SCIEX OS Software

Laboratory Director Guide

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Contents

Introduction 1

The information contained in this manual is intended for two primary audiences:

- The laboratory administrator, who is concerned with the daily operation and use of the SCIEX OS software and attached instrumentation from a functional perspective.
- The system administrator, who is concerned with system security and system and data integrity.

Security Configuration Overview 2

This section describes how the access control and auditing components in the SCIEX OS software operate in conjunction with Windows access control and auditing components. It also describes how to configure Windows security before installation of the SCIEX OS software.

Security and Regulatory Compliance

The SCIEX OS software supplies:

- Customizable administration to meet the needs of both research and regulatory requirements.
- Security and audit tools to support 21 CFR Part 11 compliance for the use of electronic record keeping.
- Flexible and effective management of access to critical mass spectrometer functions.
- Controlled and audited access to vital data and reports.
- Easy security management linking to Windows security.

Security Requirements

Security requirements range from relatively open environments, such as research or academic laboratories, to the most stringently regulated, such as forensic laboratories.

SCIEX OS Software and Windows Security: Working Together

The SCIEX OS software and the Windows New Technology File System (NTFS) have security features designed to control system and data access.

Windows security provides the first level of protection by requiring users to log on to the network using a unique user identity and password. As a result, only users who are recognized by the Windows Local or Network security settings have access to the system. For more information, refer to the section: Windows Security Configuration.

The SCIEX OS software has the following secure system access modes:

- Mixed mode
- Integrated mode (default setting)

For more information about security modes and security settings, refer to the section: Configure the Security Mode.

SCIEX OS also provides completely configurable roles that are separate from the user groups associated with Windows. By using roles, the laboratory director can control access to the software and mass spectrometer on a function-by-function basis. For more information, refer to the section: Configure Access to the SCIEX OS Software.

Audit Trails in the SCIEX OS Software and Windows

The auditing features in the SCIEX OS software, together with the built-in Windows auditing components, are critical to the creation and management of electronic records.

SCIEX OS provides a system of audit trails to meet the requirements of electronic record-keeping. Separate audit trails record:

- Changes to the mass calibration table or resolution table, system configuration changes, and security events.
- Creation and modification events for projects, tuning, batches, data, processing methods, and report template files, as well as module opening, closing, and printing events. Deletion events recorded in the audit trail include deletion of roles and deletion of users in the SCIEX OS software.
- Creation and modification of the sample information, peak integration parameters, and embedded processing method in a Results Table.

For a complete list of audit events, refer to the section: Audit Events.

The SCIEX OS software uses the application event log to capture information about software operation. Use this log as a troubleshooting aid. It contains detailed information about mass spectrometer, device, and software interactions.

Windows maintains event logs, which capture a range of security-, system-, and application-related events. In most cases, Windows auditing is designed to capture exceptional events, such as a log on failure. The administrator can configure this system to capture a wide range of events, such as access to specific files or Windows administrative activities. For more information, refer to the section: System Audits.

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.

21 CFR Part 11

The SCIEX OS software contains the technical controls to support 21 CFR Part 11 with the implementation of:

- Mixed mode and Integrated mode security linked to Windows security.
- Controlled access to functionality through customizable roles.
- Audit trails for instrument operation, data acquisition, data review, and report generation.
- Electronic signatures that use a combination of user ID and password.
- Proper configuration of the Windows operating system.
- Proper procedures and training in the company.

The SCIEX OS software is designed to be used as part of a 21 CFR Part 11-compliant system and can be configured to support 21 CFR Part 11 compliance. Whether the use of the SCIEX OS software is 21 CFR Part 11-compliant depends on the use of the optional SCIEX OS CFR license and configuration of the SCIEX OS software. Necessary policies and procedures, and the related training requirements, must also be in place in the laboratory.

Validation services are available through SCIEX Professional Services. For more information, contact complianceservices@sciex.com.

Note: Do not leave the Instrument Settings Converter software on a validated system. It is intended for the initial transfer of instrument settings from the Analyst to SCIEX OS software. Make sure to remove the Instrument Settings Converter software from the computer after using it.

System Configuration

System configuration is usually performed by network administrators or people with network and local administration rights.

Windows Security Configuration

This section supplies guidelines for configuration of Windows:

- Obey these guidelines for Windows accounts and password:
  - The Windows password must be changed every 90 days.
  - The Windows password cannot be reused for at least one following iteration. That is, it cannot be the same as the previous password.
  - The Windows password must be a minimum of eight characters.

    - The Windows password must contain at least two of the following four requirements to meet complexity requirements:
        - One upper case alpha character
        - One lower case alpha character
        - One numeric value
        - One special character (such as: ! @ # $ % ^ &)
    - The Windows user name must not be **admin**, **Administrator**, or **demo**.
- Make sure that the administrator of the SCIEX OS software has the ability to change file permissions for the `SCIEX OS Data` folder. If this folder is on a local computer, then we suggest that the software administrator be part of the local administrators group.
- To make sure that all users have the required access to resources for network acquisition, ask the network administrator to add a Secure Network Account (SNA) on the network resource. This account must have write permissions for the network folder containing the root directory. It is defined as the SNA in the properties for the root directory.

Note: We recommend that library files be imported from a local drive.

Note: For information about the Windows permissions required for different user roles, refer to the section: Windows Permissions.

Users and Groups

The SCIEX OS software uses the user names and passwords recorded in the primary domain controller security database or Active Directory. Passwords are managed using the tools provided with Windows. For more information about adding and configuring people and roles, refer to the section: Configure Access to the SCIEX OS Software.

Active Directory Support

When adding users in the Configuration workspace of the SCIEX OS, specify user accounts in user principal name (UPN) format. The following versions of Active Directory are supported:

- Windows 2012 servers
- Windows 10, 64-bit clients

Windows File System

In the SCIEX OS software, files and directories must be stored on a hard-disk partition that uses the NTFS format, which can control and audit access to SCIEX OS software files. The File Allocation Table (FAT) file system cannot control or audit access to folders or files and is, therefore, not suitable for a secure environment.

File and Folder Permissions

To manage security, the administrator of the SCIEX OS software must have the right to change permissions for the `SCIEX OS Data` folder. Access must be set up by the network administrator.

Note: Consider the level of access users need to the drive, root directory, and project folders on each computer. Configure sharing and associated permissions. For more information about file sharing, refer to the Windows documentation.

Note: To avoid issues with permissions, we recommend that library files be imported from a local drive.

Note: For information about the Windows permissions required for different user roles, refer to the section: Windows Permissions.

For information about files and folder permissions in the SCIEX OS software, refer to the section: Access Control.

System Audits

The auditing feature of the Windows system can be enabled to detect security breaches or system intrusions. Auditing can be set to record different types of system-related events. For example, the auditing feature can be enabled to record any failed or successful attempt to log on to the system in the event log.

Event Logs

The Windows Event Viewer records the audited events in the security log, system log, or application log.

Customize the event logs as follows:

- Configure an appropriate event log size.
- Enable automatic overwrite of old events.
- Set Windows computer security settings.

A process of review and storage can be implemented. For more information about security settings and audit policies, refer to the Windows documentation.

Windows Alerts

If a system or user issue occurs, then configure the network to send an automatic message to a designated person, such as the system administrator, on the same computer or another computer.

- On both the sending and receiving computer, start the Messenger service in the Windows Services control panel.
- On the sending computer, start the Alert service in the Windows Services control panel.

For more information about creating an alert object, refer to the Windows documentation.

Electronic Licensing 3

For the SCIEX OS software, electronic licensing can be node-locked or server-based.

For the Central Administrator Console (CAC) software, only node-locked licenses are available.

The Activation ID might be required for any future service or support call. To access the Activation ID of the node-locked or server-based license:

- In the Configuration workspace, click **Licenses** in the SCIEX OS window.

Note: Make sure to renew the license before it expires. The license for the CAC software is an annual license.

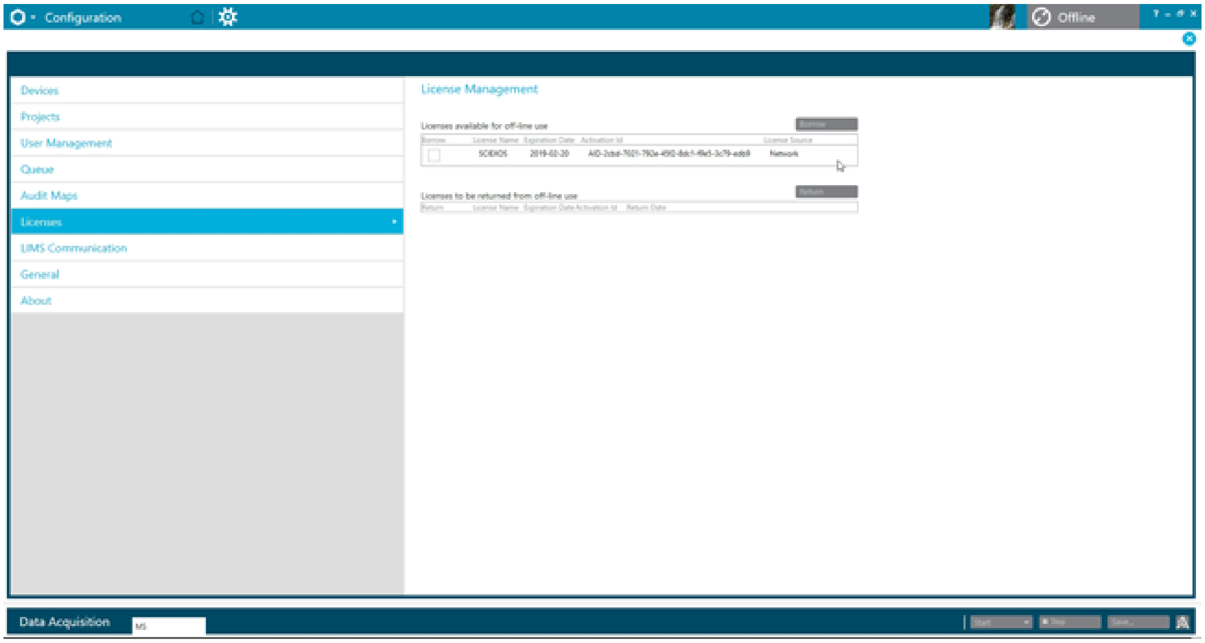
Borrow a Server-based Electronic License

A license is required to use SCIEX OS. If server-based licensing is being used, then users who want to work offline can reserve a license for up to 7 days. During this period, the borrowed electronic license is dedicated to the computer.

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

1. Open the Configuration workspace.
2. Click **Licenses**.
   The Licenses available for off-line use table shows all of the licenses available for borrowing.

Figure 3-1 License Management: Borrow a License



Licenses available for off-line use

Borrow	License Name	Expiration Date	Activation Id	License Source
□	SCIEXOS	2019-02-20	AID-2cbd-7021-792e-4592-8dc1-49e5-3c79-edb8	Network

Licenses to be returned from off-line use

Return	License Name	Expiration Date	Activation Id	Return Date

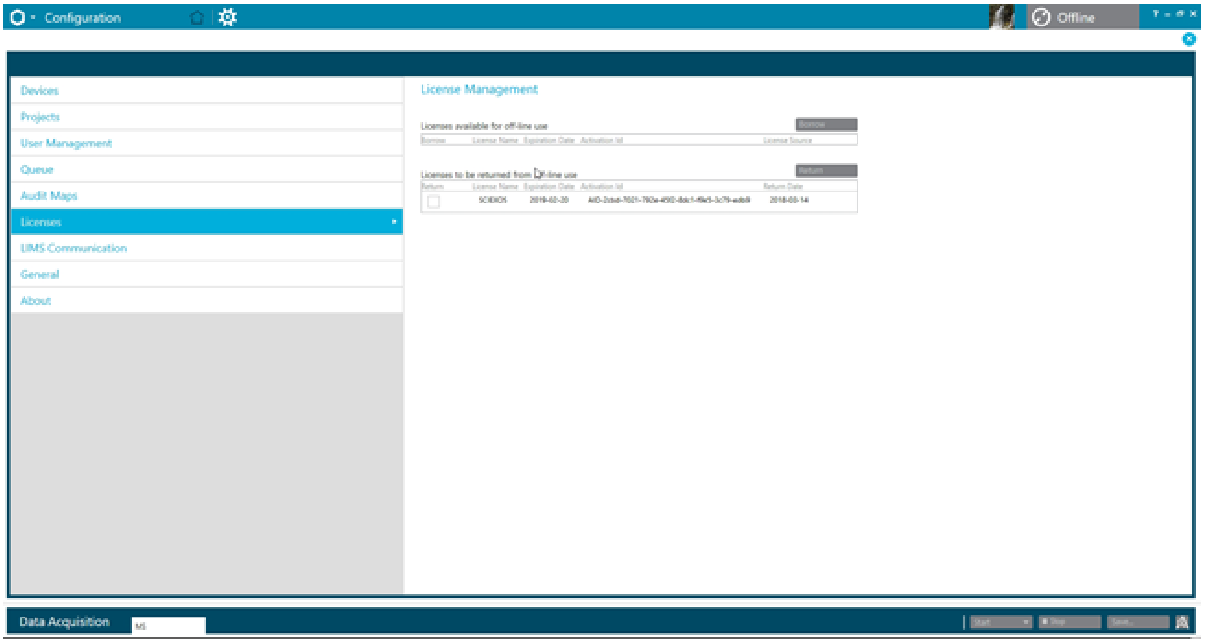
3. Select the license to be borrowed, and then click **Borrow**.

Return a Server-based Electronic License

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

1. Open the Configuration workspace.
2. Click **Licenses**.
   The Licenses to be returned from off-line use table shows all of the licenses that are eligible to be returned, that is, all licenses borrowed by this computer.

Figure 3-2 License Management: Return a License



License Management

Licenses available for off-line use

Borrow

Borrow	License Name	Expiration Date	Activation Id	License Source

Licenses to be returned from off-line use

Return

Return	License Name	Expiration Date	Activation Id	Return Date
□	SCIEXOS	2019-02-20	AID-2cbd-7021-792e-4f92-8dc1-f9e5-3c79-edb9	2018-03-14

3. Select the license to be returned, and then click **Return**.

Access Control 4

This section describes how to control access to the SCIEX OS software. To control access to the software, the administrator does the following tasks:

Note: To perform the tasks in this section, the user must have local administrator privileges for the workstation on which the software is being installed.

