



testo Saveris 1

Measurement data monitoring system

Software:
testo Saveris 1
testo Saveris 1 CFR
(Version 6.1)

Instruction manual



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1 About this document




This documentation forms an integral part of the measurement data monitoring system testo Saveris 1.

- Keep this documentation at hand so that you can refer to it when necessary.
- Please read this this documentation through carefully and familiarize yourself with the product before putting it to use.
- Hand this documentation on to any subsequent users of the product.
- The documentation for the testo Saveris 1 measurement data monitoring system is divided into the following sub-documents:
 - Operating instructions for the testo Saveris 1 measurement data monitoring system
 - Installation instructions for the testo Saveris 1 measurement data monitoring system
 - Operating instructions for individual system components
- Pay particular attention to the safety instructions and warning advice in order to prevent injury and damage to the product.
- Please read this instruction manual through carefully and familiarize yourself with the product before putting it to use.



Functions that are exclusively available to users of the testo Saveris 1 CFR product version are indicated in this document. All other content is valid for both versions.

Symbols and writing standards

Display	Explanation
	Note: basic or further information.
1. ... 2. ...	Action: several steps, the sequence must be followed.
• ...	List
> ...	Action: one step or optional step.
- ...	Result of an action.
✓ ...	Requirement
 ...  ...	Position numbers for the clarification of the relationship between text and picture.

Display	Explanation
Menu	Elements of the instrument, the instrument display or the program interface.
[OK]	Control keys of the instrument or buttons of the program interface.
... ...	Functions/paths within a menu.
"..."	Example entries

2 Protecting the environment

At the end of its useful life, deliver the product to the separate collection point for electric and electronic devices (observe local regulations) or return the product to Testo for disposal.

3 Support

For up-to-date product information, downloads and links to contact addresses for support queries, please visit the Testo website at: www.testo.com

4 Product description

4.1 Intended use of the testo Saveris 1 software

The **testo Saveris 1 software** is used to store, read out and analyze individual readings and measurement series.

The **testo Saveris 1 CFR** version was developed to meet the FDA requirements for electronically stored data records in accordance with 21 CFR Part 11, by means of additional functions in conjunction with data loggers.

Information about the permissions structure

If individual functions which are described in the instruction manual are not available to you for selection, you may not have the appropriate rights. In this case you should contact the administrator.

Pay attention to the following exceptions in terms of CFR operation:

- The testo Saveris 1 Base is connected to the PC via an Ethernet cable. Connection via USB is not possible.
- Alarms cannot be acknowledged via the testo Saveris 1 Base, but only directly in the CFR software with the appropriate rights.
- Alarms cannot be acknowledged via SMS or email.

Information on the alarm function

- The alarms generated in the testo Saveris 1 system are primarily used to notify the user in good time that problems have occurred which jeopardize the continuous availability of the data in the database. Generally, action is then required.
- Alarms indicate a one-off, but possibly also regular, malfunction. The aim must be to minimize the number of alarms that occur during operation and eliminate such alarms wherever possible. An increasing number of unacknowledged alarms not only makes troubleshooting in serious cases more difficult, but also slows the system response during operation.



If the testo 150 data logger is in alarm status for a prolonged period of time, the battery life specified in the instruction manual for the **testo 150 data logger module** (order no. 0970 2813, section 13), is reduced.

Alarms are configured in various steps:

1. Set up server alarms

When configuring the Saveris 1 software in the browser, you specify the conditions under which the software itself triggers an alarm and who is to receive it.

2. Set up Saveris Base alarms

When configuring the Base in the Editor, you define the conditions under which the Base triggers an alarm.

In the **Edit alarm configuration** window, you can use the **Configure notifications** link to define the recipients and the notification text for SMS and e-mail notifications.

3. Set up alarm groups.

The alarm groups allow you to determine for which probes and under what conditions an alarm is triggered for system alarms and for channel-related alarms in the Editor.

In the **Edit alarm groups** window, you can use the **Configure notifications** link to specify the recipients and the notification text for SMS and e-mail notifications.

4.2 Fields of application

The testo Saveris 1 measurement data monitoring system is designed for monitoring products subject to cold chain requirements in enclosed spaces. Typical applications include monitoring the humidity and temperature of warehouses, production facilities, cold storage rooms, clinics, laboratories and laboratory equipment.

The values measured by the probes in the system are transmitted either wirelessly or via cable (Ethernet) to the testo Saveris 1 Base by data loggers, which also act as a buffer for the measurement data, and the values are then stored by the Base. A connected computer transfers the measurement data from the testo Saveris 1 base to a database for permanent archiving.



The components of the testo Saveris 1 measurement data monitoring system are not designed for outdoor use when delivered.



The testo Saveris 1 measurement data monitoring system is only used to monitor readings, not to control or regulate them.

4.3 Exclusion of liability

The testo Saveris 1 measurement data monitoring system was developed to collate a large amount of measurement data from spatially separated data loggers in the testo Saveris 1 software, to document it without interruption and to alert in the event of irregularities.

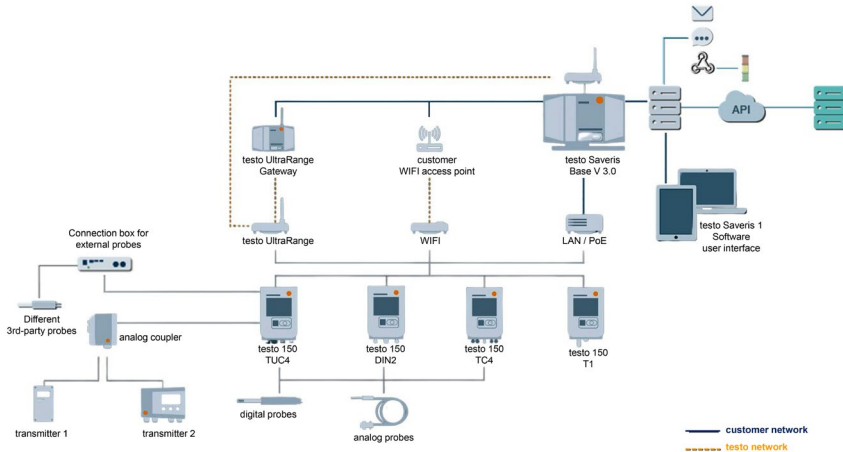
The testo Saveris 1 measurement data monitoring system is not designed to perform control and regulation tasks. In particular, the alarms are not to be seen as so-called critical alarms which are able to avert dangers to life and limb or damage to property.

Liability on the part of Testo Saveris GmbH for damage resulting from such use is excluded.

The customer must ensure the following:

- That a back-up power supply is available for the PC on which the testo Saveris 1 CFR software is running.
- That the password protection is active and that the password is only known to authorized persons.
- That a sufficient backup cycle has been defined.
- That suitable backup procedures, storage media and storage environments are available for data, software and the necessary hardware.
- That operating system accounts and user groups are appropriately set up and that user accounts are assigned to appropriate users.
- That user profiles are created and that these users are assigned to the intended user groups.
- That audit trail data is verified and stored.
- That the operating conditions of a closed system are maintained and that the Windows access options and the system event log are checked carefully and in a timely manner.

4.4 System overview



Hardware component	Function
Base	The testo Saveris 1 base receives data from data loggers and serves as a central buffer for this. The data is then retrieved by a computer from the testo Saveris 1 base and stored in a database.

Hardware component	Function
UltraRange Gateway	A testo Saveris 1 UltraRange Gateway converts the radio signals from testo 150 data logger modules into Ethernet signals. This combines the advantages of the flexible connection of testo 150 data logger modules with attached testo UltraRange communication modules using the existing Ethernet - even over long transmission paths.
Data loggers	testo 150 data loggers record the readings from the probes connected to them and act as a buffer for the measurement data. Measurement data is transmitted to the testo Saveris 1 base either wirelessly or via a fixed cable (Ethernet).
Probe	With their sensors, probes measure temperature, humidity and other parameters and supply their measurement data to data loggers. In the testo Saveris 1 measurement data monitoring system, probes are either structurally integrated into the data loggers or can be mounted externally on them.
Analog coupler	Analog couplers allow the integration of additional measurement parameters into the testo Saveris 1 measurement data monitoring system by integrating all transmitters with standardized current/voltage interfaces.
Software component	Function
Saveris Editor	Program for configuring the system and the Saveris web-based user interface. The Saveris Editor is used to configure alarms, access rights and much more.

Software component	Function
Saveris	<p>Simple and intuitive web-based user interface for monitoring the system.</p> <p>Geographical, hierarchical structure of complex systems with many measuring points.</p> <p>Customization of the system by uploading your own floor plans and logos.</p> <p>Here, for example, readings can be checked and reports created.</p>

5 Saveris Editor – System configuration

The structure of the Saveris system and the contents of the testo Saveris 1 software are defined by the administrator or an authorized user using the **testo Saveris Editor**.

This includes mapping the hierarchical structure of a system as well as graphical content. The usability of the **Plan View** in the web-based Saveris user interface requires prior configuration in the testo Saveris Editor.

The testo Saveris 1 software is designed for use in stationary measurement data monitoring.



The contents that can be viewed are determined on an individual basis by the Administrator and may differ from the illustrations shown here.

5.1 Saveris Editor – Introduction

5.1.1 Launching and exiting Saveris Editor

- 1 Start the testo Saveris Editor via the Windows Start menu or – if available – via a shortcut on the desktop.



