weisstechnik®
a schunk company

Operating Instructions

for the web-based user interface

WEBSeason®

Imprint
Operating manual for the web-based user interface WEBSeason®
Software version 1.8
Original operating manual
Language: English
Document-ID: en 2024.10 64636655

TABLE OF CONTENTS

1)Varies depending on system

1)Varies depending on system

1)Varies depending on system

1)Varies depending on system

1 SAFETY

- Carefully read this operating manual first to avoid malfunctions and any associated consequential damage!
- Retain this operating manual for later reference.
- Read other associated manuals and safety regulations prior to use.
- If you access Webseason via an external terminal (e.g. tablet), the values on the external terminal may be displayed delayed or corrupted. Check the values on the permanently installed web panel before you open the door.

1.1 Definitions

Control unit

In this operating manual any hardware on which the Webseason user interface can be used is referred to as a control unit. This can be the permanently installed web panel, a mobile terminal device, or a desktop computer.

Program

The term "program" indicates an automatic sequence of various operating specifications (nominal values, control values, digital channels). Manual operation stands in contrast to this.

Button

A button is an area on the user interface that triggers a function by touch.

Field

Unlike a button a field does not trigger a function by touch, but rather serves only to structure or to indicate information.

Web panel

The term “web panel” refers exclusively to the hardware for Webseason, which is included in the scope of delivery. Webseason can of course be used with various suitable hardware, but this is not referred to as “web panel” → *»Control unit«* (page 7). The web panel is a multi-touch display that is permanently installed in the associated system.

1)Varies depending on system

System

The term “system” is used in this operating manual to describe the product that you control using Webseason, e.g. a climate chamber, an industrial furnace or an engine test chamber. Every system has a separate operating manual.

Test specimen / chamber load

The term “test specimen/chamber load” is used in this operating manual to describe all products, installations and devices provided by the customer which are situated in the system during operation → *Operating manual of the associated system*.

1.2 Symbols and notices

The symbols used in this operating manual have the following meanings:

– Items in a list are indicated by a dash.

► Instructions are indicated by a triangle.

✓ Consequences of an instruction are indicated with a check mark.

→ References are indicated by an arrow.

Symbol of gesture	Explanation
	Swiping to the left and right.
	Swiping up and down.
	Pulling index finger and thumb together or apart.

Table 1-1 Explanation of gestures

1)Varies depending on system

This operating manual includes the following safety instructions and tips, based on the hazard involved:

DANGER

Failure to comply with the directions results in death or severe injury.

WARNING

Failure to comply with the directions can result in severe injury.

CAUTION

Failure to comply with the directions can result in minor injury.

NOTICE

Failure to comply with the directions results in property damage.

1.3 Intended use

Webseason is a web-based user interface for controlling the associated systems. Webseason is used with standard web browsers.

The hardware - a web panel - is installed in the associated system as standard. You operate the web panel by slightly touching, wiping, tapping or moving your finger. You can also use a compatible touch pen or gloves that are suitable for a multi-touch screen.

You can also use Webseason via a desktop computer or via mobile terminals such as a smartphone and tablet PC as an alternative to the integrated web panel.

You can execute the following actions with Webseason:

- Control, operation and monitoring of the associated system
- Recording of operating data
- Display of system and software information
- Maintenance tracking
- Management of users and user rights

1)Varies depending on system

1.4 Incorrect use

The following applications are incorrect and can result in personal injury and property damage:

- Modifying or manipulating the system's software or hardware;
- operating the multi-touch screen with a glove that is not suitable for a multi-touch screen;
- operating the multi-touch screen with a pointed or sharp-edged object.

1.5 User qualification

Every user, including maintenance personnel, must be familiar with the operator's procedural instructions and operating instructions. Moreover, users must be familiar with the information from the corresponding user's guide and operating manual.

1.6 Screenshots

The screenshots in this manual show by way of example how Webseason is used on an integrated multi-touch web panel. The application is responsive, i.e. the user interface display can vary on other terminal equipment.

1.7 Service hotline

Should you have questions for which there are no answers in this operating manual, you can get support at the telephone number +491805666556.

1)Varies depending on system

2 INITIAL OPERATION

To put the web panel into operation for the first time make sure first that the system you want to control with the web panel is ready for use → *operating manual for the system.*

2.1 Activating the web panel for the first time

The web panel does not have a separate On/Off switch.

- ► To activate the web panel, set the system's main switch to »**I**«.
- ✓ The controller boots for a few minutes.
- ✓ An LED on the web panel flashes green while booting.
- ✓ Immediately the LED goes out the system is ready for operation.
- ✓ The **Basic configuration** menu appears.

2.2 Menu Basic configuration of [ ]

Fig. 2-1 Basic configuration of [ ] menu

1)Varies depending on system

The menu **Basic configuration** is opened for initial operation. In this menu, you configure the following:

– the language,
– the time and the date,
– system specific settings,
– the serial interface,
– the network connection for external communication.

You execute standard actions in the **Basic configuration** menu using the following buttons:

Button	Designation	Explanation
Restore default settings	**Restore default settings**[1)]	Resets the values to the factory setting provided the factory settings are programmed.
	**Back**	Switches to the previous dialog.
	**Next**	Switches to the next dialog.

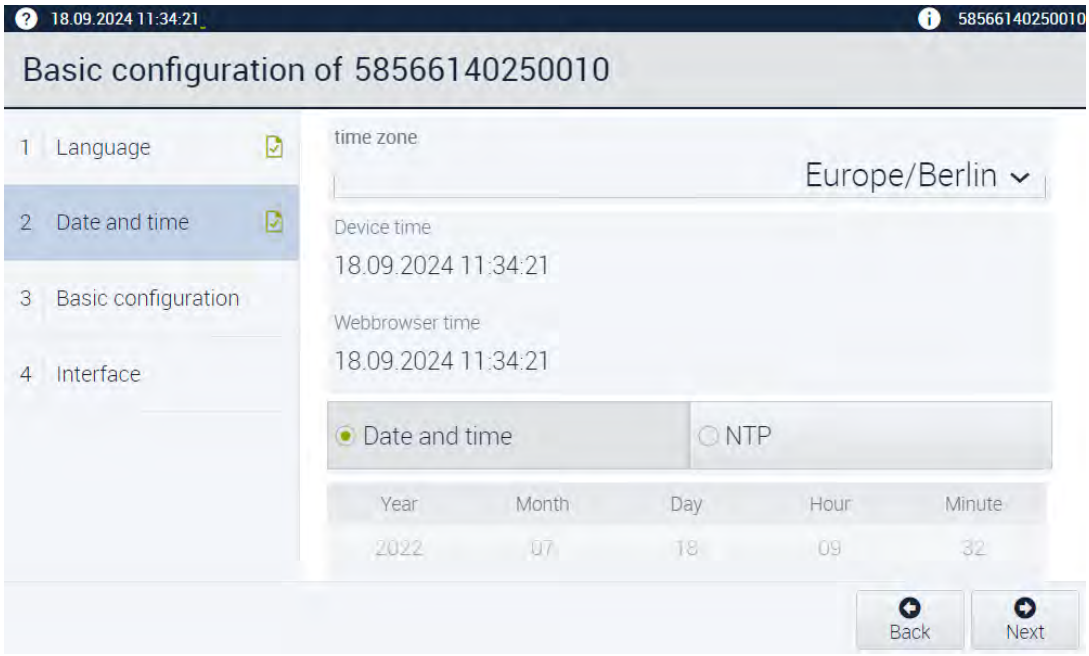
Table 2-1 Buttons for standard actions

2.2.1 Select language

- ► Tap on the language required → *Fig. 2-1 »**Basic configuration of [ ] menu**«* (page 11).
- ► Tap **Next**.
- ✓ The **Date and time** submenu appears

1)Varies depending on system

2.2.2 Setting the date and time



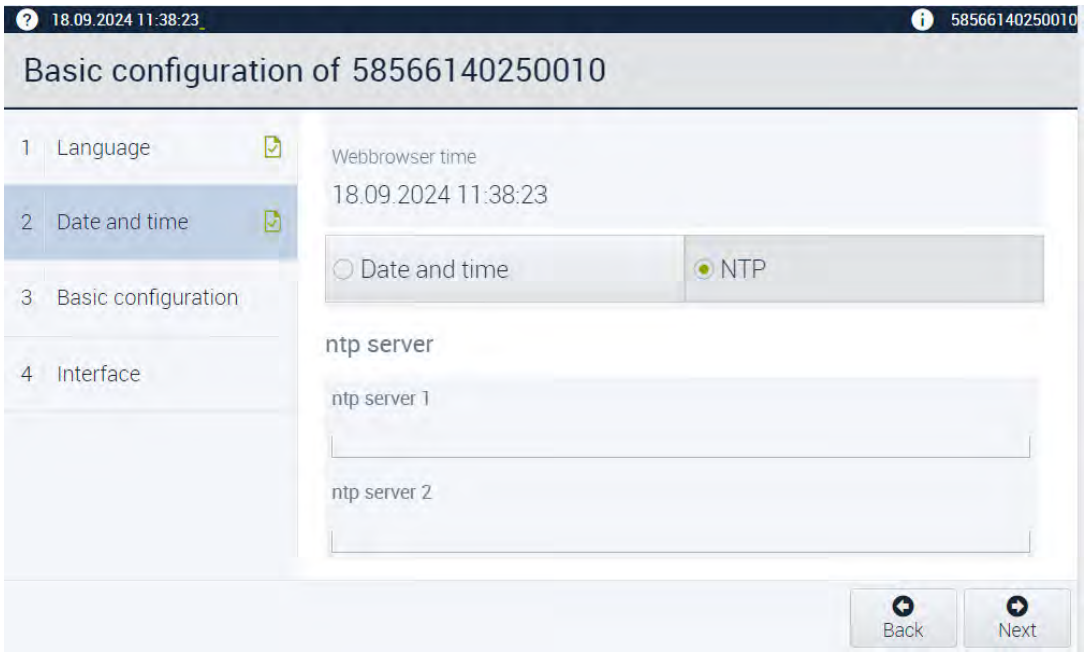


Fig. 2-2 Menu **Basic configuration of** - **Date and time**

Designation	Explanation
Time zone	Displays the time zone where the system is located.

1)Varies depending on system

Designation	Explanation
Unit time	Displays the system time.
Web browser time	Displays the time of the unit connected to the system.
Date and time/NTP	Switchover between manual time specification and automatic time specification by means of NTP (Network Time Protocol).

- To set the time zone:
  - Tap the **Time zone** button.
  - A dropdown menu opens.
  - Select the time zone required.

- To set the current time and the current date automatically:
  - Tap **NTP** (automatic time specification).
  - Select an NTP server.

- To set the current date manually:
  - Tap **Date and time** (manual time specification).
  - Tap on the value that you want to change.
  - ✓ A dropdown menu opens.
  - Select the value required.
- To set the current time manually:
  - Tap **Date and time** (manual time specification).
  - Tap on the value that you want to change.
  - ✓ A dropdown menu opens.
  - Select the value required.
- Once the entry is completed, tap on **Next**

The **Basic configuration** submenu appears.

1)Varies depending on system

2.2.3 Setting the basic configuration

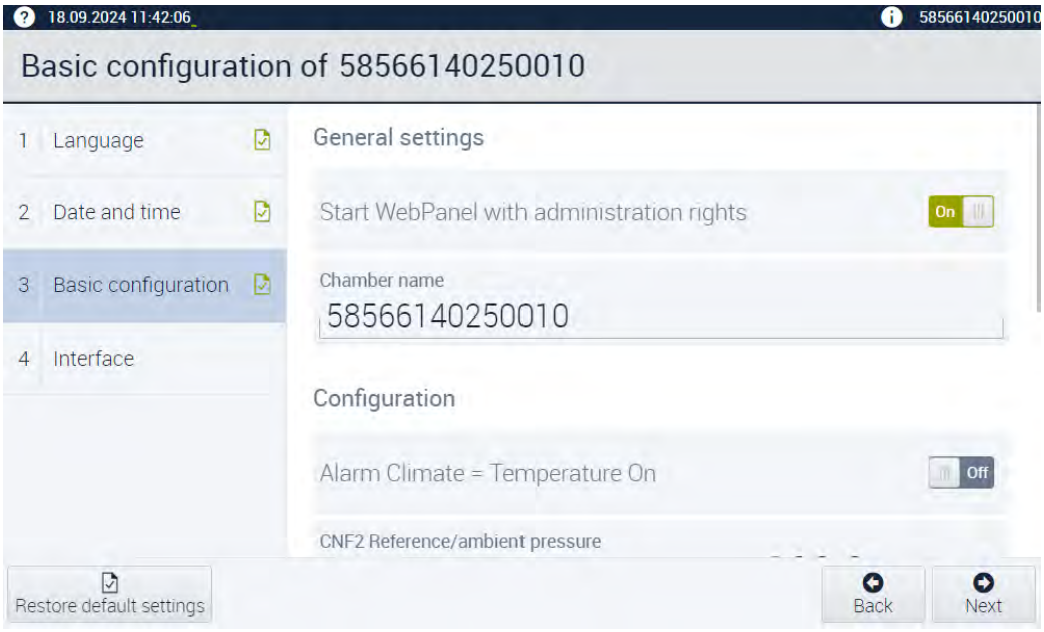


Fig. 2-3 Basic configuration of - Basic configuration menu

- **Start WebPanel with administration rights** Activate
  - ✓ All rights are activated on the local web panel. Anyone can use the Webseason functions on the integrated web panel without login without restrictions as a user observer → *»User groups' rights«* (page 19)
  - ✓ When you deactivate the function, the panel similarly starts without login as an Observer. However, the user Observer cannot then change any values.
- Under **Chamber name**, enter an unambiguous designation for the system, e.g. the unit number → *rating plate for the system*.

