validate and begin using the Agilent ChemStation software.

5 - Additional Resources - This chapter provides an overview of the additional Agilent ChemStation resources found on the Agilent ChemStation DVD and the World Wide Web.

This manual assumes:

- You are familiar with the use of Microsoft® Windows XP Professional or Microsoft® Windows Vista™ Business operating system.
- You will be installing the software on a PC meeting the minimum hardware requirements.
- Your instruments and communication devices are compatible with this version of the Agilent ChemStation.

The Agilent ChemStation software communicates with analytical equipment via Local Area Network (LAN) or General Purpose Interface Bus (GPIB) data communications.

Contents

1 Installation Preparation

This chapter gives an overview of the Agilent Technologies ChemStation. It lists PC requirements, upgrade requirements, and instrument communications information.

PC Requirements

Minimum hardware requirements for your Agilent Technologies ChemStation software (version B.04.02) are:

- A personal computer with an Intel Pentium IV processor
  (1.5 GHz for Microsoft Windows XP Professional)
  (3.4 GHz [single core] for Microsoft Windows Vista)
- 1280 × 1024 Super VGA resolution display, 16k colors or better
- 40 GB hard disk (Microsoft Windows XP Professional), 160 GB hard disk (Microsoft Windows Vista)
- DVD drive
- 512 MB RAM (Microsoft Windows XP Professional), 1 GB (Microsoft Windows Vista)
- Pointing device compatible with Microsoft Windows
- Operating system compatible printer. For the English system using PCL 5c, 5e, 5e, 5.02 or 6, for a Chinese system using PCL 6, and for a Japanese system please check Table 1.
- A Microsoft Windows XP Professional (Service Pack 3) or Microsoft Windows Vista Business (Service Pack 1) operating environment (English, Chinese, and Japanese only).
- TCP/IP protocol support installed if you are using LAN communications
- For GPIB communications use either the 82357B USB GPIB adapter or the 82350B PCI GPIB card, and the I/O Library Suite 15.0. Refer to the Manuals directory of the ChemStation DVD for Agilent I/O Library Suite installation instructions.

All PC hardware and peripherals must be listed in the Microsoft Hardware Compatibility List (HCL), which is available on the Microsoft home page at http://www.microsoft.com. If your PC hardware is not in the HCL, the system may not work correctly with the Agilent ChemStation software.

Non-HP computers

The Agilent ChemStation is designed to successfully run on a wide range of compatible personal computers equipped with accessories and peripherals that adhere to the programming standards for the Intel PC platform and Microsoft Windows operating systems.

However, Agilent has tested the Agilent ChemStation software mainly on Hewlett-Packard (HP)/Compaq equipment. The standard configuration of the GPIB interface, for instance, may conflict with the memory configuration of a non-HP computer. Additional accessory interface boards may cause conflicts with hardware-related resources (such as I/O ports, interrupt settings, and DMA channels).

For a non-HP computer, use the setup utility program supplied by the manufacturer to configure your computer. Check the documentation supplied with your computer and the accessories to eliminate resource conflicts in your PC's setup, especially regarding the configuration of the GPIB interface.

Printers for the Agilent ChemStation

The Agilent ChemStation is designed to work with printers that are compatible with the operating system. Printers may be attached to a local (preferably parallel) or networked port on the PC. Serial port printers are supported by the operating system but may exhibit speed performance limitations. Networked printers must be shared by a network server running a network protocol supported by the Microsoft operating system. We recommend printers that are capable of interpreting an escape code language (such as PCL) or page description language (such as PostScript®). Host-based printers (such as Graphical Device Interface [GDI] or Printer Performance Architecture [PPA] printers) impose more printer processing tasks on the CPU and are not recommended for use with Agilent ChemStation online sessions.

For the best printing results with your Agilent ChemStation software, use HP LaserJet printers (see Table 1). High-performance HP DeskJet printers may also be used if the amount of printing required is low. Check the readme.txt files for information on recommended printer driver versions. Agilent has not tested all printer and printer driver combinations that are supported in the Windows environment. Print performance and results may vary on other manufacturers' printers.

Table 1 Printers successfully tested with Agilent ChemStation B.04.02

Printer	Model	Driver
HP LaserJet	4050 and 4100	HP PCL 5e or PCL 6 driver
HP LaserJet	4200	HP PCL 5e or PCL 6 driver
HP LaserJet	4250	HP PCL 6 driver
HP LaserJet	P3005D	HP PCL 6 driver
HP Color LaserJet	2500TN	HP PCL 6 driver
HP OfficeJet Pro	K550DTWN	HP PCL 3 driver
HP OfficeJet Pro	K5400	
HP LaserJet	2200D	HP PCL 5.02 or PCL 6 driver
HP LaserJet	2300DN	HP PCL 5e or PCL 6 driver
HP LaserJet	2420D	HP PCL 6 driver

About LAN

The Agilent ChemStation software uses the TCP/IP protocol, which needs to be installed as a network protocol on your PC.

If you are controlling an Agilent 6890 Plus, 6890A, or 35900E, the J4100A JetDirect and G1369A LAN cards used to connect those analytical instruments to a LAN require the Bootstrap Protocol (BootP). Agilent supports only the Agilent BootP Service, provided on the ChemStation DVD, for this use.

Version B.04.02 of the Agilent ChemStation software provides LAN-based instrument control and data acquisition for LAN-capable Agilent GCs and A/D controllers. You can easily control and monitor instruments by connecting them to a LAN on which the Agilent ChemStation PC resides. This allows the Agilent ChemStation PC to be located up to 100 meters from instruments it controls on an Agilent-supported standalone LAN, or anywhere in the world on a TCP/IP-based network supported by your network administrator.

Each Agilent ChemStation can support up to four instruments on the LAN. Each device on the LAN requires a unique IP address, a subnet mask, and a default gateway.

If you are installing Agilent ChemStation on a site LAN, contact the site LAN administrator.

The Agilent ChemStation supports instruments and PCs with self-assigned fixed addresses or addresses assigned by the Agilent BootP Service (see "Installing Agilent BootP Service" on page 17). DHCP is not supported by Agilent.

Instrument Communications

The Agilent ChemStation communicates to the GCs through either a LAN or a GPIB communication interface.

Be sure to set up the communication channel between the instrument and the PC prior to operating the system.

For details on installing a LAN board in your PC or in any instrument the Agilent ChemStation will control, refer to the documentation accompanying the LAN board.

LAN communications

Refer to the page number listed in Table 2 for details on setting up the required communications hardware and software for your specific system.

Table 2 LAN communication interfaces supported by the Agilent ChemStation

Instrument type	Model	Supported firmware revision	Supported IP addressing method	Refer to:
7890A	G3440A	A.01.10.1	Set at GC	page 14
6890N GC	G1530N / G1540N	N.06.05 for 7693A, or N.05.06 (LAN assembly 04.7B3)	Set at GC	page 15
6890 Plus, 6890A	G1530A / G1540A	A.03.08	Agilent BootP Service	page 20
6850 GC SN ≥ US10243001	G2630A	N.06.03 for 7693A, or A.05.04 (LAN assembly 04.7B3)	Set at GC	page 16
6850 GC SN ≤ US00003200	G2630A	A.03.05 for 7693A, or A.03.03	Set at GC, or Agilent BootP Service	page 16 page 20
35900E	35900E	E.01.02	Agilent BootP Service	page 20

GPIB communication

Analytical instruments that communicate with the Agilent ChemStation via GPIB require a GPIB board to be installed in your computer. Refer to Table 3 for a list of instrument types that use GPIB communication along with the supported 82350B interface board and the 82357B USB-GPIB Interface.

Table 3 GPIB and analytical hardware compatibility

Instrument type	Model	Supported firmware revision	Agilent 82357B	Agilent 82350B
6890 Plus, 6890A	G1530A/ G1540A	A.03.08	Yes	Yes
5890 Series II	5890	A.03.02	Yes	Yes
4890D	G2690A	A.01.01	Yes	Yes
7890A			No	No
6850			No	No
6890N			No	No
35900E			No	No

See “Installing and Configuring the Agilent GPIB Interface Board” on page 25 for details on GPIB hardware setup. For details on installing and setting up the Agilent IO Libraries Suite 15.0, see the installation and configuration instructions found on the ChemStation DVD in the Support\Manuals\Installation folder.

Setting IP Addresses at the GC

This section describes how to use a GC's keypad to set its IP address. For GCs that do not support this feature, see "Installing Agilent BootP Service" on page 17.

Configuring the IP address for the Agilent 7890A GC

This procedure refers to the Agilent 7890A GC.

1 On the 7890A keyboard, press **Options**. Scroll to **Communication** and press **Enter**. This screen appears:

```
COMMUNICATION SETPTS
---- LAN ----
IP: 000.000.000.000
GW: 000.000.000.000
SM: 000.000.000.000
Enable DHCP OFF
Reboot GC
Mac Address
```

2 Enter the numbers of the 7890A GC's IP address, separated by periods, and press **Enter**.* The GC displays a message instructing you to power cycle the instrument. Do *not* power cycle yet. Press **Clear.**

3 Scroll to **GW**. Enter the gateway number and press **Enter**. The 7890A displays a message instructing you to power cycle the instrument. Do *not* power cycle yet. Press **Clear**.

4 Scroll to **SM** and press **Mode/Type**. Scroll to the appropriate subnet mask from the list of modes and press **Enter**. The 7890A displays a message instructing you to power cycle the instrument. Do *not* power cycle yet.

5 Scroll to **Reboot GC** and press **On/Yes** to power cycle the instrument and apply the LAN setpoints to the board.

6 Press **Options**. Scroll to **Communications** and press **Enter**. Confirm that the correct setpoints are present.

* If you do not know the IP address, gateway, or subnet mask settings for your Agilent ChemStation computer, Agilent recommends setting the default PC IP address to 10.1.1.100, the GC or A/D control module to 10.1.1.101 through 10.1.1.105, the default gateway to 10.1.1.100, and the default subnet mask to 255.255.255.0.

