ICP Expert II Installation Instructions for Microsoft Windows 7 64-bit Operating Systems

NOTE   NOTICE: This document contains references to Varian. Please note that Varian, Inc. is now part of Agilent Technologies. For more information, go to www.agilent.com.

Introduction

This version of ICP Expert II software is only compatible with Microsoft® Windows® 7 64-bit (SP1) operating systems.

ICP Expert II Software can be installed in two different configurations:

- Standalone on the Instrument computer. All software is installed on the computer connected directly to the instrument.

- On a network (Database version only). The Instrument computer operates the instrument, and the second computer (usually an IT Server) stores collected data.

Upgrading Your ICP Expert II Software

This version of ICP Expert II software is only compatible with Windows 7 64-bit (SP1) operating systems.

ICP Expert II versions 1.1 or earlier are only compatible with Windows XP. There is no upgrade path from Microsoft Windows XP to Windows 7, therefore there is no upgrade option from ICP Expert II version 1.1.5.265 or earlier to ICP Expert II version 2.0.

When upgrading from ICP Expert II version 2.0.2.275 or greater, the procedure for upgrading your existing ICP Expert II Software version is the same as installing for the first time and is described in 'Standalone Installation' or 'Network Installation'. There are several important points to note regarding the upgrade process:

Any previous version of ICP Expert II, (V)SDAdministrator and Help should be uninstalled prior to proceeding with the upgrade/installation.

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To uninstall ICP Expert II:

1 Click **Start > Control Panel > Add or Remove Programs.**

2 In the 'Currently Installed Programs' list, click **ICP Expert II or ICP Expert** and then **Uninstall**. Follow the prompts on the screen.

3 Click **VSDAdministrator or Agilent SDAdministrator** and then **Uninstall**. Follow the prompts on the screen.

4 If required, click **Agilent SDA components** and then **Uninstall**. Follow the prompts on the screen.

5 If required, click **ICPES Workspace** and then **Uninstall**. Follow the prompts on the screen.

6 Click **ICP Expert II Help** or **ICP Expert Help** and then **Uninstall/Change**. Follow the prompts on the screen.

7 If required, click **ICP Expert II VSDA Help** and then **Uninstall/Change**. Follow the prompts on the screen.

After installing the new software version, turn off the computer to install the computer-instrument interface card or to connect the computer-instrument interface converter and to complete the automatic detection and installation of the driver for the instrument interface card.

If you are upgrading the software, you must restart the computer in order to complete the automatic detection and installation of the driver for the instrument interface card.

When the software installation is complete, you must perform the dark current scan, wavelength calibration and torch scan before initiating any measurements with your instrument. Refer to the Agilent 700 Series ICP Optical Emission Spectrometers User's Guide for more information about completing these tasks.

Databases created from ICP Expert II version 1.1.5.265 or earlier can be used with ICP Expert II version 2.0. Existing databases *must* be detached from the existing server, copied to the Windows 7 PC, and then attached to the new database server after the upgrade. Refer to the Upgrading Databases and Registering Workspaces section for information on how to access these databases.

NOTE	For Database users:

If you intend to transfer the data back to the computer after the upgrade, detach ICP Expert II databases and copy the *.mdf files to external storage. These files are stored in C:\Varian Spectroscopy Databases and C:\Program Files(x86)\Varian\ICP Expert II 7XX-ES\Run\Supplied Worksheets by default, or in a user allocated location for database storage.

IMPORTANT	If you are upgrading your PC from Windows XP to Windows 7, ensure that any existing ICP Expert worksheet files or ICP Expert II databases have been backed up to an external drive/media prior to the operating system upgrade.

Administrative Tasks

There are several settings that should be checked before setting up SDA. In future, this section may also be referenced for Troubleshooting.

Microsoft Windows Operating System Updates

Perform any outstanding Microsoft Windows operating system updates before upgrading your ICP Expert II software. Alternatively, disconnect the computer from the network before performing the upgrade.

SQL as an exception

In some instances, it has been necessary to list the SQL Server as an Exception in the Windows System and Security.

