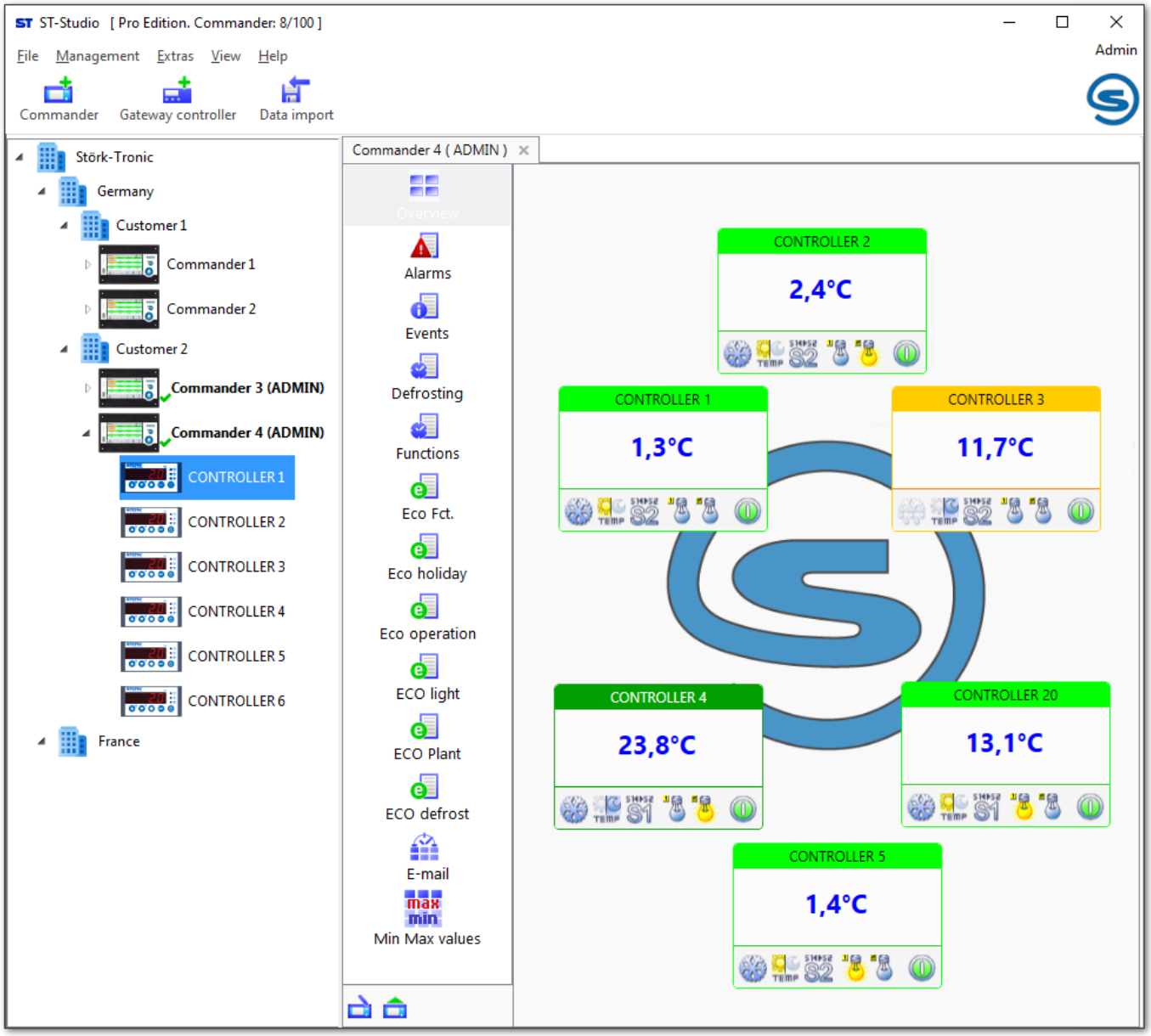
DOCUMENTATION

ST-STUDIO

Version 3.3



As of: September 2023

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1 General information

1.1 Scope of Services

- Management/remote maintenance of one or more Commanders along with the connected controller
  - Configuration of the Commander
  - Programming of the timer and the ECO button
  - Configuration of all controllers connected to the Commander
- Management of all ST-bus controller connected via USB or TCP/IP gateway
- Parameterisation (saving, loading and copying of parameter sets)
- Data logging (monitoring)
- Graphical data processing (measured values, events, alerts)
- User management
- License management
- Email alarms

1.2 System requirements

Operating system:

The following operating systems are supported:

- Windows 10
- For 32 and 64 bit operating systems

Hardware:

The minimum hardware requirements are:

- 2.5 GHz Intel Core or AMD Processor
- 4 GB RAM
- 4 GB free disk space plus space for data recordings
- Graphic resolution of 1024x768 pixels 32Bit colour depth (at least 128MB of graphics memory)
- 1 x USB 1.1 for connecting a USB gateway
- 1 x 100 or 1000 Mbps RJ45 LAN interface for the connection of a TCP/IP gateway

Software:

Following software is assumed to be in place:

- .NET Framework 4.8 (provided via setup)
- FTDI driver for USB gateway (provided via setup)

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2 Installation

!!!CAUTION!!!
Please observe the following if you
are updating from a previous **version to 3.3**:

- You need **administrator rights** for the installation.
- It is absolutely advised to create a **backup copy** of your data before you install a newer version of ST-Studio. You will find these under "*Documents*" in the ST-Studio folder
- Uninstall the previous version of ST-Studio. For this, either click the corresponding item in the start menu or under "Control Panel - Programs" select the entry "ST-Studio" and click on "Remove".
- When starting the program, the existing data and facilities will be taken over.

You can find the current version of ST-Studio at
https://www.st-studio.shop/st-studio-download

Unzip the downloaded zip file and run the installation programme.

To do this, start the file "ST-Studio-Setup.exe" by double-clicking on it.

After launching the ST-Studio installation, the system will initially be scanned for an existing installation of the "Microsoft .NET Framework" and the respective installation carried out if necessary.

After a successful installation the software can be launched via the Windows Start Menu under *"Start - Programs - ST-Studio"* or via the desktop.

Important notices:

If the PC has synchronization tools installed (for example, "ActiveSync from Microsoft or "HotSync" for the Palm), or there is a software installed for GPS receivers that exchange data via the serial interface, this can lead to problems when performing a measurement data acquisition using a USB gateway. If necessary, uninstall these programs.

Virus scanners can negatively affect the operation of the program, and even lead to data loss. It is therefore recommended to adjust the virus scanner so that the *.st-studio* file extension and directory "ST-Studio" under "Documents" are not checked by the On-Demand or On-Access scanner.

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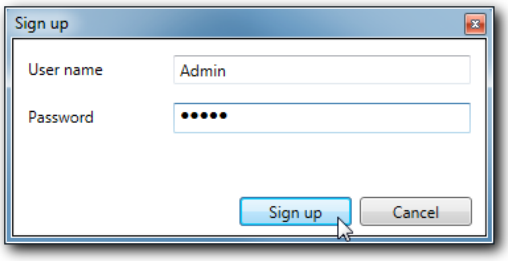
3 First steps

After the program has been started, the user data must first be entered.

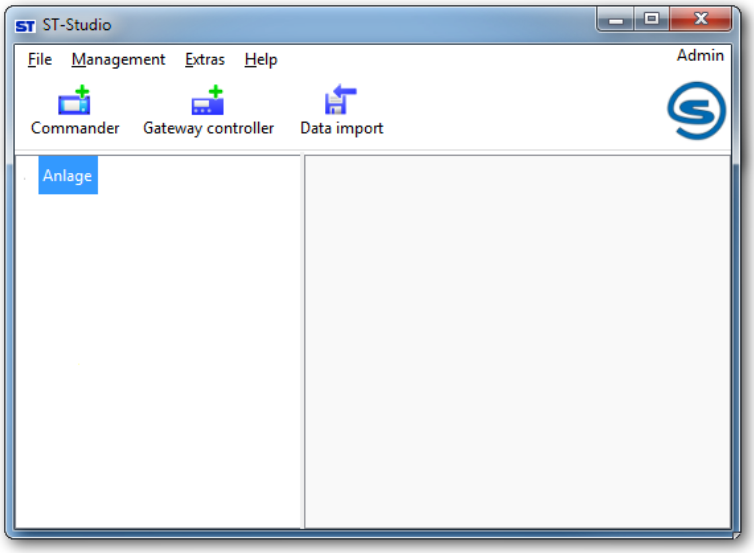


There are three preinstalled users available:

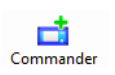
User name	Password
Admin	Admin
Techniker	Techniker
Gast	Gast

It is recommended to first proceed with the "Admin" account for further configuration.
(See also chapter User management.)
NOTE: For security reasons, please change the passwords after the first login.

During the first launch of the program after a successful installation the program will start with an automatically created empty plant:



In principle, a distinction between three types of data acquisition can be made:



If a Commander can be reached within the network (either locally or on the Internet), then it can be added to the plant via this button.

If the aim is to merely monitor an ST-bus controller connected via USB or TCP/IP gateway, then click on this button.

If a stand-alone Commander without a network connection is installed, then its data can be read through a data import.

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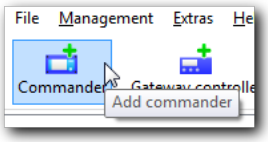
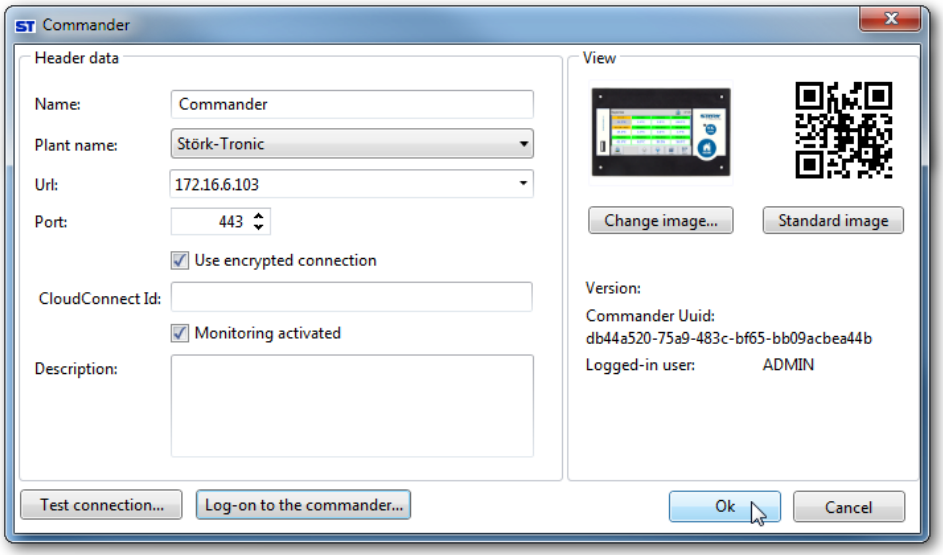
4 Adding data sources

4.1 Commander via local area network



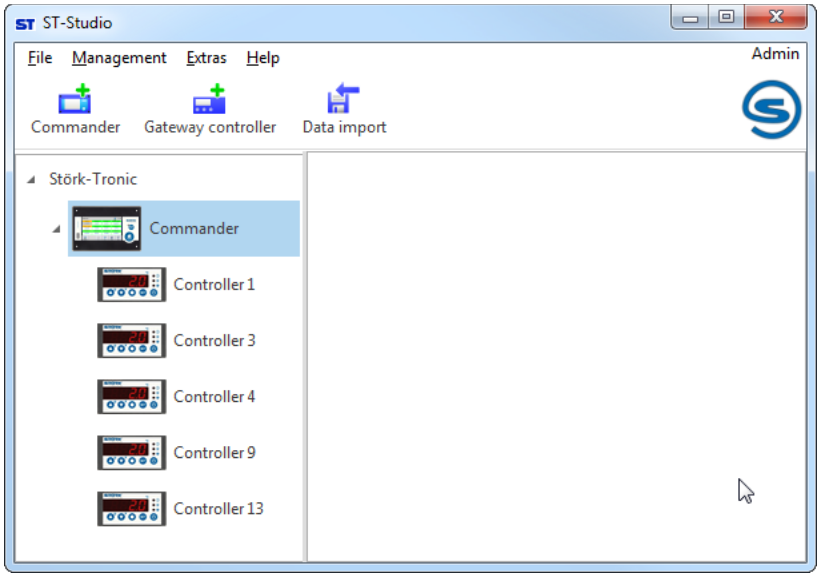
Click on the button *"Add Commander"* to assign a Commander to the plant.
Caution: The Commander must to properly integrated into the local network or accessible via the Internet through an IP address or URL.



Specify a name for the Commander, select the plant to be used and enter the address of the Commander. The default values for the port number must be only adapted when using a router with port forwarding.
It may initially be specified whether the connection should be encrypted and whether the monitoring is to be enabled.

To verify the settings, click the button *"Test connection"*.

Afterwards the first login with the Commander has to be done with the button “Log-on to the Commander...:”. Please use the user "ADMIN" and the corresponding password.



By clicking on *"Ok"*, the Commander will be added to the respective plant, and all controllers connected to the Commander will be detected and shown in the list.

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4.2 Commander in the cloud

Using the Störk-Tronic Cloud service, it is possible to add a remote Commander to ST-Studio over the Internet.

The so-called **CloudConnect ID** of the commander is required for this.

4.2.1 Determining the CloudConnect ID

Proceed as follows to determine the CloudConnect ID depending on the Commander type.

4.2.1.1 Commander Box

Enter the URL given on the label on the side of the box in your browser or scan the QR code.

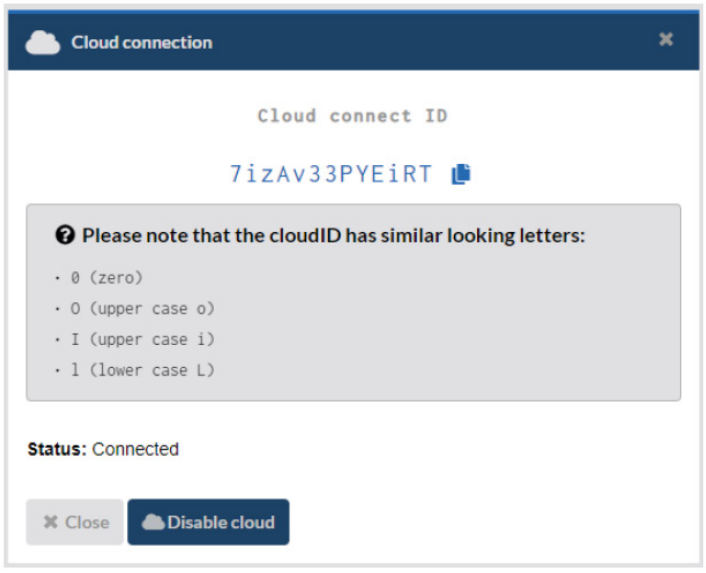
Note: If the connection cannot be established, try adding ".local" to the end of the address: e.g. https://cbox20010100099.local
Alternatively, you can use the IP address of the box directly (if known).

Then enter your login data for the user "ADMIN".

Select the menu item "Settings" in the upper bar and then go to "Remote access - Cloud connection":

If no CloudConnect ID has been assigned yet, click on "Connect".

After the cloud connection has been successfully established, the 13-digit **CloudConnect ID** of the Commander Box is displayed:



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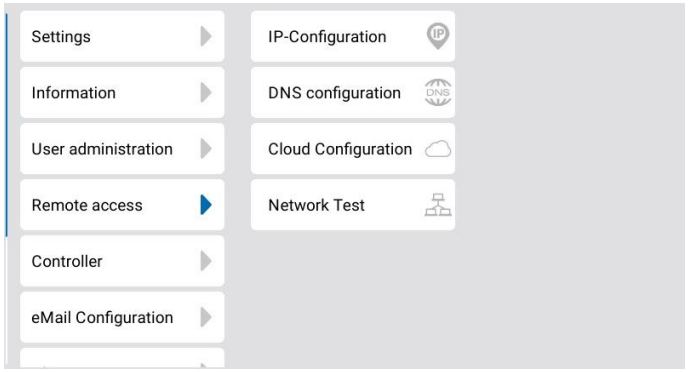
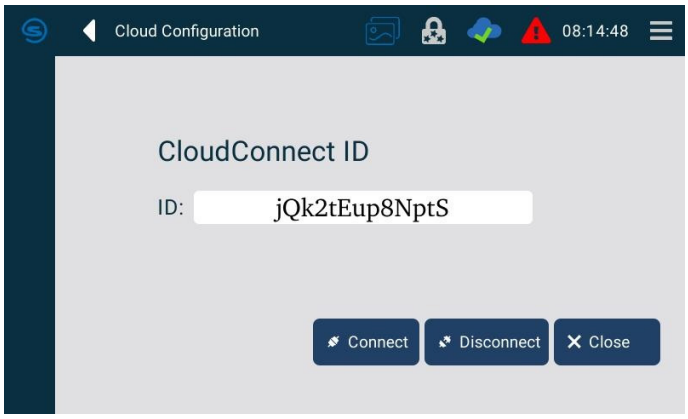
4.2.1.2 Commander STC 43 or ST70 (“new generation”)

Open the menu of the Commander and select the item "Settings - Remote access - Cloud configuration":



If no CloudConnect ID has been assigned yet, go to "Connect" in the following screen on the Commander.



After successfully establishing the connection to the Cloud, the 13-digit **CloudConnect ID** of the Commander appears here.

4.2.1.3 Commander 43 (“old generation”)

On the Commander screen, go to "Menu – Settings – Remote access – Cloud Configuration" on Commander.

If no CloudConnect ID has yet been assigned, click on “Connect” on the following screen at the Commander.

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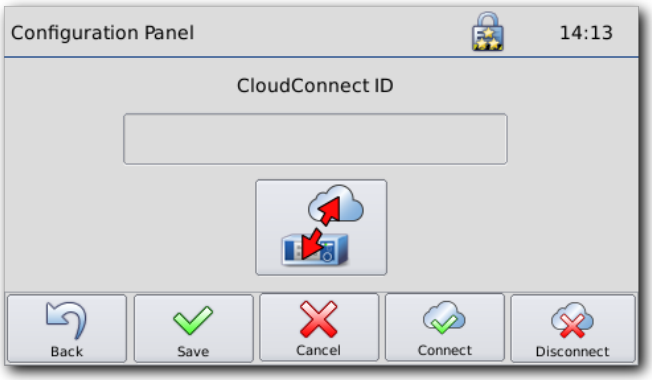
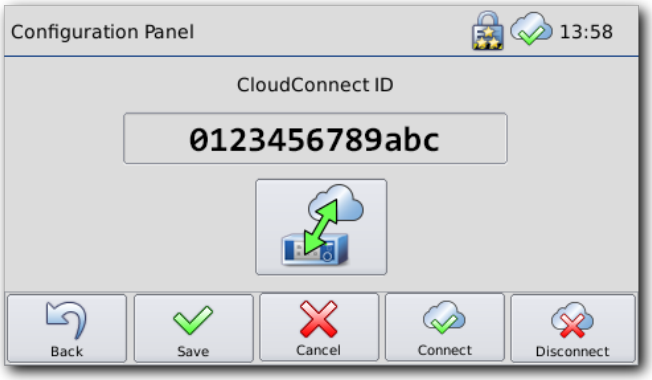


Note: If no connection can be established, check whether outgoing connections via the following ports are permitted on your network:

443 TCP (HTTPS)
1194 UDP (OpenVPN)
53 UDP (DNS)

After successfully connecting to the cloud, the 13-character **CloudConnect ID** of the Commander is shown and a Cloud icon appears in the top status bar.



4.2.2 Entering the CloudConnect ID

Click on "Add Commander" (like in 4.1).

Specify a name for the Commander and select the plant to use.

In the configuration dialog of the Commander, enter the following address in the **Url** field:

https://www.commander-cloud.eu/mobil

Now enter this 13-character sequence read from the Commander in the **CloudConnect ID** field of the ST-Studio configuration dialog.

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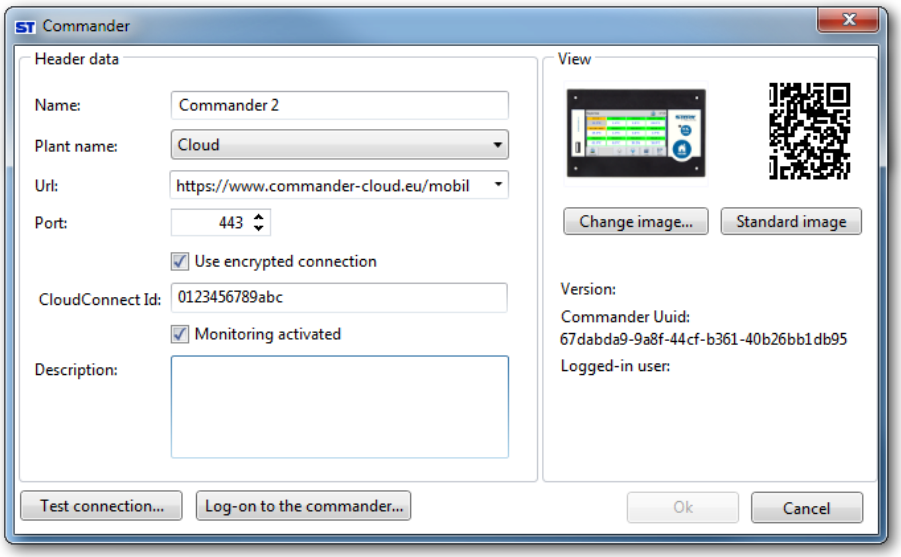
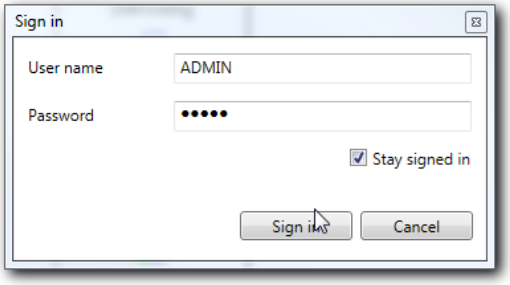


After a successful connection test, the "Log-on to the Commander" button must be used to perform a first login on the Commander (see chapter 4.5). Please use the user "ADMIN" and the corresponding password.



