Software Installation Guide

SCIEX OS Software 4.2

TPUB-CUST-16066-B

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Contents

Introduction 1

This guide supplies information about, and procedures for, the installation of the SCIEX OS software 4.2, the integrated vertical applications, and the Central Administrator Console (CAC) software. The guide also includes information about supported devices and firmware and tips for troubleshooting the installation.

For information about new software features, enhancements, and known issues, refer to the document: *Release Notes*, which is included with the software package.

Important Information to Know Before Installation

Read this guide before installation or upgrade of the SCIEX OS software.

Note: Back up the data folders for the SCIEX OS software to a safe location before an upgrade. For more information, refer to the section: Back up the Data Folders to a Safe Location. These folders contain the device configurations, security data, methods, and batches.

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

- The SCIEX OS software uses electronic licensing. For license activation, refer to the section: Electronic Licensing.
- All versions of the SCIEX OS software require a valid software license. These licenses are provided with new instrument purchases and can also be purchased separately from SCIEX. For information about the validity of the current license or about purchasing additional licenses, contact a SCIEX sales representative or Technical Support through sciex.com/request-support.

  Note: In addition to a license for the SCIEX OS software, licenses for optional modules and features might be required.

- Data files acquired with the SCIEX OS software 4.2 cannot be opened in earlier versions of the SCIEX OS software. However, data acquired in earlier versions of the SCIEX OS software can be opened in the SCIEX OS software 4.2.
- Results Tables created in the SCIEX OS software 4.2 cannot be opened in earlier versions of the SCIEX OS software. However, Results Tables created in earlier versions of the SCIEX OS software can be opened in the SCIEX OS software 4.2.

- All devices supported in earlier versions of the SCIEX OS software continue to be supported in the SCIEX OS software 4.2. Some devices might require firmware upgrades. Refer to the section: Devices and Firmware.
- The SCIEX OS software 4.2 is available as a web download package. If a DVD is required, then contact a local sales representative.
- If the SCIEX OS software will be installed on a computer with the Analyst or Analyst TF software, then deactivate the hardware profile and close the Analyst or Analyst TF software before the start of the installation.
- For more information about the compatibility of the SCIEX OS software with other software applications, refer to the section: Compatible Software.

Requirements 2

Computer Requirements

Acquisition Computer

Recommended Computers Available from SCIEX

Note: Only the SCIEX Workstation - 5860 and SCIEX Workstation Plus - 5860 are supported with the ZenoTOF 8600 system.

- SCIEX Workstation - 5860 or Workstation Plus - 5860, with:
  - An Intel Xeon W3-2435 processor (8 core, 16 threads, 3.1 GHz)
  - 32 GB (2 × 16 GB) 4800 MHz or 5600 MHz DDR5 RDIMM ECC
  - SCIEX Workstation - 5860: 2 × 1 TB SSD (RAID)
  - SCIEX Workstation Plus - 5860: 2 × 2 TB SSD (RAID)
  - Windows 11 LTSC 2024, Windows 10 (64-bit) LTSC 2021, English operating system only
- SCIEX Workstation or Workstation+, with:
  - An Intel Xeon W-2245 processor (8 core, 16.5 MB cache, 3.9 GHz, 4.7 GHz Turbo HT 16.5 MB, 155W DDR4-2933, with NVIDIA P400 or T400)
  - 32 GB (2 × 16 GB) DDR4 3200 MHz RDIMM ECC
  - SCIEX Workstation: 2 × 1 TB SSD (RAID1)
  - SCIEX Workstation+: 2 × 2 TB SSD (RAID1)
  - Windows 11 LTSC 2024, Windows 10 (64-bit) LTSC 2021, English operating system only

Note: Newer computer models might become available. Consult the local sales representative for the latest information.

Note: At least two Ethernet port connections must be available.

Supported Computers Available from SCIEX

- SCIEX Alpha Workstation 2020, with:
  - An Intel Core I5-8500 processor (6 core, 9 MB cache, 3.0 GHz, 4.1 GHz Turbo, with HD Graphics 630)
  - 32 GB (2 × 16 GB) DDR4 2666 MHz UDIMM Non-ECC
  - 2 × 2 TB HDD (RAID1)
  - Windows 10 (64-bit), version 1809 LTSC, English operating system only

Note: At least two Ethernet port connections must be available.

Processing Computer

For the processing computer, we recommend the use of the SCIEX-supplied computers shown in the section: Acquisition Computer. However, if a different computer meets the requirements in the table that follows, then it can be used.

Table 2-1 Requirements for the Processing Computer

Specification	Requirements
Processor	Intel Xeon W3-2435, 22.5 MB, 8 cores, 3.0 GHz to 4.5 GHz
RAM	32 GB DDR4, 3200 MHz
Data storage	Nominal mass systems: 2 × 1 TB Raid 1, NVMe SSD, Class 40 Accurate mass systems: 2 × 2 TB Raid 1, NVMe SSD, Class 40
Operating system	Windows 11 LTSC 2024, Windows 10 (64 bit), version LTSC 2021, 1809 LTSC, 20H2, 21H2, or 22H2. English, French, German, and Italian operating systems are supported.

CAC Software

Note: The Central Administrator Console (CAC) software cannot be installed on the same computer as the SCIEX OS software.

For the server for the CAC software, we recommend the use of the SCIEX-supplied computers shown in the section: Acquisition Computer. However, if a different computer meets the requirements in the table that follows, then it can be used.

Table 2-2 Requirements for the Server for the CAC Software

Specification	Requirements
Processor	Multicore processor (with 64-bit support), 3 GHz

Table 2-2 Requirements for the Server for the CAC Software (continued)

Specification	Requirements
RAM	8 GB, 32 GB recommended
Data storage	1 TB SSD minimum
Operating system	Windows 11 LTSC 2024, Windows 10 (64 bit), version 1809 LTSC, 20H2, or 21H2; Windows Server 2019 and later. English operating system only.

Windows Requirements

Table 2-3 Windows Settings

Setting	Value
Windows display language	**English (United States)**
Regional format	**English (United States)**, **French (France)**, or **German (Germany)**
System Restore	(Recommended) **Disabled**
Windows Update	**Notify only**

Note: The SCIEX OS software cannot be installed or used on a computer with Federal Information Processing Standards (FIPS) enabled (**System cryptography: Use FIPS compliant algorithms for encryption, hashing, and signing**).

Note: Every SCIEX computer is configured with a local Administrator-level account, **abservice**. This account is used by SCIEX service and technical support to install, service, and support the system. Do not remove or deactivate this account. If the account must be removed or deactivated, then prepare an alternate plan for SCIEX access, and communicate it to the local FSE.

Network Requirements

Note: For information about the network security requirements for network acquisition, refer to the document: *Laboratory Director Guide*. This document is in the `Install\ProductSpecificDocumentation` folder in the installation package for the SCIEX OS software.

Software Updates Feature

The Software Updates feature has the following additional requirements:

- Outbound connectivity that uses the HTTPS protocol on port 443 is enabled.
- The firewall lets outbound communications be sent from the SCIEX OS software to Amazon Web Services (AWS), including: https://sciexos.com.
- Transport Layer Security (TLS) 1.2, or later, is installed.

Contact the local network administrator to make sure that these requirements are obeyed.

The Software Updates feature in this version of the SCIEX OS software does not support communication to the Internet through a corporate proxy server. If a proxy server is used, then an error is shown when the user clicks **Check for updates** on the Software Updates page.

CAC Software

- The Central Administrator Console (CAC) software uses TCP ports 63333 and 44144 for communication with the SCIEX OS software.
  - The CAC server is open for inbound traffic on port 63333, and it is open for outbound traffic on ports 44144 and 63333.
  - The computer with the SCIEX OS software is open for inbound traffic on ports 63333 and 44144, and it is open for outbound traffic on port 63333.
- If the **Access this computer from the network** security policy has been changed to put limitations on access, then we recommend that these steps be done:
  1. Create an Active Directory Organizational Unit (OU) that contains all of the workstations that have the SCIEX OS software or CAC software installed. All of the workstations must be in the same OU.
  2. Apply the Group Policy Object (GPO) to the OU that supplies unrestricted communication between all of these workstations.

To configure the Windows firewall for use with the CAC software, refer to the section: Configure Windows Firewall.

Note: The CAC software supports cross-domain users. All of the users do not have to be in the same Active Directory domain.

Software Requirements

For full functionality of the Reporter software 3.2 (to open, create, and edit report templates and create reports in `pdf`, `html`, `docx`, `csv`, or `txt` format), Microsoft Office 2016, 2019, or 2021, 32 bit or 64 bit, is required.

Note: If Microsoft Office is not installed, then reports can be created in the **Word** and **Text** formats.

Note: The SCIEX OS software can be installed on a computer with Microsoft Office 365. In this configuration, users can create and open reports with the SCIEX OS software, but they cannot edit report templates.

Note: Acquisition and processing computers with the Windows 10 or 11 LTSB/LTSC operating systems are not compatible with Microsoft Office 365.

Licensing Requirements

The SCIEX OS software 4.2 requires activation with a valid SCIEX OS software 4.2 license file. The license file controls the features and applications that are available, such as acquisition or processing. Additional license files might be required for optional features, such as CFR, scout triggered MRM (stMRM) acquisition, and the Molecule Profiler software.

For the SCIEX OS software, both node-locked and server-based licenses are available. For the Central Administrator Console (CAC) software, only node-locked licenses are available.

Compatible Systems

The following sytems are compatible with the SCIEX OS software 4.2.

Table 2-4 Supported Mass Spectrometers and Ion Sources

Mass Spectrometer	Supported Ion Sources
X500R QTOF or X500B QTOF system	Turbo V ion source
ZenoTOF 7600 system	Turbo V ion source OptiFlow ion source
ZenoTOF 7600+ system	Turbo V ion source OptiFlow ion source
Echo® MS+ system with the ZenoTOF 7600 system or ZenoTOF 7600+ system	Turbo V ion source OptiFlow ion source
ZenoTOF 8600 system	OptiFlow Pro ion source
Echo® MS+ system with the ZenoTOF 8600 system	OptiFlow Pro ion source
SCIEX 4500 system and SCIEX 4500MD system[1]	Turbo V ion source

Table 2-4 Supported Mass Spectrometers and Ion Sources (continued)

Mass Spectrometer	Supported Ion Sources
SCIEX 5500 system	Turbo V ion source OptiFlow ion source (Micro probe)
SCIEX 5500+ system	Turbo V ion source OptiFlow ion source (Micro probe)
SCIEX 6500 system	IonDrive Turbo V ion source OptiFlow ion source Turbo V ion source
SCIEX 6500+ system	IonDrive Turbo V ion source OptiFlow ion source Turbo V ion source
Echo® MS system with SCIEX Triple Quad 6500+ system	IonDrive Turbo V ion source OptiFlow ion source Turbo V ion source
Echo® MS+ system with SCIEX Triple Quad 6500+ system	IonDrive Turbo V ion source OptiFlow ion source Turbo V ion source
SCIEX 7500 system	OptiFlow Pro ion source
SCIEX 7500+ system	OptiFlow Pro ion source
Citrine system[1]	IonDrive Turbo V ion source

Compatible Software

The following applications are compatible with the SCIEX OS software 4.2.