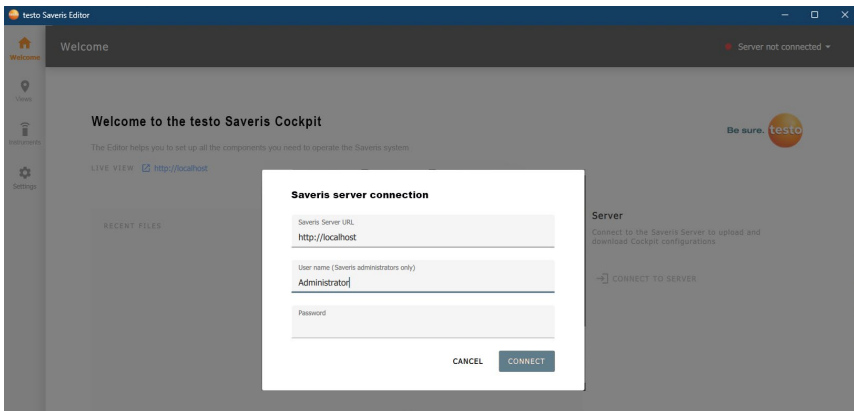
- ▶ The Editor starts. However, the connection to the testo Saveris server must be established separately, see the section "Connecting to the testo Saveris Server".

- 2 Close the testo Saveris Editor via .

- ▶ When the testo Saveris Editor is closed, the connection to the Saveris server is also disconnected.

However, this does not affect the usability of the entire testo Saveris 1 software system.

5.1.2 Connecting to the Saveris Server



1 In the **Welcome** menu, click on **CONNECT TO SERVER**

1.1 From any Editor menu in the header area, select **Server not connected | Connect...**

► The **Saveris server connection** window opens.

2 Enter the testo **Saveris server URL**.

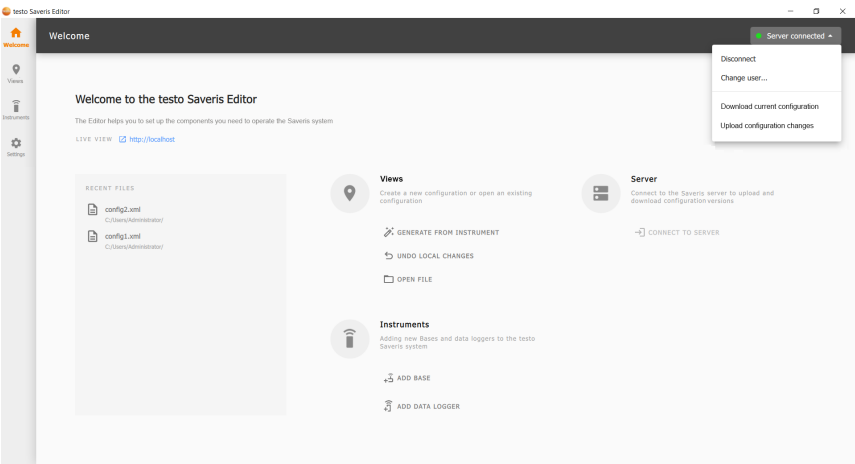
3 Enter the **User name**.

4 Enter the **password**.

5 Click on **[Connect]** to establish the server connection.

► The connection to the testo Saveris server is established and the current configuration is downloaded to the Editor.

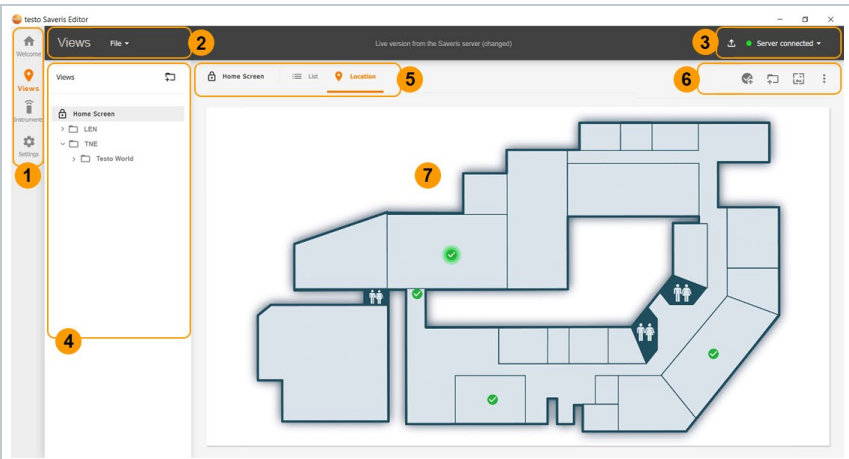
5.1.3 Saveris Editor home page



Display	Explanation
GENERATE FROM INSTRUMENT	Creates a new configuration from the active projects and loggers.
UNDO LOCAL CHANGES	Undoes changes that have not yet been uploaded to the Saveris server.
OPEN FILE	Opens a saved configuration.
ADD BASE	Opens the dialogue for creating a new base by entering its IP address.
ADD DATA LOGGER	Opens the dialogue for creating a new logger connected to a base.
Connect	Connects the Saveris Editor to the Saveris server.
Disconnect	Disconnects from the Saveris server.
Change user	Log in to the Saveris server with different user details.
Download current configuration	Loads the version displayed in the Saveris server into the Saveris Editor for editing.
Upload configuration changes	Uploads the configuration currently loaded in the Saveris Editor to the Saveris server.





5.2 Saveris Editor – How to use

5.2.1 testo Saveris Editor user interface







1	Navigation menu	5	View switch-over
2	Save/load configurations	6	Toolbar to edit view
3	Configure server connection	7	View editing area
4	Hierarchy/selection for the view		


Navigation menu

Display	Explanation
	Welcome Home page of the testo Saveris Editor.
	Views Create a new configuration or edit an existing one.
	Devices Manage devices and projects.
	Settings Program settings for the testo Saveris Editor.

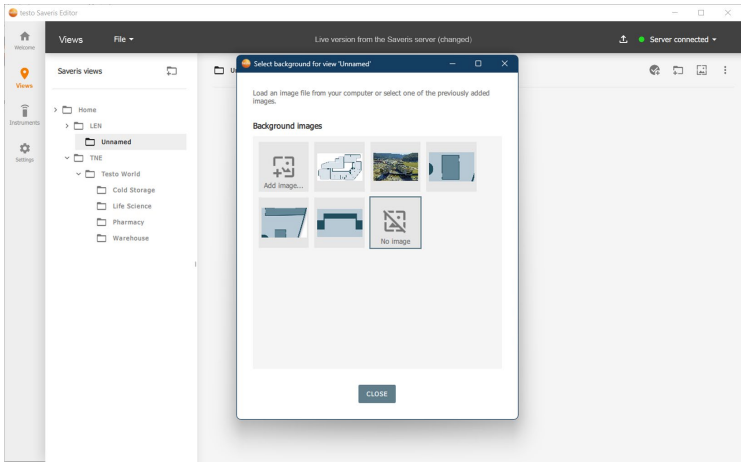
Toolbar to edit view




Display	Explanation
	Add a new item to the view.

Display	Explanation
	Add a new (sub)view to the view.
	Add a background image to the view or change or remove the existing background image.
	More options for editing the view.

 The settings are saved as a .xml file. Images used are saved in a subfolder of the same name next to the .xml file and should be copied when transferring the .xml file.

5.2.2 Inserting background images



- 1 | Select **View** in the navigation menu.
- 2 | In the toolbar, select .
- 3 | Select  **Add image** to add a new background image.
- 3.1 | Select one of the available background images.
- 3.2 | Select  **No image** if you do not want to use a background image.



Background images are inserted in the centre of the view and scaled to fill the display area.



Background images should be in landscape format and not too large. The recommended image width is between 1000 and 2000 pixels.

It is recommended that you use the same image size for all image files used in the **View** menu.



To edit image files later, save the configuration as a file and open the images saved in the subfolder with an image editing program of your choice. After editing, save the images under new names and load them into the Editor as new background images to replace the old ones.

However, cropping background images may cause items present in the configuration to be displaced on the background image after image editing.



If configuration files are moved to a different storage location, the subfolder containing the image files used must also be moved accordingly.

5.2.3 Loading, managing and applying configurations

1 | Connect to the testo Saveris server.

▶ | The view of the current system configuration is displayed in the **View** menu.

2 | Select **View | File | Open file** in the menu to open a previously saved configuration.

2.1 | Select **Welcome | Open file** in the menu or select a file from the list of recently used files to open a previously saved configuration.

▶ | The opened configuration can now be edited.

▶ | Upload the current configuration in the testo Saveris Editor to the Saveris database by clicking the **Upload changes** button.



When uploading to the testo Saveris server, the system is immediately active.



The Saveris Editor keeps track of which changes have been uploaded to the server by the user and which changes still need to be uploaded.

This information is also stored in the files that the user saves in the Editor.

When loading a file while connected or connecting while a file is being loaded, the list of local changes is compared with the changes on the server and the content displayed in the Editor is updated if necessary.

5.2.4 Managing items

- 1 Select **Views** in the navigation bar.



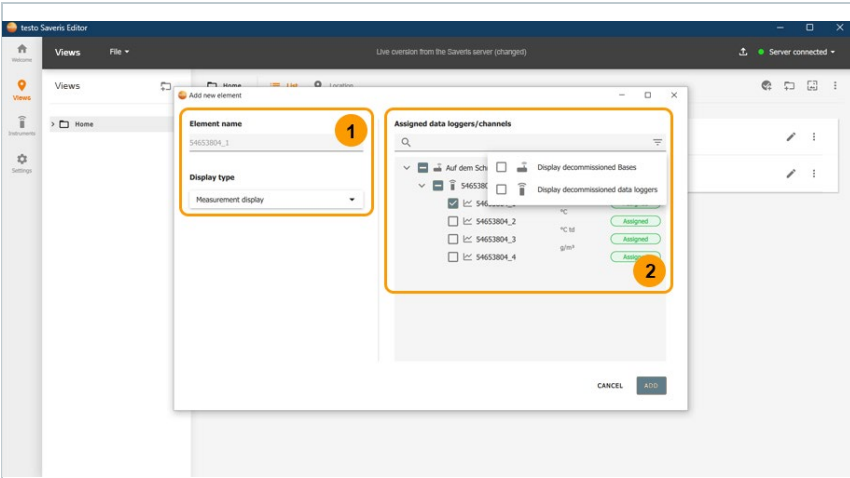
Elements can be moved in the **Views** using drag & drop. If conflicts arise, testo Saveris Editor indicates these and offers recommendations for action.