Configuration[1)]

In the configuration area you define additional settings and parameters for your system. The description of the individual parameters can be found in the → *operating manual for the respective system*.

1)Varies depending on system

2.2.4 Configure interfaces

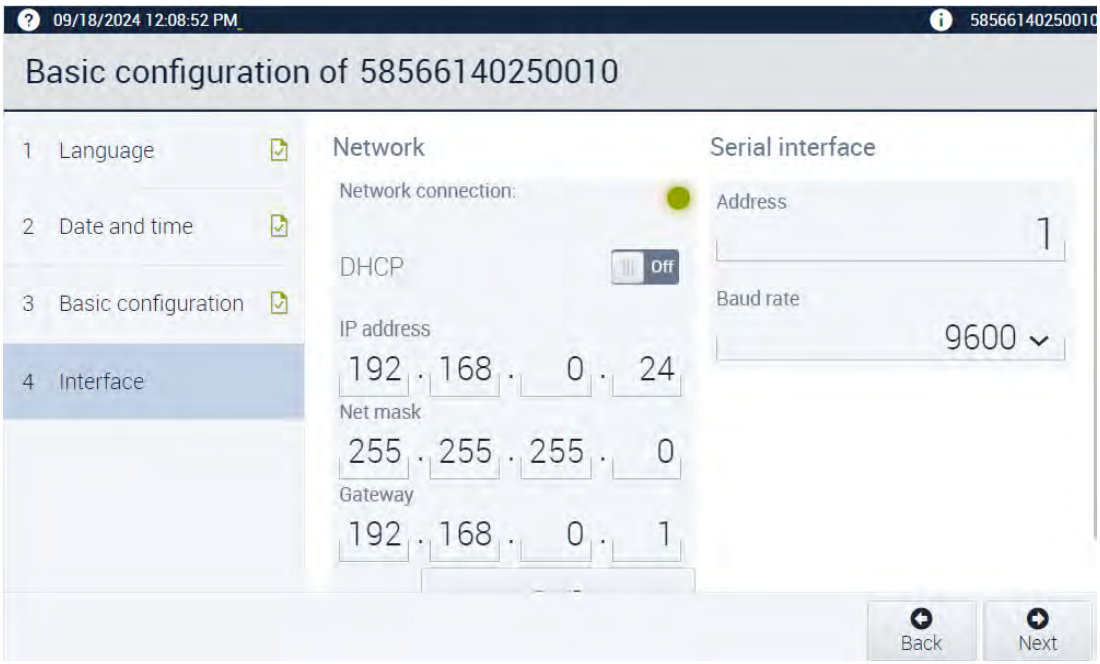


Fig. 2-4 Menu **Basic configuration of** - **Interface**

NOTICE

Impairment of network operation due to improper configuration

If networking on the LAN conflicts with other network users may occur when applying the communication paths and addresses (e.g. double connections).

- Have networking configured by your network administrator.
- Have the interfaces configured by the user group **administrator** only.

Address[1)]

If, for example, you use several external PCs, you have to assign unique addresses (in the **Address** field) so that the data are not overwritten or disturbed.

- Have an address input by your network administrator.

Baud rate[1)]

With baud rate the so-called modulation rate on the telecommunication equipment is involved.

- Have the baud rate entered by your network administrator.

Assigning the IP address automatically

- If the network supports this, you can assign the IP address automatically
  → consult the network administrator.

Activate the **DHCP** button for this purpose.

1)Varies depending on system

Entering the IP address manually

- Have the IP address for the system with which Webseason is to communicate entered by the network administrator. (**Note:** An IP address from the 192.168.121.XXX range is not permitted.)
- Have the subnet mask and the standard gateway entered by the network administrator.
- Tap **Set IP**

1)Varies depending on system

2.3 Creating the first user

Prerequisite:

– Every configuration for initial operation is completed.
– You are logged in as administrator.

► Create the employees who are supposed to operate **WEB**Season®:

  ► In the **SETTINGS** menu, tap **User administration** → *3.6.4 »**User administration**«* (page 45).

  ► Tap **New user**.

  ✓ The **Add new user** dialogue appears.

  ► Enter the user's full name in the **Name** field. The full name is visible to the administrator only.

  ► Enter a user name. The **User name** is displayed on login and is visible to others.

  ► Specify a temporary password and notify the employee. He or she must set his or her own secret password.

  ✓ As soon as the new user logs in for the first time, Webseason prompts him/her to change his/her password.

  ► Enter further specifications according to → *»Adding or editing new users«* (page 46).

Factory-set user settings

There are factory-set user groups.

User group	User name	Password
Administrator	admin	admin
UserHigh	userhigh	userhigh
UserLow	userlow	userlow
Observer	No login	

Table 2-2 Factory-set user names and passwords

1)Varies depending on system

User groups' rights

Function	UserLow	UserHigh	Administrator	ServiceGuest	ReadOnlyUser	Observer[a]
Reading actual values	x	x	x	x	x	x
Starting manual mode	x	x	x	x		(x)
Stopping manual mode	x	x	x	x		(x)
Starting a program	x	x	x	x		(x)
Stopping a program	x	x	x	x		(x)
Creating/editing programs		x	x	x		(x)
Acknowledging error messages		x	x	x		(x)
Specifying nominal values for control variables		x	x	x		(x)
Changing the language of the user interface	x	x	x	x		(x)
Setting limit values		x	x	x		(x)
Setting external communication with controller		x	x	x		(x)
Setting user administration			x	x		(x)
Setting interfaces			x	x		(x)
Setting date and time			x	x		(x)
Manage users			x	x		(x)
Using **Service** menu				x		
Using light switch	x	x	x	x		(x)

Table 2-3 User groups' rights

a. You set whether the Observer user group is assigned all the rights listed in brackets without login in the menu **Basic configuration - Start WebPanel with administration rights**.

1)Varies depending on system

2.4 Showing the basic configuration on the next start

To set the **Basic configuration** menu to appear on every start, proceed as follows:

- Select **SETTINGS** menu.
- Select **Basic configuration** in the side bar.
- **Show basic configuration on next start** Switch on

1)Varies depending on system

3 USER INTERFACE DESCRIPTION

3.1 LED status display on the web panel

An LED on the web panel indicates varied statuses. The status display can only be read on the web panel.

LED status	Meaning
Off	The web panel and the system are switched off.
	The web panel and the system are in stand-by mode.
Flashing green	The system's controller (PLC) and the web panel are booting.
Green	The operation is running without problems.
Flashing red	There is no communication between the web panel and the system.
Red	An error has occurred.

Table 3-1 LED status display

1)Varies depending on system

3.2 Navigation panes overview

3.2.1 User interface on the web panel

Fig. 3-1 Navigation on the web panel overview

1 Header bar
2 Menu bar
3 Side bar
4 Working panel
5 Footer bar

1)Varies depending on system

3.2.2 User interface on the smartphone

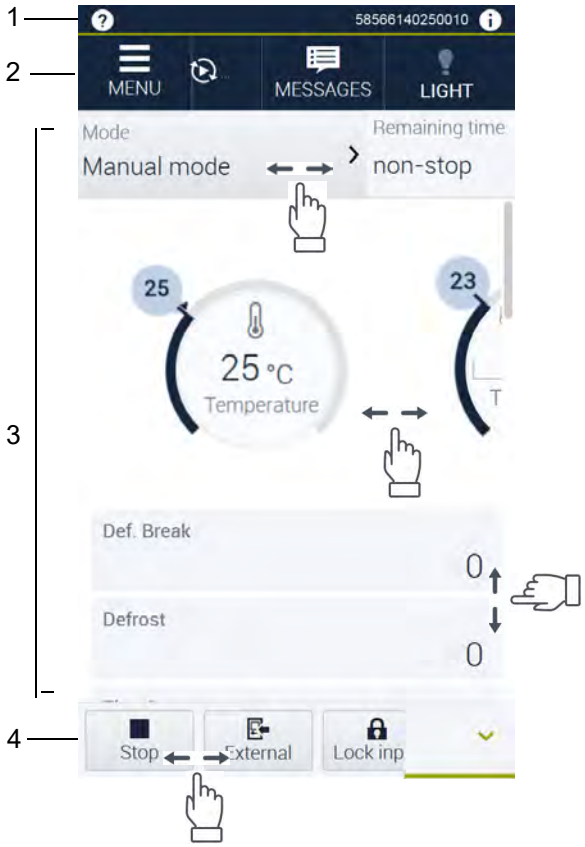


Fig. 3-2 Navigation on the smartphone overview

1 Header bar
2 Menu bar
3 Working panel
4 Footer bar

The main differences to the user interface on the web panel are the following:

– Menu items are displayed via a menu button as a dropdown menu.
– Scrolling and swiping are required in virtually every section in order to view and to use every section and function.
– The various views in the footer bar are displayed via a button as a dropdown menu.

1)Varies depending on system

3.2.3 Header bar

The header bar displays general system and software information.

Field	Description
	Indicates date and time.
	The name of the system is on the left. The name can be chosen freely.
	The icon opens the **System information** dialogue with information about the system and the software.
	Access to the operating manual

Table 3-2 Header bar

1)Varies depending on system

3.2.4 Menu bar

The menu bar is the highest navigation level. Further navigation levels are located in the menus on the menu bar. The following buttons are located on the menu bar:

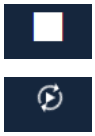
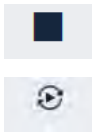
Button		Designation	Explanation
passive	active		
		**STATE/RUNNING**	Opens the **STATE/RUNNING** start menu. In this menu you have a live overview of the status of the process values available. The button changes depending on whether the system is running or in standby mode → *3.4 »Menu STATE/RUNNING«* (page 27).
		**MODE**	Opens the **MODE** menu. In this menu you control the operation. → *3.5 »Menu MODE«* (page 35)
		**MESSAGES**	Opens the **MESSAGES** menu. The following messages are displayed in this dialog: information (grey), warnings (yellow) and errors (red) → *3.6 »Menu SETTINGS«* (page 42).
		**REPORT**	Opens the **REPORT** menu. This menu displays actions that users have performed in Webseason. The actions are listed with timestamp and user → *3.5.6 »Menu REPORT«* (page 41).
		**SETTINGS**	Opens the **SETTINGS** menu. In this menu you specify general and also operation-specific settings → *3.6 »Menu SETTINGS«* (page 42).
		**MAINTENANCE**	Opens the **MAINTENANCE** menu. The operating hours counted and the maintenance requirements are displayed in this dialog → *3.7 »MAINTENANCE menu«* (page 54).
		**CAMERA**	Opens the menu for image transmission from the cameras connected
	-	**USERS**	Opens a dropdown menu for changing the password and for logging off.
		**LIGHT**	Turns the light on and off. The icon indicates whether the light is turned on or off.

Table 3-3 Menu bar

3.2.5 Side bar

Further submenus are displayed in the side bar subject to the menu selected.

3.2.6 Footer bar

The footer bar is not available in every menu. Depending on the menu, various buttons are displayed in the footer bar. The buttons are described in the respective segments for the menus.

1)Varies depending on system

3.3 Overview of controls

The functions and elements that you operate the software with are described in this chapter.

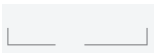
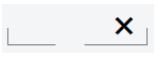
Control element		Designation	Explanation
passive	active		
		Switch	Switches the function on or off.
		Dropdown menu	Opens a dropdown menu.
		Options button	Activates one of several options.
		Input box	Opens an input box or a dialog.
		Delete entry	Deletes the content of an input box.
		Digital channel On/Off	Activates or deactivates a customer channel or a function.
		Checkbox	Selects or deselects a setting.
		Minimum Maximum	Opens a dialog for entering a minimum or maximum value.
		Edit	Clears the edit mode.
		Sign	Changes the sign.

Table 3-4 Controls

1)Varies depending on system

3.4 Menu STATE/RUNNING

Fig. 3-3 Overview **STATE** menu

Fig. 3-4 Overview **RUNNING** menu - Manual mode and Program mode

In the **STATE/RUNNING** menu you have a live overview of the status of the process values available. For this menu select between the following working area views;

→ ***»Values view«*** (page 31)

→ ***»Chart view«*** (page 32)

→ ***»Table view«*** (page 34)

1)Varies depending on system

3.4.1 Menu STATE/RUNNING - header

In the menu **STATE/RUNNING** the following functions can be found in the header:

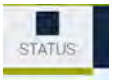
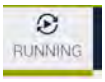
Button	Designation	Explanation
	**STATE**	The system is in standby mode.
	**RUNNING**	The system is running in manual mode or program mode.
	**Pause**	Here, the program runtime is paused until the current program is continued.
	**Waiting**	Here, the program runtime is paused until the actual value is within the defined tolerance.
	**Wait for Start**	The program controller is being initialised or a starting time in the future has been selected.

