

## SIMATIC HMI

### WinCC V7.5 SP2 WinCC/Audit

#### System Manual

WinCC/Audit - Installation  
Notes

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WinCC/Audit - Release Notes

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WinCC/Audit -  
Documentation

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Printout of the Online Help

## Legal information

### Warning notice system

This manual contains notices you have to observe in order to ensure your personal safety, as well as to prevent damage to property. The notices referring to your personal safety are highlighted in the manual by a safety alert symbol, notices referring only to property damage have no safety alert symbol. These notices shown below are graded according to the degree of danger.

#### **DANGER**

indicates that death or severe personal injury **will** result if proper precautions are not taken.

#### **WARNING**

indicates that death or severe personal injury **may** result if proper precautions are not taken.

#### **CAUTION**

indicates that minor personal injury can result if proper precautions are not taken.

#### **NOTICE**

indicates that property damage can result if proper precautions are not taken.

If more than one degree of danger is present, the warning notice representing the highest degree of danger will be used. A notice warning of injury to persons with a safety alert symbol may also include a warning relating to property damage.

### Qualified Personnel

The product/system described in this documentation may be operated only by **personnel qualified** for the specific task in accordance with the relevant documentation, in particular its warning notices and safety instructions. Qualified personnel are those who, based on their training and experience, are capable of identifying risks and avoiding potential hazards when working with these products/systems.

### Proper use of Siemens products

Note the following:

#### **WARNING**

Siemens products may only be used for the applications described in the catalog and in the relevant technical documentation. If products and components from other manufacturers are used, these must be recommended or approved by Siemens. Proper transport, storage, installation, assembly, commissioning, operation and maintenance are required to ensure that the products operate safely and without any problems. The permissible ambient conditions must be complied with. The information in the relevant documentation must be observed.

### Trademarks

All names identified by ® are registered trademarks of Siemens AG. The remaining trademarks in this publication may be trademarks whose use by third parties for their own purposes could violate the rights of the owner.

### Disclaimer of Liability

We have reviewed the contents of this publication to ensure consistency with the hardware and software described. Since variance cannot be precluded entirely, we cannot guarantee full consistency. However, the information in this publication is reviewed regularly and any necessary corrections are included in subsequent editions.

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# WinCC/Audit - Installation Notes

## 1.1 Scope of delivery

### Components of Audit

Audit contains the following components:

Component	Description	Requires a WinCC installation <sup>1)</sup>
Audit Runtime (RT)	Record events from the WinCC configuration and WinCC Runtime and save them as Audit Trails.	Yes
Audit Viewer	Show exported Audit Trails and Audit Trails from a database.	No
Audit Document Control and Project Versioning	Save and version WinCC project data.	Yes
Audit Editor	Specify Audit configurations.	Yes

1) Refer to the system requirements of WinCC.

### Additional software

In addition to Audit, the DVD also includes:

Program	Description	Requires a WinCC installation
SIMATIC Automation Licence Manager V6.0 SP5	Managing SIMATIC licenses.	No

## 1.2 Licenses

### Introduction

Audit is protected by license and can be used with full functionality only with valid licenses. The licenses are delivered via a USB stick together with the ordered software package. To activate the software, the license on the USB stick must be transferred to your hard drive. The license transfer must be completed with the Automation License Manager. If you attempt to transfer the license by other means (for example, Windows Explorer), the license becomes unusable.

## 1.2 Licenses

## Licenses

Audit provides the following licenses:

	WinCC Audit RC	WinCC Audit RT	WinCC Audit ChangeControl CC
<b>Version</b>	7.5	7.5	7.5
<b>License type</b>	Single	Single	Single
<b>Validity</b>	Unlimited	Unlimited	Unlimited
<b>Usage</b>	A PC with WinCC Configuration (Audit full installation).	A PC on which only Audit Runtime is running (installation of individual Audit components).	A PC on which the WinCC configuration changes are activated and recorded (Audit full installation).

**Note****Setting up PC for central Audit Trail multiproject database**

A PC on which only the Audit Trail multiproject database has to be stored does not require a WinCC and Audit license.

The following installations are required:

- WinCC minimum installation
- Audit Runtime installation

## Functions

The following functions are executed with the licenses:

Functions	WinCC Audit RC	WinCC Audit RT	WinCC Audit Change-Control CC
WinCC Project Versioning and WinCC Document Control.	X	-	X
Configure tracking of changes in WinCC configuration.	X	-	X
Configure tracking of changes in WinCC Runtime.	X	-	-
Saving changes in WinCC configuration to a database.	X	X	X
Saving changes in WinCC Runtime to a database.	X	X	-

## Missing licenses

The following limitations apply if not all Audit licenses are installed:

Missing licenses	Effects
<ul style="list-style-type: none"> <li>WinCC Audit RC</li> <li>WinCC Audit ChangeControl CC</li> </ul>	<b>Effect on the Audit configuration:</b> The Audit components are opened write protected.
<ul style="list-style-type: none"> <li>WinCC Audit RC</li> <li>WinCC Audit ChangeControl CC</li> <li>WinCC Audit RT</li> </ul>	<b>Effect on the Audit Runtime:</b> WinCC demo mode is activated if a connection to the Audit Trail Database has been created previously in a WinCC project and if tracking of changes has been configured. The changes are, however, still recorded in the Audit Trail Database.

## Installing licenses

Use the Automation License Manager (ALM) for installation of licenses.

For the installation of licenses, the following requirements must be met:

- Audit installation is complete.
- The storage medium containing the licenses must not be write protected.
- Do not install the licenses on a compressed drive.

### Note

The licenses remain installed on the system even after uninstalling Audit.

# 1.3 Installing Audit

## Introduction

During installation, select the individual Audit components you want to install on your PC. For a full installation, select all Audit components.

The Audit Viewer is the only Audit component which does not require a WinCC installation. This means you can install the Audit Viewer on any computer in the network.

### Uninstalling

To uninstall WinCC/Audit, select all entries that start with "SIMATIC WinCC/Audit" under "Control Panel > Programs and Features".

## Requirement

- WinCC V7.5 SP2 is installed.

## 1.4 Upgrading Audit

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### Note

#### Hardware and software requirements

It is recommended to install WinCC V7.5 SP2 to use Audit V7.5 SP2.

For hardware and software prerequisites to install Audit, refer WinCC Information System > Installation Notes > WinCC installation requirements.

All WinCC advanced options follow the same requirements as WinCC.

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### Procedure

1. Insert the Audit DVD into the DVD drive.
2. Run the setup.
3. Select the desired setup language.
4. Follow the instructions of the installation wizard.  
Read the License Agreement and the Open Source License Agreement.
5. Select the components for your installation.  
Previously installed components are displayed with a blue check mark.
6. Confirm your entries.
7. Start installation.
8. To complete the installation, reboot the system.

### Result

Audit is installed on the PC.

## 1.4 Upgrading Audit

### Introduction

You can upgrade to Audit V7.5 SP2 through an upgrade installation. You need to upgrade licenses of Audit prior to V7.5 SP2 to the current version.

If you currently have Audit V7.2 or higher installed on your system, you can perform the upgrade installation.

### Upgrade preparation

#### Backing up a WinCC project

Make a backup copy of your project before upgrading Audit.



**Restart PC before installing the update**

Restart the PC before installing the update to Audit V7.5 SP2.

**Procedure to upgrade licenses**

1. Open Automation License Manager.
2. Transfer the upgrade license keys to the drive where the current version licenses are available.
3. In the menu bar, select "License Key > Upgrade". This operation will merge the old license and the upgrade license into one new license. Hence, three new licenses will be created.

## 1.5 User authentication

A user authentication is executed by the "SIMATIC Logon" program when you open the following Audit components:

- Audit Editor
- Audit Document Control and Project Versioning

The program checks if the user is a member of the "SIMATIC HMI AUDIT" user group. For users to have access to all functions of Audit component functions, they need to be registered as members of the "SIMATIC HMI AUDIT" user group. The user group is created locally with the Audit installation in the Windows user and group management.

The Audit components are opened in read-only mode in the following situations:

- SIMATIC Logon is not installed.
- The user is not a member of the "SIMATIC HMI AUDIT" Windows user group.
- The authentication process is canceled by the user.

For additional information, refer to the SIMATIC Logon help.

*1.5 User authentication*

# WinCC/Audit - Release Notes

## 2.1 Notes on Audit

### Content

These release notes contain important information.

The statements in these Release Notes supersede the instructions in the manuals and in the online help.

Read these release notes carefully as they contain useful information.

### General information

#### Migration of V7.3 to V7.5 SP2

If you migrate from WinCC/Audit V7.3 to 7.5 SP2, all files must be checked in advance by Audit DCPV .

### Text Library

Note the following behavior during auditing when you work with the Text Library:

- A text is entered in any language column in an existing text line.  
The Audit Trail entry includes the language of the modified language column in the Text Library as "Target Name".
- A new text line and a text is entered in any language column.  
The Audit Trail entry contains the language that is the first position in the text library as "Target name" in the menu bar under "View > Input language".
- An existing text line is copied. A new text line is created during pasting.  
The Audit Trail entry contains the language that is the first position in the text library as "Target name" in the menu bar under "View > Input language".

### Report Designer

If you are using a WinCC project with Audit V7.3 and want to open and use the WinCC project with Audit V7.5 SP1, you must re-configure the print jobs. The name of the report layouts have changed.

#### Procedure

1. In the WinCC Report Designer, select the print job that you have used in Audit V7.3.
2. Select the "Properties" option from the shortcut menu.

## 2.1 Notes on Audit

3. Select the new layout file in the "General" tab.
4. Click "OK" to confirm your entries.

### Migration

The migration of Audit configurations and Audit trails from Audit V7.2, V7.3 and V7.4 single project database to Audit V7.5 SP1 is supported.

### Audit Editor

#### Changing GMP tags in the tag management

If you rename a GMP tag in the tag management, the renamed GMP tag is not updated in the Audit Editor under "GMP tags (RT)".

Delete the renamed GMP tag under GMP tags (RT) in the Audit Editor and create a new GMP tag.

#### Working with "GMP tags (RT)"

Undo/Redo does not work under "GMP tags (RT)" in the Audit Editor.

### Undo/Redo

In the Audit Editor, the Undo/Redo function is not possible for some configurations.

### Audit Viewer

#### Changing the values in the "Maximum record count to display in grid" column

If you change the values under "Maximum record count to display in grid" in the settings in the Audit Viewer, this change is not performed.

Select the "Refresh" button on the toolbar in the Audit Viewer to display the changed values.

#### Changing entries in "Date & Time"

If you change the "Date & Time" values in with an exported XML file, the changed values are highlighted in red after importing.

#### Value change as numerical code

When an audit saves an event to the Audit Trail Database, the values in the columns "Old Value" and "New Value" are partially displayed as numerical code.

This is true for texts, for example, which are selected from a list or when using hotkeys.

## Audit Document Control and Project Versioning

### Archiving closed WinCC projects

The following requirements apply to archiving closed WinCC projects:

- Versioning must be configured before archiving.
- The WinCC projects must be located on the same PC on which Audit Document Control and Project Versioning is started.

### Restore previous versions

When you delete project files in your WinCC project, you can only restore these files if the original project files are still available.

### Multi-user project and client without their own project

Audit Document Control and Project Versioning is not approved for a multi-user project or client without their own project.

## 2.2 New functionalities

### Audit Viewer and Audit Viewer Control

- Login success, login failure, logout success, and session creation information is available from any client / server context in the audit trail logs.
- Incorporated new columns to audit viewer to get more detailed information of the logs.
- The user can select which column needs to be shown in the Audit Viewer control with persistency support for selected column.

### Audit Runtime

- User will be notified if the system's storage capacity drops below the configured storage threshold capacity
- User can get information about various trail logs from the Windows Event Viewer.
- Segmented DB and ability to backup the trail DB segments to the configured folder path automatically.
- Monitor Web Navigator CS and RT data changes in WinCC via any Web Navigator Clients.
- Security enhanced by monitoring login, logout, login failure, User Administrator modification from Web Navigator client.

### General

- User can configure and monitor maximum number of failed login attempts.

## 2.3 Service and Support

- Automatic import of the historical panel audit file in a specific directory to the audit trail database.
- Immediate notification of project machine disconnection/restore and service unavailability with Alarm and Audit System Tag update.

## 2.3 Service and Support

### 2.3.1 Warnings

#### Safety notes

##### Warning notice system

This manual contains notices you have to observe in order to ensure your personal safety, as well as to prevent damage to property. The notices referring to your personal safety are highlighted in the manual by a safety alert symbol, notices referring only to property damage have no safety alert symbol. These notices shown below are graded according to the degree of danger.



##### **DANGER**

indicates that death or severe personal injury will result if proper precautions are not taken.



##### **WARNING**

indicates that death or severe personal injury may result if proper precautions are not taken.



##### **CAUTION**

indicates that minor personal injury can result if proper precautions are not taken.

##### **NOTICE**

indicates that property damage can result if proper precautions are not taken.

##### **Note**

is an important information about the product, the way to handle the product or the respective part of the documentation and we wish to especially bring this to your notice.

If more than one degree of danger is present, the warning notice representing the highest degree of danger will be used. A notice warning of injury to persons with a safety alert symbol may also include a warning relating to property damage.

## Qualified Personnel

The product/system described in this documentation may be operated only by personnel qualified for the specific task in accordance with the relevant documentation, in particular its warning notices and safety instructions. Qualified personnel are those who, based on their training and experience, are capable of identifying risks and avoiding potential hazards when working with these products/systems.

### Proper use

Note the following:

#### **WARNING**

##### **Proper use of Siemens products**

Siemens products may only be used for the applications described in the catalog and in the relevant technical documentation. If products and components from other manufacturers are used, these must be recommended or approved by Siemens. Proper transport, storage, installation, assembly, commissioning, operation and maintenance are required to ensure that the products operate safely and without any problems. The permissible ambient conditions must be complied with. The information in the relevant documentation must be observed.

## Trademarks

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## Security information

Siemens provides products and solutions with industrial security functions that support the secure operation of plants, systems, machines and networks.

In order to protect plants, systems, machines and networks against cyber threats, it is necessary to implement – and continuously maintain – a holistic, state-of-the-art industrial security concept. Siemens' products and solutions constitute one element of such a concept.

Customers are responsible for preventing unauthorized access to their plants, systems, machines and networks. Such systems, machines and components should only be connected to an enterprise network or the internet if and to the extent such a connection is necessary and only when appropriate security measures (e.g. firewalls and/or network segmentation) are in place.

For additional information on industrial security measures that may be implemented, please visit

<http://www.siemens.com/industrialsecurity>

Siemens' products and solutions undergo continuous development to make them more secure. Siemens strongly recommends that product updates are applied as soon as they are available and that the latest product versions are used. Use of product versions that are no longer supported, and failure to apply the latest updates may increase customer's exposure to cyber threats.

## 2.3 Service and Support

To stay informed about product updates, subscribe to the Siemens Industrial Security RSS Feed under

<http://www.siemens.com/industrialsecurity>

### Disclaimer of Liability

We have reviewed the contents of this publication to ensure consistency with the hardware and software described.

Since variance cannot be precluded entirely, we cannot guarantee full consistency. However, the information in this publication is reviewed regularly and any necessary corrections are included in subsequent editions. Suggestions for improvement are welcomed.

The statements in the online documentation are more binding than the statements in the manuals and PDF files.

Please follow the Release Notes and Installation Notes. The information in these Release Notes and Installation Notes has priority over that in the manuals and online help with regard to legal validity.

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### 2.3.2 GDPR - General Data Protection Regulations

Siemens takes data privacy principles, such as the privacy by design and default principle, into account when developing its products and services.

For this product SIMATIC WinCC V7.5 incl. Options this means the following:



## Personal data processed by the Application

This product collects and processes the following personal data:

- User name, i. e. Login, which may directly contain or establish a reference to the family name and/or first name
- Timestamps: date / time of login, logoff and access  
In the WinCC Option for Process Control application "Split Screen Manager", the login timestamp and user name are saved without encryption with the picture management data. In the WinCC/WebNavigator diagnostic page, logged in users and timestamps are saved without encryption.
- Location data (time zone)
- Computer name
- IP addresses
- MAC addresses
- E-mail addresses (WinCC Options)
- In case of using UMC, additional personal data can be added in the tool, e. g. telephone numbers or addresses.  
This data is not needed for the product functionality and should not be stored on the same medium.

If the user links the above mentioned data with other data, e. g. shift plans, or stores personal data on the same medium, e. g. hard disk, and thus establishes a personal reference, the user must ensure compliance with data protection regulations.

## Purposes

The above data is required for the following purposes:

- Access protection and security measures (e. g. Login, IP address)
- Process synchronization and integrity (e. g. time zone information, IP addresses)
- Archiving system for traceability and verification of processes (e. g. access timestamps)
- Message system for traceability and availability (e. g. e-mail notification)

The storage of data is appropriate and limited to what is necessary, as it is essential to identify the authorized operators and process events.

## Data configuration

The customer may configure the data collected via the product as follows:

- Display data in process pictures
- Data output in form of reports, e. g. for printing or display as electronic file
- Data collection and evaluation in form of graphics, e. g. for KPI analysis

## Deletion policy

The product does not provide an automatic deletion of the above data.

## 2.3 Service and Support

If necessary, these can be deleted manually if desired. To do this, please refer to the product documentation or contact customer support.

### Securing of data

The above data will not be stored anonymously or pseudonymized, because the purpose of access and event identification cannot be achieved otherwise.

The above data is secured by adequate technical measures, such as:

- Encryption of log data
- Storing the process data in access-protected SQL databases  
The user must ensure the access protection as part of their process configuration.

## 2.3.3 Customer Support

### Customer Support and Technical Support

You can reach the SIMATIC hotlines at the times specified in the following table. The SIMATIC hotline employees speak German and English. The Authorization hotline offers French, Italian or Spanish customer support in addition to German and English.

### Technical support

Nuremberg	(GMT +1:00)
Service Hours	Monday - Friday, 8:00 to 17:00 (CET/CEST)
Phone	+49 (0)911 895 7222
Fax	+49 (0)911 895 7223
E-mail	<a href="http://www.siemens.com/automation/support-request">http://www.siemens.com/automation/support-request</a> ( <a href="http://www.siemens.com/automation/support-request">http://www.siemens.com/automation/support-request</a> ) ( <a href="http://www.siemens.com/automation/support-request">http://www.siemens.com/automation/support-request</a> )

An overview of the Technical Support is available at the following URL:

- <http://support.automation.siemens.com/WW/view/en/16605032> (<http://support.automation.siemens.com/WW/view/en/16605032>)

### Automation Value Card (AVC)

The Automation Value Card (AVC) provides extended Technical Support and is available 24 hours every day of the week. Information on the AVC can be found at the following URL:

- <http://support.automation.siemens.com/WW/view/en/21981898> (<http://support.automation.siemens.com/WW/view/en/21981898>)

## SIMATIC Customer Online Support

### Service and Support

An overview of the support offering for our products is available at the following URL:

- <http://www.siemens.com/automation/service&support> (<http://www.siemens.com/automation/service&support>)

In Product Support, for example, you will find downloads of firmware updates, service packs and useful utilities.

Online Help is available so that you can successfully use the Support offering. Open the Online Help by selecting the corresponding button on the Internet site or at the following URL:

- [http://support.automation.siemens.com/WW/support/html\\_00/help/Online\\_Hilfe.htm](http://support.automation.siemens.com/WW/support/html_00/help/Online_Hilfe.htm) ([http://support.automation.siemens.com/WW/support/html\\_76/help/Online\\_Hilfe.htm](http://support.automation.siemens.com/WW/support/html_76/help/Online_Hilfe.htm))

### WinCC FAQs

WinCC Online Support with information on FAQs (Frequently Asked Questions) may also be found at the following URL:

- <http://support.automation.siemens.com/WW/view/de/10805548/133000> (<http://support.automation.siemens.com/WW/view/en/10805583/133000>)

### Technical Forum

The Technical Forum supports exchange with other SIMATIC users. It is available at the following URL:

- <http://www.siemens.com/automation/csi/forum> ([http://www.siemens.de/automation/csi\\_en/forum](http://www.siemens.de/automation/csi_en/forum))

### Technical documentation for SIMATIC products

You can find a guide to the technical documentation provided for individual SIMATIC products and systems at the following URL:

- <http://www.siemens.com/simatic-tech-doku-portal> (<http://www.siemens.com/simatic-tech-doku-portal>)

### Contact person database

To contact your local agent, search our contact database at the following URL:

- <http://www.automation.siemens.com/partner/index.asp> (<http://www.automation.siemens.com/partner/index.asp?lang=en>)

## Product Information

### SIMATIC WinCC

Go to the following URL for additional information about WinCC products:

- <http://www.siemens.com/wincc> (<http://www.siemens.com/wincc>)

## 2.3 Service and Support

### SIMATIC Products

Go to the following URL for additional information about SIMATIC products:

- <http://www.siemens.com/simatic> (<http://www.siemens.com/simatic>)

### See also

Internet: Support Request (<http://www.siemens.com/automation/support-request>)

Internet: Technical support (<http://support.automation.siemens.com/WW/view/en/16605032>)

Internet: Automation Validation Card (AVC) (<http://support.automation.siemens.com/WW/view/en/21981898>)

Internet: Service and Support (<http://www.siemens.com/automation/service&support>)

Internet: WinCC FAQs (<http://support.automation.siemens.com/WW/view/en/10805583/133000>)

Internet: Support Technical Forum ([http://www.siemens.de/automation/csi\\_en/forum](http://www.siemens.de/automation/csi_en/forum))

Internet: Support Online Help ([http://support.automation.siemens.com/WW/support/html\\_76/help/Online\\_Hilfe.htm](http://support.automation.siemens.com/WW/support/html_76/help/Online_Hilfe.htm))

Internet: Technical documentation for SIMATIC products (<http://www.siemens.com/simatic-tech-doku-portal>)

Internet: Contact person database (<http://www.automation.siemens.com/partner/index.asp?lang=en>)

Internet: Information about WinCC (<http://www.siemens.com/wincc>)

Internet: SIMATIC Products (<http://www.siemens.com/simatic>)

<http://www.siemens.com/automation/support-request> (<http://www.siemens.com/automation/support-request>)

## 2.3.4 Support Request

Dear customer

In order to provide you with fast and effective support, please complete the "Support Request" form online on the Internet. Describe the problem in as much detail as possible. We would appreciate if you would provide us with all project data, so that we can reproduce the error situation or shorten the turn-around time.

Before filling out the support request, check whether your configured quantity structure is within the range of tested quantity structures (see topic "Performance Data").

### Support Request form

The Support Request form is available at the following URL:

- <http://www.siemens.com/automation/support-request> (<http://www.siemens.com/automation/support-request>)

When filling out the report, you will be guided through several steps, which will ask about all required information.

A detailed description of the Support Request can be found at the following URL:

- <http://support.automation.siemens.com/WW/view/en/16605654> (<http://support.automation.siemens.com/WW/view/en/16605654>)

## Procedure

1. Open the "Support Request" form using the link on the Internet. Step 1 "Select product" is displayed:
2. Enter the project name in the "Product/Order number" box. Upper/lower case is not relevant. Search for parts of the product name or enter the full product name in the correct order. You can e. g. search for the following terms:
  - "WinCC Runtime"
  - "WinCC DataMonitor"
  - "WinCC webnavigator"
  - "Connectivity"The found products are offered in the "Product selection" field.
3. Select the desired product and click on "Next" to switch to step 2 "Select use case".
4. Select a use case or describe your specific use case in the "Other application case" field.
5. Press "Next" to switch to step 3 "Our solutions".  
Suggested solutions and FAQs for the selected key words are listed.  
Once you have found a suggested solution for your problem, you can close the form in the browser.  
If you did not find any applicable suggested solutions, press "Next" to switch to step 4 "Describe problem".
6. Describe your problem as exactly as possible in the "Details" field.  
Pay particular attention to the following questions and comments. Please also check the WinCC installation and configuration with regard to the following references.  
If you have any idea what has caused the error, please let us know. No detail should be omitted, even if you consider it unimportant.
  - Was the configuration data created with older WinCC versions?
  - How can the error be reproduced?
  - Are other programs running simultaneously with WinCC?
  - Have you deactivated the screen saver, virus checker and power management function?
  - Search the computer for log files (WinCC\Diagnose\\*.log, drwatson.log, drwtsn32.log). The log files are needed for error analysis. Thus, be sure to send the log files as well.
7. Use the "Search" button to upload your affected project and the log files (e. g. as a Zip file) to the Support Request.  
Press "Next" to switch to step 5 "Provide contact information".
8. Enter your contact information.  
Read the privacy notice and choose whether your personal data should be permanently saved.  
Press "Next" to switch to step 6 "Summary & Send".
9. Press the "Print" button if you would like to print the support request.  
You close the support request by clicking the "Send" button.  
Your data will be transmitted to Customer Support and processed there.

Thank you for your cooperation. We hope that we can be of assistance in solving your problems.  
Your WinCC Team

### See also

Internet: Error report (<http://www.siemens.com/automation/support-request>)

Internet: Overview of Support Request (<http://support.automation.siemens.com/WW/view/en/16605654>)

# WinCC/Audit - Documentation

## 3.1 Using Audit

### Introduction

WinCC/Audit is a WinCC option for monitoring WinCC configurations and user activities in WinCC Runtime.

### Components of Audit

Audit contains the following components:

Component	Description
Audit Editor	Specify Audit configurations.
Audit Runtime (RT)	Record events from the WinCC configuration and WinCC Runtime and save them as Audit Trails.
Audit Viewer	Show exported Audit Trails and Audit Trails from a database.
Audit Viewer Control	Display audit trails from a database in WinCC Runtime.
Audit Document Control and Project Versioning	Save and version WinCC project data.

### Using Audit

Audit records WinCC engineering changes and user actions in runtime in so-called audit trails (audited events). The Audit Viewer allows the specific display and analysis of audit trails.