To list SQL Server as an exception:

1 Click **Start > Control Panel > System and Security**.

2 Select **Windows Firewall**.

3 Click **Allow a program through Windows Firewall**.

4 Check whether 'SQL Server Windows NT - 64 bit' is included in the list of Exceptions. If not, click **Change Settings**, then click **Allow another program**, browse to 'C:\Program Files\Microsoft SQL Server\MSSQL.10_50.SQLExpress\MSSQL\Binn' and select the 'sqlservr' application. Click **Open**.

5 Click **Add** and then **OK**.

Computer Power Options

To minimize the risk of data loss, ensure the Instrument Computer, Laboratory Management Computer and/or IT Server has the Hibernate or Sleep power saving mode turned off.

To set the power options:

1 Click **Start > Control Panel > Power Options**.

2 Click **Balanced (recommended)**.

3 Click **Change plan settings**.

4 Select an appropriate setting from the 'Put computer to sleep' drop down menu selection. We recommend selecting **Never**.

5 Click **Apply** then **OK**.

Standalone Installation

This section describes how to install the ICP Expert II Software for the first time on a standalone computer connected to the instrument. This is the recommended installation configuration.

You will need the ICP Expert II Software for Windows 7 64-bit SP1 Operating Systems disk.

NOTE	Do not plug the PCI-GPIB card into the PCI slot of the controlling computer before installing the ICP Expert II Software. If the PC was supplied by Agilent, the PCI-GPIB card and associated software has been pre-loaded. In this case, it is not necessary to remove the card before installing the ICP Expert II Software.

To perform a standalone installation:

1 Log on to the instrument computer with Administrative rights.

2 Insert the application software disk into your DVD drive. At the AutoPlay prompt select **Run Installer.exe** and click **Yes** at the prompt.

NOTE	If the AutoPlay prompt does not appear, run the 'Installer' application from the DVD directory.

3 Select the required installation type when the 'ICP Expert II Installer v2.0' window is displayed and then click **Install**.

   - **File Only** is the recommended option for new installations that do not require database storage of worksheet results. All worksheets/results are stored in files on disk.

   - **File and Database** must be selected if US FDA 21 CFR Part 11 compliance is required (see ICP Expert II Software Installation Instructions for 21 CFR Part 11 Environments) *or* access to ICP Expert II version 1.x.x worksheets results (stored in Microsoft SQL Server 2005 databases) is required.

4 Click **Install Now**.

   If not already installed on the PC, the following components will be installed (dependent on install type selected at Step 3 above):

   - **NI GPIB** (National Instruments GPIB Driver and Software)

   - **SQL Server 2008 R2 Engine** (*File and Database installs only*)

   - **SQL Server 2008 R2 SMO** (*File and Database installs only*)

   - **ICP Expert II V2.0 Application**

NOTE	The installation of the Microsoft .Net framework, SQL Server 2008 R2 Engine, SQL Server 2008 R2 SMO and GPIB driver can take several minutes. Do not exit during the installation.

5 If it is necessary to install the required Miscrosoft .NET 4.0 Framework and/or Flash player components, a window is displayed for confirmation. Click **OK** to install the required components.

6 Follow the prompts until the 'Customer Information' window appears.

7 Enter the customer information and then select the appropriate 'Install this application for:' option. Click **Next**.

8   Select the correct serial number type from the list. Click **Next**.

NOTE   The serial number for your ICP-OES instrument is located just above the peristaltic pump on the right side of the instrument.

CAUTION   You must select the correct serial number format. The CCD detector purge delay times may vary depending on the detector type (which is indicated by the serial number format). Damage to the detector may occur if the purge time is not correct.

9   Select the appropriate instrument model and then click **Next** in the 'Select Instrument Series' window.

10   Select **Complete** in the 'Setup Type' window and then click **Next**.

11   Click **Next** in the 'Destination Folder' window. If you would like to change the default installation directory, click 'Change' to choose a different location and then click 'Next'.

NOTE   Agilent recommends the Varian\ICP Expert II 7XX-ES folder and applications are installed in the recommended C:\Program Files (x86) directory.

12   Click **Install**.

13   Click **Finish** in the 'Install Completed' window. The following additional items will be installed:

   •   ICP Transfer registry

   •   ICP Expert II V2.0 Supplied Worksheets

   •   SDA (*File and Database installs only)*. The SDAAdministrators group will also be added to the Windows User Accounts.