Note: For information about software compatibility with Windows 10 or 11, refer to the documentation for the software.

[1] Product(s) not available in all countries. For information on availability, please contact your local sales representative or refer to sciex.com/diagnostics. All other products are For Research Use Only. Not for use in Diagnostic Procedures.

Note: If newer versions of the applications are available, then contact sciex.com/request-support to verify software compatibility.

Table 2-5 Compatible Software

Software Name	Additional Information
Biologics Explorer software 1.0, 1.1, 2.0, 3.0, 3.1, 4.0, 5.0.1, 6.0.3, 7.0.1, and 8.0	Use the tile on the Home page in the SCIEX OS software to get access to Biologics Explorer software 3.0, 3.1, and 4.0.
CloudConnect 1.8	The PeakView software 2.2 or later is required.
Intabio software 1.2	—
LibraryView software 1.8	The SCIEX OS software cannot be installed on the same computer as the LibraryView software 1.0.x or 1.1 to 1.4.
Molecule Profiler software 1.3.4	The Molecule Profiler software is a part of the installation package. For installation instructions, refer to the section: Install the SCIEX OS Software.
MarkerView software 1.4	The MarkerView software is a part of the installation package. For installation instructions, refer to the section: Install the SCIEX OS Software.
OneOmics suite 3.4	The PeakView software 2.2 or later is required.
ProMassProcessor 1.0	—
StatusScope remote monitoring service 2.2, 2.2.1, 2.2.2, 2.3, and 2.3.1	—
Instrument Settings Converter	Use the version supplied in the installation package for the SCIEX OS software.
SCIEX OS to Analyst Software Method Converter	Use the version supplied in the installation package for the SCIEX OS software.

Note: The SCIEX OS software can also be installed for data processing on the same computer as the Analyst software 1.6.3 or later and the Analyst TF software 1.7.1 or later.

Note: The SCIEX OS software is compatible with the data files that are acquired with the Analyst software 1.6.2, 1.6.3, and 1.7 or later, and the Analyst TF software 1.7.1 or later.

Note: The SCIEX OS software cannot be installed on the same computer as the Analyst Device Driver (ADD) software, ChemoView software, Cliquid software, MasterView software, or MPX software.

Installation Instructions 3

Note: To download the software, Internet access is required. To decrease the time that is required for the installation, we recommend that all of the required software and materials be downloaded before the scheduled installation.

Back up the Data Folders to a Safe Location

Before upgrading the SCIEX OS software, make a backup copy of these folders, and then save it to a safe location, such as a network drive or DVD:

- **`SCIEX OS Data`:** This folder contains all of the methods, batches, and data. By default, this folder is installed in `D:\SCIEX OS Data`.
- **`ProgramData\SCIEX`:** This folder contains all of the security and device configuration data.

  Note: This is a hidden folder. If it is not visible, then configure File Explorer to show hidden items.

If the backup software encounters locked files, then skip them.

Note: The backups are required to go back to the previous version of the SCIEX OS software. If the backups are not available, and the previous version of the SCIEX OS software is reinstalled, then the user must create all of the methods and configure security again.

Note: Do not change the name of the `ProgramData\SCIEX` folder. If the name of the folder is changed, then a new folder is created during installation, and the instrument tuning settings are not kept. Use the same `SCIEX OS Data` folder for the new version of the SCIEX OS software, to keep access to existing data, such as methods, batches, data, and Results Tables.

After the backup is complete, create a support package. For instructions, refer to the document: *Help*.

Install the SCIEX OS Software

Prerequisites
• Echo® MS systems and Echo® MS+ systems: Make sure that the correct firmware version is installed on the Echo® MS system or Echo® MS+ system. Refer to the section, Devices and Firmware. To upgrade the firmware version, contact SCIEX support. • Make sure that a license key for the SCIEX OS software 4.2 is available. For eligible customers, the license key is available in an e-mail from SCIEX Now and in the SCIEX Now account. If the license key is missing, then contact a SCIEX sales representative. • If a Windows Update is in operation, then wait until the update is completed. • If a restart is required after a Windows Update, then restart the computer before the start of the installation. • ExionLC 2.0 systems: If the SCIEX OS software will be used for acquisition on a computer that will also have the Analyst software 1.7.3, or the Analyst software 1.7.3 with HotFix 1 or 2 installed, then install the Analyst software and HotFixes, if applicable, before the SCIEX OS software. Analyst 1.7.3 HotFix 3 and the Analyst software 1.7.4 with HotFix 1 can be installed before or after the SCIEX OS software.

Note: The VC++2008 SP1 MFC Security Redistributable package is also required. If this package is not installed, then the installation program will install it. Do not remove the package. If the package is removed, then the SCIEX OS software will not operate correctly when an ExionLC 2.0 system is used.

Use this procedure to install the SCIEX OS software and the optional integrated applications, the MarkerView and Molecule Profiler software.

During the installation, the user selects the type of installation and the applications and features to be installed.

To install the CAC software, refer to the section: Install the CAC Software.

Note: The CAC software is a part of the installation package for the SCIEX OS software. However, the CAC software and the SCIEX OS software cannot be installed on the same computer.

Note: The installation program disables the System Restore task.

Note: To make changes to the installation after the installation completes, deactivate the devices in the SCIEX OS software before the use of the **Modify** option. Refer to the troubleshooting tips in the document: *SCIEX OS Supplement for Advanced Users*.

Note: Agilent systems: If an incompatibility error is shown during activation or configuration of Agilent LC devices, then remove the Agilent Instrument Control Framework (ICF).

1. Log on to the computer as a Windows user with Administrator privileges.
2. Make sure that all applications are closed.
3. Go to sciex.com/software-downloads, and then download the required `zip` file.

   Tip! To prevent installation issues, save the file to the local computer, in a different location than the desktop.

4. After the download is completed, extract the installation package: right-click **Extract All**, browse to the destination folder, and then click **Extract**.
5. Acquisition computers for TOF systems: Install the driver:
   - ZenoTOF systems: To remove the earlier version of the ADC driver and install version 1.5.4, browse to the `Drivers` folder of the installation package, and then double-click the `Ndigo_driver_v1.5.4.exe` file.
   - X500 QTOF systems: To remove the earlier version of the ADC driver and install version 1.1.1, browse to the `Drivers` folder of the installation package, and then double-click the `xTDC4_driver_v1.1.1.exe` file.
6. In the `Install` folder in the installation package, double-click the `Setup.exe` file.

7. Obey the on-screen instructions.

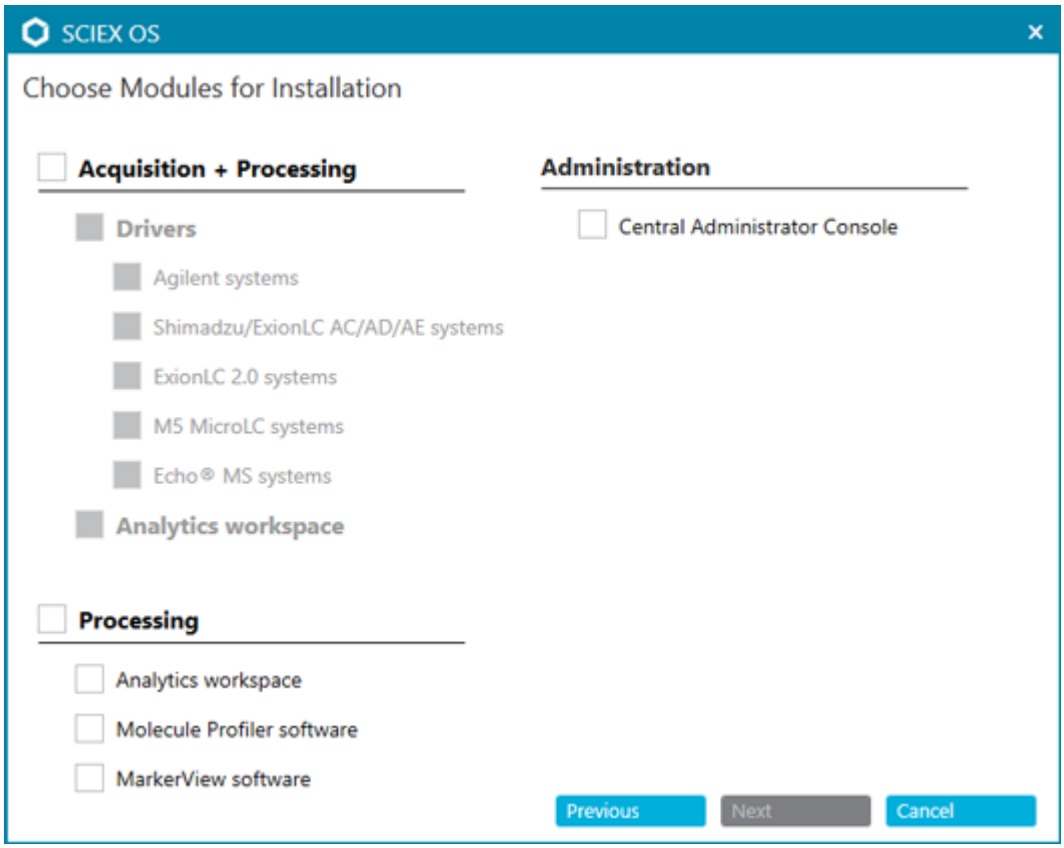
   During the installation, prompts to select the type of installation and the modules to be installed are shown.

   - **Acquisition + Processing**: Select this option to install the software on the acquisition computer. Select the **Analytics workspace** check box and the applicable drivers.

     Note: Selection of the **Analytics workspace** option in the Processing section is not required.

   - **Processing**: Select this option to install the software on a computer that is used only for data processing.
   - **Administration**: Select this option to install the Central Administrator Console (CAC) software. This software cannot be installed on the same computer as the SCIEX OS software. Refer to the section: Install the CAC Software.

   Figure 3-1 Choose Modules for Installation Dialog



Note: Make sure that the type of license is correct for the modules that are selected for installation. Licenses might be required for optional features and integrated applications.

Note: To prevent installation issues, install the software on a local drive. Do not install the software on a network or removable drive.

Note: To prevent installation issues, make sure that the path to the installation folder is 118 characters or less. If the path is longer than 118 characters, then installation will not continue.

Note: The installation program does a check to make sure that sufficient disk space is available for virtual memory. If sufficient space is not available, then a warning message is shown, and issues might occur with ZT Scan acquisition and acquisition of other large data files. Refer to the document: *ZT Scan DIA Best Practices*.

Note: ExionLC 2.0 systems: If the SCIEX OS software will be installed on a computer on which the Analyst software is used for acquisition, then do not install the drivers for the ExionLC 2.0 system during the installation of the SCIEX OS software.

Tip! If an upgrade to the .NET Framework is required, then a prompt for a computer restart is shown during the installation. Users have the option to continue with the restart immediately or to postpone the restart until later. However, installation does not continue until after the restart.

If the installation does not complete successfully, then use the SCIEX OS Installation Repair Tool to identify the issue. Refer to the document: *SCIEX OS Supplement for Advanced Users*.