- Install and configure the SCIEX OS software.
- Add and configure users and roles.
- Configure access to the projects and project files in the root directory.

This procedure provides instructions for local administration of the SCIEX OS software. For centralized administration of the SCIEX OS software, refer to the section: Central Administrator Console.

Note: Any changes to the SCIEX OS configuration take effect after SCIEX OS is restarted.

Location of Security Information

All security information is stored on the local computer, in the `C:\ProgramData\SCIEX\Clearcore2.Acquisition` folder, in a file named `Security.data`.

Software Security Workflow

The SCIEX OS software works with the security, application, and system event auditing components of the Windows Administrative Tools.

Configure security at the following levels:

- Windows authentication: Access to the computer.
- Windows authorization: Access to files and folders.
- SCIEX OS software authentication: Ability to open SCIEX OS.
- SCIEX OS software authorization: Access to functionality in SCIEX OS.

For the list of tasks for configuring security, refer to the table: Table 4-1. For the options for setting the various security levels, refer to the table: Table 4-2.

Table 4-1 Workflow for Configuring Security

Task	Procedure
Install the SCIEX OS software.	Refer to the document: *SCIEX OS Software Installation Guide*.
Configure access to the SCIEX OS software.	Refer to the section: Configure Access to the SCIEX OS Software.
Configure Windows File Security and NTFS.	Refer to the section: Configure Access to Projects and Project Files.

Table 4-2 Security Configuration Options

Option	CFR 21 Part 11
Windows Security	
Configure users and groups (authentication).	Yes
Enable Windows auditing and file and directory auditing.	Yes
Set file permissions (authorization).	Yes
SCIEX OS Software Installation	
Install the SCIEX OS software.	Yes
Open the Event Viewer to inspect the installation.	Yes
Software Security	
Select the security mode.	Yes
Configure users and roles in the SCIEX OSsoftware.	Yes
Configure email notification.	Yes
Create audit map templates, and configure project and workstation audit trail maps.	Yes
Enable the checksum feature for `wiff` files.	Yes
Common Tasks	
Add new projects.	Yes

Install the SCIEX OS Software

Before installing the SCIEX OS software, read these documents, available on the software installation DVD or web download package: *Software Installation Guide* and *Release Notes*. Be sure to understand the difference between a processing computer and an acquisition computer and then complete the appropriate installation sequence.

System Requirements

For minimum installation requirements, refer to the document: *Software Installation Guide*.

Preset Auditing Options

For a description of the installed audit maps, refer to the section: Installed Audit Map Templates. After installation, the administrator of the SCIEX OS software can create custom audit maps and assign a different audit map in the Configuration workspace.

Configure the Security Mode

This section describes the Security Mode options found on the User Management page in the Configuration workspace.

Integrated Mode: If the user who is currently logged on to Windows is defined as a user in the software, then that user has access to the SCIEX OS software.

Mixed Mode: Users log on to Windows and the software separately. The credentials used to log on to Windows need not be the same as the credentials used to log on to SCIEX OS. Use this mode to allow a group of users to log on to Windows with the same set of credentials, but require each user to log on to the software with unique credentials. These unique credentials can be assigned to a specified role in the same way as in Integrated mode.

If Mixed mode is selected, then the Screen Lock and Auto Logoff features are available for use.

Screen Lock and Auto Logoff: For security purposes, the computer screen can be set to lock after a defined period of inactivity. An automatic logoff timer can also be set, so that the software closes after it has been locked for a defined period. Screen Lock and Auto Logoff are available in Mixed mode only.

Note: When the screen locks, acquisition and processing continue. Automatic logoff will not occur if processing is occurring or if the Results Table has not been saved. When the user is logged off using the forced log off, all processing stops, and all unsaved data is lost. Acquisition continues after the user is logged off, either automatically or manually.

Security Notification: The software can be configured to automatically send an e-mail notification after a configurable number of logon failures within a configurable period, to warn of attempts to access the system by unauthorized users. The number of logon failures can be from 3 to 7, and the period can be from 5 minutes to 24 hours.

Note: For workgroups that are administered by the Central Administrator Console (CAC) software, the security mode cannot be managed with the SCIEX OS software.

Select the Security Mode

1. Open the Configuration workspace.
2. Click **User Management**.
3. Click the **Security Mode** tab.
4. Select **Integrated Mode** or **Mixed Mode**. Refer to the section: Configure the Security Mode.
5. Click **Save**.
   A confirmation dialog is shown.
6. Click **OK**.

Configure Workstation Security Options (Mixed Mode)

Prerequisite Procedures
• Set the security mode to Mixed mode. Refer to the section: Configure the Security Mode.

If Mixed mode is selected, then the Screen Lock and Auto Logoff features can be configured.

1. Open the Configuration workspace.
2. Click **User Management**.
3. Open the Security Mode tab.
4. To configure the Screen Lock feature, follow these steps:
   a. Select **Screen lock**.
   b. In the **Wait** field, specify a time, in minutes.
      If the workstation is inactive for this amount of time, then it is automatically locked. The logged-on user can unlock the workstation by entering the correct credentials, or the Administrator can log the user off.
5. To configure the Auto Logoff feature, follow these steps:
   a. Select **Auto logoff**.
   b. In the **Wait** field, specify a time, in minutes. If the workstation is locked for this amount of time, either automatically or manually, then the currently logged on user is logged off. All processing stops. Acquisition, however, continues.
6. Click **Save**.
   A confirmation dialog box opens.
7. Click **OK**.

Configure E-mail Notification (Mixed Mode)

Prerequisite Procedures
• Set the security mode to Mixed mode. Refer to the section: Configure the Security Mode.

The software can be configured to send an e-mail message after a configurable number of logon errors within a configurable period. The number of logon failures can be from 3 to 7, and the period from 5 minutes to 24 hours.

The computer with the software installed must be able to communicate with an SMTP server with an open port.

1. Open the Configuration workspace.
2. Click **User Management**.
3. Open the Security Mode tab.
4. Select the **Send e-mail messages after** check box and then specify how many logon failures within what period, in minutes, will generate an e-mail notification.

   Tip! To disable notification, clear the **Send e-mail messages after** check box.

5. In the **SMTP Server** field, type the name of the SMTP server.

   Note: The SMTP account sends mail to the e-mail server. The SMTP server is defined in the corporate e-mail application.

6. In the **Port Number** field, type the number of the open port.
   Click **Apply Default** to insert the default port number, 25.
7. In the **To** field, type the e-mail address to which the message is to be sent. For example: username@domain.com.
8. In the **From** field, type the e-mail address to be shown in the **From** field of the message.
9. In the **Subject** field, type the subject of the message.
10. In the **Message** field, type the text to be included in the body of the message.
11. Click **Save**.
    A confirmation dialog opens.
12. Click **OK**.
13. To check the configuration, click **Send Test Mail**.

Configure Access to the SCIEX OS Software

Before configuring security, do the following:

- Remove all of the unnecessary users and user groups, such as replicator, power user, and backup operator, from the local computer and the network.

  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.

- Add user groups containing groups that will have non-administrative tasks.
- Configure system permissions.
- Create suitable procedures and account policies for the users in Group Policy.

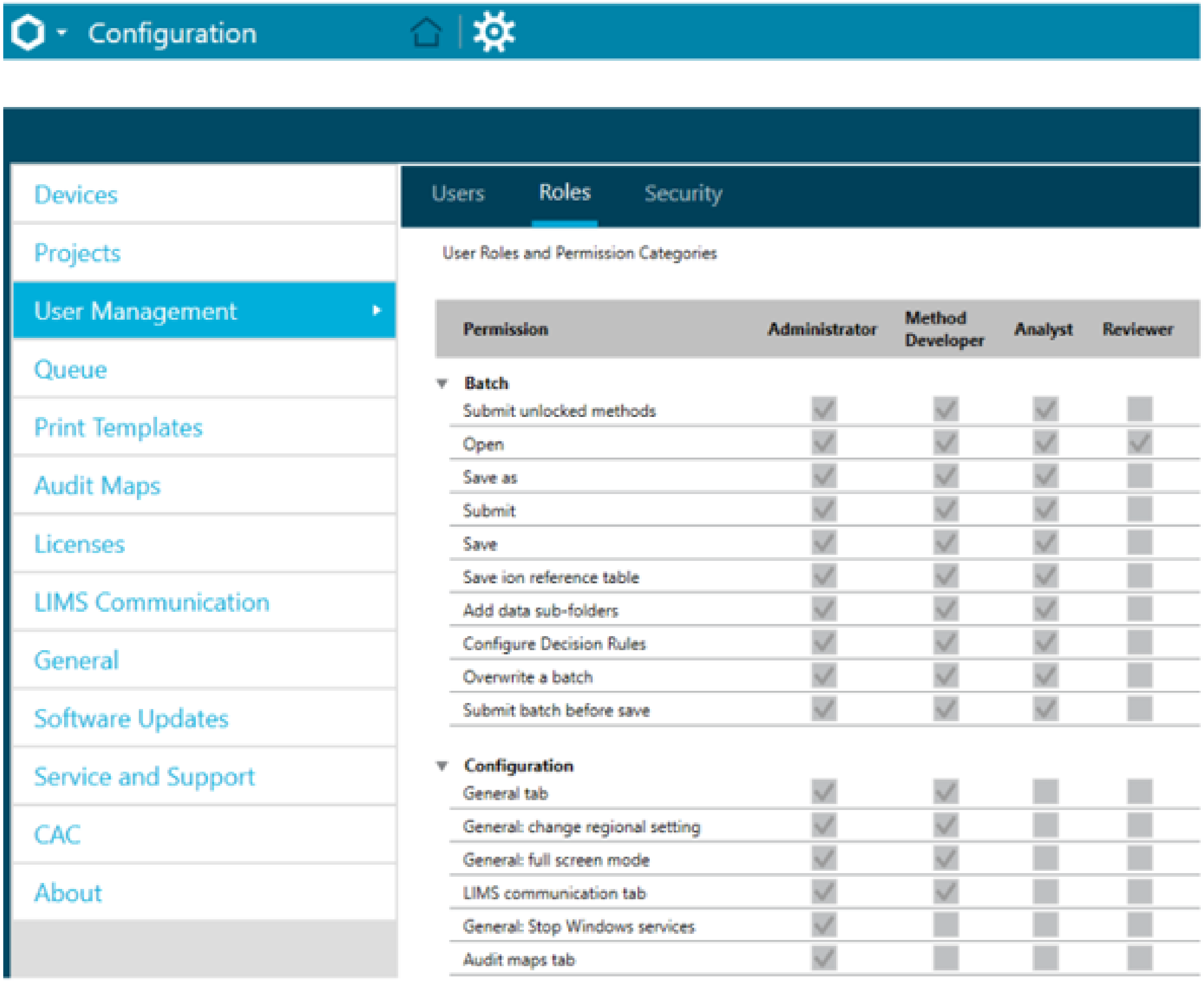
Refer to the Windows documentation for more information about the following:

- Users and groups and Active Directory users.
- Password and account lockout policies for user accounts.
- User rights policy.

When users work in an Active Directory environment, the Active Directory group policy settings affect the computer security. Discuss group policies with the Active Directory administrator as part of a comprehensive deployment of the SCIEX OS software.

SCIEX OS Permissions

Figure 4-1 User Management Page



User Roles and Permission Categories

Permission	Administrator	Method Developer	Analyst	Reviewer
Batch				
Submit unlocked methods	☑	☑	☑	☐
Open	☑	☑	☑	☑
Save as	☑	☑	☑	☐
Submit	☑	☑	☑	☐
Save	☑	☑	☑	☐
Save ion reference table	☑	☑	☑	☐
Add data sub-folders	☑	☑	☑	☐
Configure Decision Rules	☑	☑	☑	☐
Overwrite a batch	☑	☑	☑	☐
Submit batch before save	☑	☑	☑	☐
Configuration				
General tab	☑	☑	☐	☐
General: change regional setting	☑	☑	☐	☐
General: full screen mode	☑	☑	☐	☐
LIMS communication tab	☑	☑	☐	☐
General: Stop Windows services	☑	☐	☐	☐
Audit maps tab	☑	☐	☐	☐

Table 4-3 Permissions

Permission	Description
Batch	
Submit unlocked methods	Submit batches that contain unlocked methods.
Open	Open saved batches.
Save As	Save batches with a new name.

Table 4-3 Permissions (continued)

Permission	Description
Submit	Submit batches.
Save	Save a batch and overwrite the saved content.
Save ion reference table	Edit the ion reference table.
Add data sub-folders	Create subfolders for data storage.
Configure Decision Rules	Add and change decision rules.
Overwrite batch	Save a batch with the same name and overwrite the saved content.
Submit batch before save	Submit a batch that has not been saved.
Configuration	
General tab	Open the General page in the Configuration workspace.
General: change regional setting	Apply the active system regional settings to the SCIEX OS software.
General: full screen mode	Enable and disable Full Screen mode.
General: Stop Windows services	Enable or disable the **Windows Settings** option.
LIMS communication tab	Open the LIMS Communication page in the Configuration workspace.
Audit maps tab	Open the Audit Maps page in the Configuration workspace.
Queue tab	Open the Queue page in the Configuration workspace.
Queue: instrument idle time	Set the instrument idle time.
Queue: max. number of acquired samples	Set the maximum number of acquired samples permitted.
Queue: other queue settings	Configure other queue settings.
Projects tab	Open the Projects page in the Configuration workspace.
Projects: create project	Create projects.
Projects: apply an audit map template to an existing project	Apply an audit map to a project.
Projects: create root directory	Create a root directory for project storage.