Configuring the IP address for the Agilent 6890N GC

This procedure refers to the Agilent 6890N GC (with LAN assembly).

1 On the 6890N keyboard, press **Options**. Scroll to **Communication** and press **Enter**. This screen appears:

COMMUNICATION SETPTS
---- LAN ----
IP: 000.000.000.000
GW: 000.000.000.000
SM: 000.000.000.000
Enable DHCP OFF

---- RS-232 ----

2 Enter the IP address for your 6890N. Enter the numbers separated by periods and press **Enter**.* The GC displays a message instructing you to power cycle the instrument. Do *not* power cycle yet. Press **Clear**.

3 Scroll to **GW**. Enter the gateway number and press **Enter**. The 6890N displays a message instructing you to power cycle the instrument. Do *not* power cycle yet. Press **Clear**.

4 Scroll to **SM** and press **Mode/Type**. Scroll to the appropriate subnet mask from the list of modes and press **Enter**. The 6890N displays a message instructing you to power cycle the instrument.

5 Power cycle the instrument to apply the LAN setpoints to the board.

6 Press **Options**. Scroll to **Communications** and press **Enter**. Confirm that the correct setpoints are present.

* If you do not know the IP address, gateway, or subnet mask settings for your Agilent ChemStation computer, Agilent recommends setting the default PC IP address to 10.1.1.100, the GC or A/D control module to 10.1.1.101 through 10.1.1.105, the default gateway to 10.1.1.100, and the default subnet mask to 255.255.255.0.

Configuring the IP address for the Agilent 6850 GC

This procedure refers to the 6850 Series GC (with LAN assembly).

1 Turn the GC off.

2 Press and hold **LOAD** and turn the GC on. Continue to hold **LOAD** until five periods appear in the display.

3 When the GC starts, you should see:

DHCP MODE:
DISABLED

If the DHCP MODE is not set to **DISABLED,** press ▲ or ▼ to change the mode to **DISABLED**. Press **LOAD** to continue to the next item.

4 The display will now read:

IP ADDRESS
XXX.XXX.XXX.XXX

5 Press **LOAD** to adjust the IP ADDRESS values. Press ▲ or ▼ to change values and **LOAD** to move from one value to the next.*

6 When IP ADDRESS is completed, the display reads:

DEFAULT GATEWAY
XXX.XXX.XXX.XXX

7 Change the DEFAULT GATEWAY as you did the IP ADDRESS.*

8 Change the SUBNET MASK value in the same manner.*

9 Cycle the GC power for new settings to take effect.

* If you do not know the IP address, gateway, or subnet mask settings for your Agilent ChemStation computer, Agilent recommends setting the default PC IP address to 10.1.1.100, the GC or A/D control module to 10.1.1.101 through 10.1.1.105, the default gateway to 10.1.1.100, and the default subnet mask to 255.255.255.0.

Installing Agilent BootP Service

The J4100A JetDirect and G1369A LAN cards used to connect an analytical instrument to a LAN require the Bootstrap Protocol. Agilent supports only the Agilent BootP Service, provided on the ChemStation DVD, for this use.

This section describes how to install the Agilent BootP Service software. The Agilent BootP Service will assign addresses to any device that does not have the ability to set its own address.

Purpose

The Agilent BootP Service provides central administration of IP addresses for Agilent instruments on a LAN. The service runs on the instrument LAN PC, which must be running TCP/IP network protocol and cannot run a DHCP server.

When an instrument is powered on, an Agilent JetDirect card in the instrument broadcasts a request for an IP address or host name and provides its hardware address as an identifier. The request may continue for up to 5 minutes. The Agilent BootP Service answers this request and passes a previously defined IP address and host name associated with the hardware address to the requesting instrument.

When the instrument receives its IP address and host name, it stops broadcasting the request. It maintains the IP address as long as it is powered on. Powering down the instrument causes it to lose its IP address, so the Agilent BootP Service must be started every time the instrument powers up. Since the Agilent BootP Service runs in the background, the instrument will receive its IP address on power-up.

Addresses

Before installing and configuring the Agilent BootP Service, you must know the IP addresses of the computer and instruments, the subnet mask, and the gateway (see Chapter 1).

Installation

Follow this procedure to install the Agilent BootP Service.

1 Log on as Administrator or other user with Administrator privileges.

2 Close all Windows programs.

NOTE

If you are using LAN communication or moving from a GPIB to a LAN connection, you must use the Agilent BootP Service with ChemStation (Rev. B.04.02) to provide IP addresses to instruments that cannot set their own IP addresses. CAG BootP Server is not supported. Prior to installing the Agilent BootP Service Program, remove CAG BootP Server from your computer.

3 Insert the Agilent ChemStation software DVD into the drive. If the setup program starts automatically, click **Cancel** to stop it.

4 Open Windows Explorer.

5 Double-click **BootPPackage.msi** in the BootP directory of the Agilent ChemStation software DVD.

6 If necessary, click the **Agilent BootP Service...** icon in the task bar.

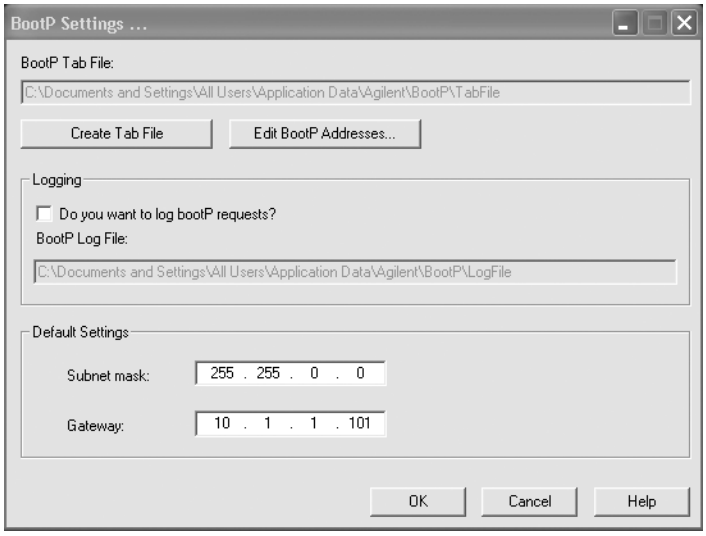
7 The **Welcome** screen appears. Click **Next >**.

8 The **License Agreement** screen appears. Read it, indicate acceptance, then click **Yes**.

9 Click **Install**.

10 Files load; when finished, the **BootP Settings** screen appears.

- The **BootP Settings** screen contains unconfigured default settings. These settings will be entered during the configuration procedure.
- Use the IPCONFIG utility to verify the TCP/IP settings by opening a command window and typing `ipconfig/all`.



11 Select the **Do you want to log BootP requests?** check box.

The **Do you want to log BootP requests?** box must be cleared when you have finished configuring instruments; otherwise, the logfile will quickly fill up disk space.

12 In the **Default Settings** part of the screen, enter the subnet mask and gateway. See your network administrator if you do not know the subnet mask and gateway.

- The default subnet mask is 255.255.255.0.
- The default gateway is 10.1.1.101.

13 Click **OK**. The **Agilent BootP Service Setup** screen appears.

14 Click **Finish** to exit the **Agilent BootP Service Setup** screen.

15 Remove the DVD from the drive.

This completes installation.

The Agilent BootP Service README is available for printing. It can be accessed from C:\Program Files\Common Files\Agilent Shared\BootP\bin\Readme.htm.

Assigning IP addresses to instruments using the Agilent BootP Service

The Agilent BootP Service maintains an association between a unique identification code (MAC address) provided with the LAN card installed in a given instrument and the specific IP address assigned to that instrument. Therefore, you must define or redefine this association whenever you add a new instrument, exchange an instrument (or its LAN card), or change the IP address assigned to an instrument.

Configuring instruments using the Agilent BootP Service

1 Determine the MAC address of the GC with the JetDirect card installed using **either**:

- The Agilent BootP Service (see step 2)
- A JetDirect card (see step 3)

2 To use the Agilent BootP Service to determine the MAC address of the GC:

a Power cycle the GC.

b After the GC completes its self-test, open the logfile using Notepad.

- The default location for the logfile is My Computer\Local Disk\Program Files\Common Files\Agilent Shared\BootP\bin\logfile.
- The logfile will not be updated if it is open.
- Assign an address only to devices that cannot set their own address. See the instrument's operating documentation for more information.

The contents will be similar to the following:

02 / 25 / 04 15:30:49 PM
Status: BootP Request received at outermost layer
Status: BootP Request received from hardware address: 0010835675AC
Error: Hardware address not found in BootPTAB: 0010835675AC
Status: BootP Request finished processing at outermost layer

c Record the MAC address (for example, 0010835675AC), also referred to as the hardware address.

d Close the logfile before turning on another instrument.

e Skip to step 4.

3 To use a JetDirect card to determine the MAC address of the GC:

a Turn off the instrument.

b Remove the JetDirect card.

c Read the MAC address from the label.

The MAC address is printed on a label on the noncomponent side of the JetDirect card. It is the number *below* the barcode and *after* the colon (:) and usually begins with the letters AD.

d Reinstall the card.

e Turn on the GC.

4 Add the GC instrument to the network.

a Follow **Start > All Programs > Agilent BootP Service** and select **Edit BootP Settings**. The **BootP Settings** screen appears.

b Clear **Do you want to log BootP requests?**

The **Do you want to log BootP requests?** box must be cleared when you have finished configuring instruments; otherwise, the logfile will quickly fill up disk space.

c Click **Edit BootP Addresses...**

d Click **Add...** The **Add BootP Entry** screen appears.

e Make these entries for the GC:

- MAC address
- Host name
- IP address
- Comment, if desired
- Subnet mask
- Gateway address

f Click **OK**.

g Exit BootP Manager and power cycle the GC.