The document control allows the document management of WinCC screens, C and VBS functions, reports and user documents. You can use project versioning to archive complete WinCC projects and restore project versions.

#### Application examples

Audit supports operation and maintenance for the following users:

- Operators of validated plants in the pharmaceutical industry.
- Tracking & tracing for plant operators, for example, in the food and beverage industry.
- Serial equipment manufacturer with different versions of a central project.
- OEMs who maintain plants for their customers worldwide.
- Users who need to ensure gapless recording of operator actions for the purpose of traceability.
- Users who need to implement the requirements of the FDA (Food and Drug Administration).

## 3.2 Important information about the Audit Viewer

The Audit Viewer requires special Windows rights.

The Windows user using the Audit Viewer must be a member of the user group "SIMATIC HMI".

If WinCC is installed on a PC in addition to the Audit Viewer, the user group exists already.

### "Standalone" Audit Viewer

The Audit Viewer can also be used as a "stand-alone installation" on a PC without WinCC.

The "SIMATIC HMI" user group is created locally with this installation in the Windows user and group management.

---

#### Note

The Windows user performing the Audit installation is automatically registered as a member of the "SIMATIC HMI" user group.

Additional Windows user using the Audit Viewer must be subsequently registered as members of the user group.

After registration in the user group, the Windows user has to log on again in Windows.

---

## 3.3 Approved configurations

### 3.3.1 Local WinCC scenario

A PC on which a WinCC project is running and Audit is installed is not connected to any other PC. The Audit trails are written to a local multiproject database or a remote multiproject database.

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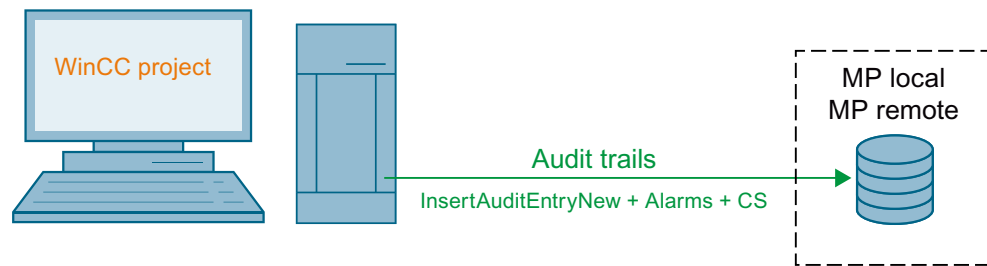
#### Note

##### Database location with local WinCC scenarios

The database location does not play a role in the following scenario. The configuration graphic is therefore shown with a simplified display. Depending on the scenario, multiple databases may be available.

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**Note****Local Server is not always local PC**

Local server does not mean that the server is always available in the local PC. The term "Local Server" depends on the scenario. For example, when a remote PC is accessing the project in local PC, the "Server Type" will be displayed as "Local Server" because any changes made to the project will store audit trails in the local PC.

---

### 3.3.2 WinCC remote scenarios

#### Introduction

A PC on which a WinCC project is running and Audit is installed is connected to other PCs. WinCC and Audit are also installed on the other PCs. The remote scenarios are then as follows. The Audit trails are written to a local multiproject database or a remote multiproject database.

---

**Note****Database location in remote scenarios**

The database location does not play a role in the individual scenarios. The configuration graphics are therefore shown with a simplified display. Depending on the scenario, multiple databases may be available.

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**Note****Combination of remote scenarios**

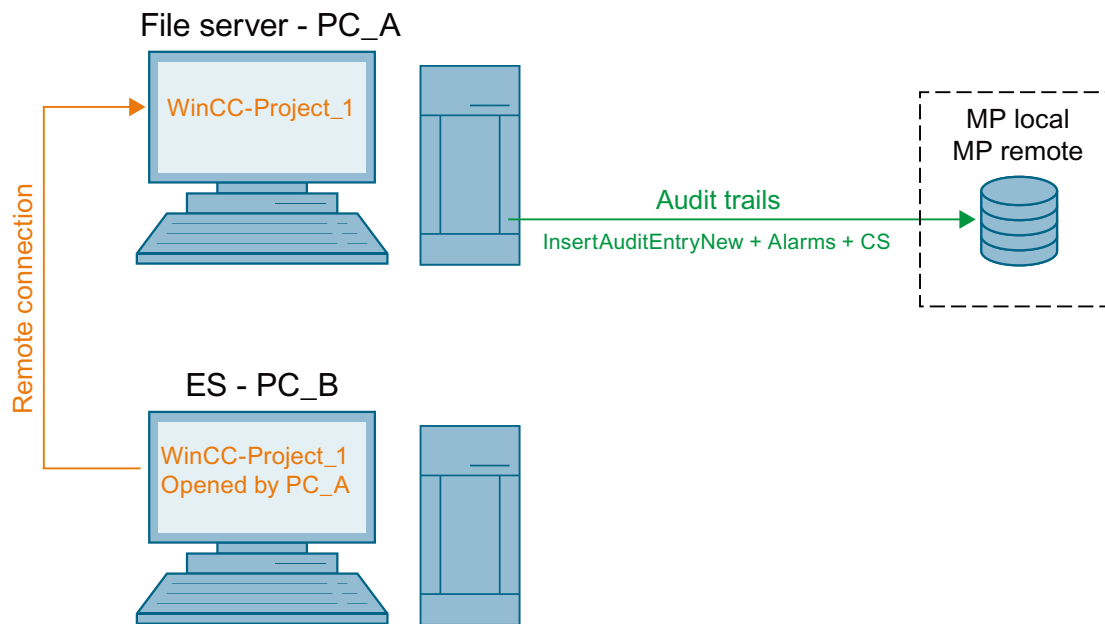
A combination of the individual remote scenarios is possible.

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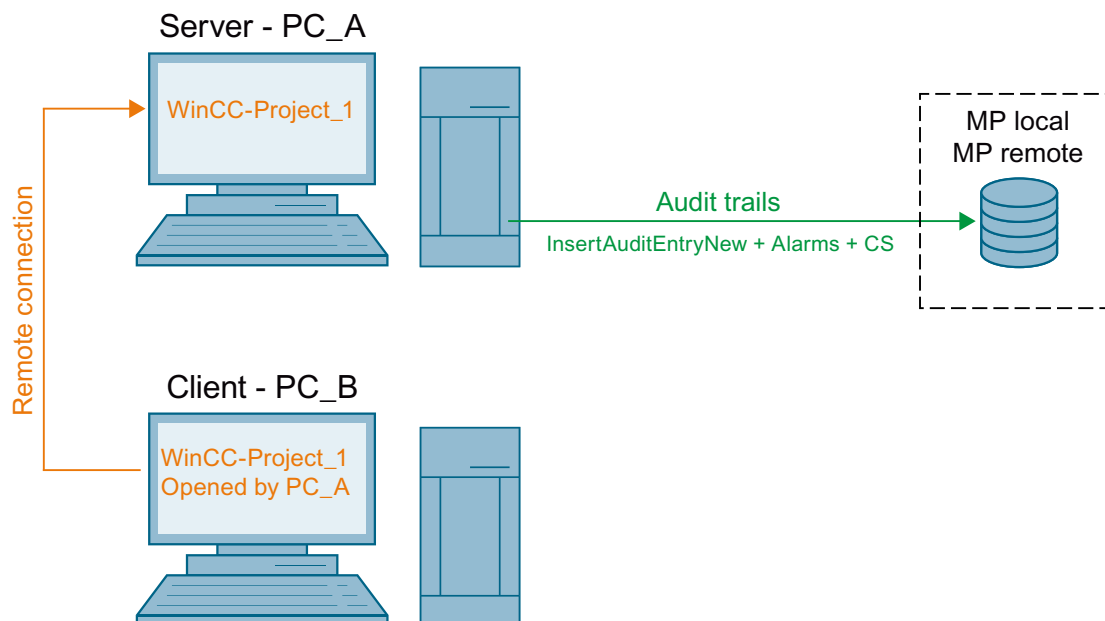
#### Remote configuration:

The WinCC project that is located on the file server is opened via the Engineering Station (ES). The project type plays no role in this. All events executed on the ES are recorded by the file server and written to the Audit Trail database.

## 3.3 Approved configurations

**Multi-user project and client without own project**

The WinCC project located on the server is opened via the client. All events that are executed on the client are recorded by the server and written to the Audit Trail database.

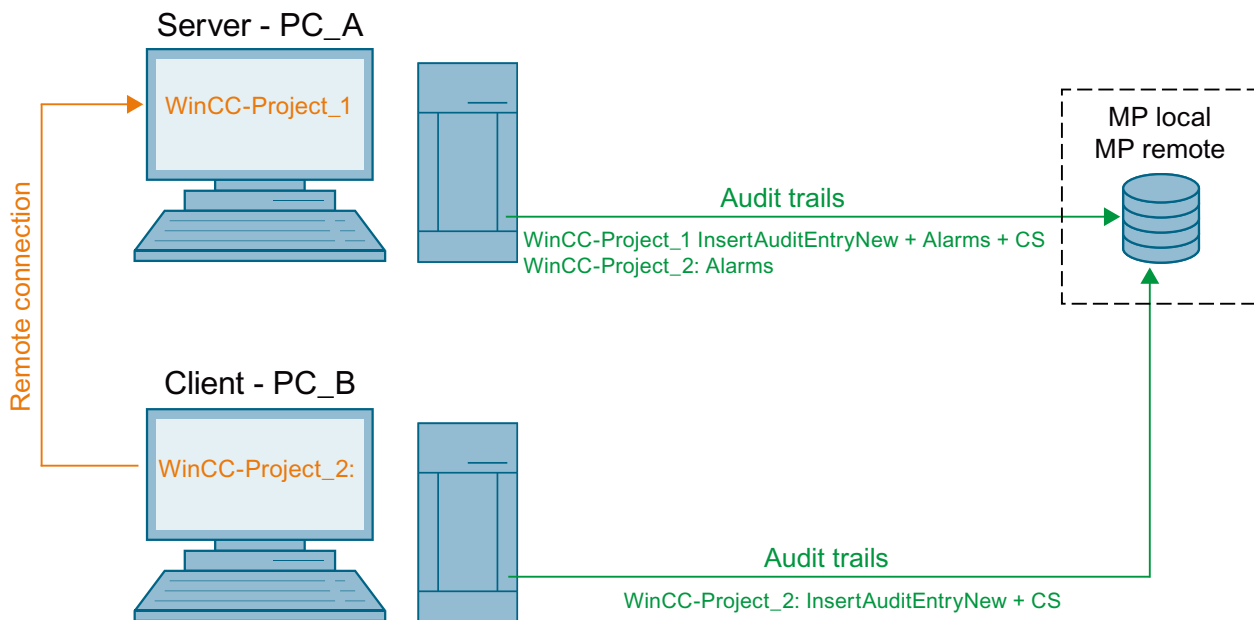


**Note****Audit Document Control and Projekt Versioning**

Audit Document Control and Project Versioning has not been approved for a multi-user project or client without its own project.

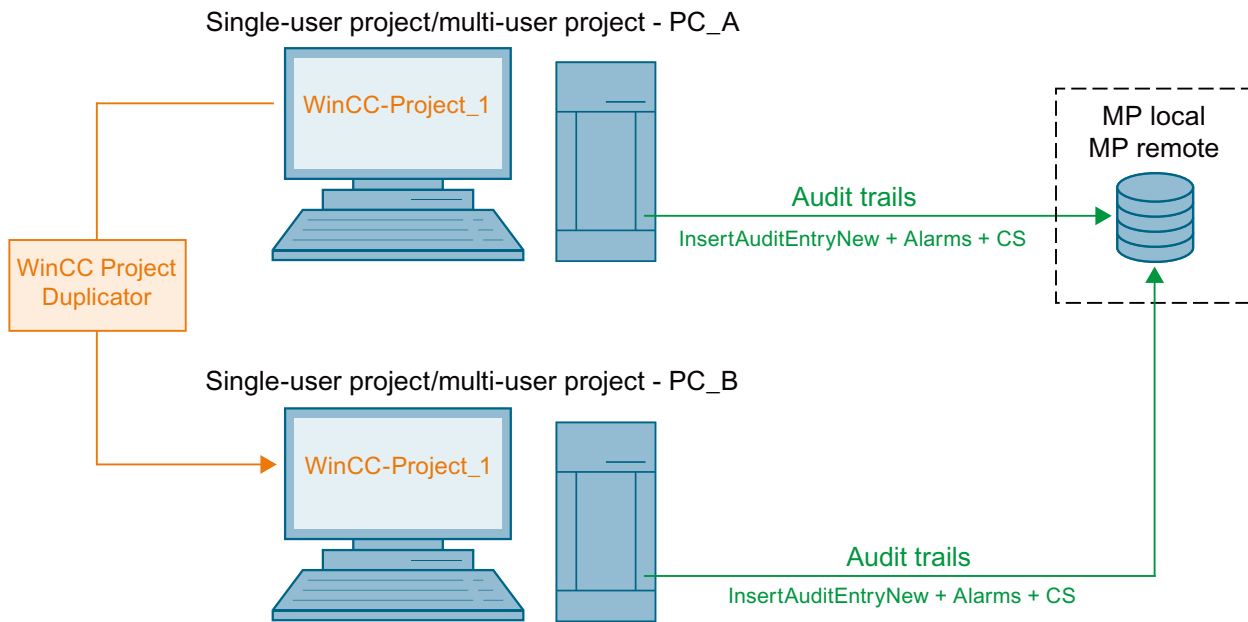
**A client with its own project**

A client project with its own configuration is running on the client. The events triggered by the client via InsertAuditEntryNew and configuration changes are recorded by the client and written to the Audit Trail database. The runtime events triggered by the client are recorded by the server and written to the Audit Trail database.

**Redundancy**

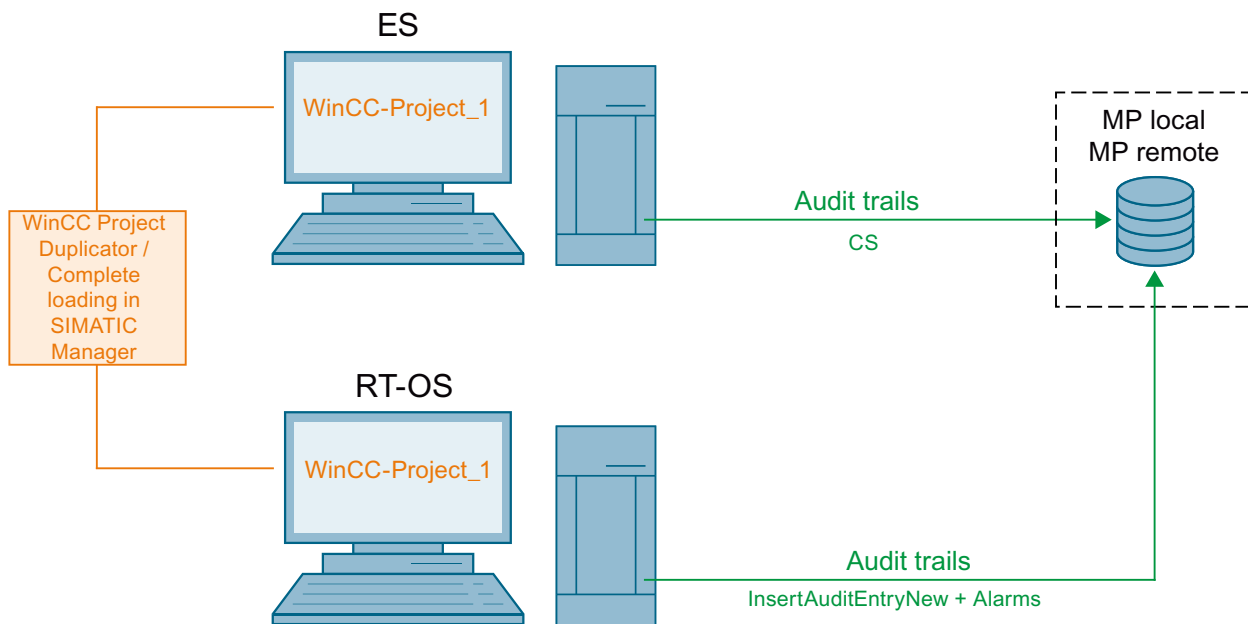
A WinCC project is running redundantly on two PCs. To generate a redundancy, the WinCC project is duplicated using the WinCC Project Duplicator. Each PC records its events and writes the events to the Audit Trail database. A multiproject database is recommended for both WinCC projects.

## 3.3 Approved configurations



## Engineering scenario

A WinCC project is running on a Engineering Station (ES). The project is transferred to a Operator Station (OS) via the WinCC Project Duplicator or complete loading in SIMATIC Manager. The division of Engineering and Runtime takes place on two PCs. The Engineering Station records all configuration changes and writes these to the Audit Trail database. The Operator Station records all events via InsertAuditEntryNew and Runtime and writes the events to the Audit Trail database.



**Note****Audit changes from ES to OS**

It is required to download a complete project to transfer any Audit Editor related changes from ES to OS.

---

## 3.4 Audit basics

### 3.4.1 Logon

#### Introduction

Logging on in Audit is performed through an authentication in "SIMATIC Logon".

Each Audit user has the same rights.

The following audit components require authentication:

- Audit Editor
- Audit Document Control and Project Versioning

If you do not authenticate yourself, the Audit components are opened read-only. This means that not all of the Audit functions will be available.

You can authenticate yourself later via the shortcut menu in Audit Editor.

You can authenticate yourself later via the menu bar in Audit Document Control and Project Versioning.

#### Requirement

- "SIMATIC Logon" is installed on your computer.
- You are a member of the "SIMATIC HMI AUDIT" user group.

#### Procedure

1. Open the desired audit component.  
A SIMATIC Logon dialog appears.
2. Enter your user name and password.
3. Confirm your entries with "OK".

#### Result

You have authenticated yourself and can use all Audit functions.

## See also

User authentication (Page 9)

### 3.4.2 Changing the interface language

The interface language of Audit Editor, Viewer and DCPV when launched depends on the user interface language of WinCC Explorer.

To change the interface language, select "Options > Language" in the WinCC Explorer menu bar.

### Audit Viewer, and Audit Document Control and Project Versioning

The user interface of the Audit Viewer, and Audit Document Control and Project Versioning can also be set in the respective editors.

To change the interface language, select "Options > Language" in Viewer/DCPV editor menu bar.

### 3.4.3 Audit components

#### 3.4.3.1 Audit Editor

## Function

You can use the Audit Editor to define the activities you would like to audit in your WinCC project:


- Activities in the individual WinCC components
- Activities in user and configuration files
- Runtime operation of objects

The settings in the Audit Editor are made with check boxes that you can select or clear.

The server of the Audit Trail database is also selected in the Audit Editor. The audit trails are stored in the Audit Trail database.

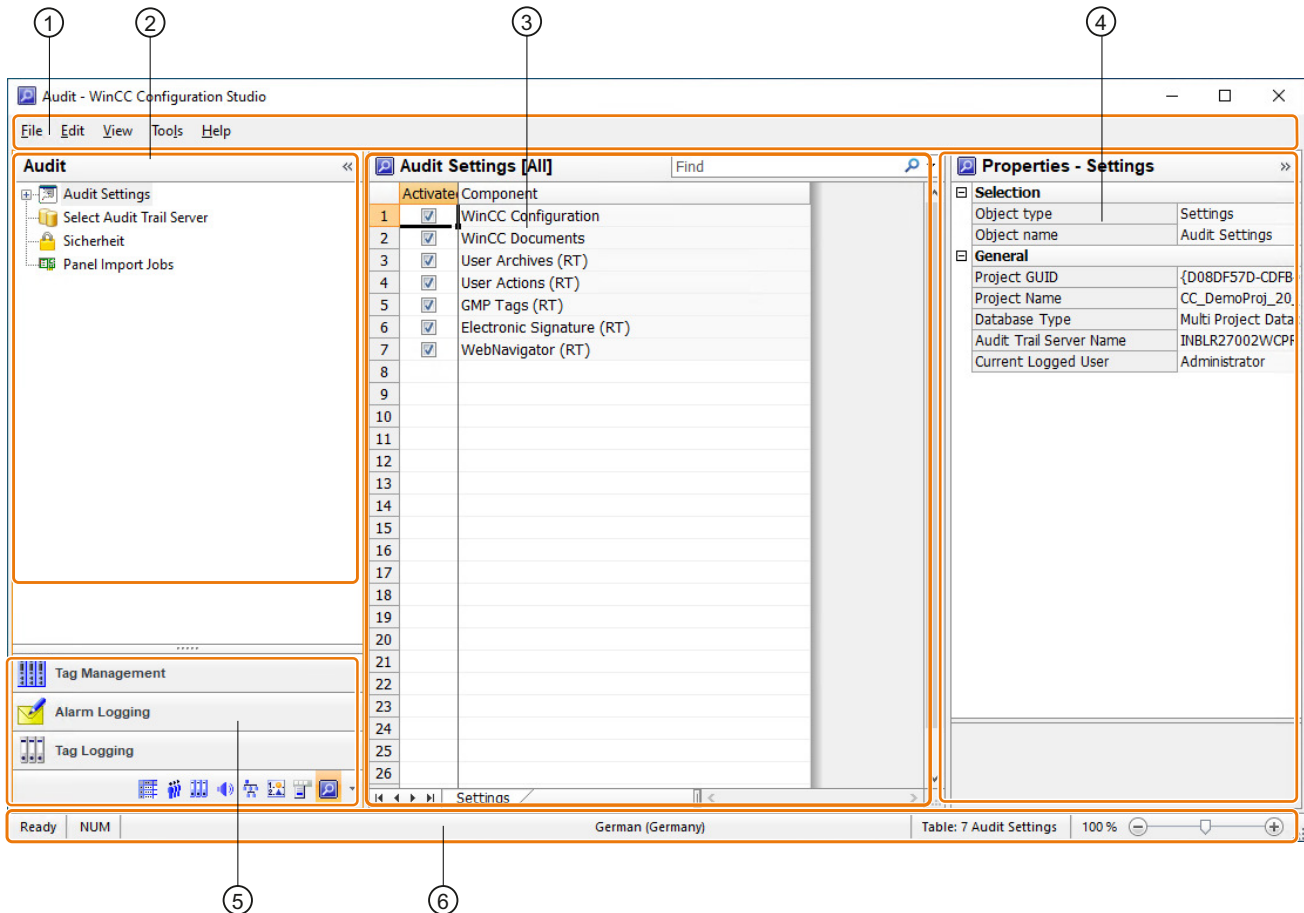
The configuration changes within the Audit Editor are also saved as audit trails in the Audit Trail database.

## Open Audit Editor

When you open a WinCC project after installing the Audit Editor, the Audit icon  appears in the navigation area. Double-click the Audit icon or open the Audit Editor from the shortcut menu.

## Layout

The Audit Editor has the following layout:



- ① **Menu bar:**  
The menu bar contains commands to perform common functions in the Audit Editor.
- ② **Navigation area:**  
The navigation area displays the objects of the Audit Editor in a tree view.
- ③ **Table area:**  
The table area displays the data records of the objects that are selected in the navigation area.  
In quick search, you search the table area for entries.
- ④ **"Properties" window:**  
The "Properties" window displays the properties of a data record.
- ⑤ **Navigation bar:**  
In the navigation bar, you switch between the WinCC editors.
- ⑥ **Status bar:**  
The status bar shows the various states of the Audit Editor.

## Menu commands in the menu bar

The menu bar contains some of the commands that you can call in the Audit Editor. Commands that you cannot use in the current situation are disabled (displayed in gray). Commands that you can call from the shortcut menu are described in the individual sections in which they are used.

The following tables show the commands in the menu bar and the associated functions:

### The "File" menu contains the following commands:

Command	Function
Project Documentation - Setup	No function.
Project Documentation - Preview	No function.
Project Documentation - Print	No function.
Close	Closes the Audit Editor.

### The "Edit" menu contains the following commands:

Command	Function
Copy	Copies the text of the selected object.
Paste	Pastes the text of the copied object.
Undo	Undoes an action.
Redo	Redoes the last action.
Import	Imports the Audit settings from a .txt or .xlsx file.
Export	Exports the Audit settings into a .txt or .xlsx file.

### The "View" menu contains the following commands:

Command	Function
Input language	No function.
Color scheme	Changes the color setting in the Audit Editor.

### The "Tools" menu includes the following commands:

Command	Function
Macros	Opens a dialog box in which you can create macros.
Visual Basic Editor	Opens the Visual Basic Editor.

### The "Help" menu contains the following commands:

Command	Function
Contents and Index	Opens the online help of the Audit Editor.
Info about WinCC Configuration Studio	Opens an information window for the WinCC Configuration Studio.



### 3.4.3.2 Audit Viewer


#### Function

The Audit Viewer is a viewer program for audit trails. You can view following with the Audit Viewer:


- Audit trails that are saved in an Audit Trail database
- Exported audit trails

You can limit your Audit Trail views using pre-defined queries. You can create and save your own queries.