8. Restart the computer.
9. (Optional) Use the SCIEX OS Installation Confirmation Tool to make sure that the software was installed correctly:
    a. From the Windows Start menu, select **SCIEX OS** > **Installation Confirmation Tool**.
    b. In the SCIEX OS Installation Confirmation Tool, click **Start verifying installed files**.
    c. After the analysis is completed, click **Print Report**, select a printer, and then click **Print**.
10. If the CAC software is used, then configure the Windows firewall on the computer. Refer to the section: Configure Windows Firewall.
11. Open the software.

12. Use the license key to activate the software, including optional features and integrated applications. Refer to the section: Electronic Licensing.

    Note: Supported accurate and nominal mass systems: If the license for the SCIEX OS (full version) or SCIEX OS-Q software 4.2 license includes licensing for the LibraryView software, then the LibraryView software must be installed separately.

    Note: In addition to the SCIEX OS software license, licenses might be required for optional features and integrated applications. Make sure to get and activate the licenses before trying to use these features.

13. (If required) For acquisition computers, use the FirmwareUpdater utility to update the MS firmware and instrument configuration tables. Refer to the section: FirmwareUpdater Utility.

    For a list of supported firmware versions, refer to the section: Mass Spectrometer Firmware Versions.

    Note: ZenoTOF 8600 systems: Do not use the FirmwareUpdater utility to update the firmware to APP_JUPITER_ICX64_v01_r03. A failure will occur. The update must be done by an FSE. If this version of the firmware is installed, then the FirmwareUpdater utility can be used to update the configuration table to the correct version for the SCIEX OS software 4.2.

    Note: To give users access to the SCIEX OS software, add them to the security database. Refer to the document: *Laboratory Director Guide* or *Help*.

Install the CAC Software

Prerequisites
• Make sure that a license key for the CAC software is available. The license key is available in an e-mail from SCIEX Now and in the SCIEX Now account. If the license key is missing, then contact a SCIEX sales representative. • If a Windows Update is in progress, then wait until the update is finished. • If a reboot is required after a Windows Update, then reboot the computer before beginning the installation.

Note: The CAC software can be installed on a computer that has the License Server software installed.

Note: The installation program disables the System Restore task.

Note: To make changes in the installation, deactivate the devices in the SCIEX OS software before using the **Modify** option. Refer to the troubleshooting tips in the document: *SCIEX OS Supplement for Advanced Users*.

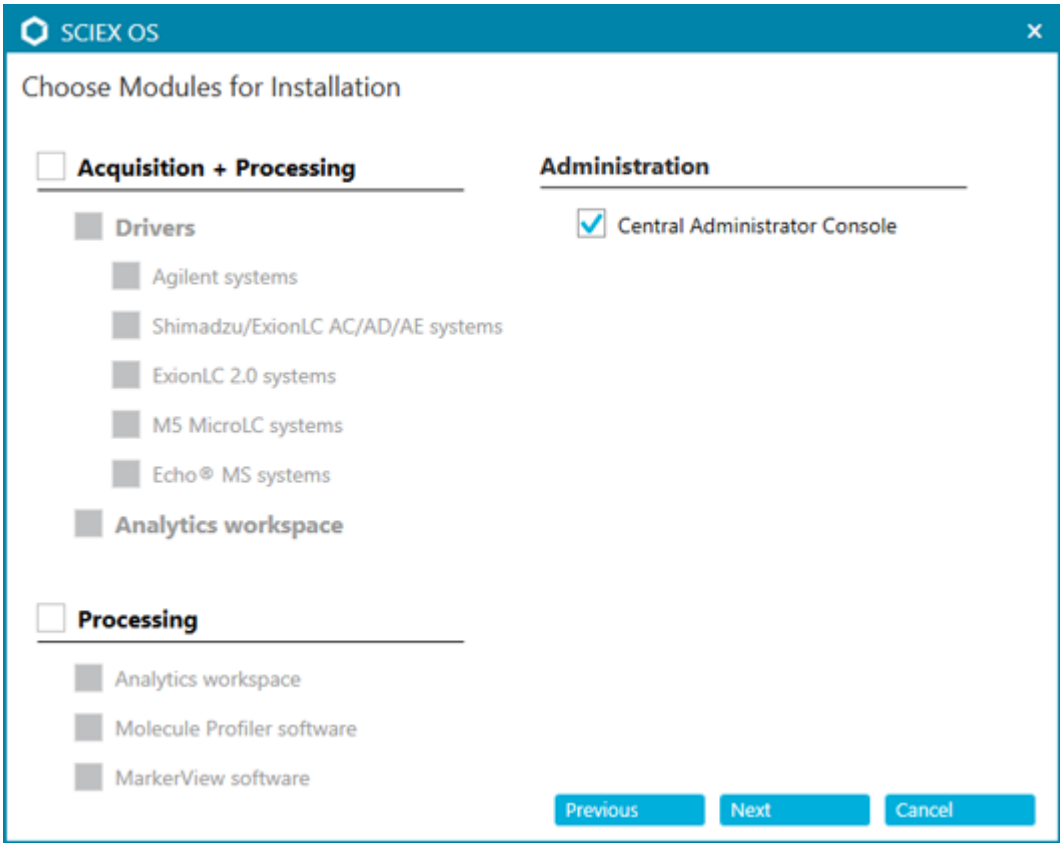
1. Log on to the computer as a Windows user with Administrator privileges.
2. Go to sciex.com/software-downloads, and then download the required `zip` file.

   Tip! To prevent installation issues, save the file to the local computer, in a different location than the desktop.

3. After the download is completed, extract the installation package: right-click **Extract All**, browse to the destination folder, and then click **Extract**.
4. Make sure that all applications are closed.
5. In the `Install` folder in the installation package, double-click the `Setup.exe` file.

6. Obey the on-screen instructions. On the Choose Modules for Installation dialog, select **Central Administrator Console**.

Figure 3-2 Choose Modules for Installation



Note: To avoid installation issues, install the software on a local drive. Do not install on a network or removable drive.

Note: To avoid installation issues, make sure that the path to the installation folder is 118 characters or less. If it is longer, then installation will not proceed.

Tip! If an upgrade to .NET is required, then a prompt for a computer restart is shown during the installation. Users have the option to continue with the restart immediately or select the option to postpone the restart until later. However, installation does not continue until after the restart.

If the installation does not complete successfully, then use the SCIEX OS Installation Repair Tool to identify the issue. Refer to the document: *SCIEX OS Supplement for Advanced Users*.

7. If prompted, then restart the computer after the software is installed.

   Note: A restart is recommended after the software is installed for the first time, even if no prompt is given. A restart is not required after software is installed again.

8. (Optional) Use the SCIEX OS Installation Confirmation Tool to make sure that the software was installed correctly:
   a. From the Windows Start menu, select **SCIEX OS** > **Installation Confirmation Tool**.
   b. In the SCIEX OS Installation Confirmation Tool, click **Start verifying installed files**.
   c. After the analysis is completed, click **Print Report**, select a printer, and then click **Print**.
9. Configure the Windows firewall on the CAC server. Refer to the section: Configure Windows Firewall.
10. Configure the Windows firewall on the computers with the SCIEX OS software. Refer to the section: Configure Windows Firewall.
11. Open the software.
12. Activate the software using the license key. Refer to the section: Electronic Licensing.
13. Configure the CAC software. Refer to the document: *CAC Help*.

    Note: The administration mode can be changed in the CAC software or SCIEX OS software. For instructions for configuring the administration mode in the SCIEX OS software, refer to the document: *SCIEX OS Software Help*.

Upgrade the Software

A new software license is required to upgrade from versions of the SCIEX OS software earlier than 4.2.

Upgrade SCIEX OS Software to Version 4.2 from Versions 1.4 or Later

Prerequisites
• Make sure that a license key for the SCIEX OS software is available. Eligible customers can also get an upgrade license key by clicking the **Upgrade Software** button on the Registered Software page in SCIEX Now. • If any Results Tables contain custom columns with the name **IF**, then change the column name. • In the SCIEX OS, tune the mass spectrometer, and then save the tuning settings. • Make sure that the versions of all vertical applications installed on the computer are supported. For supported versions, refer to the section: Compatible Software. If required, update the vertical applications before upgrading the SCIEX OS software. Refer to the section: Install Optional Vertical Applications. • If a Windows Update is in progress, then wait until the update is finished. • If a restart is required after a Windows Update, then restart the computer before beginning the upgrade. • ExionLC 2.0 systems: If the SCIEX OS software will be used for acquisition on a computer that will also have the Analyst software 1.7.3, or the Analyst software 1.7.3 with HotFix 1 or 2 installed, then upgrade the Analyst software and install the HotFixes, if applicable, before the upgrade of the SCIEX OS software. Analyst 1.7.3 HotFix 3 and the Analyst software 1.7.5 with HotFix 1 can be installed before or after the upgrade of the SCIEX OS software.

The installation program silently removes earlier software versions and the patches and HotFixes that are integrated in this version.

While installing the SCIEX OS software, the user selects the modules to be installed, such as **Molecule Profiler** or **Analytics**.

Note: The CAC software is a part of the installation package for the SCIEX OS software. However, the CAC and SCIEX OS software cannot be installed on the same computer.

Note: Agilent systems: If an incompatibility error is shown during activation or configuration of Agilent LC devices, then remove the Agilent Instrument Control Framework (ICF).

1. Deactivate all devices, and then close the SCIEX OS software.
2. Make sure that all other applications are closed.

3. Back up the `C:\ProgramData\SCIEX` folder. Refer to the section: Back up the Data Folders to a Safe Location.
4. For upgrades from SCIEX OS software 1.4: If the Audit Trail feature is being used, then do these steps to save the Workstation audit data:
   a. Browse to the folder, `C:\ProgramData\SCIEX`, and then create a folder named `Audit Data`. Give System, Users, and Administrators read and write access to the new folder.
   b. Browse to the folder, `SCIEX OS Data\common-project-area\Audit Data`, and then copy the following files:
      - `WorkstationAuditMap.atms`
      - `WorkstationAuditMapTemplates.atms`
      - `WorkstationAuditTrailData.atds`

      Note: By default, `SCIEX OS Data` is installed on `D:\`.
   c. Paste the files in the folder, `C:\ProgramData\SCIEX\Audit Data`.
5. Log on to the computer as a Windows user with Administrator privileges.
6. Acquisition computers: Do these steps:
   a. Open the currently installed SCIEX OS software.
   b. Open the MS Tune workspace.
   c. Click **Positive MS Tuning**.
   d. Click **Save Tuning Settings** in the left panel, and then click **Save settings**.
7. Back up the `SCIEX OS Data` folder. Refer to the section: Back up the Data Folders to a Safe Location.
8. Go to sciex.com/software-downloads, and then download the required `zip` file.

   Tip! To prevent installation issues, save the file to the local computer, in a different location than the desktop.
9. After the download is completed, extract the installation package: right-click **Extract All**, browse to the destination folder, and then click **Extract**.

10. Acquisition computers for TOF systems: Upgrade the driver:
    - ZenoTOF systems: To remove the earlier version of the ADC driver and install version 1.5.4, browse to the `Drivers` folder of the installation package, and then double-click the `Ndigo_driver_v1.5.4.exe` file.
    - X500 QTOF systems: To remove the earlier version of the ADC driver and install version 1.1.1, browse to the `Drivers` folder of the installation package, and then double-click the `xTDC4_driver_v1.1.1.exe` file.
11. Double-click **Setup.exe** in the installation package.
12. Follow the on-screen instructions. When prompted, select the modules to be installed.