Finally, by clicking on *"Ok"* the Commander will be added to the respective plant, and all controllers connected to the Commander will be detected and shown in the list.

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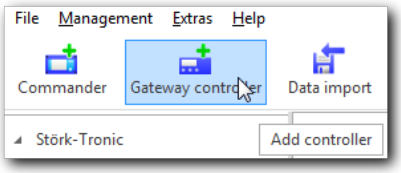
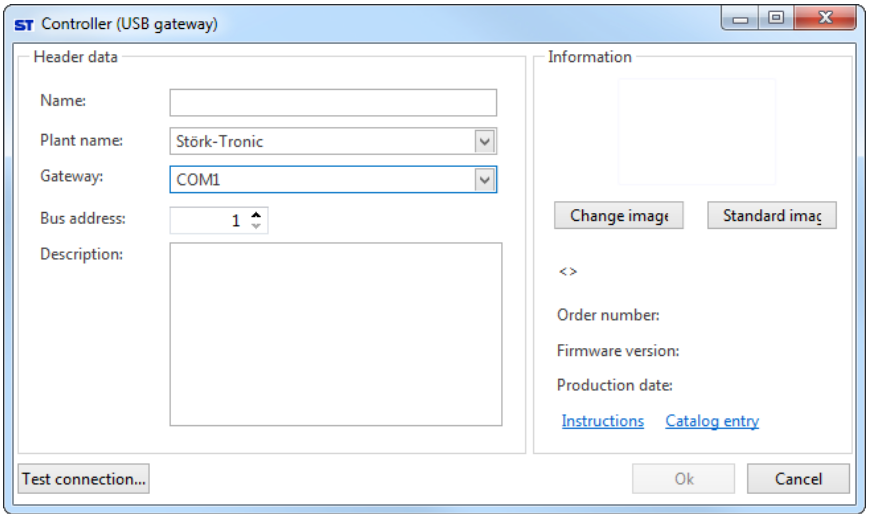
4.3 Controller via gateway



Press the *"Gateway controller"* button to add an ST-bus controller to the plant, which is connected to the PC via a gateway.
Make sure that the USB driver has been installed from the ST-Studio CD (see Chapter 2).



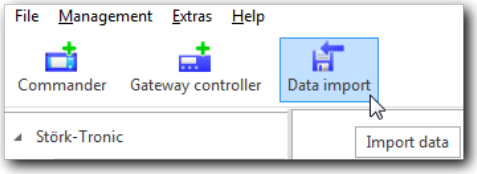
Select the desired controller name and the plant.

The USB driver created a virtual COM port on the PC, which must be selected here under "Gateway" (most of the time is this COM1).

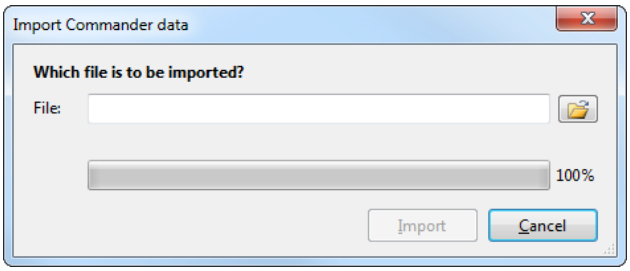
Also specify the ST-bus address parameterized in the controller.

With *"Test connection..."* the information can be verified.

4.4 Commander via data import



If you copied the data on the Commander onto a USB stick and you now want to add this to the plant, press the *"Import data"* button.



Select the file to be imported (file extension *.gz) and click on *"Import"*.

The Commander specified in the data will automatically be generated in ST-Studio and added to the first plant.

Later data can then be added through a repeated data import.

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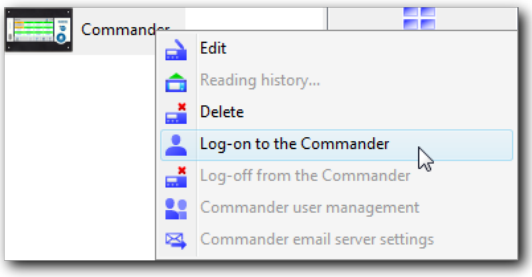
4.5 Log-on to the Commander

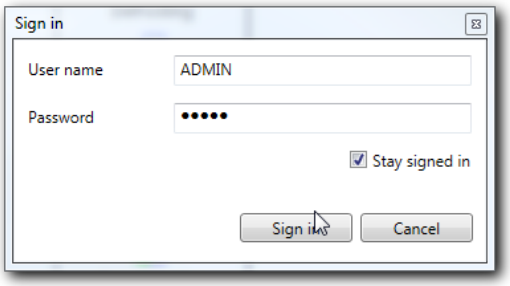
To be able to execute various functions (for example, read history), you must be logged on to an added Commander in ST-Studio

.

Right-click on the desired Commander and select "Log-on to the Commander" in the context menu.



In the following dialog enter the username and password of a user created **in the Commander** (e.g., ADMIN / password)

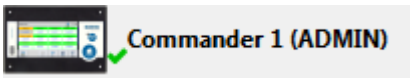


Check the box next to *"Stay signed in"* to stay signed in immediately after restarting ST-Studio.

ATTENTION: This also applies if you log off from a Commander during a ST-Studio session!

To deactivate this behaviour, first log off from the commander. Then log on again without checking the box.

After a successful login, the Commander is marked with a green checkmark and the user is displayed in brackets.



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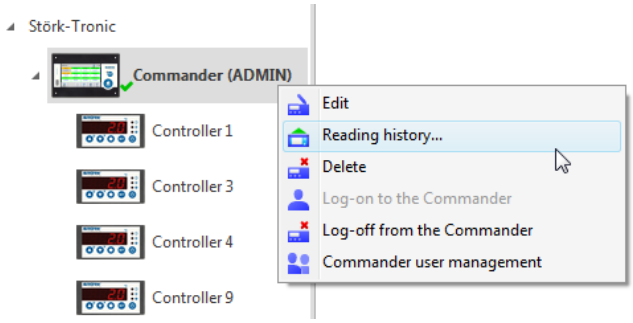
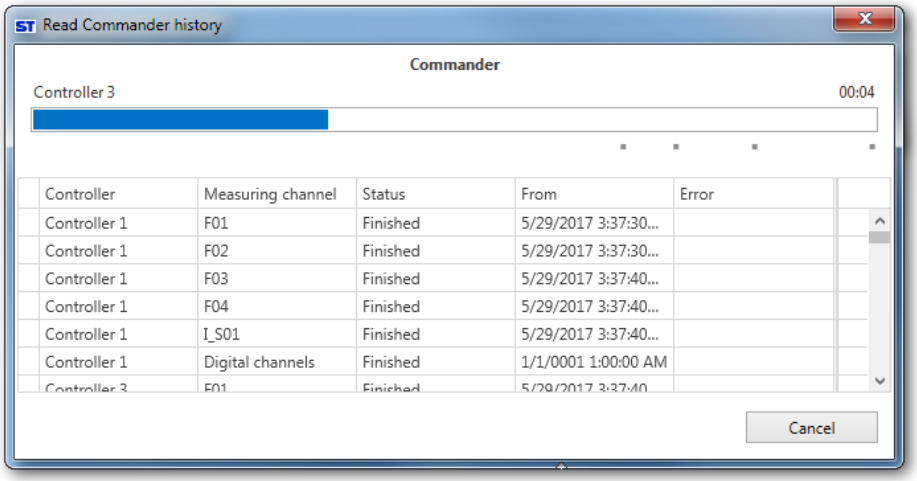
4.6 Representation of the data

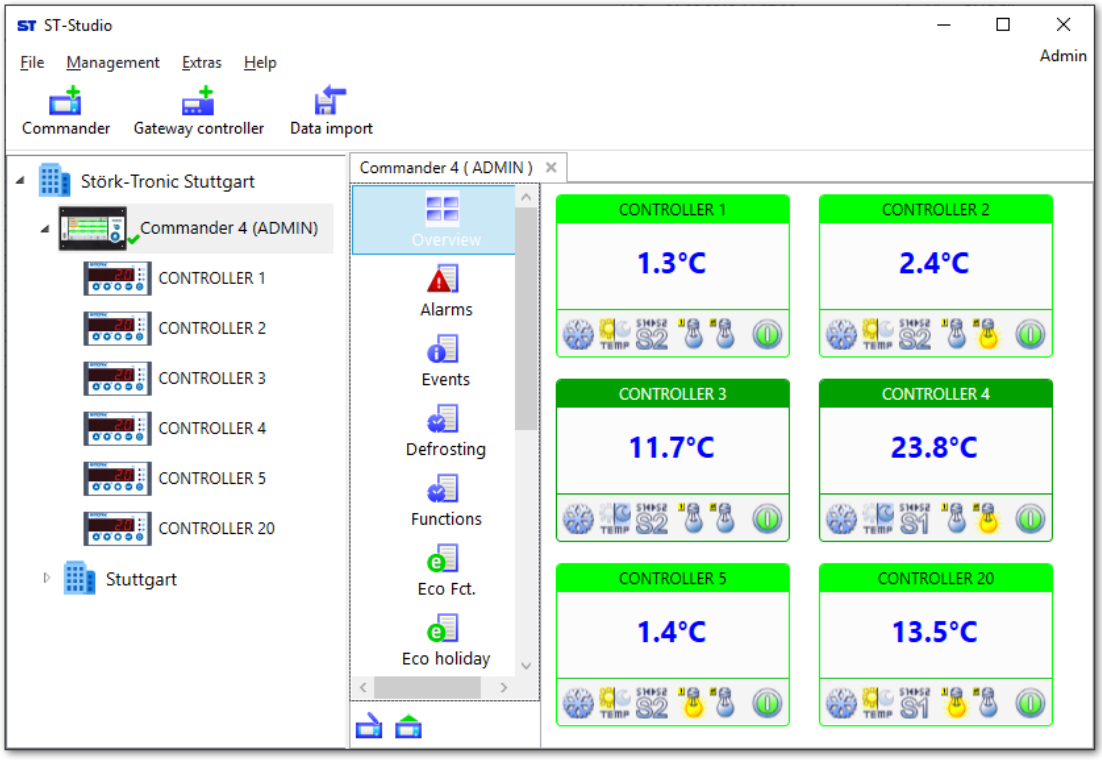


By right clicking on the Commander and the item *"Reading history..."*, the data of the connected controllers recorded by the Commander will be transferred to ST-Studio.

(Note: The ST-Studio user must have the appropriate rights, see User management.)



A double click on the Commander will open the Monitoring Overview:



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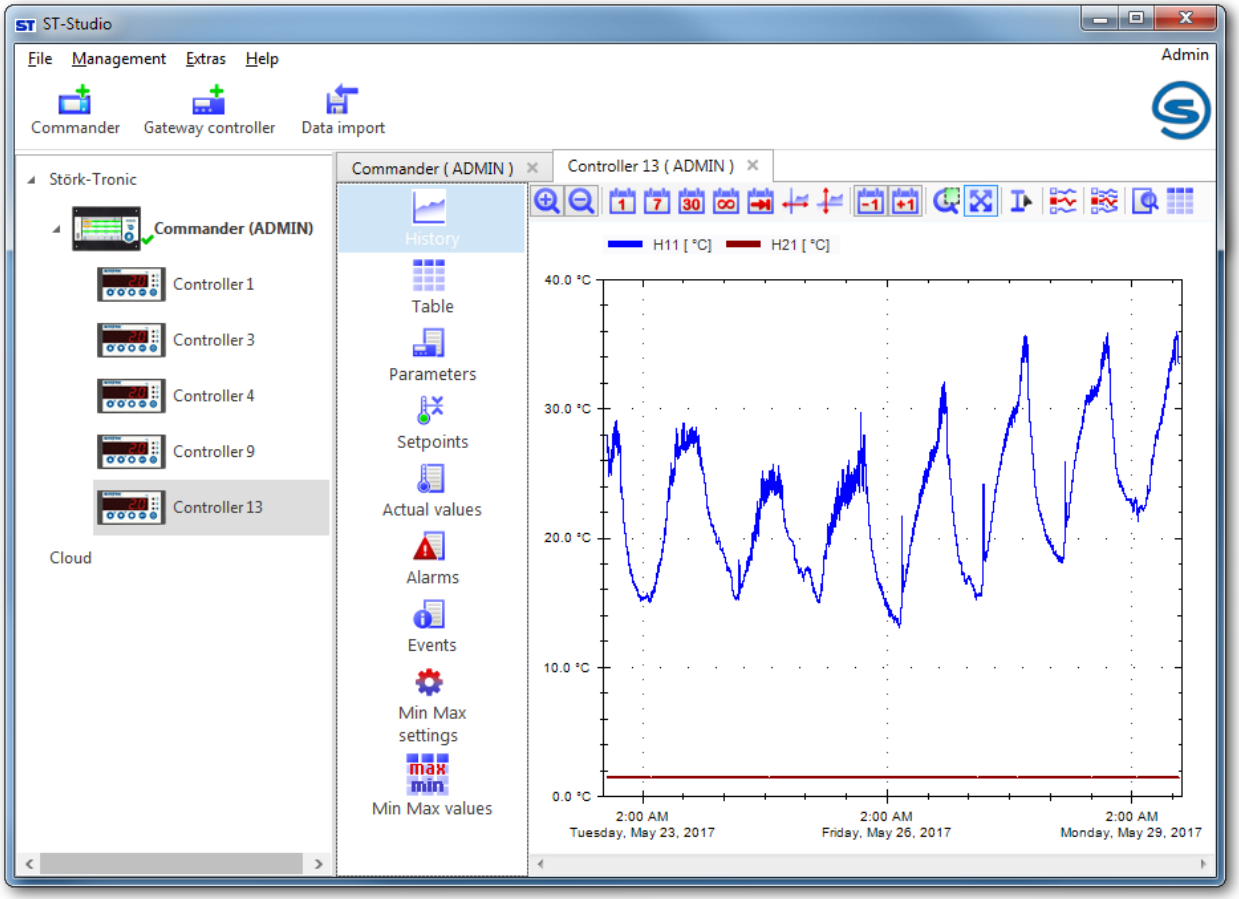
A double click on a controller will open its historical depiction:



Repeat the steps mentioned in Chapter 4 to add further Commanders to the plant, or to create further plants.

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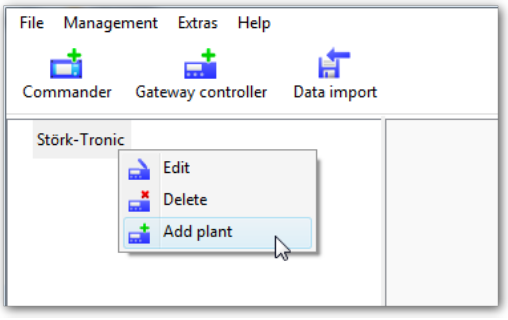
5 Application window overview

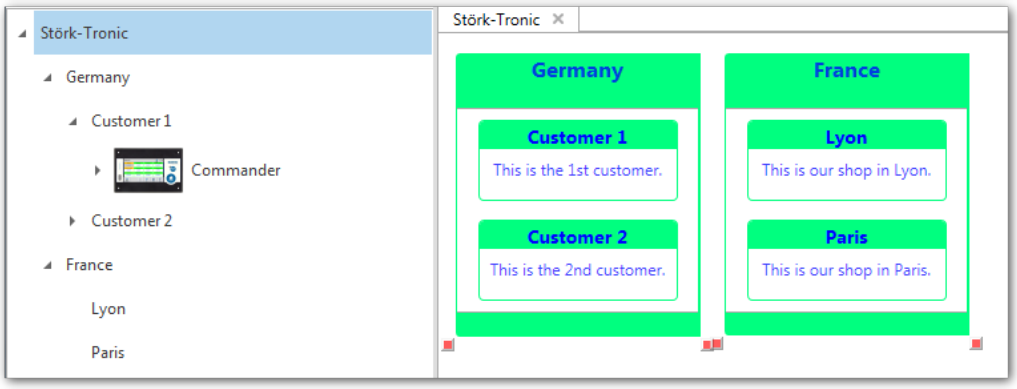
5.1 Plants

Plants can be created hierarchically in a tree structure. To create a further subordinate plant, select "Add plant" from the context menu of a plant:

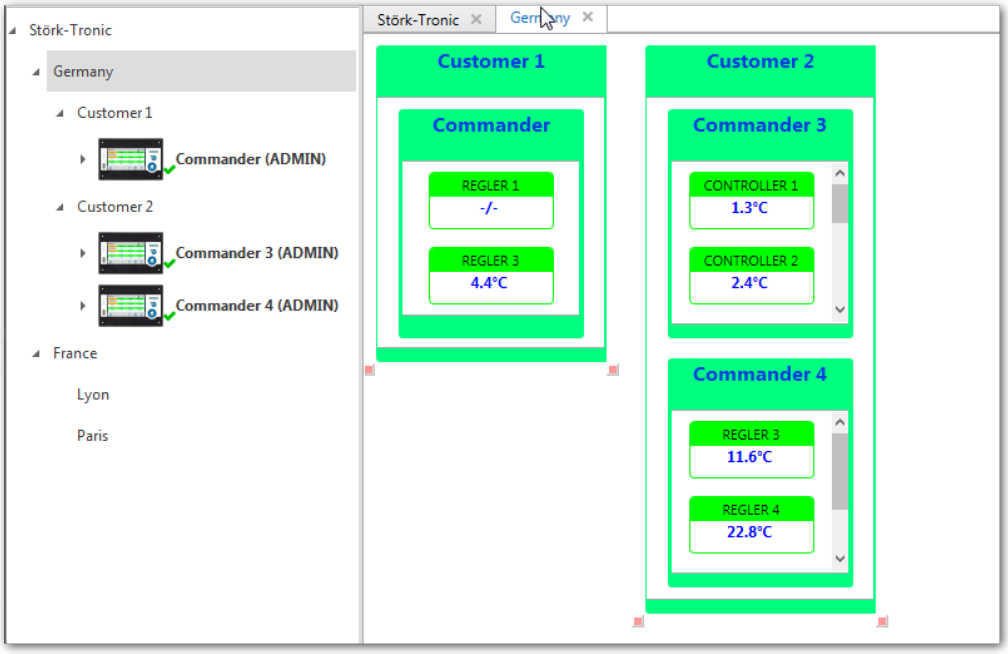


Note: A plant at the highest level can only be created via the "Management" menu.

A double-click on a plant opens an overview of all Commanders, Gateways or other plants assigned to this plant. The diagram is displayed a maximum of 2 levels lower. The individual elements can be scaled or moved as required.



In the overview on the right, you can also change to a deeper level by double-clicking.



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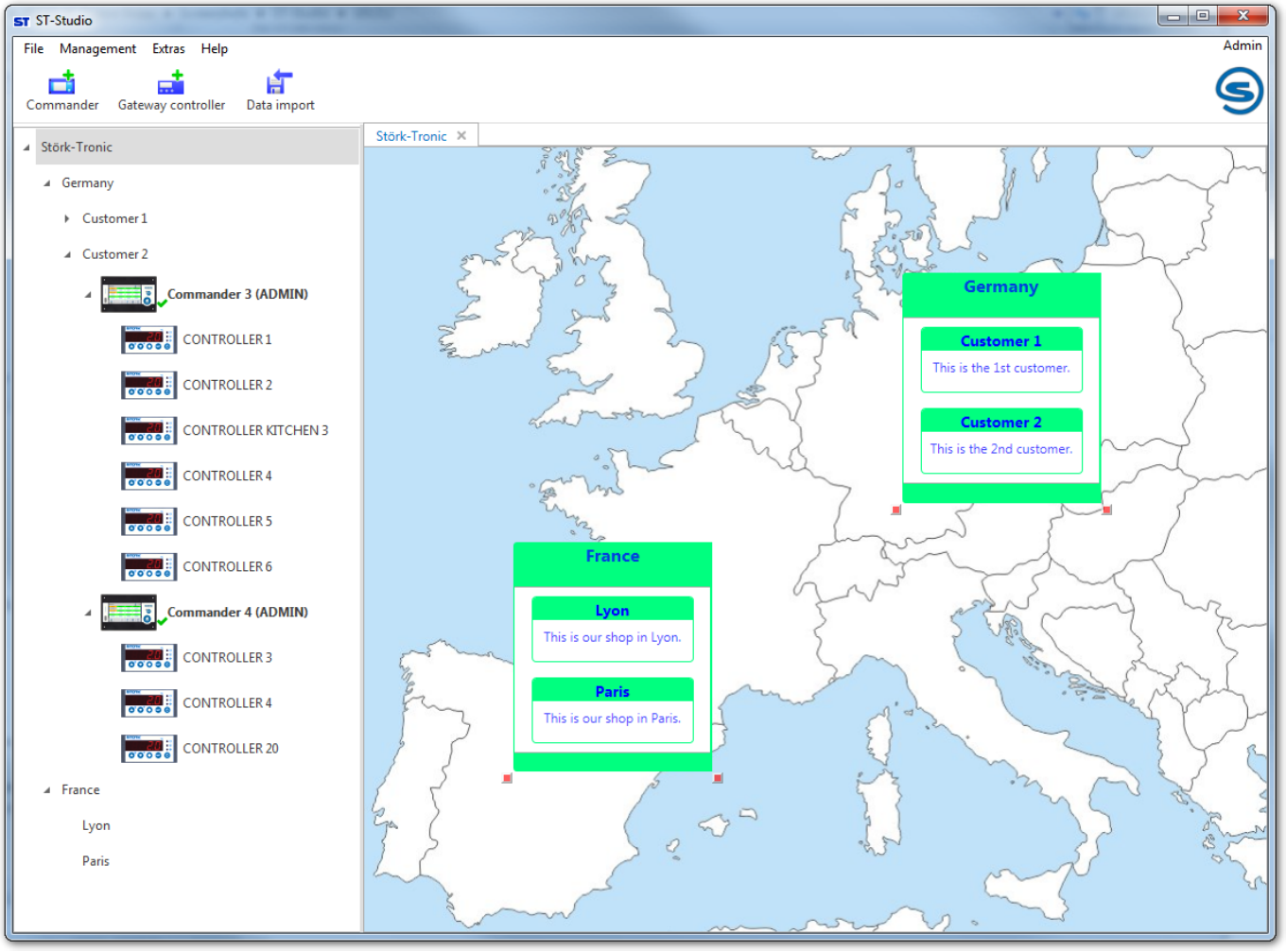
A background image can be defined for the overview by right-clicking in the right area. This can also be used, for example, to visualize the plant structure. In addition, the type of positioning of the individual elements can be specified:

Change/delete background image:	Here you can define a background image for the installation.
Reset positions:	All element positions are reset.
Arrange overview automatically:	All plants are automatically arranged in the grid
Allow Drag & Drop:	The elements can be positioned individually again.