#### Open Audit Viewer

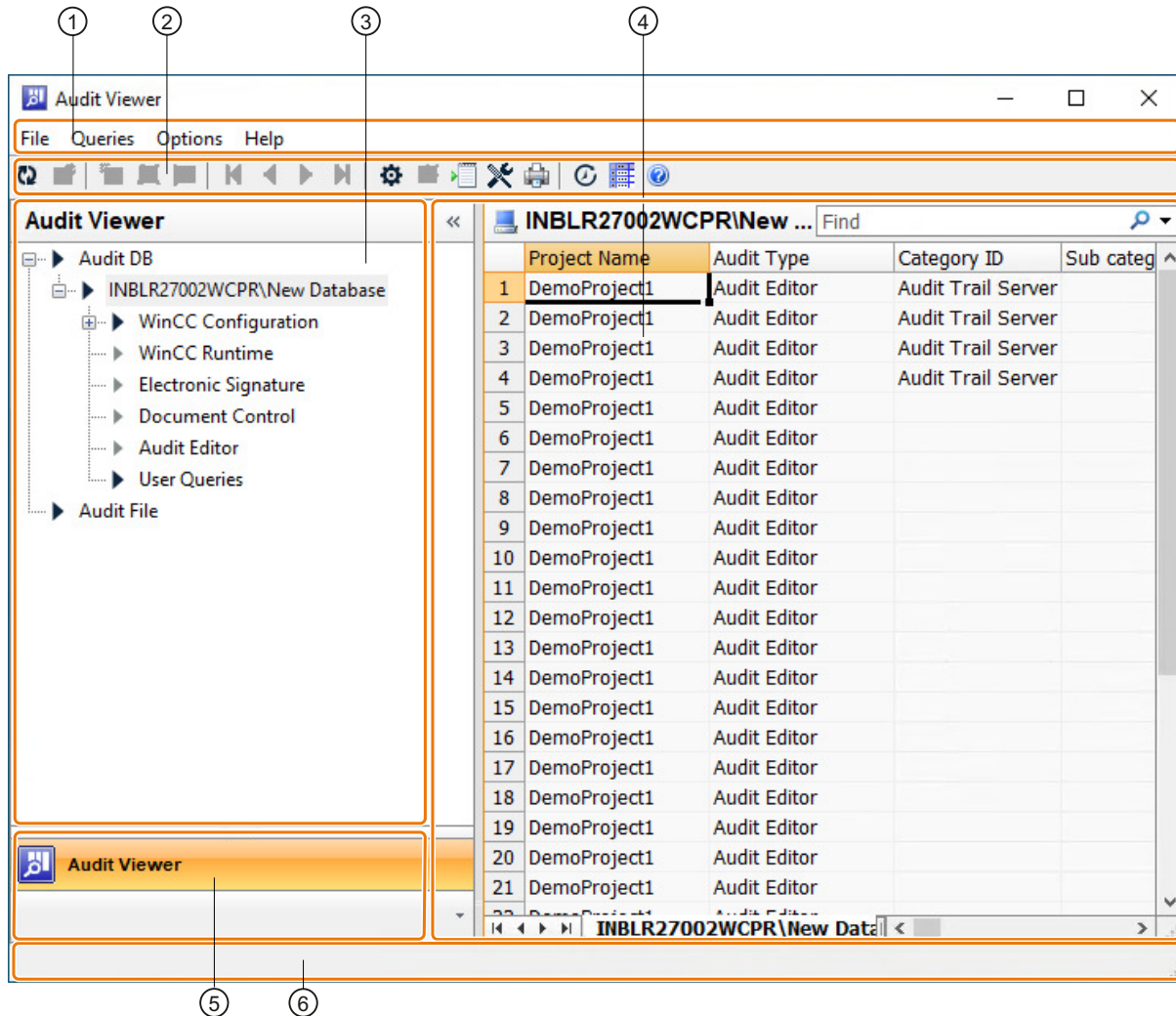
Open the Audit Viewer by double-clicking on the Audit Viewer icon  on your desktop. As an alternative, open the Audit Viewer via the Windows Start menu or "Apps".

##### Opening the Audit Viewer in the WinCC Explorer

When you open a WinCC project after installing the Audit Viewer, the Audit icon  appears in the navigation area. Open the Audit Viewer from the shortcut menu.

## Layout

The Audit Viewer has the following layout:



- ① Menu bar:  
The menu bar contains commands to perform special functions in the Audit Viewer.
- ② Toolbar:  
The toolbar contains buttons to perform special functions in the Audit Viewer.
- ③ Navigation area:  
The navigation area displays the objects of the Audit Viewer in a tree view.
- ④ Table area:  
The table area displays the data records of the objects that are selected in the navigation area.  
In quick search, you search the table area for entries.

- ⑤ **Navigation bar:**  
The navigation bar shows the editor you are in.
- ⑥ **Status bar:**  
The status bar displays the following information about the Audit Viewer:
- Range of IDs of trail records displayed in the current page
  - Current page number
  - Total number of pages
  - Total number of trail records

## Menu commands in the menu bar

The menu bar contains most of the commands that you can use in the Audit Viewer. Commands that you cannot use in the current situation are disabled (displayed in gray). Commands that you can call from the shortcut menu are described in the individual sections in which they are used.

The following tables show the commands in the menu bar and the associated functions:

### The "File" menu contains the following commands:

Command	Function
Update server data	Updates the data of the server.
Update view	Refreshes the view in the table area.
Print	Prints the contents of the category or query that is selected in the navigation area.
Print configuration	Opens a dialog box in which you can specify the columns for printing.
Export to CSV file	Exports the selected audit trails to a CSV file.
Show Audit File	Displays a selected Audit file in the Audit Viewer.
Recent Servers	Lists the servers already in use.
Recent Files	Opens a list of recently opened files.
Close	Closes the Audit Viewer.

### The "Queries" menu contains the following commands:

Command	Function
New Query	Creates a new query.
Delete	Deletes the selected query.
Rename	Renames the selected query.
Run	Executes the selected query.

The "Options" menu contains the following commands:















Command	Function
Language	Changes the user interface language of the Audit Viewer.
Settings	The following settings can be made: <ul style="list-style-type: none"> <li>Maximum number of data records that can be saved in the table area.</li> <li>Path to the user-defined queries.</li> </ul>






The "Help" menu contains the following commands:

Command	Function
Contents and Index	Opens the online help of the Audit Viewer.
About	Opens an information window for the Audit Viewer.

## Buttons in the toolbar

The toolbar in the Audit Viewer contains the following functions:

Icon	Tooltip	Function
	Update server data	Updates the data of the server. Updates user queries.
	Update view	Refreshes the view in the table area.
	New Query	Creates a new query.
	Delete	Deletes the selected query.
	Run	Executes the selected query.
	First page	Navigates to the first page to display Audit Trails.
	Next page	Navigates to the next page to display Audit Trails.
	Previous page	Navigates to the previous page to display Audit Trails.
	Last page	Navigates to the last page to display Audit Trails.
	Settings	The following settings can be made: <ul style="list-style-type: none"> <li>Maximum number of data records that can be displayed in the table area (100 to 50000 records).</li> <li>Path to the user-defined queries.</li> </ul>
	Close result view	Closes the result view in the table area after executing a query.
	Export to CSV file	Exports the selected audit trails to a CSV file.
	Print configuration	Opens a dialog box in which you can specify the columns for printing.
	Print	Prints the contents of the category or query that is selected in the navigation area. The contents are printed to the printer that is defined as standard under Windows.

Icon	Tooltip	Function
	Coordinated Universal Time (UTC)	This a toggle button to choose the time base to display in the project. By default, Coordinated Universal Time (UTC) is selected.
	Local Time Zone	Local Time Zone is selected as time base to display.
	General View	This a toggle button to choose the column need to be shown. By default, General View is selected.
	Panel View	Panel view is selected to show the audit data imported by panel only.
	Help	Opens the online help of the Audit Viewer.

## Meaning of the columns

Audit trails have a defined structure that is displayed in the Audit Viewer.

Column header	Meaning
ID (hidden)	ID of the recorded audit trails. The numbering is not sequential and does not impact audit trails (Also shown in Panel View).
Project ID (hidden)	Audit ID of the audited WinCC project.
Project Name	Project name of the audited WinCC project.
Audit Type	Area from which the event originates (Also shown in Panel View).
Category ID	Change category (Also shown in Panel View).
Subcategory ID	Subcategory of the change.
Target ID (hidden)	ID from a WinCC database (Also shown in Panel View).
Target Name	Name of the changed element (Also shown in Panel View)
Specific Change ID	Type of change made.
Modification ID	Performed change.
Old Value	If a data change was made, the old value is displayed here (Also shown in Panel View).
New Value	If a data change was made, the new value is displayed here (Also shown in Panel View).
Date Time	Date and time information (UTC) when the change was made (Also shown in Panel View).
Time Zone Offset	Time difference to Coordinated Universal Time (UTC) (Also shown in Panel View).
Windows User	Name of the Windows user who performed the change (Also shown in Panel View).
Application User	Name of the application user who performed the change (Also shown in Panel View).
Computer Name	Computer name on which the change was made.
Operator Message ID	Message number (Also shown in Panel View).
Reason	Comments or further information about the event and information about the role assigned to an user on successful login and logout (Also shown in Panel View).
Local IP Address	IP address of the local machine.

### 3.4 Audit basics

Column header	Meaning
Remote IP Address	The IP address of the machine used to access the WinCC Server Machine.
Product Name	The name of the product. (WinCC)
Application Name	The name of the process where the event occurs.

**Note****Local Time Zone**

When "Local Time Zone" is selected, the "Time Zone Offset" column is not applicable.

**Migrated audit trails are displayed in the following columns:**

Column header	Meaning
Legacy Project GUID	Project ID of the audited WinCC project prior to V7.5 SP2.
Legacy Database Name	WinCC database name of the previous version of V7.5 SP2.
Legacy Application Name	Name of the application of the previous version of V7.5 SP2.
Legacy Table Name	Name of the SQL table of the previous version of V7.5 SP2.
Legacy Field Name	Field name of the previous version of V7.5 SP2.
Legacy Event Type	Performed change of the previous version of V7.5 SP2.
Legacy Event Item	Changed item of the previous version of V7.5 SP2.

#### 3.4.3.3 Audit Viewer Control

**Function**

The Audit Viewer Control is an ActiveX control that is embedded in the Graphics Designer as an OCX file.

You can use the Audit Viewer Control in a process picture (.pdl) to view the stored audit trails and evaluate them in Runtime. The user interface is identical to the one in Audit Viewer. There is no menu bar, only the toolbar with a reduced number of icons. Exported audit trails cannot be displayed in the Audit Viewer Control.

You can find additional information under:

- Audit Viewer (Page 33)

### 3.4.3.4 Audit Document Control and Project Versioning



#### Function

Audit Document Control and Project Versioning contains the following functions:

- Versioning of projects and files
- Checking in and checking out individual files
- Restoring previous versions

All activities performed in Audit Document Control and Project Versioning can be saved as audit trails in the Audit Trail database. They first have to be configured in the Audit Editor.

#### Opening Audit Document Control and Project Versioning

When you open a WinCC project after installing the Audit Document Control and Project Versioning, the Audit icon  appears in the navigation area. Open Audit Document Control and Project Versioning in the shortcut menu, or double-click the Audit DCPV icon  on your desktop.

As an alternative, open Audit Document Control and Project Versioning with the Windows Start menu or "Apps".

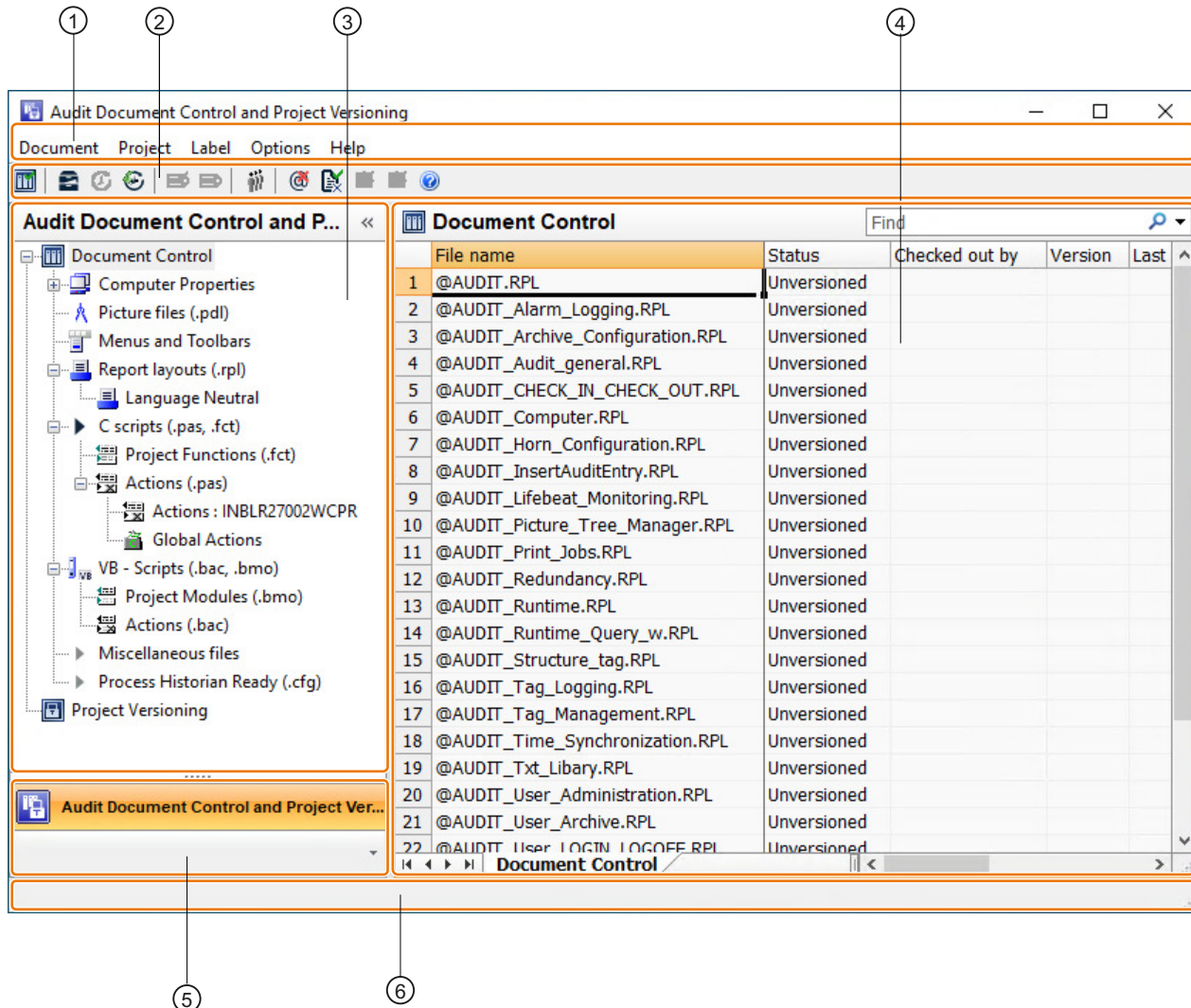
#### Opening Audit Document Control and Project Versioning in the Audit Editor

You can also open the Audit Document Control and Project Versioning from the Audit Editor:

1. In the Audit Editor, click "Document Control and Project Versioning" under "Audit Settings" in the navigation area.
2. Select "Open" from the shortcut menu.

## Layout

Audit Document Control and Project Versioning has the following layout:



- ① Menu bar:  
The menu bar contains commands to perform special functions in the Audit Document Control and Project Versioning.
- ② Toolbar:  
The toolbar contains buttons to perform special functions in the Audit Document Control and Project Versioning.
- ③ Navigation area:  
The navigation area displays the objects of the Audit Document Control and Project Versioning in a tree view.
- ④ Table area:  
The table area displays the data records of the objects that are selected in the navigation area.  
In quick search, you search the table area for entries.
- ⑤ Navigation bar:  
The navigation bar shows the editor you are in.
- ⑥ Status bar:  
The status bar displays various information about the Audit Document Control and Project Versioning.



## Menu commands in the menu bar

The menu bar contains most of the commands that you can use in the Audit Document Control and Project Versioning. Commands that you cannot use in the current situation are disabled (displayed in gray). Commands that you can call from the shortcut menu are described in the individual sections in which they are used.

The following tables show the commands in the menu bar and the associated functions:

### The "Document" menu contains the following commands:

Command	Function
Enable Document Control	Activates the document control.
Disable Document Control	Deactivates the document control.
Close	Closes Audit Document Control and Project Versioning.

### The "Project" menu contains the following commands:

Command	Function
Archive Project	Archives a WinCC project.
Current Project History	Displays the project history of the current WinCC project.
Complete Project History	Displays the project history of all archived WinCC projects.

### The "Label" menu contains the following commands:

Command	Function
Apply Label	Opens a dialog box to apply a label.
View Label	Displays all applied labels.

### The "Options" menu contains the following commands:
















Command	Function
User Login	Login of the user.
User Logout	Logout of the user.
Language	Changes the user interface language of Audit Document Control and Project Versioning.

### The "Help" menu contains the following commands:

Command	Function
Contents and Index	Opens the online help of Audit Document Control and Project Versioning.
About	Opens an information window for Audit and Project Document Versioning.

## Buttons in the toolbar

The toolbar in Audit Document Control and Project Versioning contains the following functions:

Icon	Tooltip	Meaning
	Enable Document Control	Activates the document control.
	Disable Document Control	Deactivates the document control.
	Archive Project	Archives a WinCC project.
	Current Project History	Displays the project history of the current WinCC project.
	Complete Project History	Displays the complete project history of all archived WinCC projects.
	Apply Label	Opens a dialog box to apply a label.
	View Label	Displays all applied labels.
	User Login	Login of the user.
	User Logout	Logout of the user.
	Show system pictures (@-prefix)	Show WinCC project files that have the "@" prefix.
	Hide system pictures (@-prefix)	Hide WinCC project files that have the "@" prefix.
	Show deleted files	Show WinCC project files that were deleted.
	Hide deleted files	Hide WinCC project files that were deleted.
	Close result tab	Closes the "Compare Result" tab.
	Help	Opens the online help of Audit Document Control and Project Versioning.

## 3.5 Basic procedure

### 3.5.1 Working with WinCC/Audit

#### Procedure

In Audit Editor, the direct help for the selected field is available in the "Properties" window.

To manage and monitor a WinCC project or project data in Audit, follow the steps of the procedure.

You must be authenticated to work with the Audit Editor.

---

**Note****WinCC Audit ChangeControl CC license**

If you have installed only the WinCC Audit ChangeControl CC license, the Audit Editor includes only the "WinCC Configuration" and "WinCC Documents" components under "Audit Settings".

---

**Step 1: Connect the Audit Trail server**

1. To display the Audit Trail servers, click "Select Audit Trail server" in the navigation area.
2. Select the Audit Trail server on which the Audit Trail Database is located or is going to be created.  
To do so, select the entire table row.
3. Select "Select Server" in the shortcut menu.

**Step 2: Specify WinCC components for auditing**

1. Click "Audit Settings" in the navigation area.
2. In the "WinCC Configuration" line, select the check box in the "Activated" column.
3. To specify the monitoring for individual WinCC components, click "WinCC Configuration" under "Audit Settings" in the navigation area.
4. Select or clear the check box for the respective component in the "Activated" column.  
To activate or deactivate all components, select the column "Activated" and select "Select all" or "Deselect all" in the shortcut menu.

**Step 3: Activate document monitoring**

Activate the "WinCC Documents" component under "Audit Settings".

The following events are saved in the Audit Trail database for the monitored documents:

- Create
- Edit
- Delete
- Changes happen in the "Web Navigator" folder after Web Navigator Publishing operation.

**Step 4: Activate electronic signature**

Activate the "Electronic Signature (RT)" component under "Audit Settings". This begins the monitoring of electronic signature messages and are written to the Audit trail database.

Make sure "Alarm Logging Runtime" is activated in the startup list in the computer properties before you activate electronic signature in Audit Editor.

**Step 5: Enable document control and archive WinCC projects**

1. To open the editor, under "Audit Settings" in the navigation area select the "Open" command in the shortcut menu of "Audit Document Control and Project Versioning".
2. Log in with your user name and password.
3. In the open editor, select "Document > Enable document control".
4. Configure the versioning number in the "Version configuration" dialog box.
5. Select the required category under "Document Control" in the navigation area. The WinCC files are listed in the table area and can be checked in or out.
6. To create a WinCC project, select "Project > Archive Project" in the menu bar. You can display all WinCC projects and project versions. To do so, select "Project > Complete project history" in the menu bar.

You can find additional information under:

- Working with Document Control and Project Versioning (Page 48)

Use the Audit Editor again for the following steps.

**Step 6: Activate User Archive Runtime for auditing**

Requirements for step 6: You are using the WinCC option "User Archive".

To monitor the value change in the user archives, activate the "User Archive (RT)" component under "Audit Settings".

**Step 7: Monitoring user actions**

Activate the "User Actions (RT)" component under "Audit Settings".

The following actions are audited:

- Messages
  - Standard operator messages that are output with process picture operations if the "Operator Message" property is activated or a direct connection is configured.
  - User operator messages which are triggered by message tags, C script or VB script (standard "GCreateMyOperationMsg" function or "HMIRuntime.Alarms" method).
  - System events (e.g., login, logout, login failed)
  - Messages from the message number range from 1900000 to 1901000
- Scripting
  - InsertAuditEntryNew  
Audit saves all events directly to the Audit Trail Database with the "InsertAuditEntryNew" function.

## Step 8: Activate / deactivate the "Operator Message" and "Operator Activities Report" property

You can activate or deactivate the property "Operator Message" and "Operator Activities Report" for specific graphic objects. You activate or deactivate the properties in the Graphics Designer or in the Audit Editor as follows:

1. Activate the "User Actions (RT)" component under "Audit Settings".
2. Select "Audit Settings > User Actions (RT)" in the navigation area.
3. Select the required process pictures in the table area.
4. Select the required process picture under "User actions (RT)" in the navigation area.
5. In the table area, activate or deactivate the required option for the displayed objects.  
To apply the change, click on another area in the navigation area or close the Audit Editor.  
These settings are applied to the object properties in the Graphics Designer.  
When you change the setting in the Graphics Designer, the option is also activated or deactivated in the Audit Editor.

---

### Note

#### Update view

When a new process picture is created or new objects are inserted in a process picture, the view is not automatically updated in the Audit Editor.

To update the view, follow these steps:

- Display new process picture: Select the "Refresh" command in the "User Actions (RT)" shortcut menu.
  - Display new object in the process picture: Right-click the modified process picture under "User Actions (RT)".
- 

Additional information can be found in the Audit documentation and the WinCC documentation.

## Step 9: Tracking Web Navigator Activities

Activate the "Web Navigator (RT)" component under "Audit Settings".

The following actions are audited:

- Runtime Login
- Runtime Logout
- Supported runtime data changes via Web Client

## Step 10: Monitor GMP tags in Runtime

1. Open "Tag Management" from the WinCC project.
2. Select the tag from the table area you want to monitor.
3. Select the check box "Good Manufacturing Practices" in the Properties tab under the Options section of the selected tag.
4. Open Audit from the WinCC project.

### 3.5 Basic procedure

5. Click "Audit Settings" in the navigation area.
6. Select the check box for the "GMP tags (RT)" component in the "Activated" column of the table area.  
These settings will monitor the selected tags for Good Manufacturing Practices in runtime.

#### Step 11: Displaying Audit Trails

1. Select the command "Open Audit Viewer" in the "Audit" shortcut menu of the WinCC Explorer or click the "Audit Viewer" desktop icon.
2. In the table area, select the server with the required Audit Trail database under "Audit DB" in the open viewer.  
To do so, select the entire table row.
3. Select "Select Server" in the shortcut menu.
4. To limit the display to specific events, for example, use the offered queries or create your own query.

---

#### Note

##### Editing Audit Trails

The Audit Trails in the database can be edited only by the Audit system.

---

You can find additional information under:

- Working with the Audit Viewer (Page 47)

#### Step 12: Configuring Audit Viewer Control for display in WinCC Runtime

To display the content of the Audit Trail Database in WinCC Runtime, add the "Audit Viewer Control" in a process picture in the WinCC Graphics Designer.

#### Notes on the Audit Editor

Compared to the default behavior of the WinCC Configuration Studio, the Audit Editor has the following modified behavior:

Navigation	Entry	Behavior in the Audit Editor
Menu bar	View > Input language	No function
Table area, e.g., Audit Trail Server	"Delete" shortcut menu	No function
Table area: Selected row or column	"Cut" / "Paste" shortcut menu	No function
Table area: Selected row or column	"Find and replace" shortcut menu	"Find" can be used. No function: "Replace"
Table area	Automatic continuation ("drag-down")	No function

### 3.5.2 Working with the Audit Viewer

#### Procedure

To display the events saved in the Audit Trail database in the Audit Viewer, follow the steps in the procedure.

#### Step 1: Connect the Audit Trail database

1. In the navigation area, select "Audit DB".
2. In the table area, select the server with the required Audit Trail Database.  
To do so, select the entire table row.
3. Select "Select Server" in the shortcut menu.

The selected Audit Trail server with the connected database is displayed under "Audit DB" in the navigation area.

#### Step 2: Display audit trails

1. Click the connected server with the Audit Trail database under "Audit DB" in the navigation area.  
You can see the events of the Audit Trail database in the table area.
2. To configure the number of displayed rows, select "Options > Settings" in the menu bar.
3. To display the events in a sorted manner, select the required category below the Audit Trail database.

#### Step 3: Filter audit trails with user queries

1. Select "Audit DB > <Audit Trail Server\> Database > Query > User Query" in the navigation area.
2. In the shortcut menu, select "New Query".
3. Define your query in the table area.  
The next field to be processes is always identified by an asterisk. The Audit Viewer supports you in creating the query using drop-down lists in the fields.
4. Select your created query in the navigation area.
5. Select "Run" in the shortcut menu.

#### Notes on the Audit Viewer

Compared to the default behavior of the WinCC Configuration Studio, the Audit Viewer has the following modified behavior:

Navigation	Entry	Behavior in the Audit Viewer
Table area: Selected row or column	"Delete" shortcut menu	No function
Table area: Selected row or column	"Cut" / "Paste" shortcut menu	No function

Navigation	Entry	Behavior in the Audit Viewer
Table area: Selected row or column	"Find and replace" shortcut menu	"Find" can be used. No function: "Replace"
Table area	Automatic continuation ("drag-down")	No function

### 3.5.3 Working with Document Control and Project Versioning

#### Procedure

To create and manage file versions and project versions, follow the steps of the procedure.  
You must be authenticated to work with Audit Document Control and Project Versioning.

#### Step 1: Enable document control and configure versioning

1. Select "Document > Enable document control" in the menu bar.
2. Configure the versioning number in the "Version Configuration" dialog box.

The files included in the open WinCC project are checked in and must be checked out for editing.