Table 4-3 Permissions (continued)

Permission	Description
Projects: set current root directory	Change the root directory for a project.
Projects: specify network credentials	Specify a secure network account (SNA) to be used during network acquisition if the user who is logged on does not have access to the network resource.
Projects: Enable checksum writing for wiff data creation	Configure the software to write checksums to `wiff` data files.
Projects: clear root directory	Delete a root directory from the list.
Devices tab	Open the Devices page in the Configuration workspace.
User management tab	Open the User Management page in the Configuration workspace.
Force user logoff	Force a user who is logged on to the SCIEX OS software to log off.
CAC tab [1]	Open the CAC page in the Configuration workspace.
Print Templates tab	Open the Print Templates tab in the Configuration workspace.
Print Templates: Create and modify print templates	Make new print templates or change saved print templates.
Print Templates: Set default print template	Make the active print template the default for the active project.
Print Templates: Apply the current template to all projects in the root directory	Add the print template to the list of available print templates for selected projects in a selected root directory.
Event Log	
Access event log workspace	Open the Event Log workspace.
Archive log	Archive the logs in the Event Log workspace.
Audit Trail	
Access audit trail workspace	Open the Audit Trail workspace.

[1] In version 3.1, the **Enable Central Administration** permission was renamed to **CAC**. The CAC page in the Configuration workspace can be used to configure central administration of the SCIEX OS software.

Table 4-3 Permissions (continued)

Permission	Description
View active audit map	See the active audit map for a workstation or project in the Audit Trail workspace.
Print/Export audit trail	Print or export the audit trail.
Data Acquisition Panel	
Start	Start acquisition in the Data Acquisition pane.
Stop	Stop acquisition in the Data Acquisition pane.
Save	Save acquired data with a different file name in the Data Acquisition pane.
MS & LC Method	
Access method workspace	Open the MS Method and LC Method workspaces.
New	Create MS and LC methods.
Open	Open MS and LC methods.
Save	Save a method and overwrite the saved content.
Save As	Save methods with a new name.
Lock/Unlock method	Lock methods, to prevent editing, and unlock methods.
Overwrite acquisition methods	Save an acquisition method with the same name and overwrite the saved content.
Queue	
Manage	Open the Queue workspace.
Start/Stop	Start or stop the queue.
Print	Print the queue.
Edit Sample	Change the name or data file for a sample.
Library	
Access library workspace	Open the Library workspace. Not applicable to the quantitation workflow.
MS Tune	
Access MS Tune workspace	Open the MS Tune workspace.

Table 4-3 Permissions (continued)

Permission	Description
Advanced MS Tuning	X500 QTOF and ZenoTOF 7600/7600+ systems: Get access to the advanced tuning options, which include **Detector Optimization**, **Positive TOF Tuning**, **Negative TOF Tuning**, **Positive Q1 Unit Tuning**, **Negative Q1 Unit Tuning**, **Positive Q1 High Tuning**, and **Negative Q1 High Tuning**.Not applicable.
Advanced troubleshooting	Open the Advanced Troubleshooting dialog.Not applicable.
Quick status check	X500 QTOF and ZenoTOF 7600/7600+ systems: Do the **Positive Quick Status Check** and **Negative Quick Status Check**.
Restore instrument data	Restore previously saved tuning settings.
Analytics	
New results	Create Results Tables.
Create processing method	Create processing methods.
Modify processing method	Change processing methods.
Allow Export and Create Report of unlocked Results Table	If the Results Table is not locked, then export or create a report from a Results Table or statistics table.
Save results for Automation Batch	Save Results Tables that were created automatically in the Batch workspace. This permission is required for autoprocessing during acquisition.
Change default quantitation method integration algorithm	Change the integration algorithm in the project default settings.
Change default quantitation method integration parameters	Change the integration parameters in the project default settings.
Enable project modified peak warning	Enable the modified peak warning property for a project.
Add samples	Add samples to a Results Table.
Remove selected samples	Remove samples from a Results Table.
Export, import, or remove external calibration	Export, import, or remove external calibrations.

Table 4-3 Permissions (continued)

Permission	Description
Modify sample name	Change the sample name in the Results Table.
Modify sample type	Change the sample type in the Results Table. Valid sample types include standard, quality control (QC), and unknown.
Modify sample ID	Change the sample ID in the Results Table.
Modify actual concentration	Change the actual concentration of the standard and QC samples in the Results Table.
Modify dilution factor	Change the dilution factor in the Results Table.
Modify comment fields	Change the following comment fields: • **Component Comment** • **IS Comment** • **IS Peak Comment** • **Peak Comment** • **Sample Comment**
Enable manual integration	Do manual integration.
Set peak to not found	Set a peak to **Not Found**.
Include or exclude a peak from the results table	Include and exclude peaks in the Results Table.
Regression options	Change the regression options in the Calibration Curve pane.
Modify results table integration parameters for a single chromatogram	Change integration parameters for a single chromatogram in the Peak Review pane.
Modify quantitation method for results table component	Select a different processing method for a component in the Peak Review pane with the **Update Processing Method for Component** option.
Create metric plot new settings	Create new metric plots and change the settings.
Add custom columns	Add custom columns to a Results Table.
Set peak review title format	Change the peak review title.
Remove custom column	Remove custom columns from a Results Table.
Results table display settings	Customize the columns that show in the Results Table.

Table 4-3 Permissions (continued)

Permission	Description
Lock results table	Lock a Results Table to prevent editing.
Unlock results table	Unlock a Results Table to let changes be made.
Mark results file as reviewed and save	Mark a Results Table as reviewed and save it.
Modify report template	Change report templates.
Transfer results to LIMS	Upload results to a Laboratory Information Management System (LIMS).
Modify barcode column	Change the **Barcode** column in a Results Table.
Change comparison sample assignment	Change the comparison sample specified in the **Comparison** column of the Results Table.
Add the MSMS spectra to library	Add the selected MS/MS spectra to a library. Not applicable to the quantitation workflow.
Project default settings	Change the project default quantitative and qualitative processing settings.
Create report in all formats	Create reports in all formats. Users without this permission can only create reports in PDF format.
Edit flagging criteria parameters	Change the flagging parameters in a processing method.
Automatic outlier removal parameter change	Change the parameters for automatic outlier removal.
Enable automatic outlier removal	Change the processing method to turn on the automatic outlier removal feature.
Update processing method via FF/LS	Use the Formula Finder and Library Search to update processing methods. Not applicable to the quantitation workflow.
Update results via FF/LS	Use the Formula Finder and Library Search to update the results. Not applicable to the quantitation workflow.
Enable grouping by adducts functionality	Update the processing method to use the grouping by adduct feature.
Browse for Files	Browse outside of the local data folder.
Enable standard addition	Update the processing method to turn on the standard addition feature.

Table 4-3 Permissions (continued)

Permission	Description
Set Manual Integration Percentage Rule	Change the **Manual Integration %** parameter.
Modify Weight/Volume	Lets the user change the **Weight/Volume** field.
Overwrite a results table	Save a Results Table with the same name and overwrite the saved content.
Mark result file as approved and save	Lets the user mark a Results file as approved and save it with the **Results** > **Mark result file as approved and save** command.
Central Monitoring	
Access Queue Tab	Open the **Central Monitoring** workspace.
Print Queue	Print the queue.
Start/Stop Queue	Start or stop the queue.
Explorer	
Access explorer workspace	Open the Explorer workspace.
Export	Export data from the Explorer workspace.
Print	Print data in the Explorer workspace.
Options	Change the options for the Explorer workspace.
Recalibrate	Calibrate samples and spectra in the Explorer workspace again. Not applicable to the quantitation workflow.
Browse for Files	Browse outside of the active project.

About Users and Roles

In the SCIEX OS software, the administrator can add Windows users and groups to the User Management database. To get access to the software, users must be in the User Management database or a member of a group in the database.

Users can be assigned to one or more of the preset roles shown in the following table, or to custom roles, if required. The functions to which a user has access are specified by roles. The preset roles cannot be deleted and their permissions cannot be changed.

Note: For workgroups that are administered by the Central Administrator Console (CAC) software, the User Management pages are read only.

Table 4-4 Preset Roles

Role	Typical Tasks
Administrator	• Manages the system • Configures security
Method Developer	• Creates methods • Runs batches • Analyzes data for use by the user
Analyst	• Runs batches • Analyzes data for use by the user
Reviewer	• Reviews data • Reviews audit trails • Reviews quantitation results

Table 4-5 Preset Permissions

Permission	Administrator	Method Developer	Analyst	Reviewer
Batch				
Submit unlocked methods	✓	✓	✓	×
Open	✓	✓	✓	✓
Save As	✓	✓	✓	×
Submit	✓	✓	✓	×
Save	✓	✓	✓	×
Save ion reference table	✓	✓	✓	×
Add data sub-folders	✓	✓	✓	×
Configure Decision Rules	✓	✓	✓	×
Overwrite batch	✓	✓	✓	×

Table 4-5 Preset Permissions (continued)

Permission	Administrator	Method Developer	Analyst	Reviewer
Submit batch before save	✓	✓	✓	✓
Configuration				
General tab	✓	✓	×	×
General: change regional setting	✓	✓	×	×
General: full screen mode	✓	✓	×	×
General: Stop Windows services	✓	×	×	×
LIMS communication tab	✓	✓	×	×
Audit maps tab	✓	×	×	×
Queue tab	✓	✓	✓	✓
Queue: instrument idle time	✓	✓	×	×
Queue: max. number of acquired samples	✓	✓	×	×
Queue: other queue settings	✓	✓	×	×
Projects tab	✓	✓	✓	✓
Projects: create project	✓	✓	✓	×
Projects: apply an audit map template to an existing project	✓	×	×	×
Projects: create root directory	✓	×	×	×
Projects: set current root directory	✓	×	×	×

Table 4-5 Preset Permissions (continued)

Permission	Administrator	Method Developer	Analyst	Reviewer
Projects: specify network credentials	✓	×	×	×
Projects: Enable checksum writing for wiff data creation	✓	×	×	×
Projects: clear root directory	✓	×	×	×
Devices tab	✓	✓	✓	×
User management tab	✓	×	×	×
Force user logoff	✓	×	×	×
CAC tab[1]	✓	×	×	×
Print Templates tab	✓	✓	×	×
Print Templates: Create and modify print templates	✓	✓	×	×
Print Templates: Set default print template	✓	✓	×	×
Print Templates: Apply the current template to all projects in the root directory	✓	×	×	×
Event Log				
Access event log workspace	✓	✓	✓	✓
Archive Log	✓	✓	✓	✓
Audit Trail				
Access audit trail workspace	✓	✓	✓	✓

[1] In version 3.1, the **Enable Central Administration** permission was renamed to **CAC**. The CAC page in the Configuration workspace can be used to configure central administration of the SCIEX OS software.

Table 4-5 Preset Permissions (continued)

Permission	Administrator	Method Developer	Analyst	Reviewer
View active audit map	✓	✓	✓	✓
Print/Export audit trail	✓	✓	✓	✓
Data Acquisition Panel				
Start	✓	✓	✓	×
Stop	✓	✓	✓	×
Save	✓	✓	✓	×
MS & LC Method				
Access method workspace	✓	✓	✓	✓
New	✓	✓	×	×
Open	✓	✓	✓	✓
Save	✓	✓	×	×
Save As	✓	✓	×	×
Lock/Unlock method	✓	✓	×	×
Overwrite acquisition methods	✓	✓	×	×
Queue				
Manage	✓	✓	✓	×
Start/Stop	✓	✓	✓	×
Print	✓	✓	✓	✓
Edit Sample	✓	✓	×	×
Library				
Access library workspace	✓	✓	✓	✓
MS Tune				
Access MS Tune workspace	✓	✓	✓	×

Table 4-5 Preset Permissions (continued)

Permission	Administrator	Method Developer	Analyst	Reviewer
Advanced MS Tuning	✓	✓	×	×
Advanced troubleshooting	✓	✓	×	×
Quick status check	✓	✓	✓	×
Restore instrument data	✓	✓	×	×
Analytics				
New results	✓	✓	✓	×
Create processing method	✓	✓	✓	×
Modify processing method	✓	✓	×	×
Allow Export and Create Report of unlocked Results Table	✓	×	×	×
Save results for Automation Batch	✓	✓	✓	×
Change default quantitation method integration algorithm	✓	✓	×	×
Change default quantitation method integration parameters	✓	✓	×	×
Enable project modified peak warning	✓	×	×	×
Add samples	✓	✓	✓	×
Remove selected samples	✓	✓	✓	×

Table 4-5 Preset Permissions (continued)

Permission	Administrator	Method Developer	Analyst	Reviewer
Export, import, or remove external calibration	✓	✓	✓	×
Modify sample name	✓	✓	✓	×
Modify sample type	✓	✓	✓	×
Modify sample ID	✓	✓	✓	×
Modify actual concentration	✓	✓	✓	×
Modify dilution factor	✓	✓	✓	×
Modify comment fields	✓	✓	✓	×
Enable manual integration	✓	✓	✓	×
Set peak to not found	✓	✓	✓	×
Include or exclude a peak from the results table	✓	✓	✓	×
Regression options	✓	✓	✓	×
Modify results table integration parameters for a single chromatogram	✓	✓	✓	×
Modify quantitation method for results table component	✓	✓	✓	×
Create metric plot new settings	✓	✓	✓	✓
Add custom columns	✓	✓	✓	×
Set peak review title format	✓	×	×	×

Table 4-5 Preset Permissions (continued)

Permission	Administrator	Method Developer	Analyst	Reviewer
Remove custom column	✓	✓	×	×
Results table display settings	✓	✓	✓	✓
Lock results table	✓	✓	✓	✓
Unlock results table	✓	×	×	×
Mark results file as reviewed and save	✓	×	×	✓
Modify report template	✓	✓	×	×
Transfer results to LIMS	✓	✓	✓	×
Modify barcode column	✓	✓	×	×
Change comparison sample assignment	✓	✓	×	×
Add the MSMS spectra to library	✓	✓	×	×
Project default settings	✓	✓	×	×
Create report in all formats	✓	✓	✓	✓
Edit flagging criteria parameters	✓	✓	✓	×
Automatic outlier removal parameter change	✓	✓	×	×
Enable automatic outlier removal	✓	✓	✓	×
Update processing method via FF/LS	✓	✓	×	×
Update results via FF/LS	✓	✓	×	×

Table 4-5 Preset Permissions (continued)

Permission	Administrator	Method Developer	Analyst	Reviewer
Enable grouping by adducts functionality	✓	✓	×	×
Browse for Files	✓	✓	✓	✓
Enable standard addition	✓	✓	✓	×
Set Manual Integration Percentage Rule	✓	×	×	×
Modify Weight/Volume	✓	✓	✓	×
Overwrite a results table	✓	✓	✓	×
Mark result file as approved and save	✓	×	×	✓
Explorer				
Access explorer workspace	✓	✓	✓	✓
Export	✓	✓	✓	×
Print	✓	✓	✓	×
Options	✓	✓	✓	×
Recalibrate	✓	✓	×	×
Browse for Files	✓	✓	✓	✓

Manage Users

Add a User or Group

1. Open the Configuration workspace.
2. Open the User Management page.
3. Open the Users tab.
4. Click **Add User** (⊕).
   The Select User or Group dialog opens.