Table 3-5 Menu **STATE/RUNNING**- header

3.4.2 Menu STATE/RUNNING - side bar

The side bar differs depending on whether the operation is running (**RUNNING**) or not (**STATE**). In the **STATE/RUNNING** menu the following buttons and fields are displayed in the side bar.

Button/field designation	Explanation
In the STATE menu only	
Please select...	Opens the **MODE** menu. You start the operation there → *3.5 »Menu MODE«* (page 35).
Disabled by	The user who locked the input mode for other users.
In the RUNNING menu only	
MODE	The name of the program running and information about the operation running.
	The energy saving mode is active.

Table 3-6 Menu **STATE/RUNNING** - side bar

1)Varies depending on system

Button/field designation	Explanation
In the STATE menu only	
Remaining time	The remaining runtime of the test running.
Program run-throughs	In program mode only: The number of the profile runs already executed / total number of profile runs.
Step	In program mode only: The current program step.
Loop	In program mode only: The number of the loops in the program already executed/. Total number of loops in the program.
Step remaining time	In program mode only: The remaining runtime of the current program step.
Start time	In program mode only: The time at which the program was started.
End time	In program mode only: The time at which the program is finished.
Started by	The user who started the program.
Disabled by	The user who locked the input mode for other users.

Table 3-6 Menu **STATE**/**RUNNING** - side bar

1)Varies depending on system

3.4.3 Menu STATE/RUNNING- footer bar

In the **STATE/RUNNING** menu you execute the following standard actions in the footer bar:

Button	Designation	Explanation
	**External**	Switches from the **Internal** access type to the **External** access type. With the **External** access type, external operating systems, e.g. the Simpati software, can communicate with the system. Operation via Webseason is locked. The  icon is shown in the header bar and the button switches to the **Internal** designation.
	**Internal**	Switches from the **External** access type to the **Internal** access type. The system is then operated via Webseason. No other icon is shown in the header bar because the internal mode is commensurate with the normal state. The switch-over can only be made via Webseason.
	**Snapshot**	Opens the printer menu. This function is only available in the desktop browser version.
	**Enable input**	Unlocks the input mode for other users.
	**Block input**	Locks the input mode for other users.
	**Table**	Displays the information in the working area as a table. The view is only available while a program is running.
	**Chart**	Displays the information in the working area as a chart.
	**Values**	Displays the information in the working area as values.

Table 3-7 STATE/RUNNING menu - footer bar

1)Varies depending on system

3.4.4 Menu STATE/RUNNING - working area

Values view

Fig. 3-5 Menu **STATE** - view **Values**

In this view you get a quick visual overview of the current operation's actual values and parameters.

Fig. 3-6 Actual value and nominal value display

1 Setpoint value
2 Actual value

Show or hide the nominal bubble value via the **SETTINGS** – **Basic configuration** – **Always display nominal bubble value** menu.

1)Varies depending on system

Chart view

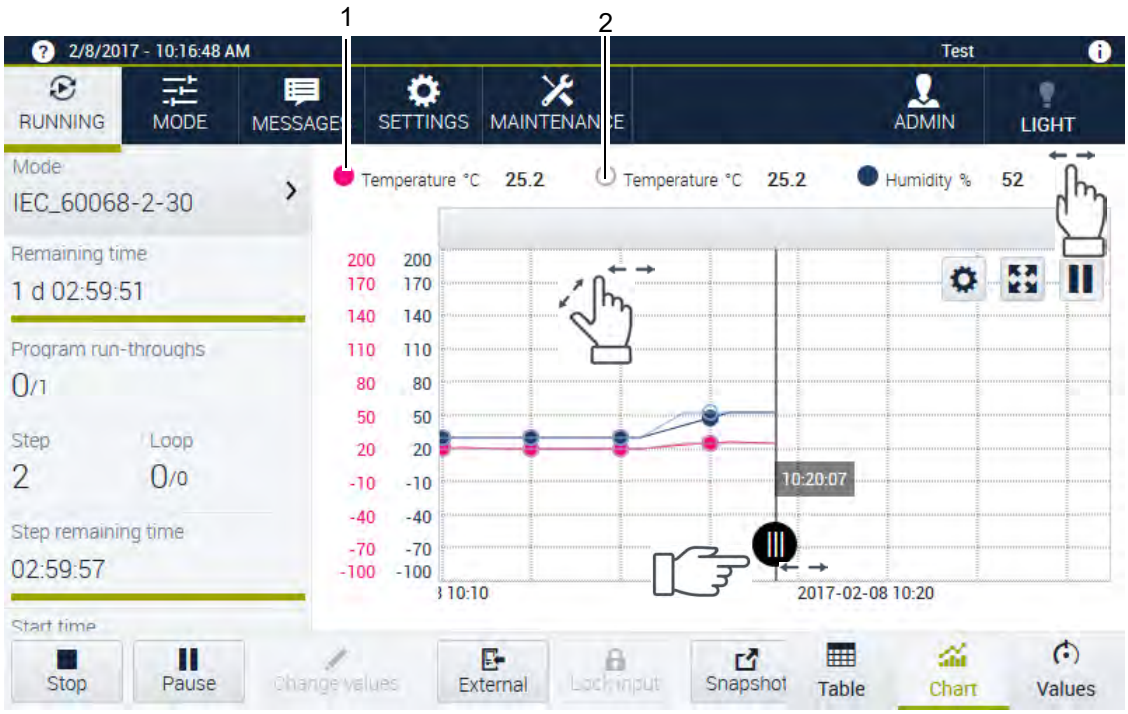


Fig. 3-7 RUNNING menu - **Chart** in program mode view

1 Nominal temperature value
2 Actual temperature value

In the **Chart** view the nominal values and actual values are displayed in a line chart. You can configure the display and monitor and analyse the value trend with the following buttons.

Button	Designation	Explanation
	Sliding handle	Shifts the ruler assistant along the time axis to read the values of a particular point in time.
	Settings	Opens the **Trend chart settings** dialogue.
	Full screen	Switches to the full screen mode and back.
	Pause display	Pauses the display of the chronological trend.
	Resume display	Continues the display of the chronological trend. Thus the current state and the values recorded in the meantime are shown again.

Table 3-8 Control elements of the **Chart** view

Zooming with the scroll wheel

If you are operating Webseason with the aid of a mouse, zoom to the axes as follows:

– Y-axis (vertical): scroll wheel
– X-axis (horizontal): shift key ⇧ and scroll wheel

1)Varies depending on system

Adjusting the Chart view

Prerequisite: The **Chart** view is active.

- ► To adjust the **Chart** view display tap ⚙.
- ✓ The **Trend chart settings** dialogue opens.

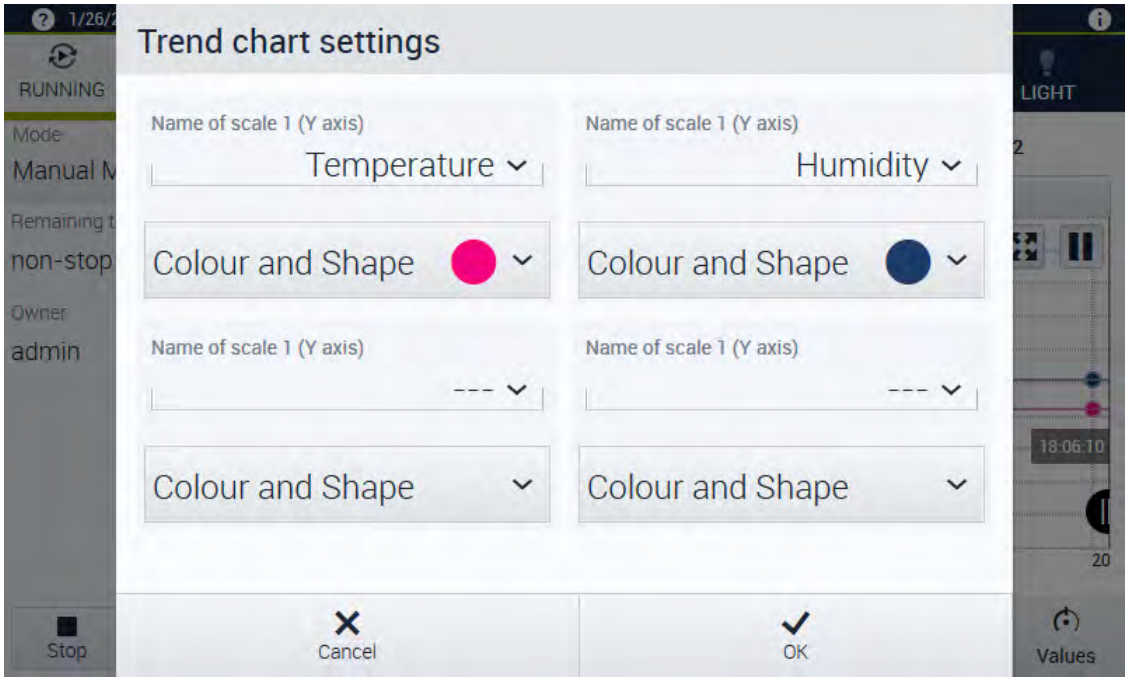


Fig. 3-8 RUNNING menu – **Chart** view - **Trend chart settings**

You can specify the display, the colour and the shape of the process variables displayed in this dialogue.

1)Varies depending on system

Table view

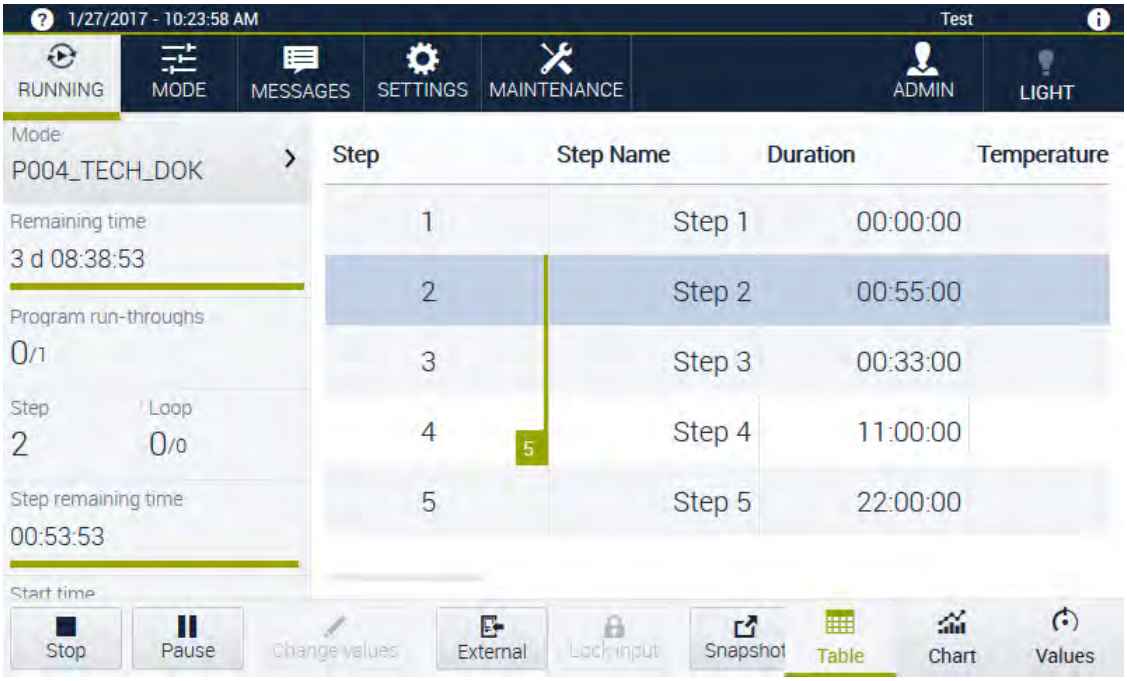


Fig. 3-9 STATE menu – **Table** view

The view is only available in the **STATE/RUNNING** menu while a program is running. In this view the nominal values and actual values of the program currently running are displayed in table form.

