Software Installation Guide

Analyst® 1.5.1 Software

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Contents

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This guide provides information about, and procedures for, installing the Analyst® 1.5.1 software. This guide also includes information on supported peripheral devices and firmware and troubleshooting installation.

For information about new software features, enhancements, and known issues, see the release notes for the Analyst 1.5.1 software included with the Analyst 1.5.1 software package.

Important Information to Know Before Installing

To make sure that your software installation is successful, read the following points carefully before you start any of the procedures in this guide:

> **Note:** Make sure that you back up the Analyst Data folder to a safe location before upgrading. **If you uninstall Analyst® 1.5.1 software, you will not be able to revert to the previously installed version of the Analyst software.** For more information, see To back up the Analyst Data folder to a safe location on page 16. **Do not rename the existing folder**. This folder contains the API Instrument folder, which contains the basic instrument calibration and parameter settings.

- Do not replace the API Instrument folder created during installation of the Analyst 1.5.1 software with API Instrument folders created in previous versions of the Analyst software. You can, however, copy each individual file from this folder into the new folder.
- You need to have a valid Analyst 1.5.1 software license to legally run the software.
- Do not attempt to install the software without following the installation instructions provided in this guide.
- Analyst 1.5.1 software data files are not compatible with Analyst software versions 1.4.2 or lower. However, you can open data acquired in previous versions of the Analyst software in the Analyst 1.5.1 software.
- Use the task list provided at the beginning of the installation procedure in this guide to check off each task as you complete it. The order in which you carry out the installation steps is important. If you are installing to more than one workstation, make photocopies of the task list so you have a copy for each workstation.
- All peripheral devices supported in the Analyst 1.4.2 software and later continue to be supported in the Analyst 1.5.1 software. For more information, see Peripheral Devices and Firmware on page 29.

- If you are installing from the DVD, the Analyst 1.5.1 software can be installed without having a previous version of the Analyst software installed or it can install over the Analyst 1.4.2 or 1.5 software.
- If you are installing the Analyst 1.5.1 software using files downloaded from the website, then you must have Analyst 1.5 software installed.
- Deactivate the hardware profile and close the Analyst software before installing the Analyst 1.5.1 software.
- If you are using the Analyst 1.4.1 software or earlier, uninstall the software before installing 1.5.1. If you would like to maintain your current security database, upgrade to Analyst 1.4.2 and then upgrade to 1.5.1.
- The Analyst 1.5.1 software cannot be installed on the same computer as the Analyst Administrator Console (AAC) server software. If you are using the AAC server software, install it on a separate computer not running the Analyst 1.5.1 software.
- The Analyst 1.5.1 software is not compatible with the AAC server version 1.0. If you are currently managing your user database centrally using the AAC server, upgrade the AAC server before installing the Analyst 1.5.1 software. To inquire about the availability of the new version of the AAC server software, contact your AB SCIEX sales representative.
- The Analyst 1.5.1 software is not currently compatible with Analyst 1.4.2 Software Components for FlashQuant™ Workstation. If you are using Analyst 1.4.2 Software Components for FlashQuant workstation, continue using the Analyst 1.4.2 software until an upgrade is available.
- For more information about the compatibility of the Analyst 1.5.1 software with other software applications, see Compatibility with Other Software on page 9.

Support

At AB SCIEX, we are committed to providing the highest level of support for Analyst software users. To obtain answers to questions about any of our products, report problems, or suggest improvements, visit the web site at www.absciex.com.

This section explains the operating system, hardware, and software requirements that acquisition and processing workstations must meet for the Analyst® software to operate.

Operating System Requirements

The Analyst 1.5.1 software requires Microsoft Windows XP SP2 or SP3 operating system. The Analyst software does not currently support the Windows Vista operating system.

Network Environment Requirements

The Analyst 1.5.1 software supports Microsoft Windows Server 2003 network environment.

Acquisition Workstation Requirements

It is highly recommended that you purchase an acquisition workstation from AB SCIEX. These configured systems meet all requirements and undergo extensive testing and verification with the Analyst software. Detailed specifications for these systems are shipped with the PC.

Order the configured systems, including the cards, through AB SCIEX. For more information, contact your AB SCIEX sales representative.

For *Scheduled* MRM™ acquisitions, the recommended computer models are the Dell Precision T3400 and the Dell Optiplex 960 (especially with acquisitions involving greater than 300 MRM transitions.)

Note: If you upgrade your acquisition workstation to the Analyst® 1.5.1 software, upgrade your processing workstation as well.

Processing Workstation Requirements

For data processing workstations, AB SCIEX recommends the minimum computer configuration of the Dell P340 computer or equivalent. Minimum specifications are a Pentium 4 - 2.53 GHz based system with 256 MB of RAM, 40 GB of internal hard disk storage, Windows XP SP2 operating system, and a minimum of Internet Explorer 6.0 SP2.

Some AB SCIEX add-on software requires additional memory, disk space, and processing speed. For more information, see the documentation included with the software.

Supported Acquisition Computer Models

As of the software release date, the Analyst 1.5.1 software has been tested and verified for compatibility with the following computer models:

- Dell P390
- Dell T3400
- Dell Optiplex 960

Newer systems might be available. For more information, contact your FSE.

Current Shipping Configuration for the Dell Optiplex 960 for Acquisition Workstations

The configured system comes preinstalled with the Windows XP SP3 operating system, Internet Explorer 6.0 SP2, and all driver software for the cards.

It includes the following peripherals:

- National Instruments USB to GPIB may be required for data acquisition but is not included.
- (Optional on some instruments) EdgePort USB to serial converter
- Two pre-installed Intel Pro 1000 GT PCI cards
- (Optional) National Instruments 16-bit ADC kit, required for analog signal measurement. This option will support six single-ended (ground referenced) channels at 16 bits/channel

Note: Do not change the power management settings in the BIOS. Changing the power management settings might interfere with batch acquisition by introducing long delay times between samples.

Note: To control Agilent LC devices through the network interface, make sure that your computer has an additional Ethernet port available.

Supported Cards and Driver Versions

The Analyst 1.5.1 software has been tested with the following cards and driver versions.