    Tip! If an upgrade to .NET is required, then a prompt for a computer restart is shown during the installation. Users have the option to continue with the restart immediately or select the option to postpone the restart until later. However, installation does not continue until after the restart.

    Note: The installation program does a check to make sure that sufficient disk space is available for virtual memory. If sufficient space is not available, then a warning message is shown, and issues might occur with ZT Scan acquisition and acquisition of other large data files. Refer to the document: *ZT Scan DIA Best Practices*.

    If the upgrade does not complete successfully, then use the SCIEX OS Installation Repair Tool to identify the issue. Refer to the document: *SCIEX OS Supplement for Advanced Users*.
13. (Optional) Use the SCIEX OS Installation Confirmation Tool to make sure that the software was installed correctly:
    a. From the Windows Start menu, select **SCIEX OS** > **Installation Confirmation Tool**.
    b. In the SCIEX OS Installation Confirmation Tool, click **Start verifying installed files**.
    c. After the analysis is completed, click **Print Report**, select a printer, and then click **Print**.
14. For acquisition computers, use the FirmwareUpdater utility to update the mass spectrometer firmware and configuration tables, if required. Refer to the section: FirmwareUpdater Utility.

    For a list of supported firmware versions, refer to the section: Mass Spectrometer Firmware Versions.

    Note: ZenoTOF 8600 systems: Do not use the FirmwareUpdater utility to update the firmware to APP_JUPITER_ICX64_v01_r03. A failure will occur. The update must be done by an FSE. If this version of the firmware is installed, then the FirmwareUpdater utility can be used to update the configuration table to the correct version for the SCIEX OS software 4.2.
15. If required, install the ExionLC 2.0 system driver.

Upgrade from Earlier Versions of the SCIEX OS Software

To upgrade from versions of the SCIEX OS software earlier than version 1.4, remove the earlier version of the SCIEX OS software, and then install the new version.

1. Deactivate all devices and then close the SCIEX OS software.
2. Make sure that all other applications are closed.
3. Back up the `C:\ProgramData\SCIEX` folder. Refer to the section: Back up the Data Folders to a Safe Location.
4. In the Windows Apps & features control panel, remove the SCIEX OS software.
5. Install the SCIEX OS software 4.2. Refer to the section: Install the SCIEX OS Software.
6. Upgrade any vertical applications. Refer to the section: Install Optional Vertical Applications.

Migrate from the Analyst Software

Customers who use the Analyst software to acquire data from SCIEX 4500 systems, SCIEX 5500 systems, SCIEX 5500+ systems, SCIEX 6500 systems, and SCIEX 6500+ systems can upgrade to the SCIEX OS software, the new mass spectrometry software available from SCIEX. An onsite upgrade service is available from SCIEX. For more information, contact a sales representative or field service employee (FSE).

Prerequisites
• Complete the *SCIEX OS eLearning*, available at SCIEX Now Learning Hub. • Make sure that the acquisition computer meets the requirements for the SCIEX OS software. • Purchase the license for the SCIEX OS software.

Note: SCIEX does not support workflows that use both the Analyst and SCIEX OS software to acquire data from the same mass spectrometer.

1. Install the SCIEX OS software 4.2. Refer to the section: Install the SCIEX OS Software.

2. Use the Instrument Settings Converter to import the mass spectrometer settings from the Analyst software into the SCIEX OS software. Refer to the document: *Instrument Settings Converter Release Notes*.

   Tip! The release notes are in the `Instrument Settings Converter` folder in the installation package for the SCIEX OS software.

   Note: Use the version of the Instrument Settings Converter that is supplied in the installation package for the SCIEX OS software 4.2.

3. In the MS Method workspace in the SCIEX OS software, click **Open** > **Convert File**.
4. Import the MS methods that were made with the Analyst software and convert them to the format for the SCIEX OS software.

   Note: Only MS method information is converted. LC methods must be created manually in the SCIEX OS software.

5. Review the transferred settings in the SCIEX OS software to make sure that they are correct.

   Tip! Use the **Verify MS scans** option in the **MS Scan Tuning** procedure in the MS Tune workspace to review the settings. Expected results should be equivalent regardless of the control software that is installed.

Install Optional Vertical Applications

The integrated applications, the MarkerView and Molecule Profiler software, are installed with the SCIEX OS software. For instructions, refer to the section: Install the SCIEX OS Software.

Note: These applications are activated with a separate license file.

Install the following applications after installation of the SCIEX OS software:

- Biologics Explorer software
- LibraryView software

Note: For supported versions, refer to the section: Compatible Software.

Prerequisite Procedures
• Install the SCIEX OS Software

- Make sure that the SCIEX OS software is closed, and then install the optional applications.

Note: For instructions, refer to the documentation for the optional application: *Biologics Explorer Software Release Notes* or *LibraryView Software Installation Guide*.

Downgrade to Earlier Versions of the SCIEX OS Software

Do this procedure to downgrade from the SCIEX OS software 4.2 to the SCIEX OS software 1.6.1 or later. To downgrade to earlier versions of the SCIEX OS software, contact sciex.com/request-support.

1. In the Windows Apps & features control panel, remove the SCIEX OS software 4.2.
2. Remove the .NET Framework 4.8.
3. Remove all Microsoft C++ Redistributable packages from 2014 to 2019.
4. Install the earlier version of the SCIEX OS software.
5. Make sure that the version of the firmware that is installed on the mass spectrometer is correct for the version of the SCIEX OS software that is installed. To find the correct version, refer to the *Software Installation Guide* for the installed software.

Note: If the installation fails, then do the cleanup procedure. Refer to the document: *SCIEX OS Supplement for Advanced Users*.

Remove the SCIEX OS Software

Prerequisites
• Remove installed HotFixes for the SCIEX OS software.

1. Log on to the computer as a Windows user with Administrator privileges.
2. Click **Start** > **Control Panel** > **Programs and Features**.

Tip! If the control panel components are shown by **Category**, then click **Start** > **Control Panel** > **Programs** > **Programs and Features** > **Uninstall a program**.

3. Select **SCIEX OS**, and then click **Uninstall**.

   The software is removed. User intervention is not required.

Note: The license file is not removed and can be used if the SCIEX OS software is installed again.

FirmwareUpdater Utility 4

The SCIEX OS software requires that a supported firmware version be installed on the connected mass spectrometer. Use this utility to upgrade the firmware version on the mass spectrometer.

For a list of supported versions, refer to the section: Mass Spectrometer Firmware Versions.

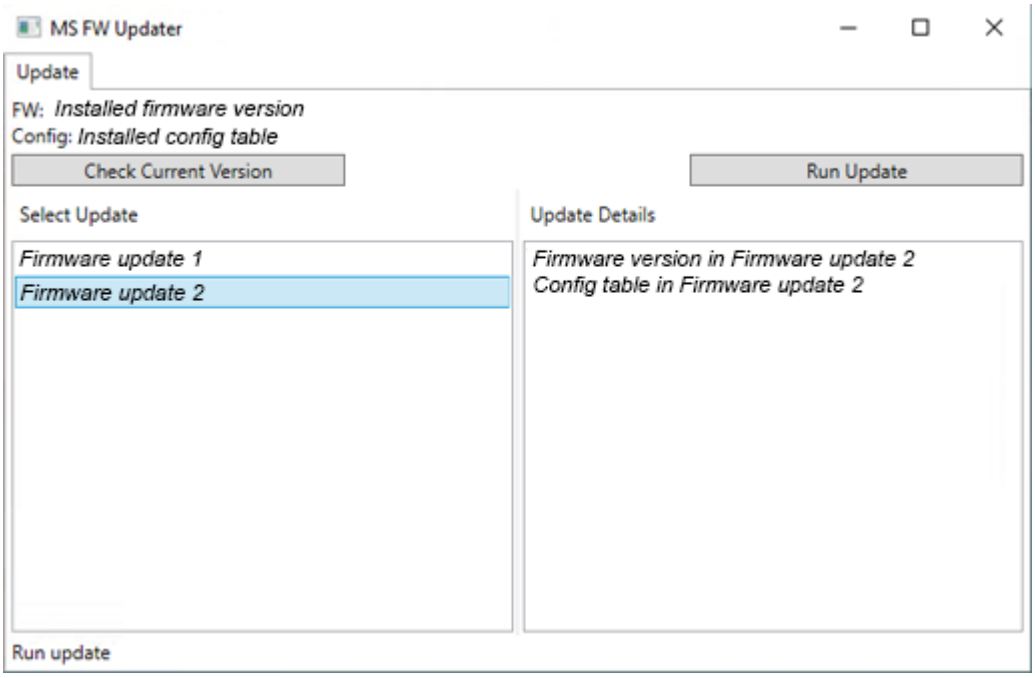
Note: ZenoTOF 8600 systems: Do not use the FirmwareUpdater utility to update the firmware to APP_JUPITER_ICX64_v01_r03. A failure will occur. The update must be done by an FSE. If this version of the firmware is installed, then the FirmwareUpdater utility can be used to update the configuration table to the correct version for the SCIEX OS software 4.2.

Prerequisites
• The SCIEX OS software 4.2 is installed. • The mass spectrometer is active in the Devices workspace. • The computer is connected to the mass spectrometer. • The user is logged on as an Administrator in Windows as well as an Administrator in the User database for the SCIEX OS software.

1. Stop all acquisitions and then clear the queue.
   Make sure that there are no samples waiting in the queue.
2. Close the SCIEX OS software.

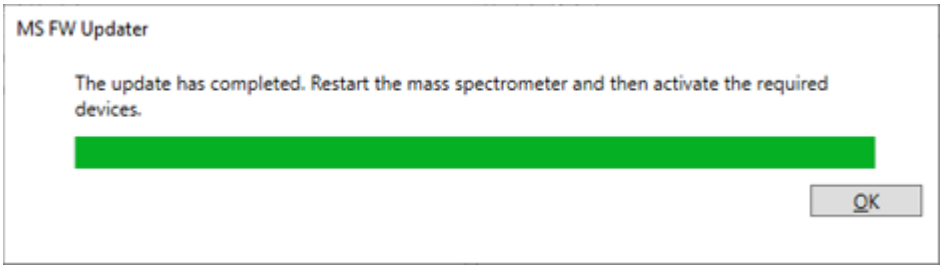
3. In the installation package for the SCIEX OS software, browse to the `\FirmwareUpdater\` folder, and then double-click the `MS FW Updater.exe` file.

Figure 4-1 FirmwareUpdater Utility



4. In the **Select Update** list, select the mass spectrometer and software version.
5. Click **Run Update** and then follow the on-screen instructions.

Figure 4-2 FirmwareUpdater Progress Bar



6. After the update completes, click **OK** on the progress bar, and then close the utility.

Note: The event log in the SCIEX OS software shows that the firmware was updated successfully.

7. Wait 30 seconds and then restart the mass spectrometer. Refer to the document: *System User Guide*.

8. Open the SCIEX OS software and then open the Devices page in the Configuration workspace.
   The mass spectrometer device has been deleted from the list.
9. Add the mass spectrometer to the Device list and then activate the required devices.

   The FirmwareUpdater utility can be used to go back to a firmware version that is supported by an earlier version of the SCIEX OS software. Start the Firmware Updater utility again, select the required version, and then click **Run Update**.