5. Type the name of a user or group and then click **OK**.

   Tip! For information about the Select User or Group dialog and how to use it, press **F1**.

6. To make the user active, make sure that the **Active user or group** check box is selected.
7. In the **Roles** area, select one or more roles, and then click **Save**.

Deactivate Users or Groups

1. Open the Configuration workspace.
2. Open the User Management page.
3. Open the Users tab.
4. In the **User name or group** list, select the user or group to be deactivated.
5. Clear the **Active user or group** check box.
   The software prompts for confirmation.
6. Click **Yes**.

Remove Users or Groups

Use this procedure to remove a user or group from the software. If a user or group is removed from Windows, then the user must also be removed from the SCIEX OS software.

1. Open the Configuration workspace.
2. Open the User Management page.
3. Open the Users tab.
4. In the **User name or group** list, select the user or group to be removed.
5. Click **Delete**.
   The software prompts for confirmation.
6. Click **OK**.

Manage Roles

Change the Roles Assigned to a User or Group

Use this procedure to assign new roles to a user or group, or to remove existing role assignments.

1. Open the Configuration workspace.
2. Open the User Management page.
3. Open the Users tab.
4. In the **User name or group** field, select the user or group to be changed.

5. Select the roles to be assigned to the user or group, and clear any roles to be removed.
6. Click **Save**.

Create a Custom Role

1. Open the Configuration workspace.
2. Open the User Management page.
3. Open the Roles tab.
4. Click **Add Role** (⊕).
   The Duplicate a User Role dialog opens.
5. In the **Existing user role** field, select the role to be used as a template for the new role.
6. Type a name and description for the role, and then click **OK**.
7. Select the access privileges for the role.
8. Click **Save all Roles**.
9. Click **OK**.

Delete a Custom Role

Note: If a user is assigned only to the role being deleted, then the system prompts for the deletion of the user as well as the role.

1. Open the Configuration workspace.
2. Open the User Management page.
3. Open the Roles tab.
4. Click **Delete a Role**.
   The Delete a User Role dialog opens.
5. Select the role to be deleted and then click **OK**.

Export and Import User Management Settings

The User Management database for the SCIEX OS software can be exported and imported. After configuring the User Management database on one SCIEX computer, for example, export it, and then import it on other SCIEX computers, to make sure that the user management settings are consistent.

Only domain users are exported. Local users are not exported.

Before importing user management settings, the software automatically backs up the current settings. The user can restore the last backup.

Export User Management Settings

1. Open the Configuration workspace.
2. Open the User Management page.
3. Click **Advanced** > **Export User Management settings**.
   The Export User Management Settings dialog opens.
4. Click **Browse**.
5. Browse to and select the folder where the settings will be saved, and then click **Select Folder**.
6. Click **Export**.
   A confirmation message is shown, with the name of the file that contains the exported settings.
7. Click **OK**.

Import User Management Settings

1. Open the Configuration workspace.
2. Open the User Management page.
3. Click **Advanced** > **Import User Management settings**.
   The Import User Management Settings dialog opens.
4. Click **Browse**.
5. Browse to and select the file that contains the settings to be imported, and then click **Open**.
   The software verifies that the file is valid.
6. Click **Import**.
   The software backs up the current user management settings and imports the new settings. A confirmation message is shown.
7. Click **OK**.

Restore User Management Settings

Before the user management settings are imported, the software backs up the current settings. Use this procedure to restore the last backup of the user management settings.

1. Open the Configuration workspace.
2. Open the User Management page.
3. Click **Advanced** > **Restore previous settings**.
   The Restore User Management Settings dialog opens.

4. Click **Yes**.
5. Close the SCIEX OS software and open it again.

Configure Access to Projects and Project Files

Use the Windows security features to control access to the `SCIEX OS Data` folder. By default, project files are stored in the `SCIEX OS Data` folder. To access a project, users must have access to the root directory in which the project data is stored. For more information, refer to the section: Windows Security Configuration.

Project Folders

Each project contains folders that store different types of files. For information about the contents of the different folders, refer to the table: Table 4-6.

Table 4-6 Project Folders

Folder	Contents
`\Acquisition Methods`	Contains the mass spectrometer (MS) and LC methods that have been created within the project. MS methods have the msm extension and LC methods have the lcm extension.
`\Audit Data`	Contains the project audit map and all of the audit records.
`\Batch`	Contains all of the acquisition batch files that have been saved. Acquisition batches have the bch extension.
`\Data`	Contains the acquisition data files. Acquisition data files have the wiff and wiff2 extensions.
`\Project Information`	Contains the project default settings files.
`\Quantitation Methods`	Contains all of the processing method files. Processing methods have the qmethod extension.
`\Quantitation Results`	Contains all of the quantitation Results Table files. Results Table files have the qsession extension.

Software File Types

For common file types in the SCIEX OS software, refer to the table: Table 4-7.

Table 4-7 SCIEX OS Files

Extension	File Type	Folder
atds	• Workstation audit trail data and archives • Workstation audit trail settings • Project audit trail data and archives • Project audit trail settings	• For projects: *<project name>*\Audit Data • For the workstation: C:\ProgramData\SCIEX\Audit Data
atms	Audit maps	• For projects: *<project name>*\Audit Data • For the workstation: C:\ProgramData\SCIEX\Audit Data
bch	Batch	Batch
cset	Results Table settings	Project Information
dad	Mass spectrometry data file	• Optimization • Data
exml	Project default settings	Project Information
journal	Temporary files created by the SCIEX OS software	Various folders
lcm	LC Method	Acquisition Methods
msm	MS Method	Acquisition Methods
pdf	Portable document data	—
qlayout	Workspace layout	— **Note:** The default workspace layout for a project is stored in the Project Information folder.
qmethod	Processing method	Quantitation Methods

Table 4-7 SCIEX OS Files (continued)

Extension	File Type	Folder
qsession	Results Table **Note:** The SCIEX OS software can only open qsession files that were created with the SCIEX OSsoftware.	Quantitation Results
wiff	Mass spectrometry data file compatible with the SCIEX OS software **Note:** The SCIEX OS software makes both wiff and wiff2 files.	Data
wiff.scan	Mass spectrometry data file	• Optimization • Data
wiff2	Mass spectrometry data file generated by the SCIEX OS software	• Optimization • Data
xls or xlsx	Excel spreadsheet	Batch
xps	Recalibration	Data\Cal

Central Administrator Console 5

The Central Administrator Console (CAC) software is an optional alternative to local administration with the SCIEX OS software. The CAC software contains central role, user, workstation, and workgroup management and customization, all in one application.

This section describes the CAC software and explains how to configure and use it to centrally manage people, projects, and workstations.

Note: To use the CAC software and register workstations with the server, make sure that the SCIEX OS software is installed on each workstation.

The CAC software is license-enabled and can be installed on any workstation that supports SCIEX OS version 3.0 and Windows Server 2019.

The CAC software is a part of the SCIEX OS installer package. However, the CAC software and the SCIEX OS software cannot be installed on the same workstation.

Users

Use the User Management page to add Windows users and groups to the User Management database for the SCIEX OS software. The administrator can also add, modify, and delete user roles in the User Roles and Permissions section. To access the software, users must be defined in the User Management database, or must be a member of a group defined in the database.

User Pool

Only authorized users can log on to the workstation and get access to the SCIEX OS software when the SCIEX OS software is managed with the Central Administrator Console (CAC) software. Before users can be added to workgroups, they must be added to the user pool.

Add a User or Group to the User Pool

1. Open the Central Administration workspace.
2. Open the User Management page.
3. Open the User Pool tab.
4. Click **Add users to the User Pool** (⊕).
   The Select Users or Groups dialog opens.
5. Type the name of a user or group and then click **OK**.

Tip! Press and hold **Ctrl** key and then click **OK** to select multiple users or groups.

Delete Users or Groups

1. Open the Central Administration workspace.
2. Open the User Management page.
3. Open the User Pool tab.
4. In the right pane, select the user or group to be deleted, and then click **Delete**.
   The software prompts for confirmation.
5. Click **OK**.

User Roles and Permissions

This section describes the User Roles and Permissions page.

Users can be assigned to one or more of the predefined roles, described in the following table, or to custom roles, if required. The functions to which the user has access are specified by roles. The predefined roles cannot be deleted and their permissions cannot be changed.

Note: In the Central Administrator Console (CAC) software, users can also see the earliest version of the SCIEX OS software in which permission is supported.

Table 5-1 Predefined Roles

Role	Typical Tasks
Administrator	• Manages the system • Configures security
Method Developer	• Creates methods • Runs batches • Analyzes data for use by the user
Analyst	• Runs batches • Analyzes data for use by the user
Reviewer	• Reviews data • Reviews audit trails • Reviews quantitation results

Table 5-2 Preset Permissions

Permission	Administrator	Method Developer	Analyst	Reviewer
Batch				
Submit unlocked methods	✓	✓	✓	×
Open	✓	✓	✓	✓
Save As	✓	✓	✓	×
Submit	✓	✓	✓	×
Save	✓	✓	✓	×
Save ion reference table	✓	✓	✓	×
Add data sub-folders	✓	✓	✓	×
Configure Decision Rules	✓	✓	✓	×
Configuration				
General tab	✓	✓	×	×
General: change regional setting	✓	✓	×	×
General: full screen mode	✓	✓	×	×
LIMS communication tab	✓	✓	×	×
General: Stop Windows services	✓	×	×	×
Audit maps tab	✓	×	×	×
Queue tab	✓	✓	✓	✓
Queue: instrument idle time	✓	✓	×	×
Queue: max. number of acquired samples	✓	✓	×	×
Queue: other queue settings	✓	✓	×	×

Table 5-2 Preset Permissions (continued)

Permission	Administrator	Method Developer	Analyst	Reviewer
Projects tab	✓	✓	✓	✓
Projects: create project	✓	✓	✓	×
Projects: apply an audit map template to an existing project	✓	×	×	×
Projects: create root directory	✓	×	×	×
Projects: set current root directory	✓	×	×	×
Projects: specify network credentials	✓	×	×	×
Projects: Enable checksum writing for wiff data creation	✓	×	×	×
Projects: clear root directory	✓	×	×	×
Devices tab	✓	✓	✓	×
User management tab	✓	×	×	×
Force user logoff	✓	×	×	×
CAC tab[1]	✓	×	×	×
Print Templates tab	✓	✓	×	×
Print Templates: Create and modify print templates	✓	✓	×	×
Print Templates: Set default print template	✓	✓	×	×

[1] In version 3.1, the **Enable Central Administration** permission was renamed to **CAC**. The CAC page in the Configuration workspace can be used to configure central administration of the SCIEX OS software.

Table 5-2 Preset Permissions (continued)

Permission	Administrator	Method Developer	Analyst	Reviewer
Print Templates: Apply the current template to all projects in the root directory	✓	×	×	×
Event Log				
Access event log workspace	✓	✓	✓	✓
Archive Log	✓	✓	✓	✓
Audit Trail				
Access audit trail workspace	✓	✓	✓	✓
View active audit map	✓	✓	✓	✓
Print/Export audit trail	✓	✓	✓	✓
Data Acquisition Panel				
Start	✓	✓	✓	×
Stop	✓	✓	✓	×
Save	✓	✓	✓	×
MS & LC Method				
Access method workspace	✓	✓	✓	✓
New	✓	✓	×	×
Open	✓	✓	✓	✓
Save	✓	✓	×	×
Save As	✓	✓	×	×
Lock/Unlock method	✓	✓	×	×
Queue				
Manage	✓	✓	✓	×
Start/Stop	✓	✓	✓	×

Table 5-2 Preset Permissions (continued)

Permission	Administrator	Method Developer	Analyst	Reviewer
Print	✓	✓	✓	✓
Edit Sample	✓	✓	×	×
Library				
Access library workspace	✓	✓	✓	✓
MS Tune				
Access MS Tune workspace	✓	✓	✓	×
Advanced MS Tuning	✓	✓	×	×
Advanced troubleshooting	✓	✓	×	×
Quick status check	✓	✓	✓	×
Restore instrument data	✓	✓	×	×
Analytics				
New results	✓	✓	✓	×
Create processing method	✓	✓	✓	×
Modify processing method	✓	✓	×	×
Allow Export and Create Report of unlocked Results Table	✓	×	×	×
Save results for Automation Batch	✓	✓	✓	×
Change default quantitation method integration algorithm	✓	✓	×	×

Table 5-2 Preset Permissions (continued)

Permission	Administrator	Method Developer	Analyst	Reviewer
Change default quantitation method integration parameters	✓	✓	×	×
Enable project modified peak warning	✓	×	×	×
Add samples	✓	✓	✓	×
Remove selected samples	✓	✓	✓	×
Export, import, or remove external calibration	✓	✓	✓	×
Modify sample name	✓	✓	✓	×
Modify sample type	✓	✓	✓	×
Modify sample ID	✓	✓	✓	×
Modify actual concentration	✓	✓	✓	×
Modify dilution factor	✓	✓	✓	×
Modify comment fields	✓	✓	✓	×
Enable manual integration	✓	✓	✓	×
Set peak to not found	✓	✓	✓	×
Include or exclude a peak from the results table	✓	✓	✓	×
Regression options	✓	✓	✓	×
Modify results table integration parameters for a single chromatogram	✓	✓	✓	×

Table 5-2 Preset Permissions (continued)

Permission	Administrator	Method Developer	Analyst	Reviewer
Modify quantitation method for results table component	✓	✓	✓	×
Create metric plot new settings	✓	✓	✓	✓
Add custom columns	✓	✓	✓	×
Set peak review title format	✓	×	×	×
Remove custom column	✓	✓	×	×
Results table display settings	✓	✓	✓	✓
Lock results table	✓	✓	✓	✓
Unlock results table	✓	×	×	×
Mark results file as reviewed and save	✓	×	×	✓
Modify report template	✓	✓	×	×
Transfer results to LIMS	✓	✓	✓	×
Modify barcode column	✓	✓	×	×
Change comparison sample assignment	✓	✓	×	×
Add the MSMS spectra to library	✓	✓	×	×
Project default settings	✓	✓	×	×
Create report in all formats	✓	✓	✓	✓
Edit flagging criteria parameters	✓	✓	✓	×

Table 5-2 Preset Permissions (continued)

Permission	Administrator	Method Developer	Analyst	Reviewer
Automatic outlier removal parameter change	✓	✓	×	×
Enable automatic outlier removal	✓	✓	✓	×
Update processing method via FF/LS	✓	✓	×	×
Update results via FF/LS	✓	✓	×	×
Enable grouping by adducts functionality	✓	✓	×	×
Browse for Files	✓	✓	✓	✓
Enable standard addition	✓	✓	✓	×
Set Manual Integration Percentage Rule	✓	×	×	×
Modify Weight/Volume	✓	✓	✓	×
Explorer				
Access explorer workspace	✓	✓	✓	✓
Export	✓	✓	✓	×
Print	✓	✓	✓	×
Options	✓	✓	✓	×
Recalibrate	✓	✓	×	×

Add a Custom Role

The Central Administrator Console (CAC) software has four predefined roles. If additional roles are required, then copy an existing role and assign access rights.