#### Step 2: Check out file

1. Select the required category under "Document Control" in the navigation area.
2. In the table row, select the file you want to check out.
3. Select "Check Out" in the shortcut menu.
4. You have the option to enter a comment and confirm with "Check out".

#### Step 3: Check in file

1. Select the required category under "Document Control" in the navigation area.
2. In the table row, select the file you want to check in.
3. Select "Check In" in the shortcut menu.
4. Enter a comment or apply the existing comment.
5. Confirm with "Check in" to apply the automatically incremented version number.  
If you want to continue versioning with a new, higher-level segment, deactivate the "Automatic versioning" option and select the corresponding segment.



**Step 4: Archiving and versioning an open WinCC project**

1. Select "Project > Archive Project" in the menu bar.
2. Make sure that the "Archive Current Project" option is activated.  
If versioning has not been configured yet, the "Version configuration" dialog opens.  
Configure the versioning.
3. Enter a comment.
4. Confirm with "Archive" to apply the automatically incremented version number.  
If you want to continue versioning with a new, higher-level segment, deactivate the "Automatic versioning" option and select the corresponding segment.

**Step 5: Archiving and versioning a closed WinCC project**

Requirement: The version configuration for the closed WinCC project has already been completed.

1. Select "Project > Archive Project" in the menu bar.
2. Deactivate the "Archive Current Project" option and navigate to the storage path of the required WinCC project.
3. Enter a comment.
4. Confirm with "Archive" to apply the automatically incremented version number.  
If you want to continue versioning with a new, higher-level segment, deactivate the "Automatic versioning" option and select the corresponding segment.

**Step 6: Restore version**

1. For example, to restore an archived project version, selected your required project in the navigation area under "Project versioning".
2. Select the table row of the required version.
3. Select "Restore" from the shortcut menu.
4. Select the storage location and confirm with "OK".

**Notes on Audit Document Control and Project Versioning**

Compared to the default behavior of the WinCC Configuration Studio, the Audit Document Control and Project Versioning editor has the following modified behavior:

Navigation	Entry	Behavior in Audit Document Control and Project Versioning
Table area: Selected row or column	"Delete" shortcut menu	No function
Table area: Selected row or column	"Cut" / "Paste" shortcut menu	No function
Table area: Selected row or column	"Find and replace" shortcut menu	"Find" can be used. No function: "Replace"
Table area: Selected row or column	"Configuration dialog" shortcut menu	Same behavior as the "Check Out and Edit" function.

### 3.6 Working with Audit

Navigation	Entry	Behavior in Audit Document Control and Project Versioning
Table area: Double-click selected row	-	Same behavior as the "Check Out and Edit" function.
Table area	Automatic continuation ("drag-down")	No function

#### Tracking corrupted configuration file

A popup dialog appears when the user launches DCPV for a project with an altered Project Versioning file. This allows the user to either restore the current Project Versioning file or retain the altered file.

#### Viewing file types

It is now possible to view all the listed file types supported by DCPV and their statuses in the table area under the "Document Control" root node. This is also applicable for the nodes under it.

You can perform operations like "Check In", "Check Out", "Copy", "Paste" and so on, at "Document Control" root node and at every subsequent node.

## 3.6 Working with Audit

### 3.6.1 Configuring the Audit Trail database

#### 3.6.1.1 Audit Trail multi project database

##### Overview

Every Audit project can store the Trails either by creating a new multi project database or connecting to the existing multi project database.

- A PC can have multiple multi project databases.
- Databases in a machine cannot have the same name.
- The database names that exist in a machine are displayed during selection of the Audit Trail Server.

The database name is case sensitive and usage of '\_' is also supported. The list of invalid characters that are not supported during the creation of the multi project database are given below:

- . , ; : ! ? ' "
- + = / \ @ \* &
- [ ] { } < >

If there is no network connection between the PCs over a certain period, your audit data is not lost. Audit stores the audit trails in a local cache. When the network connection is re-established, the audit trails are automatically transferred to the multi project database.

You can also set up a central Audit multi project database on a PC on which there is no WinCC project. At least a minimal installation of WinCC and Audit Runtime must be installed on this PC.

---

**Note****Switching the Audit Trail multi project database to another Audit Trail multi project database**

If you switch from one Audit Trail multi project database to another Audit Trail multi project database, your recorded audit trails are not transferred.

---

**Requirement**

- Audit is fully installed and licensed.
- A network connection is available.

**Procedure**

1. Open the WinCC project that you want to audit.
2. Open the Audit Editor and authenticate yourself.
3. In the navigation area, select "Select Audit Trail Server".  
The table area displays all Audit Trail servers on which at least Audit Runtime is installed.
4. Select the table row of the desired Audit Trail server and right click to enter the desired database name. The "Multi Project Database Name" dialog box opens.
5. Enter the database name.
6. Select "Select Server" in the shortcut menu.

**Result**

Your PC is connected to the desired Audit Trail server to a multi project database.

---

**Note****Modifying the trails in the database**

It is highly recommended not to manipulate the database for audit trails.

---

### 3.6.1.2 Secured Audit Trail Database

**Secured Audit Trail Database**

The Audit trail database is more secured as it restricts any manual modification of the trail data. Once the trail record is logged into the trail database, it can only be managed by the Audit system. In case any records get modified by any means, then it can be identified in Audit Viewer as the modified record will be highlighted.

### 3.6 Working with Audit

Audit trail database is secured by:

- No manual changes to trail records.
- Managed by Audit System.
- Data integrity check.

## 3.6.2 Monitoring a WinCC project with Audit

Specify the components that you want to audit in the Audit Editor.

All settings in the Audit Editor are also saved as audit trails in the Audit Trail database.

If you have not yet configured an Audit Trail database and have already made settings in the Audit Editor, these activities are not audited.

First, configure the Audit Trail database to record future activities in the Audit Editor in the Audit Trail database.

You can find additional information under:

- Configuring the Audit Trail database (Page 50)

### 3.6.2.1 Making Audit settings

#### Introduction

Specify what you want to monitor with Audit in the Audit Editor under "Audit Settings". To enable the settings, select the check boxes.

Audit settings	Description
WinCC configuration	Monitor a WinCC configuration in Audit.
WinCC documents	Monitor changes to the WinCC project files including Web Navigator files and published PDLs.
User archives (RT)	Monitor changes within a user archive, such as value changes.
User Actions (RT)	Monitor user actions in WinCC Runtime.
GMP tags (RT)	Good Manufacturing Practice : Monitor GMP relevant user actions in WinCC Runtime.
Electronic Signature (RT)	Monitor electronic signature relevant user actions.
Web Navigator (RT)	Monitor user login and logout in WinCC Runtime. Also monitor the runtime changes changes made from Web Clients.

#### Requirement

- Your WinCC project is open.
- The Audit Editor is open and you have authenticated yourself.

## Procedure

1. Click "Audit Settings" in the navigation area.
2. Select the check box for the respective component in the "Activated" column. To activate or deactivate all components, select the "Activated" column and then select "Select all" in the shortcut menu.

## Result

You have made the Audit settings. You can deactivate the respective components by clearing the check box in the "Activated" column.

In the next step, you specify which WinCC editors or WinCC components are to be monitored.

---

### Note

When the MCL client hosts a web server, for any runtime changes with respect to the WinCC Server in web client the Audit logs WinCC Server information (Remote IP address, Application User, Windows User, and Computer Name) instead of web client information.

---

## 3.6.2.2 Configuring Audit Security

### Introduction

In the Audit Editor, you can configure the Audit Security Settings under "Security." Security settings allows you to configure the maximum number of retries while login and enabling the trails view in Windows Event Viewer. It also allows to set a threshold limit of C: drive of the machine where the Audit Database/Event Viewer Logs are located to generate the trail records about the disk space notification.

### Requirement

- Your WinCC project is open.
- The Audit Editor is open and you have authenticated yourself.

## Procedure

### Configuring the maximum number of failed login

1. Click "Security" in the navigation area.
2. Enter the allowed number of retries in the "Number of Failed Logon Attempts" property grid field.

### Enable audit trail recording in Windows Event Viewer

1. Click "Security" in the navigation area.
2. Check the "Security Event Log" check box.

**Set the Threshold Storage Capacity**

1. Click "Security" in the navigation area.
2. Enter the capacity limit (in GB) in the "Threshold Storage Capacity (in GB)" property grid field.

**Result**

You have made the Security settings.

The value in the "Number of Failed Logon Attempts" column determines the number of consecutive failed logon attempts per user to log in to the audit trails. For example, if the configured value is 3 and the user1 has failed to login 3 times consecutively, the record is generated. If user1 failed twice to login and another user fails, that time trail is not generated as the the audit trail logs the number of consecutive failed logon attempts per user.

If the check box on the "Security Event Log" is checked, then audit trails will be recorded in Windows Event Viewer. Clear the "Security Event Log" to stop recording audit log to Windows Event Viewer.

If the C: drive storage capacity where the Audit Database/Event Viewer Logs are located exceeds or subsides the given value in the "Threshold Storage Capacity (in GB)", then audit trail will be generated.

**3.6.2.3 Audit tag management****Audit tag management**

Once the Audit is installed, Audit generates two new system tags required for monitoring the internal administration of the project.

**@Audit\_DB\_Connection\_Status**

The binary tag @Audit\_DB\_Connection\_Status indicates the connection status of the Audit system to the Audit Trail Database.

Value	is set
0	Not connected to Audit Trail Database
1	Connected to Audit Trail Database

**@Audit\_Service\_Availability**

The unsigned 16-bit tag @Audit\_Service\_Availability indicates whether the Audit Trail Service or Audit Provider Service is available or not.

---

**Note**

If the Audit Trail Service or Audit Provider Service gets stopped, the service will restart automatically after one minute.

---

Value	is set
1	Both Audit Provider Service and Audit Trail Service are running normally
11	Audit Provider Service is stopped
12	Audit Provider Service is not reachable
21	Audit Trail Service is stopped
22	Audit Trail Service is not reachable
23	Audit Trail Service is connected

**See also**

Alarm logging and notification (Page 55)

**3.6.2.4 Alarm logging and notification****Alarm logging and notification**

The audit will raise an immediate alarm entry in the specific project runtime and trigger real-time notifications in the following scenarios:

- Audit Provider Service is stopped
- Audit Trail Service is stopped
- Connection to the project is lost

---

**Note**

If the Audit Provider Service is stopped from the Task Manager using the "End Task" option, then there will be no log trails or alarm generated.

---

If the Audit Provider Service or Audit Trail Service is stopped, it will automatically restart the failed services after one minute to provide continuity of service.

If the services are stopped generously from the Service Manager, then a manual start is required, as it will not start automatically.

Log trails related to the data disconnection or connection restored to the project will be logged to the project specific Audit Trail Database. Nevertheless, the alarm will generate in the specific project runtime about the same.

For more information on connection status, refer Audit tag management (Page 54)

**3.6.2.5 Specify WinCC components for auditing****Introduction**

Specify the WinCC components that you want to monitor in the Audit Editor.

### 3.6 Working with Audit

Select the following WinCC components:

- WinCC Project Properties
- Computer Properties
- Tag Management
- Alarm Logging
- Tag Logging
- Text Library
- User Administration
- User Archives <sup>1)</sup>
- Report Designer
- Redundancy
- Time Synchronization
- Picture Tree Manager
- Horn
- Lifebeat monitoring
- Text and graphics lists

<sup>1)</sup> Only the configuration is monitored, not the data input.

---

#### Note

Audit does not monitor Tags Simulation and Cloud Connector Editors.

---

#### Requirement

- Your WinCC project is open.
- The Audit Editor is open and you have authenticated yourself.
- Activate the "WinCC Configuration" component under "Audit Settings".

#### Procedure

1. Click "WinCC Configuration" under "Audit Settings" in the navigation area.
2. Select the check box for the respective WinCC component in the "Activated" column. To activate or deactivate all WinCC components, select the "Activated" column and then select "Select all" in the shortcut menu.



## Result

You have specified the WinCC components for auditing. To deactivate the selected WinCC components, deselect the check box in the "Activated" column.

---

### Note

#### Tracking multiuser engineering changes

To track multiuser engineering changes, "WinCC Configuration" and "WinCC Documents" must be selected in "Audit Settings" along with "WinCC Project Properties" under "Audit Settings > WinCC Configuration".

---

### Note

#### Monitoring the "Floating-point number 32-bit IEEE 754" data type

Audit DB stores the accurate value of the associated datatype.

In case of the "Floating-point number 32-bit IEEE 754" data type, the value is defined by IEEE. Hence, the entered value and the stored value can differ in accordance to the IEEE standard.

For high accuracy requirements, usage of "Floating-point number 64-bit IEEE 754" is recommended.

---

## 3.6.2.6 Activate document monitoring

### Introduction

When you activate document monitoring, all activities in user and configuration files are recorded as events in the Audit Trail database. In addition, you can monitor the changes that happened to the "Web Navigator" folder after Web Navigator Publishing operation in the Audit Viewer as well as in the Windows Event Viewer.

Audit monitors the following:

- Creation of a document
- Changes to a document
- Deletion of a document
- Changes happen in the "Web Navigator" folder after Web Navigator Publishing operation.

### Overview

The following table shows the user and configuration files for which document monitoring can be performed:

User files and configuration files	Formats, file types
Computer properties	Gracs.ini
Picture files	PDL
Menus and toolbars	MTL

### 3.6 Working with Audit

User files and configuration files	Formats, file types
Report layouts	RPL
C scripts	PAS (actions) FCT (project functions)
VB Scripts	BAC (actions) BMO (project modules)
Redundancy path settings	Data.cs
Alarm logging settings	CCAlarmFilterStorage.xml
Project File	DCF (distribution file)

#### Requirement

- Your WinCC project is open.
- The Audit Editor is open and you have authenticated yourself.

#### Procedure

1. Click "Audit Settings" in the navigation area.
2. Select the check box for the "WinCC Documents" component in the "Activated" column of the table area.

#### Result

You have activated document monitoring. You can to deactivate the document monitoring by clearing the check box in the "Activated" column.

#### See also

Saving and versioning external data (Page 83)

#### 3.6.2.7 Monitoring user actions with Audit

##### User actions monitored with Audit

Audit allows you to monitor user activity in WinCC Runtime.

Audit monitors the following actions:

- Messages
  - Standard and user operator messages
  - Messages from a message number range
  - System events
- Scripting
  - InsertAuditEntryNew

### Standard operator messages

Standard operator messages are messages that are pre-defined in a WinCC project in Alarm Logging by default.

Standard operator messages have the following properties:

- Message class: System, without acknowledgment
- Message type: Operator message
- Message number: 12508141

You can trigger a standard operator message for a process picture operation via:

- "Operator message" property
- Direct connection

### "Operator message" property

You can enable the "Operator message" property for a required object in the Graphics Designer.

You can enable the "Operator message" property for the following object types:

- I/O field
- Text list
- Combo box
- List box
- Check box
- Radio box
- Slider

Message number 12508141 is generated when the configured object is operated in WinCC Runtime.

Audit stores this event in the Audit Trail database.

### 3.6 Working with Audit

#### **"Operator activities report" property**

In addition to "Operator Message" property, you can set the "Operator Activities Report" property for the following object types:

- I/O field
- Text list
- Combo box
- List box
- Slider

When the configured object is operated in WinCC Runtime, the operator is prompted to enter a comment regarding the change. Message number 12508141 is generated with the comment.

Audit stores this event in the Audit Trail database.

#### **Direct connection**

For all other types of objects in the Graphics Designer, there is no "Operator message" or "Operator activities report" property. Set an action with a direct connection to a tag for the desired object. Select the "Operator message" option in the direct connection dialog.

Message number 12508141 is generated when the configured object is operated in WinCC Runtime.

Audit stores this event in the Audit Trail database.

#### **User operator messages**

User operator messages are messages that you create in Alarm Logging.

Audit monitors user operator messages with the following properties:

- Message class: System, without acknowledgment
- Message type: Operator message
- Message number: any

You can trigger a user operator message for a process picture operation via:

- Message tag
- C script function "GCreateMyOperationMsg"
- VB script function "HMIRuntime.Alarms"

You can find additional information in the WinCC Information System under Working with WinCC".

The message number of the created user operator message is generated when the configured object is operated in WinCC Runtime.

Audit stores this event in the Audit Trail database.

**Message tag**

Assign a "Message tag" to the user operator message. Connect the required object to the message tag in Alarm Logging.

**C script function "GCreateMyOperationMsg"**

Define an action with a C script for a desired object in the Graphics Designer. Use the "GCreateMyOperationMsg" function. The comments entered in the window dialog for "GCreateMyOperationMsg" function is also stored in Audit Trail DB.

**Example for "GCreateMyOperationMsg"**

```
GCreateMyOperationMsg(0x00000001,1,lpszPictureName,lpszObjectName,15,1,2,"mycomment");
```

**VB script function "HMIRuntime.Alarms"**

Define an action with a VB script for a desired object in the Graphics Designer. Use the "HMIRuntime.Alarms" function.

**Example for "HMIRuntime.Alarms"**

```
'VBS360
Dim MyAlarm
Set MyAlarm = HMIRuntime.Alarms(1)
MyAlarm.State = 5 'hmiAlarmStateCome + hmiAlarmStateComment
MyAlarm.Comment = "MyComment"
MyAlarm.UserName = "Hans-Peter"
MyAlarm.ProcessValues(1) = "Process Value 1"
MyAlarm.ProcessValues(4) = "Process Value 4"
MyAlarm.Create "MyApplication"
```

**Messages from a message number range**

Audit monitoring messages from 1900000 to 1901000.

**Message numbers from 1900000 to 1900050**

The message numbers 1900000 to 1900050 are reserved for WinCC options and add-ins. This includes, for example, the electronic signature.

These message numbers cannot be edited.

The message numbers from 1900010 to 1900015 are related and reserved for Audit.

You can find additional information in the WinCC Information System under:

- "Working with WinCC > Structure of the User Administration > Central user administration with SIMATIC Logon".

## Message numbers from 1900051 to 1901000

Audit controls messages with message numbers from 1900051 to 1901000 of any message type.

You can trigger a message for a process picture operation via:

- Message tag
- C script function "GCreateMyOperationMsg"
- VB script function "HMIRuntime.Alarms"

You can find additional information under:

- User operator messages (Page 60)

## System events

System events are messages that are pre-defined in a WinCC project in Alarm Logging by default.

System events have the following properties:

- Message class: System, without acknowledgment
- Message type: Process control system

Audit monitors the system events:

Message number	Description
1008000	Connection to chipcard-terminal has been interrupted
1008001	Incorrect login name/password
1008002	Invalid login name/password by chipcard
1008003	Manual login
1008004	Login by chipcard
1008005	Manual logout
1008006	Logout by chipcard
1008007	Automatic logout by timeout
1008008	Notification of service user/group '@102%s@' in effect
1008009	Variable Login
1008010	Variable Logout
1900010	Audit: Provider service not started.
1900011	Audit: Provider service started.
1900012	Audit: Trail service not started.
1900013	Audit: Trail service started.
1900014	Audit: @1%s@: Provider service is not available.*
1900015	Audit: @1%s@: Trail service is not available.*
1900019	Audit: Available system storage is @1%s@ GB below the threshold value of @2%s@ GB.
1900020	Audit: Available system storage is above the threshold value.

\* % - Name of the the computer associated to the affected Audit Provider Service.

## InsertAuditEntryNew

"InsertAuditEntryNew" is a script function that is used in an object in the Graphics Designer. When the object is operated in WinCC Runtime, the event is immediately saved in the Audit Trail database.

## InsertAuditEntryNew functions

Use the following InsertAuditEntryNew functions:

Function	Description
InsertAuditEntryNew.fct	Function for C script.
InsertAuditEntryNew.bmo	Function for VB script.

## InsertAuditEntryNew in the Script Editor or in the Graphics Designer

### C Editor/Graphics Designer

You can find the InsertAuditEntryNew function in the navigation area under "Standard Functions > Options".

### VBS Editor/Graphics Designer

You can find the InsertAuditEntryNew function in the navigation area under "Standard Modules".

---

### Note

#### Regenerating the header

If the "InsertAuditEntry" function is not visible, you need to re-generate the header in the C Editor.

---

## Example of a simple script

### Comment in Runtime

You can use a script to decide whether to open a comment dialog in runtime or use the comment directly from the scripting.

When a comment dialog is used, the user is prompted to enter a comment in runtime. Enter "1" after the "Comment" parameter to do this.

To use the comment directly from the script, write a comment at the "Comment" parameter and enter "0" after the parameter.

### 3.6 Working with Audit

The following table shows the various script options and the view in Audit Trail:

Comment	Show in Audit Trail	Example script
Show comment dialog in Runtime.	The comment entered in the dialog is recorded in Audit Trail.	"Comment", 1
Use comment from script.	The comment entered for the "Comment" parameter is recorded in Audit Trail.	"Comment", 0

#### C script: InsertAuditEntryNew.fct

```
char* szBuf = (char*)SysMalloc(128);  
InsertAuditEntryNew("old Value","new Value", "Comment", 0, szBuf);  
SysFree(szBuf );
```

#### VBS script: InsertAuditEntryNew.bmo

```
InsertAuditEntryNew "old Value", "new Value", "Comment", 0
```

## Monitoring user actions with Audit

### Introduction

Monitor user activities in WinCC Runtime.

You can find additional information under:

- User actions monitored with Audit (Page 58)

### Requirement

- Your WinCC project is open.
- The required configurations have been made in the Alarm Logging or Tag Logging, for example, system events have been enabled, operator messages have been configured, etc.
- "Alarm Logging Runtime" is enabled under "Computer Properties > Startup" in the WinCC Explorer.
- The Audit Editor is open and you have authenticated yourself.

### Procedure

1. Click "Audit Settings" in the navigation area.
2. Select the check box for the "User Actions (RT)" component in the "Activated" column of the table area.



## Result

You have select the "User Actions (RT)" component. You can deactivate the component by re-selecting the check box in the "Activated" column.

## Activate / deactivate the Operator Message and Operator Activities Report property

### Introduction

Audit provides an additional function for the activation and deactivation of the "Operator message" and "Operator activities report" property for the standard operator messages.

You get an overview of all of the Audit Editor process pictures and their configured objects in your WinCC project.

You can find additional information under:

- Standard operator messages (Page 59)

### Requirement

- Your WinCC project is open.
- "Alarm Logging Runtime" is enabled under "Computer Properties > Startup" in the WinCC Explorer.
- The Audit Editor is open and you have authenticated yourself.

### Procedure

1. Click "Audit Settings" in the navigation area.
2. Select the check box for the "User Actions (RT)" component in the "Activated" column of the table area.
3. Select "User Actions (RT)" in the navigation area.  
The table area shows all process pictures that have been created in the open WinCC project. If a newly created process picture does not appear in the table area, select the "Refresh" command in the "User Actions (RT)" shortcut menu.
4. Select the process picture that contains the object type of a standard operator message.  
The activated process picture is displayed under "User Actions (RT)" in the navigation area.
5. Select the process picture in the navigation area.  
The configured objects in the process picture are displayed in the table area.
6. Select or clear the check boxes of the "Operator message" and "Operator Activities Report" column.  
If a newly created object does not appear in the Audit Editor, right-click on the change process picture under "User Actions (RT)".  
To apply the change in the check box, click on another area in the navigation area or close the Audit Editor.

If no object type of a standard operator message is present in the process picture, this option has no effect.

---

**Note****Saving an open PDL in the Graphics Designer**

If the PDL is open in the Graphics Designer when a change is being made in the Audit Editor, save the picture to keep the changes.

---

**Result**

These changes are transferred and saved in the PDL.

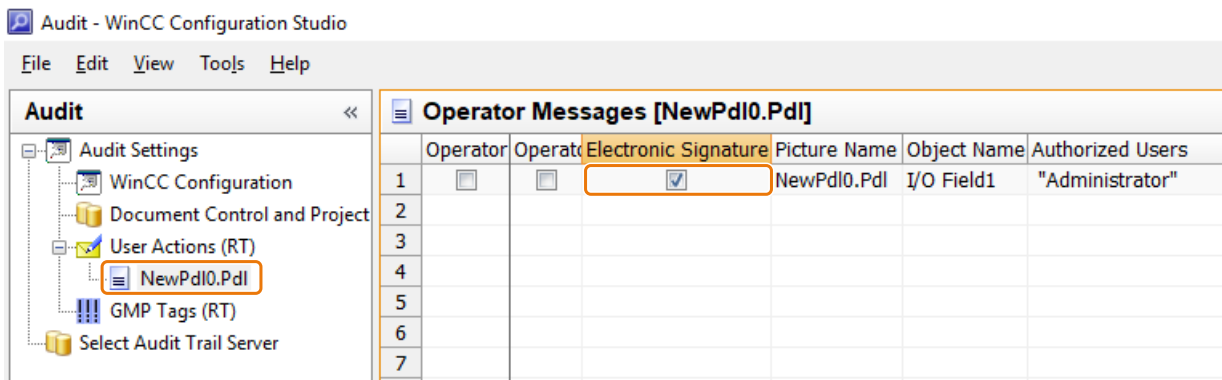
**Enabling/disabling electronic signature using Audit****Introduction**

Audit allows you to manage the electronic signature for an already configured PDL in Graphic Designer.

**Procedure**

You can enable/disable the electronic signature for a given object in a PDL as follows:

1. Click "Audit Settings" > "User Actions".  
The PDLs are listed below.
2. Select the required PDL.
3. Select/unselect the "Electronic Signature" check box.

**Result**

You have activated electronic signature for a PDL through Audit Editor.

**See also**

Activating electronic signature in Audit (Page 69)

**Managing authorized users for electronic signature****Introduction**

Audit allows you to manage the authorized users of electronic signatures for a PDL.