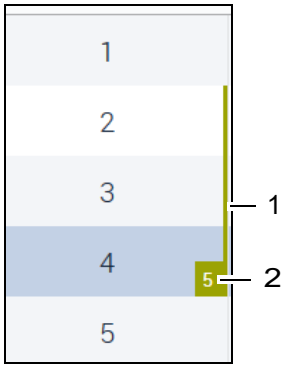


Fig. 3-10 Loops display

1 Loop
2 Number of loop repeats

1)Varies depending on system

3.5 Menu MODE

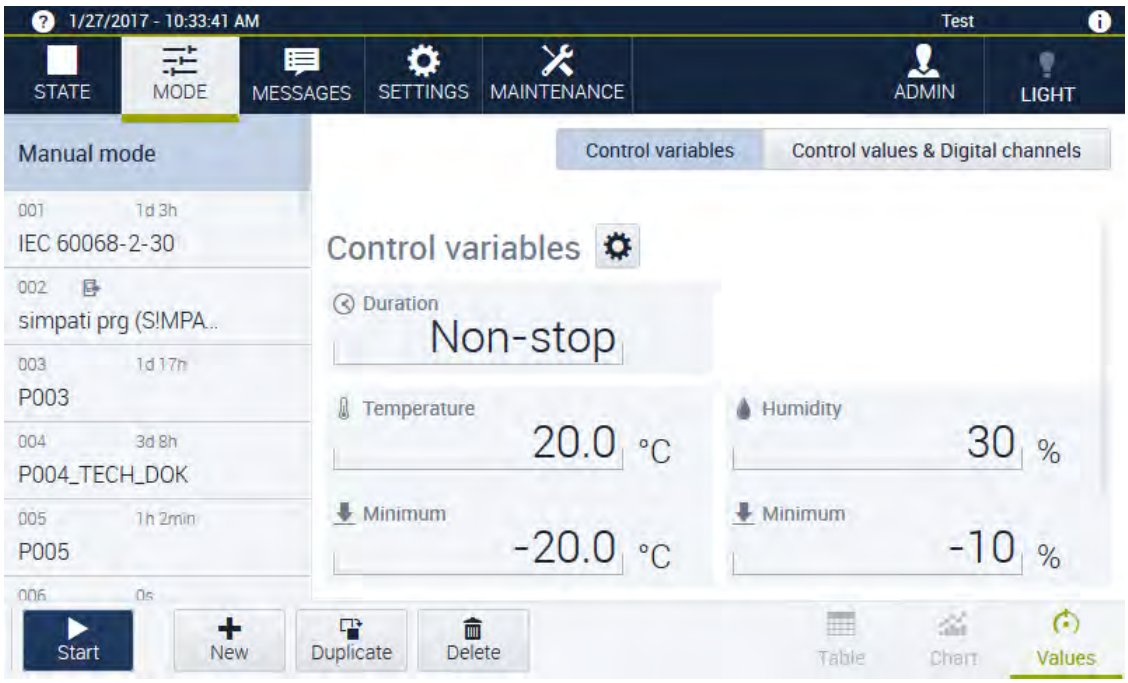


Fig. 3-11 Menu **MODE**

In this menu you start, stop and edit the operation. You get to the **MODE** menu either via the menu bar or via the **STATE**/**RUNNING** menu's side bar. In the working area you can set the control variables and control values and activate extra functions and digital channels. You can select between manual mode and programs via the side bar.

1)Varies depending on system

3.5.1 MODE menu - side bar

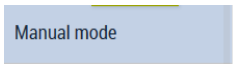
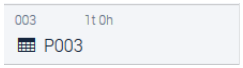
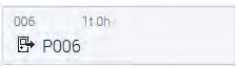
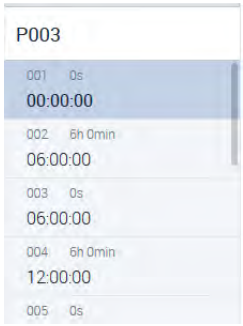
Button/field	Explanation
	Opens the editor for manual mode.
	Opens the program editor. The individual program steps are in the side bar.
	Opens a program that was created with the Simpati software.
Submenu in the program selected	
	Displays the program and under it the individual program steps. Each individual program step can be selected and edited.

Table 3-9 MODE menu - side bar

1)Varies depending on system

3.5.2 MODE menu – footer bar

You execute standard actions in the **MODE** menu using the following buttons:

Button	Designation	Explanation
Manual mode		
	**New**	The button is displayed only if manual mode is selected. Create a new program. The new program is displayed in the working area in the next free program slot.
	**Copy**	The button is displayed only if manual mode is selected. Opens the **Copy program** dialogue.
	**Delete**	The button is displayed only if manual mode is selected. Opens the **Delete program** dialogue.
	**Start**	Starts manual mode and opens a reminder about the temperature limit cut-out. A minimum and maximum temperature limit must be set at the temperature limit cut-out as protection. **OK** confirms the start of the operation.
Program submenu		
	**Edit the program**	The button is displayed only if a program is selected. It opens the program editor → *3.5.3 »Program editor«* (page 38).
	**Start**	Starts program mode and opens the **Start** dialogue. A minimum and maximum temperature limit must be set at the temperature limit cut-out as protection. **OK** confirms the start.

Table 3-10 MODE menu – footer bar

1)Varies depending on system

3.5.3 Program editor

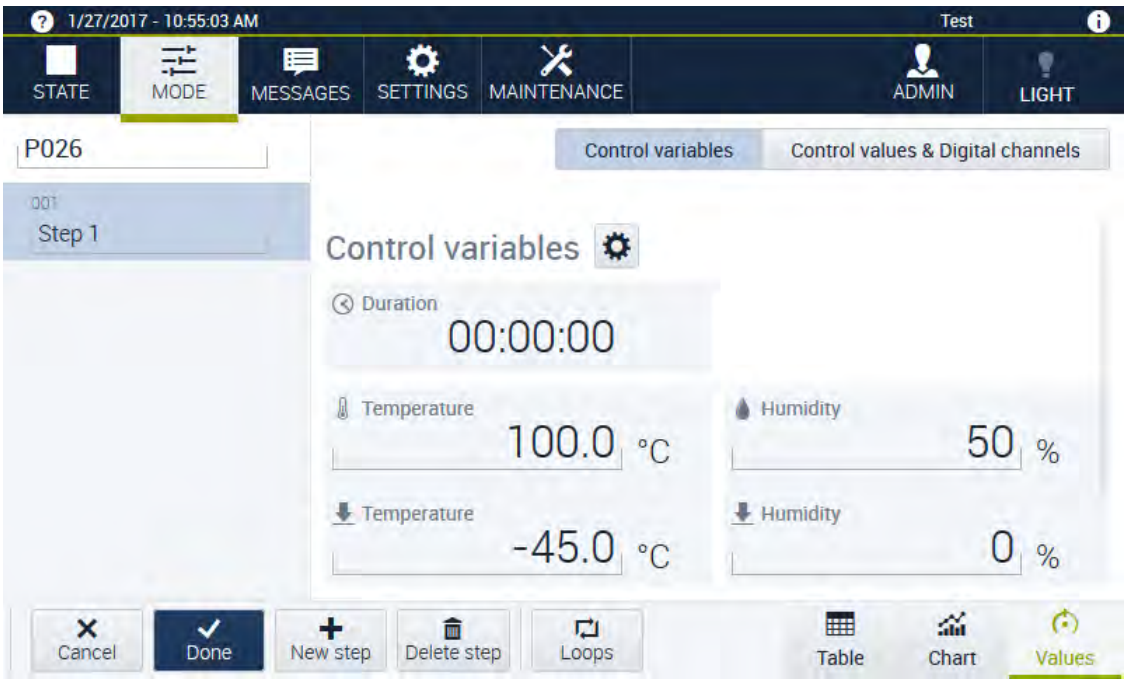


Fig. 3-12 MODE menu – Edit program – view **Values**

In this view you can edit aprogram.

Button	Designation	Explanation
✕	**Cancel**	Quits the edit mode without saving.
✓	**Done**	Saves and closes the entry.
+	**New step**	Adds a new step after the step selected.
🗑	**Delete step**	Deletes the highlighted step.
↻	**Loop**	Opens the **Generate loops** dialogue. → *6.2.9 »Creating a loop«* (page 76).
▦	**Table**	Opens the tabular view of the program.
📈	**Chart**	Shows the program as a line chart.

Table 3-11 Program editor

1)Varies depending on system

Button	Designation	Explanation
	**Values**	Opens the program in the values view. You switch between the **Control variables** and **Set values & digital channels** parameters using the tabs on the right above the working area.
	Control variables	Opens the register for editing the nominal values for the particular control variables.
	Set values & digital channels	Opens the register for editing the control values and activating or deactivating the digital channels.

Table 3-11 Program editor

1)Varies depending on system

3.5.4 Menu MESSAGES

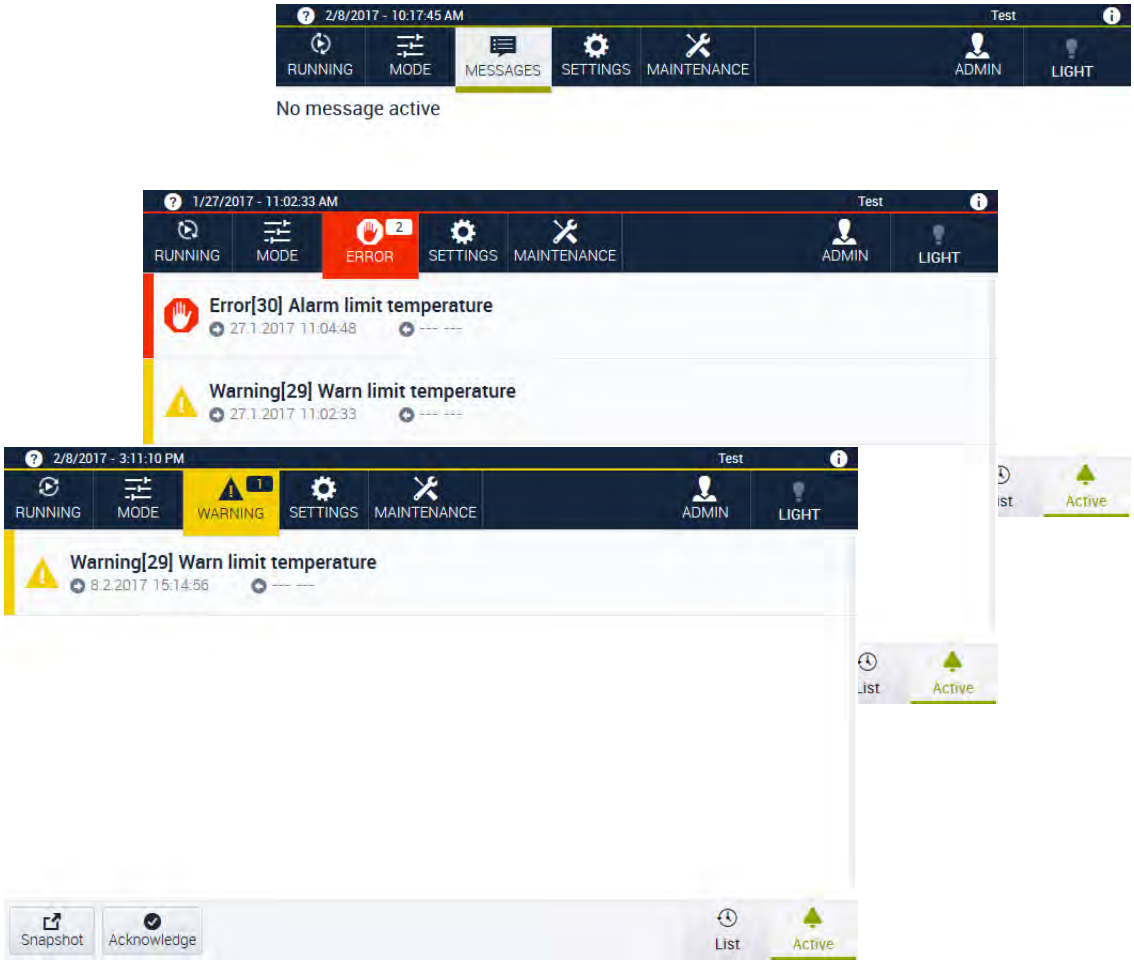


Fig. 3-13 Menu **MESSAGES/ERROR/WARNING/INFORMATION**

The following messages are displayed in this menu: errors (red), warnings (yellow) and information (grey). In the menu bar, the colour and the designation of the interface changes depending on the type of message. The number of messages is also visible in the menu bar. The effects of the respective classification differ depending on the system.For this reason, the causes and implications of the messages are described in the → operating manual for the system.

1)Varies depending on system

3.5.5 MESSAGES menu - Footer bar

Button	Designation	Explanation
	**Snapshot**	Button is available in the desktop application only. Opens the printer menu for generating a hard copy printout of the screen.
	**Acknowledge**	Acknowledges the active messages, provided the error was corrected.
	**Mute**	Button is only shown if an audible signal is active → *3.6.7* »***Warning tone***« (page 49). Mutes an active audible signal.
	**Active**	Displays the active messages.
	**History**	Displays message history. You can constrain this view with the following filter criteria: - Type of message: All, Error, Warning, Information. - Period of time displayed: Hour, Day, Week, Month.

Table 3-12 MESSAGES menu – footer bar

3.5.6 Menu REPORT

The **REPORT** menu displays actions that users have performed in Webseason (e.g. deletion of a program). The actions are listed in a table with timestamp and user. The currently displayed time period is shown above the table. The arrows in the header line of the table can be used to sort the list by time, user or message in ascending or descending order.