You can manage items in the **List view** or in the **Location view**.

Display	Explanation
	Alarm Icon The statuses of measuring points/channels are displayed in the Views menu in green, yellow or red.
	Link + Info Box Generates a Click Area that allows users of the Infograph View in the Views menu to interactively access a subsequent view.
	Infobox only The user can use this function to determine where the info box is fixed to the background. The info box is a field with information about the measuring points contained in the subview. This information is not displayed in the testo Saveris Editor, but only on the web-based Saveris user interface.

5.2.5 Adding elements

- 1 In the **View**, top right, click on **Add new element**.
 - ▶ A window containing the list of alarm sources opens automatically.



1	Specify a name and select the display type.	2	Select one or more channels to link to the element.
	Option to show or hide inactive projects or channels.		


- 2 Drag and drop the element that appears to the desired position in the **Editing area** of the **Location** view.

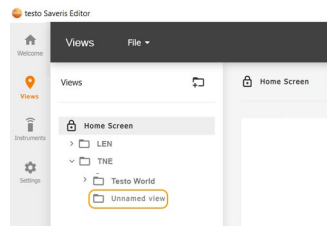


The search bar allows you to search for instruments/channels by serial number, instrument name, channel name or project name

5.2.6 Adding and configuring a view


Adding a view

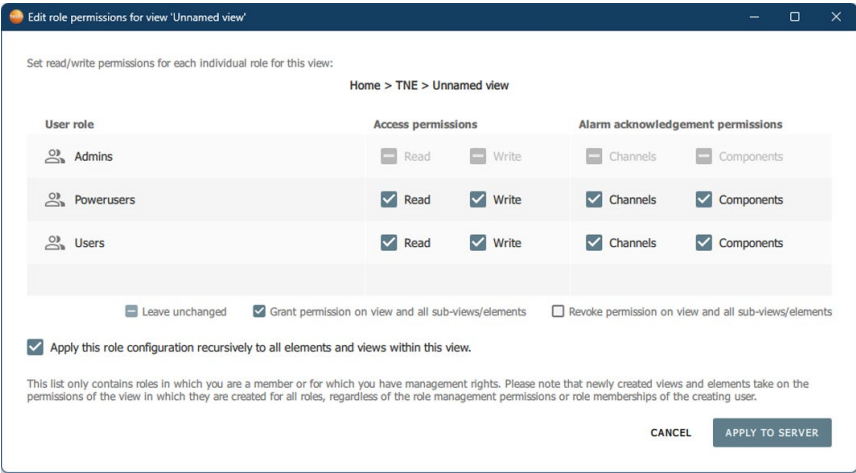
- 1 In the **View** menu, click on the  symbol.
- ▶ The **Add new element** window opens.
- ▶ The new view is displayed below the current view in the **navigation bar**.



Assigning permissions








Individual authorizations can be defined for the various user roles for each view:

- Read and write permissions for the view
 - Authorization to confirm alarms for the associated channels and/or components.
- 1 Click on the  symbol next to the view name and select **Manage permissions**.
- ▶ The **Edit role permissions** window opens.



Set read/write permissions for each individual role for this view:

Home > TNE > Unnamed view


User role	Access permissions		Alarm acknowledgement permissions	
 Admins	 Read	 Write	 Channels	 Components
 Powerusers	<input checked="" type="checkbox"/> Read	<input checked="" type="checkbox"/> Write	<input checked="" type="checkbox"/> Channels	<input checked="" type="checkbox"/> Components
 Users	<input checked="" type="checkbox"/> Read	<input checked="" type="checkbox"/> Write	<input checked="" type="checkbox"/> Channels	<input checked="" type="checkbox"/> Components

☐ Leave unchanged ☒ Grant permission on view and all sub-views/elements ☐ Revoke permission on view and all sub-views/elements

☒ Apply this role configuration recursively to all elements and views within this view.

This list only contains roles in which you are a member or for which you have management rights. Please note that newly created views and elements take on the permissions of the view in which they are created for all roles, regardless of the role management permissions or role memberships of the creating user.

CANCEL APPLY TO SERVER

- 2 Use the checkboxes to specify which authorizations the individual user roles should have within this view.
- ☒ : Authorization is granted.
 -  : Authorization setting remains unchanged.
 - ☐ : Existing authorizations are revoked.



If elements and/or sub-views exist for a view, the authorization changes can be applied to the entire subtree of the view by activating the “Apply this role configuration recursively to all elements and views” checkbox.

- 3 Click **[Apply to server]** to save the information.

5.2.7 Creating links

In addition to the alarm icon, there are two other display options for displaying subviews within a view (these are not available for elements):

- Info box only

- Link + info box

The **Link + Infobox** type allows you to define a rectangular area on the background image which, when clicked, will directly open the corresponding view.

- 1 Click on an item or a view in the editing area, or on the pencil icon in the list view.
- 2 Under Display type, select either **Alarm icon**, **Link + info box** or **Info box only**.
- 3 If you select **Alarm icon**, it will appear in the **Editing area** and you can move it to the required position.
- 4 Select **Link and info box** or **Info box only** to add an info box to the click area or create only an info box without an associated click area.
- 5 Under **Info box anchor**, select which side of the info box to use as a fixed anchor point on the background image.
Info boxes contain information about alarms that are in the link view.
- 6 If required, the **Element name** can be changed. The entry is accepted automatically.
- 7 You can drag and drop the displayed element to the desired position in the editing area.

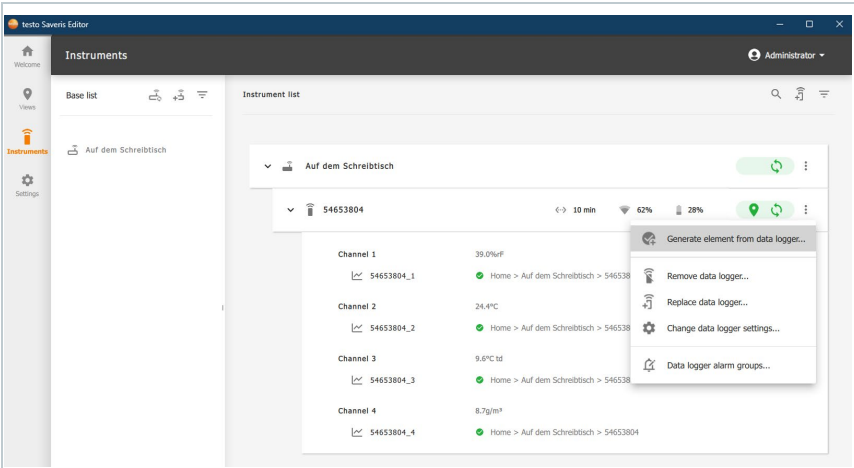








For views, the list of **Assigned Data Loggers/Channels within this view** contains an overview of all loggers/channels assigned to elements in this view or to elements of subviews. This list cannot be changed (unlike items), as it only provides an overview.

5.3 Saveris Editor – Instruments overview








In the **Instruments** menu, you can check which data loggers are assigned to which view elements.

New, pre-configured Bases and data loggers can also be added to the system.






	Opens the backup menu.		Adds a logger to the selected Base.
	Adds a new Base to the system by entering its IP address.		Searches through the created instruments.
	Displays or hides inactive projects or channels.		Opens the context menu with further options for the selected Base or logger.

Additional options for the selected Base:

	Opens the dialogue for creating a new view for the selected Base.		Opens the dialogue for selecting the directory in which the files for a firmware update are stored.
	Opens the dialogue for managing permissions.		Opens the dialogue for changing the Base settings.
	Removes the selected Base from the project.		Opens the menu to create a base backup.
	Opens the dialogue for configuring the alarm groups for the Base resp. the logger		

Additional options for the selected logger:

	Creates a new view element for the respective data logger.		Removes the selected logger from the project.
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	Opens the dialogue for replacing a logger. The dialogue lists all connected loggers that can be considered as replacements.		Opens the dialogue for changing the logger settings. Instrument names, measurement/communication cycle and logger channels can be changed via this dialogue.
	Opens the dialogue for configuring the alarm groups for the logger		



If data loggers were previously decommissioned without deleting their measurement data, it is possible to link them to one of these existing measurement series using the “Connect to measurement series” function when creating a new data logger.

5.3.1 Add testo Saveris 1 Base

Use this menu item to add a new testo Saveris 1 Base to the system.


- ✓ The new Base must be preconfigured so that it can be added in the testo Saveris Editor.
- 1 In the **Instruments** menu, click on .
- ▶ The **Connect new Base** window opens.
- 2 Enter the Base URL.
- 3 Click on **[Connect Base]** to connect the new Base to the system.
- 4 In the window **Base configuration** set the Base name and if required make further settings.
- 5 Click on **[Add Base]** to add the new Base to the system.

Designation	Explanation
Base URL	Address at which the Base can be reached in the network.
Serial number	Serial number of the testo Saveris 1 base.
Firmware	Version number of the instrument software in the testo Saveris 1 base.
URL	Address at which the Base can be reached in the network.
Base name	User-defined Base name

Designation	Explanation
Temperature units	Selection of the unit in which the temperatures are to be displayed.
Base time zone	Setting for the time zone in which the testo Saveris 1 Base records the data.
Deactivate alarming based on schedule	Option to create a schedule in which no alarms are to be sent, e.g. switch off at the weekend.
Commission Base in read-only mode	Option to configure the base in read-only mode. Measurement and status data then are being fetched from the base, but no write operations can be performed. Clock synchronization is disabled and configuration changes cannot be applied.