1. Open the Central Administration workspace.
2. Open the User Management page.

3. Open the User Roles and Permissions tab.
4. Click **Add Role** (⊕).
   The Duplicate a User Role dialog opens.
5. In the **Existing user role** field, select the role to be used as a template for the new role.
6. Type a name and description for the role, and then click **OK**.
   The new role is shown in the User Roles and Permission Categories window.
7. Select the access privileges for the role by selecting the appropriate check boxes.
8. Click **Save all Roles**.

Delete a Custom Role

1. Open the Central Administration workspace.
2. Open the User Management page.
3. Open the User Roles and Permissions tab.
4. Click **Delete a Role**.
   The Delete a User Role dialog opens.
5. Select the role to be deleted and then click **OK**.

Workgroups

Use the Workgroup Management page to manage workgroups. Workgroups have users, workstations, and projects.

Create a workgroup by adding resources from their respective pools. Before creating any workgroups, make sure to add all potential users to the User Pool, workstations to the Workstation Pool, and project root directories to the Project Pool.

If required, add additional roles. Optionally, select the security mode for each workgroup.

The security mode setting for the workgroup takes precedence over the security mode setting for the workstation if the workstation is registered with the Central Administrator Console (CAC) software and if it is a member of the workgroup.

Do not add local users to workgroups. The CAC software is a network application and only network users should be added to a workgroup.

Note: In each workgroup, at least one user must be assigned the administrator role. Only an administrator or supervisor can unlock the CAC software screen if the currently logged on user is unavailable.

If server-based security is no longer required for a particular workstation, then manage security for the workstation locally with the SCIEX OS software.

Create a Workgroup

1. Open the Central Administration workspace.
2. Open the Workgroup Management page.
3. Click **Add Workgroup** (⊕).
   The Add a Workgroup dialog opens.
4. Type a name in the **Workgroup Name** field.
5. Type a description in the **Description** field, and then click **Add**.
   The workgroup is created and added to the Manage Workgroups and Assignments pane. The Central Administrator Console (CAC) software creates the appropriate workgroup name on the server.

   Note: Integrated mode is the default security setting.

Delete a Workgroup

If a workgroup is no longer required, then delete it from the Workgroup list. Deleting a workgroup only deletes the workgroup from the Central Administrator Console (CAC) software. No data is lost from the workstation.

1. Open the Central Administration workspace.
2. Open the Workgroup Management page.
3. Expand the **Workgroups** list and find the workgroup to be deleted. Click **Delete**.
   The Delete Workgroup dialog opens.
4. Click **Yes**.

Add Users or Groups to a Workgroup

Note: Users added to the workgroup are not automatically assigned a role. To assign roles to users, refer to the section: Add or Remove a Role.

1. Open the Central Administration workspace.
2. Open the Workgroup Management page.
3. In the Manage Workgroups and Assignments pane, expand the workgroup to be changed and then expand the **Users** list.
4. Select a user or group and then click **Add** (>).

Tip! Add or select multiple users by pressing **Shift** and then selecting the required users.

The user or group is added to the current workgroup.

5. Assign one or more roles to the added user or group. Refer to the section: Add or Remove a Role.
6. Click **Save**.

Add or Remove a Role

Prerequisite Procedures
• Add Users or Groups to a Workgroup.

For information about creating roles in the Central Administrator Console (CAC) software, refer to the section: Add a Custom Role. Users or groups with an assigned role have all the permissions associated with the role. Users or groups can have more than one role at a time.

1. Open the Central Administration workspace.
2. Open the Workgroup Management page.
3. In the Manage Workgroups and Assignments pane, expand the workgroup to be changed and then expand the **Users** list.
4. In the Current Workgroup Membership section, assign or remove roles in the **Assign Roles** column.
5. Click **Save**.

Add Workstations to a Workgroup

Note: A workstation is shown in the workstation pool only if it has been registered with the Central Administrator Console (CAC) software. Refer to the section: Add a Workstation

1. Open the Central Administration workspace.
2. Open the Workgroup Management page.
3. In the Manage Workgroups and Assignments pane, expand the workgroup to be changed, and then expand the **Workstations** list.
4. Select a workstation and then click **Add** (>).
   The workstation is added to the current workgroup.
5. Click **Save**.

Assign Workgroup Security Settings

Prerequisite Procedures

- Add a Workstation
- Add Workstations to a Workgroup

For information on security modes, refer to the section: Configure the Security Mode.

1. Open the Central Administration workspace.
2. Open the Workgroup Management page.
3. In the Manage Workgroups and Assignments pane, expand the workgroup to be changed, and then expand the **Workstations** list.
4. (Optional) To make the current workgroup the default workgroup for that workstation, select the **Set Default** check box in the Current Workgroup Membership section.
5. In the Assign Security Settings section, select the **Security Mode** for the workgroup and then type the appropriate **Screen lock** and **Auto logoff** times.
6. Click **Save**.

Add Projects to a Workgroup

Note: This procedure is only required if project access is managed centrally.

Note: If a project is added to more than one workgroup, then user access to the project is appended, not overwritten. For example, Workgroup 1 has User A, User B, and Project_01. Workgroup 2 has User B and User C. If Project_01 is added to Workgroup 2, then User A, User B, and User C will all have access to Project_01.

1. Open the Central Administration workspace.
2. Open the Workgroup Management page.
3. In the Manage Workgroups and Assignments pane, expand the workgroup to be changed, and then expand the **Projects** list.
4. Select the **Use central settings for projects** check box.
   The project selection section is shown.
5. Select a **Project root directory** to add an entire group of projects, or expand the project root and select a specific project to add to the workgroup.
6. Click **Add** (>) to add the projects to the workgroup.
   The project root is added to the Current Workgroup Membership table. Expand the project root to show the current projects in the workgroup.

7. Click **Save**.

Manage Projects

Use the Project Management page to create, modify, and delete projects.

To access a project, users must have access to the root directory in which the project data is stored. For more information, refer to the section: About Projects and Root Directories.

About Projects and Root Directories

A root directory is a folder that contains one or more projects. It is the folder in which the software looks for project data. The predefined root directory is `D:\SCIEX OS Data`.

To make sure that project information is stored safely, create projects using the Central Administrator Console (CAC) software. Add projects to the Project Root Pool before adding them to a workgroup. Refer to the section: Add a Project.

Project data can be organized in subfolders. Create the subfolders with the CAC software. Refer to the section: Add a Subfolder.

Note: If a project is created outside of the CAC software, then the project root should be refreshed after the project is created. When the root is refreshed, the contents of the Project Root Pool are synchronized with the contents of the project roots on the network.

Add a Root Directory

A root directory is the folder in which one or more projects are stored.

Note: The software saves up to ten root directories.

Tip! Local drives are not accessible on the network. A root directory can only be created on a shared drive.

1. Open the Central Administration workspace.
2. Open the Project Management page.
3. Click **Add new or existing project root to project pool** (⊕).
   The Add Root Directory dialog opens.
4. Type the full path to the root directory folder and then click **OK**.
   The folder is created.

   Tip! Instead of typing the path, click **Browse**, and then select the folder in which the root directory will be created.

Tip! Alternatively, create a folder in File Explorer, and then browse to and select the folder.

Note: For installations of the SCIEX OS software with a processing license, the root directory can be an Analyst software (`Analyst Data\Projects`) folder.

5. Click **OK**.
   The new root directory becomes the root directory for the current project.

Delete a Project Root Directory

The software keeps a list of the last ten root directories that were used. The user can delete root directories from this list.

Note: Deleting a project root directory also deletes all associated projects from the project root pool.

1. Open the Central Administration workspace.
2. Open the Project Management page.
3. Find the project root directory to be deleted, and then click **Delete Project Root** in the Actions section.
   The software prompts for confirmation.
4. Click **OK**.

Add a Project

Prerequisite Procedures
• Add a Root Directory

The project stores acquisition methods, data, batches, processing methods, processing results, and so on. We recommend the use of a separate project folder for each project.

Do not create projects or copy or paste files outside of the Central Administrator Console (CAC) software.

1. Open the Central Administration workspace.
2. Open the Project Management page.
3. Click **Add project** in the Actions section of the root folder.
   The New Project dialog opens.
4. Type the project name.
5. Click **OK**.
   The new project is shown under the project root.

Add a Subfolder

Data in projects can be further organized in subfolders.

1. Open the Central Administration workspace.
2. Open the Project Management page.
3. Click **Add data sub-folders** in the Actions section of the root folder.
   The Add Data Sub-Folders dialog opens.
4. Select a project to which the subfolder will belong.
5. Click **Add a new data sub-folder** (⊕).
   The Data Sub-Folder Name dialog opens.
6. Type the name of the subfolder.
7. Click **Save**.

   Tip! Subfolders can be nested within other subfolders. To create a nested subfolder, select an existing subfolder in the Project Data Sub-Folders section and then click **Add a new data sub-folder** (⊕).

8. Close the Add Data Sub-Folders dialog.

Workstations

Use the Workstation Management page to manage all workstations connected to the CAC software. Workstations under the control of the CAC software automatically have customized settings applied to them.

Add a Workstation

On the Workstation Management page, administrators can add workstations, enable and disable central control of workstations, and remove workstations.

1. Open the Central Administration workspace.
2. Open the Workstation Management page.
3. Click **Add Workstation to the Workstations Pool** (⊕).
   The Select Computers dialog opens.
4. Type the names of the workstations to be added and then click **OK**.

The central administration **Status** of the workstation changes from **Connecting** to **Disabled**.

5. (Optional) To enable central control of the workstation:
    a. In the **Status** column, click **Disabled**.
    b. Click **OK**.

Tip! Users can also enable central administration in the SCIEX OS software. Refer to the document: *SCIEX OS Software Help System*.

Delete a Workstation

If a workstation is no longer in use or is no longer required to be part of a workgroup, then delete the workstation from the workstation pool. If a workstation is deleted, then it is removed from any of the workgroups to which it was assigned. No data is lost on the workstation when it is removed.

1. Open the Central Administration workspace.
2. Open the Workstation Management page.
3. Click **Workstation Management**.
4. In the Workstation Pool pane, find the workstation to be deleted, and then click **Delete**.
   The Delete Workstation dialog opens.
5. Click **OK**.

Reports and Security Features

Generate Data Reports

Use this procedure to generate data reports that include details such as configured users, roles, workstations, projects, and workgroups.

1. Open the Central Administration workspace.
2. Click **Print**.
   The Print Options dialog opens.
3. Select the pages to print and then click **Continue**.
4. Set the print options and then click **Print**.
5. (Print to PDF only) Browse to the location in which the Report will be saved and then click **Save**.

Export CAC Software Settings

Use this procedure to export security settings so that they can be imported into another Central Administrator Console (CAC) system. The settings are exported as an `ecac` file.

1. Open the Central Administration workspace.
2. Click **Advanced** > **Export CAC settings**.
   The Export CAC Settings dialog opens.
3. Click **Browse**.
4. Browse to and select the folder where the settings will be saved, and then click **Select Folder**.
5. Click **Export**.
   A confirmation message is shown, with the name of the file that contains the exported settings.
6. Click **OK**.

Import CAC Sofware Settings

Prerequisite Procedures
• Export CAC Software Settings

Use this procedure to import security settings from other Central Administrator Console (CAC) systems. The settings are imported from an `ecac` file.

1. Open the Central Administration workspace.
2. Open the Configuration workspace.
3. Open the User Management page.
4. Click **Advanced** > **Import CAC settings**.
   The Import CAC Settings dialog opens.
5. Click **Browse**.
6. Browse to and select the file that contains the settings to be imported, and then click **Open**.
   The software makes sure that the file is valid.
7. Click **Import**.
   The software backs up the current settings and then imports the new settings. A confirmation message is shown.

   Note: The imported settings are applied after the software is restarted.

8. Click **OK**.

Restore CAC Software Settings

Use this procedure to import the last exported `ecac` settings automatically.

1. Open the Central Administration workspace.
2. Click **Advanced** > **Restore CAC settings**.
   The Restore CAC Settings dialog opens.

   Note: The restored settings are applied after the Central Administrator Console (CAC) software is restarted.

3. Click **Yes**.

Export CAC User Management Settings

Use this procedure to export user management settings that can be applied to another Central Administrator Console (CAC) system. The settings are exported as a `data` file.

Note: Exported settings can only be imported into a system using the same version of the CAC software.

1. Open the Configuration Management workspace.
2. Click **Advanced** > **Export User Management settings**.
   The Export CAC Settings dialog opens.
3. Click **Browse**.
4. Browse to and select the folder where the settings will be saved, and then click **Select Folder**.
5. Click **Export**.
   A confirmation message is shown, with the name of the file that contains the exported settings.
6. Click **OK**.

Import CAC User Management Settings

Prerequisite Procedures
• Export CAC User Management Settings

Use this procedure to import security settings from another Central Administrator Console (CAC) system. The settings are imported from a `data` file.

Note: Exported settings can only be imported into a system using the same version of the CAC software.