Table 2-1 Cards and Drivers

Card Name	Driver Version
GPIB	2.5
ADC	8.3
Network Card - Intel Pro/1000 GT	Driver version 8.10.3.0 or later
EdgePort USB	4.2

Compatibility with Other Software

The .NET framework is required to operate many additional scripts or vertical applications, such as Cliquid® software, Reporter 3.0, and the Convert Methods script. The .NET framework will be installed automatically when the application is installed.

Note: The Analyst® software web release installer does not include the .NET framework 3.5 SP1 installer. A separate web release installer for the Convert Methods script that contains the .NET installer is available.

Compatible Software

As of this release, the following software releases are compatible with the Analyst 1.5.1 software:

- BioAnalyst™1.5 software
- ChemoView™2.0.1 software
- Cliquid 3.0 software
- Cliquid MPX™ -2 high throughput system
- CombiView1.0.9 software
- DiscoveryQuant™ 2.0 software
- LightSight®2.2 software
- MarkerView™ 1.2 software
- MIDAS™ Workflow Designer 1.1 software
- MPX™ 1.0 Driver software
- MRMPilot™ software 1.0
- MultiQuant™1.2 software
- MultiPane1.0 software

- ProteinPilot™ 3.0 software
- Reporter 3.0 software
- Smart Monitor 4.1.2 software
- WiffToMZData (Translator) 1.0.0.4

Non-Compatible Software

As of this release, the following software releases are *not* compatible with the Analyst 1.5.1 software:

- Metabolite ID software (for the API series instruments)
- Metabolite ID (for the QSTAR® series instruments)
- Pro ID software
- Pro ICAT software
- Pro QUANT software
- Pro BLAST software
- oMALDI™ Server software
- oMALDI Xpert software
- PrepExpress™ software
- FlashQuant™ software
- Automaton

To inquire about the compatibility of software not included in either of these lists, contact your AB SCIEX support or sales representative.

Supported Mass Spectrometers

The Analyst 1.5.1 software can control and analyze the data from each of the following AB SCIEX mass spectrometers:

> **Note:** Older models of mass spectrometers supported in the Analyst® 1.4.2 software may be compatible with the Analyst 1.5.1 software but have not been specifically validated.

- AB SCIEX QTRAP® 5500 system
- AB SCIEX Triple Quad™ 5500 system
- 4000 QTRAP system
- 3200 QTRAP system
- QTRAP system
- API 5000™ system
- API 4000™ system
- API 3200™ system
- API 3000™ system
- API 2000™ system

Key Content of the Analyst® 1.5.1 Software DVD

The following software applications, files, folders, and documents are included on the Analyst 1.5.1 software DVD:

- Analyst 1.5.1 software
- Drivers folder: Contains driver software for all supported cards

Note: For a complete list of documents and their location, see .

- An Extras folder containing the following subfolders:
    - AAO: Contains the Analyst Access Object release notes and user guide.
    - ACROREAD: Contains the Adobe Acrobat Reader 9.
    - Agilent BOOTP Package: Contains instructions and a utility to allow control of the Agilent LC devices using Ethernet (in most cases an additional Ethernet adapter is required).
    - AnalystReporter: Contains the Reporter 3.0 installation executable
    - Examples: Contains sample methods, data, and results files.
    - Instrument Update: Contains the Firmware/Configuration Table Update Program (ConfigUpdater.exe).
    - Peak Finder: Contains a registry file for setting the peak finder version used on older data files.
    - Scripting Cookbook: Contains a guide that provides information for writing applications to control the Analyst software
- The *Analyst® 1.5.1 Software Release Notes*
- The *Analyst® 1.5.1 Software Installation Guide* (this document)
- An Install folder containing safety guides as well as hardware and software guides and tutorials for all instruments

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This section provides procedures for installing or upgrading the Analyst® 1.5.1 software.

Note: The order of the upgrade procedures is important. Use the Task List for Installing on page 14 to make sure that you complete each procedure.

If you have Analyst 1.4.2 software or later installed, then you can upgrade to the Analyst 1.5.1 software.

If you have Analyst 1.4.1 software installed, then you must uninstall it before you can install the Analyst 1.5.1 software.

Note: Your security database will be removed when the Analyst® 1.4.1 software is uninstalled. If you have Analyst 1.4.1 software installed, and you would like to maintain your current security database, then you must upgrade to the Analyst 1.4.2 software and then upgrade to the Analyst 1.5.1 software.

Note: Removing the Analyst® 1.5.1 software from the system will uninstall the Analyst software completely rather than reverting to the previously installed configuration. The Analyst Data folder will not be removed, but it is still recommended that you back up this folder. Instrument settings are retained but application settings are not.

How to Use These Installation Instructions for Acquisition Workstations Versus Processing Workstations

The upgrade instructions in this section can be used for both acquisition workstations (workstations that are connected to an instrument) and processing workstations (workstations that are not connected to an instrument).

Use the following table to understand which upgrade procedures to complete for each scenario.

Table 3-1 Scenarios

Workstation	Procedure
For acquisition workstations:	Complete all procedures in this section (note that some procedures are optional, or are required only if you have certain cards installed in the workstation).
For processing workstations:	Complete only those procedures marked with the following icon: P You can skip any upgrade procedures related to: • Cards and driver software • Upgrading firmware and configuration tables

Task List for Installing

Use the following task list to make sure that you complete all the required steps to prepare for and complete the installation. Procedures for each task are included in this guide on the pages shown in the right column.

Tip! Photocopy this checklist so you can check off each step as you proceed through the installation instructions.

Table 3-2 Checklist

		Step	Procedure
❏	P	1. Make sure that the workstation meets the requirements for installing the Analyst® software.	Read the section starting on page 7.
❏	P	2. Gather the required and optional DVDs, CDs, and downloads you need for the installation.	See page 15.
❏	P	3. Prepare the instrument and workstation for the installation.	See page 15.
❏	P	4. Back up the Analyst Data folder to a safe location.	See page 16.