If you are changing the IP address, power cycle the instrument for the changes to take effect.

h Ping the IP address to verify.

5 Add an additional instrument or device to the network.

a Repeat step 4 for each instrument or device on the network that requires the BootP Service.

b When you are finished, click **Close**.

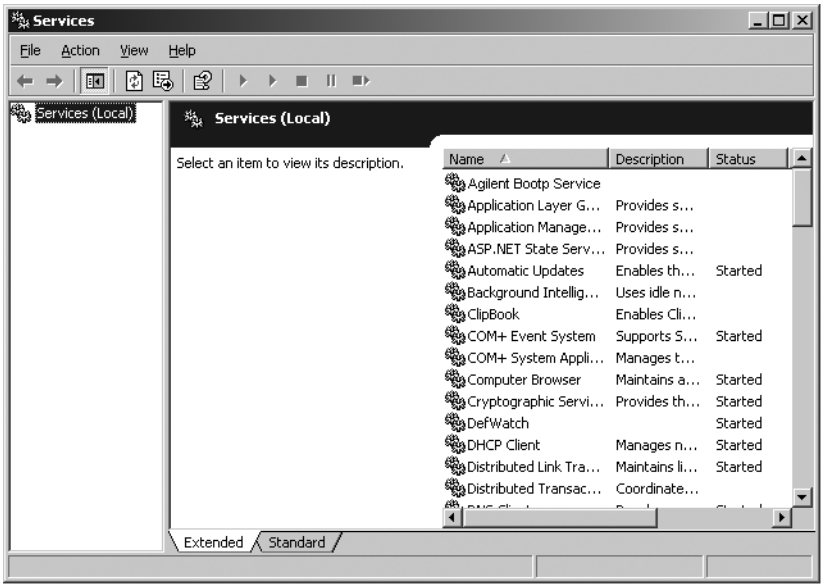
c Click **OK**.

Configuring the Agilent BootP Service

Agilent BootP Service starts automatically when your PC reboots. To change Agilent BootP Service settings, you must stop the service, make the changes, and then restart the service. Follow the procedures below to configure your Agilent BootP Service.

Stopping the Agilent BootP Service

1 From the Windows control panel, select **Administrative Tools > Services**. The **Services** screen appears.



2 Right-click **Agilent BootP Service.**

3 Select **Stop**.

4 Close the **Services and Administrative Tools** screen.

Editing the settings

1 Select **Start > All Programs > Agilent BootP Service** and select **Edit BootP Settings**. The **BootP Settings** screen appears.

2 When the **BootP Settings** screen is first opened, it shows the default settings from installation.

Creating the TabFile

To create a new template for the TabFile, select **Create Tab File**.

A default TabFile was created at installation and is located at C:\Program Files\Common Files\Agilent Shared\BootP\bin\TabFile. It contains configuration information entered on this screen.

Configuring the logfile

Select the **Do you want to log bootP requests?** box to capture all requests made to the GC, to capture the MAC address. Clear the **Do you want to log bootP requests?** box after configuring instruments to avoid having the logfile from using up excessive disk space.

A default log file was created at installation and is located at C:\Program Files\Common Files\Agilent Shared\BootP\bin\logfile. It contains an entry for every time a device requests configuration information from BootP.

Restarting the Agilent BootP Service

1 In the Windows control panel, select **Administrative Tools > Services**. The **Services** screen appears.

2 Right-click **Agilent BootP Service** and select **Start**.

3 Close the **Services and Administrative Tools** screens.

This completes configuration.

Installing and Configuring the Agilent GPIB Interface Board

If you are not using GPIB communications, skip this section.

Installing and configuring the GPIB interface board

To install the GPIB interface board, refer to your computer manual or follow these instructions.

WARNING **Disconnect your computer and all attached electrical devices before removing any covers. Be sure to wear an antistatic strap when installing the GPIB board.**

1. Turn off and unplug your computer, then remove the computer's cover(s).
2. Select any empty slot to install your GPIB board. The GPIB cable may experience interference if the board is placed in the last slot in the PC cabinet.
3. Loosen the mounting screw and remove the selected empty slot's rear plate.
4. Holding the board by its edges, insert it into its slot. Make certain that the board's edge connector is fully seated. Lock the board into place with the mounting screw.
5. Replace the computer's cover(s). Plug in and restart the computer.
6. After you have installed the GPIB board in the computer, you need to install the corresponding driver and configuration software located on the Agilent ChemStation DVD in the Agilent I/O Library Suite directory. Refer to the Agilent I/O Library Suite installation guide, found on the ChemStation DVD in the Support\Manuals\Installation folder.

GPIB cabling

When connecting GPIB devices together, observe these rules:

- Whenever possible, turn off and unplug the computer and all attached devices before the GPIB cables are installed.
- Before connecting any analytical instrument to a GPIB cable, consult the documentation supplied with each device and determine its GPIB address. No two devices connected to the Agilent ChemStation may have the same address. Write down each GPIB address. This information will be needed later.
- Where possible, use GPIB cables that are two meters long or less.

Cable (0.5 m) (part no. 10833D)
Cable (1.0 m) (part no. 10833A)
Cable (2.0 m) (part no. 10833B)
Cable (4.0 m) (part no. 10833C)

CAUTION The Agilent ChemStation does not support GPIB extenders.

- Connect one end of a GPIB cable to the computer's GPIB connector. Be certain that you properly tighten all GPIB connectors. A poor connection causes errors that are difficult to diagnose.
- Connect GPIB devices in a "chain." A chain occurs when a GPIB device is connected to the next GPIB device, and it is, in turn, connected to the next, and so on. Avoid "star" configurations (connecting all of the devices to a central point).

2 Installing the Agilent ChemStation

This chapter explains how to:

- Set up your PC to install the new Agilent ChemStation software
- Install the Agilent ChemStation for the first time
- Enter instrument licenses during initial installation
- Add an instrument (license) to an existing Agilent ChemStation
- Upgrade the Agilent ChemStation

Before You Begin

Before installing your Agilent ChemStation software, configure your PC as follows:

1. Verify that your PC meets the minimum PC requirements.
2. Set up your instrument communications as described in Chapter 1.*
3. Log on to your PC with Windows administrator privileges.
4. Open the Regional Options and Language Options in the Control Panel of your System. On the **Regional Options** tab, set the language to English (US). If you use another language, the following settings are mandatory:
   - Decimal symbol = . (point)
   - Digit grouping symbol = , (comma)
   - List separator = , (comma)

   Click on the **Advanced** tab and set the language for non-Unicode programs to English (US).
5. Disable the advanced power management settings on your computer, such as system standby and system hibernation.

For more details on optimizing operations using Windows XP or Windows Vista, follow the instructions outlined in the document *Configure and Maintain Your Agilent ChemStation Computer*, which is available as a PDF file on the Agilent ChemStation DVD. That document describes required system settings for the best Agilent ChemStation performance.

NOTE

If you are upgrading your Agilent ChemStation software, your system may require hardware or operating system changes before you install the new software. Please read the *Upgrade Preparation Guide for Agilent ChemStation B.04.02* for detailed instructions on how to prepare your PC for upgrading. The documentation is available as a printed document and also as a PDF file in the Manuals directory of the Agilent ChemStation DVD.

* Does not apply to Agilent Data Analysis ChemStation software.

Installation Procedures

Refer to the following, based on the type of installation you are completing:

- "Initial installation" on page 29
- "Upgrading your software (to B.04.02)" on page 34

Initial installation

The following describes how to install Agilent ChemStation software for the first time.

See page 35 for instructions on adding an instrument to your existing Agilent ChemStation software. See page 34 for instructions on upgrading or reinstalling your Agilent ChemStation software.

For an initial installation of Agilent ChemStation software:

1 Ensure that all the steps defined in "Before You Begin" on page 28 have been completed.

2 Ensure that no programs are open on your system.

3 If you are upgrading your ChemStation, make sure that you back up the methods, sequences, data files, and the column databases (6890COL.MDB, CATALOG.MDB, 6850COL.MDB, and 6850CAT.MDB) to another location before the upgrade.

NOTE The column databases for the GC ChemStation are located in the C:\Chem32\drivers folder.

4 Insert the Agilent ChemStation software DVD into the DVD drive.

5 Select **Run** from the Start menu.

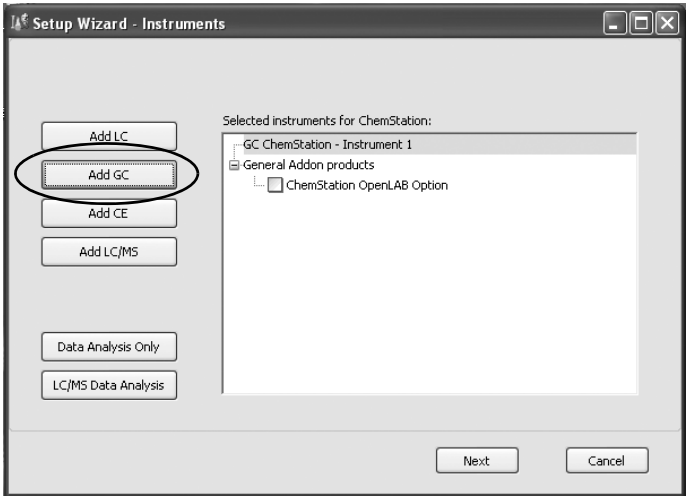
6 Type **drive:\Install\Setup.exe** (for example, **E:\Install\Setup.exe**) at the command line, then click **OK**. The Install Wizard starts.