1. Open the Configuration Management workspace.
2. Click **Advanced** > **Import User Management settings**.
   The Import User Management Settings dialog opens.
3. Click **Browse**.
4. Browse to and select the file that contains the settings to be imported, and then click **Open**.
   The software makes sure that the file is valid.
5. Click **Import**.
   The software backs up the current settings and then imports the new settings. A confirmation message is shown.

   Note: The imported settings are applied after the CAC software is restarted.
6. Click **OK**.

Network Acquisition 6

This section describes how network acquisition works in the SCIEX OS software and the benefits and limitations of network-based projects. It also contains procedures for configuring network acquisition.

About Network Acquisition

Network acquisition can be used to acquire data from one or more instruments to network-based project folders that can be processed on remote workstations. This process is network-failure tolerant and makes sure that no data is lost if the network connection fails during acquisition.

System performance can be slower when network projects are being used than it is when local projects are being used. Because some audit trails also reside in the network folders, any activity that generates a project audit record is also slower. Network files might take some time to open, depending on the network performance. Network performance is related not only to the physical network hardware, but also to network traffic and design.

Note: If the ClearCore2 service is interrupted during network acquisition, then the partial sample data for the sample under acquisition at the time of the interruption will not be written to the data file.

Note: When using network acquisition in a regulated environment, synchronize the local computer time with the server time for accurate timestamps. The server time is used for the file creation time. The Audit Trail Manager records the file creation time using the local computer time.

CAUTION: Potential Data Loss. Do not save data from multiple acquisition computers in the same network data file.

Benefits of Using Network Acquisition

Network data acquisition provides a secure method of working with project folders that reside entirely on network servers. This reduces the complexity involved in collecting data locally and then moving the data to a network location for storage. Also, because network drives are typically backed up automatically, the need to back up local drives is reduced or eliminated.

Secure Network Account

In a regulated environment where data is being acquired to a network folder, it is highly recommended that users not have delete rights for the destination folder. However, without delete access to this folder, the SCIEX OS software cannot operate optimally. The secure network account (SNA) feature identifies a network account that has the Full control file permission for the network root directory. The ClearCore2 service uses this account to transfer data to the network folder.

The SNA must have Full control for:

- The network root directory folder
- The `SCIEX OS Data\TempData` folder on the acquisition computer

The SNA does not need to:

- Belong to the Administrator group on the computer.
- Be in the User Management database for the SCIEX OS software.

The SNA is specified on the Projects page in the Configuration workspace. Only a valid Windows network or domain account can be specified.

If an SNA is not specified, then the SCIEX OS software uses the credentials of the currently logged on user to transfer the data to the network root directory. For the transfer to be successful, the account must have write permissions to all project folders to which data is being acquired, regardless of which user submitted the batch for acquisition.

Data Transfer Process

When the SCIEX OS software acquires data to a network location, it first writes each sample to a folder on the local drive, and then transfers it to the network. When the successful transfer of the entire data file is confirmed, the local folder containing the data is deleted. If the network becomes unavailable during this process, then the SCIEX OS software tries again every 15 minutes until the transfer is successful.

Configure Network Acquisition

A root directory is the folder in which the SCIEX OS software stores data. To be certain that project information is stored safely, create the root directory with the SCIEX OS software. Do not create projects in File Explorer.

Optionally, when creating root directories on a network resource, define the **Credentials for Secure Network Account**. This is the secure network account defined on the network resource. Refer to the section: Secure Network Account.

For information about creating projects and subprojects, refer to the document: *SCIEX OS Software User Guide*.

Specify a Secure Network Account

If projects are stored on a network resource, then an SNA can be specified, to make sure that all users of the workstation have the required access to the network resource.

1. Open the Configuration workspace.
2. Click **Projects**.
3. In the **Advanced** section, click **Credentials for Secure Network Account**.
4. Type the user name, password, and domain of the secure network account defined on the network resource.
5. Click **OK**.

Auditing 7

This section explains how to use the auditing functionality. For information about Windows auditing functions, refer to the section: System Audits.

Audit Trails

The software organizes audit events in the Audit Trail workspace. The software stores the events in audit trails, which are files that store the records of audited events.

Workstation events are stored in the Workstation audit trail. Workstation audit trails are files that store the audited events for the computer on which the SCIEX OS software is installed.

CAC system events are stored in the CAC audit trail.

Project events are stored in the Project audit trail. The Audit Trail workspace shows the audit trails for the projects in the active root directory. Processing audit trail events are contained in the project audit trail and stored with the Results Table.

For a complete list of audited events, refer to the section: Audit Events.

Audit trails, combined with files such as `wiff2` files and Results Table files, are valid electronic records that can be used for compliance purposes.

Table 7-1 Audit Trails

Audit Trail	Examples of Events Recorded	Available Audit Maps Stored In	Default Audit Maps
Workstation (SCIEX OS)	• Changes to: ◦ Active audit map assignment ◦ Instrument tuning ◦ Sample queues ◦ Security ◦ Tuning ◦ Devices	• `C:\ProgramData\SCIEX\Audit Data` folder	• No Audit Map

Table 7-1 Audit Trails (continued)

Audit Trail	Examples of Events Recorded	Available Audit Maps Stored In	Default Audit Maps
CAC	• Changes to: • Audit map • CAC • Security • User log	• `C:\ProgramData\SCIEX\Audit Data` folder	• Silent Audit Map
Project (one per project)	• Changes to: • Active audit map assignment (SCIEX OS) • Project • Data • Printing	• *`<project>`*`\Audit Data` folder	• Specified on the Audit Maps page of the Configuration workspace

After an audit trail contains 20,000 audit records, the SCIEX OS and CAC software automatically archive the records and starts a new audit trail. For more information, refer to the section: Audit Trail Archives.

Audit Maps

An audit map is a file that contains a list of all of the events that can be audited, and whether a reason for change or electronic signature is required for the event. In the SCIEX OS software, two types of audit maps available: workstation and project. In the CAC software, two types of audit maps available are available: CAC and project.

Workstation audit maps control the events that are audited on a workstation.

Project audit maps control the events that are audited for a project, and are stored in the project folder.

Note: The audit map for a project can be edited in either the SCIEX OS or Central Administrator Console (CAC) software.

The user can create many audit maps, but only one audit map can be in use at any given time for each workstation, CAC system, and each project. The audit map in use for a workstation, CAC system, or project is called the active audit map.

When the SCIEX OS software is installed, the default audit map for all new projects is No Audit Map. When the CAC software is installed, the default audit map for all new projects is Silent Audit Map. The user can identify a different active audit map to be used as the default for all new projects. Refer to the section: Change the Active Audit Map for a Project.

Setup of Audit Maps

Before working with projects that require auditing, configure audit maps that are applicable to standard operating procedures. Several default audit map templates are available when the software is installed, but it might be necessary to create a customized map. Make sure that one audit map is available for the workstation or CAC audit trail and that one audit map is available for each project.

Table 7-2 Checklist for Configuring Auditing

Task	Refer To
• SCIEX OS: Create an audit map for the workstation audit trail. • CAC software: Create an audit map for the CAC audit trail.	• SCIEX OS: • Create a Workstation Audit Map • Edit a Workstation Audit Map • CAC software: • Create a CAC Audit Map • Edit a CAC Audit Map
• SCIEX OS: Apply the audit map to the workstation audit trail. • CAC software: Apply the audit map to the CAC audit trail.	• SCIEX OS: Change the Active Audit Map for a Workstation • CAC software: Change the Active Audit Map for a CAC system
Create a default active audit map for new projects.	• Create a Project Audit Map.
Configure the audit map to be used for each existing project.	• Create a Project Audit Map. • Edit a Project Audit Map.
Apply an audit map to each existing project.	• Change the Active Audit Map for a Project.

Installed Audit Map Templates

The software includes several audit map templates. These templates cannot be edited or deleted.

Table 7-3 Installed Audit Maps

Audit Map	Description
Example Audit Map	Selected events are audited. For illustration purposes only.
Full Audit Map	All of the events are audited. Electronic signatures and reasons are required for all of the events.
No Audit Map	No events are audited. **Note:** The **Change Active Audit Map Assignment** event is always recorded, even if the No Audit Map template is used.
Silent Audit Map	All of the events are audited. Electronic signatures and reasons are not required for any of the events.

For descriptions of the types of audit trails and their relationships to audit maps, refer to the table: Table 7-1. For information about the events recorded in audit trails, refer to the section: SCIEX OS Audit Trail Records.

For information about the auditing process, refer to the table: Table 7-2.

Work with Audit Maps

The software includes several installed audit map templates. For descriptions of the audit map templates, refer to the section: Installed Audit Map Templates. For a checklist of suggested steps for setting up auditing, refer to the section: Setup of Audit Maps.

If an active audit map template is deleted in the software or in File Explorer, then the project that uses that audit map template uses the Silent Audit Map.

Project Audit Maps

Project audit maps control the auditing of project events. For a list of auditable project events, refer to the section: Project Audit Trail.

Create a Project Audit Map

1. Open the Configuration workspace.
2. Click **Audit Maps**.
3. Open the Projects Templates tab.
4. In the **Edit map template** field, select a template to be used as the basis of the new map.

5. Click **Add Template** (⊕).
   The Add a Project Audit Map Template dialog opens.
6. Type the name of the new map, and then click **OK**.
7. Select and configure the events to be recorded by following these steps:
   a. Select the **Audited** check box for the event.
   b. (Optional) If a reason is required, then select **Reason Required**.
   c. (Optional) If an electronic signature is required, then select **E-sig Required**.
   d. (Optional) If predefined reasons are required, then select **Use Predefined Reason Only** and define the reasons.
8. Make sure that the **Audited** check box is cleared for any events that will not be audited.
9. Click **Save Template**.
   The system prompts the user to apply the new map to projects.
10. Do one of the following:
    - To apply the new map to projects, click **Yes**, select the projects that will use the new map, and then click **Apply**.
    - If the new map is not to be applied to existing projects, then click **No**.
11. (Optional) To use this audit map as the default for all new projects, click **Use as Default for New Projects**.

Edit a Project Audit Map

Note: Installed audit map templates cannot be edited.

1. Open the Configuration workspace.
2. Click **Audit Maps**.
3. Open the Projects Templates tab.
4. In the **Edit map template** field, select the map to be modified.
5. Select and configure the events to be recorded by following these steps:
   a. Select the **Audited** check box for the event.
   b. (Optional) If a reason is required, then select **Reason Required**.
   c. (Optional) If an electronic signature is required, then select **E-sig Required**.
   d. (Optional) If predefined reasons are required, then select **Use Predefined Reason Only** and define the reasons.

6. Make sure that the **Audited** check box is cleared for any events that will not be audited.
7. Click **Save Template**.
   The system prompts the user to apply the new map to projects.
8. Do one of the following:

   - To apply the new map to projects, click **Yes**, select the projects that will use the new map, and then click **Apply**.
   - If the new map is not to be applied to existing projects, then click **No**.

Change the Active Audit Map for a Project

When an audit map is applied to the project, it becomes the active audit map. The audit configuration in the active audit map determines which events are recorded in the audit trails.

1. Open the Configuration workspace.
2. Click **Audit Maps**.
3. Open the Projects Templates tab.
4. In the **Edit map template** field, select the audit map to be assigned to the project.
5. Click **Apply to Existing Projects**.
   The Apply Project Audit Map Template dialog opens.
6. Select the check boxes for the projects to which this audit map will apply.
7. Click **Apply**.

Delete a Project Audit Map

Note: Installed audit map templates cannot be deleted.

1. Open the Configuration workspace.
2. Click **Audit Maps**.
3. Open the Projects Templates tab.
4. In the **Edit map template** field, select the map to be deleted.
5. Click **Delete Template**.
   The system prompts for confirmation.
6. Click **Yes**.

Workstation Audit Maps

Workstation audit maps control the auditing of workstation events. For a list of auditable workstation events, refer to the section: Workstation Audit Trail.

Create a Workstation Audit Map

1. Open the Configuration workspace.
2. Click **Audit Maps**.
3. Open the Workstation Templates tab.
4. In the **Edit map template** field, select a template to be used as the basis of the new map.
5. Click **Add Template** (⊕).
   The Add a Workstation Audit Map Template dialog opens.
6. Type the name of the new map, and then click **OK**.
7. Select and configure the events to be recorded by following these steps:
    a. Select the **Audited** check box for the event.
    b. (Optional) If a reason is required, then select **Reason Required**.
    c. (Optional) If an electronic signature is required, then select **E-sig Required**.
    d. (Optional) If predefined reasons are required, then select **Use Predefined Reason Only** and define the reasons.
8. Make sure that the **Audited** check box is cleared for any events that will not be audited.
9. Click **Save Template**.
10. (Optional) To use this audit map as the active audit map for the workstation, click **Apply to the Workstation**.

Edit a Workstation Audit Map

Note: Installed audit map templates cannot be edited.

1. Open the Configuration workspace.
2. Click **Audit Maps**.
3. Open the Workstation Templates tab.
4. In the **Edit map template** field, select the map to be changed.
5. Select and configure the events to be recorded by following these steps:
    a. Select the **Audited** check box for the event.
    b. (Optional) If a reason is required, then select **Reason Required**.
    c. (Optional) If an electronic signature is required, then select **E-sig Required**.
    d. (Optional) If predefined reasons are required, then select **Use Predefined Reason Only** and define the reasons.

6. Make sure that the **Audited** check box is cleared for any events that will not be audited.
7. Click **Save Template**.
8. (Optional) To use this audit map as the active audit map for the workstation, click **Apply to the Workstation**.

Change the Active Audit Map for a Workstation

When an audit map is applied to the workstation, it becomes the active audit map. The audit configuration in the active audit map determines which events are recorded in the audit trails.

1. Open the Configuration workspace.
2. Click **Audit Maps**.
3. Open the Workstation Templates tab.
4. In the **Edit map template** field, select the map to be applied to the workstation.
5. Click **Apply to the Workstation**.

Delete a Workstation Audit Map

Note: Installed audit map templates cannot be deleted.

1. Open the Configuration workspace.
2. Click **Audit Maps**.
3. Open the Workstation Templates tab.
4. In the **Edit map template** field, select the map to be deleted.
5. Click **Delete Template**.
   The system prompts for confirmation.
6. Click **Yes**.