Table 3-2 Checklist (cont'd)

		Step	Procedure
❏	P	5. Install the Analyst 1.5.1 software.	See page 16.
❏		6. Upgrade the driver software for the GPIB card, if required.	See page 47.
❏		7. Update the firmware and configuration tables, if required	See page 18.
❏	P	8. (Optional) Install any scripts.	See page 19.
❏	P	9. Run the Analyst software for the first time.	See page 19.
❏	P	10. Register the Analyst software online.	See page 20.

Preparing to Install

Complete the following steps before you begin installing the Analyst 1.5.1 software.

To gather the required and optional software installers

1. Locate the Analyst 1.5.1 software DVD required for the installation.
2. If required, locate any DVDs or CDs containing optional add-on software.

To prepare the instrument and workstation for the installation

1. Log on to the computer as a user with local administrator privileges.
2. For processing workstations, proceed to the next procedure. For acquisition workstations do the following:

    - If your workstation has a GPIB card, make sure the instrument is powered on and connected to the GPIB card at the back of the workstation.
    - If the Analyst 1.4.2 software or a later version is already installed, deactivate any active hardware profiles before installing the Analyst 1.5.1 software. This is a required step before upgrading software.

- Do not remove any of the cards from the workstation.

To back up the Analyst Data folder to a safe location

Do not rename the existing Analyst Data folder. When you upgrade, it is recommended that you use the same Analyst Data folder from your previous installation. This gives you access to your existing data, such as hardware profiles, methods, and data files. It also retains your InstrumentData.ins and ParameterSettings.psf files.

1. Make a backup copy of the files and subfolders in the Analyst Data folder (do not simply rename the folder). The default location is D:\AnalystData. Create the backup in a safe location, such as a network drive or a DVD. You are not required to restore these files as part of a normal upgrade; however, it is good practice to make sure that a backup exists.

2. The content of the Analyst Data folder includes the API Instrument folder, which contains the basic instrument calibration and parameter settings.

Note: As part of normal installation, the API Instrument folder and the CompoundLib.db is automatically backed up to the TEMP folder on your system. This folder is normally stored in <drive>:\Documents and Settings\<name>\Local Settings\Temp\Analyst_Data_Backup_[Date]. Do not rely on this backup; always back up the Analyst Data folder and only use this folder if absolutely necessary.

Installing the Analyst® 1.5.1 Software

Complete the following procedures to upgrade the workstation to the Analyst 1.5.1 software release. The Analyst 1.5.1 software integrates the 1.5 software and the 5500 components software, including HotFixes and patches.

Note: If the installation browser does not appear, then browse to the Install folder on the DVD and double-click setup.exe.

To install the Analyst® 1.5.1 software

Note: If the Analyst® 1.5 HotFixes to March 2009 was installed, the parameter Access Ranges were replaced by the firmware ranges and atypical behavior may be observed. If you are upgrading a system that had the Analyst® 1.5 HotFixes to March 2009, then read the following section For systems with the Analyst® 1.5 HotFixes to March 2009 installed. If the Analyst® 1.5 HotFixes to March 2009 was not installed then go to Step 1.

1. If you are upgrading the software, deactivate the hardware profile and then close the Analyst software before installing the Analyst 1.5.1 software.
2. Make sure the Analyst 1.5.1 software DVD is in the DVD drive.
3. Click **Install Analyst 1.5.1 Software**.
4. Follow the instructions in the installation wizard to install the software.

For systems with the Analyst® 1.5 HotFixes to March 2009 installed

During installation of the Analyst 1.5.1 software the installed Parameter Settings file is scanned for parameters whose access ranges fall outside the normal operating range and will be replaced by normal operating access ranges. If you changed an access type to Operator mode and made changes to the access range, these changes will not be restored by the utility.

If the installation detects an issue with the currently installed Parameter Settings file, you will see the following message:

Some Access Ranges in the currently installed Parameter Settings file are not within the normal operating ranges. This is a known issue with your currently installed Analyst software version. If you are not aware of any changes that were made to this Parameter Settings file, then it is highly recommended that the affected ranges be corrected. Would you like to repair the Parameter Settings Access ranges to reflect the normal operating ranges?

This utility will create log files that will inform you if the utility was run successfully. This file may be found in the following location: <Analyst Data Folder>\Projects\API Instrument\Log\General Information File.txt.

If changes were made to the parameter settings file by the utility, a description of all the changes are found in the following location: <Analyst Data Folder>\Projects\API Instrument\Log\ParamSettings<model>.txt

To check the GPIB driver version

Use this procedure if your system requires a GPIB connection.

Note: If you have already upgraded, or if you are installing to a processing workstation or to an instrument which is connected through an Ethernet connection, you do not need to perform this step.

1. On the Windows desktop, right-click **My Compute**r.
2. Select **Manage**.
3. Click **Device Manager**.
4. Click **National Instruments GPIB interfaces**.
5. Right-click **PCI-GPIB**, and then select **Properties**.
6. Click the **Driver** tab. If the driver version is listed as 2.5, you do not need to upgrade the driver but it is recommended. If the driver is listed as a different version or if the driver is listed as Not available, see Upgrading the GPIB Card Driver on page 47.

To update the firmware and configuration tables

Use the Firmware/Configuration Table Update program to automatically determine if either firmware or configuration tables need to be updated on the system. The utility performs only the necessary updates. The utility may also reset the mass spectrometer system controller; this is normal and is required by the update process. If you have a GPIB connection, before running this utility, make sure that the mass spectrometer is powered on and connected to the GPIB card and that the GPIB driver software is properly installed.

You must upgrade if:

- You are using the *Scheduled* MRM™ algorithm and you are installing from pre-Analyst 1.5 software.
- You are using the mass range extension and scan speed increase for the 5500 systems and the Analyst® 1.5 5500 Components HotFixes to April 2009 was *not* installed.
- You are using the mass range extension for API 3200™ system and the Analyst 1.5 HotFixes to March 2009 was *not* installed.
- You are using the DuoSpray™ ion source on an API 4000™ instrument and the Analyst 1.5 HotFixes to March 2009 was *not* installed.

1. If the Analyst 1.5.1 software DVD is not already in the DVD drive, insert it.

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2. If the installation browser appears, click **Exit**.

3. On the DVD drive, navigate to the \Extras\Instrument Update folder, and then double-click **ConfigUpdater.exe**.

   The Firmware/Configuration Table Update Program page appears, identifying the new firmware version it will install.