**Procedure**

1. Click "Audit Settings" > "User Actions".  
The PDLs are listed below.
2. Select the required PDL.
3. In the "Authorized Users" column, click the "..." option.  
The "electronic signature - Configuration" dialog box appears.
4. Select the desired user from the drop-down list in the "User" column.  
If you are using SIMATIC Logon, the drop-down list only contains SIMATIC Logon users.  
If the column is not active, click on the empty row in the "Group" column. The operator "and" is displayed in the "Logic operator" column and the user list is activated in the "User" column.
5. If you are using the WinCC/Audit option, you can select user groups or multiple users. Link the users and user groups using "and" or "or". You can group the rows in the "Group" column.
6. If you are using the WinCC/Audit option, you can use the "Retroactively" option to specify that the signature is requested after the operation.
7. Click "OK" to close the dialog.  
The selected user names and link parameters are shown in the "Authorized Users" column.

**Result**

The changes are transferred to the PDL automatically and Audit stores this event in the Audit Trail database.

For more information on managing authorized users for electronic signature in an object, refer to WinCC Information System > Working with WinCC > Structure of the User Administration > Configuring an electronic signature.

**See also**

Activating electronic signature in Audit (Page 69)

### 3.6.2.8 Monitoring GMP tags with Audit

#### Introduction

By activating the GMP tags (RT), user actions that are relevant for the quality of the process are monitored in WinCC Runtime. The requirements for Good Manufacturing Practice (GMP) are met.

#### Requirement

- Your WinCC project is open.
- The Audit Editor is open and you have authenticated yourself.

#### Procedure

1. Open "Tag Management" from the WinCC project.
2. Select the tag from the table area you want to monitor.
3. Select the check box "Good Manufacturing Practices" in the Properties tab under the Options section of the selected tag.
4. Open Audit from the WinCC project.
5. Click "Audit Settings" in the navigation area.
6. Select the check box for the "GMP tags (RT)" component in the "Activated" column of the table area.

#### View the GMP Activated Tags

1. Open Audit from the WinCC project.
2. Expand "Audit Settings" in the navigation area.
3. Select the "GMP tags (RT)" in the navigation area.  
The GMP activated tags are shown in the table area.

#### Result

You have activated the GMP monitoring in Audit. These settings will monitor the GMP activated tags for Good Manufacturing Practices in runtime.

You can also de-activate the GMP monitoring by clearing the check box in the "Activated" column of the "GMP tags (RT)" component from "Audit Settings".

### 3.6.2.9 Monitoring electronic signature with Audit

#### Activating electronic signature in Audit

##### Introduction

An electronic signature allows you to identify the personnel responsible for any critical action ranging from a change of a record to the approval and release of the process result.

The signature is always associated with an action made by the configured user and is authenticated with a password.

If the user is not authorized or enters an incorrect password, the action is not performed.

The user can be a WinCC User Administrator or a SIMATIC Logon user.

##### Requirement

- Electronic signature is configured in WinCC. You can also configure electronic signature with SIMATIC Logon.

---

**Note**

To configure an electronic signature, refer to WinCC Information System > Working with WinCC > Structure of the User Administration > Configuring an electronic signature.

To configure an electronic signature using SIMATIC Logon, refer to WinCC Information System > Working with WinCC > Structure of the User Administration > How to configure an electronic signature with SIMATIC Logon.

---

- "Alarm Logging Runtime" is activated in the startup list in the computer properties of WinCC Explorer.
- Audit is fully installed and licensed.

##### Procedure

1. Click "Audit Settings" in the navigation area.
2. Select the check box for the "Electronic Signature (RT)" component in the "Activated" column of the table area.

##### Result

You have activated electronic signature in Audit. You can also de-activate the electronic signature monitoring by clearing the check box in the "Activated" column.

## Single user sign-in

### Introduction

A critical action can be protected using electronic signature for a single user.

### Requirement

- Electronic signature is configured in WinCC with a single user for "Immediately" condition. You can also configure electronic signature with SIMATIC Logon.
- "Alarm Logging Runtime" is activated in the startup list in the computer properties of WinCC Explorer.
- Audit is fully installed and licensed.
- Electronic signature is activated in the "Audit settings".

### Procedure

To use single user sign-in, do the following:

1. In Runtime, select the object/control and execute the operation.  
The "electronic signature - Configuration" dialog with a list of authorized users opens.

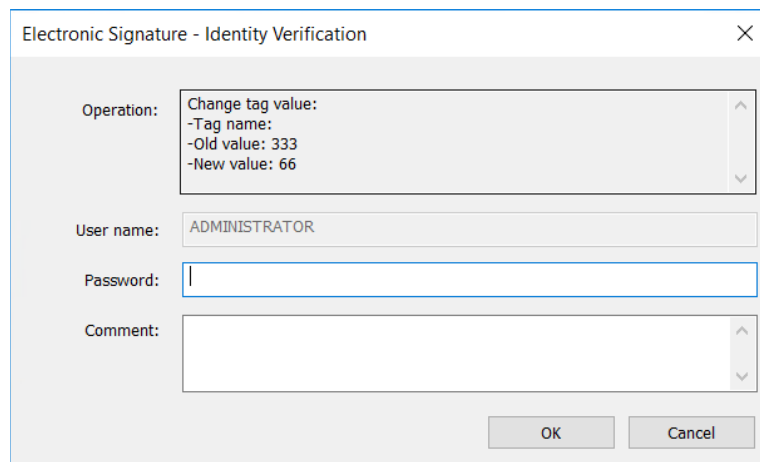
---

#### Note

If you are using SIMATIC Logon, the drop-down list only contains SIMATIC Logon users. If you use WinCC user administrator, only those users are listed.

---

2. Select the user.  
The "Electronic Signature - Identification" dialog opens.
3. Enter the password to identify the authorized user.  
The user also has the option to enter a comment which is saved with the triggered system message.



4. Click "OK" to close the dialog.

## Result

### System messages

The system messages document all authentication attempts.

The messages for all authentication attempts are also written to Audit trail database with unique operator message IDs.

## Multiple users sign-in

### Introduction

You can assign multiple users' electronic signatures for authorizing a critical action. User can belong to the same group or different groups.

### Requirement

- Electronic signature is configured in WinCC with multiple users selected for "Immediately" condition. You can select user groups or multiple users. Link the users and user groups using "and" or "or". You can group the rows in the "Group" column. You can also configure electronic signature with SIMATIC Logon.
- "Alarm Logging Runtime" is activated in the startup list in the computer properties of WinCC Explorer.
- Audit is fully installed and licensed.
- Electronic signature is activated in the "Audit settings".

### Procedure

To use multiple users sign-in, do the following:

1. In Runtime, select the object/control and execute the operation.  
The "electronic signature - Configuration" dialog with a list of authorized users opens.
2. Select the user.  
The "Electronic Signature - Identification" dialog opens.
3. Enter the passwords to identify each authorized user and click "OK".  
The user also has the option to enter a comment which is saved with the triggered system message.  
Depending on the "and" or "or" condition used while configuration, the signatures will be required.
4. Click "OK" to close the dialog after all the signatures are entered.

## Result

### System messages

The system messages document all authentication attempts.

The messages for all authentication attempts are also written to Audit trail database.

## Retroactive sign-in

### Introduction

You can perform minor/major actions in Runtime but the authorized users will need to confirm the actions later using their electronic signatures. The "Retroactively" option can be applied for both single and multiple users' authorization.

---

#### Note

In case of single authorization, "retroactively" option works as "immediately".

---

### Requirement

- Electronic signature is configured in WinCC with single/multiple users selected for "Retroactively" condition. In the case of multiple users, link the users and user groups using "and" or "or". You can group the rows in the "Group" column. You can also configure electronic signature with SIMATIC Logon.
- "Alarm Logging Runtime" is activated in the startup list in the computer properties of WinCC Explorer.
- Audit is fully installed and licensed.
- Electronic signature is activated in the "Audit settings".

### Procedure

1. In Runtime, select the object.
2. As per the number of users configured in the electronic signature, do the following:
  - In case of a single user, sign in with the user credentials and then click "OK" to continue with the action.
  - In case of multiple users, select atleast one user from the list of authorized users pop up and click "OK". Sign in with the select user credentials and then click "OK" to execute the action. The other users can sign in later.

---

#### Note

"WinCC ESig Control" displays pending signatures and name of the personnel with the message ID 1900004.

---

### Result

The action is executed without authorization signatures.

The signatures can be entered later in the "WinCC ESig Control".

All notifications related to pending signatures are stored in "WinCC ESig Control" to keep track of the personnels who have not signed.



### System messages

The system messages document all authentication attempts.

If you use the "WinCC/Audit" option, the messages for all authentication attempts are also written to Audit trail database.

## 3.6.3 Saving and versioning WinCC project data.

### Introduction

Audit Document Control and Project Versioning allows you to back up your WinCC project files and archive your WinCC projects.

To back up your WinCC project files, you first need to enable document control.

When you enable document control or archive an open project the first time, you must set the version number.

### Principle of document control

You can perform the following functions after enabling document control:

- Check in WinCC project files
- Check out WinCC project files
- Restore WinCC project files
- Compare WinCC project files with each other
- Labeling WinCC project files

When you enable document control, all WinCC project files are automatically checked into your open WinCC project.

---

#### Note

##### Restoring WinCC project files

Restoring overwrites the current version with the new version.

---

### Editing and creating files in WinCC

To edit a file, you must first check it out in Audit Document Control and Project Versioning. Only then can the file be edited with the appropriate WinCC editors.

When you create a new file, the file is displayed as "Unversioned" in the Audit Document Control and Project Versioning. Check in the file to save it.

All check-in operations as well as file restorations are displayed in the file history.

**NOTICE****Loss of data with deactivation of the document control**

When you deactivate document control, all archived WinCC project files are lost.

**Changing computer properties**

If you want to change the computer properties when document control is activated, you need to check out the "GraCS.ini" file in the navigation area under "Document Control > Computer". Only then can you make changes in the "Graphics Runtime" and "Runtime" tabs.

**User and configuration files**

The following table shows the user and configuration files for which document control can be performed:

User files and configuration files	Formats, file types
Computer properties	Gracs.ini
Picture files	PDL
Menus and toolbars	MTL
Report layouts	RPL
C scripts	PAS (actions) FCT (project functions)
VB Scripts	BAC (actions) BMO (project modules)
Miscellaneous files	Custom files that are stored in the project path under "Misc Docs (Document Control)". <sup>1)</sup>
Process Historian Ready	CFG

<sup>1)</sup> You can find additional information under:

- Saving and versioning external data (Page 83)

**Principle of project versioning**

You can perform the following actions using project versioning:

- Archive WinCC projects
- Restore WinCC projects

**Note****Restoring WinCC projects**

Restoring copies the selected version of the archived WinCC project to the destination path.

## Storage paths of archive files

### Archive files of the WinCC project files

When a WinCC project file is checked in, Audit creates a compressed GZ file and stores it in the "Document Control" folder. This folder is created automatically in your WinCC project folder.

### Archive files of the WinCC projects

When a WinCC project is archived, Audit creates a compressed GZ file and stores it locally in the following path:

- <Public Documents>\Siemens\Audit\AuditDCV

You can navigate to another archive path when archiving a WinCC project.

#### NOTICE

##### Data loss when changing archive files

When you make changes to the archive files, data loss will occur. This means it is no longer possible to restore the WinCC project files or WinCC projects in Audit Document Control and Project Versioning.

You may not make the following changes:

- Delete
- Rename
- Move

## See also

WinCC project files (Page 78)

WinCC projects (Page 83)

### 3.6.3.1 Enable Document Control

#### Introduction

If you enable document control, you will be prompted once to configure the version number.

First read the following section carefully:

- Configuring the version number (Page 76)

#### Requirement

- Your WinCC project is open.
- Audit Document Control and Project Versioning is open and you have authenticated yourself.

## Procedure

1. Select "Document > Enable Document Control" from the menu bar or click on the "Enable document control" icon in the toolbar.  
The "Version configuration" dialog opens.
2. Select the version mask and the special characters.
3. Confirm your entries with "OK".

## Result

All the files in your WinCC project are automatically checked in according to the versioning mask in Audit Document Control and Project Versioning.

### 3.6.3.2 Configuring the version number

## Introduction

In Document Control and Project Versioning, you define the version number that is used with every versioning of files and projects. The version number consists of 4 segments. When a file is checked in or when a project is archived, the segments of the version number are incremented, depending on which version mask you have selected.

---

### Note

The versioning is configured only once for each WinCC project and cannot be changed.

---

## Define version mask

When you enable document control, you are prompted to configure the version number. Select from the following version masks:

Version mask	Definition
PP.DD.DD.DD	Project version_Document version.Document version.Document version
PP.PP.DD.DD	Project version.Project version_Document version.Document version
PP.PP.PP.DD	Project version.Project version.Project version_Document version

## File versioning

File versioning depends on your open WinCC project. Document Control and Project Versioning displays all existing files in the project. If you have not enabled document control, you will see your files in the table area with the "Unversioned" status. If you enable document control via the menu bar, you are prompted to configure the version number. When the configuration is complete, all WinCC files are checked in automatically. The end segment of each file gets the number 1.

If you check in a file again, the segment of the file version is increased. You can select which segment of the file version should be increased.

**Examples with version mask PP.PP.DD.DD:**

Example	Old version	New version
The end segment of the file version is incremented during check in.	0.0_0.1	0.0_0.2
The front segment of the file version is incremented during check in.	0.0_0.1	0.0_1.0
The WinCC project was archived. A virtual check in of the files took place through the archiving. The file has the same version as the WinCC project. After you check out of the file and then check it back in, the file version starts again at 1.	0.0_0.5 0.1_0.0	0.1_0.0 0.1_0.1
Multiple files with different version number are checked in at the same time.	File_xy: 0.0_0.4 File_yz: 0.0_0.8	File_xy: 0.0_0.5 File_yz: 0.0_0.9

**Maximum number of file versions reached**

When all segments of the file versions have reached 99, you must archive the WinCC project again. The file version starts again at 1 when it is checked in again.

When a file is checked out and a new project version is archived, the file remains checked out. After the file is checked in again, it gets the new version number.

You can find additional information under:

- WinCC project files (Page 78)

**Project versioning**

Project versioning depends on your open WinCC project.

When you archive the project for the first time, the segment of the project version starts at 1. You can select which segment of the project version should be increased.

**Examples with version mask PP.PP.DD.DD:**

Example	Old version	New version
The end segment of the project version is incremented during check in.	0.1_0.0	0.2_0.0
The front segment of the project version is incremented during check in.	0.2_0.0	1.0_0.0

**Maximum number of project versions reached**

When all segments of the project versions have reached 99, you must save the WinCC project with a new name using the Project Duplicator. Then, archive the WinCC project again in Document Control and Project Versioning. The project version starts again at 1.

You can find additional information under:

- WinCC projects (Page 83)

### 3.6.3.3 WinCC project files

#### Checking out project files

##### Requirement

- Your WinCC project is open.
- Audit Document Control and Project Versioning is open and you have authenticated yourself.
- Document control is enabled.
- The version number has been configured.

##### Procedure

1. Select the category of your required file under "Document Control" in the navigation area.
2. Select the row of the file you want to check out in the table area.
3. Select "Check Out" in the shortcut menu to check out the file.
4. To check out the file and immediately begin editing with the associated application, select "Check Out and Edit" in the shortcut menu.
5. Enter a checkout comment if you wish.

##### Result

Your file is checked out. The status of the file in the Audit Document Control and Project Versioning is "Checked out". The user who authenticated the Audit Document Control and Project Versioning appears in the "Checked out by" column.

#### Check in project files

##### Requirement

- Your WinCC project is open.
- Audit Document Control and Project Versioning is open and you have authenticated yourself.
- Document control is enabled.
- The version number has been configured.

##### Procedure

1. Select the category of your required file under "Document Control" in the navigation area.
2. In the table area, select the row of the file you want to check in.
3. Select "Check In" in the shortcut menu.

4. To use the checkout comments for the check in, leave the "Continue with the existing check out comment" check box selected.
5. To use a different comment for checking in, clear the "Continue with the existing check out comment" check box and enter a comment. The check-in comment is mandatory.
6. To begin or increase the file version with the last defined segment, leave the check mark in the "Automatic versioning" check box.
7. To begin or increase the file version with another segment, clear the check mark in the "Automatic versioning" check box. Select your required segment under "Increase segment version".
8. Click "Check in".

---

**Note****Preventing unauthorized access to a WinCC file**

Check the file back in immediately after editing. This will prevent unauthorized persons from making changes to the checked-out file.

---

**Result**

Your file is checked in. The status of the file in the Audit Document Control and Project Versioning is "Checked in". You can find the check-in comment in the file history.

**View File History****Requirement**

- Your WinCC project is open.
- Audit Document Control and Project Versioning is open and you have authenticated yourself.
- Document control is enabled.

**Procedure**

1. Select the category of your required file under "Document Control" in the navigation area.
2. Select the row of the file for which you want to display the file history.
3. Select "View History" from the shortcut menu.

**Result**

The file history shows the user who checked in or restored the file. In addition, the check-in date is displayed with the time and comment.

## Restoring previous versions of archived project files

### Introduction

If you have a versioned a WinCC project file, it is possible to restore a previous version.

<b>NOTICE</b>
<b>Do not delete project files</b> If you delete the project files in your WinCC project, you cannot restore the project files in Audit Document Control and Project Versioning. To be able to restore deleted project files, create a local backup of your WinCC project. <b>Connections and dynamization in the restored project files</b> When you restore a previous version, connections to existing tags may no longer available, for example. Reconfigure the connections if necessary.

### Requirement

- Your WinCC project is open.
- Audit Document Control and Project Versioning is open and you have authenticated yourself.
- Document control is enabled.

### Procedure

1. Select "Document Control" in the navigation area.
2. In the table area, select the row of the file whose previous version you want to restore.
3. Select "View History" from the shortcut menu.
4. Select the row of the previous version in the table area.
5. Select "Rollback" in the shortcut menu.
6. Enter a mandatory comment.
7. To begin or increase the file version with the last defined segment, leave the "Automatic versioning" check box selected.
8. To begin or increase the file version with another segment, clear the check mark in the "Automatic versioning" check box. Select your required segment under "Increase segment version".
9. Click "Rollback".



**Note****Rollback of files**

To rollback files like MCP, PDL, Global Scripts, etc, WinCC Runtime has to be restarted to avoid unexpected behaviour. It is also required to open the script file, compile and save after a file is rolled back.

**Result**

You have restored the previous version. In the file history, you can see the version from which the file was restored in the comment column.

**Comparing file versions with one another****Introduction**

You have the option to compare file versions with each other. Using this function, you see whether substantive changes have been made (binary comparison). The following files are available for comparison:

**Picture files (.pdl)**

Column header	Meaning
Object type	Object type in which a change was made.
Modification type	Performed change.
Property Name	Object property in which a change was made.
Event Name	Event in which a change was made.
Value change	If the check box is selected, a value change was made.
Changing the dynamization	If the check box is selected, a change of dynamization was made.
Trigger types	If the check box is selected, a trigger type was used.

**C scripts (.pas, .fct) and VB scripts (.bac, .bmo)**

Column header	Meaning
Object type	Object type in which a change was made.
Modification type	Performed change.
Action element	Action element in which a change was made.
Trigger types	If the check box is selected, a trigger type was used.

**Requirement**

- Your WinCC project is open.
- Audit Document Control and Project Versioning is open and you have authenticated yourself.
- Document control is enabled.

## Procedure

1. Select picture files or scripts in the navigation area.
2. Select the row of the desired file in the table area.
3. Select "View History" from the shortcut menu.
4. In the table area, select the row of the versions that you want to compare with each other.
5. Select "Compare" from the shortcut menu.

---

### Note

#### Comparing PDL files

Invalid entries appear in the "Compare Result" tab when you compare PDL files for the following configurations:

- The "Symbol Properties" of an SVG object
  - The attributes of the Dataset object
  - Animation dynamization
- 

## Select project files

### Introduction

You have the option to label your project files. An interim version of all project files is saved by the labeling.

---

### Note

#### Checked-out project files

When project files are checked out and you perform labeling, the local changes are lost.

---

## Requirement

- Your WinCC project is open.
- Audit Document Control and Project Versioning is open and you have authenticated yourself.
- Document control is enabled.
- All project files are checked in.

## Procedure

1. Select "Label > Apply Label" in the menu bar or click the icon on the toolbar.  
The "Label Options" dialog box opens.
2. Enter a label name.

3. Enter a comment.  
The comment is mandatory.
4. Click the "Apply Label" button.

### 3.6.3.4 Saving and versioning external data

Once document control is enabled for a WinCC project, Audit creates the "Misc Docs (Document Control)" folder in the WinCC project directory. In this folder, you can save files that are not contained in your WinCC project.

By saving them to the "Misc Docs (Document Control)" folder, the files become visible under "Document Control" in the navigation area. Check in the file to save it.

You can version the files exactly as do WinCC project files.

You can find additional information under:

- WinCC project files (Page 78)

### 3.6.3.5 WinCC projects

## Archiving and versioning an open WinCC project

### Introduction

The WinCC projects must be located locally on the PC on which Audit Document Control and Project Versioning is started.

### Requirement

- Your WinCC project is open.
- Audit Document Control and Project Versioning is open and you have authenticated yourself.

### Procedure

1. Select "Project > Archive Project" in the menu bar.
2. Make sure that the "Archive Current Project" option is activated.
3. If you want a different archive path, select it using the button.
4. Enter a comment.
5. To begin or increase project file version with the suggested segment, leave the "Automatic versioning" check box selected.  
To begin or increase the project version with another segment, clear the check mark in the "Automatic versioning" check box. Select your required segment under "Increase segment version".
6. Click "Archive."  
The WinCC project is automatically closed and re-opened after archiving.

## Result

The archived project is displayed in the navigation area below the "Project Versioning" entry.

## Archiving and versioning a closed WinCC project

### Introduction

The WinCC projects must be located locally on the PC on which Audit Document Control and Project Versioning is started.

### Requirement

- Audit Document Control and Project Versioning is open and you have authenticated yourself.
- The versioning of the closed WinCC project is configured.

### Procedure

1. Select "Project > Archive Project" in the menu bar.
2. Deactivate the "Archive Current Project" option and navigate to the storage path of the required WinCC project.
3. If you want a different archive path, select it using the button.
4. Enter a comment.
5. To begin or increase project file version with the suggested segment, leave the "Automatic versioning" check box selected.  
To begin or increase the project version with another segment, clear the check mark in the "Automatic versioning" check box. Select your required segment under "Increase segment version".
6. Click "Archive."

## Result

The archived project is displayed in the navigation area below the "Project Versioning" entry.

## View Project History

There are two views for project versioning:

Views	Description	Navigation
Current Project History	Project history of the currently open WinCC project.	<ul style="list-style-type: none"><li>• Menu bar &gt; "Project &gt; Current Project History"</li><li>• Select "Project Versioning" in the navigation area</li></ul>
Complete Project History	Project history of all archived WinCC projects.	<ul style="list-style-type: none"><li>• Menu bar &gt; "Project &gt; Complete Project History"</li><li>• Select the required project in the navigation area under "Project Versioning"</li></ul>

Both views show which user archived the project and under which storage path it is located. In addition, the archive date is displayed with the time and comment.

## Restoring previous versions of archived projects

### Introduction

If you have versioned a WinCC project, it is possible to restore a previous version.

### Requirement

- Your WinCC project is open.
- Audit Document Control and Project Versioning is open and you have authenticated yourself.
- The version number has been configured.

### Procedure

1. Select your required project in the navigation area under "Project Versioning".
2. Select the row of the previous version in the table area.
3. Select "Restore" from the shortcut menu.  
A dialog box opens.
4. Select the storage location.
5. Confirm your entries with "OK".

### 3.6.4 Viewing audit trails in the Audit Viewer

#### 3.6.4.1 Viewing audit trails in the Audit Viewer

##### Introduction

You can view the audit trails from an Audit Trail multi-project database.

The audit trails of an Audit Trail multi-project database can contain different project IDs, since several WinCC projects use this database.

The project ID is changed in the following scenarios:

- Copying and pasting the WinCC project to a different storage location.
- Moving the WinCC project to a different storage location.
- Saving the WinCC project with the Project Duplicator (with or without a name change of the WinCC project).
- Restoring an archived WinCC project in Audit Document Control and Project Versioning.

	ID	Project ID	Project Name
1	130	{0327F613-AABE-4D07-89A3-70880C9A8862}	a11
2	129	{0327F613-AABE-4D07-89A3-70880C9A8862}	a11
3	128	{0327F613-AABE-4D07-89A3-70880C9A8862}	a11
4	127	{2ECD92D8-56F8-4FB9-BDB2-37C815CBDE41}	a1
5	126	{2ECD92D8-56F8-4FB9-BDB2-37C815CBDE41}	a1
6	125	{585EFB9D-C5C1-4964-8C87-D62031E4166C}	a1
7	124	{585EFB9D-C5C1-4964-8C87-D62031E4166C}	a1
8	123	{585EFB9D-C5C1-4964-8C87-D62031E4166C}	a1
9	122	{585EFB9D-C5C1-4964-8C87-D62031E4166C}	a1
10	121	{585EFB9D-C5C1-4964-8C87-D62031E4166C}	a1
11	120	{585EFB9D-C5C1-4964-8C87-D62031E4166C}	a1

##### Requirement

- The Audit Viewer is open.

##### Display Audit Trails

1. In the navigation area, select "Audit DB".  
The table area displays all Audit Trail servers to which an Audit Trail database is connected.
2. Select the required row of the Audit Trail server.
3. Select "Select Server" in the shortcut menu.  
The selected Audit Trail server with the created database is displayed under "Audit DB" in the navigation area.  
The table area shows all stored audit trails.

4. Open the section of the navigation area below the Audit Trail server with the created database.  
Categories which you can use to browse the Audit Trail database are shown.
5. Select the desired category to view the audit trail.

## Update view

### View of the server data

1. In the navigation area under "Audit DB", select the connected Audit Trail server with the created database.
2. Select "Refresh server data" in the context menu.  
Alternatively, click the "Update server" icon in the toolbar.

### View of the categories

1. Select the desired category in the navigation area below the connected Audit Trail server with the created database.
2. Select "Update view" in the context menu.  
Alternatively, click the "Update view" icon in the toolbar.