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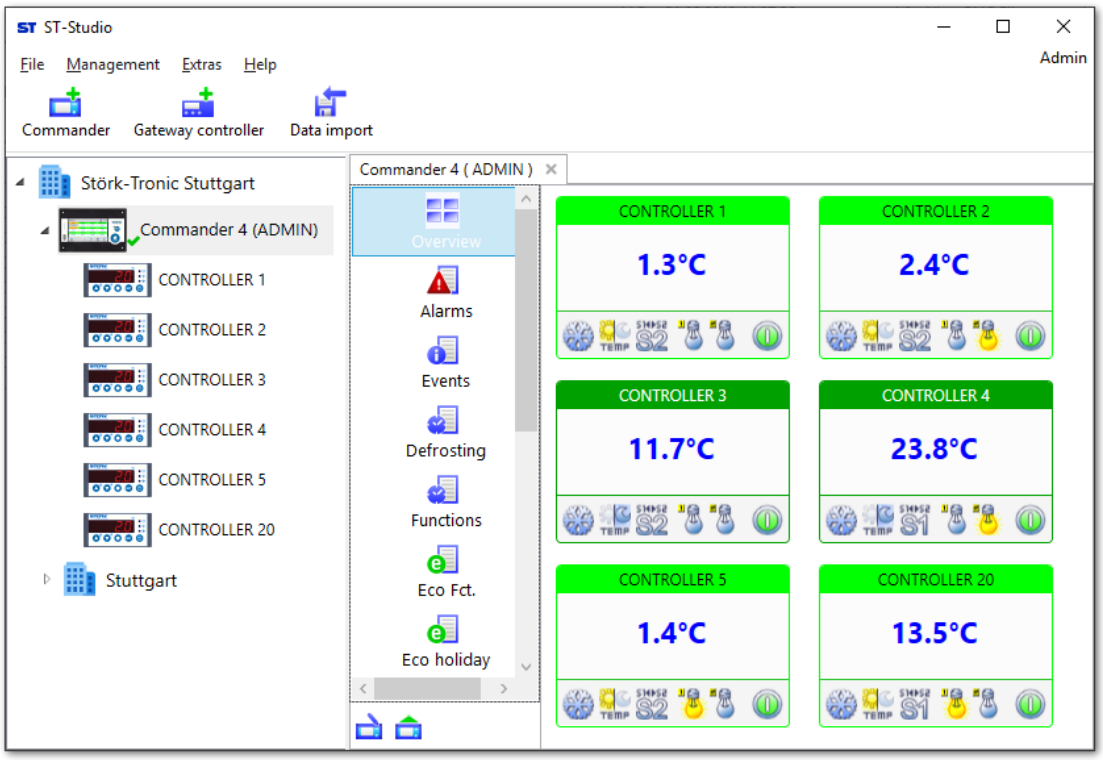
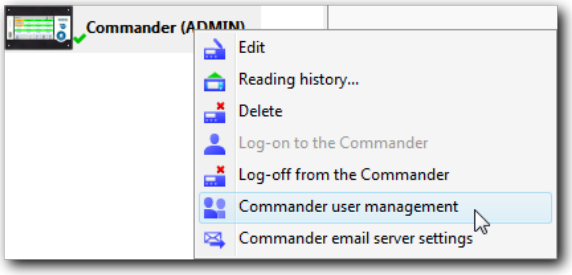
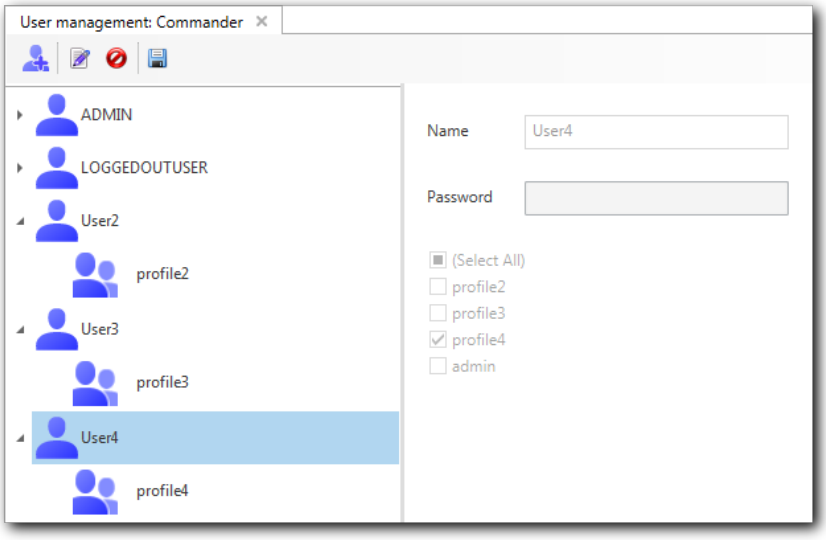
5.2 Commander



5.2.1 Commander user management

In the context menu of the Commander, click on *"Commander user management"* to read out the users created in the Commander.





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New users can be created and existing users deleted. For the exact procedure, see also Chapter 7 (User management).

A role can be assigned to the newly created users. The following assignment applies:

corresponds to the role "profile4".

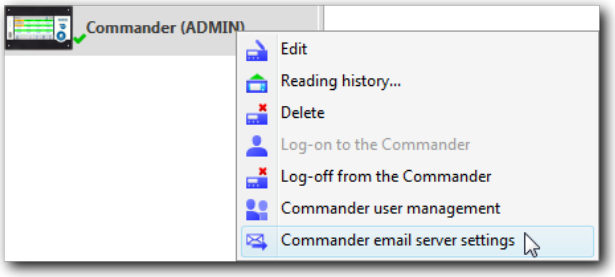
corresponds to the role "profile3".

corresponds to the role "profile2".

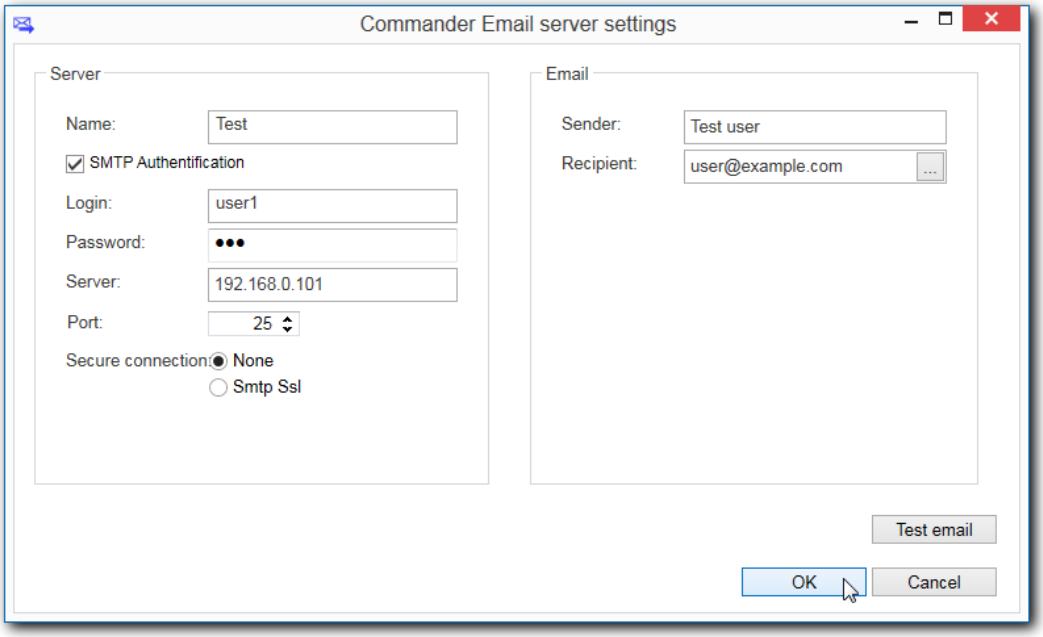
corresponds to the role "admin".

5.2.2 Commander Email server settings

In the context menu of the Commander, click on "Commander E-mail Server Settings".



In the following dialog you can now directly read out and change the settings for the e-mail server defined in the Commander:



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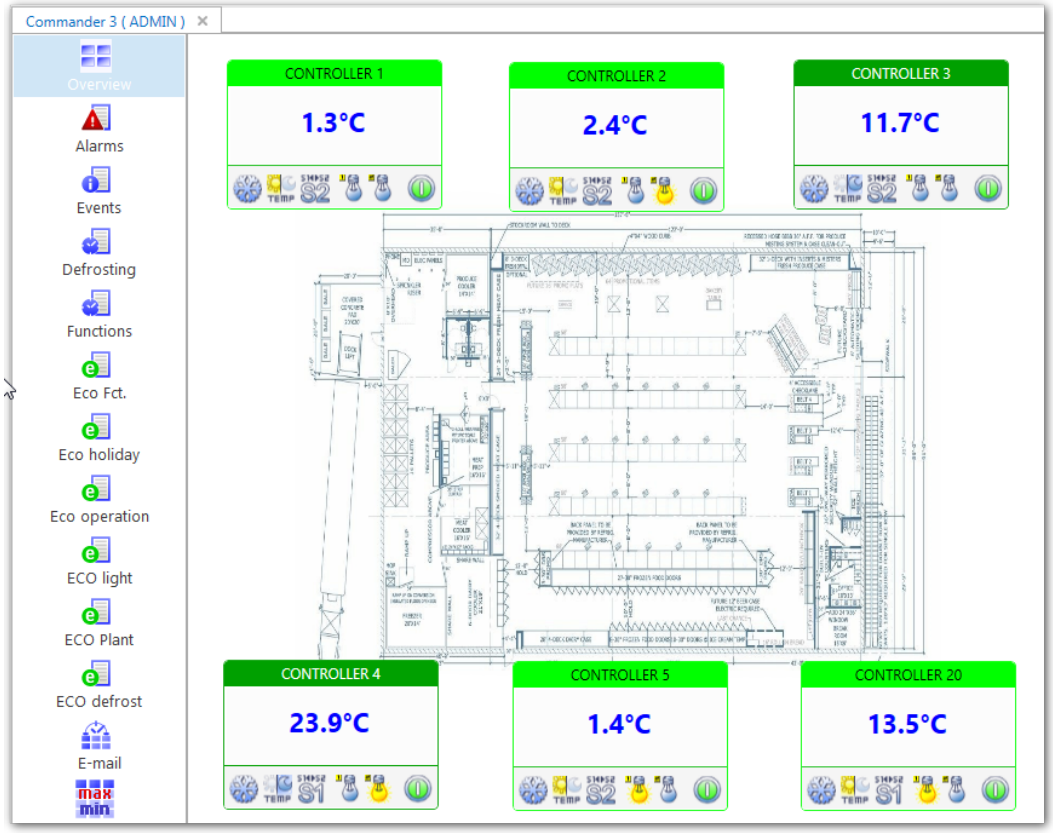
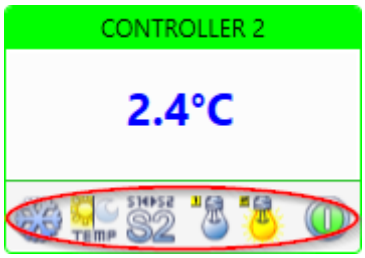
5.2.3 Overview

A double click on the Commander will open the Monitoring Overview:



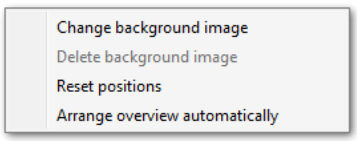
Here, all controllers connected to the Commander will be shown in an overview. In addition to the name of the controller, the actual value and any possibly pending alarm messages will be displayed.
If you are logged in to the Commander, you can also execute certain functions directly in the lower bar of the respective controller (these can vary from controller to controller):

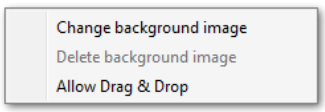


Start defrosting (if possible)
Day/night changeover
Set1/Set2 changeover
Switching light on/off
Switch controller on/off

Note: These functions can also be performed directly in the plant overview.

Click the right mouse button to open a context menu:





Change/delete background image:	Here you can define a background image for the installation.
Reset positions:	All element positions are temporarily reset.
Arrange overview automatically:	All Commanders are automatically arranged in the grid
Allow Drag & Drop:	The elements can be positioned individually again.

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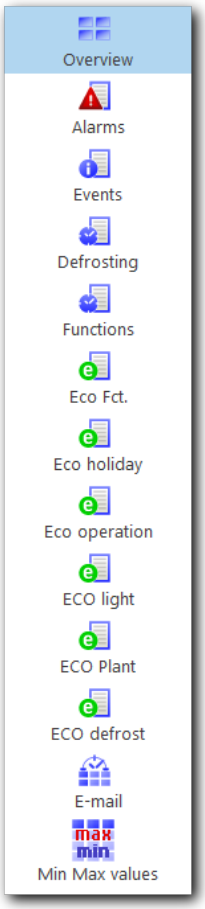
A double click on a controller will open its historical date representation.

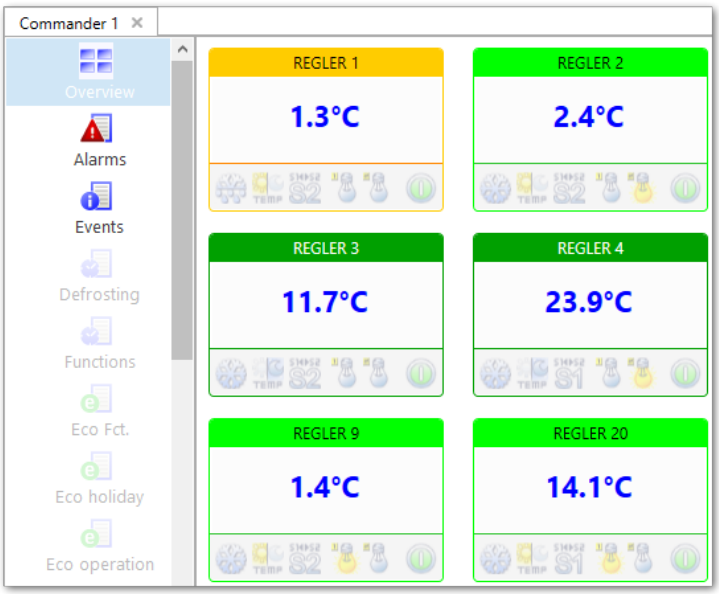
This button will open the Properties window of the Commander.

This button will start the readout of the Commander history.



The Commander's various functions can be accessed via the left column (see the following pages).

Please note that you must have the required permissions to access certain functions.



Unavailable functions are greyed-out, see in the left picture "Defrosting", “Functions”, “Eco Fct.”, “Eco holiday”, or also the individual controller functions.

If necessary, please log-on to the Commander (see 4.5) or start ST-Studio with a user with appropriate permissions.

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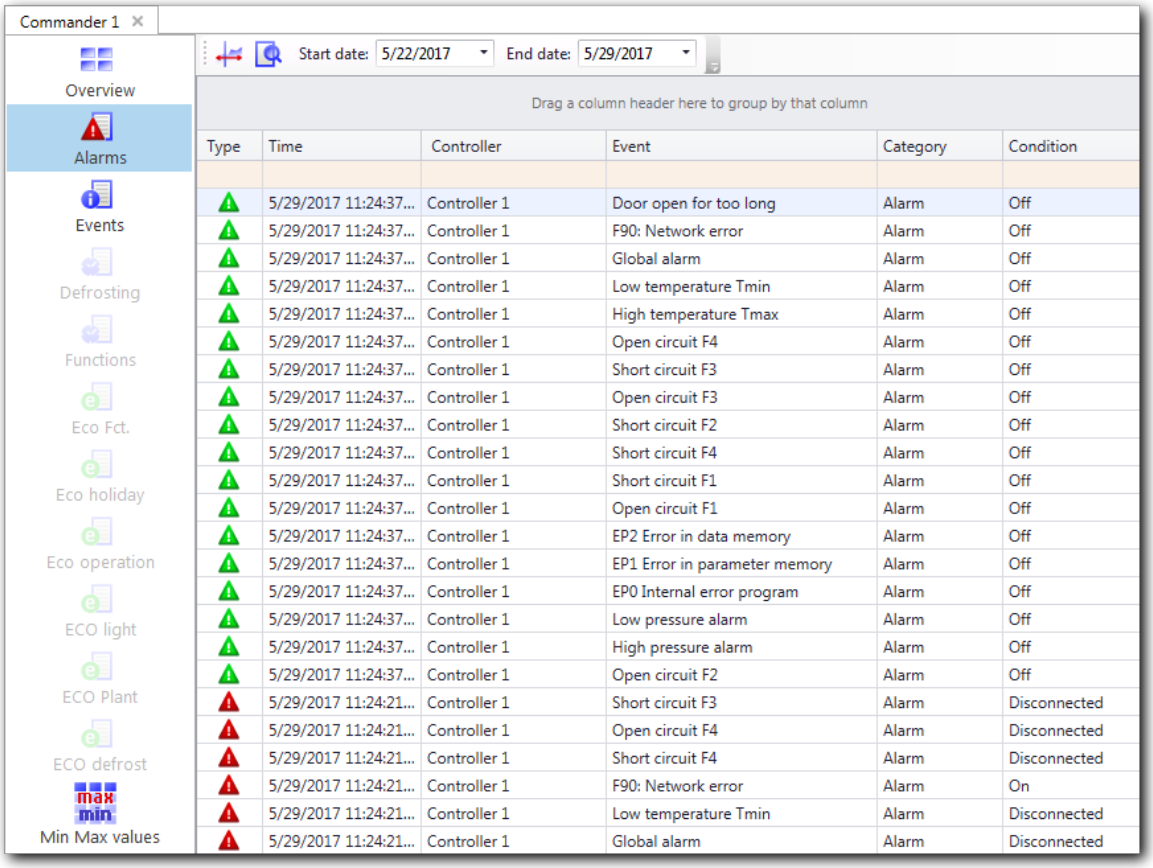
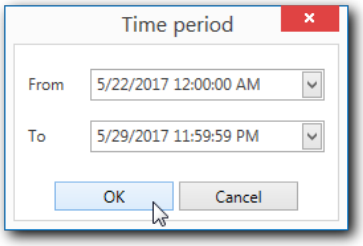
5.2.4 Alarms

The alarms window offers a chronological collection of all the connected controller alarm events.





With the *"Select time range"* button it is possible to narrow the list down to a specific timeframe.

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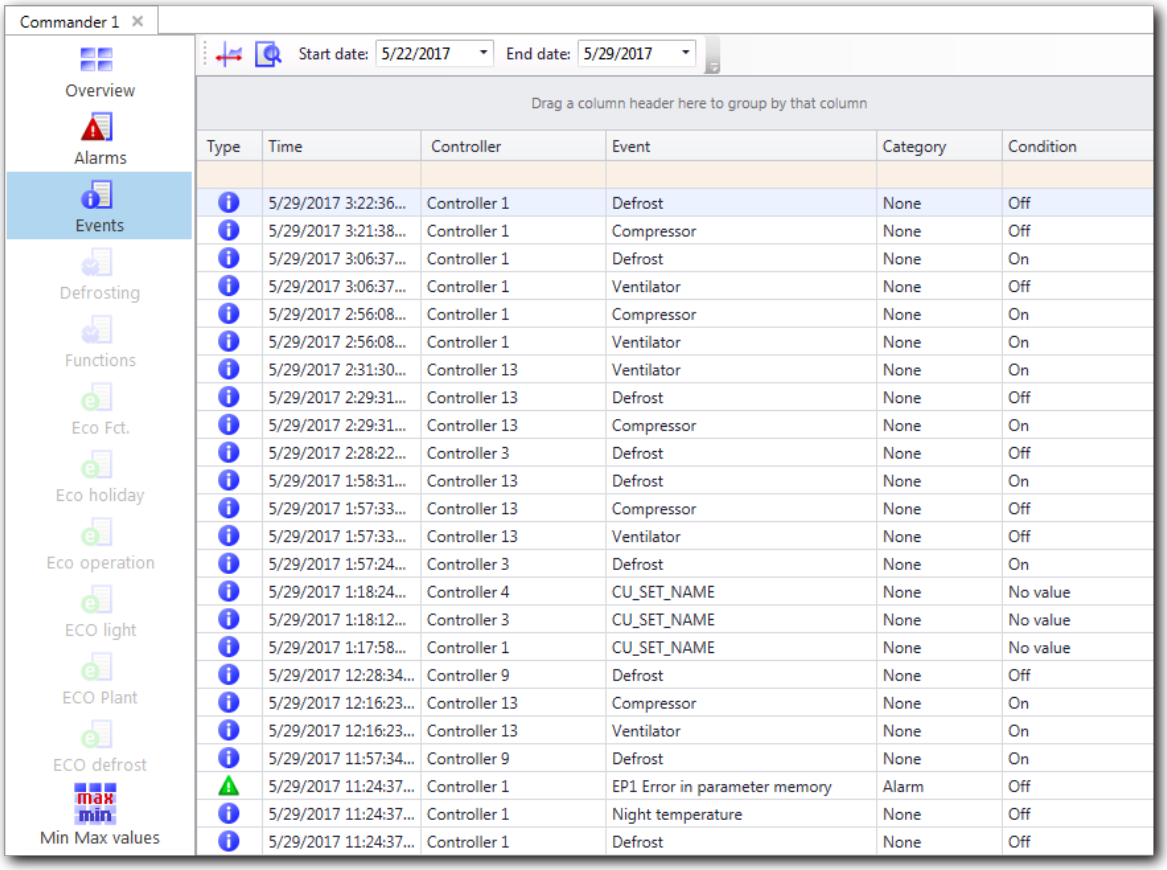
5.2.5 Events

The events window offers a chronological collection of all the connected controller status changes.