4. To update the firmware, click **Next**.

5. Follow the on-screen instructions to update your firmware and configuration tables.

> **Note:** If the utility presents you with more than one choice for the configuration filename, choose the version with the highest number. For example, if you are presented with B5366004.fw and B5366005.fw, choose the B5366005.fw file. For more information on which versions are supported in the Analyst® 1.5.1 software, see Firmware and Configuration Tables Files on page 27.

6. Click **Finish** to exit the utility.

> **Note:** If you are upgrading the firmware on the 5500 systems, you will be prompted to manually restart the mass spectrometer.

(Optional) To install any scripts

- A number of research-grade scripts are available to extend the functionality of the Analyst software. For more information on installing scripts, see the *Scripts User Guide* found in the Start Menu: All Programs > AB SCIEX.

(Optional) To install Reporter 3.0

1. If the Analyst 1.5.1 software DVD is not already in the DVD drive, insert it.

2. Navigate to the Extras > AnalystReporter folder.

3. Double-click setup.exe and then follow the instructions in the installation wizard to install the software.

To run the Analyst® software for the first time

1. Start the Analyst software by double-clicking the icon on the desktop.

2. (For acquisition workstations) Activate a hardware profile and then test the software to make sure that you are able to acquire data or process data.

To register the Analyst® software online

- Ten days from the date of installation, the software prompts you to register the Analyst software online. This online registration helps AB SCIEX offer better support, and allows for easier notification about the availability of upgrades and patches, as well as other software-related information. For more information, see Analyst® Software User Registration.

Analyst® Software User Registration

After you install the Analyst software, register your installation online at: www.absciex.com/AnalystReg.

Registration of the software helps AB SCIEX offer better support. AB SCIEX will also notify you about the availability of upgrades and patches, as well as other software-related information.

You can register from any computer; it does not have to be the computer on which the software is installed. Your name and email address, and the name, address, and telephone number of the company licensing the software are required. Optional information includes some brief questions on how the Analyst software is used at the site, plus a section for comments. You can choose whether to be contacted for software updates, product information, or electronic surveys. Review the privacy statement and contact information on the Web site for details about the information collected and its usage.

This section describes the operating system and computer requirements for installing the Analyst® 1.5.1 software over a network. There are several methods of deploying software over the network; however, for this document, the network installation was tested using Active Directory only. For more information, see the Analyst software Administrator Console section of the *Laboratory Director's Guide* for the Analyst® Software found in the Start Menu: All Programs > AB SCIEX.

Note: These procedures should be performed by someone with the prerequisite knowledge and the support of the IT department.

Important Information to Know Before Installing

To make sure that your installation is successful all workstations must be connected to the Active Directory.

Installing Analyst® 1.5.1 Software Over the Network

Use the following procedures to install the Analyst software over the network.

To prepare the environment

Note: If you receive the following message during the administrative install: "1: InstallShield engine is missing from this machine. If available, please run ISScript1150.msi or contact your support personnel for further assistance," install the ISScript1150.msi file located in the Analyst® 1.5.1 software package in the Install folder, and then run the administrative install again.

1. On a server, create a distribution point for the software.
2. When the installation browser appears, click **Exit**.
3. To create an administrative image, in a command line, type Msiexec.exe /a <PathToAnalyst.msi> SHORTFILENAMES=1 TARGETDIR=<PathToDistributionPoint> NAMESOFPROPERTIES=value /qr.

    The SHORTFILENAMES parameter is a Windows Installer property that uses short file names for the names of target

files, rather than long file names. If the target volume does not support long names, this property has to be set to 1.

NAMESOFPROPERTIES: Parameter used to define the installation requirements

ANALYSTPATH: Destination location of the application (default is [ProgramFilesFolder]Analyst)

ANALYSTDATAPATH: Destination location of Analyst Data (default is the NTFS disk with the most free space\Analyst Data)

SECURITYDATA: Overwrite or not overwrite security database if it is found

"1" - overwrite

"0" - not overwrite (default)

LIBSEARCHDATA: Overwrite or not overwrite Library Search database if it is found

"1" - overwrite

"0" - not overwrite (default)

COMPOUNDDATA - overwrite or not overwrite Compound database if it is found

"1" - overwrite

"0" - not overwrite (default)

PSFREPPROP- repair parameter settings files

""- do not repair

"Yes" - repair (default)

Example: Msiexec /a "d:\install\analyst.msi" SHORTFILENAMES=1 TARGETDIR="C:\Managed Applications\Analyst151" LIBSEARCHDATA="1" PSFREPPROP="" /qr

4. After creating the distribution point, copy the Scripts folder, all the documentation (tutorials and guides) folders, the release notes, and the software installation guide to this location.

To install the image over the network

1. Make sure the Analyst 1.5.1 software DVD is in the DVD drive.

2. Create an Organizational Unit containing all the workstations where the Analyst 1.5.1 software will be installed.

3. Create a Group Policy for the unit.

4. In the **Group Policy**, expand the **Computer Configuration** and **Software Settings** nodes.

5. Right-click **Software Installation**, point to **New**, and then click **Package**.

6. Navigate to the .msi package in the distribution point.
7. Restart each workstation.

To create user accounts (for new Analyst® software installations only)

If the Analyst software was uninstalled and then reinstalled, use this procedure to create user accounts.

Note: If you are upgrading from the Analyst® 1.4.2 software and you choose to keep your existing user security database when installing the Analyst 1.5.1 software, your user accounts are preserved and you do not need to perform this procedure.

Note: If you want to upgrade from Analyst® 1.4.1 software and you want to preserve your security database, then you must install Analyst 1.4.2 software before upgrading to Analyst 1.5.1 software.

1. After installing the Analyst 1.5.1 software on a network, start the Analyst software and log in as a local domain user named **administrator**.
2. In the Security Configuration window, click the **People** tab and then create new user accounts and assign roles.
3. Close the Analyst software.
4. Restart the Analyst software and log in using one of the accounts that you created in Step 2.
5. If you are using Analyst Integrated mode, log off from Windows to log in as another user.