## Viewing corrupted Audit trails

Whenever the Audit Trail record has been manipulated, the Audit Viewer displays all affected audit trails with a red background.

If the corrupted Audit trail is related to electronic signature, you need to validate the Audit trail to display correct information of the corrupted data. To do this, right-click on the Audit trail and select "Validate eSignature". If the "Validate eSignature" option is disabled, it means that the data is corrupted for reasons other than electronic signature.

### 3.6.4.2 Displaying exported audit trails

#### Introduction

You can view exported audit trails in the Audit Viewer.

The Audit Viewer can read the following file formats:

File format	Product	Version
XML	Audit	V7.2 or higher
TXT	WinCC flexible	2008 or later
CSV	WinCC flexible	2008 or later
RDB	TIA	V12 or later

### 3.6 Working with Audit

If a file is stored with a certificate, a prompt for authentication appears when you attempt to open the file. If you are not able to authenticate, the file will not be opened.

---

**Note****Audit trail manipulations**

If there is suspicion that an export XML file has been manipulated, the Audit Viewer displays all audit trails of the XML file with a red background.

---

**Requirement**

- The Audit Viewer is open.

**Procedure**

1. In the navigation area, select "Audit File".
2. Select "Show Audit File" from the shortcut menu.  
A query dialog opens.
3. Select your file.
4. Click "Open".
5. If the file is stored with a certificate, follow the authentication.

**Result**

The selected file appears under "Audit File" in the navigation area. The content of the file is displayed in the table area.

#### 3.6.4.3 Audit Trail queries

**Introduction**

You can use Audit Trail queries to browse and filter your stored audit trails. You can perform the following queries:

Audit Trail queries	Description
WinCC Configuration	Shows all audited changes in WinCC Configuration
WinCC Runtime	Shows all audited changes in WinCC Runtime
Document Control	Shows all audited changes in Project Versioning and Document Control
Audit Editor	Shows all audited changes in the Audit Editor
User queries	Shows all generated user queries You can define user queries. These queries are not case-sensitive.



## Requirement

- The Audit Viewer is open.
- The database containing the stored audit trails is selected or the exported Audit file is open.

## Procedure for user queries

1. In the navigation area, go to "Audit DB > Audit Trail server with the database > User Queries" to create queries for existing Audit file.  
To create queries for the imported Audit file, go to "Audit File > Exported file > User Queries".
2. In the shortcut menu, select "New Query".  
A new query is created under "User queries". Enter an appropriate name for the query.
3. Define the query in the table area.
4. Select "Run" from the shortcut menu of the query.

---

### Note

#### Validating a user query

The "Validate" command in the shortcut menu of the query has no function.

---

---

### Note

#### "Refresh" query

There will be no conflicts caused due to changes made to a query within the Viewer and Runtime. If one user create/edit a query Q1 in Runtime, only he will be eligible to make changes (if he is the first one to modify the query) and this change reflects when he saves it. However, the second user trying to access the same query Q1 at the same time via the Viewer can edit Q1 but will be unable to save the modifications, a message will be displayed mentioning that another user is editing Q1. Clicking "Refresh" button updates the query in the respective window.

---

---

### Note

#### Time base toggle button

Local/UTC time toggling is not applicable for User queries.

---

## Result

You view the filtered audit trails under "<Query> - Result" in the table area. The result tab always displays the last ran query. You may use the "Close result tab" button in the toolbar to close the displayed result tab manually.

## 3.6.5 Displaying audit trails in the Audit Viewer Control

### 3.6.5.1 Audit Viewer Control in the Graphics Designer

#### Introduction

When you install Audit, the Audit Viewer Control is automatically registered and displayed in the "ActiveX Controls" of the Graphics Designer.

---

#### Note

##### Adding Audit Viewer Control manually

If the Audit Viewer Control is not displayed and you want to manually add it, follow these steps:

1. Open the "Controls" tab and select the entry "Add/Remove" in the shortcut menu of the "ActiveX Controls" folder.  
The "Select OCX Controls" dialog opens.
2. Activate the "WinCC Audit Viewer Control" control in the "Available OCX Controls" area and confirm with "OK".  
The "WinCC AuditViewer Control" is displayed in the "Controls" tab of the "ActiveX Controls" folder.

---

#### Note

Audit Viewer Control is not supported by Web Client.

---

### 3.6.5.2 Configuring the Audit Viewer Control

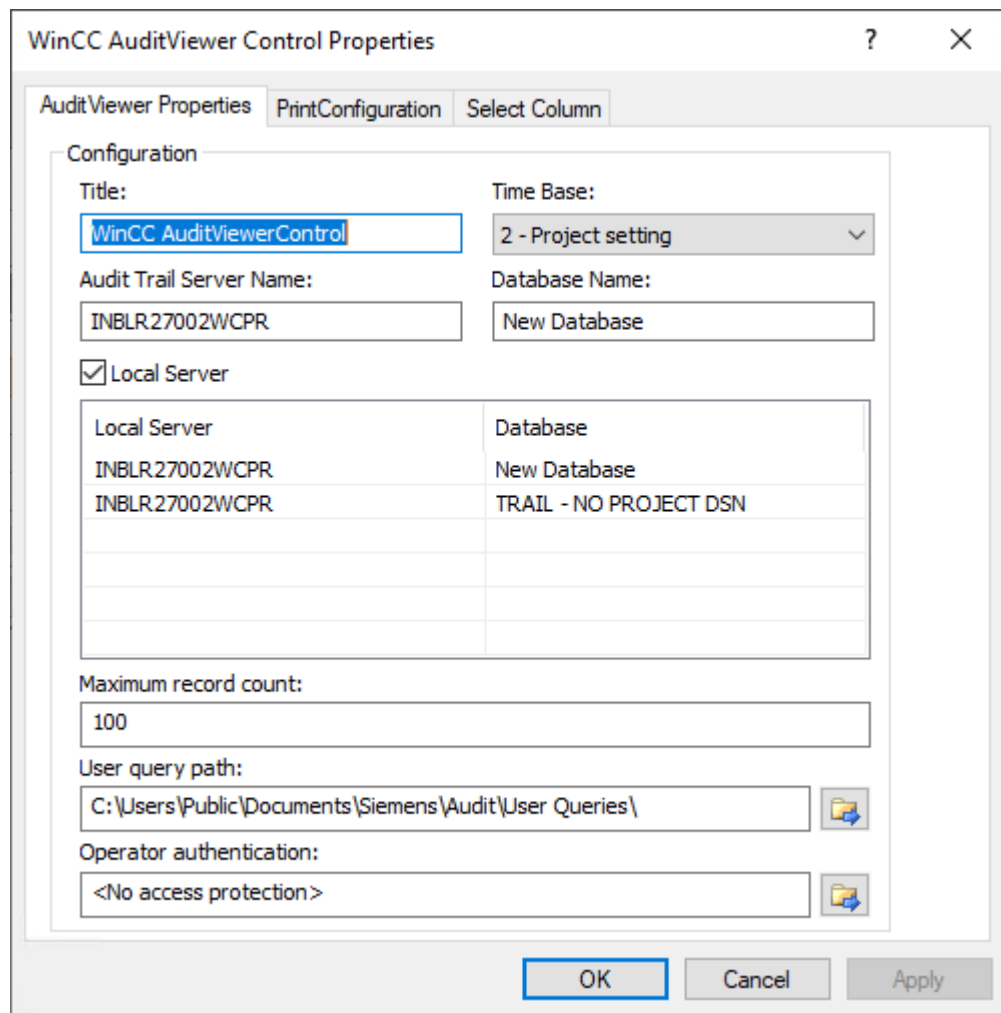
#### Introduction

To assign parameters for the Audit Viewer Control, enter the Audit Viewer Control in your process screen. To open the Properties window, double-click the Audit Viewer Control.

#### Audit Viewer Properties

##### Title

A default title name is generated when you create the Audit Viewer Control. Click the "Title" textbox to rename and edit the title. Alternatively, navigate to "Object Properties > Properties > Control Properties > Caption" and double-click the existing title to enter a new title.



The image shows the 'WinCC AuditViewer Control Properties' dialog box. It has three tabs: 'AuditViewer Properties', 'PrintConfiguration', and 'Select Column'. The 'AuditViewer Properties' tab is active. Inside, there's a 'Configuration' section with several fields and a table.

**Configuration**

Title: WinCC.AuditViewerControl

Time Base: 2 - Project setting

Audit Trail Server Name: INBLR.27002WCPR

Database Name: New Database

☒ Local Server

Local Server	Database
INBLR.27002WCPR	New Database
INBLR.27002WCPR	TRAIL - NO PROJECT DSN

Maximum record count: 100

User query path: C:\Users\Public\Documents\Siemens\Audit\User Queries\

Operator authentication: <No access protection>

Buttons: OK, Cancel, Apply

### Time Base

Select one of the following options to display the time accordingly as base:

- 0 - Local time zone  
The local time zone in the computer is displayed.
- 1 – Coordinated Universal Time (UTC)  
UTC time is displayed.
- 2 – Project setting  
The type of time setting selected for the WinCC project is displayed.

By default, the option "2 – Project setting" is selected.

You can also select the time base in Graphics Designer for WinCC AuditViewer Control under the "Object Properties > Properties > Control Properties" tab. Right click the 'TimeBase' property, click on 'Edit' to view the three options.

### 3.6 Working with Audit

#### **Audit Trail server name**

Specify the Audit Trail server name on which the Audit Trail database is located. To specify the Audit Trail server name, follow these steps:

- Manual input
- Selecting a listed distributed server by double-clicking
- Selecting a local server:
  - Activating a "local server"
  - Select sever by double-clicking

#### **Database name**

If you have entered the Audit Trail server manually, also select the required name of the Audit Trail multi-project database.

#### **Maximum record count**

Specify the maximum number of Audit Trails that the Audit Viewer Control is to display.

#### **User query path**

Select a storage location in which the user queries are to be stored.

#### **Operator authorization**

Select the authorization of the Audit Viewer Control user. Multiple selections are not possible.

---

#### **Note**

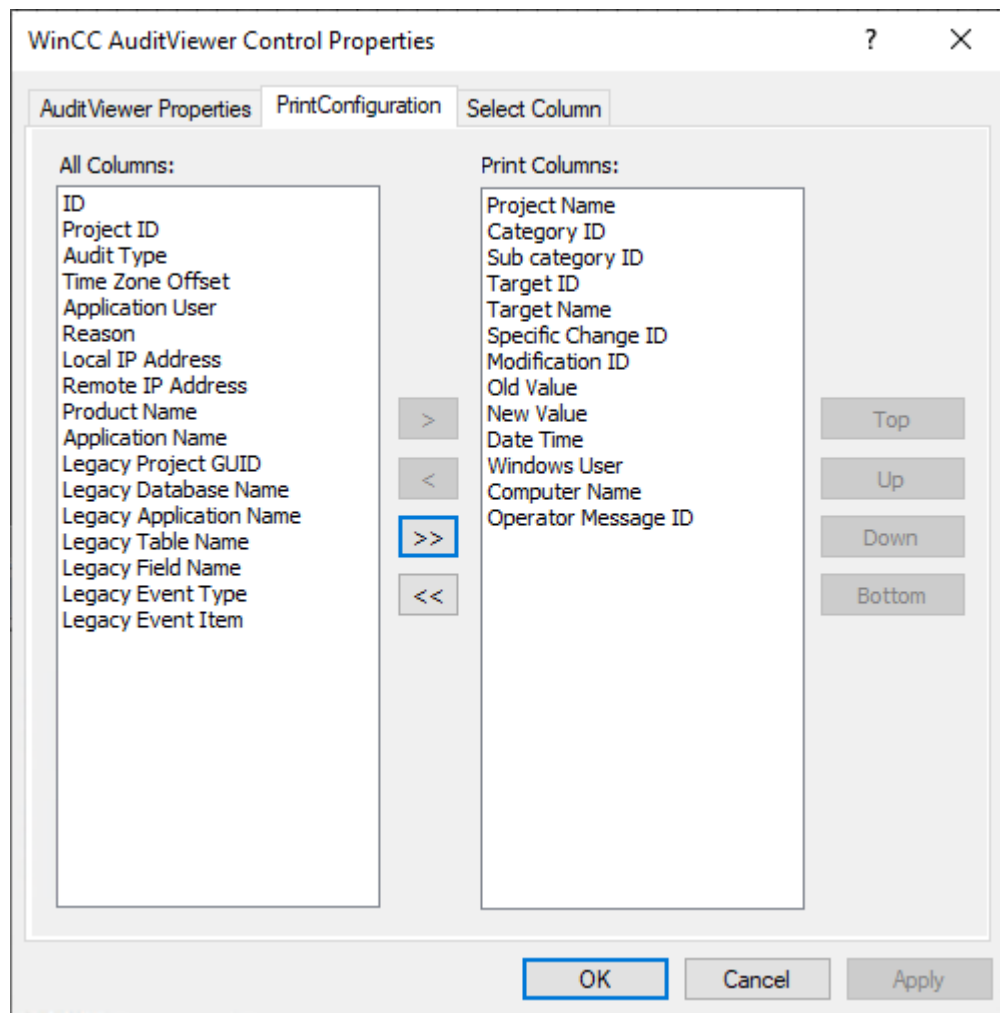
For more information on authorizations, refer to the WinCC help at:

- Working with WinCC > Setting up a User Admin > Managing Authorizations > Overview of Authorizations
- 

### **Print configuration**

Specify the required columns for the printing of the Audit Trails. Print configuration is enabled in Runtime also.

In the column selector, all columns available for selection are in the Available Columns list and the columns selected are in Selected Columns list. The order of the columns in the Selected column list determines the order of the hierarchy for printing.



### Add Column

Select the columns name which needs to be added from the Available columns list and click > to add the columns selected to the Selected columns list.

### Remove Column

Select the columns name which needs to be removed from the Selected columns list and click < to remove the columns selected from the Selected columns list.

### Add All Columns

Click >> to add all columns from the Available columns list to the Selected columns list.

### Remove All Columns

Click << to remove all columns from the Selected columns list to Available columns list.

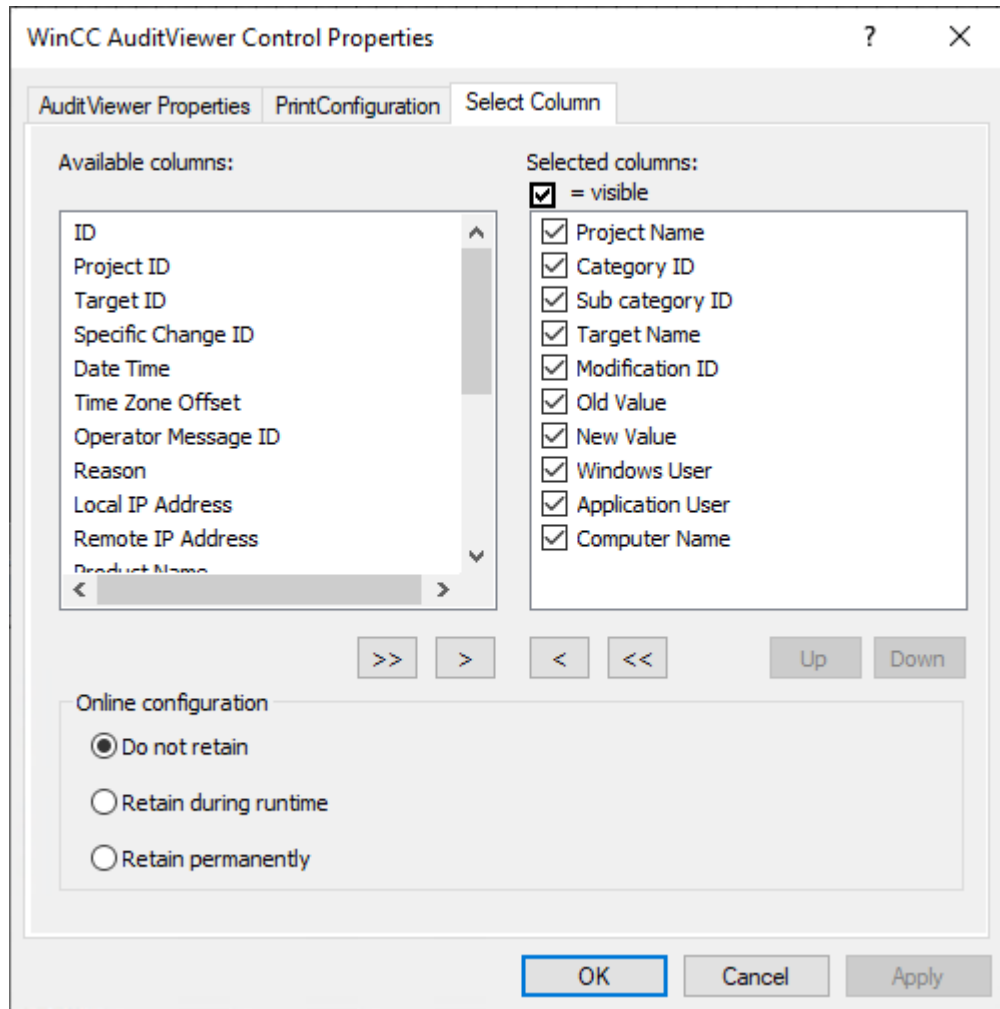
### Arranges Columns

Select the column which needs to be moved from the Selected columns list and click Top or Up or Down or Bottom button to change the hierarchy.

## Select Column

Specify the columns needs to be displayed in the Audit Viewer Control of the Audit Trails.

In the column selector, all columns available for selection are in the Available Columns list and the columns selected are in Selected Columns list. The order of the columns in this Selected column list determines the order of the hierarchy for displaying.



### Add Column

Select the columns name which needs to be added from the Available columns list and click > to add the columns selected to the Selected columns list.

### Remove Column

Select the columns name which needs to be removed from the Selected columns list and click < to remove the columns selected from the Selected columns list.

### Add All Columns

Click >> to add all columns from the Available columns list to the Selected columns list.

**Remove All Columns**

Click << to remove all columns from the Selected columns list to Available columns list.

**Arranges Columns**

Select the column which needs to be moved from the Selected columns list and click Up/Down button to change the hierarchy.

**Hide/Unhide Columns**

Clear the column checkbox that needs to be hidden or select the column checkbox that needs to be unhidden from the list of Selected columns.

**Online Configuration**

Online configuration allows you to decide whether the changes (width and hide/unhide) of the columns in the runtime should be retained or not. e.g. the column width, hide/unhide column etc...

Select any of the online configuration from the following options.

- **Do not retain:** The changes will be discarded if you switch the pdl or stop runtime.
- **Retain during runtime:** The settings will be retained only for that runtime session.
- **Retain permanently:** The settings will be retained permanently even if the session is stopped. All the changes will be applied in next runtime session.

---

**Note**

The user can select the column to be displayed in runtime during the configuration of the Audit Viewer control only.

---

**Display**

The "Display" attribute specifies whether an object in the PDL file has to be displayed during the Runtime or not.

Select "Yes" to display the object in Runtime and select "No" to not display the object in Runtime.

---

**Note**

The Audit Viewer's "Display" attribute when dynamized with C/VB Script, the feature of the "Display" property is not applicable during Runtime.

---

**3.6.5.3 Displaying audit trails in the Audit Viewer Control****Introduction**

You can browse the stored audit trails of an Audit Trail database in WinCC Runtime.

### Audit Trail queries

You can use Audit Trail queries to browse and filter your stored audit trails.

You can find additional information under:

- Audit Trail queries (Page 88)

### Requirement

- The Audit Viewer Control is configured.
- WinCC Runtime is active.

### Procedure

1. In the navigation area under "Audit DB", click the Audit Trail server with the created database .  
The table area shows all stored audit trails.
2. Open the section of the navigation area below the Audit Trail server with the created database.  
Categories which you can use to browse the Audit Trail database are shown.
3. Select the desired category to view the audit trails or run a query.

### Result

The audit trails are displayed in the table area.

## 3.6.6 Backup and restore database

### Backup database

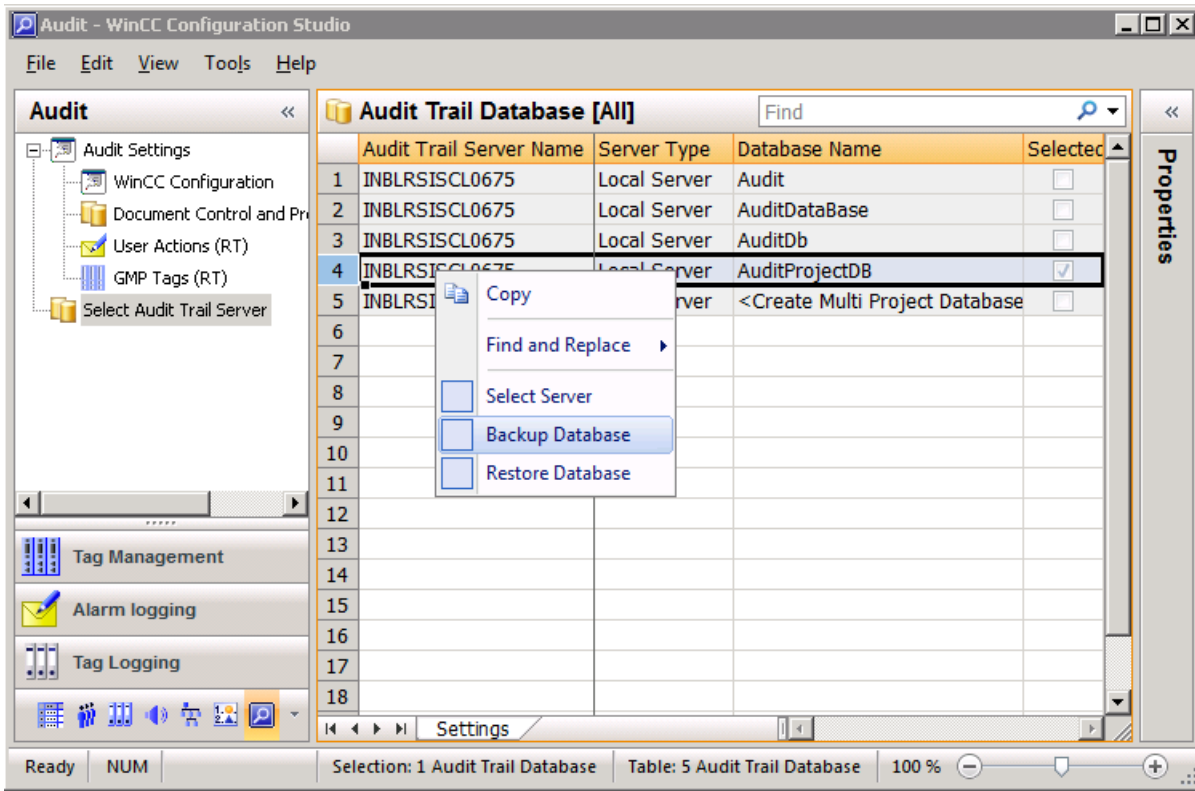
You can have a backup of the database of your Audit project trails.

### Procedure

1. In the Audit Editor, select "Select Audit Trail Server" in the navigation area.
2. Select the entire row of the required database.



3. Right click on the selected row, a list of options appear.

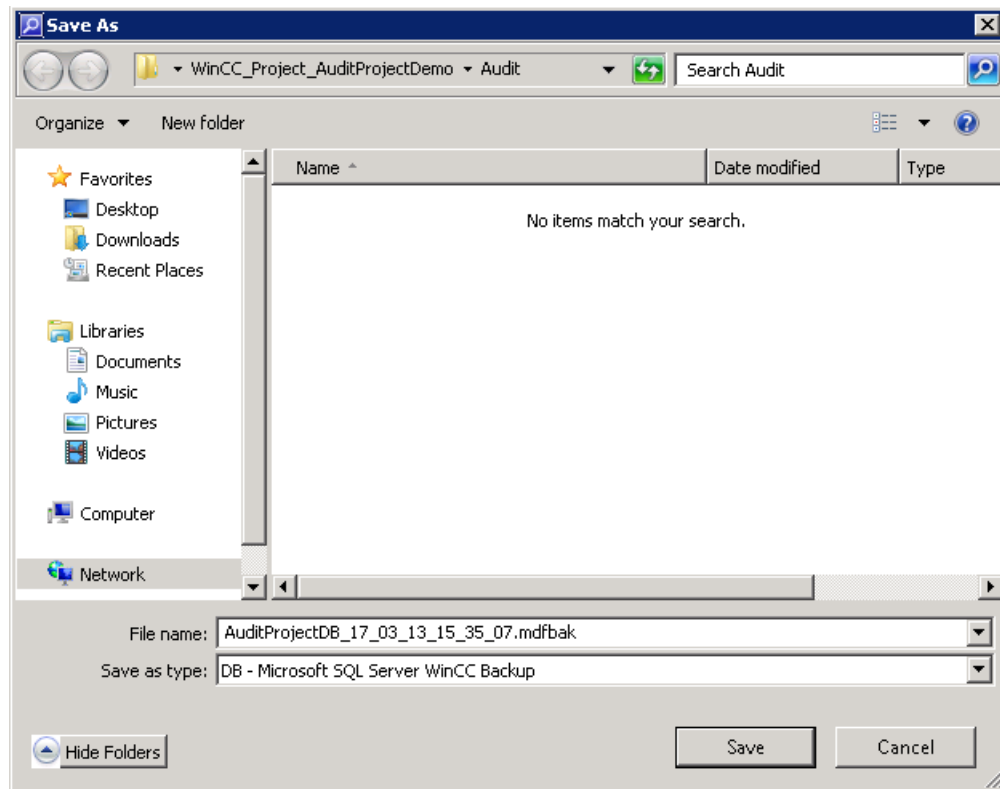


4. Select "Backup Database" option, "Backup Database" window opens.

#### Note

With manual backup, only the current active segment will be backed up to the specified location. The previous segments would have been backed up automatically to the configured backup destination in Auto-backup configuration.