Button	Designation	Explanation
	**Export to PDF**	Exports the report as a PDF document. - When selecting the button in the Internet browser: Depending on the settings in the Internet browser, the PDF is displayed in the download directory of the browser or at the edge of the screen. - If the button is selected in the web panel: The PDF is saved on the USB stick inserted in the system. The **Export to PDF** function is not available in the following languages: Chinese, Korean, Japanese, Russian. To use the function, switch the Webseason user interface to one of the available languages.
	-	Dropdown list for restricting the messages in the report to a specific time period, for example, the previous day. By selecting the entry **selectable**, a user-defined time period can be set. The dates above the table indicate the currently set time period.
	-	Searches the report for the text entered in the input line.

Table 3-13 REPORT menu

1)Varies depending on system

3.6 Menu SETTINGS

In this menu you specify general and also operation-specific settings.

3.6.1 Language

In the **SETTINGS** > **Language** menu you select the system language.

3.6.2 USB Recording

In the**SETTINGS** > **USB Recording** menu you configure the data record to a connected USB stick, start and stop the recording and remove the USB stick securely.

Prerequisites:

- The USB stick must have at least 1 megabyte of free memory.
- The USB stick must be formatted with the FAT16 or FAT32 file system.
- The USB stick must be formatted as a hard drive and must not be bootable.
- We recommend using an industry-standard USB stick, which meets at least the following requirements:
  - Electromagnetic compatibility (EMC)
  - Resistance to moisture and water
  - Resistance to shock and vibration
  - Application in a temperature range from -40 °C to +85 °C
  - Internal algorithms for evenly distributing read/write cycles to memory cells
  - Internal management of defective memory cells

NOTICE

Security risk and data loss due to malware

USB sticks may contain malware (e.g. viruses). Malware can damage the controller or cause data loss or data theft.

► Therefore only use USB sticks that have been checked for viruses.

NOTICE

Failure due to USB sticks

Improper handling of a USB stick can cause data loss or the USB stick to fail.

► Before you remove the USB stick tap on the **Remove USB stick securely:** button.

► Only use USB sticks that are non-bootable.

1)Varies depending on system

The following fields are displayed in the working area:

Area	Field	Explanation
USB	**Archive name**	Displays the archive name under which the file recorded is stored on the USB stick (format: USER-YYYY-MM-DD.csv).
	Options: - **Day files** - **Single file**	- **Day files**: A new file is generated daily from 0 hour. - **Single file**: The record is saved in a file in its entirety.
	Remove USB stick securely:	Remove the USB stick without data loss.
Recording	**Recording status:**	Indicator light: - **Green**: Active. The recording process was started successfully. The process values configured are saved 1x per minute. - **Red**: Not active. Recording has been finished or an error has occurred.[a]
	- **Start** - **Stop**	Starts and stops the data recording.

Table 3-14 Working area in the **SETTINGS** – **USB** menu

a. If the USB stick is not recognised, is not writeable or is full when the recording begins, the indicator light does not turn green. The cause is displayed under **MESSAGES**.
If less than 1 megabyte of memory is available on the USB stick, the indicator light lights up red. The message **Out of USB memory** is displayed on the message list. The recording process is stopped.

3.6.3 Limit values

You set the limit values in the **SETTINGS > Limit values** menu.

The system's controller is equipped with a software-based limiter for the **Control variables**, **Measured values** and **Counter** parameters. Depending on system configuration, there is a warning limit or alarm limit for a parameter. You set the limit values individually depending on the test specimen or other operating requirements. The limiter triggers warning messages and alarm messages when the respective warning limits and alarm limits are exceeded.

NOTICE

Overriding the warning limits

You can specify warning limits in the **SETTINGS** menu and in the basic program editor. You can only specify the alarm limits in the **SETTINGS** menu. The settings for warning limits in the **MODE** menu override the settings for the warning limits from the **SETTINGS** menu.

1)Varies depending on system

You switch between the **Control variables**, **Measured values**[1)] and **Counter**[1)] parameters using the tabs on the right above the working area. The following fields are displayed in the working area:

Area	Field	Explanation
Warning limit	**On/Off**	**On**: Activates monitoring of warning limits by the software.
	Minimum	Opens the dialog for setting the control variable's minimum warning limit. On exceeding the minimum warning limits, a warning message is displayed. Example: Limit value: 0°C Exceeding the limit value: -5°C
	Maximum	Opens the dialog for setting the control variable's maximum warning limit. On exceeding the maximum warning limits, a warning message is displayed. Example: Limit value: 100°C Exceeding the limit value: 110°C
Alarm limit	**Minimum**	Opens the dialog for setting the control variable's minimum alarm limit. On exceeding the alarm limit, operation is stopped. An error message is displayed. Limit value: 0°C Exceeding the limit value: -5°C
	Maximum	Opens the dialog for setting the control variable's maximum alarm limit. On exceeding the alarm limits, the operation is stopped. An error message is displayed. Example: Limit value: 100°C Exceeding the limit value: 110°C
Tolerance	**On/Off**	The tolerance band indicates the deviation permitted between actual value and nominal value. **On**: If the actual value exceeds or falls short of the tolerances a message is displayed and the alarm contact is tripped. **Off**: Deviation of the actual values from the nominal values is not monitored.
	Minimum	Opens the dialogue for setting the lower tolerance for the particular control variable. If the tolerance is exceeded, a message is displayed and the alarm contact is tripped. Example of exceeding the lower tolerance: Tolerance: 2°C Nominal value: 20°C Actual value: 17°C
	Maximum	Opens the dialogue for setting the upper tolerance for the particular control variable. If the tolerance is exceeded, a message is displayed and the alarm contact is tripped. Example of exceeding the upper tolerance: Tolerance: 2°C Nominal value: 20°C Actual value: 23°C

Table 3-15 Working area in the **SETTINGS** – **Limit values** menu

1)Varies depending on system

3.6.4 User administration

The user administration is visible to the user group **administrator** only. In the **SETTINGS > User administration** menu, the user group **administrator** can add users, edit, activate users and manage user rights.

If user synchronisation is enabled in the Simpati software, the **User administration** menu will not be displayed. User synchronisation allows all users created in the Simpati software to be transferred with their rights to Webseason.

If user synchronisation is enabled, the users previously created in Webseason (except for the system internal user “Observer”) no longer have access rights. At the Webseason user interface, the created users are automatically logged on as user “Observer”. This way, the monitoring capability of the system is maintained via the Webseason user interface.

If user synchronization is disabled again in the Simpati software, the users originally created in Webseason will again have their original access rights.

Changes in user administration in Simpati are applied to Webseason when the system is restarted. For this, a note is displayed on the web panel. If the system is not restarted manually, it is automatically restarted in the background at the change of day.

User administration - Footer

In the **SETTINGS > User administration** menu you carry out the following default actions using the buttons in the footer bar:

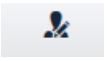
Button	Designation	Explanation
	**New user**	Opens the **Add new user** dialog for creating additional users for the user groups. → *»Adding or editing new users«* (page 46)
	**Edit user**	Opens the **Edit user** dialog for changing **SETTINGS** for individual users. → *»Adding or editing new users«* (page 46)

Table 3-16 User administration – Footer bar

Factory-set user settings

The following users are preset at the factory:

User group	User name	Password
Administrator	**admin**	**admin**
UserHigh	**userhigh**	**userhigh**
UserLow	**userlow**	**userlow**
(system-internal user "Observer")	No login	

Table 3-17 Factory-set user names and passwords

1)Varies depending on system

Adding or editing new users

In the **SETTINGS > User administration** menu you use the buttons to open the following dialogue to add or edit a user:

Dialog	Field	Explanation
Edit user	**Active**	Activates or deactivates the user. - **On**: The user is permitted access. - **Off**: The user is denied access; he cannot log himself in.
Add new user/ Edit user	**Name**	The user's real name, e.g. John Doe. The name is visible in user administration only to the administrator and to the user him/ herself.
	New password **Confirm new password**	Entry of a new secure password.
	User name	The name with which the user logs in and which is also visible to other users, e.g. in the event of a stoppage.
	Group	The selection of one of the three user groups → *»User groups' rights«* (page 47).
	Comment	An optional comment for the user. It is visible to the administrator only.
	Password validity	The password validity duration in days. Once the time has elapsed, the user needs to specify a new password in order to be able to log in.
	Log off automatically after	The time after which the user logged in is automatically logged out. 0 = No automatic logout

Table 3-18 Dialog **Add new user**

NOTICE

Misuse of data due to insecure password

In case of insecure passwords there is a risk that other persons may learn your password and misuse your data.

- Create a password from at least 4 characters.
- For greater password security use combinations consisting of lower case letters, upper case letters, special characters and numbers.
- Make sure you remember the passwords for the respective users. Only the administrator can reset a password.

1)Varies depending on system

User groups' rights

The following functions can be executed by the user groups:

Function	UserLow	UserHigh	Administrator	ServiceGuest	ReadOnlyUser	"Observer"[a]
Reading actual values	x	x	x	x	x	x
Starting manual mode	x	x	x	x		(x)
Stopping manual mode	x	x	x	x		(x)
Starting a program	x	x	x	x		(x)
Stopping a program	x	x	x	x		(x)
Creating/editing programs		x	x	x		(x)
Acknowledging error messages		x	x	x		(x)
Specifying nominal values for control variables		x	x	x		(x)
Changing the language of the user interface	x	x	x	x		(x)
Setting limit values		x	x	x		(x)
Setting external communication with controller		x	x	x		(x)
Setting user administration			x	x		(x)
Setting interfaces			x	x		(x)
Setting date and time			x	x		(x)
Manage users			x	x		(x)
Using **Service** menu				x		

a. Whether the system-internal user "Observer" receives all rights in brackets without login can be set in the **Basic configuration - Start WebPanel with administration rights** menu.

1)Varies depending on system

3.6.5 Units

In the **SETTINGS > Units** menu you specify the display units for the process values. Depending on the programming, the units may differ from the units described here.

Area	Variable (examples)	Explanation
Units	**Temperature**[1)]	Set unit in which the temperature is to be displayed.
	Temperature change[1)]	Set unit in which the temperature change is to be displayed.
	Moisture[1)]	Set unit in which the humidity is to be displayed.

Table 3-19 Working area in the **SETTINGS** – **Units** menu

3.6.6 Basic configuration

In the **SETTINGS > Basic configuration** menu you configure the system-specific settings. The dialog display is configuration dependent.

Area	Field	Explanation
General Settings	**Start WebPanel with administration rights**	- **On**: Every user has every access right and can use the Webseason functions on the integrated web panel without login and without restrictions → *»User groups' rights«* (page 47). This means that the web panel starts with the user "Observer" with all administration rights and without login. - **Off**: Webseason also starts without login. But users cannot change any values.To change values, log in → *4.1 »Logging in on the web panel«* (page 59).
	Show basic configuration on next start	Activates on next start the wizard for basic configuration during startup → *2 »Initial operation«* (page 11).
	Screen saver	Activates/deactivates the display screen saver. - **On:** The screen saver is switched on. With this setting, the screen saver is displayed after 5 minutes of inactivity and disappears following a mouse click or when the screen is touched. - **Off:** The screen saver is switched off and not displayed.
	Chamber name	Enter a name for the respective system.
Configuration[1)]	Fields vary depending on configuration → operating manual for the system.	
Restore default settings	**Restore default settings**	Resets the values to the factory setting provided the factory settings are programmed.

Table 3-20 Working area in the **SETTINGS** – **Basic configuration** menu

1)Varies depending on system

3.6.7 Warning tone

In the **SETTINGS > Warning tone** menu you make the settings for the audible signals in the event of messages → *3.5.4 »Menu MESSAGES«* (page 40) An active audible signal can be switched off in the **MESSAGES** menu. The alarms are saved for maximum 30 days there.

Area	Field	Explanation
Warning tone	**Error**	**On**: An audible signal sounds in the event of an error message.
	Warning	**On**: An audible signal sounds in the event of a warning message.
	Information	**On**: An audible signal sounds in the event of a information message.

Table 3-21 Working area in the **SETTINGS** – **Warning tone** menu

3.6.8 Light

In the **Settings > Lighting** menu set the automatic switch-off for the lighting.

Area	Field	Explanation
Lighting	**Automatic switch-off**	**On**: Clears the **Switch-off after** field and enables the lighting to switch off automatically.
	Switch-off after	Opens a dialog for entering the interval of time after which the lighting switches off automatically.