5.3.2 Settings for the testo Saveris 1 Base


Use this menu item to adjust the settings for the testo Saveris 1 Base.

- 1 In the **Instruments** menu, click on  in the row of the Base and open **Base settings**.
- ▶ The **Change Base settings** window appears.
- 2 Make the desired changes, e.g. deactivate alarm messages for certain times.
- 3 Click on **[Apply Changes]** to save the settings.

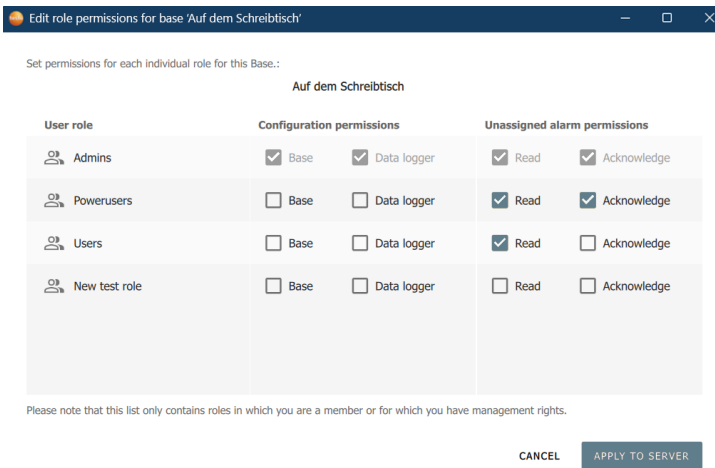
Designation	Explanation
Serial number	Serial number of the testo Saveris 1 base.
Firmware	Version number of the instrument software in the testo Saveris 1 base.
URL	Address at which the Base can be reached in the network.
Base name	User-defined Base name
Temperature units	Selection of the unit in which the temperatures are to be displayed.
Base time zone	Setting for the time zone in which the testo Saveris 1 Base records the data.
Deactivate alarming based on schedule	Option to create a schedule in which no alarms are to be sent, e.g. switch off at the weekend.
Base communication	

Designation	Explanation
Active	Measurement and status data are being fetched from the base, clock synchronization is active and configuration changes can be applied.
Read-only	Measurement and status data are being fetched from the base, but no write operations can be performed. Clock synchronization is disabled and configuration changes cannot be applied.
No synchronisation	Measurement and status data are NOT being fetched from the base and clock synchronization is disabled. However, configuration changes can be applied to the base.
No communication	There is no configuration with the base. No data is being fetched and no configuration changes can be applied.

Assigning permissions





- 1 Click on the  symbol next to the Base name and select **Manage permissions**.

- ▶ The **Edit role permissions** window opens.



Set permissions for each individual role for this Base.:

Auf dem Schreibtisch


User role	Configuration permissions		Unassigned alarm permissions	
 Admins	<input checked="" type="checkbox"/> Base	<input checked="" type="checkbox"/> Data logger	<input checked="" type="checkbox"/> Read	<input checked="" type="checkbox"/> Acknowledge
 Powerusers	<input type="checkbox"/> Base	<input type="checkbox"/> Data logger	<input checked="" type="checkbox"/> Read	<input checked="" type="checkbox"/> Acknowledge
 Users	<input type="checkbox"/> Base	<input type="checkbox"/> Data logger	<input checked="" type="checkbox"/> Read	<input type="checkbox"/> Acknowledge
 New test role	<input type="checkbox"/> Base	<input type="checkbox"/> Data logger	<input type="checkbox"/> Read	<input type="checkbox"/> Acknowledge

Please note that this list only contains roles in which you are a member or for which you have management rights.

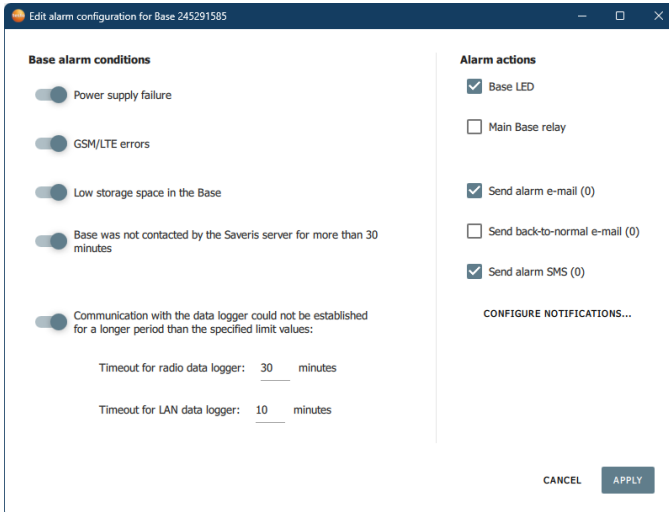
CANCEL APPLY TO SERVER

- 2 Specify what permissions the individual user roles should have for this Base.
- 3 Click **[Apply to server]** to save the information.

Defining alarm settings for the Base

- 1 Click on the  symbol next to the Base name and select **Base alarm configuration**.

- ▶ The **Edit alarm configuration** window opens.



Setting options for the alarms of the testo Saveris 1 Base:

- Power supply failure: Alarm when the Base power supply fails.
- GSM/LTE errors: Alarm when there is no GSM/LTE connection.
- Low storage space in the Base: Alarm when the Base's internal memory overflows.
- Base was not connected to the testo Saveris 1 server for more than 30 minutes.
- Communication with the data logger could not be established for a longer period than the specified limit values.

- 2 Define the situations in which the Base should trigger an alarm and how the alarm should be triggered (e.g. Base LED, signal tone or notifications via e-mail or SMS).


- 3 Use the **Configure Notifications** link to specify who should receive the Base alarms.

- ▶ The **Notification settings** window opens.
In addition to the recipients, the SMS and e-mail notification texts can be set.

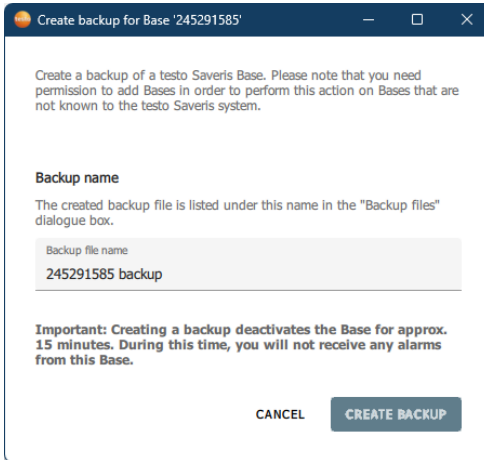
- 4 Click **[OK]** to confirm the notification details.

- 5 Click **[Apply]** to save the alarm settings.

Creating a Base backup


- 1 In the **Instruments** menu, click on  in the row of the Base and open **Create base backup**.

- ▶ The **Create base backup** window opens.

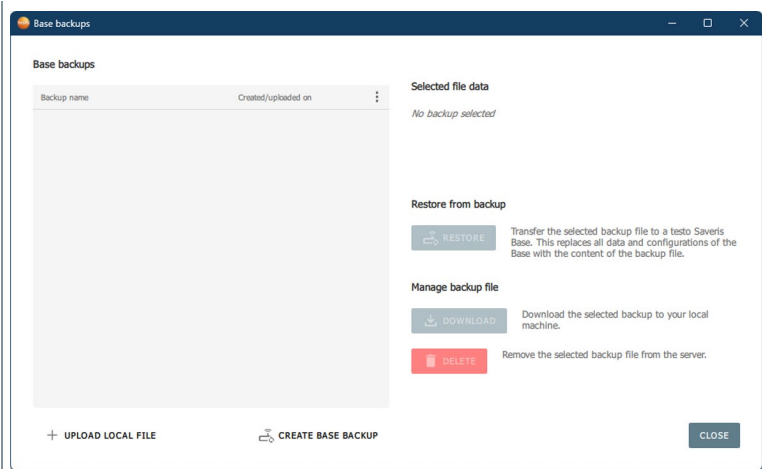


- 2 Enter the name of the backup to be created.
 - 3 Click **[Create backup]** to start creating the backup.
- ▶ It takes about 15 minutes to create a Base backup. During this time, the Base will not communicate with the Saveris system.
The Base backup file is stored on the server and can be accessed via the webbased user interface.

Restoring a Base backup

- 1 In the **Instruments** menu, click on the  symbol.

- ▶ The **Base Backups** window opens.





If backup files already exist, they will be displayed in the list for you to restore, download locally or delete.


- 2 Select the backup you want to restore.
- 3 Click **[Restore]** to start restoring the backup.
- ▶ The restore replaces all data and configurations of the base with the content of the backup file.

5.3.3 Add data logger

Use this menu item to add new data loggers to the system.


- ✓ The new data loggers must be preconfigured so that they can be added in the testo Saveris Editor.
- 1 In the **Instruments** menu, click on .
- ▶ The **Add data logger** window opens.
A list of the new data loggers connected to the Base is displayed.
- 2 If required, filter the displayed loggers by Base and logger type and make the desired settings.
You can use the symbol  (**Show or hide columns**) to customize which settings are displayed.



The button  in the optional **Remove** column can be used to remove a data logger from the base without having put it into operation


beforehand. This may be necessary if the data logger is to be operated on a different base after all or if an incorrect sensor configuration is to be subsequently corrected.

- 3 Click on **[Add Data Logger]** to add the new data logger(s).