5. Click "... " to browse the desired location to save the database file (mdfbak) or a folder containing segments of a particular database created from autobackup.
6. Enter a desired file name and click "Save".



The saved back up file is of the type DB - Microsoft SQL Server WinCC Backup with **.mdfbak** extension.

#### Note

With the implementation of the Auto-backup feature, the manual backup will backup the current active segment. Other segments are already backed up to the specified backup location.

## Restore database

To restore a database, you need to create a new Audit project with all the configurations and settings completed in Audit Editor. Follow the procedure given below to restore a database.

### Procedure

1. In the navigation area of Audit Editor, select "Select Audit Trail Server".
2. Connect to the required database by selecting the Server.
3. Select the entire row of the required database.

4. Right click on the selected row, a list of options appears.

---

**Note**

The "Restore Database" option is enabled only when the selected database is currently connected to the Audit trail Server.

---

5. Select "Restore Database" option, "Restore Database" window opens.
6. In the "Restore Database" window:
  - Click "..." to browse and select a backup database file (with **.mdfbak** extension) and click "Open".  
or
  - Enter a valid and accessible folder path where the auto-backup files are stored via auto-backup feature.

---

**Note**

While restoring a backup file, the existing database will be replaced with the new entries available in the backup file.

While restoring the backup files from the folder, all the auto-backup file with its entries in the specified folder will be added to the existing database.

---

7. Click "OK".

---

**Note**

The remote backup/restore of database is not supported.

---

**Result**

All Audit Trails saved in the back up file is restored in the new project and can be viewed in the Audit Viewer.

### 3.6.7 Auto backup and restore database

#### Auto backup the database

The auto backup feature automatically backs up the trail database to the configured folder path. For efficient use of memory and to provide more reliable backup, the Audit database is partitioned into multiple segments. For example, if the single segment is 100 MB and the total segment size is 1000MB, then after every 100MB of trail logs a new segment will be created. At the same time the previous segment will be backed up to the specified backup location. It will work like this till the 10th segment where we reach the total segment size of 1000MB. At this point, the oldest created segment will be overwritten with the latest log entries.

### 3.6 Working with Audit

The auto backup will trigger on the following conditions (whichever is earlier):

- Configured time period of a single segment.
- Maximum size of a single segment.
- At configured "Start Time" irrespective of other configuration.

When the auto backup triggers, the database segments will be backed up in the configured folder with a timestamp in the filename (e.g. {DBname}\_{machine name}\_Audit\_{start time}\_end time}\_bak.mdf). After the backup, the segments get cleared to record the new data. You can set or change the auto backup configuration whenever you want.

If you are migrating a database, then only the current migration timestamp will be present in the filename of the .mdfbak.

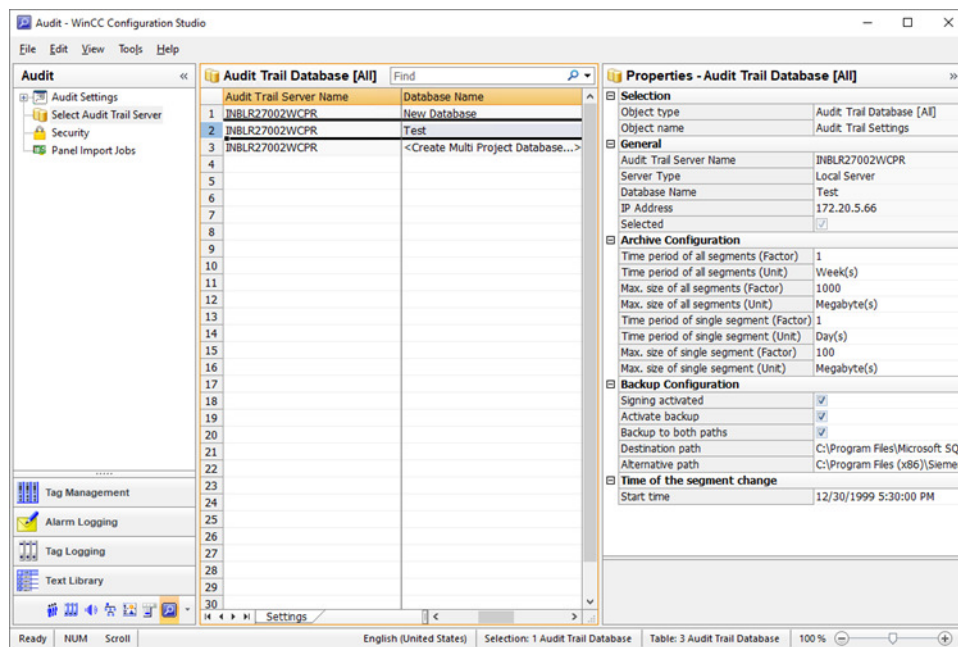
#### Note

##### Valid and accessible destination path for storing the backup files

It is the responsibility of the user to provide a valid and accessible path in "Destination path" and "Alternative path" fields to store the backup files.

The path depends on the location where the database has been configured.

The auto-backup feature only runs when activate backup is enabled, and by default, this will be enabled.



#### Procedure

1. In the Audit Editor, select "Select Audit Trail Server" in the navigation area.
2. Select the entire row of the required database.
3. Right-click on the selected row, a list of options appear.

4. Select "Select Server" option and click "Yes" to change the database.
5. Select any cell of the selected database.
6. Provide the required details in fields of the "Archive Configuration" section of the "Properties" window.

Field Name	Meaning
Time period of all segment (Factor)	Total time duration of all the segment to overwrite the oldest single segment. (this value should be more than double and a multiplier of the value given in "Time period of single-segment").
Time period of all segment (Unit)	Select the unit of the time for "Time period of all segment", this can be Hour(s), Day(s), Week(s), Month(s), or Year(s).
Max. size of all segment (Factor)	Maximum size of the database in which the oldest single segment has to be overwritten if this value is exceeded. (this value should be more than double of the value given in "Max. size of single-segment").
Max. size of all segment (Unit)	Select the unit of the size for "Max. size of all segment", this can be Megabyte(s) or Gigabyte(s).
Time period of single segment (Factor)	Time duration to create a new single segment.
Time period of single segment (Unit)	Select a unit of the time for "Time period of single segment", this can be Hour(s), Day(s), Week(s), Month(s), or Year(s).
Max. size of single segment (Factor)	Maximum size of a single segment after which a new single segment needs to be created. (this value should be more than 50 Megabytes)
Max. size of single segment (Unit)	Select the unit of the size for "Max. size of single segment", this can be Megabyte(s) or Gigabyte(s).

### 3.6 Working with Audit

7. Select the required details in fields of the "Backup Configuration" section of the "Properties" window.

Field Name	Meaning
Signing activated	Activates signing of the transferred backup files. Based on the signature, the system recognizes whether an archive backup file has been changed after its transfer.
Activate backup	Activates the transfer of database segments to the directories specified under "Destination path" and / or "Alternative destination path".
Backup to both paths (Activate backup should be enabled)	Activates the transfer of database segments to both directories specified under "Destination path" and "Alternative destination path".
Destination path (Activate backup should be enabled)	Defines the path on which the archive backup files are stored. (By default this path will be "C:\Program Files\Microsoft SQL Server\MSSQL13.WINCC\MSSQL\DATA\BackUp")
Alternative path (Mandatory if Backup both path is enabled)	Defines an alternative destination path on which the archive backup files are stored.

8. Select the date and time if you want to create a new segment irrespective of the configuration. (By default, this value will be an old value that the user needs to update later.

### Restoring the database

The user needs to manually restore the backed-up database using the segment files that are saved in the destination path or in an alternative path. The database segment can be identified from the timestamps in the filename of each data segment.

#### Procedure

1. Copy the required backed up database segment files to the main folder.  
(Database segment files can be identified by the timestamp in the filename).
2. Open or refresh the Audit Viewer.

## 3.6.8 Writing Audit Trails from external applications into Audit database

### Introduction

Other third party applications can also write Audit Trails into audit database using an Application Programming Interface (API) called **IAuditTrailAPI**. The API provides functions to create and store Audit Trail records into the Audit Trail Database. The functions of **IAuditTrailAPI** interface are:

1. Enumerate list of available trail servers.
2. Establish connection with a specific Trail Server.
3. Insert specific tracking objects into the connected Trail Server database.

4. Query a subset of stored tracking objects, applying a specific filter selection.
5. Enable disconnection of the current connected Trail Server.

**Refer the example given below to know how to initiate the interface.**

```
#include "CCAuditTrailAPI.h"
#include "CCAuditTrailAPI_i.c"
CComPtr <IAuditTrailAPI> pIAuditTrailAPI;

HRESULT hr = CoCreateInstance(CLSID_CCAuditTrailAPI, NULL,
CLSCTX_ALL, IID_IAuditTrailAPI, (VOID**) &pIAuditTrailAPI);
```

## 3.6 Working with Audit

The functions of the interface are:

1. HRESULT **GetTrailServerList** ([out] VARIANT\* pvaServerList); //Enumerates all the available Trail Database per Machines

**Parameters**

Parameter	Description
pvaServerList	List of available trail servers and databases as VARIANT with bi-dimensional SAFEARRAY of BSTR.

The following example shows how to use it.

```
if (pIAuditTrailAPI)
{
    CComVariant svaServerList;
    hr = pIAuditTrailAPI->GetTrailServerList(&svaServerList);
    if (SUCCEEDED(hr) && svaServerList.parray)
    {
        for (LONG nServer = 0; nServer < svaServerList.parray-
>rgsabound[0].cElements; nServer++)
        {
            CComVariant vaComputerName;
            CComVariant vaDSN;
            LONG lDimension [2] = {0, 0}; lDimension[0] = 0;
            lDimension[1] = nServer;
            hr = SafeArrayGetElement(svaServerList.parray, lDimension,
&vaComputerName);
            if (SUCCEEDED(hr) && (VT_BSTR == vaComputerName.vt))
            {
                lDimension[0] = 1;
                hr = SafeArrayGetElement(svaServerList.parray, lDimension,
&vaDSN);
                if (SUCCEEDED(hr) && (VT_BSTR == vaDSN.vt))
                {
                    //..
                }
            }
        }
    }
}
```

2. HRESULT **Connect** ([in] VARIANT\* pvaServer); //Establish a connection with the specified Trail Server

**Parameters**

Parameter	Description
pvaServer	Trail servers and databases to be connected as VARIANT with SAFEARRAY of BSTR.

The following example shows how to use it.

```
CComVariant vaComputerName (L"<ComputerName>");
CComVariant vaDSN (L"<DatabaseName>");
CComVariant svaServer;
SAFEARRAYBOUND rgsabound [1];
LONG lIndex = 0;
```



```
rgsabound[0].lLbound = 0;
rgsabound[0].cElements = 2;
VariantInit(&svaServer);
svaServer.vt = VT_ARRAY | VT_BSTR;
svaServer.parray = SafeArrayCreate(VT_VARIANT, 1, rgsabound);
lIndex = 0;
HRESULT hr = SafeArrayPutElement(svaServer.parray, &lIndex,
&vaComputerName);
lIndex = 1;
hr = (SUCCEEDED(hr)) ? SafeArrayPutElement(svaServer.parray,
&lIndex, &vaDSN) : hr;
if (SUCCEEDED(hr))
{
    hr = m_pIAuditTrailAPI->Connect(&svaServer);
    if (SUCCEEDED(hr))
    {
        //...
    }
}
```

3. HRESULT InsertAuditEntry ([in] BSTR\* pbstrProjectGUID, //Insertion of a tracking object into the specified Trail Database

```
[in] BSTR* pbstrProjectName,
[in] BSTR* pbstrOSUser,
[in] BSTR* pbstrApplicationUser,
[in] BSTR* pbstrComputerName,
[in] BSTR* pbstrTargetName,
[in] int nTargetID,
[in] BSTR* nChangeID,
[in] int nModificationID,
[in] BSTR* pbstrOldValue,
[in] BSTR* pbstrNewValue,
[in] BSTR* pbstrComments);
```

#### Parameters

Parameter	Description
pbstrProjectGUID	Project GUID of the stored tracking object (The GUID must correspond to an opened project)
pbstrProjectName	Project name of the stored tracking object
pbstrOSUser	OS User name that has performed the operation
pbstrApplicationUser	Application User name that has performed the operation
pbstrComputerName	Computer name where the change took place.
nTargetID	Specific Target ID
nChangeID	Specific Change ID
nModificationID	Specific Modification ID
pbstrOldValue	Old value of the stored tracking object
pbstrNewValue	New value of the stored tracking object
pbstrComments	Comments associated to the tracking object

The following example shows how to use it.

```
if (pIAuditTrailAPI)
{
    CComBSTR bstrProjectGUID
    (L"{00000000-0000-0000-0000-000000000000}"); //The GUID must correspond
    to an opened project CComBSTR bstrProjectName (L"ProjectName");
    CComBSTR bstrOSUser (L"WindowsUser");
    CComBSTR bstrApplicationUser (L"AppUser");
    CComBSTR bstrComputerName (L"ComputerName");
    CComBSTR bstrTargetName (L"TargetName");
    CComBSTR bstrChangeID (L"ChangeID");
    CComBSTR bstrOldValue (L"OldValue");
    CComBSTR bstrNewValue (L"NewValue");
    CComBSTR bstrComments (L"Comment");
    INT iTargetID = 0;
    INT iModificationID = 0;
    HRESULT hr = pIAuditTrailAPI->InsertAuditEntry(&bstrProjectGUID,
                                                    &bstrProjectName,
                                                    &bstrOSUser,
                                                    &bstrApplicationUser,
                                                    &bstrComputerName,
                                                    &bstrTargetName,
```

```
if (SUCCEEDED(hr))
{
    //..
}

iTargetID,
&bstrChangeID,
iModificationID,
&bstrOldValue,
&bstrNewValue,
&bstrComments);
```

## 3.6 Working with Audit

4. HRESULT GetAuditEntries ([in] BSTR\* pbstrFilter, //Retrieves a list of Tracking Objects that accomplish the supplied filter  
[out] VARIANT\* pvaTrackingObjectList);

**Parameters**

Parameter	Description
pbstrFilter	Filter in XML format with the information needed to retrieve the Data (the example shown the format)
pvaTrackingObjectList	List of Tracking objects as VARIANT with a bi-dimensional SAFEARRAY with all data.

The following example shows how to use it.

```

CComBSTR bstrFilter (L"");
bstrFilter += L"<Filter>\r\n";
bstrFilter += L"<DataSource>";
bstrFilter += L"DataSourceName"; //Name of Data Source used in the Connection
function
bstrFilter += L"</DataSource>\r\n";
bstrFilter += L"<From>";
bstrFilter += L"CL_TRAILDATA"; //Keep this field fixed
bstrFilter += L"</From>\r\n";
bstrFilter += L"<Select>";
bstrFilter += L"*"; //Keep this field fixed
bstrFilter += L"</Select>\r\n";
bstrFilter += L"<Where>";
bstrFilter += L"ID > 0"; //Use this field to manage the output using the normal
condition in SQL considering the table fields
bstrFilter += L"</Where>\r\n";
bstrFilter += L"<RecordCount>";
bstrFilter += L"10"; //Number of Records to retrieve
bstrFilter += L"</RecordCount>\r\n";
bstrFilter += L"<OrderByClause>";
bstrFilter += L"ID DESC"; //Order used in the database query
bstrFilter += L"</OrderByClause>\r\n";
bstrFilter += L"</Filter>\r\n";
if (pIAuditTrailAPI)
{
    CComVariant svaResult;
    HRESULT hr = pIAuditTrailAPI->GetAuditEntries(&bstrFilter,
&svaResult);
    if (SUCCEEDED(hr) && svaResult.parray)
    {
        LONG lDimension [2] = {0, 0};
        for (INT nSize = 0; nSize < svaResult.parray-
>rgsabound[0].cElements; nSize++)
        {
            _variant_t vaTrackingID;
            _variant_t vaProjectID;
            _variant_t vaProjectName;
            _variant_t vaDateTime;
            _variant_t vaTimeZoneOffset;
            _variant_t vaWindowsUser;
            _variant_t vaApplicationUser;

```

```

_variant_t vaComputerN;
_variant_t vaCategoryID;
_variant_t vaSubCategoryID;
_variant_t vaTargetID;
_variant_t vaTargetName;
_variant_t vaSpecificChangeID;
_variant_t vaModificationID;
_variant_t vaOldValue;
_variant_t vaNewValue;
_variant_t vaOperatorMsgID;
_variant_t vaReason;
_variant_t vaAuditType;
_variant_t vaLegacyProjectGUID;
_variant_t vaLegacyDataBaseName;
_variant_t vaLegacyApplicationName;
_variant_t vaLegacyTableName;
_variant_t vaLegacyFieldName;
_variant_t vaLegacyEventType;
_variant_t vaLegacyEventItem;
VariantInit(&vaTrackingID);
VariantInit(&vaProjectID);
VariantInit(&vaProjectName);
VariantInit(&vaDateTime);
VariantInit(&vaTimeZoneOffset);
VariantInit(&vaWindowsUser);
VariantInit(&vaApplicationUser);
VariantInit(&vaComputerN);
VariantInit(&vaCategoryID);
VariantInit(&vaSubCategoryID);
VariantInit(&vaTargetID);
VariantInit(&vaTargetName);
VariantInit(&vaSpecificChangeID);
VariantInit(&vaModificationID);
VariantInit(&vaOldValue);
VariantInit(&vaNewValue);
VariantInit(&vaOperatorMsgID);
VariantInit(&vaReason);
VariantInit(&vaAuditType);
VariantInit(&vaLegacyProjectGUID);
VariantInit(&vaLegacyDataBaseName);
VariantInit(&vaLegacyApplicationName);
VariantInit(&vaLegacyTableName);
VariantInit(&vaLegacyFieldName);
VariantInit(&vaLegacyEventType);
VariantInit(&vaLegacyEventItem);
vaTrackingID.vt = VT_UI8;
vaProjectID.vt = VT_BSTR;
vaProjectName.vt = VT_BSTR;
vaDateTime.vt = VT_DATE;
vaTimeZoneOffset.vt = VT_R4;
vaWindowsUser.vt = VT_BSTR;
vaApplicationUser.vt = VT_BSTR;

```

### 3.6 Working with Audit

```
vaComputerN.vt = VT_BSTR;
vaCategoryID.vt = VT_UI2;
vaSubCategoryID.vt = VT_UI2;
vaTargetID.vt = VT_UI2;
vaTargetName.vt = VT_BSTR;
vaSpecificChangeID.vt = VT_BSTR;
vaModificationID.vt = VT_UI1;
vaOldValue.vt = VT_BSTR;
vaNewValue.vt = VT_BSTR;
vaOperatorMsgID.vt = VT_UI8;
vaReason.vt = VT_BSTR;
vaAuditType.vt = VT_BSTR;
vaLegacyProjectGUID.vt = VT_BSTR;
vaLegacyDataBaseName.vt = VT_BSTR;
vaLegacyApplicationName.vt = VT_BSTR;
vaLegacyTableName.vt = VT_BSTR;
vaLegacyFieldName.vt = VT_BSTR;
vaLegacyEventType.vt = VT_BSTR;
vaLegacyEventItem.vt = VT_BSTR;
lDimension[1] = nSize;
for (INT nPos = 0; nPos < 26; nPos++)
{
    lDimension[0] = nPos;
    switch (nPos)
    {
        case 0 : hr = SafeArrayGetElement(svaResult.parray,
lDimension, &vaTrackingID); break;
        case 1 : hr = SafeArrayGetElement(svaResult.parray,
lDimension, &vaProjectID); break;
        case 2 : hr = SafeArrayGetElement(svaResult.parray,
lDimension, &vaProjectName); break;
        case 3 : hr = SafeArrayGetElement(svaResult.parray,
lDimension, &vaDateTime); break;
        case 4 : hr = SafeArrayGetElement(svaResult.parray,
lDimension, &vaTimeZoneOffset); break;
        case 5 : hr = SafeArrayGetElement(svaResult.parray,
lDimension, &vaWindowsUser); break;
        case 6 : hr = SafeArrayGetElement(svaResult.parray,
lDimension, &vaApplicationUser); break;
        case 7 : hr = SafeArrayGetElement(svaResult.parray,
lDimension, &vaComputerN); break;
        case 8 : hr = SafeArrayGetElement(svaResult.parray,
lDimension, &vaCategoryID); break;
        case 9 : hr = SafeArrayGetElement(svaResult.parray,
lDimension, &vaSubCategoryID); break;
        case 10 : hr = SafeArrayGetElement(svaResult.parray,
lDimension, &vaTargetID); break;
        case 11 : hr = SafeArrayGetElement(svaResult.parray,
lDimension, &vaTargetName); break;
        case 12 : hr = SafeArrayGetElement(svaResult.parray,
lDimension, &vaSpecificChangeID); break;
```

```

        case 13 : hr = SafeArrayGetElement(svaResult.parray,
1Dimension, &vaModificationID); break;
        case 14 : hr = SafeArrayGetElement(svaResult.parray,
1Dimension, &vaOldValue); break;
        case 15 : hr = SafeArrayGetElement(svaResult.parray,
1Dimension, &vaNewValue); break;
        case 16 : hr = SafeArrayGetElement(svaResult.parray,
1Dimension, &vaOperatorMsgID); break;
        case 17 : hr = SafeArrayGetElement(svaResult.parray,
1Dimension, &vaReason); break;
        case 18 : hr = SafeArrayGetElement(svaResult.parray,
1Dimension, &vaAuditType); break;
        case 19 : hr = SafeArrayGetElement(svaResult.parray,
1Dimension, &vaLegacyProjectGUID); break;
        case 20 : hr = SafeArrayGetElement(svaResult.parray,
1Dimension, &vaLegacyDataBaseName); break;
        case 21 : hr = SafeArrayGetElement(svaResult.parray,
1Dimension, &vaLegacyApplicationName); break;
        case 22 : hr = SafeArrayGetElement(svaResult.parray,
1Dimension, &vaLegacyTableName); break;
        case 23 : hr = SafeArrayGetElement(svaResult.parray,
1Dimension, &vaLegacyFieldName); break;
        case 24 : hr = SafeArrayGetElement(svaResult.parray,
1Dimension, &vaLegacyEventType); break;
        case 25 : hr = SafeArrayGetElement(svaResult.parray,
1Dimension, &vaLegacyEventItem); break;
        default :
    }
    if (FAILED(hr))
    {
        break;
    }
}
if (SUCCEEDED(hr))
{
    //Use the data in the variant variables
}
VariantClear(&vaTrackingID);
VariantClear(&vaProjectID);
VariantClear(&vaProjectName);
VariantClear(&vaDateTime);
VariantClear(&vaTimeZoneOffset);
VariantClear(&vaWindowsUser);
VariantClear(&vaApplicationUser);
VariantClear(&vaComputerN);
VariantClear(&vaCategoryID);
VariantClear(&vaSubCategoryID);
VariantClear(&vaTargetID);
VariantClear(&vaTargetName);
VariantClear(&vaSpecificChangeID);
VariantClear(&vaModificationID);
VariantClear(&vaOldValue);
VariantClear(&vaNewValue);

```

### 3.6 Working with Audit

```
VariantClear(&vaOperatorMsgID);
VariantClear(&vaReason);
VariantClear(&vaAuditType);
VariantClear(&vaLegacyProjectGUID);
VariantClear(&vaLegacyDataBaseName);
VariantClear(&vaLegacyApplicationName);
VariantClear(&vaLegacyTableName);
VariantClear(&vaLegacyFieldName);
VariantClear(&vaLegacyEventType);
VariantClear(&vaLegacyEventItem);
if (FAILED(hr))
{
    break;
}
}
}
```

5. HRESULT Disconnect (); // Establish a connection with the specified Trail Server

**Parameters:** Not required

The following example shows how to use it:

```
if (pIAuditTrailAPI)
{
    HRESULT hr = pIAuditTrailAPI->Disconnect();
    if (SUCCEEDED(hr))
    {
        //..
    }
}
```

#### 3.6.9 Viewing Audit Trails in Information Server

##### Creating Audit Trails Report using Information Server

###### Introduction

Audit supports creation of reports in the SIMATIC Information Server.

###### Requirement

Activate the WinCC project in Runtime.