Electronic Licensing 5

The SCIEX OS software supports node-locked licensing for both acquisition and processing workstations. A node-locked license can only be used on one computer. Server-based licensing is only supported for processing workstations. Install the license files for the SCIEX OS software 4.2 and any optional features and applications in the `C:\Program Files\SCIEX\SCIEX OS` folder on the computer where the SCIEX OS software is installed.

Note: For the Central Administrator Console (CAC) software, only node-locked licensing is supported.

Note: Do not change the computer date and time after the license is activated. If the date and time are changed after the license is activated, then the software might not operate correctly.

Note: Do not change a node-locked license file. Changes to the license file make the license invalid. The license cannot be recovered.

Activate a Server-Based License

Note: This procedure is not applicable for the Central Administrator Console (CAC) software.

For a server-based license, contact the IT department to do the following tasks:

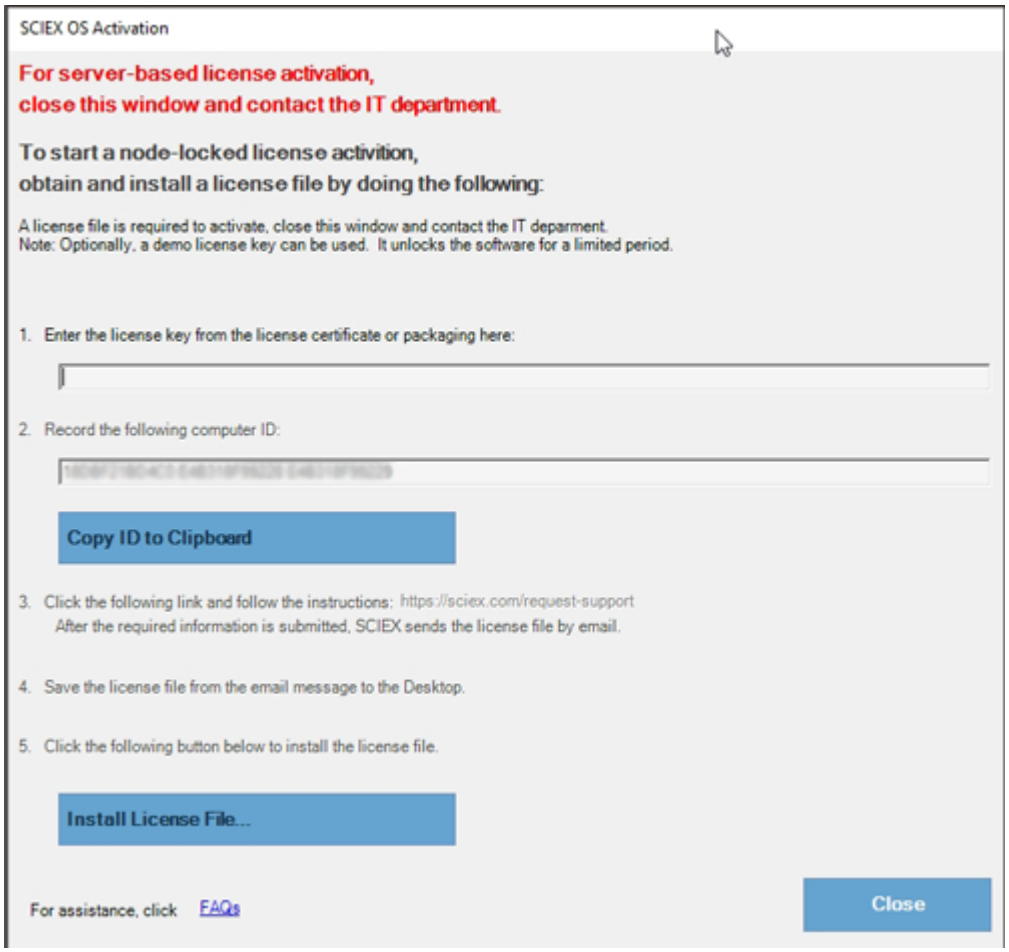
1. Set up a license server:
    a. Ask the IT department to download the `License-Server-Setup.zip` file. Go to sciex.com/software-downloads, and then click **Additional Downloads** > **License Server Setup** > **License Server Setup Software**.
    b. Follow the instructions in the *License Server Setup Guide* contained in the downloaded package.
2. Make a license file for the client computers.
3. Install the license file on each client computer where the SCIEX OS software is installed.

Activate a Node-Locked License

Prerequisites
• A license key is available.

1. On the desktop, double-click the SCIEX OS icon.

Figure 5-1 Activation Dialog



2. In the field for step 1, type the license key.

   The license key might be supplied on a printed activation certificate or in an e-mail from SCIEX Now. If the license key is missing, then contact a SCIEX sales representative.

   Note: The license key starts with *AID*, followed by 32 characters, which are 8 segments of 4-digit codes, separated by hyphens.

   After the license key is supplied, the **Copy ID to Clipboard** and **Install License File** buttons and the link in step 3 become available.

3. Click the link in step 3.
   The SCIEX Login web page opens.

4. To log on to a SCIEX account, click **Log In** or **Create an Account**.

   When logon or account creation is completed, the SCIEX software activation web page opens. The first name, last name, and e-mail address of the user are shown in the first three fields of the form.

5. If a license will be activated for the on a different computer, then type the applicable computer ID and license key.

   The computer ID is the MAC address of the network port that is used to connect the computer to the network.

6. If the **Computer ID** field is empty, then do this:

   a. In the Activation dialog, click **Copy ID to Clipboard**.

   b. On the SCIEX software activation web page, paste the ID in the **Computer ID** field.

7. In the **Select Your Instrument** field, select an instrument from the list.

8. In the **Serial Number** field, type the serial number of the mass spectrometer.

   Note: To activate a node-locked license for a processing workstation, use a serial number for any SCIEX instrument. Contact SCIEX Support at sciex.com/contact-us if an instrument serial number is not available.

9. Click **Submit**.
   A message shows that an e-mail with the license file will be sent.

10. After the e-mail is received, save the attached license file in the `C:\Program Files\SCIEX\SCIEX OS` folder.

11. Use the SCIEX Now web page to get and activate licenses for optional features and applications, such as CFR, scout triggered MRM (stMRM) acquisition, the Central Administrator Console (CAC) software, and the Molecule Profiler software. For more information, contact Technical Support at sciex.com/request-support.

Mass Spectrometer Firmware Versions

A

Note: For SCIEX Triple Quad and QTRAP systems, the version of the instrument controller board (ICB) that is installed on the system controls the versions of the supported firmware and configuration table. Only the specified ICB versions are supported.

Table A-1 Firmware and Configuration Table Versions

Mass Spectrometer	Firmware Version	Configuration Table Version
X500R QTOF system with LT-ICU1	ATLAS_QTOF_ICX_V0_r04	CONFIG_X500R_v0_r05
X500R QTOF system with LT-ICU2	AION_X500_ICX64_v2_r01	CONFIG_X500R_v2_r02
X500B QTOF system with LT-ICU1	ATLAS_QTOF_ICX_V0_r04	CONFIG_X500B_v0_r04
X500B QTOF system with LT-ICU2	AION_X500_ICX64_v2_r01	CONFIG_X500B_v2_r02
ZenoTOF 7600 system	AION_QTOF_ICX64_v0_r05	CONFIG_Zeno-TOF-7600 ICX2_v0_r08
ZenoTOF 7600+ system	AION_QTOF_ICX64_v0_r05	CONFIG_ZenoTOF-7600+ _v0_r02
ZenoTOF 8600 system	APP_JUPITER_ICX64_v01_r03	CONFIG_ZenoTOF-8600_v30_r03
SCIEX Triple Quad 4500 system with ICB4	PIL2007	FWTripleQuad4500R23
SCIEX Triple Quad 4500 system with ICB5	QIL0205	FWTripleQuad4500R524
SCIEX Triple Quad 4500MD system[2] with ICB4	PIL2007	FWTripleQuad4500R05[3]

[2] Product(s) not available in all countries. For information on availability, please contact your local sales representative or refer to sciex.com/diagnostics. All other products are For Research Use Only. Not for use in Diagnostic Procedures.

[3] Shown in the FirmwareUpdater utility as FWTripleQuad4500MDR05.

Table A-1 Firmware and Configuration Table Versions (continued)

Mass Spectrometer	Firmware Version	Configuration Table Version
SCIEX Triple Quad 4500MD system[2] with ICB5	QIL0205	FWTripleQuad4500R506[4]
QTRAP 4500 system with ICB4	PIL2007	FWQTrap4500R22
QTRAP 4500 system with ICB5	QIL0205	FWQTrap4500R523
QTRAP 4500MD system[2] with ICB4	PIL2007	FWQTrap4500R03[5]
QTRAP 4500MD system[2] with ICB5	QIL0205	FWQTrap4500R504[6]
SCIEX Triple Quad 5500 system with ICB4	PIL2007	FWTripleQuad5500R09
SCIEX Triple Quad 5500 system with ICB5	QIL0205	FWTripleQuad5500R510
QTRAP 5500 system with ICB4	PIL2007	FWQTrap5500R08
QTRAP 5500 system with ICB5	QIL0205	FWQTrap5500R509
SCIEX Triple Quad 5500+ system with ICB4	PIL2007	FWTripleQuad5500+R04
SCIEX Triple Quad 5500+ system with ICB5	QIL0205	FWTripleQuad5500+R505
SCIEX Triple Quad 6500 system with ICB4	PIL2007	FWTripleQuad6500R06
SCIEX Triple Quad 6500 system with ICB5	QIL0205	FWTripleQuad6500R507
QTRAP 6500 system with ICB4	PIL2007	FWQTrap6500R05
QTRAP 6500 system with ICB5	QIL0205	FWQTrap6500R506

[4] Shown in the FirmwareUpdater utility as FWTripleQuad4500MDR506.
[5] Shown in the FirmwareUpdater utility as FWQTrap4500MDR03.
[6] Shown in the FirmwareUpdater utility as FWQTrap4500MDR504.

Table A-1 Firmware and Configuration Table Versions (continued)

Mass Spectrometer	Firmware Version	Configuration Table Version
SCIEX Triple Quad 6500+ system with ICB 4 and the oil-sealed roughing pump	PIL2007	FWTripleQuad6500+R05
SCIEX Triple Quad 6500+ system with ICB4 and the dry pump	PIL2007	FWTripleQuad6500+R32
SCIEX Triple Quad 6500+ system with ICB5 and the oil-sealed roughing pump	QIL0205	FWTripleQuad6500+R506
SCIEX Triple Quad 6500+ system with ICB5 and the dry pump	QIL0205	FWTripleQuad6500+R533
QTRAP 6500+ system with ICB4 and the oil-sealed roughing pump	PIL2007	FWQTrap6500+R04
QTRAP 6500+ system with ICB4 and the dry roughing pump	PIL2007	FWQTrap6500+R32
QTRAP 6500+ system with ICB5 and the oil-sealed pump	QIL0205	FWQTrap6500+R505
QTRAP 6500+ system with ICB5 and the dry pump	QIL0205	FWQTrap6500+R533
SCIEX 7500 system with ICB4 and the oil-sealed roughing pump	PIL2007	FWTripleQuad7500QTR R05
SCIEX 7500 system with ICB4 and the dry pump	PIL2007	FWTripleQuad7500QTR R32
SCIEX 7500 system with ICB5 and the oil-sealed roughing pump	QIL0205	FWTripleQuad7500QTR R505
SCIEX 7500 system with ICB5 and the dry pump	QIL0205	FWTripleQuad7500QTR R532

Table A-1 Firmware and Configuration Table Versions (continued)

Mass Spectrometer	Firmware Version	Configuration Table Version
SCIEX 7500+ system with the oil-sealed roughing pump	QIL0205	FWSCIEX7500+R503
SCIEX 7500+ system with the dry pump	QIL0205	FWSCIEX7500+R533
Citrine Triple Quad system^2 with ICB4	PIL2007	FWCitrineTripleQuadR03
Citrine Triple Quad system^2 with ICB5	QIL0205	FWCitrineTripleQuadR504
Citrine QTRAP system^2 with ICB4	PIL2007	FWCitrineQTrapR02
Citrine QTRAP system^2 with ICB5	QIL0205	FWCitrineQTrapR503

Devices and Firmware B

The SCIEX OS software 4.2 supports the following devices.