7 Accept the prompts displayed by the **InstallShield Wizard** screens during the first part of the installation.

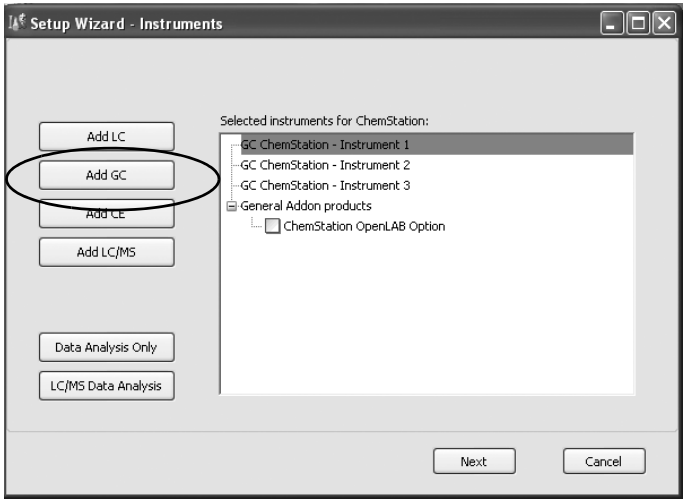
- It is recommended that you use default directory C:\Chem32 when prompted to specify the Agilent ChemStation installation directory.

- If the Microsoft .NET Framework 2.0 is not installed on your computer, you will be prompted to install it now. Go to the dotNET Framework directory on your ChemStation DVD and run dotnetFx.exe to install it now, then repeat steps 5, 6, and 7.
- If the Microsoft .NET Framework 3.5 SP1 is not installed on your computer, the installer, you will be prompted to install it now. Installation of .Net 3.5 SP1 may require a reboot.
- You may be prompted to install PDF printer software. This printer is required and is used to output reports in PDF format.

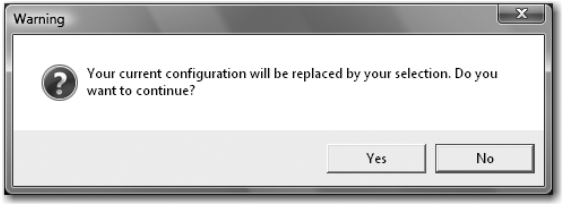
8 Configure the number and type of instruments with the Setup Wizard. To add an instrument, click one of the buttons on the left side of the screen.



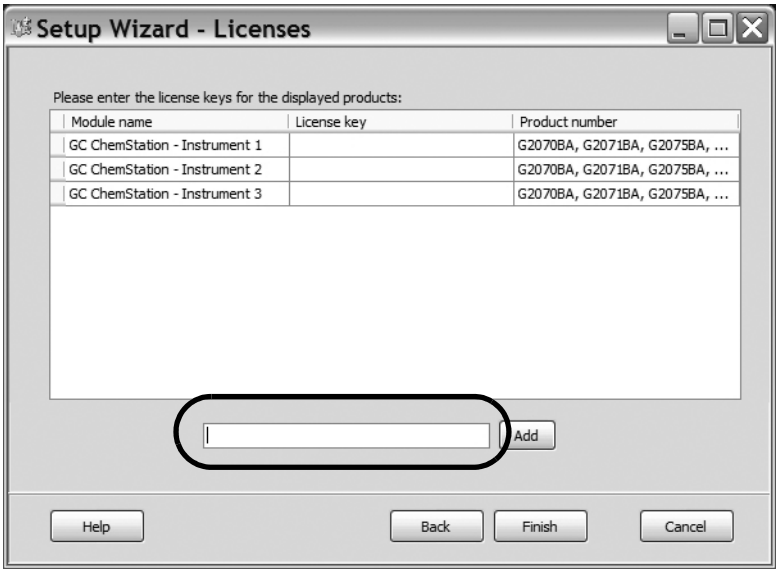
- Add up to four instruments by clicking the appropriate buttons. (Each instrument requires a license.)



- Selecting a data analysis instrument once a GC or LC instrument has been selected will discard all previous selections.



9 Enter the necessary licenses once the instrument types are added.



Enter the appropriate license number in the field provided, and click **Add**. The text field clears and the key is added next to the displayed module name. Only one full license per instrument type is required.

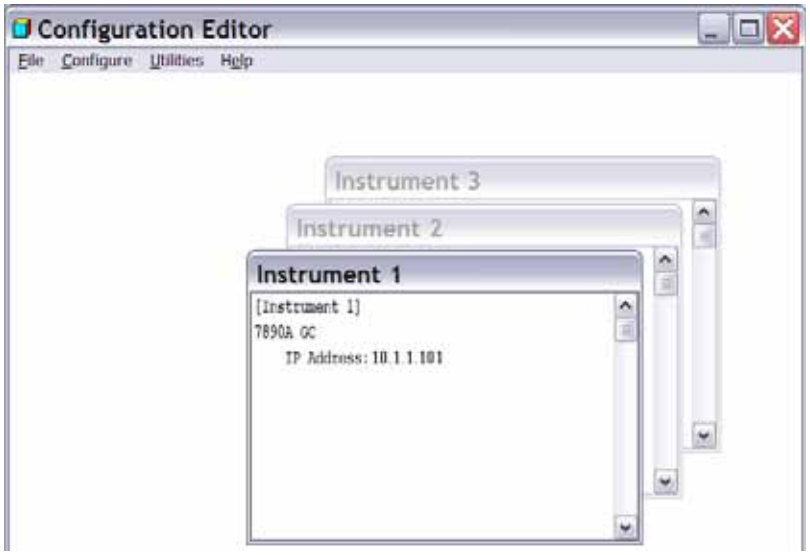
If entering licenses for different instrument types (for example, GC, A/D, or LC), note that the type of license entered here for each instrument determines how it can be configured. For example, entering a GC license for **Instrument 1** means that it must be configured as a GC.

NOTE If an invalid license or a license of the wrong type is typed, the text input field changes from black to red and an error message explains that the license was not accepted.

10 Click **Finish** to complete the Setup Wizard. The Configuration Editor will automatically come up.

NOTE The computer does not need to be rebooted.

11 Complete the **Configuration Editor** screens. See Chapter 3, "Configuring the Instruments" for procedures on configuring your instrument(s).



12 After configuring the instruments, select **File > Save**.

13 Close **Configuration Editor**.

14 After installing the software and configuring the instruments, store your ChemStation product DVD and any license numbers in a safe place. These will be required if you wish to reinstall your software or add a new instrument module or license.

Upgrading your software (to B.04.02)

If you are upgrading from ChemStation B.01.01 or higher, see the *Upgrade Quick Reference Guide* available in the Manuals directory of the Agilent ChemStation DVD. Save the methods, sequences, data files, and columns database for each instrument prior to performing a new install.

The GC ChemStation column databases are located in the \drivers subfolder, for example C:\Chem32\drivers.

NOTE Prior to upgrading all ChemStation service releases and add-on products must be removed. See the *Upgrade Quick Reference Guide*.

Activating the XML-Based Interface

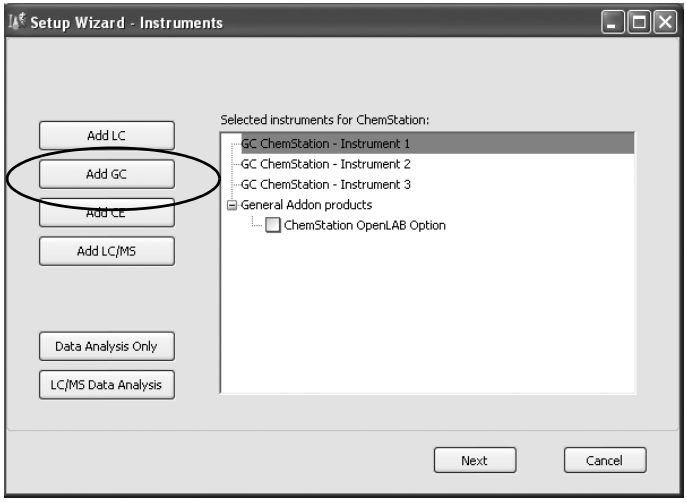
If you are using a LIMS or other external data collection systems, the Agilent ChemStation provides an XML interface to allow it to read sample input lists, analyze the samples, and then output resulting data back to the LIMS system. To enable this functionality, you will need to make changes to the CHEMSTATION.INI file. Refer to the *Agilent ChemStation Plus XML Connectivity Guide* found in the \Support\Manuals directory on the Agilent ChemStation DVD for detailed information.

Adding an instrument to an existing installation

To add an instrument to an existing installation:

1 Select **Programs > Agilent ChemStation > Add Instrument**. The ChemStation Setup Wizard opens.

- You cannot modify or delete configured instrument(s).
- A single ChemStation installation supports a maximum of 4 instruments.



2 Follow step 8 through step 10 on page 30.

3 Run an IQT Report to check out ChemStation after adding instruments. See "Running the IQT validation procedure" on page 55.

Installing the Control Charts Reports

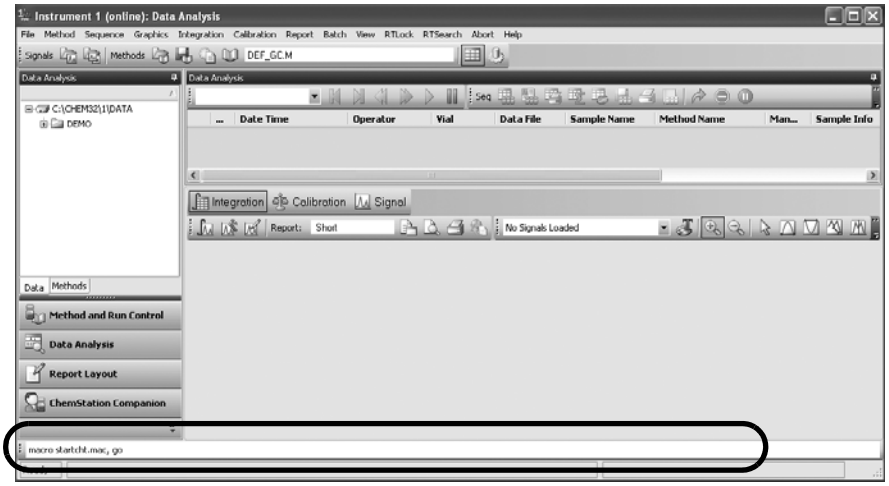
The following process adds control charts to your report menu.