CAC Audit Maps

CAC audit maps control the auditing of CAC workstation events. For a list of auditable events, refer to the section: Workstation Audit Trail.

Create a CAC Audit Map

1. Open the Configuration workspace.
2. Click **Audit Maps**.
3. Open the CAC Templates tab.
4. In the **Edit map template** field, select a template to be used as the basis of the new map.

5. Click **Add Template** (+).
   The Add a CAC Audit Map Template dialog opens.
6. Type the name of the new map, and then click **OK**.
7. Select and configure the events to be recorded by following these steps:
   a. Select the **Audited** check box for the event.
   b. (Optional) If a reason is required, then select **Reason Required**.
   c. (Optional) If an electronic signature is required, then select **E-sig Required**.
   d. (Optional) If predefined reasons are required, then select **Use Predefined Reason Only** and define the reasons.
8. Make sure that the **Audited** check box is cleared for any events that will not be audited.
9. Click **Save Template**.
10. (Optional) To use this audit map as the active audit map for the CAC workstation, click **Apply to the CAC**.

Edit a CAC Audit Map

Note: Installed audit map templates cannot be edited.

1. Open the Configuration workspace.
2. Click **Audit Maps**.
3. Open the CAC Templates tab.
4. In the **Edit map template** field, select the map to be changed.
5. Select and configure the events to be recorded by following these steps:
   a. Select the **Audited** check box for the event.
   b. (Optional) If a reason is required, then select **Reason Required**.
   c. (Optional) If an electronic signature is required, then select **E-sig Required**.
   d. (Optional) If predefined reasons are required, then select **Use Predefined Reason Only** and define the reasons.
6. Make sure that the **Audited** check box is cleared for any events that will not be audited.
7. Click **Save Template**.
8. (Optional) To use this audit map as the active audit map for the CAC workstation, click **Apply to the CAC**.

Change the Active Audit Map for a CAC system

When an audit map is applied to the CAC workstation, it becomes the active audit map. The audit configuration in the active audit map determines which events are recorded in the audit trails.

1. Open the Configuration workspace.
2. Click **Audit Maps**.
3. Open the CAC Templates tab.
4. In the **Edit map template** field, select the map to be applied to the CAC workstation.
5. Click **Apply to the CAC**.

Delete a CAC Audit Map

Note: Installed audit map templates cannot be deleted.

1. Open the Configuration workspace.
2. Click **Audit Maps**.
3. Open the CAC Templates tab.
4. In the **Edit map template** field, select the map to be deleted.
5. Click **Delete Template**.
   The system prompts for confirmation.
6. Click **Yes**.

View, Search, Export, and Print Audit Trails

This section provides information about viewing audit trails and archived audit trails. It also provides instructions for exporting, printing, searching, and sorting audit records within audit trails.

View the Audit Trail Records

1. Open the Audit Trail workspace.
2. In the left pane, click the audit trail to be viewed.
3. To see detailed information about an audit event, click the event.

   The type of event selected controls the information that is shown. The information is shown on one or more of the following tabs.

Table 7-4 Event Detail Tabs

Tab	Information
General Details	Shows information such as the time zone offset, workstation name, and version of the SCIEX OS software.
Before Change	Shows the content before the change was made.
After Change	Shows the content after the change was made.
Change Details	Shows the original content and the new content in the same pane. In the Difference View, the original content shows in red and the new content shows in green. In the Side By Side View, the original and new content show in separate panes, so that the user can easily see the changes.
Print Details	Shows the information that was printed.

Search or Filter Audit Records

1. Open the Audit Trail workspace.
2. Select the audit trail to be searched.
3. To search for specific audit record, type text in the **Find in Page** field.
   All occurrences of the specified text on the page are highlighted.
4. To filter the audit trail records, follow these steps:
   a. Click the filter (funnel) icon.
      The Filter Audit Trail dialog opens.
   b. Type the filter criteria.
   c. Click **OK**.

View an Archived Audit Trail

After an audit trail contains 20,000 audit records, the SCIEX OS software automatically archives the records and begins a new audit trail. The archived audit trail files are named with the type of audit trail and the date and time. For example, the file name for a workstation audit trail archive has the format `WorkstationAuditTrailData-`*`<workstation name>>-<YYYY><MMDDHHMMSS>`*`.atds`.

This procedure can also be used to open an audit trail for a Results Table.

1. Open the Audit Trail workspace.
2. Click **Browse**.
3. Browse to and select the archived audit trail to be opened, and then click **OK**.

Note: To open the audit trail for a Results Table, select the associated `qsession` file.

Print an Audit Trail

1. Open the Audit Trail workspace.
2. Select the audit trail to be printed.
3. Click **Print**.
   The Print dialog opens.
4. Select the printer and then click **OK**.

Export Audit Trail Records

1. Open the Audit Trail workspace.
2. Select the audit trail to be exported.
3. Click **Export**.
4. Browse to the location in which the exported file will be stored, type a **File Name**, and then click **Save**.
   The audit trail is saved as a comma-separated value (csv) file.

SCIEX OS Audit Trail Records

This section describes the fields in the audit trail records.

The workstation and project audit trails are encrypted files.

Note: Workstation audit trails and archives are kept in the `Program Data\SCIEX\Audit Data` folder. Project audit trails and archives are kept in the `Audit Data` folder for the project.

Table 7-5 Audit Record Fields

Label	Description
Timestamp	The date and time that the record was created.
Event Name	The name of the event.
Description	A description of the event.
Reason	The reason given for the event.
E-signature	Whether an e-signature was entered for the event.

Table 7-5 Audit Record Fields (continued)

Label	Description
Full User Name	The name of the user. **Note:** For events triggered by a decision rule, this is the user who submitted the batch.
User	The user ID of the user who initiated the event that produced the record.
Category	The function or category to which the event belongs.

The bottom pane of the Audit Trail workspace shows detailed information about a selected event, including details of any changes, if applicable.

For lists of all of the events that are recorded in the workstation and project audit trails, refer to the sections: Workstation Audit Trail and Project Audit Trail.

CAC Audit Trail Records

This section describes the fields in the audit trail records.

The CAC and project audit trails are encrypted files.

Note: The CAC audit trails and archives are stored in the `Program Data\SCIEX\Audit Data` folder. Project audit trails and archives are stored in the `Audit Data` folder for the project.

Table 7-6 Audit Record Fields

Label	Description
Timestamp	The date and time that the record was created.
Event Name	The name of the event.
Description	A description of the event.
Reason	The reason given for the event.
E-signature	Whether an e-signature was entered for the event.
Full User Name	The name of the user. **Note:** For events triggered by a decision rule, this is the user who submitted the batch.

Table 7-6 Audit Record Fields (continued)

Label	Description
User	The user ID of the user who initiated the event that produced the record.
Category	The function or category to which the event belongs.

The bottom pane of the Audit Trail workspace shows detailed information about a selected event, including details of any changes, if applicable.

For lists of all of the events that are recorded in the CAC and project audit trails, refer to the sections: Table 3 and Project Audit Trail.

Audit Trail Archives

Audit records accumulate in the project audit trail and workstation audit trail and can create large files that are difficult to navigate and manage.

When an audit trail reaches 20,000 records, it is archived. A final archive record is added to the audit trail, and then the audit trail is saved with a name indicating the type of audit trail and the date and time. A new audit trail is created. The first record in the new audit trail states that the audit trail has been archived, and specifies the path to the archived audit trail.

Workstation audit trail archives are stored in the `C:\ProgramData\SCIEX\Audit Data` folder. The file names are in the format WorkstationAuditTrailData-<*workstation name*>-<*YYYY*><*MMDDHHMMSS*>.atds. For example, `WorkstationAuditTrailData-SWDSXPT158-20190101130401.atds`.

Project audit trail archives are stored in the `Audit Data` folder for the project.

Windows Permissions A

This section gives a list of the Windows permissions required for each user role and for the SYSTEM user, for correct operation of the SCIEX OS software.

Note: The default path for the *Installed Root Directory* folder is `D:\SCIEX OS Data`.

Table A-1 *Installed Root Directory* Folder

Privilege	Administrator, SYSTEM	Analyst, Method Developer, Reviewer
Full Control	Allow	—
Traverse Folder / Execute File	Allow	Allow
List Folder / Read Data	Allow	Allow
Read Attributes	Allow	Allow
Read Extended Attributes	Allow	Allow
Create Files / Write Data	Allow	Allow
Create Folders / Append Data	Allow	Allow
Write Attributes	Allow	Allow
Write Extended Attributes	Allow	Allow
Delete Subfolders and Files	Allow	—
Delete	Allow	—
Read Permissions	Allow	Allow
Change Permissions	Allow	—

Table A-1 *Installed Root Directory* Folder (continued)

Privilege	Administrator, SYSTEM	Analyst, Method Developer, Reviewer
Take Ownership	Allow	—

Table A-2 *`Installed Root Directory`*`\TempData` Folder

Privilege	Administrator, SYSTEM	Analyst, Method Developer, Reviewer
Full Control	Allow	—
Traverse Folder / Execute File	Allow	Allow
List Folder / Read Data	Allow	Allow
Read Attributes	Allow	Allow
Read Extended Attributes	Allow	Allow
Create Files / Write Data	Allow	Allow
Create Folders / Append Data	Allow	Allow
Write Attributes	Allow	Allow
Write Extended Attributes	Allow	Allow
Delete Subfolders and Files	Allow	Allow
Delete	Allow	Allow
Read Permissions	Allow	Allow
Change Permissions	Allow	—
Take Ownership	Allow	—

Table A-3 `C:\ProgramData\SCIEX\Audit Data` **Folder**

Privilege	Administrator, SYSTEM	Analyst, Method Developer, Reviewers
Full Control	Allow	—
Traverse Folder / Execute File	Allow	Allow
List Folder / Read Data	Allow	Allow
Read Attributes	Allow	Allow
Read Extended Attributes	Allow	Allow
Create Files / Write Data	Allow	Allow
Create Folders / Append Data	Allow	Allow
Write Attributes	Allow	Allow
Write Extended Attributes	Allow	Allow
Delete Subfolders and Files	Allow	—
Delete	Allow	—
Read Permissions	Allow	Allow
Change Permissions	Allow	—
Take Ownership	Allow	—

Audit Events B

This section lists the audit events in SCIEX OS. It also lists the corresponding audit events in the Analyst software, for users who are migrating from the Analyst software to SCIEX OS.

Project Audit Trail

Each project has a project audit trail. The project audit trail is stored in the `Audit Data` folder for the project. The audit trail file name is `ProjectAuditEvents.atds`.

Note: The default audit map for new projects created in the Central Administrator Console (CAC) software is the Silent Audit Map.

Project audit trail events are shown in both the CAC software and SCIEX OS.

Table B-1 Project Audit Trail Events

SCIEX OS or CAC	Analyst Software
Analytics Workspace	
Actual Concentration changed	Quantitation Events: **'Concentration' has been changed**
Auto-Processing File saved	—
Barcode ID changed	—
Comparison sample changed in non-targeted workflow	—
Custom columns modified	Quantitation Events: **'Custom Title' has changed**
Data exploration opened	Project Events: **Data File has been opened**
Data exported	—
Data transferred to LIMS	—
Dilution Factor changed	Quantitation Events: **'Dilution Factor' has been changed**
External calibration changed	—
External calibration exported	—

Table B-1 Project Audit Trail Events (continued)

SCIEX OS or CAC	Analyst Software
File saved	Project Events: **Quantitation Results Table has been created**, **Quantitation Results Table has been modified**, Quantitation Events: **Results Table has been saved**
Formula column changed	Quantitation Events: **Formula name has been changed**, **Formula name has been added**, **Formula string has been changed**, **Formula column has been removed**
Integration cleared	—
Integration parameters changed	Quantitation Events: **Quantitation peak has been integrated**
Library search result changed	—
Manual Integration	Quantitation Events: **Quantitation Peak has been integrated**
Manual Integration reverted	Quantitation Events: **Quantitation peak has been reverted back to original**
MS/MS selection changed	—
Print Process Method	—
Processing method changed and applied	Quantitation Events: **Quantitation method has been changed**
Processing method saved	—
Project default settings changed	—
Report created	Project Events: **Printing document on printer, Finished printing document on printer**
Results Table approved	Quantitation Events: **QA reviewer has accessed a results table**
Results Table created	Quantitation Events: **Results table has been created**
Results Table locked	—
Results Table unlocked	—

Table B-1 Project Audit Trail Events (continued)

SCIEX OS or CAC	Analyst Software
Sample ID changed	Quantitation Events: **'Sample ID' has been changed**
Sample Name changed	Quantitation Events: **'Sample Name' has been changed**
Sample Type changed	Quantitation Events: **'Sample Type' has been changed**
Samples added or removed	Quantitation Events: **Files have been added to Results Table**, **Files have been removed from Results Table**, **Samples have been added/removed**
Std. Addition Actual concentration changed	—
Used column selection changed	Quantitation Events: **'Use IT' has been changed**
Weight/Volume changed	**'Weight to Volume Ratio' has been changed**
Window/pane printed	Project Events: **Printing document on printer**, **Finished printing document on printer**
Audit Map Page	
Project Audit Map Changed	Project Events: **Project Settings have been changed**
Project Audit Trail Exported	—
Project Audit Trail Printed	—
Batch Workspace	
Batch information imported from LIMS/text	—
Batch saved	—
Batch submitted	Instrument Events: **Batch file submitted**
Print	Project Events: **Printing Document on printer**, **Finished printing document on printer**
Explorer Workspace[4]	

[4] Explorer events are recorded in the project audit trail when users use data in the active project.

Table B-1 Project Audit Trail Events (continued)

SCIEX OS or CAC	Analyst Software
Open sample(s)	Project Events: **Data File has been opened**
Print	Project Events: **Printing Document on printer**, **Finished printing document on printer**
Recalibrate sample(s)	—
Recalibrate sample(s) started	—
LC Method Workspace	
LC method saved	—
Print	Project Events: **Printing Document on printer**, **Finished printing document on printer**
MS Method Workspace	
MS method saved	—
Print	Project Events: **Printing Document on printer**, **Finished printing document on printer**
Queue Workspace	
Sample acquisition has completed	—
Sample edited	—
Sample Starts to Acquire	—
Sample Transferred	—

Workstation Audit Trail

Each workstation has one workstation audit trail. The workstation audit trail is stored in the `Program Data\SCIEX\Audit Data` folder. The audit trail file name is in the format: `WorkstationAuditTrailData.atds`.