As with the alarm events, it is possible to narrow down the timeframe here.

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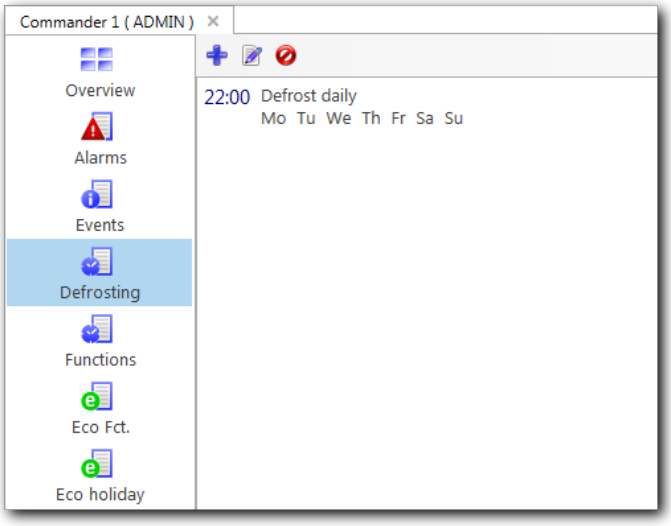
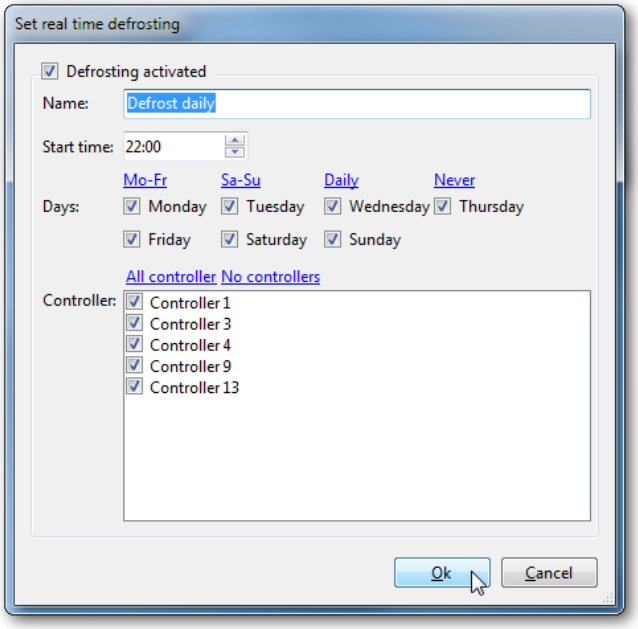
Important NOTE:

The following settings (defrost timers, function timers and the ECO functions) can only be selected when you are logged-on to the respective Commander. In addition, the logged-on ST studio user must have the appropriate user permissions (see user management)

5.2.6 Defrosting

In the defrosting window, the defrosting timers of the Commander are listed.
(for this, also refer to the Commander documentation)





As in the Commander interface it is possible to create new timers, or edit and delete the existing ones.
The changes are applied in the Commander simultaneously.

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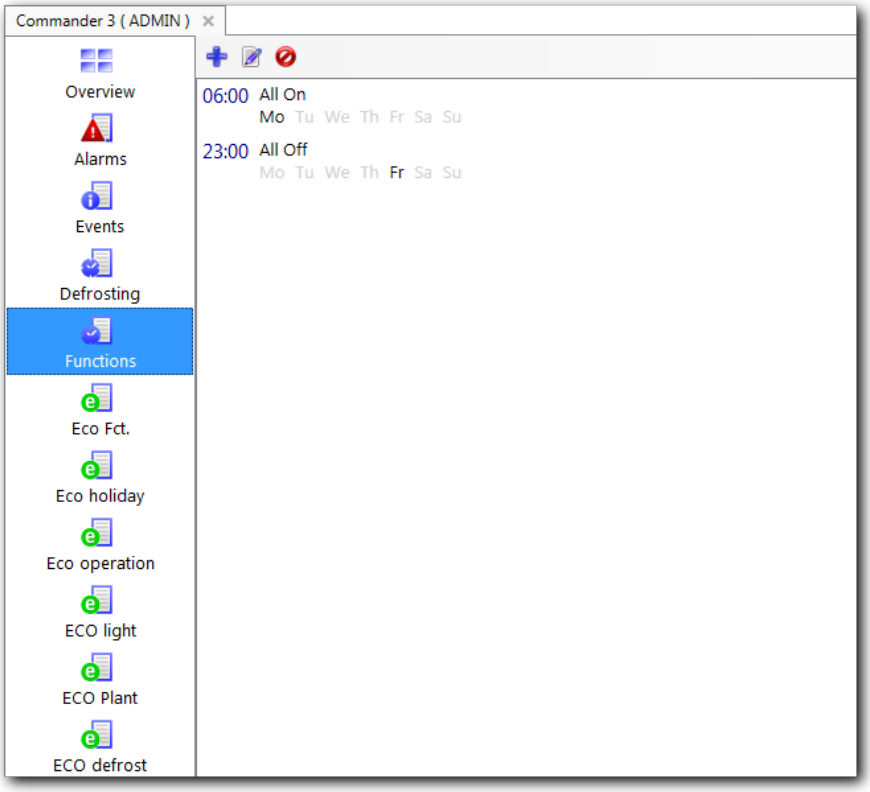
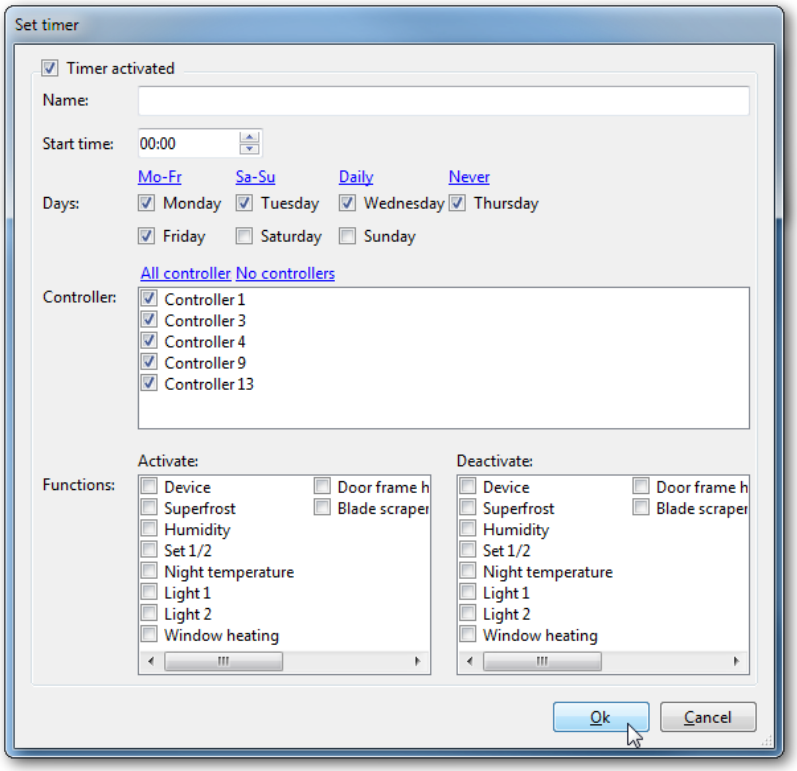
5.2.7 Functions

In the functions window, the Commander-defined timers for certain functions are listed.
(for this, also refer to the Commander documentation)





As in the Commander interface it is possible to create new timers, or edit and delete the existing ones.
The changes are applied in the Commander simultaneously.

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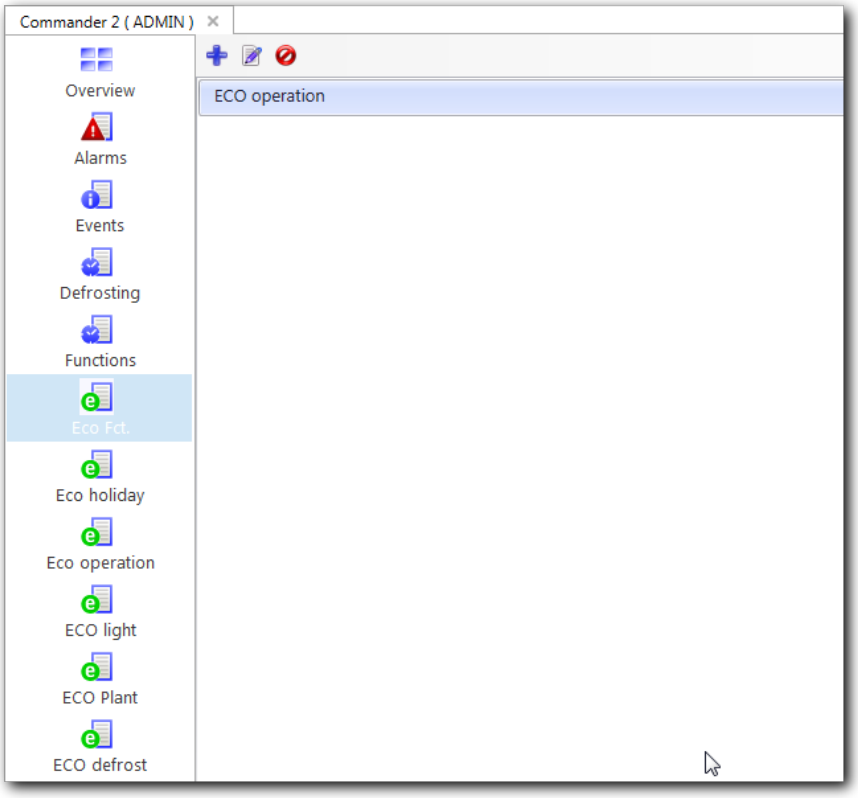
5.2.8 ECO button

Analog to the setting in the Commander, it is possible to define six different functions for the ECO button here.

(Eco, holiday, operation, light, plant, defrost)



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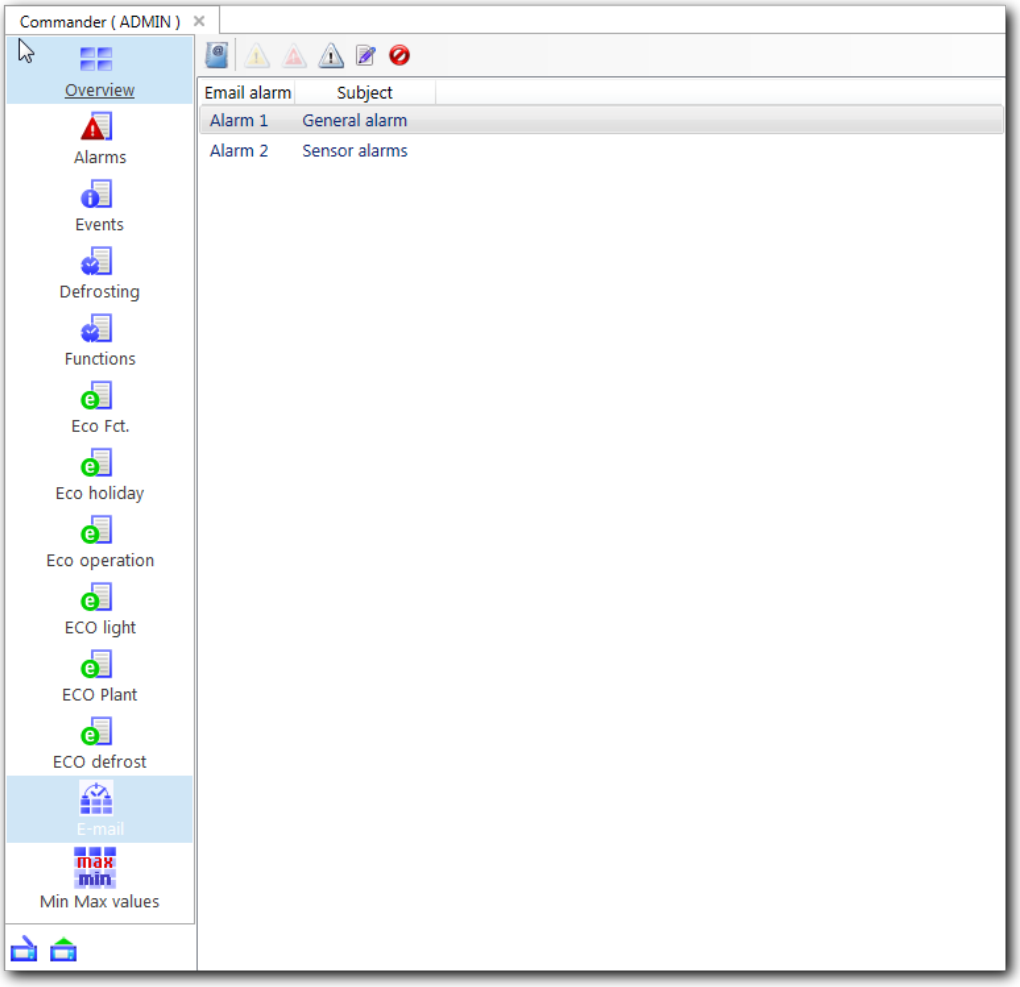
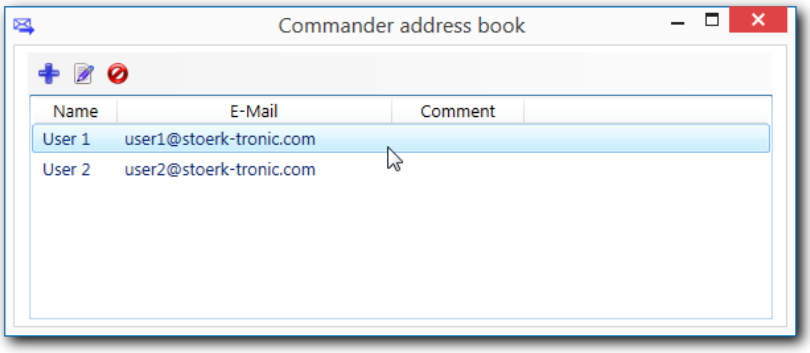
5.2.9 Email alarm settings

Here, the configuration of the commander's e-mail alarm settings can be read and configured directly. This is independent of ST-Studio's own e-mail distribution, which is configured in chapter **Fehler! Verweisquelle konnte nicht gefunden werden.**.



The email addresses created in the commander can be read from the address book.



New addresses can be added or deleted as desired.

Up to three different e-mail alarms can be defined in the Commander:

Alarm 1 Alarm 2 Warning

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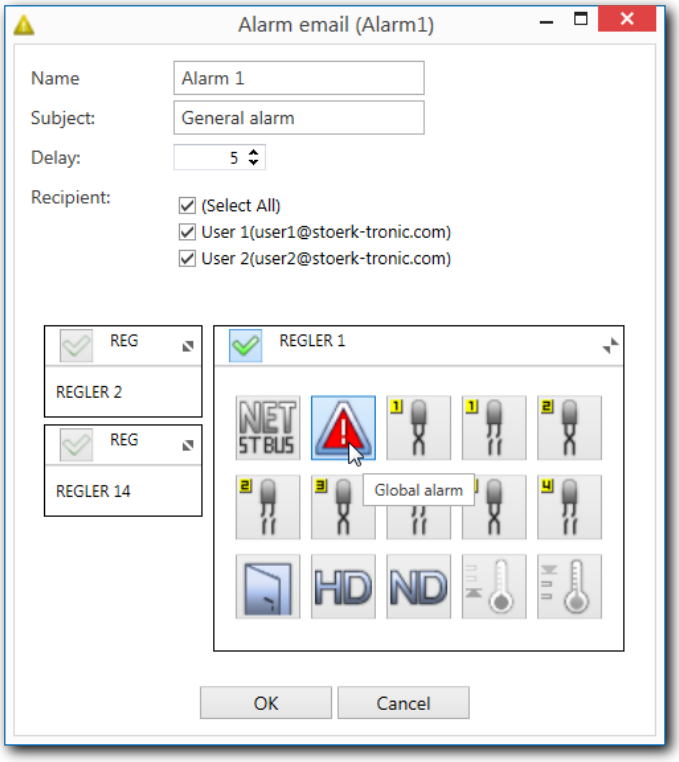
To define a new alarm, click on the corresponding button:



Insert the subject, a time delay (in minutes) and the recipients for the email.

Define the alarms to be monitored for each controller. The corresponding symbols can be activated or deactivated by simply clicking on them. The double arrow ◪ can be used to switch between the individual controllers.

Note: For each alarm type (Alarm1, Alarm2, Warning) only one alarm can be created.

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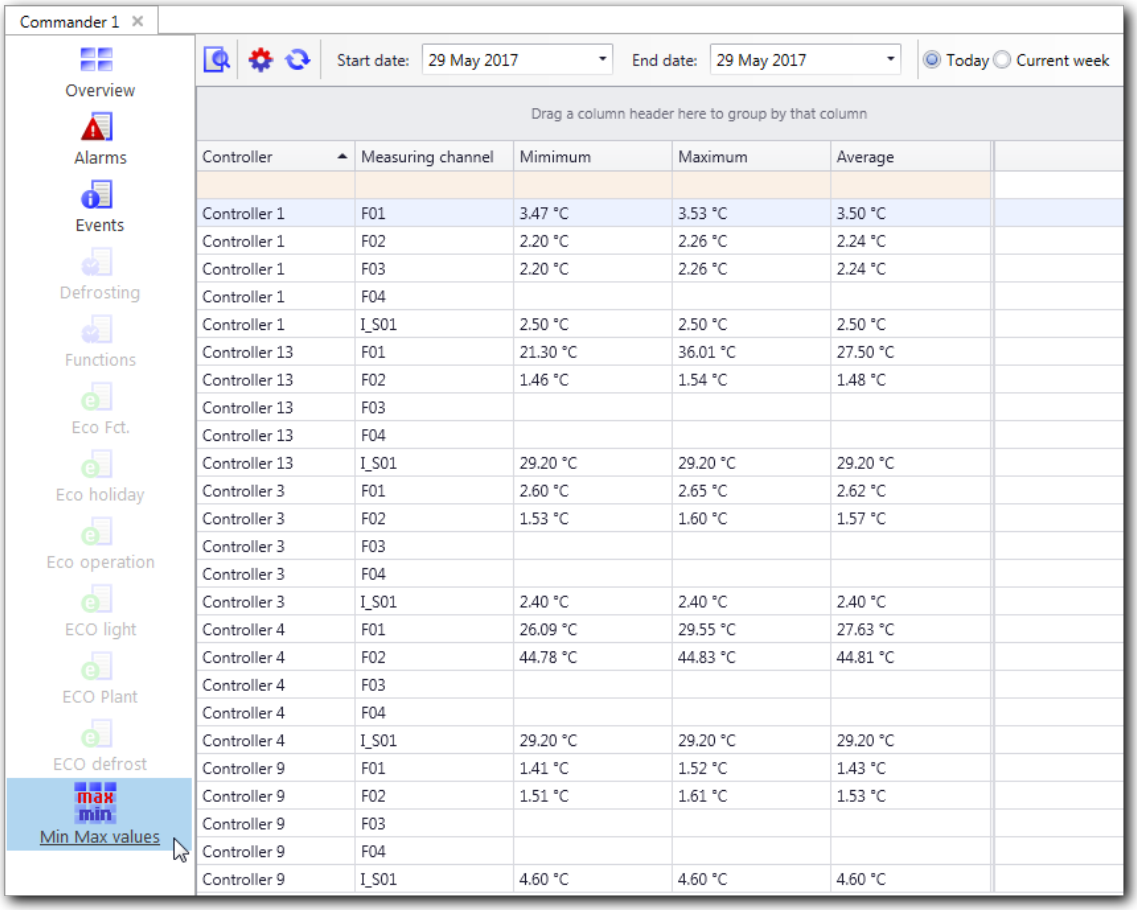
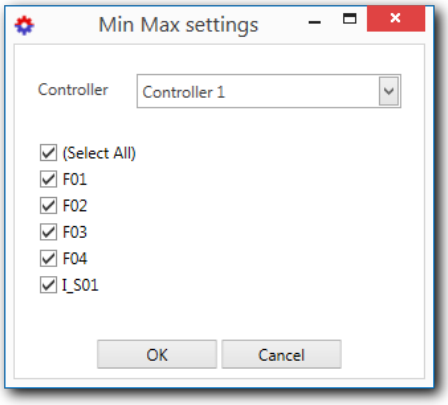
5.2.10 Min/Max Values

The function Min / Max values is to show the minimum and maximum values of the analog channels of the connected controllers.
The average value for the selected time period is displayed as well.



The time range can be selected via the two date fields.

After pressing the "Options" button , the values to be displayed can be determined for each connected controller.



Select the respective controller in the drop-down box and set the checkmarks for the desired measured values.

Confirm your selection with "OK".