In order to use this feature Microsoft Excel 2000, XP, or 2003 must be installed on your PC.

After you have installed your Agilent ChemStation and rebooted your PC system, you are ready to install the ChemStation Control Charts feature.

1 Start the Agilent ChemStation.

2 Find the Agilent ChemStation command line. The command line is a text entry field across the bottom of the Agilent ChemStation program window.



3 At the command line, type `MACRO STARTCHT.MAC,GO` and press **Enter**.

4 A dialog box providing information about the installation appears.

5 Click **Help** from this dialog box for information about using Control Charts with your Agilent ChemStation.

6 Click **OK** to install the Control Chart feature to your Agilent ChemStation.

3 Configuring the Instruments

This chapter explains how to use the Configuration Editor to configure your instruments to work with the Agilent GC ChemStation, Data Analysis ChemStation, and 35900E A/D ChemStation.

About the Agilent ChemStation Configuration Editor

The Agilent ChemStation Configuration Editor is a program that allows the easy configuration of your Agilent ChemStation software. This includes:

- Detecting the GPIB interface in your PC
- Selecting LAN or GPIB communication
- Configuring the analytical hardware connected to the PC
- Configuring the path used for method, data, and sequence storage
- Configuring the Agilent ChemStation color display

You will need to use the Configuration Editor:

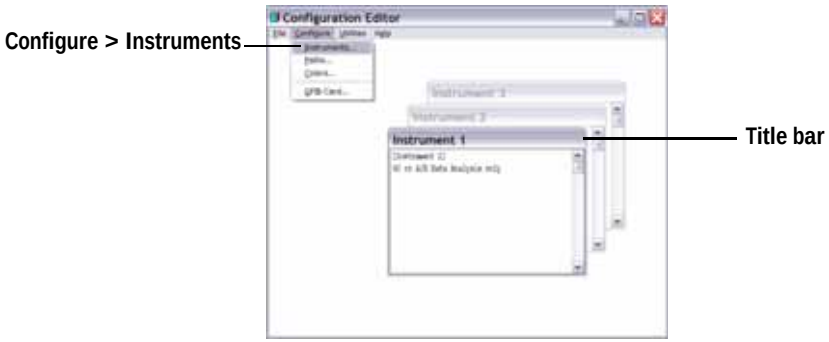
- As the last step of the initial installation process for the Agilent ChemStation software
- Each time you connect a GPIB device or change or disconnect it from the GPIB bus or the PC
- Each time you change a LAN device's IP address, and whenever you add or remove a LAN device from the ChemStation software.

After installing the Agilent ChemStation software, you are prompted to configure the complete analytical system.

Configuring the Agilent ChemStation for GC Systems (7890A, 6890, 6850, and 5890 / 4890)

After installing the ChemStation software, follow the procedure below so the Agilent ChemStation can identify and control your hardware.

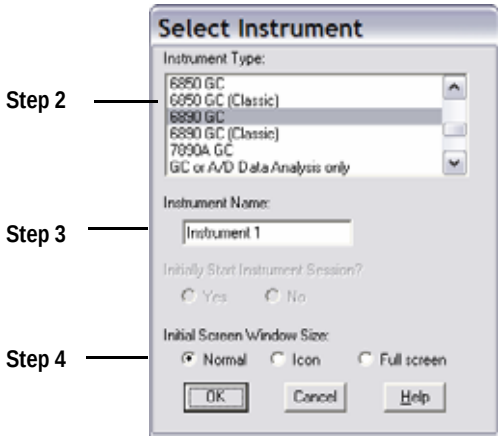
1 If it is not already started, start the Configuration Editor: **Start > All Programs > Agilent ChemStation > Configuration Editor**. At the Configuration Editor's opening screen, *highlight the title bar* of an instrument installed with a GC license and select **Configure > Instruments...**. The **Select Instrument** screen is displayed.



2 Select the instrument model from the Instrument Type list (for example, **7890A GC**). Note the following exceptions:

- To control an Agilent 6890 or 6850 GC that includes a 7683 series ALS, 7673C ALS, or no ALS, select **6890 GC (Classic)** or **6850 GC (Classic)**.
- To control an Agilent 6890 or 6850 GC that includes a 7693A ALS, select **6890 GC** or **6850 GC**.

- To control a 4890D GC, select **5890 GC**.

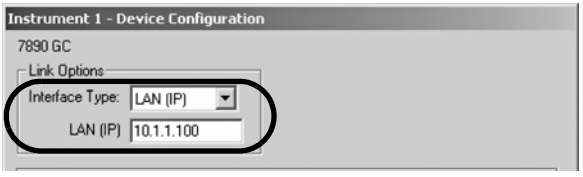


3 Accept the instrument name, or type a new one in the Instrument Name field. The name you type in this field will appear in the title bar when using the Agilent ChemStation.

4 Select the Initial Screen Window Size to specify how the program will open.

5 Click **OK** to continue.

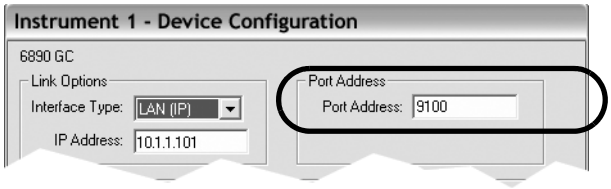
6 Complete the **Device Configuration** screen.



Specify the *type of connection* between your PC and this instrument:

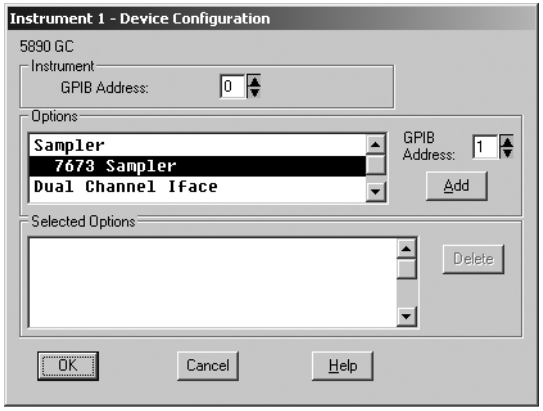
- LAN (IP) + IP address
- LAN (Host) + Host name
- GPIB + GPIB address

Some GC types include a **Port Address** field. Unless otherwise directed, accept the default port of 9100.

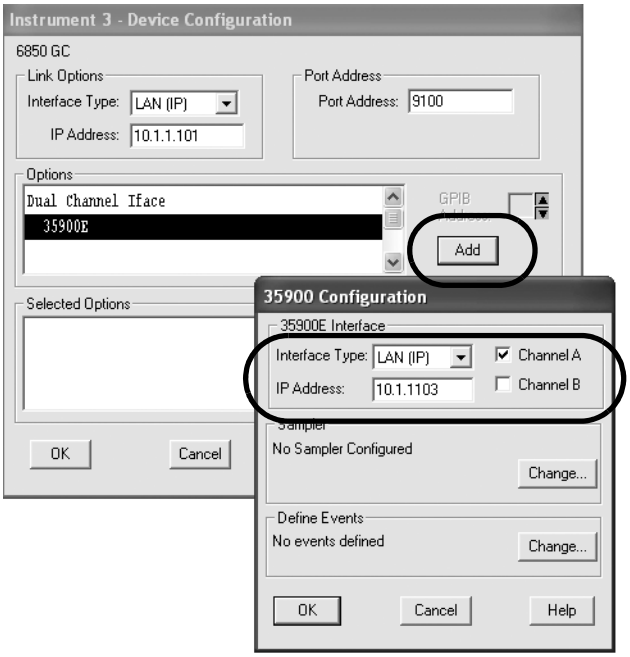


7 Configure optional devices.

- **To configure a 7673 Sampler on a 5890/4890 GC —** If you have a 7673 Sampler attached to a 5890/4890 GC, highlight "7673 Sampler" in the Options box, specify the GPIB address in the space provided, then click **Add**.



- **To configure a 35900E Dual Channel Interface as 1 or 2 GC detectors —** If you have a 35900E A/D attached to a 6890, 6850 or a 5890 GC to control additional signals, highlight “35900E” in the Options box, click **Add**, complete the interface type and channel entries, and click **OK**.



8 Click **OK** at the **Device Configuration** screen to return to the Configuration Editor Main window, shown in step 1.

9 Click **File > Save**.

10 Click **File > Exit** to return to Windows.

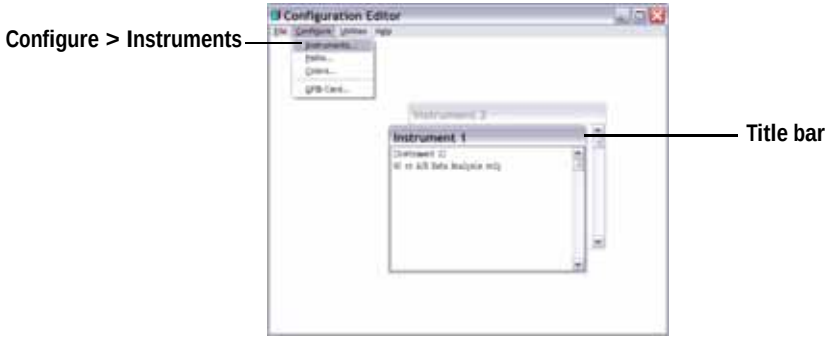
Configuring the Agilent ChemStation for Data Analysis Systems

After installing the ChemStation software, follow the procedure below so the Agilent ChemStation can identify and control your data analysis system.