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This section describes some issues that you may encounter while installing or upgrading to the Analyst® 1.5.1 software. It suggests possible causes and offers solutions.

At AB SCIEX, we are committed to providing the highest level of support for Analyst software users. To obtain answers to questions about any of our products, report problems, or suggest improvements, visit the web site at www.absciex.com.

Table 5-1 Troubleshooting

Issue	Possible Cause/Solution
During installation of the Analyst® 1.5.1 software, I see the error message "Error 1905, Module D:\Analyst Data\Projects\API Instrument\Processing Scripts\Analyst Reporter.dll failed to unregister. HRESULT-2147220472. Contact your support personnel."	You might see this error message if you have deleted or renamed the Analyst Data folder. Click **OK** to dismiss the error message and continue with the installation. A new data folder will be created automatically. After installation is complete, copy your data from the renamed Analyst Data folder to the new folder.
After installing, I cannot log on to the Analyst software.	Your user name might not have been successfully added to the security database during the upgrade. Log on to the computer as the local administrator, and then add your user name to the Analyst software through the Security Configuration dialog box.
I see the error message "Failed to load the parameter settings file" when I try to start a profile in the Analyst software.	If you restored any files or folders from a CD, or copied over files shipped with your instrument, these files might be set as read only. To use these files, remove the read-only setting from the files through Windows.

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The following instrument firmware and configuration table versions are required for the Analyst® 1.5.1 software. Instructions for making sure you have the latest versions of these files are included in the upgrade instructions. These tables are for reference purposes only.

Table A-1 Firmware Files for the 5500 Series Of Instruments

Firmware	Version
Both systems	PIL0102

Table A-2 Firmware Files for all non-5500 Instruments

Firmware	Version
340 Main	M401402
332 Main	M3L1417

Table A-3 Configuration Table Files for the Analyst® 1.5.1 Software

Instrument	Configuration Table File
AB SCIEX QTRAP® 5500 instrument	FWQTrap5500R01.fw
AB SCIEX Triple Quad™ 5500 instrument	FWTripleQuad5500R01.fw
4000 QTRAP instrument (U series serial number)	B9609010.fw
4000 QTRAP instrument (AR series serial number)	B9609031.fw
3200 QTRAP instrument	B9631001.fw
QTRAP instrument	B9611003.fw
API 5000™ instrument	B9669001.fw
API 4000™ instrument	B5366005.fw B5366020.fw (for the NanoDCI source)

Table A-3 Configuration Table Files for the Analyst® 1.5.1 Software (cont'd)

Instrument	Configuration Table File
API 3200™ instrument	B9633002.fw
API 3000™ instrument	A8958000.fw
API 2000™ instrument	A7483000.fw

The Analyst® software supports the peripheral devices listed in the following table. Firmware versions that have been fully qualified with the Analyst 1.5.1 software are listed without parentheses. Versions shown in parentheses have functioned acceptably in more limited testing.

In most cases, more recent firmware versions from the device manufacturer will work with the Analyst 1.5.1 software. If you encounter difficulties, change the device firmware to the version listed in this table. For information on checking and upgrading firmware, see the documentation provided by the peripheral device manufacturer. For information on installation and configuration of peripheral devices, see the *Peripheral Devices Setup Guide*.

Table B-1 Agilent 1200 series

Peripheral Device	Tested Firmware (and Other Firmware)	Communication Cable Required
Isocratic Pump	A.06.02	WC024736
Quaternary Pump	A.06.02	WC024736
Binary Pump	A.06.02 A.06.04	WC024736
Binary SL Pump	A.06.02 A.06.04	WC024736
Capillary Pump	A.06.02	WC024736
Nanoflow Pump	A.06.02	WC024736
Standard Autosampler	A.06.02	WC024736
High Performance Autosampler	A.06.02 A.06.04	WC024736
High Performance Autosampler SL	A.06.02 A.06.04	WC024736
Micro Well-plate Autosampler	A.06.02	WC024736
TCC – Thermostatted Column Compartment	A.06.02	WC024736

Table B-1 Agilent 1200 series (cont'd)

Peripheral Device	Tested Firmware (and Other Firmware)	Communication Cable Required
TCC SL – Thermostatted Column Compartment	A.06.02	WC024736
DAD – Diode Array Detector	A.06.02	Ethernet
DAD SL – Diode Array Detector SL	B.01.02	Ethernet

Table B-2 Agilent 1100 series

Peripheral Device	Tested Firmware (and Other Firmware)	Communication Cable Required
Binary Pump	A.05.06, 4.11 A.05.11	WC024736*
Quarternary Pump	A.04.11 (5.04) A.05.11	WC024736
Isocratic Pump	A.04.11	WC024736
Capillary Pump	A.04.11	WC024736
Nano Pump	A.05.06, 5.04 (5.05)	WC024736
Standard Autosampler	A.04.10 (5.04) A.05.11	WC024736
* WC024736 is a Standard Null Modem cable DB9/DB9 female		
Micro Autosampler	A.05.04 (4.10)	WC024736
Well-plate Autosampler	A.05.07, 4.14 (5.02)	WC024736
Micro Well-plate Autosampler	(A.05.09, 4.14)	WC024736

Table B-2 Agilent 1100 series (cont'd)

Peripheral Device	Tested Firmware (and Other Firmware)	Communication Cable Required
Thermostatted Column Compartment	A.05.06, 4.11 (5.05)	WC024736
DAD – Diode Array Detector	A.05.06 (5.09, 4.11)	Ethernet/GPIB
DAD – Diode Array Detector SL	B.01.01	Ethernet

Table B-3 CTC

Peripheral Device	Tested Firmware (and Other Firmware)	Communication Cable Required
HTS PAL Autosampler	2.4.0, 2.3.6	WC024736
HTC PAL Autosampler	2.3.6	WC024736
LC PAL Autosampler	2.3.6	WC024736

Table B-4 Gilson

Peripheral Device	Tested Firmware (and Other Firmware)	Communication Cable Required
215 Autosampler	2.20	WC024735**
with 819 Valve	1.00	Gilson GSIOC
233 Autosampler	BV1.11	WC024735
with 402 Syringe	SV1.10 (SV2.3)	Gilson GSIOC

Table B-5 Harvard

Peripheral Device	Tested Firmware (and Other Firmware)	Communication Cable Required
Harvard	22 Syringe Pump	22.90
** WC024735 is a Standard Modem cable DB25 male/DB9 female.		