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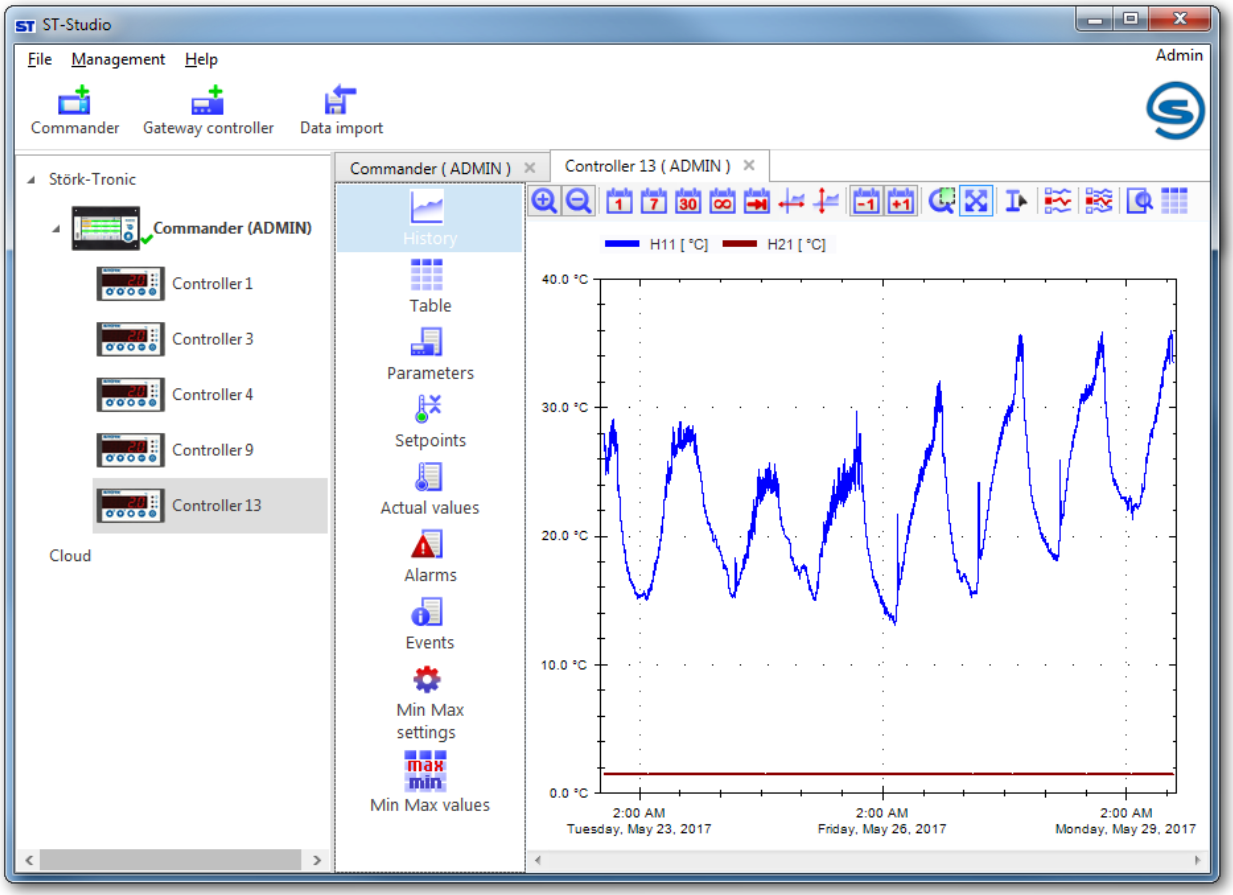
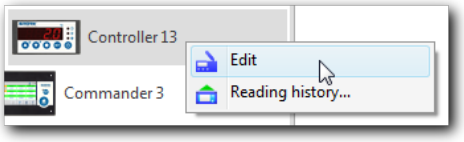
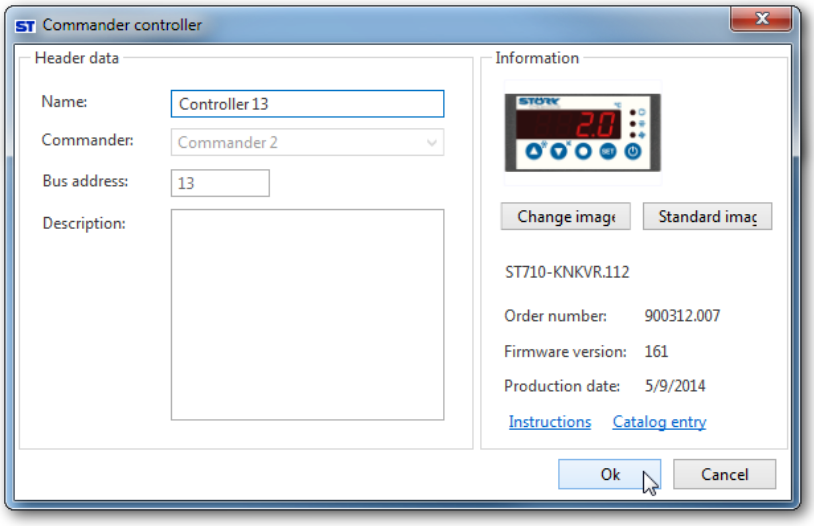
5.3 Controller



5.3.1 Control context menu

A right-click on a controller will open its context menu:





The item *"Edit"* will open an overview of the controller. Here, various information regarding the controller will be displayed (order number; firmware version, date of production..)
The control can be renamed and a short description can also be stored.

By clicking on the item *"Instructions"*, it is possible to call up a detailed data sheet of the controller.

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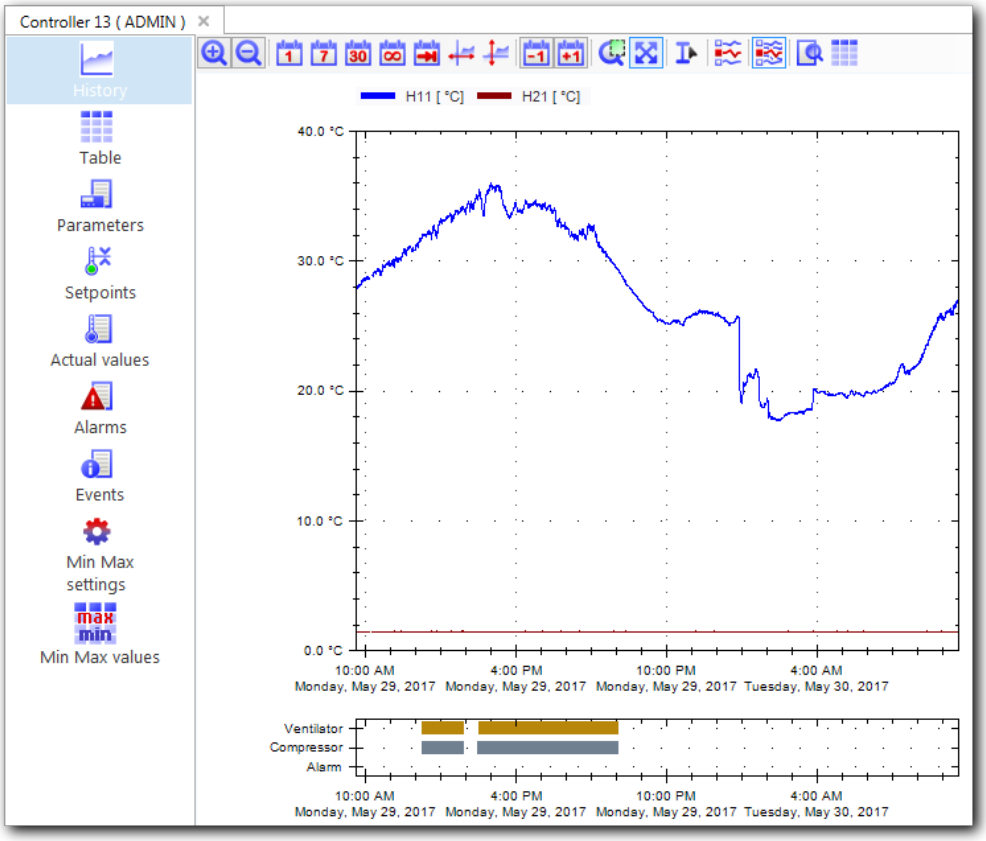
5.3.2 History

The history window displays a graphical representation of the recorded actual and target values, as well as the digital channels.



The view can be adjusted with the buttons in the toolbar as follows:

	Increase or decrease the scale of both axes.
	Scales the timeline to 1, 7 or 30 days or the entire recorded period.
	Opens a dialog box for selecting a point in time.
	Opens dialog window to display a specific time and temperature range.
	Go 1 day forward or back.
	Switching between "Zoom" and "Move" mouse mode.
	Display of a crosshair for better orientation within the diagram.
	Opens the dialog window *"Select channels"* (see below)
	Opens the print preview for the printing of the diagram.
	Switches to the tabular view of the data

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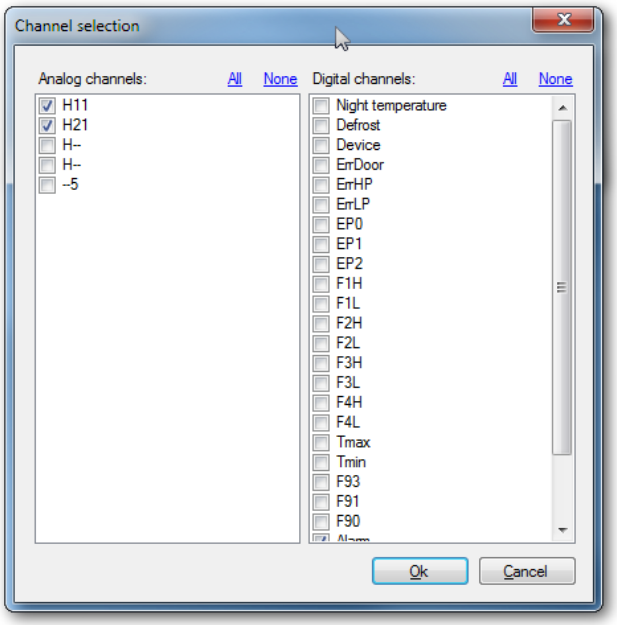


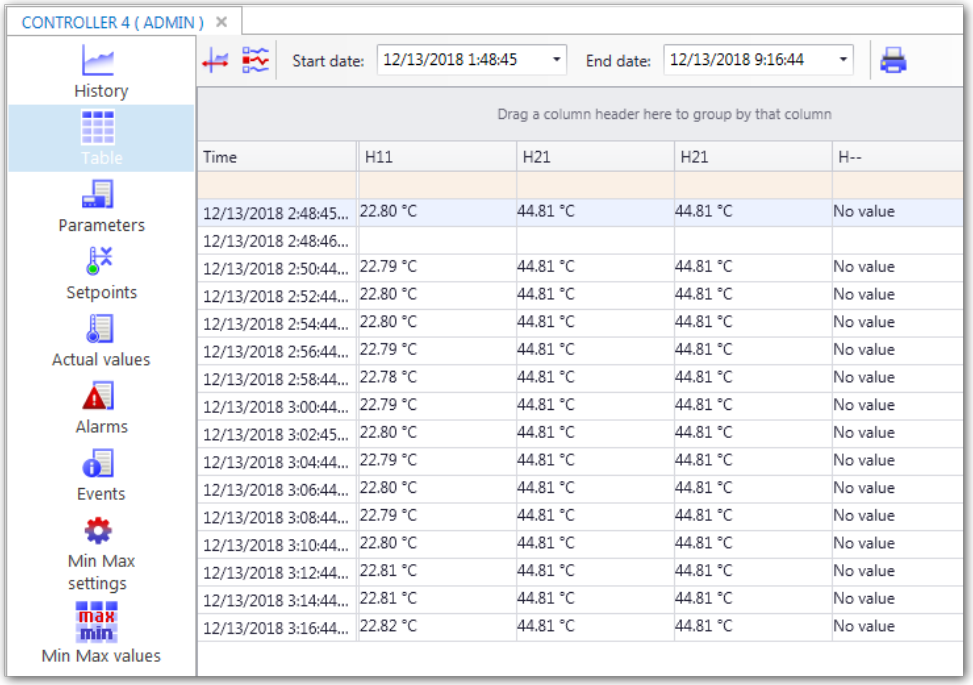
"Channel selection" dialog window:

Mark the respective analogue and digital channels to be represented in the diagram with a checkmark.

By default, all values are checked.

5.3.3 Table

In the table window, all recorded values are listed in tabular form.



Time	H11	H21	H21	H--
12/13/2018 2:48:45...	22.80 °C	44.81 °C	44.81 °C	No value
12/13/2018 2:48:46...				
12/13/2018 2:50:44...	22.79 °C	44.81 °C	44.81 °C	No value
12/13/2018 2:52:44...	22.80 °C	44.81 °C	44.81 °C	No value
12/13/2018 2:54:44...	22.80 °C	44.81 °C	44.81 °C	No value
12/13/2018 2:56:44...	22.79 °C	44.81 °C	44.81 °C	No value
12/13/2018 2:58:44...	22.78 °C	44.81 °C	44.81 °C	No value
12/13/2018 3:00:44...	22.79 °C	44.81 °C	44.81 °C	No value
12/13/2018 3:02:45...	22.80 °C	44.81 °C	44.81 °C	No value
12/13/2018 3:04:44...	22.79 °C	44.81 °C	44.81 °C	No value
12/13/2018 3:06:44...	22.80 °C	44.81 °C	44.81 °C	No value
12/13/2018 3:08:44...	22.79 °C	44.81 °C	44.81 °C	No value
12/13/2018 3:10:44...	22.80 °C	44.81 °C	44.81 °C	No value
12/13/2018 3:12:44...	22.81 °C	44.81 °C	44.81 °C	No value
12/13/2018 3:14:44...	22.81 °C	44.81 °C	44.81 °C	No value
12/13/2018 3:16:44...	22.82 °C	44.81 °C	44.81 °C	No value

The time range can be selected via the two date fields.

Opens dialog window to display a specific time range.

Opens the print preview for the printing of the table.

Opens the dialog window *"Select channels"*

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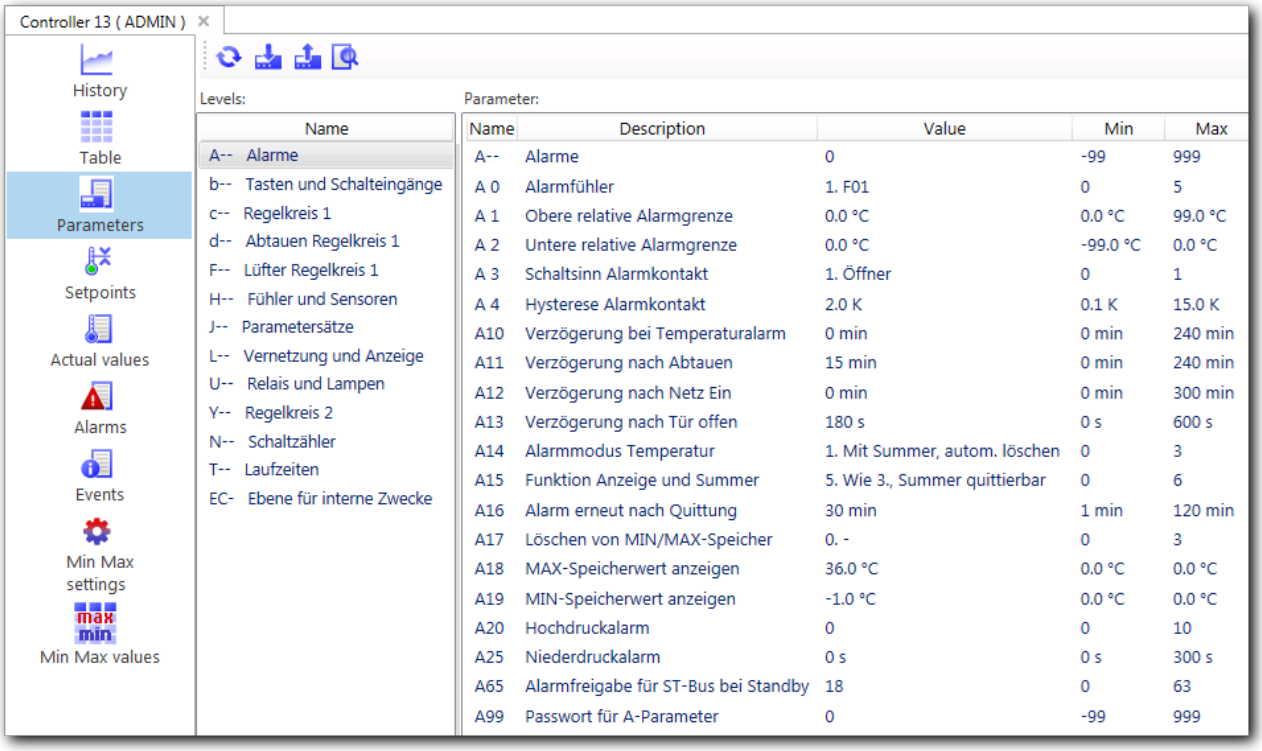
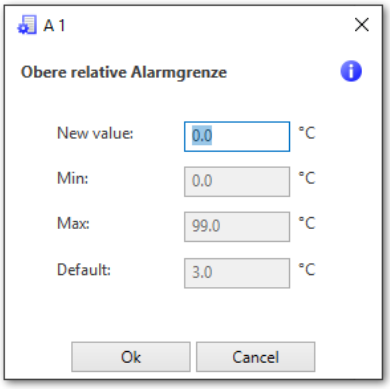
5.3.4 Parameter

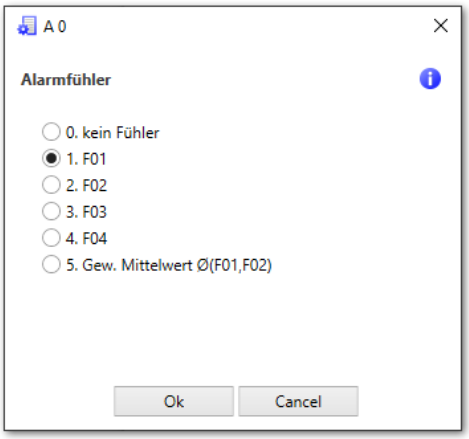
In the parameters window, all parameter levels are represented with the corresponding parameters of the controller.





A double-click on the parameter will open the respective dialog box.
In addition to the value parameter, the setting limits and a description of the function of the parameter will be displayed.

The new parameter value will be adopted by clicking on *"Ok"*. Hereby, the values outside the setting limits are automatically adjusted to the respective maximum/minimum.



For parameters with certain selection options, these will be displayed in a drop-down list.

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With the buttons, the parameters of a connected controller can be easily stored in a file on the hard disk and later be written back to the controller.
Thus, a parameter setting can be transferred to several controllers.

Updates the parameters from the controller.

Opens the dialog window to rewirte a previously saved parameter set.

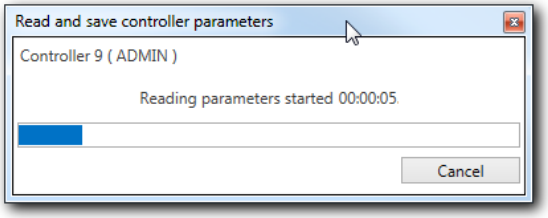
Opens the dialog window to read and save a parameter set.

Opens the dialog window to print a parameter set

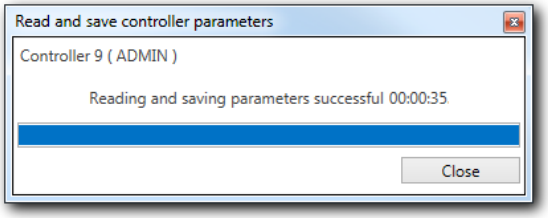
5.3.4.1 Read and save parameters

To read and save a parameter set, click the appropriate button and choose a file name. The file extension for parameter sets is *"*.st parameter"*.

After that a progress bar will open:



After successful export, the following message will appear:



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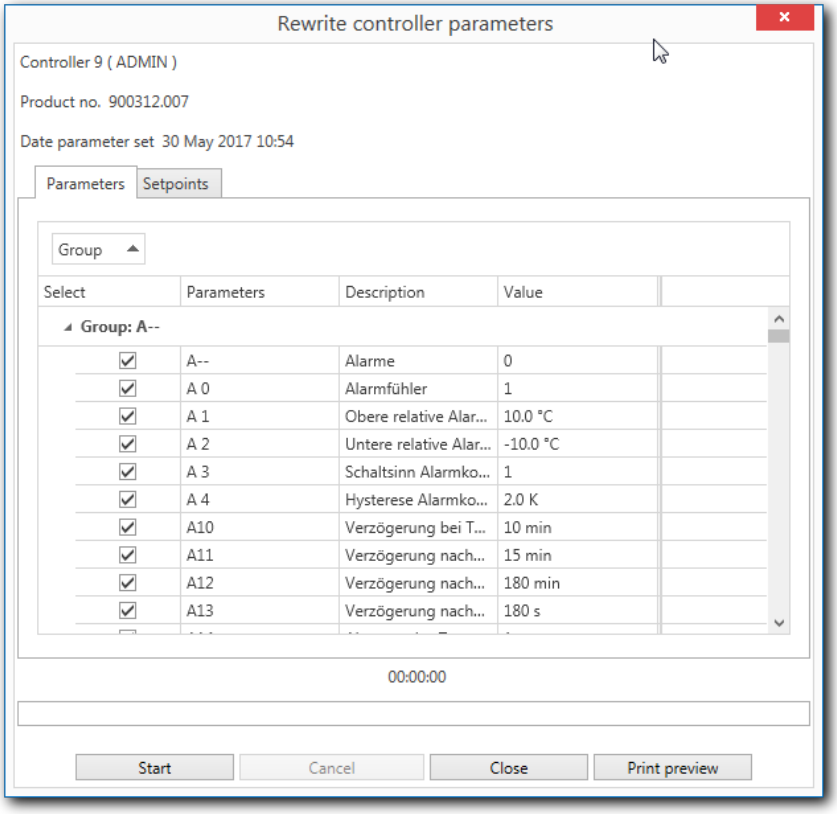
5.3.4.2 Rewrite parameters

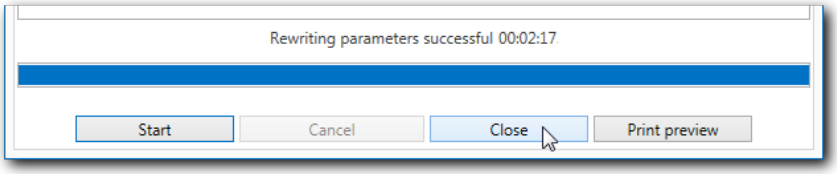
To rewrite the parameters to the controller, click on the appropriate button . In the following dialog, select the desired file.

After that a dialog box will open in which the import can be restricted to certain parameters:



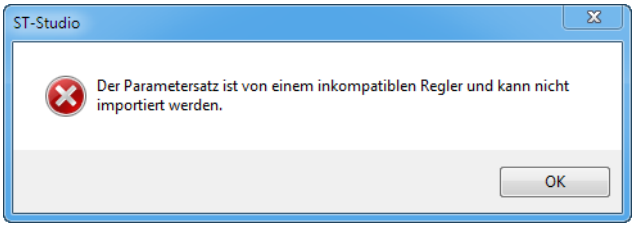
Disable parameters not to be imported, and start the import with the *"Start"* button.

After successful rewriting the parameters, the following message will appear and you can close the dialog:



If necessary, restart the controller.