   •   SDA Components

NOTE   The installation of the ICP Expert II V2.0 Supplied Worksheets can take several minutes. Do not exit during the installation.

14   Click **Next** to install ICP Expert II Help and videos.

15   Click **Finish** once the Help and videos have been installed.

16   Click **OK** at the ICP Expert II Installer V2.0 'Installation completed successfully' prompt.

17   Click **Cancel** to exit the 'ICP Expert II Installer v2.0' window.

18   Restart the computer.

To install the Productivity Package software:

1   If you are using the Productivity Package, insert the Productivity Package disk.

2   At the AutoPlay prompt select **Run ProductivityPackage.exe** (for SVS 1) or **Run Setup.exe** (for SVS 2) and click **Yes** at the prompt to begin the installation.

NOTE   If no installation screen appears, run 'ProductivityPackage.exe' or 'Setup.exe' from the DVD directory.

3   Follow the prompts.

GPIB Communications Hardware

At the end of the application software installation, turn off the computer to install the computer-instrument interface card (if required) and complete the automatic detection and installation of the driver for the instrument interface card. Refer to the Agilent 700 Series II ICP Optical Emission Spectrometers User's Guide supplied with your instrument.

Starting the Software

To start ICP Expert II:

1   Click **Start > All Programs > ICP Expert II > ICP Expert II**.

2   The first time the ICP Expert II software is opened a Software Registration dialog will appear. Click **Next**.

NOTE	Ensure the software registration is completed by the user of the Agilent ICP Optical Emission spectrometer. For further information refer to the Software Registration Help.

3   Complete all the fields on the 'Customer Details' page. Click **Next**.

NOTE	The Product Key is on the cover of the Agilent ICP Expert II software DVD case.

4   Complete all the fields on the 'Product Details' page. Click **Next**.

5   Complete all the fields on the 'Work Environment Details' page. Click **Register**.

6   A dialog appears stating 'Your Agilent Software Registration has been successful' and the application opens.

NOTE	If your computer is not connected to the internet, refer to the Software Registration Help for further information.

To start SDA (*File and Database installs only*)**:**

1   Double-click the 'SDAdministrator' desktop shortcut, or click **Start > All Programs > Agilent > Database Utilities > SDAdministrator**.

2   Click **Yes** at the prompt.

3   Refer to the Help for instructions on setting up SDA.

NOTE	The SDAAdministrators account must be granted access to the to the 'VAIM Admin' Database and any Administrators who need access to the SDA must be added to the SDA Administrators Group.

Dark Current Scan, Wavelength Calibration and Torch Align

When the software installation is complete, you *must* perform the dark current scan, wavelength calibration and torch scan before initiating any measurements with your instrument.

These can be found on the W/L Calib and Torch Align pages of the Instrument Setup window. Refer to the Agilent 700 Series ICP Optical Emission Spectrometers User's Guide for more information about completing these tasks.

NOTE If you selected the **File and Database** option (step 3, on page 4) in the standalone installation, the worksheets used for the wavelength calibration and torch scan *must* be specified on the W/L Calib and Torch Align pages of the Instrument Setup window before proceeding. Click on the Browse button(s) on each of these pages in the Instrument Setup window and navigate to the appropriate database server and select the appropriate database worksheet.

Network Installation

This section describes how to install the ICP Expert II Software on a network. This configuration only applies to 'File and Database' installations where the results databases and server will be installed on a computer other than the one connected to the instrument. It demonstrates how to install the:

- ICP Expert II Software on an Instrument computer

- SDA and Microsoft SQL Server Express 2008 R2 on a separate IT Server. SDA is used to manage stored, collected data.

You will need the ICP Expert II Software for Windows 7 64-bit Operating Systems disk.

For each computer, follow the appropriate instructions.

Instrument Computer

NOTE Do not plug the PCI-GPIB card into the PCI slot of the controlling computer before installing the ICP Expert II Software. If the PC was supplied by Agilent, the PCI-GPIB card and associated software has been pre-loaded. In this case, it is not necessary to remove the card before installing the ICP Expert II Software.

To install the software on the instrument computer:

1 Log on to the computer with Administrative privileges.

2 Follow the instructions for the standalone installation (above), ensuring the the **File and Database** install option is selected at Step 3 (page 4).