Table 3-22 Working area in the **SETTINGS** – **Light** menu

3.6.9 Interface

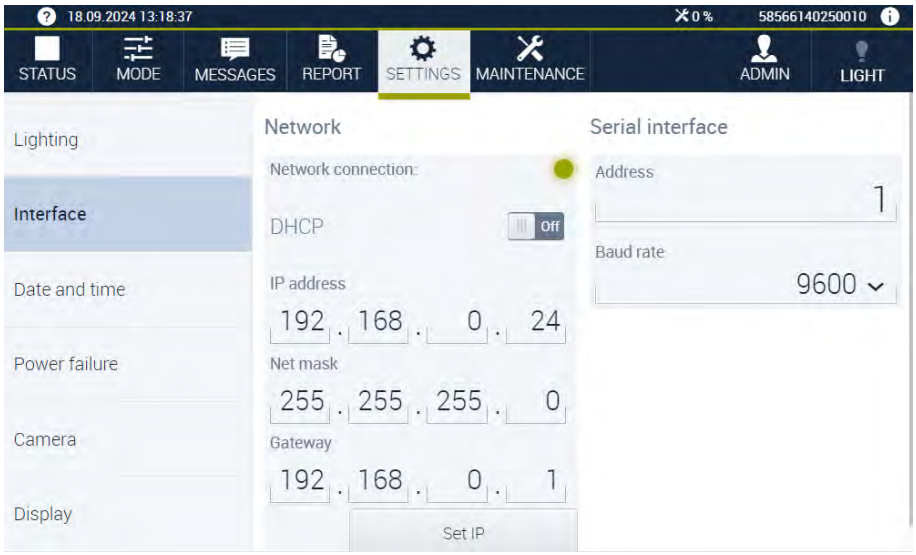


Fig. 3-14 Working area in the **SETTINGS** – **Interface** menu

1)Varies depending on system

In the **SETTINGS > Interface** menu you specify the settings for the serial interface and network connection for external communication with the device's controller → *2.2.4 »Configure interfaces«* (page 16)

NOTICE

Impairment of network operation due to improper configuration

If networking on the LAN conflicts with other network users may occur when applying the communication paths and addresses (e.g. double connections).

The interfaces can be configured by the user group **administrator** only.

► Have your network administrator set up your network.

► In order for Webseason to be able to communicate with the system's controller in a network, have an IP address for the system input by the network administrator.

► If the device is controlled via RS 232, an IP address does not have to be assigned.

Area	Field	Explanation
Serial interface	**Address**	Opens a dialogue for entering the BUS address.
	Baud rate	Selection of the baud rate (possible values: 9600 - 115200).
Network	**DHCP**	DHCP service (Dynamic Host Configuration Protocol). **On**: Activates the automatic assignment of the IP address.
	IP address	Manual entry of the IP address if DHCP is not active. An IP address from the 192.168.121.XXX range is not permitted.
	Net mask	Manual entry of the subnetwork mask if DHCP is not active.
	Gateway	Manual entry of the standard gateway if DHCP is not active.
	Set IP	Confirms the entry.

Table 3-23 Working area in the **SETTINGS** – **Interface** menu

1)Varies depending on system

3.6.10 Date and time

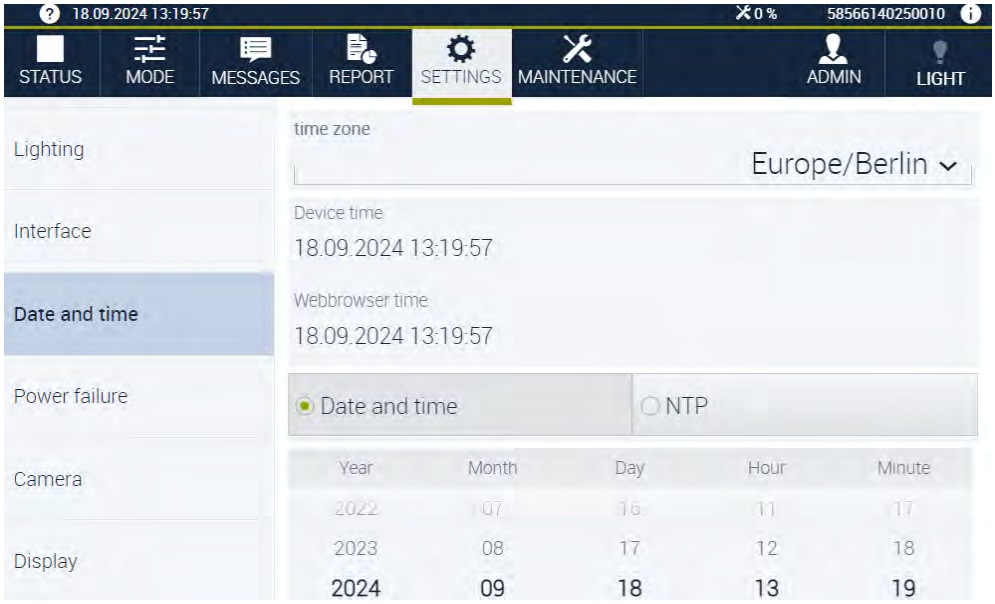


Fig. 3-15 Working area in the **SETTINGS** – **Date and time** menu

Set the time and date in the **SETTINGSDate and time** menu. The following fields are displayed in the working area:

Designation	Explanation
Time zone	Displays the time zone where the system is located.
Unit time	Displays the system time.
Web browser time	Displays the time of the unit connected to the system.
Date and time/NTP	Switchover between manual time specification and automatic time specification by means of NTP (Network Time Protocol).
Date	Selection of day, month, year.
Time	Selection of hour, minute, second.
Next	Confirms the entry.

Table 3-24 Working area in the **SETTINGS** – **Date and time** menu

1)Varies depending on system

3.6.11 Power failure

In the **SETTINGS > Power failure** menu you specify whether and under what prerequisites operation is resumed after a power failure.In the **SETTINGS > Power failure** menu you can set whether and under what prerequisites operation is resumed after a power failure.

If operation is resumed, it will resume from the point where it was interrupted.

Area	Field	Explanation
Power failure	**Continue test**	**Off**: Operation is not resumed. **On**: - **Always**: Operation is resumed. - **Under following conditions**: Operation is resumed when the set conditions are met.
Conditions	**Max. off-time**	Opens the dialog for entering the maximum mains failure time once the operation is resumed. If power is restored within the defined maximum mains failure time following a power failure, operation is resumed at the point where it was interrupted.
	Max. tolerance	Opens a dialog for entering the maximum difference between actual value and nominal value of the temperature after the power failure. On exceeding the maximum difference permitted, the operation is stopped. If the difference is within the defined tolerance, operation is resumed.

Table 3-25 Working area in the **SETTINGS** – **Power failure** menu

3.6.12 Camera[1)]

In the **SETTINGS > CAMERA** menu you connect a camera with Webseason.

Area	Field	Explanation
CAMERA 1	**Name**	Enter a name for the camera.
	URL	Enter the URL for the camera.

Table 3-26 Working area in the**SETTINGS** – Camera menu

1)Varies depending on system

3.6.13 Display

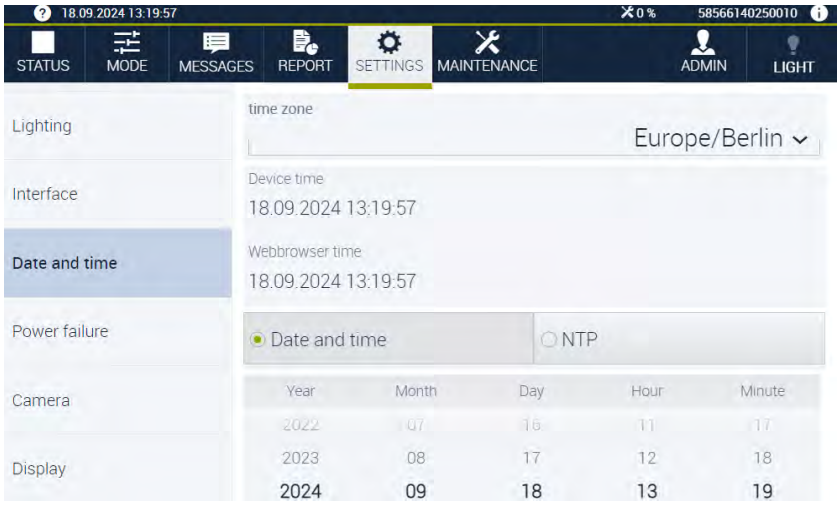


Fig. 3-16 Working area in the **SETTINGS** – Displays menu

In the **Settings > Displays** menu, you specify the visibility of the individual control parameters.

- ► To have the respective parameter displayed, tick the respective checkbox.
  - ✓ The control variable becomes visible when the program is displayed and executed.

1)Varies depending on system

3.7 MAINTENANCE menu

3.7.1 MAINTENANCE

Maintenance information is displayed in the **MAINTENANCE > Maintenance** menu.

Area	Field	Explanation
Maintenance requirement	**Actual value**	Actual value of the operating hours counted.
	Next maintenance	Time until the next maintenance.
	Maintenance requirement	Maintenance requirement in %. If the maintenance requirement is in the range from 60% - 80%, we recommend that you arrange a maintenance appointment with our service center.

Table 3-27 Working area in the **MAINTENANCE** – **Maintenance** menu

The maintenance requirement of the system is shown in colour in the header line:

– If the maintenance requirement is **below 75%**, it is shown in the normal colour.

Fig. 3-17 Display maintenance requirement (example 0%)

– If the maintenance requirement is **above 75%**, it is shown in yellow.

Fig. 3-18 Display maintenance requirement (example 75%)

– If the maintenance requirement is **above 100%**, it is shown in yellow and flashes.

3.7.2 Version information

In the **MAINTENANCE > Version information** menu information about the version of Webseason installed is displayed. The information is only displayed in English.

1)Varies depending on system

3.7.3 Downloads

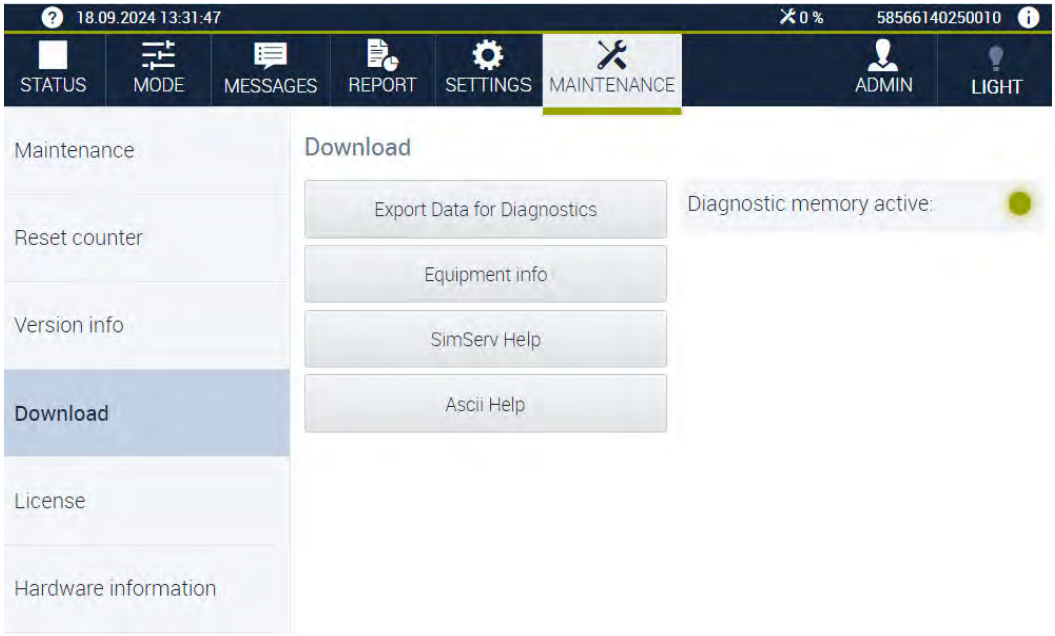


Fig. 3-19 Working area in the **MAINTENANCE** – **Downloads** menu

Log files can be downloaded from the **MAINTENANCE > Downloads** menu.

3.7.4 Reset counter[1)]

Counters can be reset in the **MAINTENANCE > Reset counter** menu.

Area	Field	Explanation
Running-in time 1[1)] (example)	**Reset counter**	Reset the counter value to 0, if available.
	Running-in time 1[1)]	Current value of the counter

Table 3-28 Working area in the **MAINTENANCE** – **Reset counter** menu

3.7.5 DataRec SERVICE

Status information for the system variables is shown in the **MAINTENANCE > DataRec SERVICE** menu. The area is intended for the service center and trained maintenance personnel.