In most cases, more recent firmware versions from the device manufacturer will operate with the SCIEX OS software 4.2. If issues occur, then change the device firmware to the version listed in the table. For information about firmware verification or upgrades, refer to the documentation that was supplied by the device manufacturer or contact a SCIEX Field Service Employee (FSE). For information about device installation and configuration, refer to the document: *Devices Setup Guide*.

Note: For information about drivers for Waters ACQUITY UPLC systems, contact Waters Support.

Note: For information about drivers for Thermo multichannel LC systems, contact Thermo Support.

Note: For information about drivers for Evosep[7] LC systems, contact Evosep Support.

Table B-1 Echo® MS Systems and Echo® MS+ Systems

Device Component	Firmware
Echo® MS module[8]	2.1
Echo® MS+ module[8]	3.0

Table B-2 ExionLC 2.0 Systems

Peripheral Device	Model	Tested Firmware (Other Firmware[9])	Communication Cable Required
LPG Pump	LPGP-200	(1.07)	Ethernet
Binary Pump	BP-200	(1.07)	Ethernet
Binary Pump+	BP-200+	(1.02)	Ethernet
Autosampler	AS-200	(1.22)	Ethernet
Autosampler+	AS-200+	(1.22)	Ethernet

[7] SCIEX is authorized to use Evosep's trademark with Evosep's explicit consent.
[8] If a firmware upgrade is required, then contact an FSE.
[9] Not tested but expected to operate correctly.

Table B-2 ExionLC 2.0 Systems (continued)

Peripheral Device	Model	Tested Firmware (Other Firmware[9])	Communication Cable Required
Column Switching (Valve drive)	DR-200	(6.20)	Ethernet
Column Oven	CO-200	(2.02)	Ethernet
Multiwavelength Detector	MWD-200	(01.11.282)	Ethernet
Diode Array Detector	DAD-200	(01.11.282)	Ethernet
Diode Array Detector - HS	DADHS-200	(1.24.03)	Ethernet
Wash System	WS-200	(1.14)	Ethernet

Table B-3 ExionLC AE Systems

Model	Tested Firmware	Communication Cable Required
ExionLC AE System Controller	(1.65)	Ethernet
ExionLC AE Pump	(1.12)	Optic
ExionLC AE Multiplatesampler	(3.30)	Optic
ExionLC AE Autosampler	(1.17)	Optic
ExionLC AE Column Oven	(1.03	Optic
ExionLC AE PDA Detector	(2.08)	Ethernet[10]
ExionLC AE UV Detector	(1.11)	Optic

Table B-4 ExionLC MD Systems

Model	Tested Firmware	Communication Cable Required
ExionLC MD System Controller[11]	9.12	Ethernet
ExionLC MD Pump[11]	1.12	Optic

9 Not tested but expected to operate correctly.
10 The PDA detector requires a switching hub to connect to the system controller and the acquisition computer. Refer to the document: *SCIEX OS Devices Setup Guide*.

Table B-4 ExionLC MD Systems (continued)

Model	Tested Firmware	Communication Cable Required
ExionLC MD Autosampler[11]	1.20	Optic
ExionLC MD Column Oven[11]	1.03	Optic

Table B-5 ExionLC AC Systems and ExionLC AD Systems

Peripheral Device	Tested Firmware (Other Firmware[9])	Communication Cable Required
ExionLC Controller	(2.0, 3.01, 3.40, 3.61)	Ethernet
ExionLC AC Pump	(2.04, 5.001)	Optic
ExionLC AC Autosampler	(2.05, 3.12, 5.00)	Optic
ExionLC AC Column Oven	(3.21)	Optic
ExionLC AD Pump	(2.04, 3.11, 3.21, 3.30)	Optic
ExionLC AD Autosampler	(3.12, 3.15)	Optic
ExionLC AD Multiplate Sampler	(3.15, 3.30)	Optic
ExionLC AD Column Oven	(3.11)	Optic
ExionLC PDA Detector	(4.02)	Ethernet [12]
ExionLC UV Detector	(2.03)	Optic
ExionLC Rack Changer	(2.0)	Optic
ExionLC Degasser	N/A	N/A
ExionLC Solvent Selection Valve	N/A	N/A

[11] Product(s) not available in all countries. For information on availability, please contact your local sales representative or refer to sciex.com/diagnostics. All other products are For Research Use Only. Not for use in Diagnostic Procedures.

[12] The PDA detector requires a switching hub to connect to the system controller and the acquisition computer. Refer to the document: *SCIEX OS Devices Setup Guide*.

Table B-6 M5 MicroLC System

Device Component	Tested Firmware or Software (Other Firmware or Software[9])
M5 MicroLC Driver for the SCIEX OS software [13]	(1.0)
Eksigent Control software	(4.3)
LC pump	(2.48)
CTC PAL3 autosampler	(2.4.18031.1655)

Table B-7 Agilent 1290 Infinity, Infinity II, and Infinity III Devices

Peripheral Device	Model	Tested Firmware (Other Firmware[9])	Communication Cable Required
1290 Infinity Devices			
Binary pump	G4220A	(B.07.40)	Ethernet or CAN
Standard autosampler	G4226A	(A.06.54, A.07.01)	Ethernet or, if the system contains a DAD, then CAN
Column compartment	G1316C	(A.06.53, A.07.01)	CAN
DAD	G4212A	(B.06.30)	Ethernet
1290 Infinity II and Infinity III Devices			
High-speed pump	G7120A	(B.07.40)	CAN or Ethernet
Flexible pump	G7104A	(B.07.40)	CAN or Ethernet
Vialsampler	G7129B	(D.07.38)	CAN
Multisampler	G7167B	(D.07.40, D.07.41)	CAN or Ethernet
Multicolumn-thermostat	G7116B	(B.07.35, C.07.23, D.07.35, D.07.41)	CAN
DAD	G7117B	(D.07.10, D.07.23, D.07.41)	Ethernet

[13] For migration from the Analyst software to SCIEX OS, contact an FSE.

Table B-8 Agilent 1260 Infinity II and Infinity III Devices

Peripheral Device	Model	Tested Firmware (Other Firmware[9])	Communication Cable Required
Flexible pump	G7104C	(B.07.40)	Ethernet or, if the system contains a DAD, then CAN
Binary pump	G7112B	(D.07.40)	CAN or Ethernet
Quarternary pump	G7111B	(D.07.40)	CAN or Ethernet
Bio-inert pump	G5654A	(D.07.40)	CAN or Ethernet
Vialsampler	G7129C	(D.07.38, D.07.40)	CAN
Multisampler	G7167A	(D.07.40)	Ethernet or, if the system contains a DAD, then CAN
Bio-inert multisampler	G5668A	(D.07.40)	Ethernet or, if the system contains a DAD, then CAN
Multicolumn thermostat	G7116A	(B.07.35, C.07.32, D.07.35, D.07.40)	CAN
DAD	G7117C	(D.07.10)	Ethernet
DAD WR	G7115A	(D.07.25)	Ethernet
FLD spectra (Bio-inert)	G7121B	(D.07.25)	Ethernet

Table B-9 InfinityLab Assist Hub

Peripheral Device	Model	Tested Firmware (Minimum Firmware)[9]	Communication Cable Required
InfinityLab Assist Hub	G7180A	E.01.01 (E.01.00)	Ethernet or CAN

Table B-10 Harvard Devices

Peripheral Device	Tested Firmware (Other Firmware[9])	Communication Cable Required
Harvard	(22 Syringe Pump)	22.90

Table B-11 Shimadzu Devices

Peripheral Device	Tested Firmware (Other Firmware[9])	Communication Cable Required
CBM-20 A with Ethernet switch (system controller with 8 fiber optic ports)	(2.81, 3.01, 3.11, 3.31, 3.61)	Ethernet
CBM-40 system controller	(0.31, 1.30)	Ethernet
CBM-40 Lite system controller	(1.30, 1.60)	Ethernet
SCL-40 system controller	(1.30, 1.50)	Ethernet
SIL-20ACXR autosampler	(1.20, 1.22, 1.23, 1.25, 2.05)	Optic
SIL-30AC autosampler	(3.12)	Optic
SIL-30ACMP autosampler	(3.15, 3.21)	Optic
SIL-40 autosampler	(1.05)	Optic
SIL-40C autosampler	(1.05)	Optic
SIL-40C X3 autosampler	(1.04, 1.05)	Optic
SIL-40C XR autosampler	(1.05, 1.08)	Optic
SIL-40C XSi autosampler	1.11 (1.10)	Optic
LC-20AB pump	N/A	N/A
LC-20AD pump	(1.04, 1.10, 1.07, 3.11)	Optic
LC-20AD XR pump	(1.20, 1.21)	Optic
LC-30AD pump	(3.11, 3.21)	Optic
LC-40B X3 pump	(1.04, 1.06)	Optic
LC-40B XR pump	(1.04)	Optic
LC-40D pump	(1.06)	Optic
LC-40D X3 pump	(1.04)	Optic
LC-40D XR pump	(1.04, 1.06)	Optic
LC-40D XSi pump	(1.07, 1.10)	Optic
CTO-20AC column oven	(2.03, 2.10)	Optic
CTO-30A column oven	(3.11)	Optic
CTO-40C column oven	(1.00, 1.01, 1.02)	Optic

Table B-11 Shimadzu Devices (continued)

Peripheral Device	Tested Firmware (Other Firmware[9])	Communication Cable Required
CTO-40S column oven	(1.00, 1.01)	Optic
SPD-20A UV-Vis detector	(1.04)	Optic
SPD-40V UV-Vis detector	(1.04, 1.06)	Optic
SPD-M30A UV detector	(3.11, 4.02)	Ethernet[14]
SPD-M40 PDA detector	(2.00, 2.04)	Ethernet[14]
RF-20A XS fluorescence detector	(2.02, 2.03)	Optic
FCV-12AH valve	N/A	N/A
FCV-13AL valve	N/A	N/A
FCV-32AH valve	N/A	N/A
FCV-0206[H/H3] flow channel selection valve with drive	N/A	N/A
FCV-0206H2i valve	N/A	N/A
FCV-0607[H/H3] flow channel selection valve with drive	N/A	N/A
FCV-0607H2i valve	N/A	N/A
FCV-S flow channel selection valve with drive (1 box, 1 valve)	(1.02)	N/A
FCV-DR (drive)	(1.02)	N/A
LPGE-40 (no mixer)	(1.02)	N/A
LC-40 reservoir switching valve	(1.02)	N/A
FCV-11ALS solvent selection valve for LC-40 (1 pump)	(1.02)	N/A
FCV-11AL solvent selection valve for LC-40 (3 pumps)	(1.02)	N/A
Rack Changer II	(2.0)	Optic
Nexera Plate Changer	(1.05)	N/A

[14] The detector requires a switching hub to connect to the system controller and the acquisition computer.