Table B-6 LC Packings

Peripheral Device	Tested Firmware (and Other Firmware)	Communication Cable Required
UltiMate Integrated System	5.06 (6.00)	Cables available from LC Packings
Famos Autosampler (Well-plate)	2.02	Cables available from LC Packings
Famos Autosampler (Carousel)	1.14	Cables from LC Packings

Table B-7 PE Series 200

Peripheral Device	Tested Firmware (and Other Firmware)	Communication Cable Required
Autosampler	1.08	WC024737
Column Oven	1134	WC024736
Micro Pump	2.43	WC024736
Quaternary Pumps	2.43	WC024736

Table B-8 Shimadzu

Peripheral Device	Tested Firmware (and Other Firmware)	Communication Cable Required
SCL-10Avp System Controller	5.40 (5.33)	WC024736
SIL-10ADvp Autosampler	5.32	All other Shimadzu devices require 2-pin optical cables to connect to the System Controller. These are available from Shimadzu.
SIL-HTA Autosampler	6.02	
SIL-HTC Autosampler	6.02 (6.03)	
SIL-20ACXR Autosampler	1.20 or later	
SIL-20AXR Autosampler	1.20 or later	
LC-6AD Pump	1.4	—
LC-8A Pump	1.5	—
LC-10AD Pump	3.1	—
LC-10AS Pump	3.1	—
LC-10AT Pump	3.1	—
LC-10Ai Pump	3.1	—
LC-10ADvp Pump	5.27, (5.25, 5.26)	—
LC-10ATvp Pump	5.27	—
LC-20ADXR Pump	1.20 or later	—
CTO-10A[C] Column Oven	3.0	—
CTO-10Avp Column Oven	5.24	—
CTO-10ACvp Column Oven	5.24	—
CTO-10ASvp Column Oven	5.24	—
SPD-10A Detector	3.0	—

Table B-8 Shimadzu (cont'd)

Peripheral Device	Tested Firmware (and Other Firmware)	Communication Cable Required
SPD-10Ai Detector	3.0	—
SPD-10AV Detector	3.0	—
SPD-10AVi Detector	3.0	—
SPD-10Avp Detector	5.22	—
SPD-10AVvp Detector	5.23 (5.22)	—
OptionBox-L Subcontroller	3.2	—
SubcontrollerVP	5.20	—
FCV-12AH Valve	N/A	—
FCV-13AL Valve	N/A	—
FCV-14AH Valve	N/A	—
CBM-20 A with Ethernet Switch (system controller with 8 fiber optic ports)	1.06 1.05 or later	—
CBM-20 A Lite with Ethernet Switch (system controller with 4 fiber optic ports; installs onto pump or autosampler)	—	—
LC-20AD Solvent Delivery Unit	1.07 1.04 or later	—
LC-20AB Binary Solvent Delivery Unit	—	—
LC-20AT Solvent Delivery Unit	—	—
SIL-20A Autosampler	—	—

Table B-8 Shimadzu (cont'd)

Peripheral Device	Tested Firmware (and Other Firmware)	Communication Cable Required
SIL-20AC Autosampler	1.04 or later	—
Rack Changer	—	—
Rack Changer C	—	—
CTO-20A Column Oven	—	—
CTO-20AC Column Oven	1.04	—
SPD-20A UV-VIS Detector	—	—
SPD-20AV UV-VIS Detector	1.03	—

Table B-9 Spark-Holland

Peripheral Device	Tested Firmware (and Other Firmware)	Communication Cable Required
Endurance Autosampler	2.05	Requires Analyst® Software Driver Kit p/n 0920-768 from Spark (sales@spark.nl)

Table B-10 Valco

Peripheral Device	Tested Firmware (and Other Firmware)	Communication Cable Required
2 Position Valve	1-PD-EPX88RL	—

Notes on Firmware for Agilent Users

It is recommended that Agilent users use the most recently distributed firmware from Agilent. Due to Agilent's frequent

firmware release schedule, AB SCIEX cannot test all firmware on all devices in all Analyst software versions, but Agilent's releases are backward-compatible. If a problem occurs, downgrade the firmware indicated in the previous table. Agilent CAN support requires that all firmware in the CAN-linked stack be of the same major revision (4.×, 5.×, etc.).

Peripheral Devices Controlled via AAO Software Interface

The Analyst Access Object (AAO) is an interface to the Analyst software that allows peripheral device vendors to develop device control software that can be plugged into the Analyst software to enable integrated LC/MS control.

Vendors that have released AAO software are listed below. For additional information, contract vendors directly.

- Alcott Chromatography
- Cohesive Technologies
- Dionex Corp.
- Eksigent Technologies
- ESA Inc.
- Flux Instruments AG
- Jasco Inc.
- Leap Technologies
- Maylab Analytical Instruments
- Shimadzu
- Shiseido Co. Ltd.
- Spark Holland
- Waters Corp.

This section provides the steps for configuring the Intel Pro 1000/PT Dual Port Ethernet card.

To configure the card

Note: This procedure assumes that you are using a T3400 or Optiplex 960 workstation. For other computer systems, screens and steps might vary slightly.

1. On the Windows desktop, click **Start** > **Control Panel** > **Network and Internet Connections**.

   The Network and Internet Connections screen appears.

2. Click **Network Connections**.

   The Network Connections dialog box appears.

3. Right-click **Local Area Connection 2 or 3**.

4. Select **Properties**.

   The Local Area Connection 2 (or 3) Properties dialog box appears.
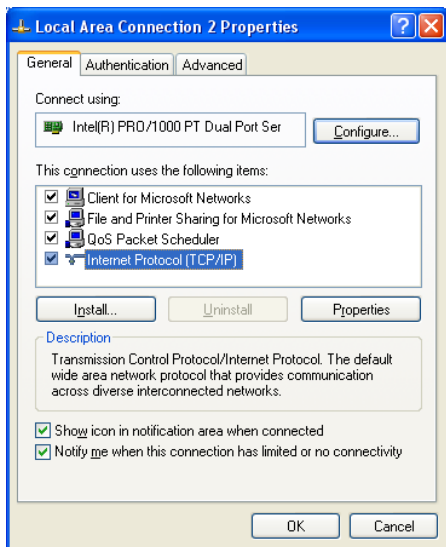
5. Click **Internet Protocol**.
6. Click **Properties**.