1)Varies depending on system

3.8 Menu CAMERA

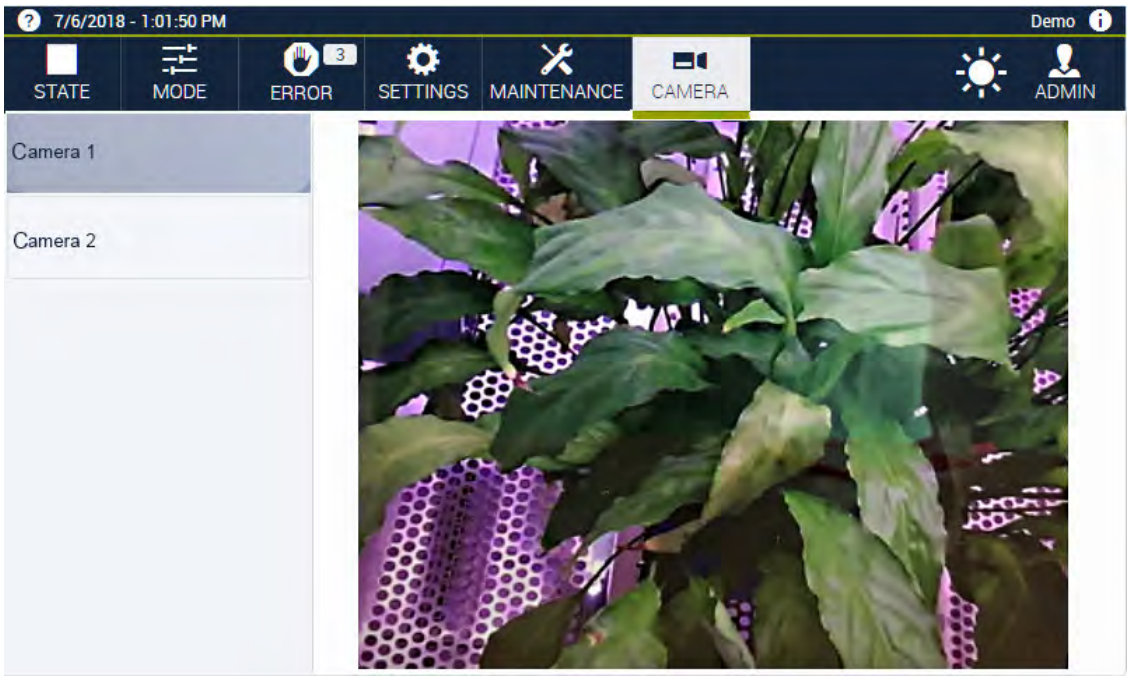


Fig. 3-20 Menu **CAMERA**

In this menu you see the image transmission from the cameras connected. You select the camera required in the side bar.

1)Varies depending on system

3.9 SERVICE menu

3.9.1 Setup

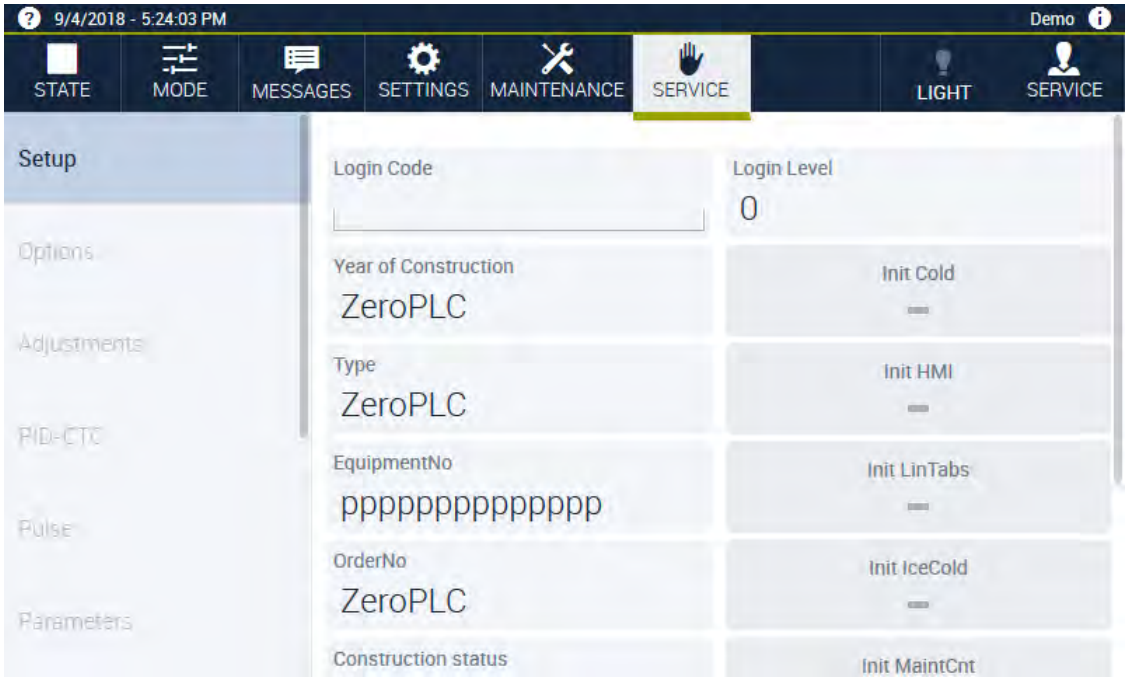


Fig. 3-21 Menu **Service**

The field may only be used under the service center's guidance.

1)Varies depending on system

3.9.2 IO test

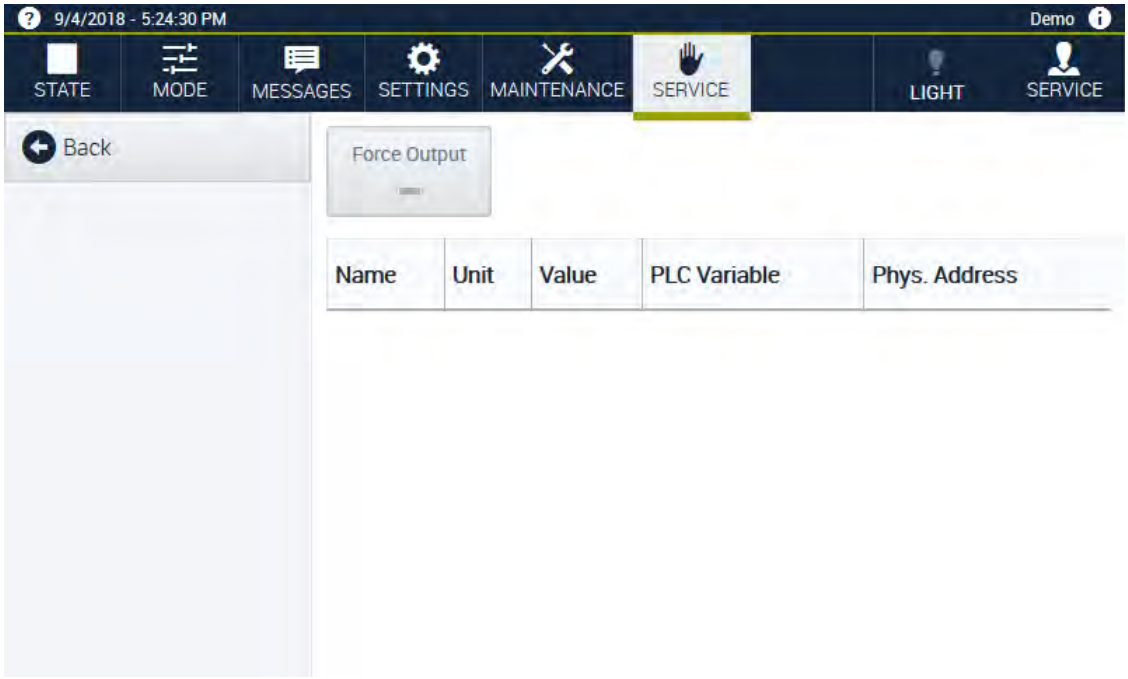


Fig. 3-22 Service – IO test menu

You see an overview of every input / output value. The field may only be used under the service center's guidance.

1)Varies depending on system

4 COMMISSIONING

To start up the web panel, proceed as follows:

- ► Take all measures to start up the associated system
  → *operating manual for the* system.
- ► Set the master switch of the associated system to **»I«**.
- ✓ The controller and the web panel boot for a few minutes.
- ✓ The LED on the web panel flashes green while booting.
- ✓ Immediately the LED goes out the web panel is ready for operation.
- ✓ The web panel opens in the **STATE** menu without the user having logged in.

4.1 Logging in on the web panel

During startup, Webseason opens at the web panel in the **STATE** menu. A login is not required. Depending on the setting, the automatically logged in user has administrator rights or can only read and not change any values. The setting can be made in the menu **SETTINGS > Basic configuration** in the field **Start WebPanel with administration rights**.

If you would still like to log in at the web panel, proceed as follows:

- ► Select the  button.
- ► Select the **Login** button.
- ✓ The **Login** dialogue opens.
- ► Enter your own access data. Factory-set access data: → *Table 2-2 »Factory-set user names and passwords«* (page 18).
- ► Confirm with **OK**.

1)Varies depending on system

4.2 Access to Webseason via external browser

Prerequisite:

– Your network is connected to the system's Ethernet interface.

– To use a mobile terminal device (e.g. a smartphone), the terminal device must be connected to the WLAN.

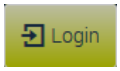
– The IP address of your system is entered on the web panel → *Table 3-23 »Working area in the SETTINGS – **INTERFACE MENU«*** (page 50).

► Start the Internet browser at the terminal device and enter the IP address of the system which you would like to access via Webseason in the address bar.

If you log in via a browser other than the integrated web panel, it is necessary to log in every time.

► Enter your **User name** → *Table 2-2 »Factory-set user names and passwords«* (page 18).

► Enter your password.

► Press the 

button.

CAUTION
Risk of injury
If you access Webseason via a browser, the operating states may be displayed delayed by the browser. As a result, unexpected heat / cold may escape when the door is opened, which might injure you.

► Check the current operating state on the integrated web panel before you open the door.

4.3 Changing users

If a user is already logged in on the system, log the user out and log in with you own access data:

► In the menu bar select the  button.

✓ A dropdown menu opens.

► Press the **Logout** button.

✓ The **Login** dialogue opens.

✓ No user is logged in.

► Enter your own user data.

► Confirm with **OK**.

1)Varies depending on system

5 MANUAL MODE

Webseason distinguishes between two operating modes (**MODE**): manual mode and program mode.

In manual mode specify just one value each per control variable and also just one state for all other parameters for the duration required. If you want to change the values, you have to overwrite the old values in each case.

In program mode you create a program consisting of as may program steps as you like. Specify one value per control variable for every program step.

5.1 Specifying software limit values

The controller is equipped with a software-based limiter for control variables. The limiter triggers warning messages and alarm messages when the respective warning limits and alarm limits are exceeded.

Specify warning limits and alarm limits for you control variables prior to every operation.

- Select the **SETTINGS** menu.
- Select the **Limit values** button in the side bar.
- Specify alarm and warning limits for every control variable, measured value and counter available and if necessary define tolerances.

5.2 Setting the temperature limit cut-out

To protect the test specimen/chamber load against thermal overload, the system is equipped with a temperature limit cut-out independent of the software.[1)] The operation is stopped when the temperature exceeds or drops below a temperature limit.

- Take the position of the temperature limit cut-out from the → operating manual for the system.
- Adjust the limit values at the temperature limit cut-out to the test specimen/chamber load prior to every operation.

1)Varies depending on system

5.3 Setting up manual mode

Prerequisite:

– The temperature limit controller is set.
– The software temperature limits are set.

Procedure:

► Select the **MODE** button in the menu bar.

► Select the **Manual mode** button in the side bar.

✓ The **Control variables** tab opens.

✓ The nominal values of the previous manual operation are displayed in the working area.

✓ The display in the working area is configuration-dependent. Every control variable available is shown by default.

5.3.1 Selecting control variables

Prerequisite:

→ *5.3 »Setting up manual mode«* (page 62)

Procedure:

► In the **Control variables** tab, select the ⚙ button.

✓ The **Select control values** dialogue opens.

In this dialog you can hide the individual control variables or show warning limits for editing.

► To show a control variable, tick the checkbox.

► To activate the entry and display of gradients for the particular control variable, set the **Gradient** switch to **On**. **Gradient** is here a rate of change. Gradients or rates of change can be defined for any control variable available → *5.3.3 »Specifying gradients for control variable«* (page 63).

► Confirm with **OK**.

✓ The dialogue is closed.

1)Varies depending on system

5.3.2 Specifying nominal values for control variables

Prerequisite:

– → *5.3.1 »Selecting control variables«* (page 62)

Procedure:

► Select a control variable, e.g. **Temperature.**

✓ The **Temperature** dialog opens.

► Enter a nominal temperature value.

► Confirm with **OK**.

✓ The dialogue is closed.

5.3.3 Specifying gradients for control variable

Prerequisite:

– → *5.3.1 »Selecting control variables«* (page 62).

Procedure:

A gradient indicates a rate of change. To define a gradient or rate of change you need three specifications: an initial value, a target value and a rate of change. The system moves toward the target value at the rate of change defined. The controller calculates the time that is required to reach the target value at the rate of change from the values provided, but does not display them. The time indication in the **Duration** field (not visible in the figure) does not have any effect on the gradients. This time indication merely refers to the length of time involved in achieving the operating conditions, regardless of whether the target value is reached or not.

Fig. 5-1 MODE menu - Setting **Gradient**

1)Varies depending on system

Specifications required	Entry in WEBSeason®	Sample value for Temperature control variable
Initial value	**Temperature**	20 °C
Target value	**Gradient target**	60 °C
Speed	Depending on whether the temperature compared to the current actual value is supposed to increase or decrease, enter the gradient or rate of change in the field: **Gradient up** (if the temperature is supposed to increase) **Gradient down** (if the temperature is supposed to decrease)	2 K/min in the **Gradient up** field

Table 5-1 Example: Defining the gradient for the Temperature control variable

5.3.4 Setting the duration

Prerequisite:

– The **MODE** menu is selected.
– **Manual mode** is selected.