Table B-12 Shimadzu CL Devices

Peripheral Device	Tested Firmware (Other Firmware[9])	Communication Cable Required
SIL-40C X3 CL autosampler	1.20	Ethernet
LC-40B X3 CL pump	(1.10)[15]	Ethernet
LC-40D X3 CL pump	1.12	Ethernet
LC-40D XR CL pump	(1.06)[15]	Ethernet
CTO-40C CL column oven	1.03	Ethernet
CBM-40 CL system controller	9.12	Ethernet
DGU-405 CL degasser	N/A	N/A
Plate Changer CL	(1.11)	Ethernet
FCV-S CL high-pressure flow-line switching valve	N/A	N/A

Table B-13 Valco Devices

Peripheral Device	Tested Firmware (Other Firmware[9])	Communication Cable Required
2-Position Valve	I-PD-APX99RD	RS-232
UMDA-C10W 2-position 10-port valve	MUA_MAIN_G_1	RS-232

[15] Tested by Shimadzu.

Windows Operating System Configuration C

Only the English Language setting is supported.

The English, German and French Region settings are supported.

Note: If the computer is connected to the Internet, then follow the recommended security guidelines. Go to sciex.com/productsecurity. Make sure that adequate virus protection is in place to prevent virus corruption of system functionality.

Windows Update

Making sure that critical security patches are installed is essential to maintaining the security of the computer. Follow these guidelines for the configuration and use of Windows Update:

- Configure Windows Update to notify only. Do not download and install updates automatically as this may impact systems during data acquisition.
- Download and install updates as soon as possible after notification is received.
- Before installing updates:
  - Wait until acquisition and processing is finished.
  - Deactivate the devices and stop the ClearCore2 service.
- Install all updates. If an issue occurs as the result of an update, report it to SCIEX at sciex.com/contact-us or sciex.com/request-support as soon as possible.

System Restore

By default, the Windows Task Scheduler runs the System Restore task at midnight and when the computer starts. The installation program disables the System Restore task, to optimize acquisition performance in IDA mode.

The System Restore task might slow down the system when it is active. If it is active during acquisition in IDA mode, the cycle time might be longer, increasing from milliseconds to seconds. This might result in fewer points across a chromatographic peak. Therefore, we recommend that the System Restore task be disabled, for optimum performance.

Note: System Restore does not impact performance for regular operations or for data processing.

Remote Desktop Connection

This section supplies guidelines and known issues when the Remote Desktop Connection is used to get access to the SCIEX OS software on the acquisition computer.

Obey these guidelines:

- To make sure that all of the fields can be seen, in the Display settings in Windows, do not set **Make everything bigger** to more than 100%.
- Do not use the Display settings to control the acquisition computer during acquisition of IDA data. If the Display settings are in use, then acquisition performance is slow, and data points might not be saved.

Customer Security Guidance: Backups

Backup of customer data is the responsibility of the customer. Although SCIEX service and support personnel might provide advice and recommendations about customer data backup, it is up to the customer to make sure the data is backed up according to the policies, needs, and regulatory requirements of the customer. The frequency and coverage of customer data backup should be commensurate with organizational requirements and the criticality of the data that is generated.

Customers should make sure that backups are functional, because backups are a vital component of overall data management and essential to recovery in the event of a malicious attack, hardware failure, or software failure. Do not back up the computer during data acquisition, or else make sure that files being acquired are ignored by the backup software. We strongly recommend that a full backup be taken of the computer before any security updates are installed or any computer repairs are performed. This will facilitate a rollback in the rare case that a security patch affects any application functionality.

User Account Control Settings

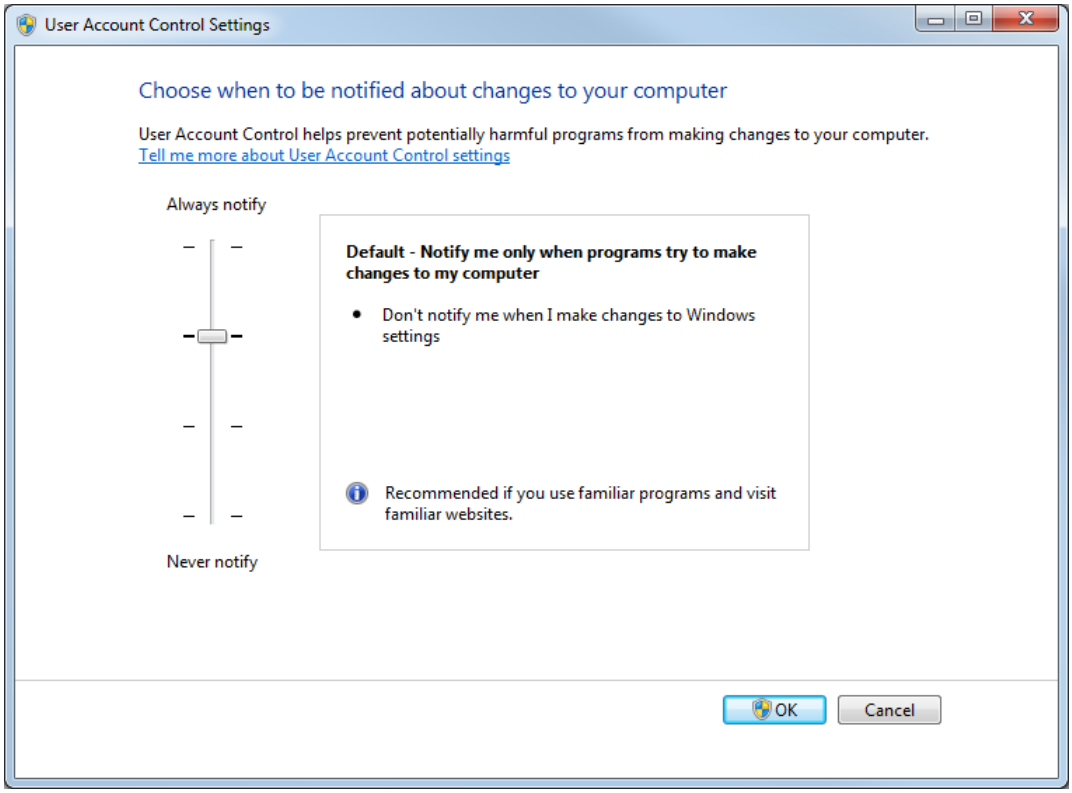
We recommend the use of the default User Account Control Settings when the SCIEX OS software 4.2 is installed on the Windows 10, 64-bit, operating system. For the Administrator, the default setting is **Default - Notify me only when programs try to make changes to my computer**. For standard users, it is **Always notify me**.

The acquisition computer comes configured with the default User Account Control Settings.

1. Open Control Panel.
2. Click **Security and Maintenance** > **Change User Account Control settings**.
   The User Account Control Settings dialog opens.
3. Move the slider bar to the required level.

4. For the Administrator, select **Notify me only when programs try to make changes to my computer (default)**, and then click **OK**.

Figure C-1 User Account Control Settings: Administrator



5. For standard users, select **Always notify me when**, and then click **OK**.

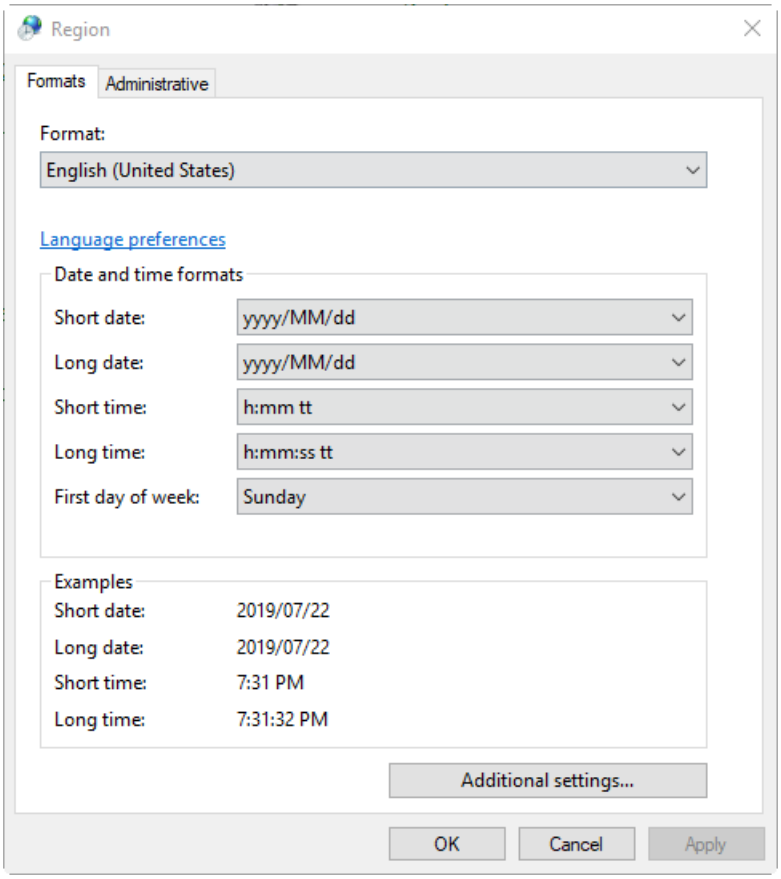
Region Settings

Note: If the **Format** field is set to a different value, then file information or audit trail information might be shown incorrectly.

1. Open Control Panel.

2. Click **Region**.

Figure C-2 Region Dialog



3. Make sure that the **Format** field is set to **English (United States)**, **French (France)**, or **German (Germany)**.
4. Click **Apply**.
5. Click **OK**.