IT Server

To install the SDA and Microsoft SQL Server 2008 R2 software on the IT Server:

1 Log on to the IT Server with Administrative privileges.

2 Insert the ICP Expert II Software disk into your DVD-ROM drive. At the AutoPlay prompt select **Open folder to view files**.

NOTE If the AutoPlay prompt does not appear, browse to the DVD directory.

3 Browse to the 'Network Install' folder and double click the **Installer** application and click **Yes** at the prompt.

4 Select the required installation type when the 'ICP-OES Network Database Install' window is displayed and then click **Install.**

- **SDA and SQL Server Express 64 bit** is the recommended option where Microsoft SQL Server 2008 Express R2 is not currently installed.

- **Spectroscopy Database Administrator (SDA) Only** is the recommended option where Microsoft SQL Server 2008 Express R2 is already installed.

5 Click **Install Now**.

The following components will be installed (depending on install type selected at Step 4 above):

- SQL Server 2008 R2 Engine
- SQL Server 2008 R2 SMO
- .Net 4 Framework
- SDA, the SDAAdministrators group will also be added to the Windows User Accounts.
- SDA Components
- ESWorkspace

> **NOTE** The installation of the Microsoft .Net framework, SQL Server 2008 R2 Engine and SQL Server 2008 R2 SMO can take several minutes. Do not exit the installation during this time.

6 Click **OK** at the ICP-OES Network Database Install 'Installation completed successfully' prompt.

7 Click **Cancel** to exit the 'ICP-OES Network Database Install' window.

To start SDA:

1 Double-click the 'SDAdministrator' desktop shortcut, or click **Start > All Programs > Agilent > Database Utilities > SDAdministrator**.

2 Click **Yes** at the prompt.

3 Refer to the Help for instructions on setting up SDA.

> **NOTE** The SDAAdministrators account must be granted access to the 'VAIM Admin' Database and any Administrators who need access to the SDA must be added to the SDA Administrators Group.

The Supplied Worksheets Database and the Results Database must be copied to the IT Server and attached to the database server as follows:

1 Once SDA is configured, browse to the DVD-Drive with the ICP Expert II Software disk installed and navigate to the ICP Expert II > Supplied Worksheets folder.

2 Copy the **VAIMDB_SuppliedWorksheets(000).mdf** file to the C:\Spectroscopy Databases folder on the IT Server (or another location designated for database storage).

3 The Supplied Worksheets database can then be attached to the database server using SDA. Refer to the Help for instructions on attaching a database.

4 Copy the **VAIMDB_Results(000).mdf** file to the C:\Spectroscopy Databases folder on the IT Server (or another location designated for database storage).

5 The Results database can then be attached to the database server using SDA. Refer to the Help for instructions on attaching a database.

Dark Current Scan, Wavelength Calibration and Torch Scan

When the software installation is complete, you *must* perform the dark current scan, wavelength calibration and torch scan before initiating any measurements with your instrument.

These can be found on the W/L Calib and Torch Align pages of the Instrument Setup window. Refer to the Agilent 700 Series ICP Optical Emission Spectrometers User's Guide supplied with your instrumentfor more information.

NOTE	The worksheets used for the wavelength calibration and torch scan *must* be specified on the W/L Calib and Torch Align pages of the Instrument Setup window before proceeding. Click on the Browse button(s) on each of these pages in the Instrument Setup window, navigate to the appropriate database server and select the appropriate database worksheet.

Upgrading Databases and Registering Workspaces

You can use databases created in ICP Expert II Software versions 1.1.5.265 or earlier in this software.

There are several important points to note regarding the upgrade process:

- If you are upgrading a network installation, that is, ICP Expert II Software and SDA (the database configuration program) are on different computers. You must upgrade both sets of software.

- Ensure that the ICP Expert II 'File and Database' install type option is selected at Step 3 of the 'Standalone' installation instructions (page 4).

- All databases created in all previous versions of ICP Expert II must be 'Detached' from the existing database server (Computer Name\VARIAN), the database files (database name .mdf) transferred to the computer that the new software has been installed on, and then attached to the new database server (Computer Name\SQLExpress) installed as part of the ICP Expert II v2.0 installation. Refer to the Help for instructions on attaching a database.