Designation	Explanation
Base	Specify which Base each data logger is connected to.
Activate	Select the data loggers to be commissioned.
Serial number	Serial number of the data logger
Data logger type	Name of the logger type
Data logger name	User-defined data logger name.
Measurement interval	Interval at which a new reading is stored in the testo logger.
Alarm level measurement interval	Interval at which measurements are to be taken when the limit value is exceeded.
Connection route	For V2 data loggers, specify the router used to connect to the Base.
Add channel	By default, all available channels of a logger are displayed during commissioning, but if not all channels are required, they can be deactivated using Add Channel
Channel	Serial number of the measurement channel.
Unit	Indicates which measurement parameter is measured in the respective channel.
Channel name	User-defined measurement series name.
Connect to measurement series	With the default setting of "Create new series", a new measurement series is created for the data logger. Use the selection list to select unused measurement channels with the same unit in order to connect new data loggers to existing measurement series.
TC type	Indicates the type of temperature probe.
Analogue converter	Information about any analog coupler used.
Remove	The button  removes a data logger from the base, even if it has not yet been put into operation.

5.3.4 Data logger settings

This menu item allows you to adjust the data logger settings.

- 1 In the **Instruments** menu, click on  in the row of a data logger and open **Change data logger settings**.
- ▶ The **Change data logger settings** window opens.
- 2 Make the desired changes, e.g. change the preset values in the **Instrument name** and **Channel** fields if necessary.
- 3 Enter the **Measuring rate** and specify the unit.



The measuring cycle determines the intervals at which a new reading is stored in the testo Saveris 1 Base.


- 4 Click on **[Apply Changes]** to save the settings.

Designation	Explanation
Serial number	Serial number of the data logger
Data logger type	Name of the logger type
Firmware version	Version number of the data logger's instrument software
Instrument name	User-defined data logger name.
Activate data logger alarm LED during alarm state	Specifies whether the alarm LED on the data logger should be active in the event of an alarm.
Default measurement interval	Interval at which a new reading is stored in the testo logger.
Use default measurement interval for alarm levels	Specifies whether the default measurement rate should also be used in the case of an active alarm or whether a shorter interval should be used.
Battery type	Selection list of the battery type used in the data logger.
Alternate measurement rate for limit monitoring	Interval at which measurements are to be carried out if the limit value is exceeded (field is only displayed if the "Default measurement rate" checkbox is deactivated).


Designation	Explanation
Use default communication interval	Specifies that the default communication rate will be used. It is highly recommended that you do not deactivate this setting.
Communication rate	Interval at which data transmissions should take place (field is only displayed if the "Default communication rate" checkbox is deactivated).
Data logger channels	List of measurement channels connected to the data logger.
Slot	For tests 150 data loggers this column displays in which slot the probe of this channel is located.
Channel	Serial number of the measurement channel.
Unit	Indicates which measurement parameter is measured in the respective channel.
Measurement series name	User-defined measurement series name.
Device display	Specifies whether measured values should be shown on the logger display.
TC type	Indicates the type of temperature probe.
Analogue coupler details	Details of any analog coupler used.
MUF power	Details of the supply voltage of connected transmitters.

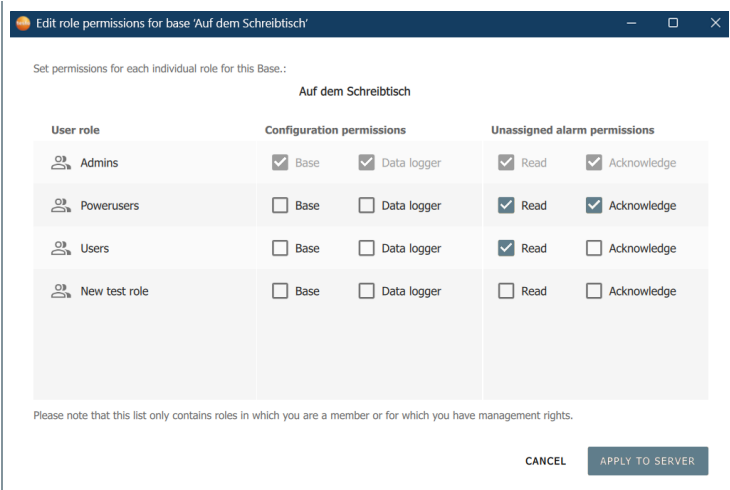


The table **Data logger channels** by default doesn't show all available columns.

By clicking on the symbol  at the end of the title row, further columns can be shown.

Assigning permissions

- 1 Click on the  symbol next to the logger name and select **Manage permissions**.
- ▶ The **Edit role permissions** window opens.



- 2 Specify what permissions the individual user roles should have for this Base.
- 3 Click **[Apply to server]** to save the information.

Defining alarm settings for data loggers

- 1 Click on the symbol next to the logger name and select **Logger Alarm group**.
 - ▶ The **Edit alarm groups** window opens.
- 2 If no alarm groups have been created, specify whether a channel-related or instrument-related alarm group is to be created.
- 3 Specify settings for the alarm group.

Edit alarm group for data logger '54653806'

Unnamed group Unnamed group (2)

Alarm group name
Unnamed group (2)

Alarm group status
☒ Active ☐ Paused

Retrigger alarm after acknowledgement
☒ No retriggering before the normal state
☐ Waiting time in minutes: 0

Exceedances before the alarm is triggered
☒ Trigger immediately
☐ Wait for the following number of exceedances: 0

Assigned data logger channels

Channel	Value	Unit
<input checked="" type="checkbox"/> 54653804_1	20.1	°C
<input checked="" type="checkbox"/> 54653804_2	12.0	°C/d
<input checked="" type="checkbox"/> 54653804_3	10.4	g/m³
<input checked="" type="checkbox"/> 54653804_4		

Alarm conditions (4)

Active	Alarm condition type	Limit value	Unit
<input checked="" type="checkbox"/>	Alarm: Calibration expired		
<input checked="" type="checkbox"/>	Alarm: Sensor error		
<input checked="" type="checkbox"/>	Lower alarm limit value	16	°C
<input checked="" type="checkbox"/>	Upper alarm limit value	24	°C

Alarm actions
☒ Base LED
☐ Main Base relay
☒ Send alarm e-mail (0)
☐ Send back-to-normal e-mail (0)
☒ Send alarm SMS (0)

[CONFIGURE NOTIFICATIONS...](#)

REMOVE ALARM GROUP **CANCEL** **APPLY**

Bases, data loggers and their channels can be individually assigned to the alarm groups.

Limit values can be defined for the measurement channels, which will trigger alarms if they are exceeded or undershot.



When changing alarm limits in alarm groups for testing or validation purposes, proper alarm function must be verified after resetting to the original limit. To do this, a physical measurement value violation must be provoked on the sensor.

- 4 Use the **Configure Notifications** link to specify who should receive the alarm group's alarms.
- ▶ The **Notification settings** window opens.
In addition to the recipients, the SMS and e-mail notification texts can be set.
- 5 Click **[OK]** to confirm the notification details.
- 6 Click **[Apply]** to save the alarm settings.

5.4 Saveris Editor – Settings

5.4.1 Making general settings

The **Settings** menu can be used to select the application language in the testo Saveris Editor and to activate the log function on the instructions of Testo Customer Service.

- 1 | Select the **General** category.
- 2 | Select **Application language**.
 - ▶ The language can either be selected manually or automatically based on the operating system language.
- 3 | Click on **Time format** to choose between 12-hour and 24-hour format.
- 4 | Click on **Write log file** to log the activities of the testo Saveris Editor (deactivated by default).



This function should only be activated on the instructions of Testo Customer Service.

- ▶ The **Settings** menu also displays the currently installed version of testo Saveris Editor.

5.4.2 Making network settings

Use the **Settings** menu to make settings for the network connection in the testo Saveris Editor.

- 1 | Select the **Network** category.
- 2 | If necessary, change the settings for the HTTP timeout and the behaviour in the event of incorrect certificates.



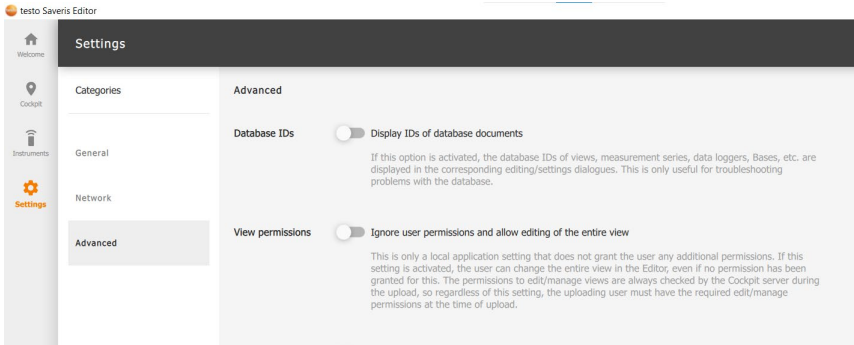
Only change the HTTP timeout value if you are experiencing connection problems based on HTTP timeouts.

- 3 | If required, change the settings for the status update interval under **Realtime Measurements** or **Live Logger Status**.

5.4.3 Advanced settings

Additional support functions can be activated via the **Settings | Advanced** menu in consultation with testo Customer Service.

- 1 | Select the **Advanced** category.



- 2 **Database IDs** can be used to activate the display of database IDs in editing/settings dialogues.
- 3 **View permissions** can be used to allow users to change the entire view in the Editor, even if the users have not been given permission to do so. However, the changes made may not then be uploaded to the testo Saveris 1 server.
- 4 Incomplete firmware updates can be allowed via **Firmware Update** (deactivated by default).



Only complete firmware updates should be carried out.

Therefore this function should only be activated on the instructions of Testo Customer Service.

- 5 Advanced configuration parameters for the Base can be activated via **Base configuration**.

6 Saveris – Web-based user interface

When monitoring measurement data in stationary applications, the testo Saveris 1 software gives you a quick overview of all measuring points and alarms within your area of responsibility and allows you to acknowledge alarms. The web-based user interface is designed for operation via mouse-click and gesture control on touch screens, including smartphones and tablets.



The hierarchical structure, visible content and user rights are adapted by the Administrator during setup and may differ from the illustrations shown here.