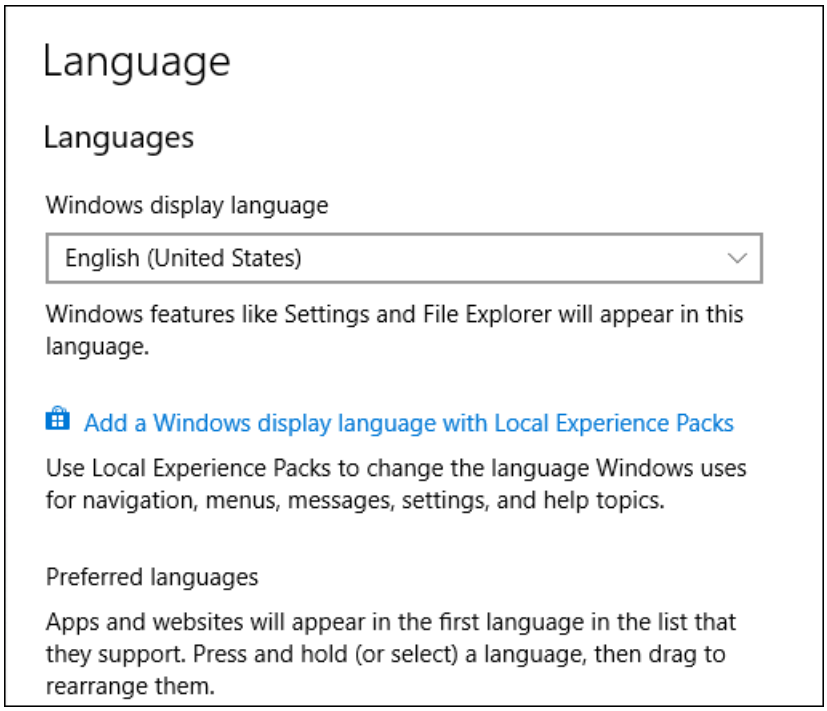
Language Settings

Note: Setting the **Windows display language** to a different value might cause the software to show the file information or the audit trail information incorrectly.

1. Open Control Panel.
2. Click **Region**.

3. Click **Language preferences**.

Figure C-3 Language Dialog

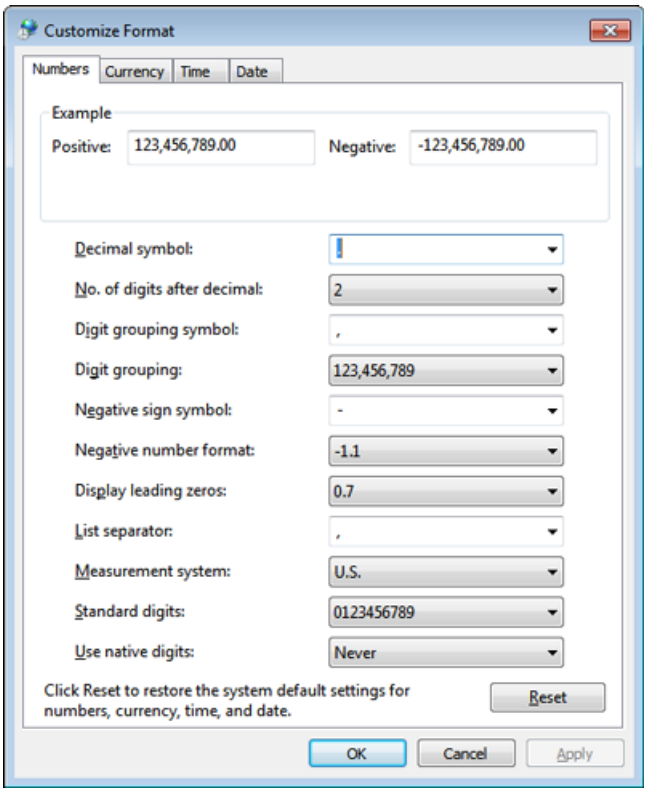


4. For the **Windows display language**, select **English (United States)**.

Local Settings

Only the local settings shown in the following figure are supported.

Figure C-4 Local Settings



Label	Supported in the SCIEX OS Software
Decimal symbol	Either '.' or ',' is supported.
No. of digits after decimal	Controlled by the number format in the SCIEX OS software.
Digit grouping symbol	Not supported.
Digit grouping	Not supported.
Negative sign symbol	Controlled by the SCIEX OS software.
Negative number format	Not supported.
Display leading zeros	Not supported.
List separator	Not supported.

Label	Supported in the SCIEX OS Software
Measurement system	Not supported.
Standard digits	Not supported.
Use native digits	Not supported.

To change the local settings, follow these steps:

1. Open Control Panel.
2. Click **Region**.
3. Click **Additional Settings**.

Configure Windows Firewall D

Use the procedures in this section to open the Windows firewall ports on the CAC server and the computer with the SCIEX OS software when Windows Defender is used as firewall software (default). If different firewall software is used, then use instructions specific to that software to open the ports.

Configure Incoming Connections

On the computer with the SCIEX OS software, ports 63333 and 44144 must be open for inbound traffic. On the Central Administrator Console (CAC) server, port 63333 must be open for inbound traffic.

1. Open the Windows Defender Firewall with Advanced Security.
2. Right-click the **Inbound Rules** menu, and then click **New Rule**.
   The Rule Type page opens.
3. Select **Port**, and then click **Next**.
   The Protocol and Ports page opens.
4. Set **Specific local ports** as required, and then click **Next**.
   - SCIEX OS software: `63333,44144`.
   - CAC server: `63333`.

   The Action page opens.
5. Select **Allow the connection**, and then click **Next**.
   The Profile page opens.

   Note: Make sure that **Domain**, **Private**, and **Public** profiles are selected.
6. Click **Next**.
   The Name page opens.
7. Type `CAC inbound connections` in the **Name** field.
8. Click **Finish**.

Configure Outgoing Connections

On the computer with the SCIEX OS software, ports 63333 must be open for outbound traffic. On the Central Administrator Console (CAC) server, port 44144 must be open for outbound traffic.

1. Open the Windows Defender Firewall with Advanced Security.
2. Right-click the **Outbound Rules** menu, and then click **New Rule**.
   The Rule Type page opens.
3. Select **Port**, and then click **Next**.
   The Protocol and Ports page opens.
4. Set **Specific local ports** as required, and then click **Next**.
   - SCIEX OS software: Set **Specific local ports** to `63333`.
   - CAC server: Set **Specific local ports** to `44144` and `63333`.

   The Action page opens.
5. Select **Allow the connection**, and then click **Next**.
   The Profile page opens.

   Note: Make sure that **Domain**, **Private**, and **Public** profiles are selected.
6. Click **Next**.
   The Name page opens.
7. Type `CAC inbound connections` in the **Name** field.
8. Click **Finish**.

Install the Software Using a Deployment Tool

E

Use the command lines in this procedure for the modular installation of the SCIEX OS software. User can install, change, repair or remove the software modules by running the silent mode or passive mode commands from the installation files location using the deployment tool.

```
setup.exe {/quiet | /passive} [/install=modules] [/add=modules] [/
repair=all] [/remove=modules] [/uninstall=all]
```

Table E-1 Elements and Attributes

Value String	Comment
`/quiet`	Runs the installation in silent mode without any user interaction.
`/passive`	Runs the software installation in unattended mode. The user sees only a progress bar.
`/install=`*module1*, *module2*	To install one or more than one software module. For a list of the module codes, refer to the table: Table E-2.
`/add=`*module1*,*module2*	To install one or more than one software module in an existing installation of this software version. For a list of the module codes, refer to the table: Table E-2.
`/repair=all`	To repair installed software modules.
`/remove=`*module1*,*module2*	To uninstall one or more than one software module from an existing installation of this software version. For a list of the module codes, refer to the table: Table E-2.
`/uninstall=all`	To remove the SCIEX OS software.

Table E-2 Software Modules

Code	Software Module
AG	Agilent drivers
AN	Analytics workspace (Processing)
AQ	Acquisition workspaces
CC	Central Administrator Console (CAC) (Administration)

Table E-2 Software Modules (continued)

Code	Software Module
EC	Echo® MS system
EX	ExionLC system
LBV	LibraryView software (Processing)
M5	M5 MicroLC system
MP	Molecule Profiler software (Processing)
MV	MarkerView software (Processing)
SH	Shimadzu drivers

Example: Quiet Install Command

```
Setup.exe /quiet /Install=MP
```

Example: Quiet Add and Remove Command

```
Setup.exe /quiet /Add=AQ,AG,SH,AN /Remove=MP
```

Example: Quiet Repair Command

```
Setup.exe /quiet /Repair=all
```

Example: Quiet Uninstall Command

```
Setup.exe /quiet /Uninstall=all
```

Example: Passive Install Command

```
Setup.exe /passive /Install=MP
```

Example: Passive Add and Remove Command

```
Setup.exe /passive /Add=AQ,AG,SH,AN /Remove=MP
```

Example: Passive Repair Command

```
Setup.exe /passive /Repair=all
```

Example: Passive Uninstall Command

```
Setup.exe /passive /Uninstall=all
```

Documentation for the SCIEX OS Software

F

For a list of the software guides that are installed with the SCIEX OS software, refer to the table: Table F-1. These guides are available at this location: **Start** > **SCIEX OS**.

The software guides are installed in `<drive>:\Program Files\SCIEX\SCIEX OS\Documentation\`.

Table F-1 Documentation That Is Installed with the Software

Document	Description
Software Installation Guide	Supplies procedures for installation of the software. Installed with the software.
Release Notes	Gives a description of new features and any software issues. Installed with the software.
Laboratory Director Guide	Gives a description of the security and audit functionality of the SCIEX OS software. Installed with the software.
SCIEX OS Software Help	Supplies procedures for setting up and using the SCIEX OS software to create methods, acquire samples, and analyze data. Installed with the software. To see the *Help*, click the **Help** button in the SCIEX OS software.
CAC Help	Supplies procedures for using the Central Administrator Console (CAC) software to manage users, workgroups, workstations, and projects. Installed with the software. To see the *Help*, click the **Help** button in the CAC software.

Table F-2 Other Documentation

Document	Description
Best Practices for ZT Scan DIA	Supplies tips to get the best results with ZT Scan experiments in the SCIEX OS software. Available at sciex.com/customer-documents.

Table F-2 Other Documentation (continued)

Document	Description
Calculated Columns Feature Guide	Supplies information for the use of calculated columns in the Analytics workspace. Available at sciex.com/customer-documents.
Devices Setup Guide	Supplies procedures for configuration of devices for operation with the mass spectrometer and control by the SCIEX OS software. Available at sciex.com/customer-documents.
Explorer for TOF Systems Tutorial	Supplies procedures for using the Explorer workspace to analyze data that was acquired by TOF systems. Available at sciex.com/customer-documents.
SCIEX OS Software for Echo® MS+ Systems Feature Guide	Supplies information for the use of the SCIEX OS software with an Echo® MS+ system. Available at sciex.com/customer-documents.
Supplement for Advanced Users	Supplies requirements for a computer that is not supplied by SCIEX and instructions for troubleshooting. Available at sciex.com/customer-documents.

Note: The latest versions of the documentation are available on the SCIEX website, at sciex.com/customer-documents.

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Customer Training

- Global: sciex.com/contact-us

Online Learning Center

- SCIEX Now Learning Hub

SCIEX Support

SCIEX and its representatives have a global staff of fully-trained service and technical specialists. They can supply answers to questions about the system or any technical issues that might occur. For more information, go to the SCIEX website at sciex.com or use one of the links that follow to contact us.

- sciex.com/contact-us
- sciex.com/request-support

Cybersecurity

For the latest guidance on cybersecurity for SCIEX products, visit sciex.com/productsecurity.

Documentation

This version of the document supersedes all of the previous versions of this document.

To see this document electronically, Adobe Acrobat Reader is required. To download the latest version, go to https://get.adobe.com/reader.

To find software product documentation, refer to the release notes or software installation guide that comes with the software.

To find hardware product documentation, refer to the documentation that comes with the system or component.

The latest versions of the documentation are available on the SCIEX website, at sciex.com/customer-documents.

Note: To request a free, printed version of this document, contact sciex.com/contact-us.