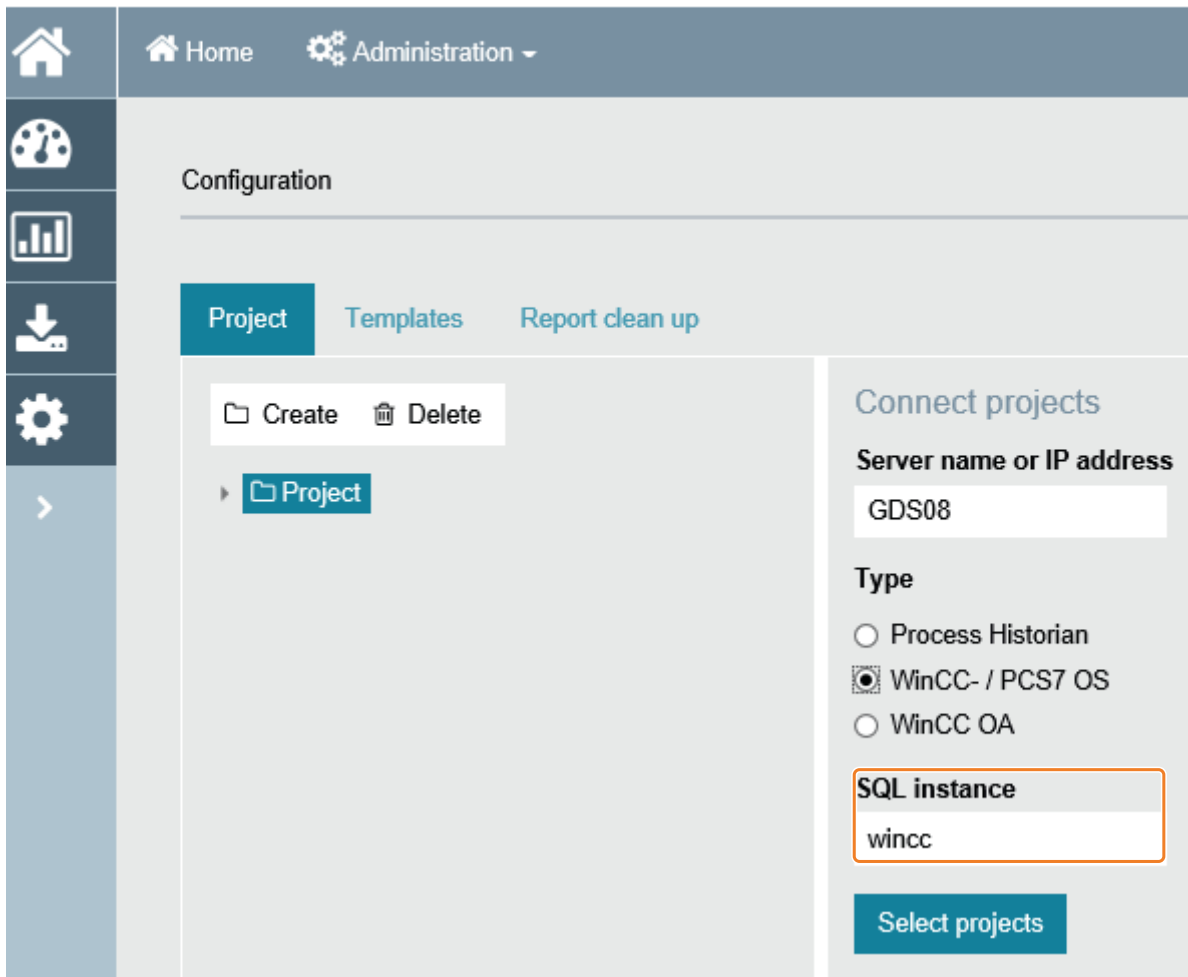
###### Procedure

1. Connect to the home page of the Information Server and login.
2. Click "Administration > Configuration".



3. Enter "wincc" as the data source in "SQL instance" and click "Select Projects". The desired project is listed.

## SIEMENS SIMATIC Information Server



4. Click "Reporting" tab to view all the available templates of the Audit under "Reporting templates > Templates > Public > Audit".



### 3.6 Working with Audit

5. Open the "Messages sorted by timestamp" template and provide the necessary details to create the report for the selected project.

Home Reporting Messages sorted by timestamp

**Project** Excel

**ServerName** GDS08

**ServerInstance** wincc

**Start** *i* ☐ Relative 4/17/2017 4:30:02 PM

**End** *i* ☐ Relative 4/17/2017 4:31:02 PM

**AuditDBName** Excel

**ServerAuditName** GDS08

**Select Info** ID × Project Name × Date Time ×  
Time Zone Offset × Windows User ×  
Application User × Computer Name ×  
Category × SubCategory × Target ×

**Hidden Header** ☐

**Hidden Footer** ☐

**Footer Information**

**Header Back Image**

**Logo Image**

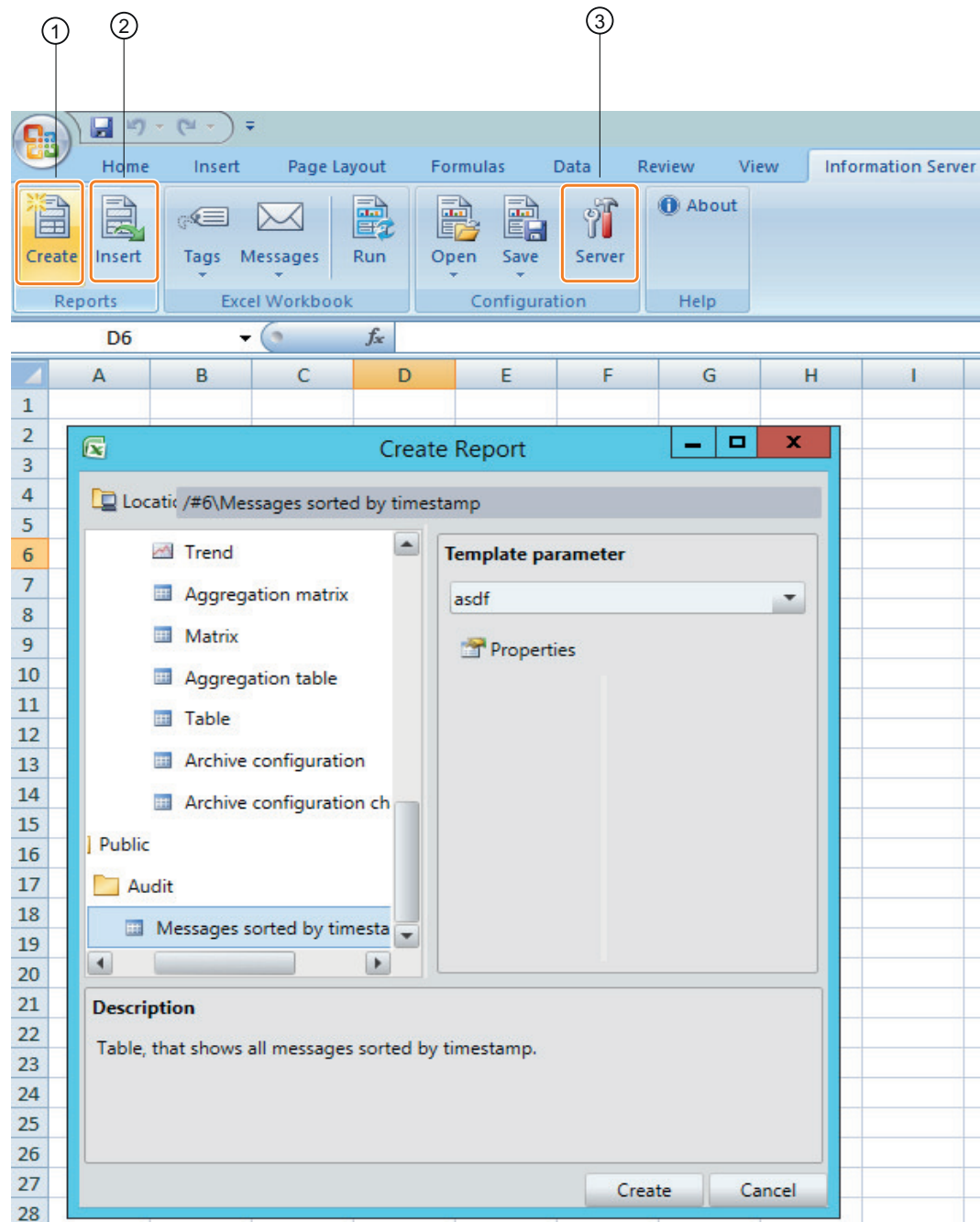
- ① Select the desired "Project, ServerName, and ServerInstance".
- ② Select the time range.
- ③ Select the desired Audit DB and Audit Server name.
- ④ In "Select Info" column, group and filter the columns based on the available context information.
- ⑤ Enter the "Footer Information" and image name in "Header Back Image" and "Logo Image" fields. The images should be available in the SQL Server Reporting Services. To add images in SQL Server Reporting Images folder, provide server name, create folder, and add images. The images should be in .png format.

### 3.6 Working with Audit

6. Click "Show Preview ".
7. Click "Create report". The report for Audit trails is generated.

#### **Viewing Audit Trails Report using Excel add-in**

You can view the Audit trail report in Microsoft Excel using Excel add-in. The Excel add-in uses Information Server as the data source. Use Report templates from the Information Server as template in Excel. Report templates can also be stored locally.



- ① Creates Audit report based on the time range.
- ② Inserts the selected presets and generates a report.
- ③ Connects to Excel add-in.

### 3.6.10 Viewing audit trails in the Windows Event Viewer

#### Viewing audit trails in the Windows Event Viewer

##### Introduction

Audit supports viewing of the audit trails from the Windows Event Viewer. Windows Event Viewer is a component of Windows Operating System which allows the user to view the application event log and system messages on a local machine or remote computer.

##### Requirement

The user must be a member of Administrator or Security Auditer group.

The Security Event Log checkbox has to be checked in the Audit Security setting.

---

##### Note

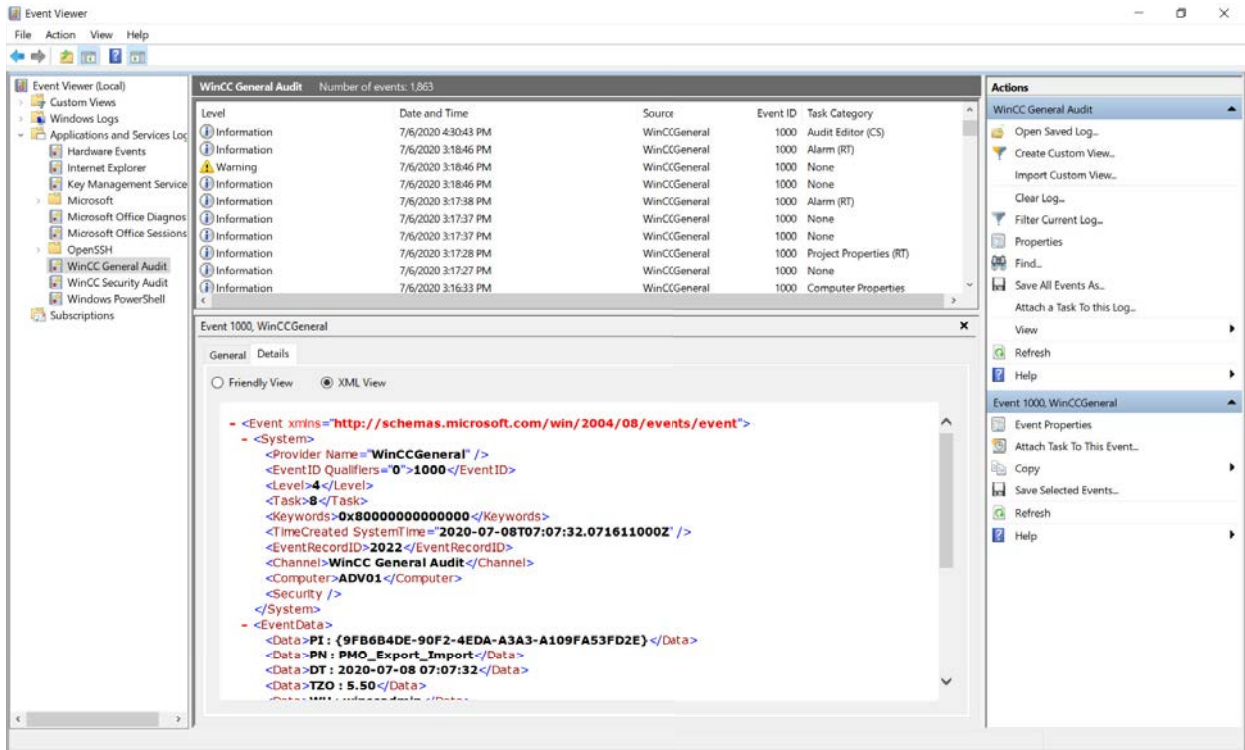
If the size of audit trail log file in the Event Viewer exceeds 4 MB, then that log file is auto backed up as **Archive-WinCC General Audit-"with date and time"** and **Archive-WinCC Security Audit-"with date and time"** in "C:\Windows\System32\winevt\Logs" folder and a new file is created to hold the new log entries.

---

##### Procedure

1. Open the Windows Event Viewer in your local machine.
2. In the console tree, navigate to Application and Services Logs.
3. In the console tree, select the WinCC General Audit log file or WinCC Security Audit log file. A list of events are displayed on the list box with events categorized as Error, Warning, or Information.

4. Click a specific event in the list box.
5. In the "Details" section of the event viewer, select the "XML View" radio button to display the Event Properties.



### 3.6.11 Exporting audit trails to a CSV file

#### Introduction

You can export filtered audit trails to a CSV file.

#### Requirement

- The Audit Viewer is open.

#### Procedure

1. Perform a query or select a category.
2. In the menu bar, select "File > Export".  
A query window opens.
3. Select the storage location.
4. Click "Export".

### 3.6.12 Importing audit trials to Audit Database

#### Introduction

You can import the audit trails data to the database from TXT, CSV, RDB file formats. To enable the import you should specify the following details in the audit editor.

Column name	Description
Audit File Path	The folder path (local or network) where the audit needs to monitor for the audit trial files.
Import	Select the checkbox if you want to enable the monitoring of the mapped folder.
Device ID	User defined panel ID.
Device Name	User defined Device Name.
Username	Username to access the folder (if required).
Password	Password to access the folder (if required).

---

**Note****Import from Remote Location**

Username and password are mandatory to import the audit trails data from remote location.

---

**Note****Unique Audit File Path**

Audit File Path needs to be unique, means that Audit does not allow you to make a new row entry for the same folder path.

---

**Note****Audit File Importing**

- After successful import, the audit file will be deleted from the folder automatically.
  - If the audit file is corrupted or manipulated, the file will not be processed for import and the file will be moved to quarantine folder.
  - Audit does not process the import of non-audit files.
- 

#### Requirement

- Your WinCC project is open.
- The Audit Editor is open, and you have authenticated yourself.

#### Procedure

1. In the navigation area, click "Panel Import Jobs".
2. Provide the necessary information in each column of the new row.



3. Make sure that the Import check box for Audit File Path is selected to allow monitoring of the mapped folder.
4. Place the audit file in the folder mentioned in the column Audit File Path.

## Result

The audit file and the log entry for the import process are imported to the audit trail database.

### 3.6.13 Data conversion

#### Introduction

You have the option of converting data in order to use your stored audit trails in another system. The Audit Editor allows you to export entries from a limited time range or a complete Audit Trail database.

To export a limited time range, specify a start date and an end date with the time information.

If you want to export the complete Audit Trail database, you do not need to specify a start date and an end date with time information.

For additional protection you can attach a certificate to the export. To use this function, the certificate must be stored in the Windows certificate memory.

#### Requirement

- Your WinCC project is open.
- The Audit Editor is open and you have authenticated yourself.

#### Procedure

1. Open the shortcut menu under "Audit Trail" in the navigation area.
2. Click "Export Database".  
A query window opens.
3. Select a storage location using the "..." button under "Select file".
4. If you want to use a certificate, enable the "Use certificate" option and select a certificate using the "..." button.
5. To apply a date and time filter, select the "Use date filter" option under "Date filter". Enter the required information.
6. To export the complete Audit Trail database, select the "Do not use date filter" option under "Date filter".
7. Confirm your entries with "OK".

## Result

The Audit Trail database is exported as an XML file.

### 3.6.14 Connecting Audit to Report Designer

#### Introduction

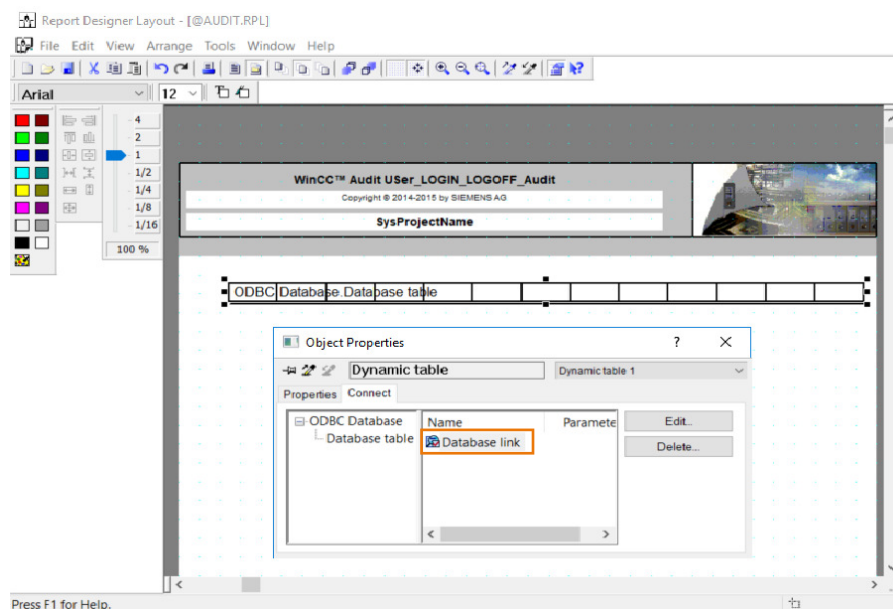
The newly created Audit database is not automatically configured to the Report Designer. The layouts in the Report Designer have Audit database names such as CC\_AUDIT\_DATABASE and AUDIT\_DATABASE\_MP. Replace the database name with the new database name to print reports.

#### Requirement

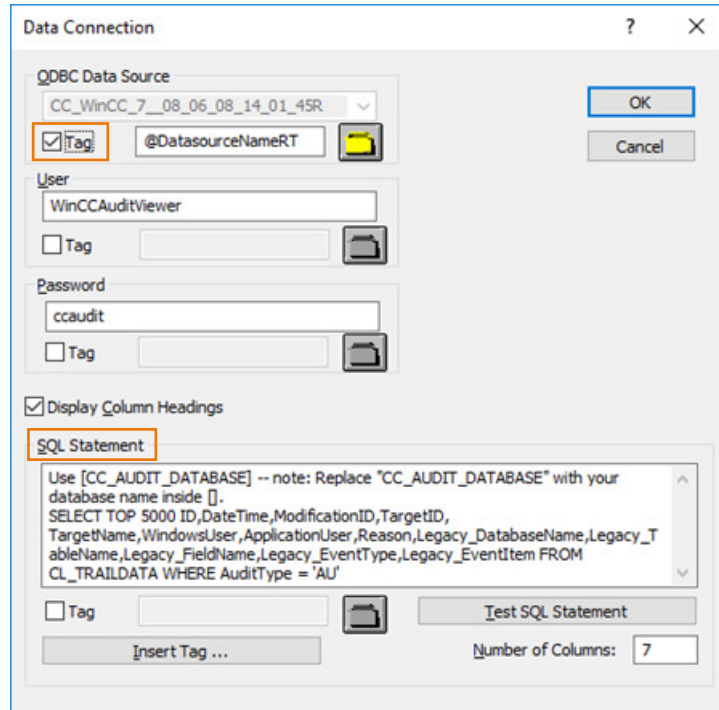
A configured Audit database.

#### Procedure

1. In the WinCC Explorer navigation window, go to "Report Designer > Layouts". The list of layouts displays.
2. Select "Language neutral" and the data window displays a list of layouts related to Audit.
3. Double-click the appropriate layout in the data window. The "Report Designer Layout – [...]" window opens.
4. Right-click the table available in the workspace and select "Properties". The "Object Properties" dialog box opens.



5. Select "Connect" tab and double-click the "Database link" property. The "Data Connection" dialog opens.



6. Under "ODBC Data Source", unselect the "Tag" checkbox.
7. From the drop-down list above the checkbox, select the appropriate WinCC project.
8. Select the "Tag" checkbox once again to disable this drop-down list.
9. In the "SQL statement" text area, replace the database name "CC\_AUDIT\_DATABASE" with the new database name as shown in the image.

### Note

#### Database name

It is recommended to enter the database name within the '[' ]' (square brackets) in the database SQL statement to avoid conflicts between the database name and the SQL query.

10. Click the "Test SQL Statement" tab to check.
11. If no errors are found, click "Close". If error appears, re-check the database name and repeat steps 9 and 10.
12. Close the "Data Connection" dialog box.
13. Click "Save".

## Result

The Audit database is linked to the Report Designer. Navigate to "Print jobs" to preview the report.

## 3.7 Migration

### 3.7.1 Migrating audit data

#### Introduction

If you are already using Audit V7.2/V7.3/V7.4/V7.4 SP1/V7.5/V7.5 SP1 you can migrate your Audit configurations and your saved Audit Trails to Audit V7.5 SP2.

---

#### Note

##### **Migration of Audit V7.2/V7.3/V7.4/V7.4 SP1/V7.5/V7.5 SP1 databases**

You can migrate the following from your Audit V7.2/Audit V7.3/Audit V7.4 single project database to Audit V7.5 SP2:

- Audit configuration
- Audit trails

You can migrate the following from your Audit V7.2/Audit V7.3/Audit V7.4/Audit V7.4 SP1/Audit V7.5/Audit V7.5 SP1 multiproject database to Audit V7.5 SP2:

- Audit configuration
- Audit trails

##### **One-time migration**

Migration can only be started once. If you do not perform the migration, the option is not offered again.

If you reject a migration step, you will not have the opportunity to repeat this step.

---

#### Migrating audit trails

##### **Migrating multiproject database**

The Audit System supports implicit migration of the multi-project database. Only user need to reboot the machine after the installation of the latest version. The audit system will automatically migrate all the trail databases present in the machine irrespective of the project.

---

#### Note

Audit 7.5 SP2 should be installed in the machines where the WinCC project is available, as well as where the trail database is available.

---

## Migrating single project database

### Note

For efficient migration of a single project database to a multi-project database, the records will be transferred to each data storage segment and each segment will be backed-up automatically to the activated path as configured.

For more information on auto-backup, refer Auto backup and restore database (Page 99).

Opening a project connected to a single project database in Audit V7.5 SP2 will be converted into a multiproject database. Audit Editor auto-detects for single project database and initiate data migration.

Follow the procedure to migrate a single project database:

1. Open Audit Editor. A dialog box opens to inform that the project configuration is of type single project database and it is not supported in this version. You need to create a multiproject database for data migration.
2. Click "OK".
3. Create a new multiproject database or select an existing multiproject database in Audit Editor. A dialog box opens to inform that the Audit database will be changed to a multiproject database.
4. Click "Yes". This migrates data from the single project database to the new multiproject database. You can view the saved Audit Trails in Audit Viewer.

### Result

Your configuration settings are migrated in the Audit Editor. The stored audit trails of the previous version are migrated to the current Audit Trail database. Some of the values are shown in the columns whose names start with "Legacy".

## 3.7.2 Convert the project data in relation to the Audit APIs

### Convert Project Data

After successful migration of the project, to ensure the proper working of scripts in the web client, the user must follow the following steps.

1. Copy the 'InsertAuditEntry.bmo' file from the folder 'C:\Program Files (x86)\Siemens\WinCC\Audit\bin' and paste it into the 'ScriptLib' folder of the project.
2. In the WinCC Explorer > Tools > Convert Project Data, select the following options.
  - Pictures and faceplates
  - C and VB project functions and actions
  - C and VB standard functions

### 3.7 Migration

3. Click "OK".
4. Republish the existing published pictures (PDL's).

#### Result

The project data is converted and the new and old Audit API's will work in Local web client as well as in Standalone web client for both C and VB scripts and trails will get generated in Audit Viewer.

### 3.7.3 Convert the project data in relation to the Audit APIs (applicable only for Audit APIs)

#### Convert the project data for Audit APIs (applicable only for Audit APIs)

After successful migration of the project, the new and old Audit API's may not work for VB scripts in the web client. To user must convert the project data as follows to make the scripts compatible with web client.

1. In the WinCC Explorer click Tools and select "Convert Project Data".
2. In the Convert Project Data dialogue box select "C and VB standard functions".
3. Click "OK".
4. In the Convert Project Data dialogue box select "C and VB project functions and actions".
5. Click "OK".
6. In the Convert Project Data dialogue box select "Pictures and faceplates".
7. Click "OK".
8. Republish the existing published pictures (PDL's)

#### Result

The project data is converted and the new and old Audit API's will work in Local web client as well as in Standalone web client for both C and VB scripts and trails will get generated in Audit Viewer.

### 3.7.4 Viewing Audit V7.2 multi-project database

#### Introduction

You have two options for displaying the Audit Trails of an Audit V7.2 or Audit V7.3 multiproject database.

### WinCC and Audit V7.2 or Audit V7.3 are installed on your PC

1. In Audit Editor V7.2, export the audit trails from the multiproject database.
2. Upgrade to WinCC V7.5 SP2 and Audit V7.5 SP2.
3. View the exported audit trails in the Audit Viewer V7.5 SP2.

### 3.7.5 Migrating Document Control and Project Versioning

The archive of the Document Control and Project Versioning of Audit V7.2, Audit V7.3, Audit V7.4, Audit V7.4 SP1, Audit V7.5, and Audit V7.5 SP1 cannot be migrated to Audit V7.5 SP2.

After Audit V7.5 has been installed, you must set up the Document Control again:

- Enable the Document Control in the Audit Document Control and Project Versioning. This checks-in and saves all the WinCC project files of your opened WinCC project.
- Archive your WinCC project in the Audit Document Control and Project Versioning.

You can find additional information under:

- Archiving and versioning WinCC project data (Page 73).

### 3.7.6 Migrating user administration

The user group "SIMATIC HMI AUDIT" remains available in Audit V7.5 SP2. All users can authenticate themselves in the Audit Editor and Audit Document Control and Project Versioning, provided they are members in the user group "SIMATIC HMI AUDIT".

You can find additional information in the installation notes under:

- User authentication

### See also

User authentication (Page 9)

### 3.7.7 InsertAuditEntry

#### Introduction

If you use the "InsertAuditEntry" function of Audit V7.2 in a WinCC project, you can continue to use the function with Audit V7.5 SP2.

It is not necessary to change your scripts.

### 3.7 Migration

Some of the values from the "InsertAuditEntry" will be displayed in the Audit Trail database in columns whose names begin with "Legacy".

#### **InsertAuditEntryNew**

For all new WinCC projects, use the "InsertAuditEntryNew" function.

You can find additional information under:

- [InsertAuditEntryNew \(Page 63\)](#)

### **InsertAuditEntry in the Script Editor or in the Graphics Designer**

#### **C Editor/Graphics Designer**

You can find the InsertAuditEntry function in the navigation area under "Project Functions".

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#### **Note**

##### **Regenerating the header**

If the "InsertAuditEntry" function is not visible, you need to re-generate the header in the C Editor.

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#### **VBS Editor/Graphics Designer**

You can find the InsertAuditEntry function in the navigation area under "Project Modules".



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