6.1 Accessing the Saveris user interface

- 1 Open testo Saveris 1 in your web browser.
- 2 Log in with your personal **User Name** and **Password**.
- 3 Click on the user profile to make the following settings via the **Account Settings**:
 - **Profile settings**
Here you can change the displayed user name as well as your e-mail address and telephone number.
 - **Change password**
You can set a new password by entering your current password.
 - **Language**
Here you can change the languages displayed in Saveris 1 and the language in which you receive e-mails from Saveris 1.
 - **Timezone**
Time zone in which the data in Saveris 1 is displayed.
 - **Units**
Indicates the system of units in which the data in Saveris 1 is displayed.
 - **Chart settings**
Indicates the default time period for the charts to display the data.
- 4 Exit testo Saveris 1 by closing the tab of your web browser or by selecting **Logout** in the user profile.

6.2 Views

Choose between two display types: **List view** (tabular display) and **Plan view** (graphical display).

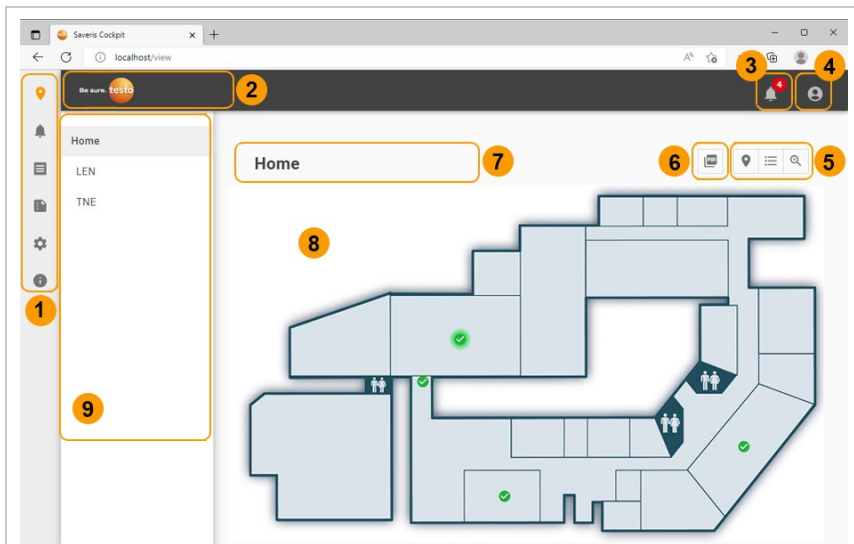


List view can always be used. Switching between **List view** and **Plan view** requires appropriate preparation by the administrator (e.g. provision of floor plans).

Toolbar

Display	Explanation
	List view
	Plan view
	Measuring point without active alarm Measuring points without active alarms
	Number of unacknowledged alarms

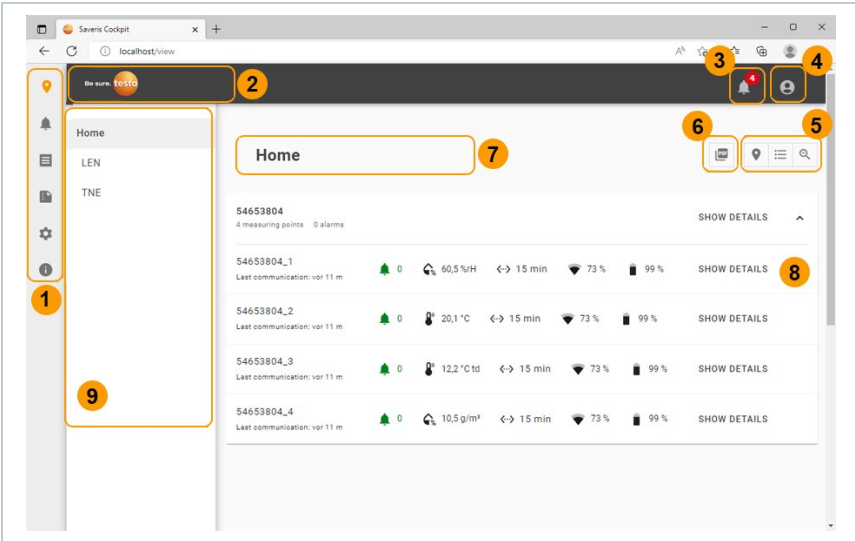
6.2.1 Plan view



1	Navigation menu	6	Report
2	Logo (configurable)	7	Measuring point/channel or group of measurement channels
3	Active alarms	8	Site plan / floor plan
4	User profile	9	Side bar

5 Switch between **List view/Plan view/Detail view**

6.2.2 List view

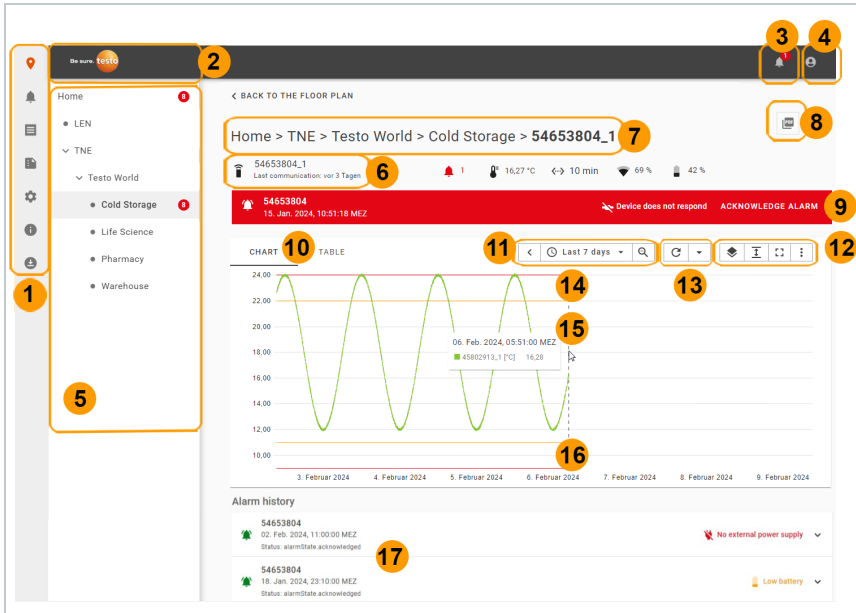


1	Navigation menu	6	Report
2	Logo (configurable)	7	Measuring point/ channel or group of measurement channels
3	Active alarms	8	Measuring point/channel or group of measurement channels with current reading
4	User profile	9	Side bar
5	Switch between List view/Plan view/Detail view		



In **List view**, alarms are always displayed at the top, before the warnings.

6.2.3 Detail view



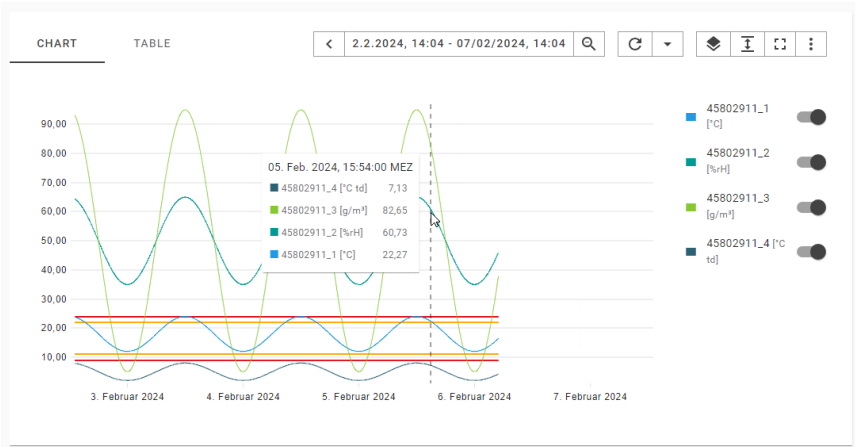
1	Navigation menu	10	View toggle (chart/table)
2	Logo (configurable)	11	Scaling of the x-axis
3	Notification center	12	Chart view customization settings
4	User profile	13	Display interval and updating
5	Side bar	14	Upper limits for pre-alarm/warning (orange) and alarm (red)
6	Measurement channel	15	Individual value
7	Path	16	Lower limits for pre-alarm/warning (orange) and alarm (red)
8	Report generation option	17	Alarm history
9	Channel-related alarm		



The chart can be zoomed. Individual readings on the curve can be accessed by moving the mouse over it.

Configuring the chart and table view

In the chart and table view, you can customize the display and the time period displayed to suit your needs.










Display	Explanation
Last 7 days ▾	Set the data display time period
	Scroll forwards or backwards on the timeline by the set time period
	Double the displayed time period
	Manually refresh the view
	Open auto-refresh settings
	Show and hide chart components: <ul style="list-style-type: none">○ Tool tips○ Alarms○ Alarm thresholds○ Auxiliary lines
	Scales the chart to the readings and/or alarm thresholds
	Show chart or table in full screen
	Opens the settings to change the colours of the data sequences

6.3 Navigation

6.3.1 Navigating via the navigation menu

Select an icon from the navigation menu to switch to the respective submenu.

Display	Explanation
	View
	Alarms
	Audit
	Reports
	Settings
	System information
	Programs and documentation downloads

6.3.2 Navigating via the Side-Bar

The **Side-Bar** to the right of the navigation menu displays your area of responsibility as a hierarchical tree structure. Select items interactively in the **Side-Bar** to move to the appropriate position within your area of responsibility.

6.3.3 Navigating via the path

You can trace your navigation back using the path highlighted above. Interactively select any element of the path to return to a previous view.

6.3.4 Navigating via browser bookmarks

In your browser, you can **bookmark** paths to efficiently navigate to frequently-used views.

6.3.5 Navigation within the List view

Interactively select any element in the **List view** to view individual data logger channels and to go to the **Detail view**.

6.3.6 Navigation within the Plan view

Interactively select elements in the **Plan view** menu to access substructures of your area of responsibility and to view individual data logger channels.