- Databases created in ICP Expert II versions 1.0, 1.1 and 1.1.1 must be upgraded before they can be used in the new version. Instructions are provided below.

- Databases created in ICP Expert II 1.1.5.265 or earlier may need the new workspace registered before they can be used in the new version. Instructions are provided below.

To manually upgrade databases for use in the new software:

1 Start SDA, select the **Advanced Setup** view, and log on to the appropriate server.

2 Click the **Database** tab.

3 Ensure that the databases of interest are attached. This is done using the 'Attach' sub-tab.

4 Click the **Upgrade** sub-tab.

5 Any attached databases that require upgrading will automatically appear in the 'Databases' panel on the left. Select the database(s) and then click the **Upgrade** button.

6 When prompted, enter a reason and comment for the event log.

7 Register the workspace as described below.

To register the new workspace:

1 Select the **Advanced Setup** view in SDA and log on to the appropriate server.

2 Go to the **Database** tab and click the **Information** sub-tab.

3 Select a database.

4 Select the check box in the 'Unregistered workspaces' panel on the lower right (if necessary).

5 Click the **Register** button.

6 Repeat for the remaining databases.

> **NOTE** The registration of the new workspace will not take effect until you log off from the server and log on to the server again.

Troubleshooting

The following items contain information on troubleshooting and software issues and workarounds for the ICP Expert II software, SDA and Software Registration:

- The ICP Expert II Help

- The ICP Expert II Software Status Bulletin

- The Software Registration Help

If you are unable to open the Help, contact your Agilent field service engineer.

Uninstalling ICP Expert II Software

If you ever need to uninstall your ICP Expert II Software and all associated software from your computer, you must follow these steps in this order:

> **NOTE** Do not uninstall Microsoft .Net Framework 4 or Microsoft SQL Server if they are used by other applications on the computer, or if you want to reinstall the software.

> **NOTE** If you choose to remove Microsoft SQL Server and Microsoft .NET 4, you must uninstall Microsoft SQL Server before Microsoft .NET 4. Removing Microsoft .Net Framework first will cause the remaining uninstall procedures to fail.

1 Click **Start** > **Control Panel** > **Uninstall a program**.

2 In the 'Currently Installed Programs' list, click **ICP Expert II** and then **Uninstall**. Follow the prompts on the screen to remove the ICP Expert II Software.

3 Click **ICP Expert II Help** and then **Uninstall/Change**. Follow the prompts.

4 Click **VSDAdministrator** or **Agilent SDAdministrator** (if installed) and then **Uninstall**. Follow the prompts.

5 If required, click **Agilent SDA Components** and then **Uninstall**. Follow the prompts on the screen.

6 If required, click **ICPES Workspace** and then **Uninstall**. Follow the prompts.

7   Click **Microsoft SQL Server 2008 R2 (64-bit)** (if installed) and then **Uninstall/Change**.

8   If there are still some Microsoft SQL Server 2008 applications that have not been removed, repeat Step 6 to remove these components.

9   Click **Microsoft .Net Framework 4 Extended** and then **Uninstall/Change**. Follow the prompts.

10   Click **Microsoft .Net Framework 4 Client Profile** and then **Uninstall/Change**. Follow the prompts.

11   Click **National Instruments Software** and then **Uninstall/Change**. Follow the prompts on the screen to remove all National Instruments components.

12   Delete the ICP Expert II and VSDAdministrator (if required) folders in C:\Program Files (x86)\Varian (the Varian folder can also be deleted if no longer required.

13   If required, delete Database Utilities folders in the C:\Program Files (x86)\Agilent (the Agilent folder can also be deleted if no longer required).

14   Delete the C:\Users\Public\Public Documents\Varian\ ICP Expert II folder to remove all saved worksheet files, exported data, etc (the Varian folder can also be deleted if no longer required).

IMPORTANT	Check that all (V)SDA folders (if previously installed) have been removed by going to C:\Spectroscopy Databases (or to any custom location where you installed your databases) and ensure all subfolders have been deleted to remove all existing results databases. Then, delete the Spectroscopy Databases folder.

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This information is subject to change without notice.

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