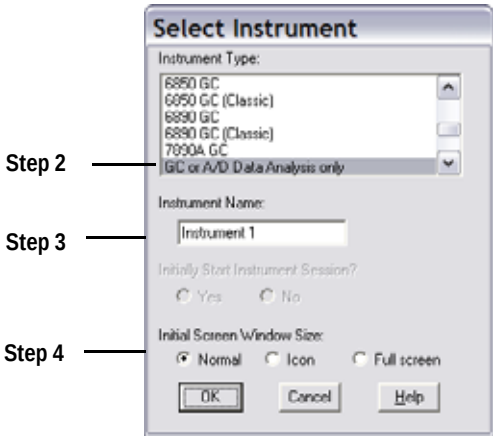
1 If it is not already started, start the Configuration Editor: **Start > All Programs > Agilent ChemStation > Configuration Editor**. At the Configuration Editor's opening screen, *highlight the title bar* of the applicable instrument and select **Configure > Instruments...**. The **Select Instrument** screen is displayed.

NOTE

For Data Analysis Only configurations, do not change any default settings in the Configuration Editor other than Instrument Name, if desired (step 3).
Instrument 1 must be set as a Gas Chromatograph (GC or A/D Data Analysis Only) and Instrument 2 must be set as a Liquid Chromatograph (LC Data Analysis Only).



2 Select **GC or A/D Data Analysis only** from the Instrument Type list.



3 Accept the instrument name or type a new one in the Instrument Name field. The name typed in this field will appear in the title bar when you use the Agilent ChemStation software.

4 Select the Initial Screen Window Size to specify how the program will open.

5 Click **OK** to continue.

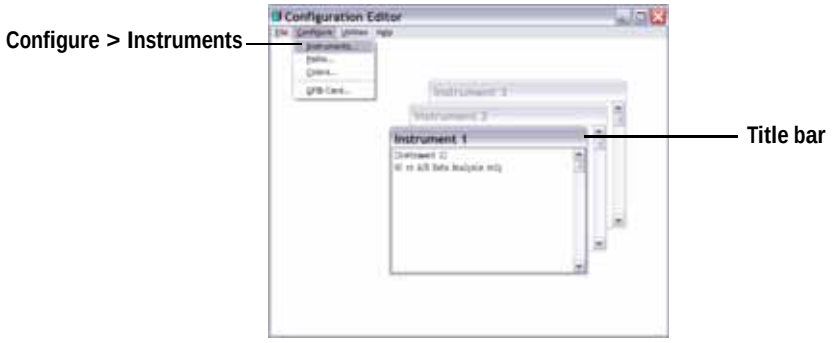
6 Click **File > Save**.

7 Click **File > Exit** to return to Windows.

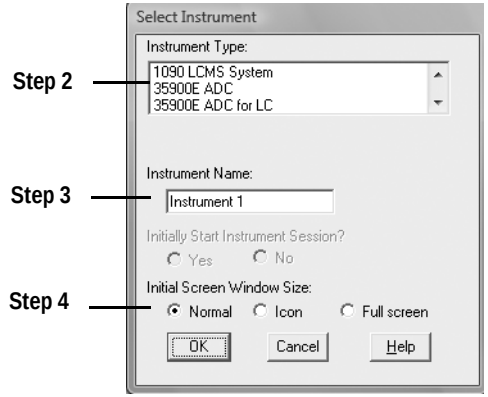
Configuring the Agilent ChemStation for 35900E A/D Interface Systems

This section describes how to configure the 35900E Analog-to-Digital Interface. Note that the 35900E A/D interface requires the Agilent Bootp Service (refer to "Installing Agilent BootP Service" on page 17).

1 If it is not already started, start the Configuration Editor: **Start > All Programs > Agilent ChemStation > Configuration Editor**. At the Configuration Editor's opening screen, *highlight the title bar* of an instrument installed with a 35900E A/D license and select **Configure > Instruments...**. The **Select Instrument** screen is displayed.



2 Select the **35900E ADC** instrument you will be controlling from the Instrument Type list.

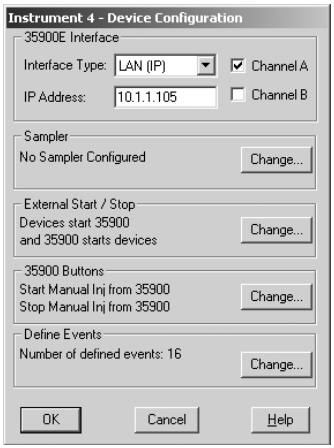


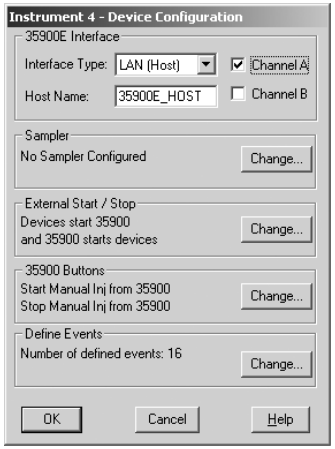
3 Accept the instrument name, or type a new one in the Instrument Name field. The name you type in this field will appear in the title bar when using the Agilent ChemStation.

4 Select the Initial Screen Window Size to specify how the program will open.

5 Click **OK** to continue.

6 Select the interface type then enter the IP address or host name.

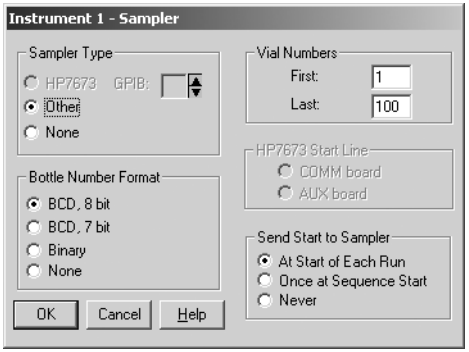




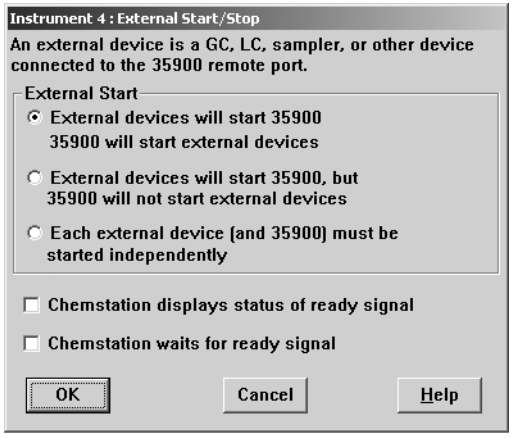
7 If the Agilent ChemStation will be collecting signals, select the appropriate channel(s) to be used. The above example shows a one-channel (A) configuration. Refer to your *35900E User Manual* for more information.

8 If the Agilent ChemStation is controlling a sampler, click **Change...** in the Sampler group box. In the Sampler dialog box, select Sampler Type

Other and make the appropriate choices for the remaining items. Click **OK**.



9 Define the external start/stop and ready status options. To access the dialog box, click **Change** in the External Start/Stop group box. This dialog box contains the start/stop and the ready status options for the 35900.



a Select an applicable option from the three start/stop options.

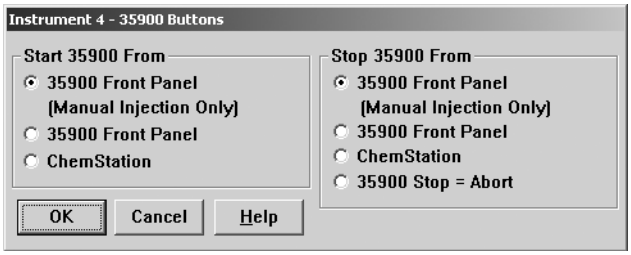
b Select the appropriate ready status options.

- Select the **ChemStation displays status of ready signal** box to have the Agilent ChemStation display a run status signal on the screen when the instrument is ready.

- Select the **ChemStation waits for ready signal** box to have the Agilent ChemStation wait for a ready signal from the instrument before proceeding with any automatic processes.

c To return to the Device Configuration dialog box, click **OK**.

10 Configure the 35900 buttons. The 35900 Buttons dialog box options determine whether or not the front panel buttons on the 35900 interface can start or stop a manual run. To access the 35900 Buttons dialog box in the 35900 Buttons group box, click **Change**.



a Select the appropriate start/stop button options for the 35900.

b To return to the Device Configuration dialog box, click **OK**.

11 Check the timed events. To define timed events for the 35900E in the Define Events group box, click **Change**.

- If you are using the 35900E in the Remote Bus mode (the default setting), skip this section. It does not apply to your configuration.
- If you are using the 35900E in the programmable digital I/O mode, you will be able to schedule 16 timed events in the Agilent ChemStation. First, however, you must enter the *EXPRESSION* you want to use to define each event, as described below.

- Each expression will define the “energized” state (for example, open) and “de-energized” state (for example, closed) of each instrument you will be controlling with the 35900E. Later you may schedule these events using the expressions you enter here in the Agilent ChemStation's Defined Events dialog box.

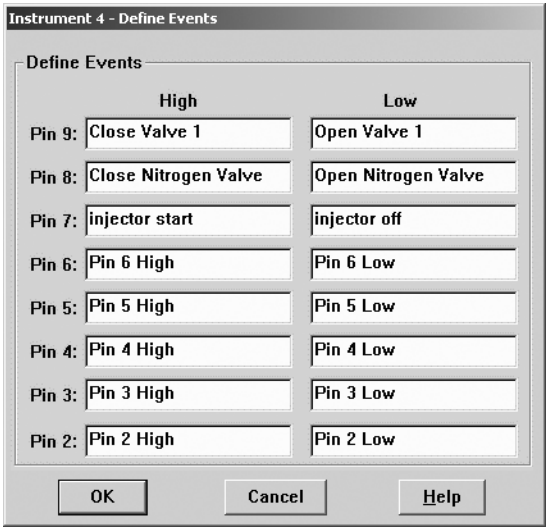


Figure 1 Define Events screen example

Figure 1 shows pins 7 through 9 as user-defined settings and pins 2 through 6 as default settings.