Channels are displayed aggregated as a group in the **List view** and the **Plan view**. Following interaction, the individual channels and current readings become visible. Use **[DISPLAY DETAILS]** to access the **Detail view** for the channel.

45802911

vor 3 Tagen

Channel: 45802911_2

Measuring values

Latest value: 45.99 %rH

×

DISPLAY DETAILS

< BACK TO OVERVIEW

6.4 Alerts



Alarms and pre-alarms (warnings) are displayed in the **List View** and in the **Infograph View**, and each of these has a specific reference to data loggers and sensors (channel-specific alarms).

In addition, other system alarms that are not channel-specific are listed in the **Notification Center** and the **Alarms** menu.




6.4.1 Symbols and descriptions

Channel-specific alarms when limit values are exceeded










Pre-alarm (warning)	Alarm	Description
		Status of the channel or group of channels
		Channel measuring value: Temperature
		Channel measuring value: Humidity
		Alarm status: Upper limit exceeded



Pre-alarm (warning)	Alarm	Description
		Alarm status: Lower limit not reached

Channel-specific system alarms

Alarm	Description
	System alarm
	Calibration date
	Sensor error

Other types of system alarms

Alarm	Description
	System alarm
	Low Memory
	Memory full
	Connection Status
	Power Supply
	Battery low
	Battery defect
	GSM not available
	GSM queue full

Alarm	Description
	GSM module failed
	Base unreachable

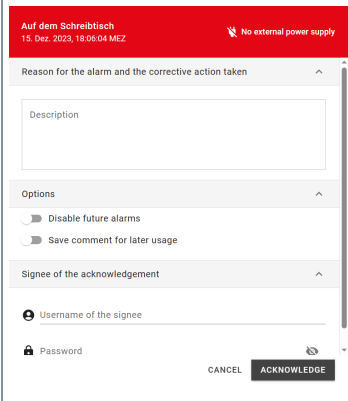
6.4.2 Acknowledging alarms

testo Saveris 1 allows alarms to be acknowledged in accordance with 21 CFR Part 11. Permission to acknowledge is established by the Administrator for individual users.

A channel-related alarm or pre-alarm is acknowledged via **Detail View**. You can access this via the menu item **List view** or **Plan view** by interactively selecting the relevant channel. Alternatively, you can access the **Detail View** by selecting the alarm or pre-alarm in the **Notification Center**.

- 1 Click on **[Acknowledge]** to acknowledge.
- 2 Enter a comment (**Description**).
- 3 If required, authenticate yourself using your **User Name** and **Password**.

Whether this authentication is required depends on the configuration of the particular alarm.



The screenshot shows a mobile application interface for acknowledging an alarm. At the top, a red status bar displays 'Auf dem Schreibtisch' and '13. Dez. 2023, 18:06:04 MEZ'. Below this, a red banner indicates 'No external power supply'. The main section is titled 'Reason for the alarm and the corrective action taken'. It contains a text input field for 'Description'. Below the input field, there are two toggle switches under the heading 'Options': 'Disable future alarms' (which is currently turned on) and 'Save comment for later usage' (which is currently turned off). At the bottom, there is a section for 'Signee of the acknowledgement' with a text input field for 'Username of the signee' and a password field labeled 'Password'. The bottom right corner features two buttons: 'CANCEL' and 'ACKNOWLEDGE'.

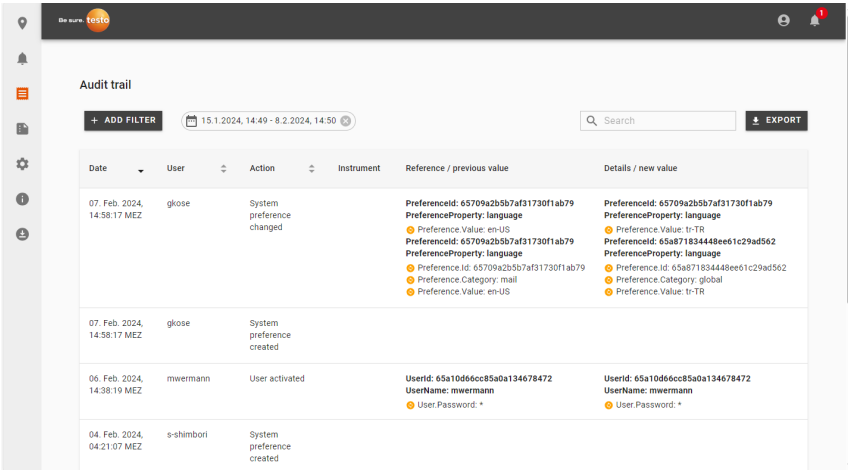
- 4 Click **[Acknowledge]** to complete the entry.

6.5 Audit trail

In addition to the restriction of authorized users, the possibility of granting differing rights and the safeguarding of stored reports by means of access limitations to the archiving area, audit trails constitute another major pillar for verifiably securing saved pdf reports.

The Saveris audit trail in particular captures entries that can be directly allocated to an electronic record.

Creating or saving electronic records and tracking any changes made to these data during the archiving period are relevant here.



The screenshot shows the 'Audit trail' section of the Saveris web interface. It includes a sidebar with navigation icons, a top header with the 'De euro testo' logo, and a main content area. The main area has a filter button '+ ADD FILTER', a date range selector '15.1.2024, 14:49 - 8.2.2024, 14:50', a search bar, and an 'EXPORT' button. Below these is a table with the following data:

Date	User	Action	Instrument	Reference / previous value	Details / new value
07. Feb. 2024, 14:58:17 MEZ	gklose	System preference changed		PreferenceId: 65709a2b5b7af31730f1ab79 PreferenceProperty: language Preference.Value: en-US PreferenceId: 65709a2b5b7af31730f1ab79 PreferenceProperty: language Preference.Id: 65709a2b5b7af31730f1ab79 Preference.Category: mail Preference.Value: en-US	PreferenceId: 65709a2b5b7af31730f1ab79 PreferenceProperty: language Preference.Value: fr-FR PreferenceId: 65a871834448ee61c29ad562 PreferenceProperty: language Preference.Id: 65a871834448ee61c29ad562 Preference.Category: global Preference.Value: fr-FR
07. Feb. 2024, 14:58:17 MEZ	gklose	System preference created			
06. Feb. 2024, 14:38:19 MEZ	mwermann	User activated		UserId: 65a10d66cc85aba134678472 UserName: mwermann User.Password: *	UserId: 65a10d66cc85aba134678472 UserName: mwermann User.Password: *
04. Feb. 2024, 04:21:07 MEZ	s-shimbori	System preference created			

The Saveris audit trail contains the following information relating to the events mentioned:

- Date/Time (when was a system change made?)
- User (who made the change?)
- Action (what was done/changed?)
- Instrument (specification of the serial number and channel of the Saveris component concerned)
- Reference/Previous (Depending on the audit trail, the indices of the signed actions or the previous value of the entry are displayed here)
- Details/New (Depending on the audit trail, the reason for the signature or the new value of the entry is displayed here)

The Saveris Audit Trail can be filtered by category and exported as a PDF or CSV file for user-defined time periods.

6.6 Reporting

testo Saveris 1 allows you to create one-off reports and also to configure automatic reports.



Requests to sign reports are only sent to users who have already logged in at least once when roles are assigned via Active Directory groups.

6.6.1 Creating manual reports

- 1 In the **Reports | Report list** menu, select the **Create Report** button.
▶ The **One-Off Report Settings** window is displayed.

One-off report settings

Select report sources

report.labelName
Report for 45802913_1, 45802913_2, 45802913_3, 45802913_4, 45802914_1, 45802914_2, 458029

Home

LEN

☒ TNE

☒ Testo World

☒ Cold Storage

☒ Life Science

☒ Pharmacy

☒ Warehouse

Reporting period

Absolute time span

From
15/02/2024 11:33

To
16/02/2024 11:33

APPLY TIME SPAN

Time zone: Europe/Berlin (UTC+1)

Search quick ranges

Last hour

Last 3 hours

evaluation.last12Hours

evaluation.last24Hours

evaluation.last2Day

Last 7 days

evaluation.last14Days

Last 30 days

PDF sections

Custom logo

Signature

CANCEL

CREATE REPORT

- 2 Select the data source and reporting period.
- 3 In the PDF sections drop-down menu, select which layout modules the report should contain.
▶ The following predefined layout modules can be selected:
 - **CFR cover sheet**
Cover sheet for reports compliant with FDA-21CFR11
 - **Onepager**
Statistics on the selected sources and visualization of measurement and limit values for a period of time
 - **Statistics**
Table with statistical values of multiple sensors
 - **Graph**
Visualization of sensor measurement and limit values for a given time period
 - **Table**
Table of detailed values from multiple sensors
 - **Alarm**
Table of system and sensor alarm data

- **Audit**
Table of audit entries
- 4 If required, define a customized logo for the report.
- 5 Choose whether to add one or more signature lines and whether to password-protect the PDF file.
- 6 Select **Create report**.
- ▶ The report is created as a PDF file.

6.6.2 Creating automatic reports



The **Automatic reports** function is only available if it is included in the user role assigned to your user.

- 1 Select **Reports** | **Automatic reports** from the menu.
- ▶ The **Automatic reports** page is displayed and shows the list of automatic reports already created.
- 2 Select **Create automatic report**.
- ▶ The **New Automatic Report** window opens.

New automatic report

Name *

New automatic report

Content

Format

☒ Create PDF ☐ Create CSV

Sources

45802913_1 45802913_2 45802913_3 45802913_4

SELECT REPORT SOURCES

Layout

PDF sections

☒ CFR cover sheet
Cover sheet for FDA 21CFR11 compliant reports

☐ One-Pager
Statistics about the selected sources and visualization of values and limits for a period of time

Statistics

- 3 Enter a title for the report under **Name**.