   The Internet Protocol dialog box appears.
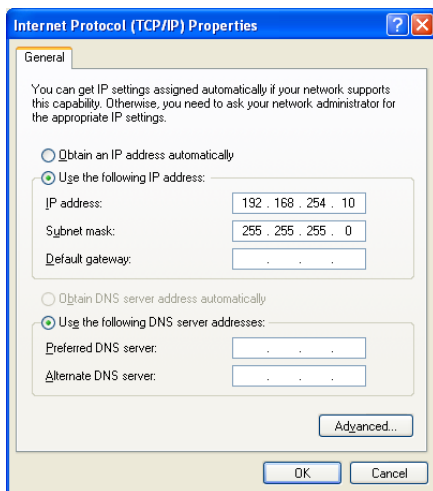
7. Select **Use the following IP address**.
8. In the IP address field, type the default IP address.
9. Press TAB.

   The Subnet mask field is automatically filled.

10. Click **OK**, and then close the Local Area Connection 2 (or 3) Properties dialog box.

To check the DAD settings

1. Make sure that the DAD unit is connected to the Ethernet Port A (if using Local Area Connection 2) or Port B (if using Local Area Connection 3).

2. On the back of the DAD unit, check the Initializing Mode switches. The switches should be set as follows: SW 6 OFF, SW 7 ON, SW 8 ON. For more information, see the Agilent 1200 Series Diode Array and Multiple Wavelength Detector SL User Manual.

3. Make sure that the DAD is using the default LAN settings (IP address 192.168.254.11).

4. To confirm the connection between the workstation and the DAD, from Windows, click **Start**, and then select **Run**.

The Run dialog box appears.

5. In the **Open** box, type ping 192.168.254.11-t, and then click **OK**.

    • If you receive the message: "Request Timed Out" the communication has failed. Check your connections, IP settings, and cables, and then repeat steps 1 to 5.

    • If you receive the message: "Reply from 192.168.254.11" the communication is successful. Continue to step 6.

6. Using the Analyst® software, add the DAD to a hardware profile. For more information, see the operator's guide that comes with the instrument.

This section provides the steps for upgrading the driver software for the optional National Instruments ADC card.

Upgrading the Driver Software for the ADC Card

Follow the procedure below to upgrade the driver software for the National Instruments ADC card, if desired.

The Analyst® 1.5.1 software requires version 8.3 of the driver software for the National Instruments ADC card. Install the NI-DAQ 8.3 from the accompanying CD or download it from the National Instruments Web site. This file is over 500 MB. To download this file, start Internet Explorer and then copy http://joule.ni.com/nidu/cds/view/p/id/293/lang/en.

To determine if the ADC card is installed

1. On the Windows desktop, click **Start** > **Control Panel**.
2. Click **Administrative Tools**.
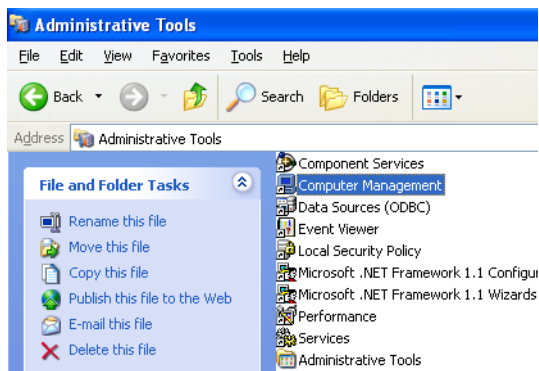
3. Click **Computer Management**.
4. Expand **System Tools**, and then click **Device Driver**.
5. If present, expand **Data Acquisition Devices**.
6. In the list of installed software, look for **PCI-6032 or PCI-6259** and then do one of the following:
   - If you see either of these entries, complete the steps in the following procedures.
   - If you do not see either of these entries, you do not have the ADC card installed and do not need to update the driver.

To remove the existing device

1. Right click **PCI-6032 or PCI-6259**, and then click **Uninstall**.
   A confirmation message appears.

2. Click **OK**.

3. Close the Computer Management window to return to the Control Panel.

4. Click **Add or Remove Programs**.

5. Click **National Instruments Software**, and then click **Change**.

6. On the National Instruments Software panel, click **NI-DAQ 7.1 Traditional**, and then click **Remove**.
   A confirmation message appears.

7. Click **Yes**.
   A message appears prompting you to restart the computer.
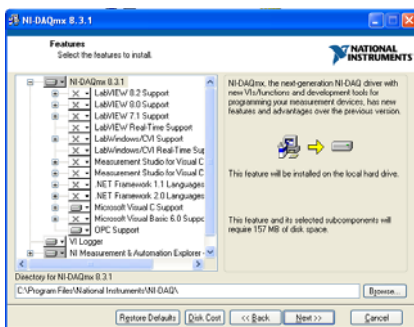
8. Click **No**.

To update the driver

1. Navigate to the folder where the new NI-DAQmx 8.3 software has been extracted. If the software is not on your computer, download the file http://joule.ni.com/nidu/cds/view/p/id/293/lang/en.