CAUTION

The correlation between the expression you assign and the pin number/state with which it is associated is saved with the instrument's definition file. The method only stores and uses the *EXPRESSION* itself (for example, Close Valve 1). As a result, if you copy a method from one copy of the Agilent ChemStation to another copy of the Agilent ChemStation, and the second copy of the Agilent ChemStation has a matching event *EXPRESSION*, but different instruments, unpredictable results could occur. Therefore, think of the associations you establish between an instrument and an event *EXPRESSION* as unique to your specific hardware configuration.

a Enter the *EXPRESSION* you want to use to define the first instrument's de-energized state (high) and energized state (low). You may use any combination of characters and numerals (maximum of 20).

For example, if you are going to control a normally closed valve (a valve that opens only when energy is applied), you could assign an expression like the one shown in Figure 1 on page 49. This expression indicates that the valve is normally closed (the high state is closed) and when energy is applied it goes to the opened state (the low state is opened).

You could also assign a more explicit expression, such as **Close Nitrogen Valve** and **Open Nitrogen Valve**, if you prefer.

b Repeat the process described in step (a) for each additional instrument you are going to control.

c To return to the Device Configuration dialog box, click **OK**.

12 Check that the information displayed in the Device Configuration dialog box is correct. To change any of these selections, click **Change** in the appropriate group box.

13 Exit the Device Configuration dialog box. To return to the Configuration Editor main screen, click **OK**.

14 Save the new instrument configuration. Select **File > Save**.

15 If you are going to configure another instrument, select another instrument and continue. If this is your only instrument, select **File > Exit**.

Modifying Method, Sequence, and Data File Paths

The Configuration Editor lets you specify alternate path settings for your instrument, sequences, methods, data files, and instrument macros. This allows you to store data files on a separate drive.

Complete the steps below to configure different paths for an instrument.

1 Before you modify the path settings using the Configuration Editor, create the alternate directories.

2 Highlight the *title bar* of the instrument to modify.

3 Choose **Paths** from the Configuration Menu. In the dialog that opens, select one of the file types to change for this instrument: Sequence Files, Data Files, Methods, Macro Path, or Instrument Path.

4 Edit the path in the New Path field, then click **Enter**.

- All path names must be terminated with a backslash (\).
- Repeat for each desired path.

5 Choose **OK** to update the path information and return to the Configuration Editor display.

Table 4 lists the default file paths.

Table 4 Default data file paths

Setting	Default file path
Sequence Files	C:\CHEM32\1\SEQUENCE\
Data Files	C:\CHEM32\1\DATA\
Methods	C:\CHEM32\1\METHODS\
Macro Path	C:\CHEM32\CORE
Instrument Path	C:\CHEM32\1\

4 Validating and Starting the Agilent ChemStation

This chapter explains how to use the Agilent ChemStation Installation Qualification Report (IQT) utility to validate the proper installation and operating performance of the Agilent ChemStation on your PC. It also explains how to begin using the Agilent ChemStation once the installation has been validated.

Installation Qualification Report Application

After installing the Agilent ChemStation system software on your computer and configuring the analytical system, you may perform an internal validation procedure to assess the correctness and completeness of the installation and verify that the analytical system is fully operational. The IQT utility checks version codes of the Agilent ChemStation executable system files (*.EXE and *.DLL) and reference files.

The Agilent ChemStation IQT utility uses factory-delivered installation reference files to verify the existence, correctness, and integrity of the required Agilent ChemStation system files (executable program files, binary register files, macro files, initialization files, help files, and customized report templates).

File integrity is completed by comparing the cross-redundancy-check (CRC) checksum of the installed file with the checksum of the original file recorded on the Agilent Technologies installation master. The file details of the installation master are delivered in the reference files. Modified or corrupted files have different checksums and are thus detected by the IQT utility.

The integrity of the reference files themselves is also tracked with the help of checksums. If the IQT utility is supplied with a reference file that was modified after its generation, this will be flagged in the report (under the heading *invalid reference files*).

As with any important upgrade to your ChemStation software, Agilent recommends that you perform a full IQT and Operational Qualification/Performance Verification (OQ/PV) after you install release B.04.02 to assess the correctness and completeness of the installation.

Running the IQT validation procedure

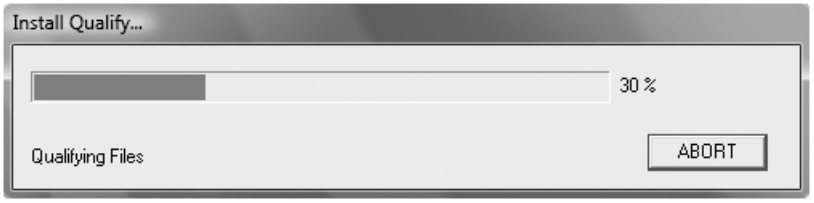
The Agilent ChemStation IQT utility is automatically installed with the appropriate IQT reference files.

To perform the validation:

1 Make sure that any Agilent ChemStation software is closed before running the IQ utility.

2 Click **Start > All Programs > Agilent ChemStation > IQT Report**.

Checksum calculations for all Agilent ChemStation system files may take several minutes.



3 The Agilent ChemStation IQ Tool creates an html file of the qualification results (iqtreport.htm) in ChemStation's main directory (usually c:\chem32). This report is automatically displayed on screen by the system's internet browser. On a complete and consistent installation, the installation qualification completes without any error messages and no files are reported missing or modified. The report can be printed from the browser.

Installation Qualification Report

The IQT reports the file categories listed in Table 5:

Table 5 File categories reported by the IQT application

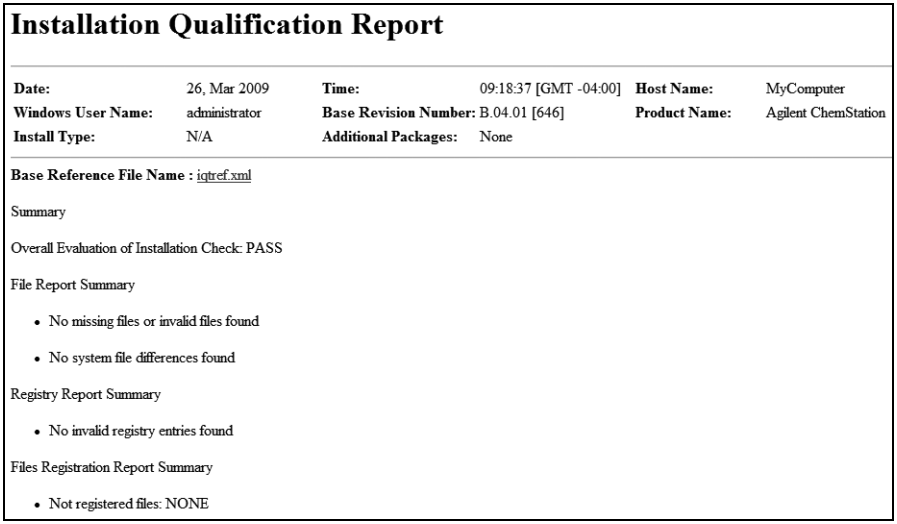
File category	Explanation	Required action
Identical files	Required files exist and passed the version and integrity check.	No action required.
Missing files	Files that are required to run the Agilent ChemStation are missing.	Repair or reinstall the Agilent ChemStation.

Table 5 File categories reported by the IQT application (continued)

File category	Explanation	Required action
Modified files	Files have been corrupted or modified.*	Repair or reinstall the Agilent Chemstation software unless you have intentionally customized or updated Agilent ChemStation files.
Invalid reference file	The original reference file is corrupt or has been modified after creation.	Reinstall the original reference file.

* If you upgraded Agilent ChemStation without first removing all add-ons, IQT will fail. First remove the add-ons as described in the *Upgrade Quick Reference Guide* available in the Manuals directory of the Agilent ChemStation DVD. Then repair or reinstall ChemStation.

Figure 2 and Figure 3 show example IQT results. In Figure 2, the installation passed and is acceptable. In Figure 3, the installation failed the check due to a missing file and a changed file.



Installation Qualification Report

Date:	26, Mar 2009	**Time:**	09:18:37 [GMT -04:00]	**Host Name:**	MyComputer
Windows User Name:	administrator	**Base Revision Number:**	B.04.01 [646]	**Product Name:**	Agilent ChemStation
Install Type:	N/A	**Additional Packages:**	None		