Note: Only parameter sets between controllers with the same software version can be copied. Otherwise the following message will appear:



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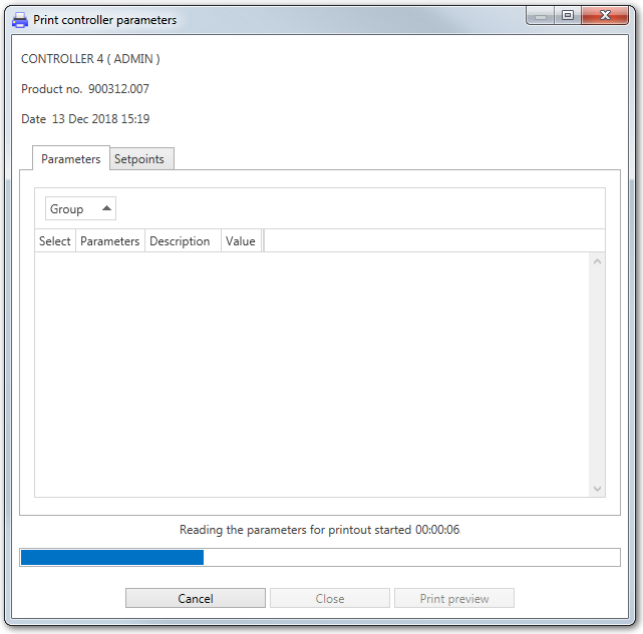
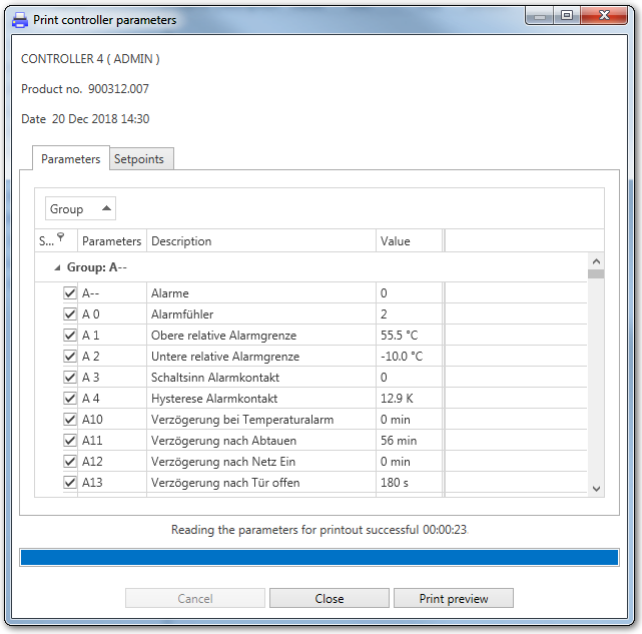
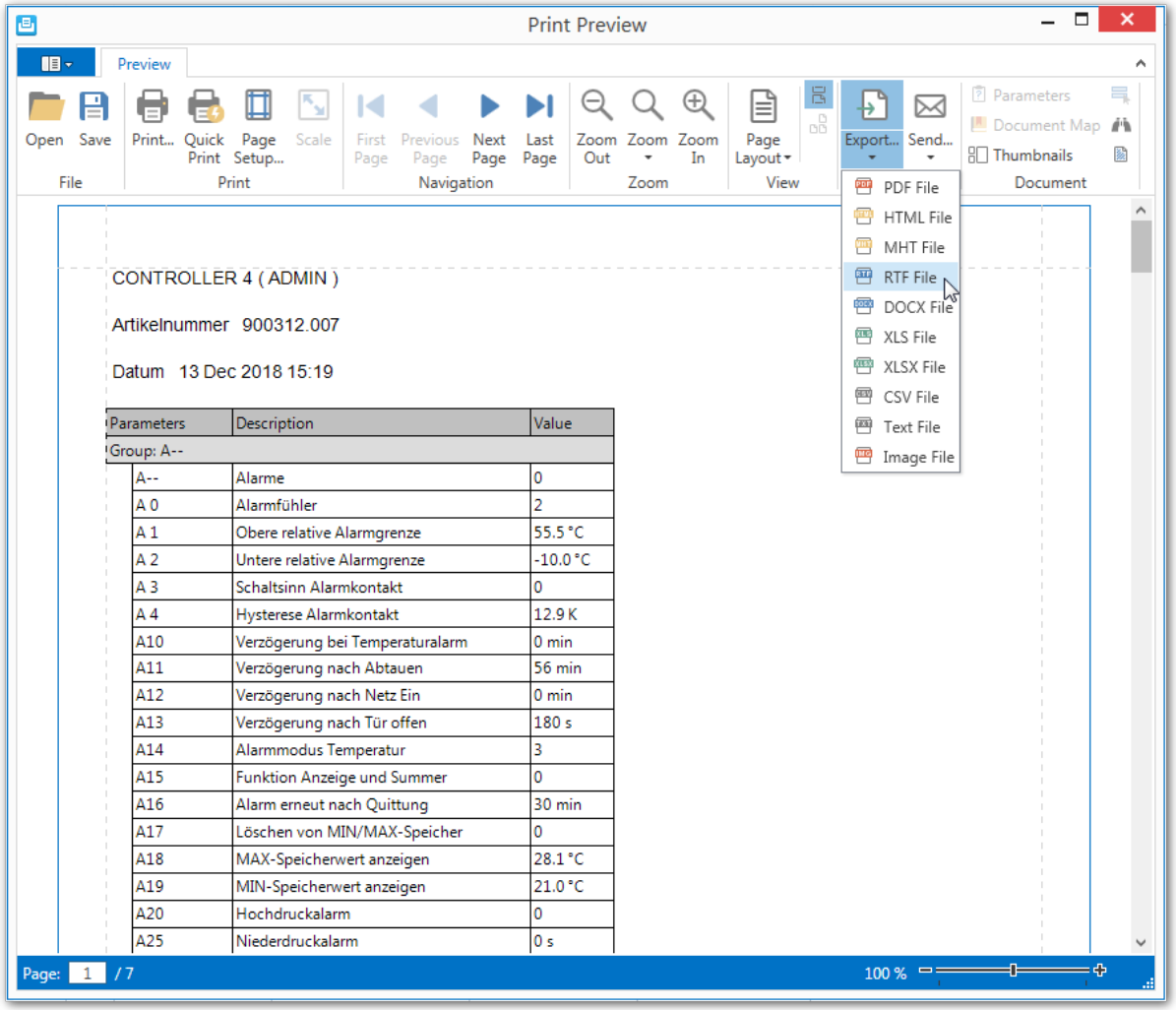
5.3.4.3 Read and print parameters

Via the button "Read and print parameters" the parameter list is automatically read out and the complete data set can be easily printed out or exported to various other formats.







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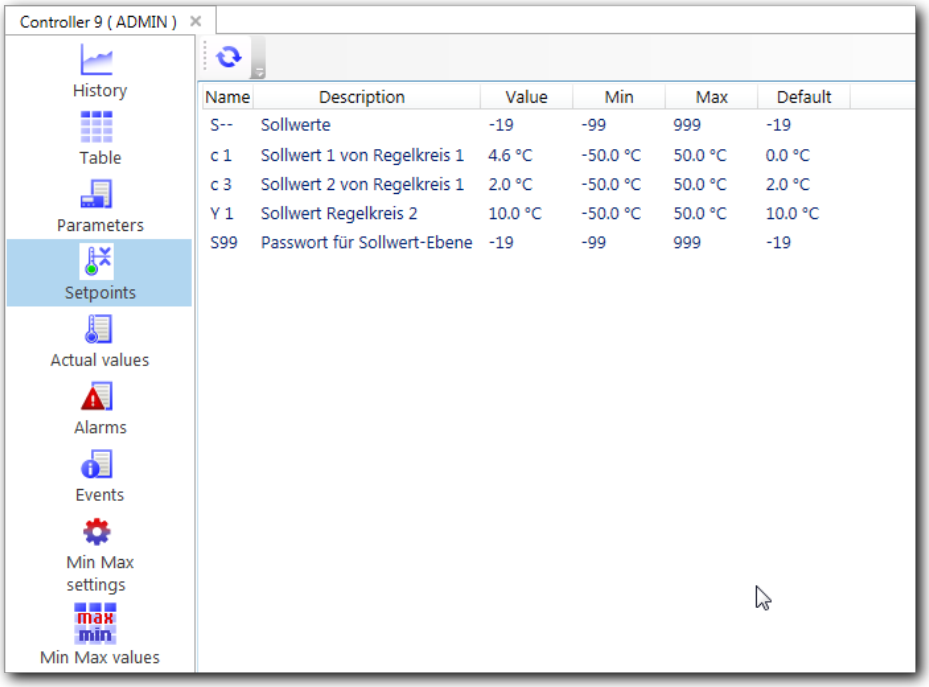
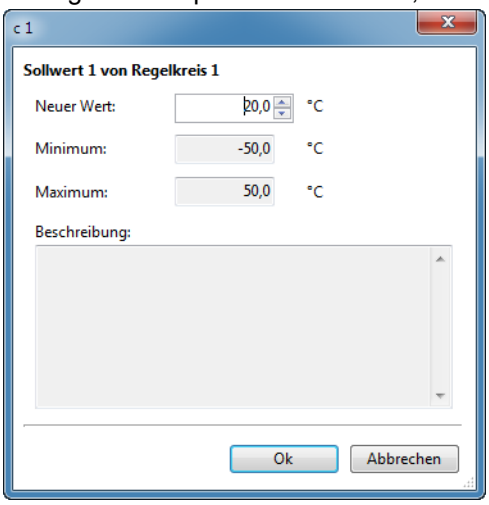
5.3.5 Set-point values

The set-point values window shows an overview of all set-point values of the relevant controller, as well as their setting ranges and default values.



Analogue to the parameter window, the set-points can be changed here directly.



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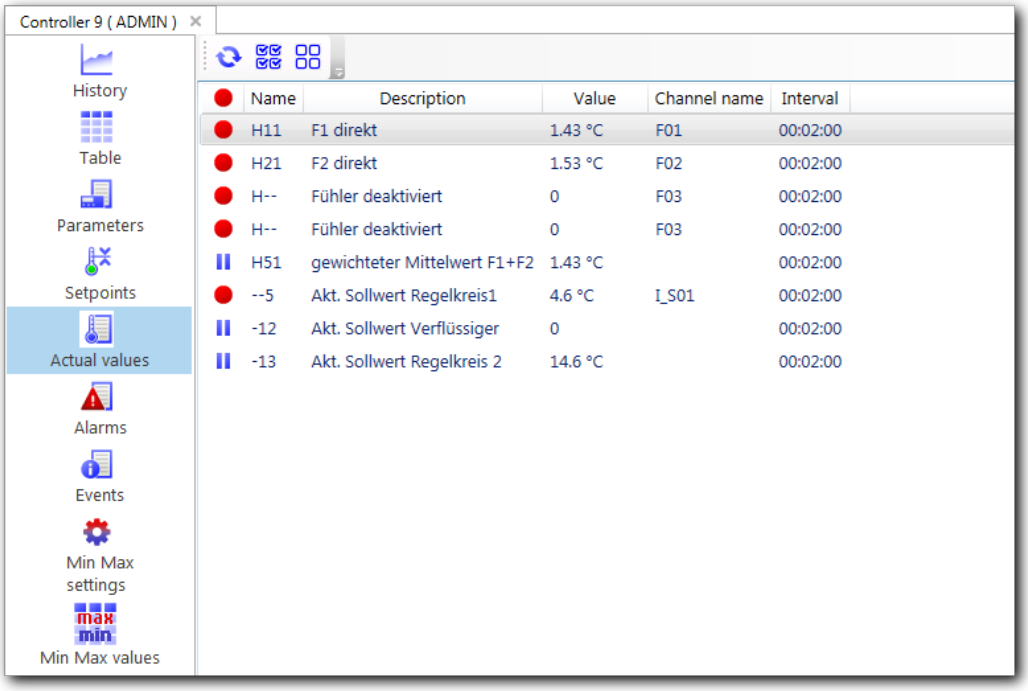
5.3.6 Actual values

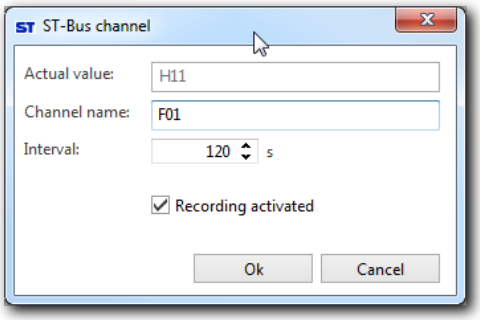
An overview of all current actual values (ST-bus channels).



The symbol in the first column indicates whether ST-Studio is recording the respective value. Through this it is possible to implement a "live" monitoring of the measured values up to the next data readout from the Commander.

The value will be recorded by ST-Studio.

A recording will not be performed.



With a double-click on the respective value a dialog box will open.

Here, the name of the channel can be set, and whether it should be recorded.
The query interval can be selected between 10 and 3600 seconds.

In addition, the following functions can be performed with the upper buttons:

	Update	Update the shown controller values.
	Monitoring all	Enable recording for all values.
	Monitoring none	Stop recording for all values

Note: As soon as the history is read out from the Commander again, the data recorded by ST-Studio will be supplemented so that a complete history will be ensured.

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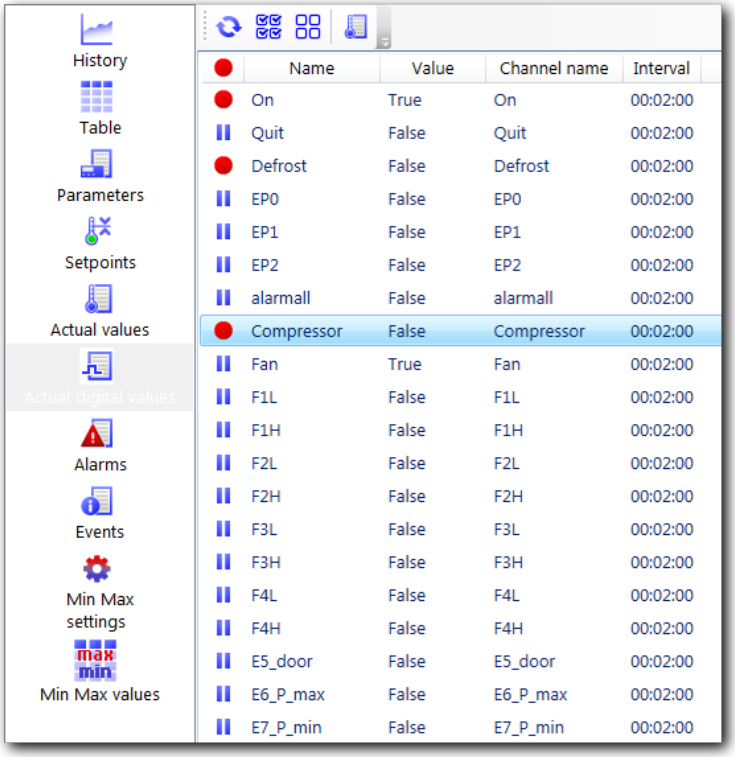
If a controller is not connected via the Commander, but directly to the PC via a gateway, the function "Digital Actual Values" appears.



The functionality is the same as for the analogue actual values.

In addition, the buttons and switch between the lists for analogue and digital actual values.

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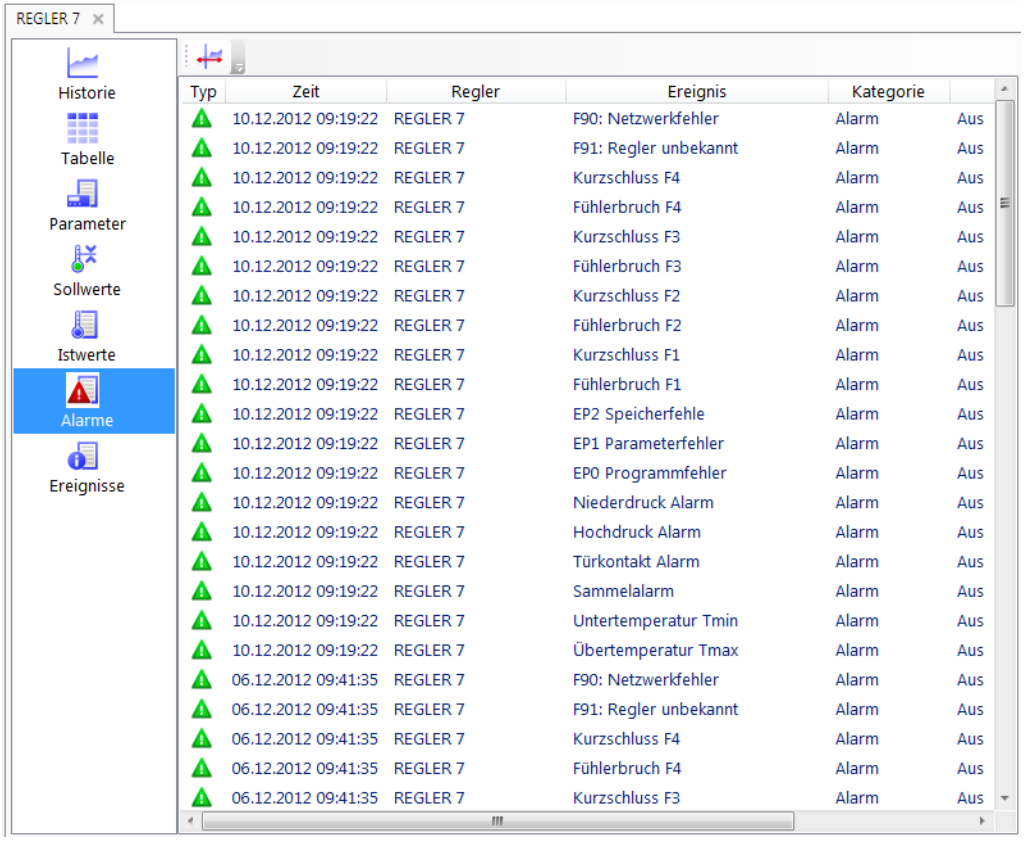
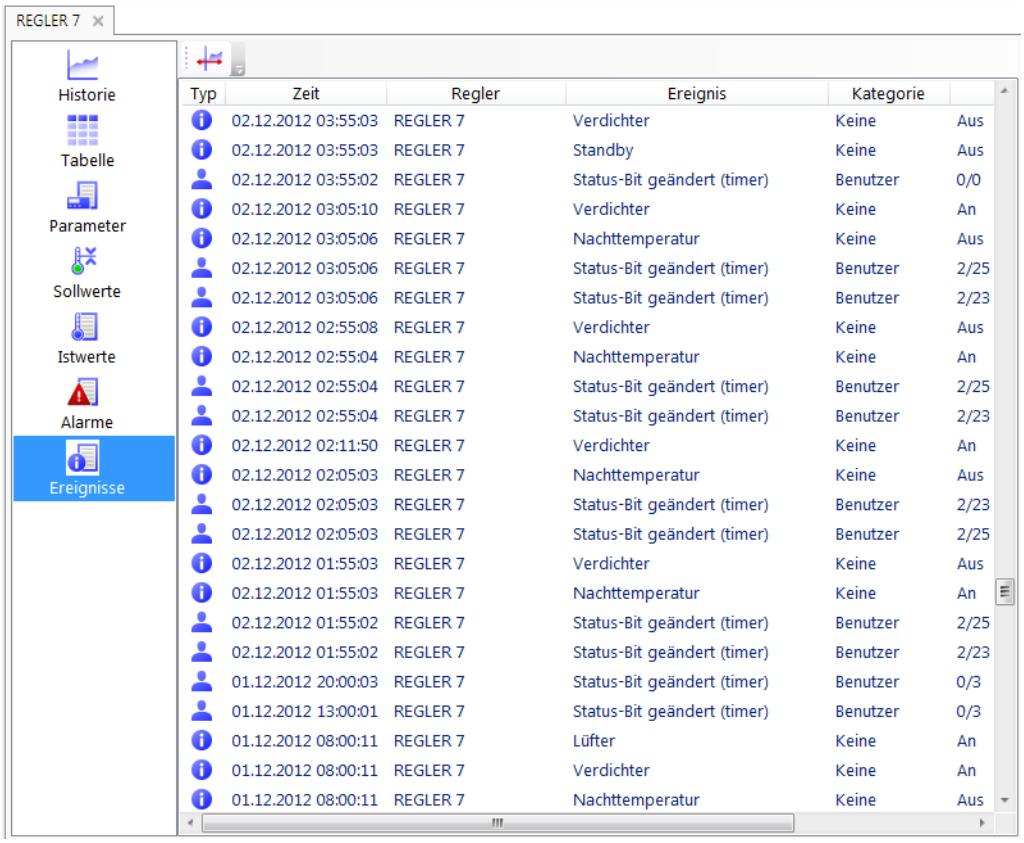
5.3.7 Alarms

A listing of all the alarm events of the respective controller.



5.3.8 Events

A listing of all the events of the respective controller.