- 4 | Select the file format (PDF, CSV or PDF and CSV).
- 4 | Select **Select Report Sources** to specify the data channels for which the report will be created.
- 5 | In the PDF Sections drop-down menu, select which layout modules to include in the report and whether to enable signature lines, logo and password protection.
 - ▶ The following predefined layout modules can be selected:
 - **CFR cover sheet**
Cover sheet for reports compliant with FDA-21CFR11
 - **Onepager**
Statistics on the selected sources and visualization of measurement and limit values for a period of time
 - **Statistics**
Table with statistical values of multiple sensors
 - **Graph**
Visualization of sensor measurement and limit values for a given time period
 - **Table**
Table of detailed values from multiple sensors
 - **Alarm**
Table of system and sensor alarm data
 - **Audit**
Table of audit entries

The screenshot shows the 'Automatic reports' configuration page in the testo Saveris 1 web interface. The sidebar on the left contains navigation icons for Reports, Automatic reports, and other functions. The main content area is titled 'Custom logo' and contains the following sections:

- Signature:** Includes a button 'CHOOSE A CUSTOM LOGO FOR THIS REPORT', a dropdown for 'Electronic signing mode', and a 'No signature' option.
- Distribution:** Includes a 'Schedule' section with the text 'starting on 16. Feb. 2024, until 29. Feb. 2024, at 11:00, every 2 days' and an 'EDIT SCHEDULE' button.
- Recipients:** Includes a dropdown menu for 'Recipients'.
- Roles that are authorised to edit this automatic report:** Includes a section 'Roles to add' with a dropdown menu showing 'Landesgesellschaft'.

At the bottom of the form, there are three buttons: 'BACK', 'RESET', and 'SAVE'.

- 6 Under **Distribution**, select the schedule according to which the report will be created and distributed
- 8 Under **Distribution**, enter details of the required creation times and report recipients.
- 9 Under **Roles that are authorised to edit this automatic report**, specify which user roles are authorized to change the report settings.
- 10 Select **Save**.
 - ▶ The configuration for the automatic report is saved.

6.7 Settings

Various settings menus in the testo Saveris 1 software allow the display and functionality to be adapted to individual requirements.

6.7.1 UI settings

Language / Time zone / Units

This menu allows you to set the default language for the system and the sent e-mails, as well as the system time zone and unit system to use (international or US system).

These global settings can be overwritten by the users themselves via account settings.

Authentication settings

This menu can be used to set whether the user should be automatically logged out after x minutes.

This option is deactivated by default.

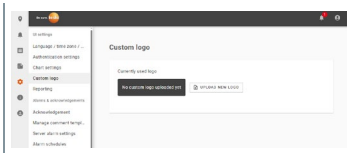
Chart settings


This menu allows you to set the default time period for the charts to display the data.

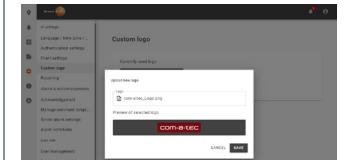
Custom logo

The **Custom Logo** menu allows you to add your own company logo to the testo Saveris user interface.

1 Select **UPLOAD NEW LOGO**.

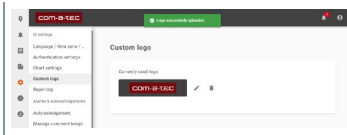




2 Drag & drop the image file into the upload window or select the image file using .



▶ The image will be displayed in the **Preview of selected logo** and inserted as a logo in the top left-hand corner of the testo Saveris user interface window.

3 Click **[Save]** to save the selected image file



Click on  to remove your own logo and use  to select a different logo.



When you insert your own logo, the testo logo will also be displayed in the bottom left-hand corner of the testo Saveris user interface.

Report settings

The **Reports** menu allows you to define settings for the electronic signing of automatic reports.

Depending on the setting selected here, the electronic signature is deactivated or activated for an automatic report, or it can be made mandatory.

You can also specify how many users should be prompted to sign electronically.



These settings only apply to newly created automatic reports. They are only applied to existing automatic reports when the report settings are edited.

6.7.2 Alarms and acknowledgements

Acknowledgement settings

This menu allows you to make default settings for the acknowledgement of alarms.

The following settings can be made:

- **No batch acknowledgement of alarms**
- **No authentication during alarm acknowledgement**
- **Description for the reason or corrective action is optional**

Manage comment templates

You can create standardized acknowledgement comments, which are displayed in the acknowledgement window as a selection list.

Each comment can be assigned the user roles that are allowed to use the comment.

Created at	Last use	Comment	Actions
16. Feb. 2024, 13:46:18 MEZ		Alarm registered and root cause resolved.	Landesgesellschaft

Server alarm settings

This menu allows you to set up the software alarms and specify which users should receive the alarm messages.

You can also set the subject and body of the email to be sent when alarms occur.

Alarm schedules

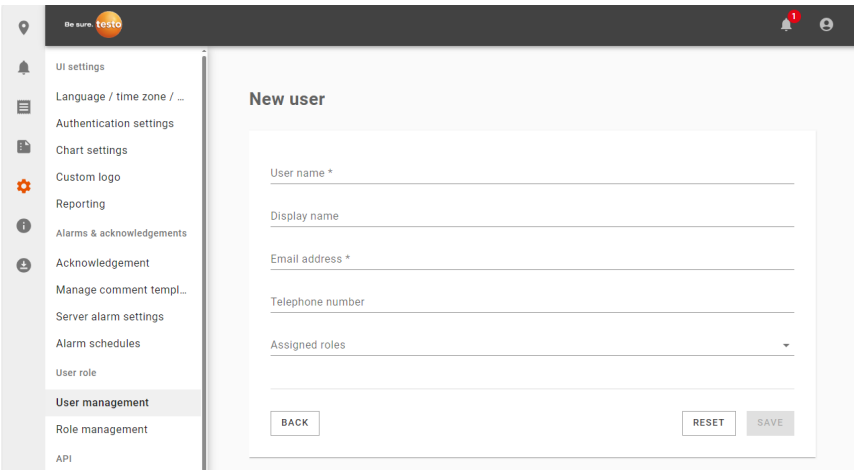


All Base alarms throughout the system are paused/activated by time control.

- 1 Click on **Alarm schedules**.
- 2 Click on **Create new schedule**.
- 3 Enter the schedule name and specify the users to whom the schedule is to apply.
- 4 In the displayed calendar, use the mouse to highlight in green the times at which alarms are to be sent.
 - ▶ You can select entries across multiple rows and columns in one step by holding down the mouse button.
- 5 Click **[Save]** to confirm the entry.
 - ▶ The input window will close.

6.7.3 User and role management

User management



The **User management** function is only available if it is included in the user role assigned to your user.

In this menu, the existing users for testo Saveris 1 can be edited or deleted and new roles can be added. New users can also be created.



The Admin user initially created during installation cannot be deleted.

Role management



The **Role management** function is only available if it is included in the user role assigned to your user.

In this menu, the existing roles (user groups) for testo Saveris 1 can be edited or deleted and new roles can be added. In addition, the permissions for the respective role can be extended or restricted.

- **Role name**
User role name of your choice.
- **Users with this role**
Indicates which users are assigned this role.
- **Manageable roles**
Indicates which other roles users with this role are authorized to manage.
- **Application level rights**
Option to set permissions for testo Saveris 1 (e.g. create automatic reports)
- **Area level rights**
Option to set permissions for specific zones

- **Rights at instrument level**
Option to set permissions for specific instruments

6.7.4 API settings

(Menu only visible if API is activated)

Access tokens

The Access tokens menu item allows you to use API access tokens to control access to the Saveris 1 API.

For more information about this, please refer to the separate technical documentation for the API interface under **Programs and documentation downloads**.

6.7.5 Webhook settings

The Testo Saveris 1 software can send a notification to another application as soon as a certain event occurs.

With webhooks, alarm paths such as signal lights, chat services, IP relays or alarm management systems can be used, provided they can be controlled via an http(s) interface.



Testo is not responsible for the proper functioning of these third-party systems, the network connection to the systems or error handling in the event that the request is rejected.

6.7.6 Database settings

Database backups

In this menu you have the option to create database backups in order to be able to revert to a previous system state in case of problems with the system.



For security reasons, the database backups should be saved/archived on a different computer to the Saveris database.

The menu shows an overview of existing backup files.

In addition to the manual creation of database backups, it is also possible to set up the automatic creation of backups.

For automatic database backups, you can specify the period of time after which they will be automatically deleted.

Database configuration

This menu item shows the details of the database configuration carried out during installation; see section 6.2 in the installation instructions for the testo Saveris 1 measurement data monitoring system (Doc. no. 0973 2503).

6.7.7 System settings

Server configuration

This menu item shows the details of the server configuration carried out during installation; see section 6.2 in the installation instructions for the testo Saveris 1 measurement data monitoring system (Doc. no. 0973 2503).

Storage settings

This menu allows you to configure the default storage path for the files saved by the system (e.g. Base backups, database backups).



For security reasons, the database backups should be saved/archived on a different computer to the Saveris database.

SMTP server configuration

This menu item shows the details of the SMTP server configuration carried out during installation; see section 6.2 in the installation instructions for the testo Saveris 1 measurement data monitoring system (Doc. No. 0973 2503).

Functions

In this menu, activation codes can be entered to activate additional functions, e.g. the testo Saveris 1 API function.

- 1 | Order the desired function from Testo.
 - ▶ | You will receive an access code (identification code) from Testo.
- 2 | Access the Testo website via the link contained in the access code.
- 3 | Enter your customer details and use the access code.
 - ▶ | You will receive an activation code as described on the website.
- 4 | Use the activation code in the software to activate the function.

Restart the Saveris service

The Saveris service must be restarted for a changed configuration to take effect.

- 1 | Click the **[Restart the Saveris service]** button to restart the service.
 - ▶ | The Saveris service is unavailable during the restart. This may take several minutes.



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