Base Reference File Name : iqtref.xml

Summary

Overall Evaluation of Installation Check: PASS

File Report Summary

- No missing files or invalid files found
- No system file differences found

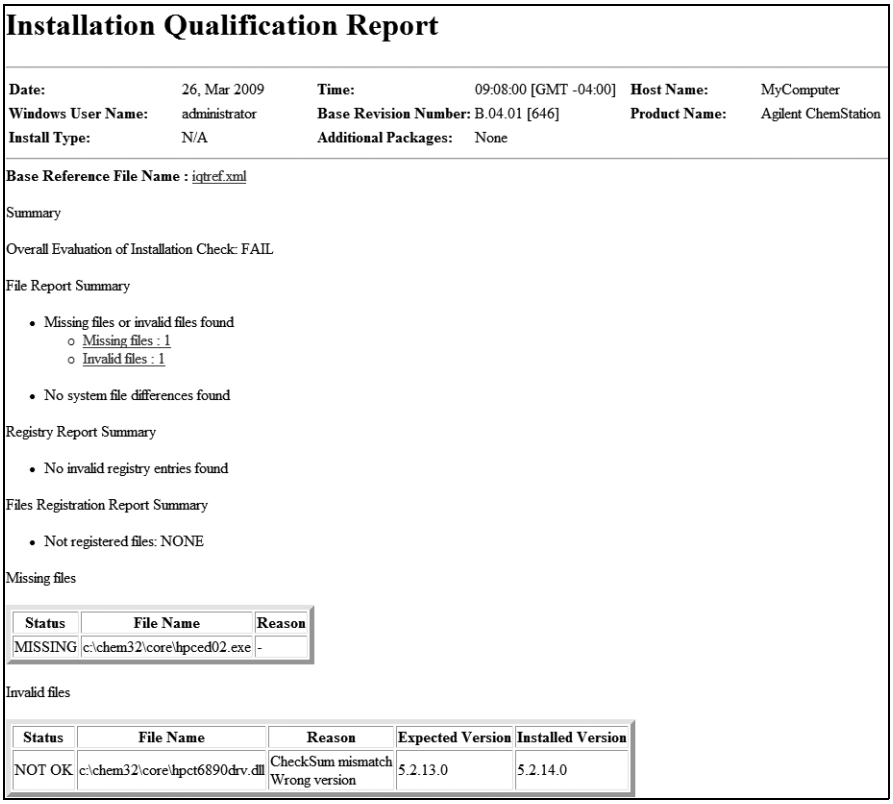
Registry Report Summary

- No invalid registry entries found

Files Registration Report Summary

- Not registered files: NONE

Figure 2 Example IQT report, no errors



Installation Qualification Report

Date:	26, Mar 2009	**Time:**	09:08:00 [GMT -04:00]	**Host Name:**	MyComputer
Windows User Name:	administrator	**Base Revision Number:**	B.04.01 [646]	**Product Name:**	Agilent ChemStation
Install Type:	N/A	**Additional Packages:**	None		

Base Reference File Name : iqtref.xml

Summary

Overall Evaluation of Installation Check: FAIL

File Report Summary

- Missing files or invalid files found
  - Missing files : 1
  - Invalid files : 1
- No system file differences found

Registry Report Summary

- No invalid registry entries found

Files Registration Report Summary

- Not registered files: NONE

Missing files

Status	File Name	Reason
MISSING	c:\chem32\core\hpced02.exe	-

Invalid files

Status	File Name	Reason	Expected Version	Installed Version
NOT OK	c:\chem32\core\hpct6890drv.dll	CheckSum mismatch Wrong version	5.2.13.0	5.2.14.0

Figure 3 Example IQT report with errors

Operation Qualification / Performance Verification (OQ / PV)

The OQ/PV service from Agilent will provide documented evidence that your new ChemStation software is performing according to the accepted performance parameters. It will verify the operation of the integrator algorithm as part of the chromatography verification tests. Other important areas that it will cover are the instrument communication and control, as well as the data security and access controls.

To verify that the ChemStation software is performing according to accepted performance parameters, from the data analysis view within the application, select **View > Verification > Run Test**. The system verification test will run automatically.

- Select **Run Test** from the **Verification View** and run the verification test procedure called **default.val**.
- Please refer to the analytical tasks section of online help system if you require further information.

5 Additional Resources

This chapter provides an overview of additional Agilent ChemStation resources found on the Agilent ChemStation DVD and www.agilent.com/chem.

Agilent Technologies Customer Contact Center

Support services resolves problems and maximizes performance

The Agilent network of Customer Contact Centers provides access to support professionals who help you resolve operational difficulties and offer assistance and advice on running Agilent analytical software. Traditionally, this support is given over the telephone; however, it may also be extended to remote support via modem when you authorize us to do so.

First-year software support is available and may be extended by two years at very competitive rates. This support entitles you to telephone assistance, software revision upgrades when they are released, and regular delivery of the Software Status Bulletin, which contains important information on known problems and available work-around solutions for your Agilent analytical software. For more information on how to register for these services, please contact your local Analytical Support Representative.

Your local Analytical Support Representative will also provide information on available consulting, customization, development, and training services for Agilent analytical software products.

Agilent support and update services are subject to your local country's prices, terms, and conditions ruling at the time you place your order.

Calling the Agilent Technologies LSCA Customer Contact Center

When you call the Agilent Technologies Customer Contact Center, please be at your computer and have the product documentation at hand.

We recommend that you have the following information available:

- The registration packet label with the product number, revision code, and license registration number of your analytical software
- The exact wording of any error messages that the system produced
- A full printout from Windows System Information
- A description of the scenario that leads to the failure

Contents of the Agilent ChemStation DVD

The Agilent ChemStation DVD contains extra updated information that may be of interest to you when you are installing your system. Refer to the following for additional information, if necessary.

Agilent ChemStation modules

The DVD contains the executable files for all modules that belong to the Agilent ChemStation product family. In order to install a module, you have to supply a license registration number valid for the module. Those numbers unlock the protected DVD. They are included with the original product and are your proof of license.

For initial installation of the Agilent ChemStation modules, there is a shortcut to the main setup program (**setup.exe**) located in the root directory on the Agilent ChemStation DVD. Afterwards additional modules may be added by selecting **Start > All Programs > Agilent ChemStation > Add Instrument**.

Agilent ChemStation software status bulletin

The Software Status Bulletin (SBS) is a document reflecting the results of Agilent defect logging, tracking, and repair methodology. The SSB is located in the Support\SSB directory of the Agilent ChemStation DVD.

If you have a software contract, you will receive the Agilent ChemStation Software Status Bulletin.

Agilent ChemStation revision history

The revision history is targeted towards users who may have to consider revalidating their analytical data system after upgrading to a new revision of the application software. The revision history contains the revision history of all products that are part of the Agilent ChemStation product family.

The history files are located in the Support\History directory of the Agilent ChemStation DVD.

A summary of changes is included as the first topic in the online help.

User-contributed library

The contents of this library are intended to help users develop and customize the installations for their specific needs to get the most out of their investment.

The content of the library comes from both Agilent internal and user-contributed sources. Each contribution is checked for functionality but does not necessarily go through the same level of formal testing procedures as the actual product. Therefore, Agilent Technologies does not guarantee the correctness of the contributions.

The *User-Contributed Library* comprises utilities and macros. Each contribution is delivered with a specific README.TXT file that can be viewed using any text editor.

I/O Libraries for the Agilent GPIB interface

The Agilent ChemStation DVD contains the version of the I/O Libraries that has been successfully tested with this version of the Agilent ChemStation. The I/O Libraries must be installed separately for use with GPIB instruments, as described in the separate guide *Agilent IO Libraries Suite 15.0 or higher Installation and Configuration Instructions*.

Agilent BootP Service

The Agilent ChemStation DVD contains the Agilent BootP Service setup that can be used to supply the analytical instruments connected to a LAN an IP address and configuration settings. The Agilent BootP Service is easy to configure for the use of analytical instruments using a LAN connection. Refer to "Installing Agilent BootP Service" on page 17 for more information about the BootP Service.

Agilent ChemStation product documentation

The Agilent ChemStation product documentation consists of paper manuals with reference information and online documentation for task-orientated topics. Electronic versions of all ChemStation manuals are also located on the DVD in the Manuals directory.

Learning Products

A wide range of learning products is supplied with your Agilent ChemStation software, the PC, and the instrument(s).

Documents

- This and other *Installing* manuals describe how to prepare your Agilent ChemStation for operation by installing the necessary hardware and software. *Installing* manuals are specific to various modules that may be incorporated into the Agilent ChemStation. You may receive more than one with your shipment.
- The *Understanding Your ChemStation* manual provides a discussion of Agilent ChemStation concepts to increase your understanding of how the Agilent ChemStation works.
- An online *Macro Programming* manual describes how to work with this powerful command set to customize and expand the capabilities of your Agilent ChemStation. Choose Commands from the Help menu to access this online manual.
- The XML interface is fully documented in the *Agilent ChemStation Plus XML Connectivity Guide*, available as a PDF document in the Manuals directory on your Agilent ChemStation DVD.

Related setup and maintenance information

- A readme file contains information on items such as added new features, known work-arounds, and corrections that could not be included in the printed manual at the time of printing. To access the readme.txt file, select **Start > All Programs > Agilent ChemStation > readme.txt.**
- An automatically updated logbook contains any error condition discovered during operation and corrective actions (if required). To access this information, choose **Logbook** from the View menu, then double-click the entries. The most recent entries are at the top of the list.

Agilent ChemStation Help system

The Agilent ChemStation Help system provides an extensive database of information under the following menu items:

- *ChemStation Tutorial* contains a tour of the software and walkthroughs of common tasks to help you learn the fundamentals of the system.
- *How to Work with Your ChemStation* contains a set of instructions for your Agilent ChemStation. You can learn how to perform tasks for the method and run control, data analysis, report layout, verification (OQ/PV), and diagnosis view features.
- *User Interface Reference* contains a detailed description of all items in the menus, toolbars, and dialog boxes of the Agilent ChemStation software. The descriptions are sorted by the different Agilent ChemStation views.
- *Concepts of ChemStation* contains information on selected concepts of the Agilent ChemStation software, including integration, calibration, calibrated report types, spectra processing, and peak parameters.
- *Error Messages* lists all instrument error messages that may occur, with possible causes and corrective actions.
- *Troubleshooting* provides information that can help solve common problems with your Agilent ChemStation.
- *Commands* contains an extensive list of commands and the name, group, syntax, parameters, discussion, return value, and examples (where possible) of different tasks in the Agilent ChemStation software.
- *Macros* contains the *Macro Programming Guide*, which explains the purpose and basic structure of a macro and how macros are written using command strings. Macros allow you to customize the Agilent ChemStation software to best fit your needs.

Agilent Lab Advisor Software

An extensive collection of additional online information, videos, books, and much more is included with the Agilent Lab Advisor Software.

The Lab Advisor Software is an automated approach to running today's laboratories. In addition to providing hardware-related videos and documentation, it can:

- Monitor multiple analytical instruments in real-time
- Take over routine maintenance including tracking
- Warn you of potential service needs before problems arise
- Perform verification diagnostics tests and calibration.

More information

For more information, visit the Agilent Web site at www.agilent.com/chem.

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