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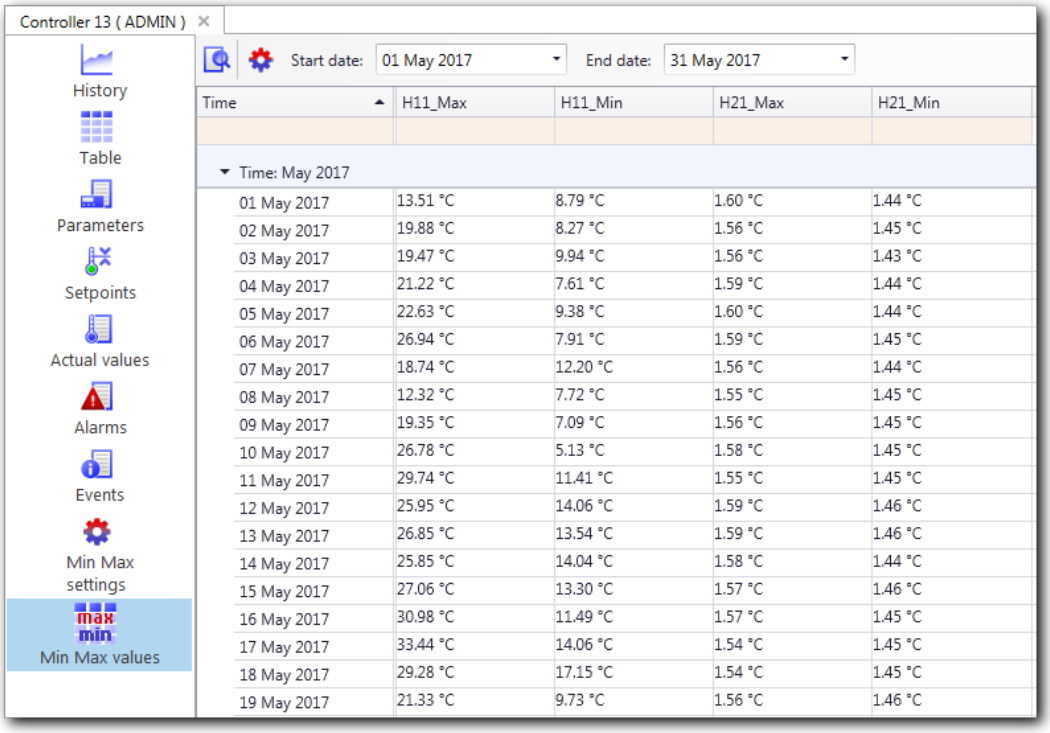
5.3.9 Min/Max Values

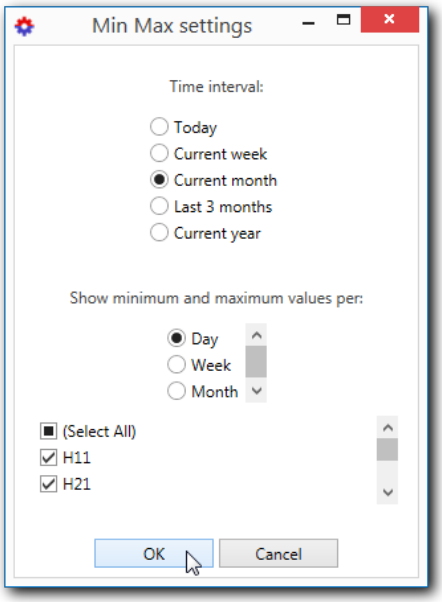
With the “Min / Max values” function, the minimum and maximum values of the analog values of the selected controller can be recalled. The average value for the selected period is also displayed.



Time	H11_Max	H11_Min	H21_Max	H21_Min
Time: May 2017				
01 May 2017	13.51 °C	8.79 °C	1.60 °C	1.44 °C
02 May 2017	19.88 °C	8.27 °C	1.56 °C	1.45 °C
03 May 2017	19.47 °C	9.94 °C	1.56 °C	1.43 °C
04 May 2017	21.22 °C	7.61 °C	1.59 °C	1.44 °C
05 May 2017	22.63 °C	9.38 °C	1.60 °C	1.44 °C
06 May 2017	26.94 °C	7.91 °C	1.59 °C	1.45 °C
07 May 2017	18.74 °C	12.20 °C	1.56 °C	1.44 °C
08 May 2017	12.32 °C	7.72 °C	1.55 °C	1.45 °C
09 May 2017	19.35 °C	7.09 °C	1.56 °C	1.45 °C
10 May 2017	26.78 °C	5.13 °C	1.58 °C	1.45 °C
11 May 2017	29.74 °C	11.41 °C	1.55 °C	1.45 °C
12 May 2017	25.95 °C	14.06 °C	1.59 °C	1.46 °C
13 May 2017	26.85 °C	13.54 °C	1.59 °C	1.46 °C
14 May 2017	25.85 °C	14.04 °C	1.58 °C	1.44 °C
15 May 2017	27.06 °C	13.30 °C	1.57 °C	1.46 °C
16 May 2017	30.98 °C	11.49 °C	1.57 °C	1.45 °C
17 May 2017	33.44 °C	14.06 °C	1.54 °C	1.45 °C
18 May 2017	29.28 °C	17.15 °C	1.54 °C	1.45 °C
19 May 2017	21.33 °C	9.73 °C	1.56 °C	1.46 °C

The time range can be selected via the two date fields.

After pressing the "Min Max settings" button the values to be displayed can be determined.



Select the time interval to be displayed.

Select the type of calculation of Min / Max values.

Select the measured values to be displayed.

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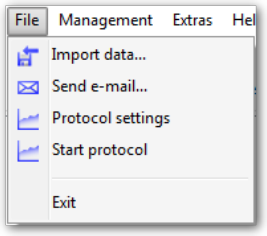
6 Menu bar

6.1 Menu „*File*“

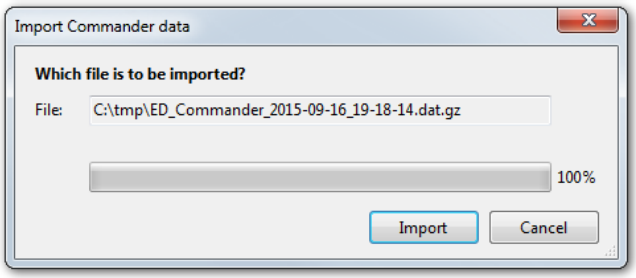


6.1.1 Data import

If a Commander is not reachable through the network, its recorded data can be transferred to ST-Studio via USB data carrier. First, export the data on a Commander to a USB data carrier.

Then in ST-Studio select *"File - data import"* or the corresponding button in the toolbar.

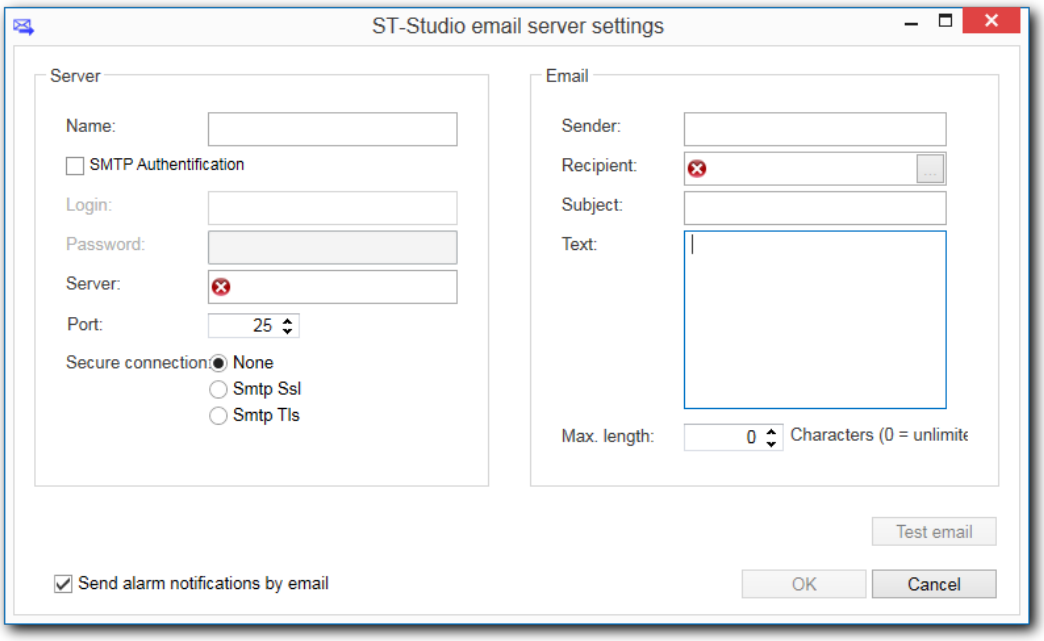
First select the file to be imported and start the import in the following dialog.



6.1.2 ST-Studio email server settings

The ST-Studio software has the functionality to send an email to a specific address in the event of an alarm. This is independent of the e-mail transmission of a commander, which is configured in chapter 5.2.9.

For the configuration, select the menu item *"File – Send e-mail..."*:



The e-mail dispatch can be activated with a check mark next to *"Send alarms by E-Mail"*.

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Specify the address (IP/URL) and port of the E-Mail Server, and the type of encryption under *"Server"*.

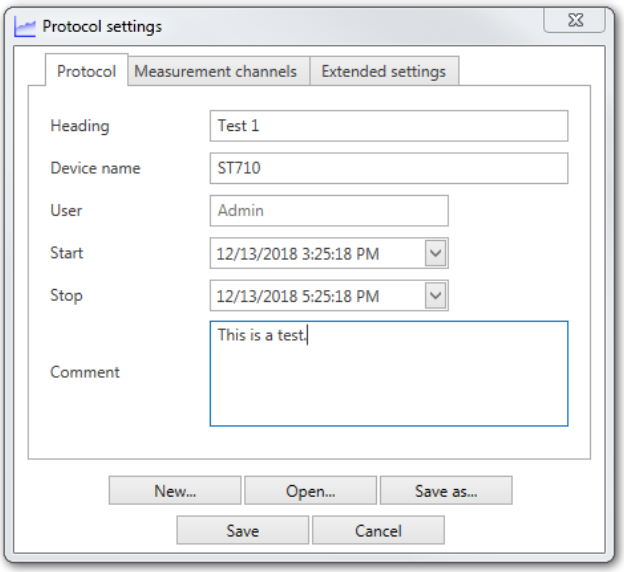
It could be necessary to specify a user name and password for the SMTP user *("SMTP authentication")*.

In the *"E-Mail"* field, specify a sender and recipient address, as well as the subject and text of the email to be sent.

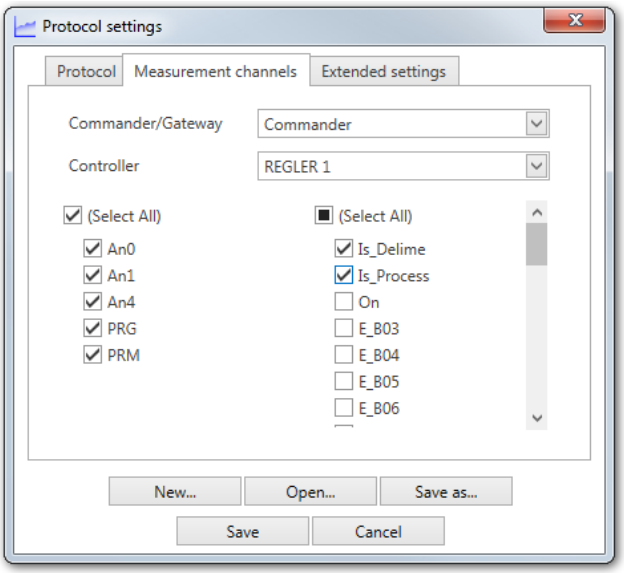
The text of the email can be limited to a certain number of characters. This is useful if the mail is to be forwarded via SMS to a mobile phone

6.1.3 Protocol settings

For the live monitoring of analogue and digital channels (e.g. for device tests in production), logging can be carried out. Controllers of different commanders or systems can be combined in one display. The following settings can be made:



In the tab "Protocol" some general information as well as start and end time of the protocol can be defined. In addition, all the settings made can be saved here and read in again when a protocol is executed later.



In the "Measurement Channels" tab, the channels to be recorded can be selected for each controller on each available Commander.

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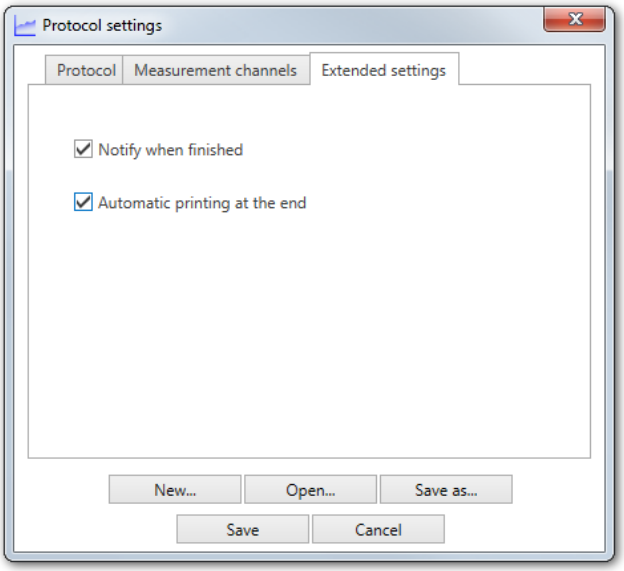

In the "Extended settings" tab, you can also specify whether a notification should be sent at the end of the log and whether the log should be printed automatically.

6.1.4 Start protocol

After starting the logging, the following window opens:

The checkboxes can be used to allow scrolling in x- and y-direction. It is also possible to hide the comment.

In the legend you can show or hide the individual channels.

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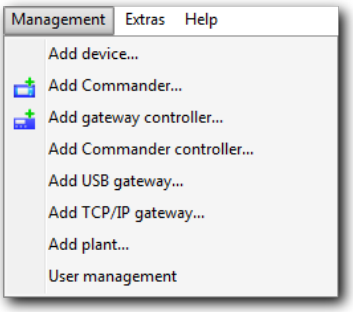
Creates a print preview from which you can also export to various formats.

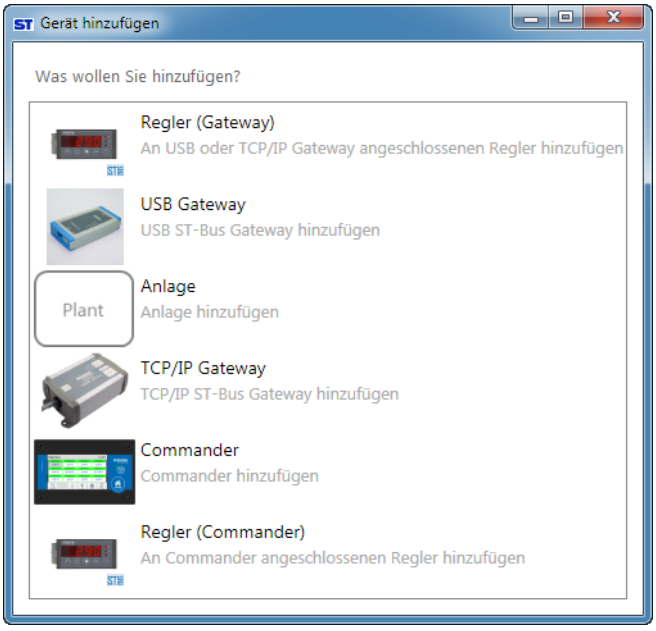
Prints directly to the default Windows printer.

Saves the protocol as a pdf file.

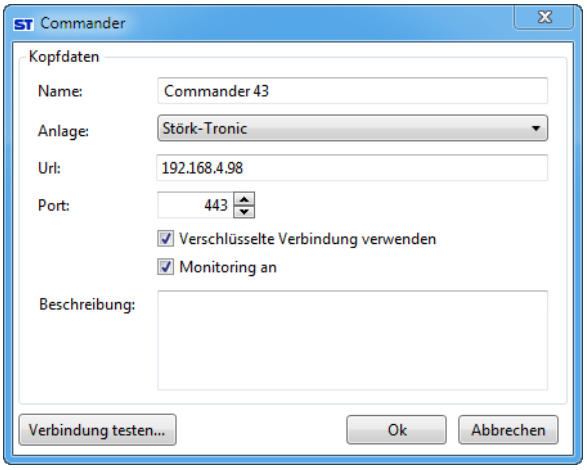
6.2 Menu *"Management"*

In the management menu, it is possible to add different devices to ST-Studio:





"Add device..."
Here, all possibilities will be shown in an overview. Is the desired can be selected with a double click.



"Add Commander..."
Through this, a further Commander can be added to a plant (see Chapter 4).

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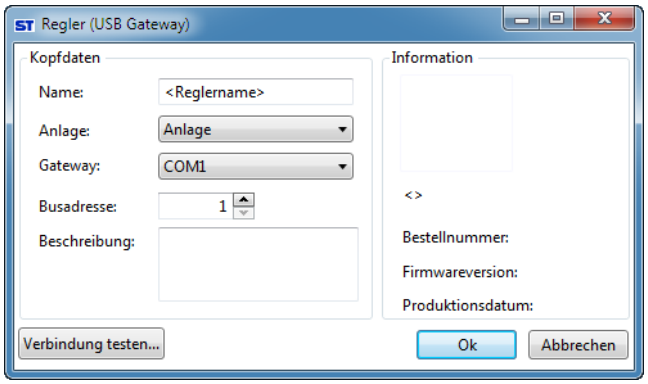
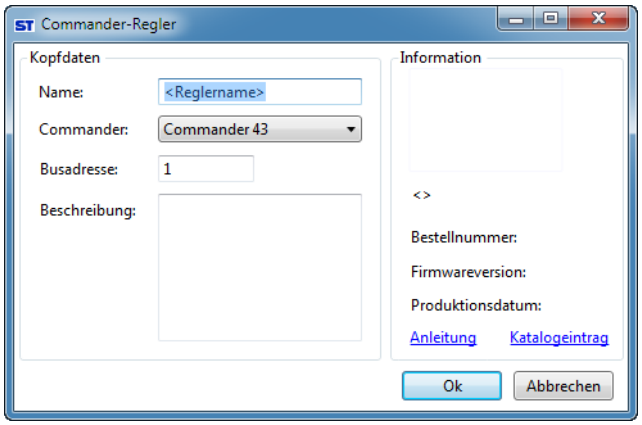
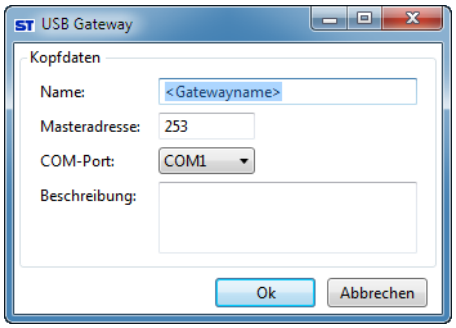


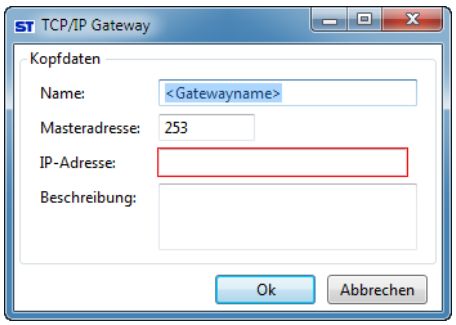
"Add gateway controller..."



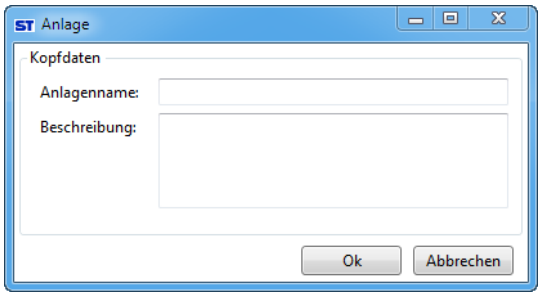
"Add Commander controller..."
If a new controller is connected to a Commander it can also be added to ST-Studio.
For this, specify the name of the Commander and the bus address of the controller.



"Add USB gateway..."
Here, a USB gateway can be added which is connected to the PC.
The master address does not need to be changed.
Select the COM port provided by the USB driver.



"Add TCP/IP gateway..."
Here, a TCP/IP gateway can be added which will be available in the local network.
Select an unused master address. Please observe that each master address (Commander, gateways) must be unique within the network.
Subsequently, specify the IP address of the gateway.



"Add plant"
Here, a further plant can be added to the system, for example, to manage different locations.

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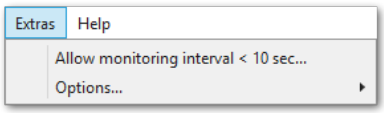
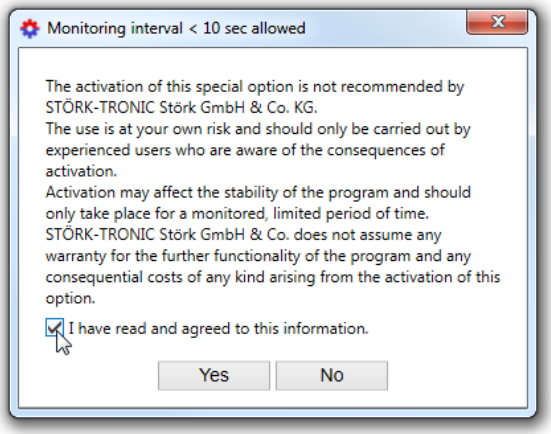
6.3 Menu *“Extras”*



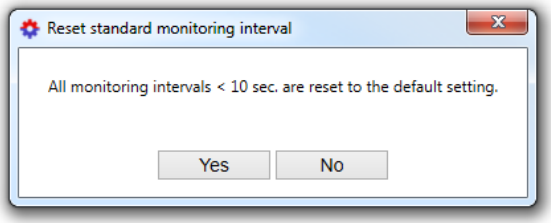
6.3.1 Monitoring interval

Usually ST-Studio does not allow recording intervals of less than 10 seconds to guarantee the stability of the recording.

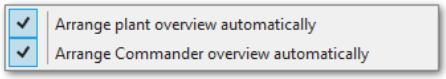
This option allows you to explicitly allow smaller monitoring intervals. Please read the following note carefully and confirm that you are aware of it.



As soon as the option is deactivated, all intervals that have been set to a value less than 10 seconds are reset to the default value of 120 seconds.

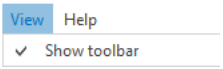


6.3.2 Options



If these options are activated, all elements are automatically arranged each time the respective overview is opened for the first time.

6.4 Menu *“View”*



This option allows the toolbar to be shown and hidden.

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7 User management ST-Studio

With the user management, different users with different permissions ("roles") can be created in ST-Studio.