Note: The default audit map for new workstations in the Central Administrator Console (CAC) software is the **Silent Audit Map**.

Audit trail events are shown in both the CAC software and SCIEX OS.

Table B-2 Workstation Audit Trail Events

SCIEX OS	Analyst Software
Audit Map	
Workstation Audit Map Changed	Instrument Events: **Instrument Settings have been changed**
Workstation Audit Trail Printed	—
Workstation Audit Trail Exported	—
CAC	
Central Administration enabled/disabled	—
Central Administration settings retrieved/ could not be retrieved	—
Data file checksum	
Wiff data file checksum has been changed	—
Explorer Workspace[5]	
Open sample(s)	Project Events: **Data File has been opened**
Print	Project Events: **Printing document on printer**, **Finished printing document on printer**
Recalibrate sample(s)	—
Recalibrate sample(s) started	—
Hardware Configuration	
Devices Activated	Instrument Events: **Hardware profile has been activated**
Devices Deactivated	Instrument Events: **Hardware profile has been deactivated**
Instrument Tune	
Automatic MS Tuning Update	Instrument Events: **Tune parameter settings changed**
Firmware changed	—
MS Tuning Modifications	Instrument Events: **Tune parameter settings changed**

[5] Explorer events are recorded in the workstation audit trail when users use data that is not in the active project.

Table B-2 Workstation Audit Trail Events (continued)

SCIEX OS	Analyst Software
Print Procedure Result in MS Tune	Project Events: **Printing Document on printer**, **Finished printing document on printer**
Queue Workspace	
Automatic Injection Occurred	—
Automatic Reinjection Occurred	—
Batch Moved in Queue	Instrument Events: **Move Batch**
Print Queue	Project Events: **Printing Document on printer**, **Finished printing document on printer**
Reaquiring Sample	Instrument Events: **Reacquiring sample(s)**
Sample acquisition has completed	Project Events: **Sample has been added to Data file**
Sample Moved in Queue	Instrument Events: **Sample moved from position *x* to position *y* of Batch File**
Sample Starts to Acquire	—
Security	
Auto logoff by system	Instrument Events: **User Logged out**
Forced logoff by another user	Instrument Events: **User Logged out**
Forced logoff failed	—
Screen unlock failed	—
Secure Network Account credentials have been modified	Instrument Events: **Acquisition Account Changed**
Secure Network Account credentials have been removed	Instrument Events: **Acquisition Account Changed**
Secure Network Account credentials have been specified	Instrument Events: **Acquisition Account Changed**
Security configuration changed	Instrument Events: **The Security Configuration has been modified**, **Screen Lock Changed**, **Auto Logout changed**

Table B-2 Workstation Audit Trail Events (continued)

SCIEX OS	Analyst Software
User added/deleted	Instrument Events: **User Added**, **User Deleted**
User has logged in	Instrument Events: **User Logged In**
User has logged out	Instrument Events: **User Logged out**
User has turned off exclusive mode	—
User Login Failed	Instrument Events: **User Login Failed**
User management settings have been exported	—
User management settings have been imported	—
User management settings have been restored	—
User role assigned to user/user group	Instrument Events: **User Changed User Type**
User role deleted	Instrument Events: **User Type Deleted**
User role modified	Instrument Events: **User Type Changed**
UserLog	
Print Event Log	—

Table B-3 CAC Audit Trail Events

CAC	Analyst Software
Audit Map Page	
Workstation Audit Map Changed	Instrument Events: **Instrument Settings have been changed**
Workstation Audit Trail Printed	—
Workstation Audit Trail Exported	—
CAC	
CAC settings has been exported	—
CAC settings has been imported	—
CAC settings has been restored	—

Table B-3 CAC Audit Trail Events (continued)

CAC	Analyst Software
Project settings enabled/disabled in a workgroup	—
Project assigned/unassigned to a workgroup	—
Security permission added for central administration	—
User added/deleted	—
User role added	—
User role deleted	—
User role modified	—
User Role(s) assigned/unassigned to user(s) in workgroup	—
User(s)/UserGroup(s) assigned/unassigned to a workgroup	—
Workgroup added/deleted	—
Workgroup renamed	—
Workstation(s) assigned/unassigned to a workgroup	—
Security	
Auto logoff by system	Instrument Events: **User Logged out**
Forced logoff by another user	Instrument Events: **User Logged out**
Forced logoff failed	—
Screen unlock failed	—
Secure Network Account credentials have been modified	Instrument Events: **Acquisition Account Changed**
Secure Network Account credentials have been removed	Instrument Events: **Acquisition Account Changed**
Secure Network Account credentials have been specified	Instrument Events: **Acquisition Account Changed**

Table B-3 CAC Audit Trail Events (continued)

CAC	Analyst Software
Security configuration changed	Instrument Events: **The Security Configuration has been modified**, **Screen Lock Changed**, **Auto Logout changed**
User added/deleted	Instrument Events: **User Added**, **User Deleted**
User has logged in	Instrument Events: **User Logged In**
User has logged out	Instrument Events: **User Logged out**
User has turned off exclusive mode	—
User Login Failed	Instrument Events: **User Login Failed**
User management settings have been exported	—
User management settings have been imported	—
User management settings have been restored	—
User role assigned to user/user group	Instrument Events: **User Changed User Type**
User role deleted	Instrument Events: **User Type Deleted**
User role modified	Instrument Events: **User Type Changed**
UserLog	
Print Event Log	—

Mapping of Permissions Between the SCIEX OS and Analyst Software C

This section is provided for users who are migrating from the Analyst software to the SCIEX OS software, to help them migrate their user security settings. It shows the permissions in the Analyst software that correspond to permissions in the SCIEX OS software.

Table C-1 Permission Mapping

SCIEX OS Software	Analyst Software
Batch Workspace	
Submit unlocked methods	—
Open	Batch: **Open Existing Batches**
Save As	Batch: **Create New Batches**, **Import**, **Edit Batches**, **Save Batches**, **Overwrite Batches**
Submit	Batch: **Submit Batches**
Save	Batch: **Save Batches**, **Overwrite Batches**
Save ion reference table	—
Add data sub-folders	—
Configure Decision Rules	—
Overwrite batch	**Overwrite batches**
Submit batch before save	—
Configuration Workspace	
General tab	—
General: change regional setting	—
General: full screen mode	—
General: Stop Windows services	—
LIMS Communication tab	—
Audit maps tab	Audit Trail Manager: **Change Audit Trail Settings**, **Create or Modify Audit Maps**
Queue tab	—
Queue: instrument idle time	—

Table C-1 Permission Mapping (continued)

SCIEX OS Software	Analyst Software
Queue: max. number of acquired samples	—
Queue: other queue settings	—
Projects tab	—
Projects: create project	Analyst Application: **Create Project**
Projects: apply an audit map template to an existing project	Audit Trail Manager: **Change Audit Trail Settings**
Projects: create root directory	Analyst Application: **Create Root Directory**
Project: set current root directory	Analyst Application: **Set Root Directory**
Projects: specify network credentials	—
Projects: Enable checksum writing for wiff data creation	—
Projects: clear root directory	—
Devices tab	Hardware Configuration: **Create**, **Delete**, **Edit**, **Activate/Deactivate**
User management tab	**Security Config**
Force user logoff	**Unlock/Logout Application**
CAC tab[3]	—
Print Templates tab	—
Print Templates: Create and modify print templates	—
Print Templates: Set default print template	—
Print Templates: Apply the current template to all projects in the root directory	
Event Log Workspace	
Access event log workspace	—
Archive Log	—
Audit Trail Workspace	

[3] In version 3.1, the **Enable Central Administration** permission was renamed to **CAC**. The CAC page in the Configuration workspace can be used to configure central administration of the SCIEX OS software.

Table C-1 Permission Mapping (continued)

SCIEX OS Software	Analyst Software
Access audit trail workspace	Audit Trail Manager: **View Audit Trail Data**
View active audit map	Audit Trail Manager: **View Audit Trail Data**
Print/Export audit trail	Audit Trail Manager: **View Audit Trail Data**
Data Acquisition Panel	
Start	—
Stop	—
Save	—
MS Method and LC Method Workspaces	
Access method workspace	—
New	Acquisition Method: **Create/Save acquisition method**
Open	Acquisition Method: **Open acquisition method as read-only (acquire mode)**
Save	Acquisition Method: **Overwrite acquisition methods**, **Create/Save acquisition method**
Save As	Acquisition Method: **Overwrite acquisition methods**, **Create/Save acquisition method**
Lock/Unlock method	—
Overwrite acquisition methods	**Overwrite acquisition methods**
Queue Workspace	
Manage	Sample Queue: **Reacquire**, **Delete Sample or Batch**, **Move Batch**
Start/Stop	Sample Queue: **Start Sample**, **Stop Sample**, **Abort Sample**, **Stop Queue**
Print	Report Template Editor: **Print**
Edit Sample	—
Library Workspace	

Table C-1 Permission Mapping (continued)

SCIEX OS Software	Analyst Software
Access library workspace	Explore: **Setup library location**, **Setup library user options**, **Add library record**, **Add spectrum to library**, **Modify library record (overrides add/delete if disabled)**, **Delete MS spectrum**, **Delete UV spectrum**, **Delete structure**, **View library**, **Search library**
MS Tune Workspace	
Access MS Tune workspace	—
Advanced MS Tuning	Tune: **Instrument Optimization**, **Manual Tune**, **Edit Tuning Options**
Advanced troubleshooting	—
Quick status check	Tune: **Instrument Opt**
Restore instrument data	Tune: **Edit Tuning Options**, **Edit instrument data**
Analytics Workspace	
New results	Quantitation: **Create new results tables**
Create processing method	Quantitation: **Create quantitation methods**
Modify processing method	Quantitation: **Modify existing methods**
Allow Export and Create Report of unlocked Results Table	—
Save results for Automation Batch	—
Change default quantitation method integration algorithm	Quantitation: **Change default method options**
Change default quantitation method integration parameters	Quantitation: **Change default method options**
Enable project modified peak warning	—
Add samples	Quantitation: **Add and Remove samples from results table**
Remove selected samples	Quantitation: **Add and Remove samples from results table**

Table C-1 Permission Mapping (continued)

SCIEX OS Software	Analyst Software
Export, import, or remove external calibration	—
Modify sample name	Quantitation: **Modify sample name**
Modify sample type	Quantitation: **Modify Sample Type**
Modify sample ID	Quantitation: **Modify Sample ID**
Modify actual concentration	Quantitation: **Modify Analyte Concentration**
Modify dilution factor	Quantitation: **Modify Dilution Factor**
Modify comment fields	Quantitation: **Modify Sample Comment**
Enable manual integration	Quantitation: **Manually integrate**
Set peak to not found	—
Include or exclude a peak from the results table	Quantitation: **Exclude standards from calibration**
Regression options	Quantitation: **Change regression parameters**
Modify results table integration parameters for a single chromatogram	Quantitation: **Change "simple" parameters in peak review, Change "advanced" parameters in peak review**
Modify quantitation method for results table component	Quantitation: **Edit results tables' method**
Create metric plot new settings	Quantitation: **Modify or create metric plot settings**
Add custom columns	Quantitation: **Create or modify formula columns**
Set peak review title format	—
Remove custom column	Quantitation: **Create or modify formula columns**
Results table display settings	Quantitation: **Change results table column precision**, **Change results table column visibility**, **Modify results table settings**
Lock results table	—
Unlock results table	—
Mark results file as reviewed and save	—

Table C-1 Permission Mapping (continued)

SCIEX OS Software	Analyst Software
Modify report template	Report Template Editor: **Create/Modify report templates**
Transfer results to LIMS	—
Modify barcode column	—
Change comparison sample assignment	—
Add the MSMS spectra to library	Explore: **Add spectrum to library record**
Project default settings	Quantitation: **Modify global (default) settings**
Create report in all formats	—
Edit flagging criteria parameters	—
Automatic outlier removal parameter change	—
Enable automatic outlier removal	—
Update processing method via FF/LS	—
Update results via FF/LS	—
Enable grouping by adducts functionality	Quantitation: **Create Analyte Groups**, **Modify Analyte Groups**
Browse for Files	—
Enable standard addition	—
Set Manual Integration Percentage Rule	Quantitation: **Enable or Disable percent rule in Manual Integration**
Modify Weight/Volume	Quantitation: **Modify Weight To Volume ratio**
Overwrite a results table	**When saving, replace existing results tables**
Mark result file as approved and save	—
Central Monitoring Workspace	
Access Queue Tab	—
Print Queue	—
Start/Stop Queue	—
Explorer Workspace	

Table C-1 Permission Mapping (continued)

SCIEX OS Software	Analyst Software
Access explorer workspace	—
Export	Explore: **Save data to text file**
Print	Report Template Editor: **Print**
Options	—
Recalibrate	Tune: **Calibrate from current spectrum**
Browse for Files	—

Data File Checksum D

We recommend that users use datafile checksums for wiff files. The checksum feature is a cyclic redundancy check to verify data file integrity.

If the Data File Checksum feature is enabled, then whenever the user creates a data (wiff) file, the software generates a checksum value using an algorithm based on the MD5 public encryption algorithm and saves the value in the file. When the checksum is verified, the software calculates the checksum and compares the calculated checksum to the checksum stored in the file.

The checksum comparison can have three outcomes:

- If the values match, then the checksum is valid.
- If the values do not match, then the checksum is invalid. An invalid checksum indicates that either the file has been modified outside of the software or the file was saved when checksum calculation was enabled and the checksum is different from the original checksum.
- If the file has no stored checksum value, then the checksum is not found. A file has no stored checksum value because the file was saved when the Data File Checksum feature was disabled.

Note: The user can verify the checksum using the Analyst software. Refer to the documentation for the Analyst software.

Enable or Disable the Data File Checksum Feature

1. Open the Configuration workspace.
2. Click **Projects**.
3. If required, expand **Data File Security**.
4. To enable the data file checksum feature, select the **Enable checksum writing for wiff data creation** check box. To disable the feature, clear this check box.

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- 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 following links 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.

Contact Us

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.