2. Double-click **Setup.exe**.
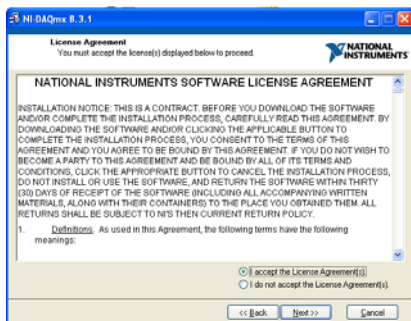   The Product Information window appears.
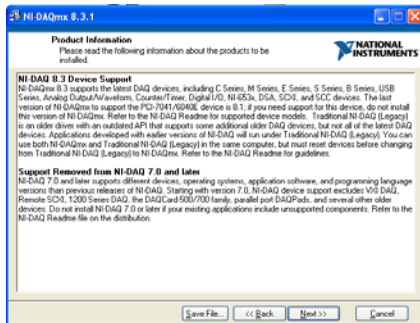
3. Click **Next**.
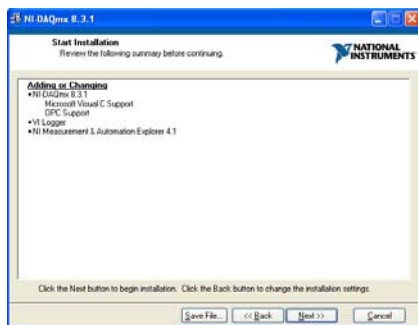   The Destination Directory window appears.
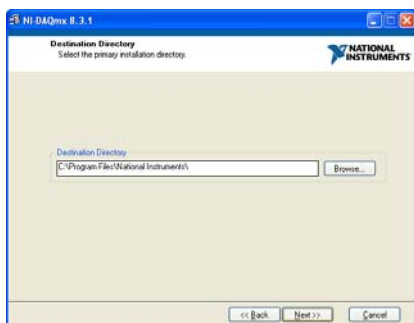
4. Click **Next**.
   The Features window appears.

5. Accept the default by clicking **Next**.
   The License Agreement window appears.

6. Click **I accept the license agreement**, and then click **Next**.
   The Start Installation window appears.

7. Click **Next**.
   When the installation is complete, the Completion window appears.

8. Click **Next**.
   You are prompted to restart your computer.

9. Click **Restart**.
   When the computer restarts, an NI Product Registration window appears. Registration is optional and is not required to continue.
   The Found New Hardware Wizard appears prompting you to connect to Windows Update to search for a new driver.

10. Select **No, not this time**.

11. When prompted for the location of the new software, select **Install the software automatically (Recommended)**, and then click **Next**.

    After the installation is complete, the Completion window appears.

12. Click **Finish**.

   The ADC card driver is now installed.

This section provides the steps for upgrading the driver software for the optional National Instruments GPIB card.

Upgrading the Driver Software for the GPIB Card

1. If you did not deactivate the active hardware profile at the beginning of this upgrade procedure, do so now.
2. Open the Windows Control Panel.
3. Double-click **Add/Remove Programs**.
4. From the list of installed software, click **NI-488.2 2.x**.
5. Click **Change**.

   The Add/Remove Application window appears.
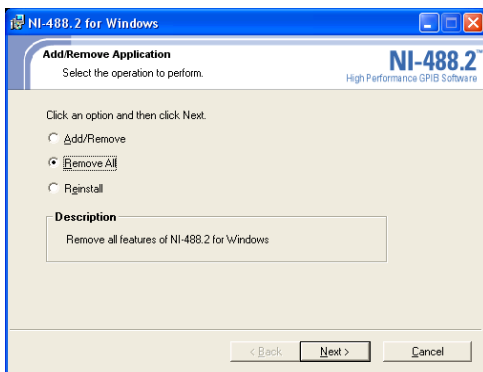
6. Select **Remove All**, and then follow the on-screen instructions to remove the software.
7. Click **Finish** when the wizard completes.
8. Make sure the Analyst® 1.5.1 software DVD is in the DVD drive.
9. Browse to the Drivers folder.
10. In the GPIB 2.5 folder, click Setup.exe and then follow the instructions in the installation wizard to install the driver.
11. Register the software and then click **Finish**.
12. If the computer does not restart automatically, restart the computer and log on to the computer as a user with local administrator privileges.

AB SCIEX

Several documents are installed along with the Analyst® 1.5.1 software to help you in your work. The following table provides a list of available documents and where they can be found after you have installed the software.

Start Menu: All Programs > AB SCIEX

- Software Guides
- Tutorials
- Hardware Guides
- Safety Guides
- Site Planning Guides
- Qualified Maintenance Guides

Application Folder: <drive>:\Program Files\Analyst\Help\

- Software Guides
- Tutorials
- Hardware Guides
- Safety Guides
- Site Planning Guides
- Qualified Maintenance Guides

Table F-1 Software Documentation

Document	Description
Getting Started Guide	Provides procedures for setting up and using the Analyst® software to create methods, acquire samples, and analyze data.
Software Reference Guide	Describes the features and functionality of the Analyst software.
Laboratory Director's Guide	Describes the security functionality of the Analyst software.
Scripts User Guide	Provides procedures for installing and using the Analyst software scripts.
Manual Tuning Tutorial	Provides procedures for manually tuning your instrument.
Manual Optimization Tutorial	Provides procedures for manually optimizing the instrument for a particular analyte.

Table F-1 Software Documentation (cont'd)

Document	Description
Automatic Optimization Tutorial	Provides procedures for using Compound Optimization to optimize the instrument for a particular analyte.
IDA Tutorial	Provides procedures for using the IDA Method Wizard to create an IDA experiment.
Scheduled MRM™ Algorithm Tutorial	Provides procedures for using the *Scheduled* MRM™ algorithm feature.
Analyst Software Show Me	Provides an introduction and describes basic functionality of the Analyst software.
Peripheral Devices Setup Guide	Provides procedures for connecting peripheral devices to the computer and instrument.
Standard Quantitation Tutorial	Provides procedures for creating a method that can be used to obtain a quantitation curve using prepared standards.
Peptide and Protein Quantitation Tutorial	Provides procedures for creating methods that you can use for peptide and protein quantitation.

Table F-2 Instrument Documentation

Document	Description
Hardware Guide	Provides information about the instrument.
Safety Practices	Provides information in six languages about instrument safety as well as safety requirements for the laboratory.

Table F-2 Instrument Documentation (cont'd)

Document	Description
Qualified Maintenance Procedures	Provides procedures for cleaning and maintaining the instrument. **Note**: Only trained operators should perform any cleaning or maintenance procedure.
Site Planning Guide	Provides information about how to prepare the site as well as materials required for installing the instrument.
Ion Optics Tutorial	Provides information about the instrument ion optics.