Start the user management via the menu *“Management – User management”.*

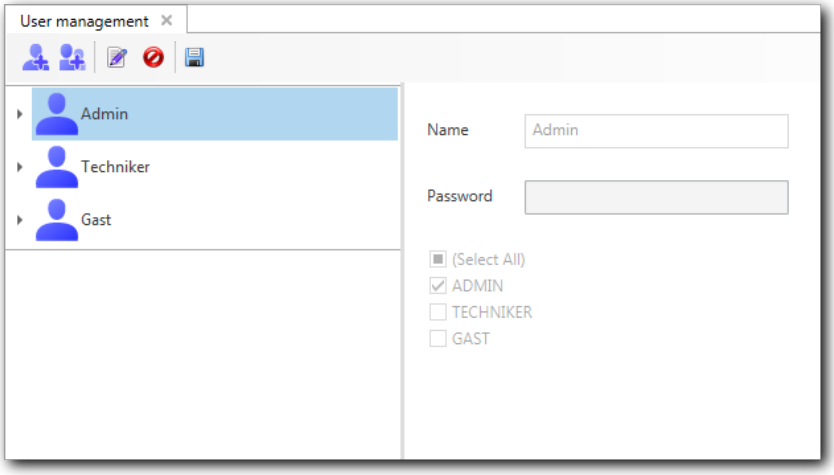
Important:
In order to make any changes in the user management, you first have to switch to the editing mode with the "Edit" button .
Before switching to another user or another user role the changes must always be confirmed using the “Save” button or the context menu.

In general there is a difference between **users** ( ) and **user roles** ( ).

The actual allocation of permissions takes place in the user roles. One (or multiple) user role can then be assigned to the respective user.
If a user is assigned several roles, he has all the rights of the individual roles.

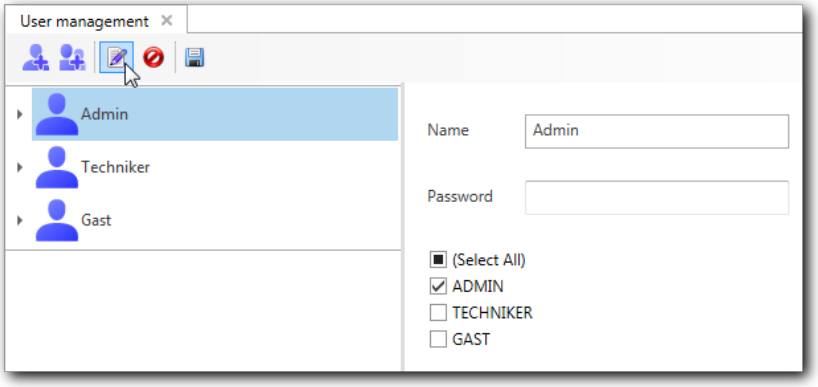
7.1 Users

The left column shows the three default users.



7.1.1 Edit user

In order to edit a user, the first select the user and then switch to edit mode with the "Edit" button .



Now the user name and / or the password can be changed in the right pane.
In the list below, one or more roles can be assigned to the user.

To accept the changes you have to confirm them with the "Save" button !

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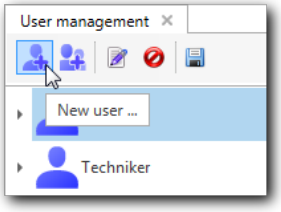
7.1.2 Create new user

The "New user" button creates a new user.



After specifying the user name and password and assigning the appropriate user role(s), the action must be completed with the "Save" button.

By using the "Delete" button, the selected user can be deleted after a security query.

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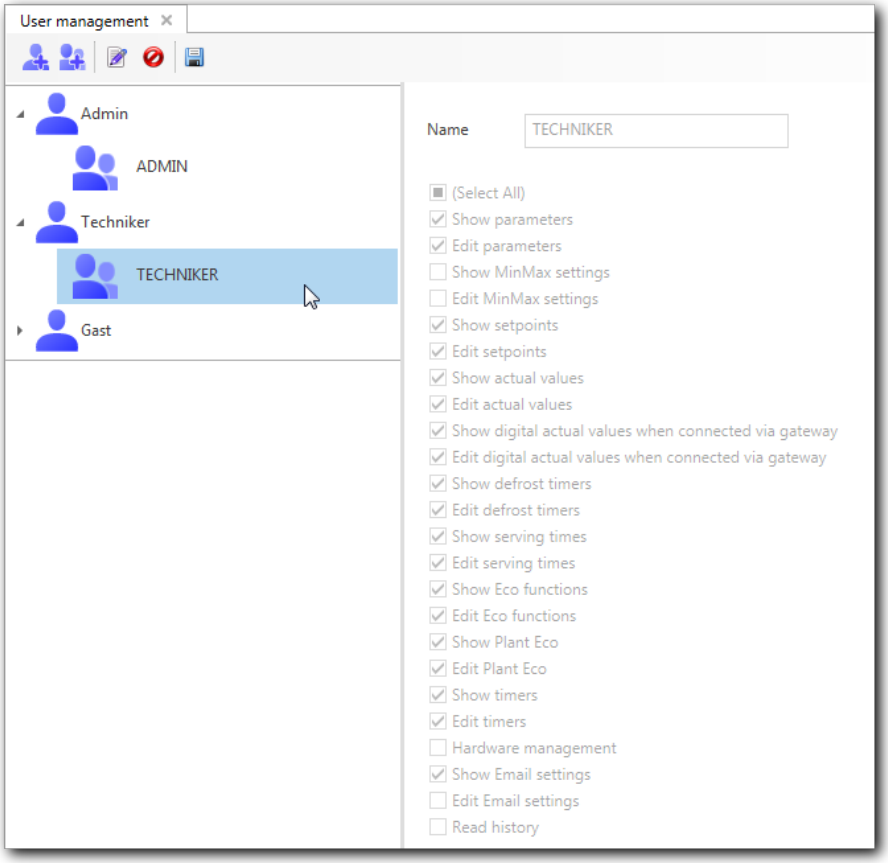
7.2 User roles

Clicking on the arrow next to a user opens a list with the assigned user roles:

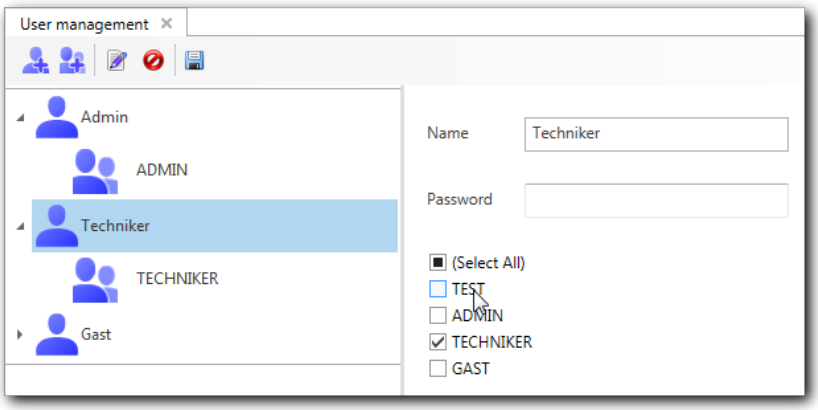


7.2.1 Edit user roles

After selecting a role, the permissions can be edited by changing to the edit mode (with).

Save the user role to confirm the new permissions (with).

One or more roles can be assigned to each user. For this purpose, change to the edit mode of the respective user and a checkmark the respective roles. The user must then be saved.



The permissions of the different roles are added together.

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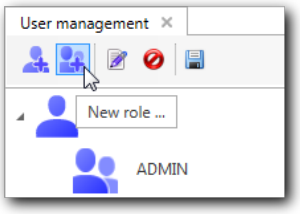
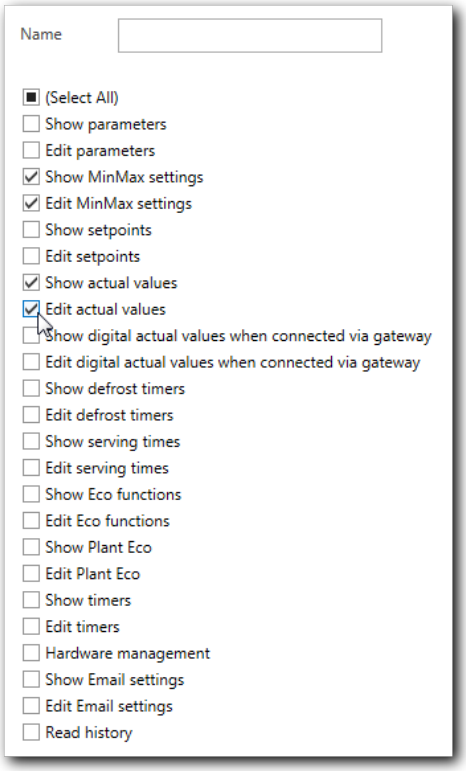
7.2.2 Create new user role

A new user role is created with the "New role" button .



Enter a name for the new role and choose the appropriate permissions.



After clicking the "Save" button, the new role is available to the individual users.

To delete a user role, first select it under any user. Then delete the role with the "Delete" button .

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8 License management ST-Studio

Different licences can be purchased for ST-Studio to extend the range of functions of the free version. The following table shows the different versions:

ST-Studio	Light Edition	Standard Edition	Pro Edition
Number of Commanders	1	10	100
Controller per Commander	32	32	32
Gateway (USB or TCP/IP)	Yes	Yes	Yes

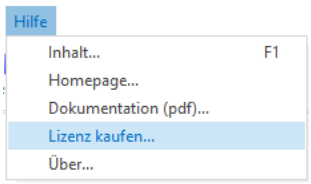
Essentially, the ST-Studio Edition determines how many Commanders you can install and connect to.

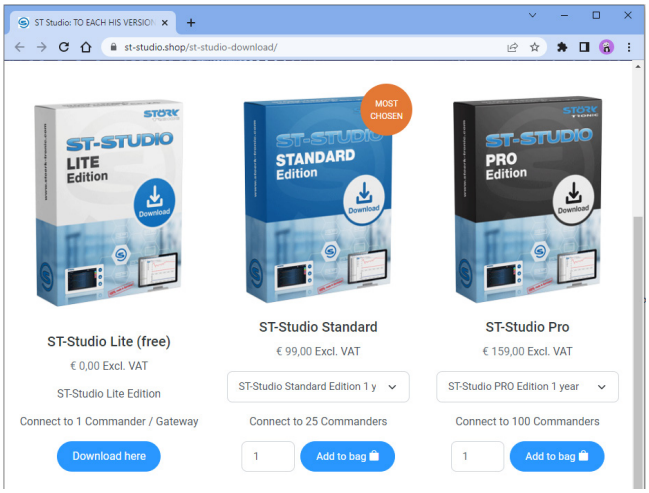
For example, if you have the ST-Studio Lite version, you can install one Commander, you cannot install a second one.
If you have the Standard Edition, you can install and connect to 10 Commanders at the same time. You cannot install more than 10 Commanders.

8.1 Buy a license

You can order new licence keys via a link in ST-Studio ("Help - Buy licence ...) or via the ST-Studio webshop.

https://st-studio.shop





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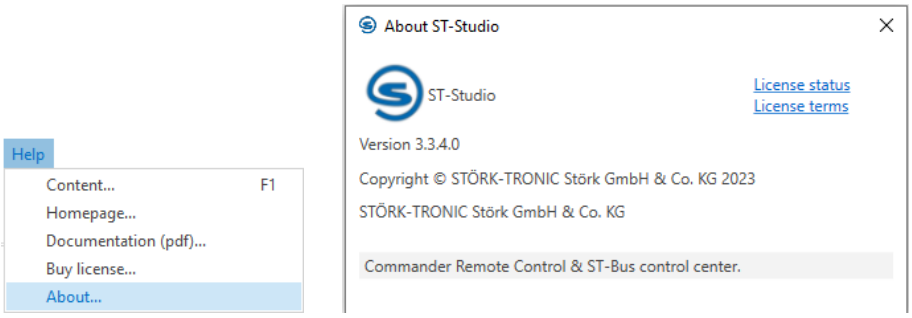
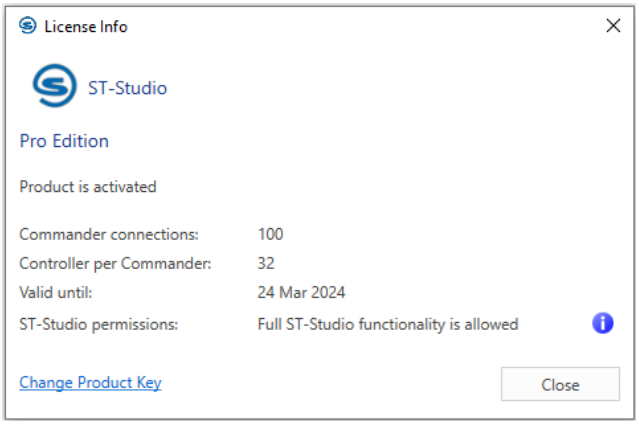
8.2 Activate license

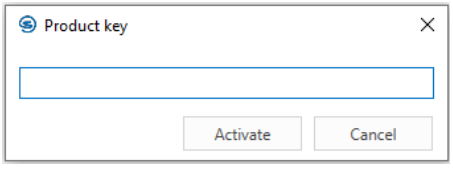
To activate the licence, go to "Help - About ..." and in the pop-up that opens, click on "Licence status“.



Here you can see the currently used licence:



Click on "Change product key" to enter the key purchased in the shop and activate the new licence.



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9 Appendix

9.1 License agreement

SOFTWARE license agreement for ST-Studio

This software license agreement (hereinafter referred to as "Agreement") governs the use of the ST-Studio software from the Störk-Tronic, Störk GmbH & Co. KG (hereinafter referred to as "Störk-Tronic") by the user (hereinafter referred to as "Customer"), including the media, clipart, fonts, printed materials and documentation associated with this software (hereinafter total referred to as "Software"). By installing, clicking on or using this software, the customer agrees to the terms and conditions of this agreement.

1. LICENSE:
1.1 This agreement grants the customer a non-exclusive license for the intended use of the software in its entirety as outlined here.
1.2 The intended use of the software is determined by a license key purchased by the customer. The license key may not be used several times at the same time. The license key for the Light Edition, Standard Edition and Professional Edition includes the right for software updates from ST-Studio for up to 2 years after the initial installation of the key. In the case of a culpable breach of this obligation, Störk-Tronic is entitled to demand additional remuneration in the amount of contract-typical damages (see 5.3). Other more comprehensive statutory shall remain unaffected.
1.3 The customer may only use the software with hardware that was directly or indirectly acquired from Störk-Tronic. The use of the software with any other hardware requires the prior written consent from Störk-Tronic; in the case of a culpable breach of this obligation, Störk-Tronic is entitled to demand additional remuneration in the amount of contract-typical damages (see 5.3). Other more comprehensive statutory shall remain unaffected.
1.4. The customer is not entitled to pass on, sell, rent, transfer, loan or lease the software or parts of it. The customer is not entitled to transfer the rights arising from this agreement, or to grant sublicenses.
1.5 The customer may neither completely nor partially reverse-engineer, decompile, modify or disassemble the software. The component parts of the software may not be detached from the software.
1.6. The customer is only entitled to make one copy of the software for archival purposes, provided that such copy reproduces the complete software, including all of its components. He is also entitled to reproduce and integrate the complete legend printed on the label of the original CD. The customer is not entitled to copy the printed materials accompanying the software.

2. PROPERTY:
The software is licensed and not sold. The software and its components (including all images, photos, animations, videos, sounds, music, text and "applets") are the property of Störk-Tronic, which holds all rights, title and interests in the software or its respective components, as well as for all resulting copies. As a result, they are protected by European and American laws with regard to patent and copyright laws and international treaty provisions. The customer shall treat the software as any other copyrighted or patented material. The customer may not change, make illegible or remove any copyright notices, references to patents or trademarks from the software. Störk-Tronic reserves all rights not expressly granted to the customers with this contract.

3. TRANSFER OF RISK:
The risk of accidental loss and accidental deterioration of the software shall be passed to the customer when the software leaves the sphere of influence of Störk-Tronic. When providing the software via electronic communication media (e.g. via the Internet), this shall be performed by a download.

4. COMPENSATION OF DEFECTS:
4.1 Compensation of defects claims related to the software will become time-barred within 12 months after the transfer of risk. The above stated provisions shall not apply where the law according to §§ 438 Sec. 1 No. 2, 438 Sec. 3, 479 Sec. 1 and § 634a BGB prescribes a longer a statute of limitations.
4.2 Defects shall only be considered as such, if they are deviations from the specifications which are reproducible and proven by the customer. However, a defect shall not exist if it does not occur in the latest software version provided to the customer, and its use is deemed reasonable for the customer.
4.3 Compensation of defects claims shall not exist

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- for damages arising as a result of a faulty or negligent handling of the software,
- for damages caused by external influences which are not addressed in the contract,
- for changes made by the customer or by third parties and the consequences resulting therefrom,
- for a software enhanced by the customer or a third party beyond an interface provided by Störk-Tronic for the respective purpose,
- for an assurance that the software is compatible with the data processing environment used by the client,
- if the customer doesn't implement the upgrades and/or updates recommended by Störk-Tronic.

4.4 Störk-Tronic shall not assume any liability for the merchantability of the software, for the suitability of the software for a particular purpose, and that the functions of the software correspond to the customer's requirements.
4.5 The entitlement to supplementary performance for software shall be performed as follows: as a substitute, Störk-Tronic will provide a new release state (update) or a new version (upgrade) of the software.

5. LIABILITY:
5.1 Störk-Tronic shall only be liable in cases of intent or gross negligence for damages and the replacement of futile expenses pursuant to § 284 BGB/German Civil Code (hereinafter referred to as "Compensation for damages") for defects of the software or a breach of other contractual or non-contractual obligations, in particular for actions in tort. The foregoing limitation of liability does not apply for an injury of life, body or health, the assumption of a guarantee or a procurement risk, breach of essential contractual obligations and liabilities pursuant to the Product Liability Act.
5.2 The claims for damages for a breach of essential contractual duties is limited to such damages, that should've been identifiable for Störk-Tronic at the time of the contract established as a possible foreseeable consequence (hereinafter referred to as "contract-typical damage"), as far as no wilful misconduct or gross negligence exists, or there is a liability for an injury to life, body or health, or the assumption of a guarantee or a procurement risk.
5.3 Contract-typical damages pursuant to item 5.2 are:
a) per damage case: damages amounting to max. €1,000.00.
b) per year: damages amounting to max. €25,000.00.
In any case, contract-typical damages pursuant to item 4.2 are no indirect damages (such as lost profits or damages resulting from production interruptions).
5.4 Regardless of item 5.3, for the determination of an amount Störk-Tronic is required to pay to the customer as a damage compensation, the economic circumstances of Störk-Tronic, the type, extent and duration of the business relationship as well as possible cause and/or fault promoting factors inflicted by the customer, must be adequately taken into account in favour of Störk-Tronic pursuant to § 254 BGB. In particular, the compensation services, costs and expenses which are to be carried out by Störk-Tronic, must be in an acceptable proportion to the value of the software.
5.5 All limitations of liability shall apply for the agents and vicarious agents to the same extent.
5.6. A change of the burden of proof to the disadvantage of the customer is not associated with the preceding regulations.
5.7 Essential contractual obligations within the meaning of item 5.1 and 5.2 are those obligations, whose fulfilment is a prerequisite for the proper execution of the contract, and on whose compliance the customer can rely on regularly.

6. DUTY TO COOPERATE:
6.1 The customer must execute all necessary and reasonable measures to prevent or limit damage caused by the software. In particular, the customer must ensure the regular backup of programs and data.
6.2 If the customer culpably violates this obligation, Störk-Tronic shall not be liable for the resulting consequences, in particular not for the replacement of lost or damaged data or programs. A change of the burden of proof is not associated with the preceding regulation.

7. HIGH RISK ACTIVITIES:
The software is not fault-tolerant and was not designed, manufactured or provided for use or resale as online control equipment in hazardous environments, for which a fail-safe performance is necessarily required, for example, for the operation of nuclear power facilities, air-traffic navigation or communication systems, air traffic control facilities, life support machines or weapons systems, where software failures can lead to an immediate danger for body and life, or cause substantial damages to property or environmental damages ("high risk activities"). Störk-Tronic and its delivery companies therefore reject any warranty regarding the suitability for use in connection with high risk activities.

8. APPLICABLE LAW, PLACE OF JURISDICTION:
8.1. The legislation of the Federal Republic of Germany shall apply exclusively for the legal relationship between Störk-Tronic and the customer, under exclusion of the conflict of law provisions.

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8.2 Place of jurisdiction for legal disputes that fall within the substantive jurisdiction of the courts, is the District Court of Stuttgart and for disputes that fall within the substantive jurisdiction of regional courts, the Landgericht Stuttgart. Störk-Tronic is entitled to conduct the proceedings at the customer's headquarters location.

9. TERMINATION:
Without limiting other rights of Störk-Tronic, Störk-Tronic can terminate this agreement with immediate effect if the customer does not comply with the terms and conditions of this agreement or violates them. In such a case, the customer is obliged immediately to cease using the software and to destroy all copies of the software.

10. INTERNET-BASED SERVICES:
Internet-based services are provided in connection with the software. If the materials accompanying a service not state otherwise, Störk-Tronic is entitled to change or terminate these services at any time.
10.1 Consent for Internet-based services. The following features of the software establish a connection to the computer systems of Störk-Tronic or service providers over the Internet. In some cases, you will not receive a separate notice when a connection is established. Unless otherwise noted, you can turn off or discontinue using these features. BY USING THESE FEATURES THE CUSTOMER SHALL CONSENT TO THE TRANSFER OF THIS INFORMATION.

10.1.1 Computer information. The following features use Internet protocols, which send computer information to the respective systems, for example, your Internet Protocol address, the type of operating system, the browser type, name and version of the software you are using and the language code of the device on which you installed the software. Störk-Tronic uses this information to provide you with the Internet-based services.
10.1.2 Content features. Certain features in the software can retrieve related or additional content from Störk-Tronic and provide it to you. Examples for this content are updates of the configuration, firmware, program updates, catalogues, images and ClipArts.
10.2 Misuse of Internet-based services. You are not entitled to utilize the services in any manner that could damage these services or impair their usability for others. You are not entitled to utilize the services in any manner to gain unauthorized access to services, data, accounts or networks.

11. MISCELLANEOUS:
This agreement constitutes the entire agreement between the Störk-Tronic and the customer with respect to the software, and replaces any customer purchase order, communication, advertising or representations concerning the software.

12. CONTACT:
If the customer has questions regarding these agreements, then before installing the software the customer should contact:

Störk-Tronic, Störk GmbH & Co. KG
Untere Waldplätze 6
D-70569 Stuttgart
info@stoerk-tronic.com
Tel. +49 (0)711/68661-0

By installing or using the software, the customer agrees to be bound by the terms and conditions of this agreement.

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