Procedure:

► Select the **Control variables** tab.
► Press the **Duration** button.
✓ The dialog for entering the value opens.
► Set the duration:
  ► Unlimited operating time: Set **Non-stop** switch to **On**.
  ► Limited operating time: In the ⌄ dropdown menu first select the unit of time, e.g. hours, and then enter the time value, e.g. 8.
  ✓ If a limited operating time is entered, the switch **Non-stop** automatically switches to **Off**.
► Confirm with **OK**.
✓ The dialog is closed and the setting saved.

1)Varies depending on system

5.3.5 Configuring the display for the control values

Prerequisite:

– The **MODE** menu is selected.
– **Manual mode** is selected.

Procedure:

► Select the **Set values & digital channels** tab.
✓ The preset values for the **Set values & digital channels** parameters are shown in the working area.
► In the **Set values** area, select the button.
✓ The **Select set values** dialogue opens.
► To hide a control value, deselect the checkbox.
► Confirm with **OK**.
✓ The dialogue is closed.
✓ The control values selected are shown.

5.3.6 Setting control values

Prerequisite:

– The **MODE** menu is selected.
– **Manual mode** is selected.
– The **Set values & digital channels** tab is selected.

Procedure:

► Select a control value, e.g. **fan**[1)].
✓ The **Fan**[1)] dialog opens.
► Enter new value.
► Confirm with **OK**.
► Repeat the steps from this example for the other control values.
✓ The current control values are displayed in the working area.

1)Varies depending on system

5.3.7 Configuring the display for the digital channels

Prerequisite:

– The **MODE** menu is selected.
– **Manual mode** is selected.
– The **Set values & digital channels** tab is selected.

Procedure:

► Go to **Digital channels** and click the  button.

✓ The **Select digital channels** dialog opens.

► To hide a digital channel, deselect the checkbox.

► Confirm with **OK**.

✓ The dialogue is closed.

✓ The digital channels selected are displayed in the working area.

5.3.8 Activating digital channels

Prerequisite:

– The **MODE** menu is selected.
– **Manual mode** is selected.
– The **Set values & digital channels** tab is selected.

Procedure:

► In the **Digital channels** area, select the button for the respective digital channel.

✓ The digital channel is activated. The display changes from inactive to active  .

1)Varies depending on system

5.4 Starting operation

Prerequisite:

- The software limiter's limit values are set.
- The temperature limit controller is set.
- **Manual mode** is selected.
- Nominal values, control values, digital channels are set.
- The **MODE** menu is selected.

Procedure:

- ► Press the **Start** button.
- ► Confirm the temperature limit controller reminder with **OK**.
- ✓ The operation is started. The **RUNNING** state is shown in the menu bar.

5.5 Changing values while an operation is running

In manual mode the values can also be changed while an operation is running.

- ► Select the **MODE** menu.
- ► Change values.
- ✓ The values changed are immediately saved.

5.6 Stopping operation

- ► Select the **RUNNING** menu.
- ► Press the**Stop** button.
- ► Confirm prompt with **OK**.
- ✓ Operation is stopped. The **STATE** state is shown in the menu bar.

1)Varies depending on system

5.7 “Configuring and starting manual operation” checklist

1)Varies depending on system

6 PROGRAM MODE

Webseason distinguishes between two operating modes (**MODE**): manual mode and program mode.

In manual mode specify just one value each per control variable for the duration required → *5 »Manual mode«* (page 61).

In program mode you create a program consisting of as may program steps as you like. Specify one value each per process variable (control variable, control value, digital channel) for every program step. The program steps, each with different values, proceed in sequence one after the other.

You can create and store up to 100 programs. Up to 120 programs can be displayed. The programs in program slots 100 and 120 are write-protected factory-set programs.

6.1 Setting the temperature limit cut-out

To protect the test specimen/chamber load against thermal overload, the system is equipped with a temperature limit cut-out independent of the software.[1)] The operation is stopped when the temperature exceeds or drops below a temperature limit.

- *Take* the position of the temperature limit cut-out from the → operating manual for the system.
- Adjust the limit values at the temperature limit cut-out to the test specimen/chamber load prior to every operation.

6.2 Creating and editing a new program

- Select the **MODE** menu.
- In the footer bar, select the + button.

✓ A new basic program is created in the next free slot and can be edited.

- To rename the program, select the program name in the side bar and rename it.
- Create program steps one after another:
  - To edit a program step select the program step **(Step 1)**.
  - To rename a program step select it and enter a new name.
  - To add a further program step, select the **New step** button.
  - ✓ The new program step is added after the program step currently selected.
- To delete a step, select the step and the **Delete step** button.
- You can save a program and quit editing at any time by selecting the **Done** button in the footer bar. Then in order to be able to re-edit the program, select the **Edit the program** button in the footer bar.

1)Varies depending on system

6.2.1 Selecting control variables

- In the **Control variables** tab, select the button.
- ✓ The **Select control values** dialogue opens.

In this dialogue you can show and hide the individual control variables and also show the input fields for a ramp.

- To show a control variable, tick the checkbox.
- To show a ramp for the control variable, set the **Ramp** button to **On**.
- Confirm with **OK**.
- ✓ The dialogue is closed.

Note: Inactive profiles are not dealt with in program mode. This means they keep the value set before program start.

6.2.2 Specifying nominal values for control variables

Prerequisite:

– The program is being edited.
– Control variables and warning limits are shown.

Procedure:

- Select a control variable, e.g. **Temperature**
  - ✓ The **Temperature** dialogue opens.
- Enter nominal temperature value for step selected.

Step 1 is the program's starting point. A duration cannot be specified.

»Waiting for« function

The »Wait for« function is used if the continuation of the program is to be paused until a process variable has reached the programmed value.

The function is only displayed in the dialogue if the following prerequisites are fulfilled:

– The step is not step 1. The function cannot be set in step 1.
– In the step with the **Waiting for** function or in any step before it, a program runtime of at least 5 seconds must be set.

Activation of »Wait for«

To activate the »Wait for« function, proceed as follows:

- Select the step at which the function is to be activated.
- Select the control variable to be waited for.
  - ✓ The **Select control values** dialogue opens.

Set the **Wait for** switch to **On**

- When you activate the **Waiting for** function, the following occurs:
  – The nominal value is approached.

1)Varies depending on system

– The duration set for the particular step is paused in the process.

– Only when the nominal value is reached does the cycle for the duration set or the next step begin.

► When you activate **Waiting for** in step 2, for example, step 3 cannot be approached until the nominal value from step 2 has been reached. The program runtime is paused in the meantime. The program time only starts with step 2.

► If you deactivate **Waiting for** in step 2, the following occurs:

– The nominal value is steadily approached over the duration set.

– A nominal value ramp occurs between step 2 and 3. The controller approaches the nominal value ramp as quickly as possible.

– The program time starts with step 2.

Programming a ramp

If you want to program a ramp, such as between steps 2 and 3 in → *Fig. 6-1 »Example of a program«* (page 72), proceed as follows:

► Program a step with a desired temperature.

► Program another step with a desired duration and a desired temperature that is above or below the previous temperature.

✓ The nominal value is steadily approached over the duration set. A nominal value ramp occurs.

If you deactivate **Waiting for** in step 2, the controller moves toward the nominal value ramp as fast as possible. In the course of this the actual values at the start, depending on the initial temperature, can differ from the nominal values over a variably long period of time.

Programming a constant

If you want to keep a constant temperature for a desired period of time, proceed as follows:

► Program a step with the desired temperature. In this step do not define the duration of the constant yet, but rather just the way in which the temperature is to be reached (e.g. ramp or jump).

✓ The temperature is reached in the way that you defined.

► Program another step. In doing so, copy the nominal temperature value from the previous step, but this time define the duration required for the constant, cf. steps 3 and 4, as well as steps 5 and 6 in → *Fig. 6-1 »Example of a program«* (page 72)

✓ The temperature is kept constant for the duration entered.

Programming a jump

If you want to program a jump, such as between steps 4 and 5 in → *Fig. 6-1 »Example of a program«* (page 72), proceed as follows:

► Program a step as a starting point for the jump.

► Program a subsequent step with the duration 0:00:00 and the desired temperature.

✓ The temperature is approached as fast as possible.

1)Varies depending on system

Example of a program

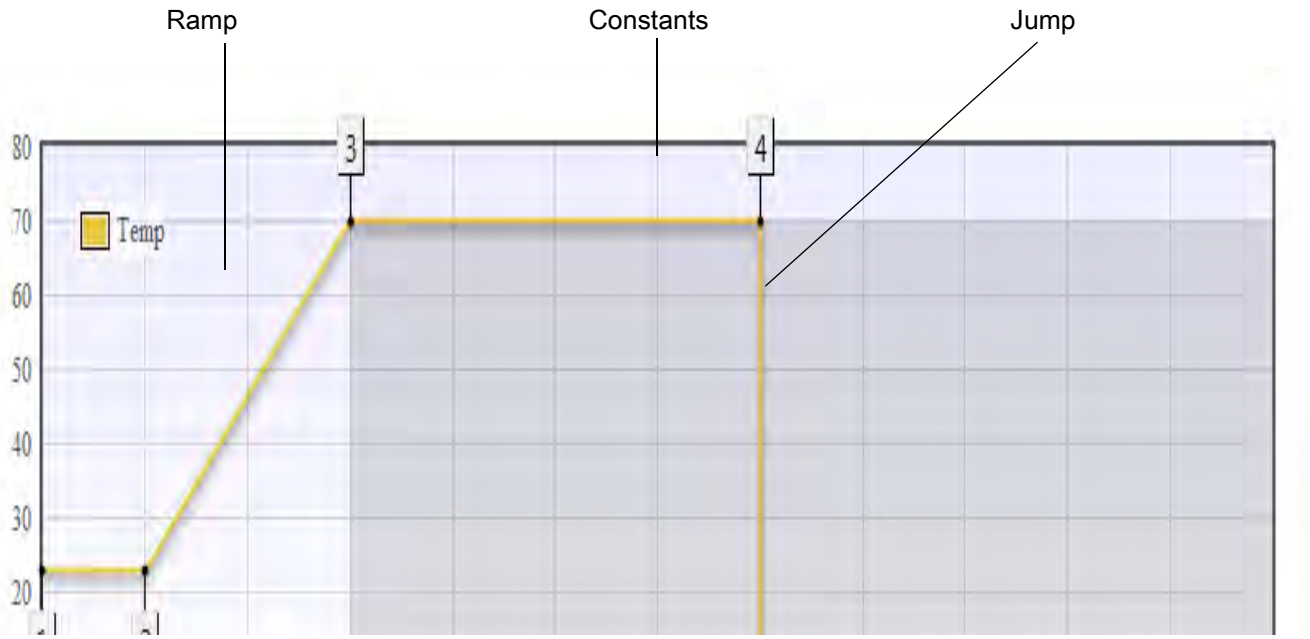


Fig. 6-1 Example of a program

Step	Duration	Temperature (°C)	Wait for
1	0:00:00	23	0
2	0:30:00	23	0
3	1:00:00	70	0
4	2:00:00	70	0
5	0:00:00	-5	1
6	2:30:00	-5	0

Table 6-1 Values for example program

1)Varies depending on system

6.2.3 Specifying limit values for control variables

► Under the control variable required select the **Warning limit maximum** button.

✓ The **Warning limit maximum** dialogue opens.

► Enter new upper limit value for the warning limit.

► Confirm with OK.

✓ The dialogue is closed.

► Repeat the steps under **Warning limit minimum** for the lower limit value.

► Repeat the steps from this example for the other control variables.

NOTICE

Overriding the warning limits

You can specify warning limits in the **SETTINGS** menu and in the Program editor. You can only specify the alarm limits in the **SETTINGS** menu. The settings for warning limits in the **MODE** menu override the settings for the warning limits from the **SETTINGS** menu.

6.2.4 Specifying the duration of the program step

Prerequisite:

– The **MODE** menu is active.

– A program step is selected and being edited.

Procedure:

► Select the **Control variables** tab.

► Press the **Duration** button.

✓ The dialog for entering the value opens.

► Set the program step's duration; in order to do this, in the ⌄ dropdown menu first select the unit of time, e.g. hours, and then enter the time value, e.g. 8.

  ► If you have activated the **Waiting for** function in a program step with a nominal value, the following happens:

  – The duration set pauses or "waits" until the nominal value is reached.

  – Immediately the nominal value is reached the cycle for the duration set or the next step starts → *»»**Waiting for« function«*** (page 70).

  ► If you have activated the **Waiting for** function in a program step without a nominal value, the following happens:

  – The program or the duration continues to rum, regardless of whether the nominal value has been reached → *»Programming a ramp«* (page 71).

► Confirm with **OK**.

✓ The dialog is closed and the setting saved.

1)Varies depending on system

6.2.5 Configuring the display for the control values

Prerequisite:

– The **MODE** menu is selected.
– A program step is selected and being edited.

Procedure:

► Select the **Set values & digital channels** tab.

► Go to **Set values** and click the  button.

✓ The **Select set values** dialogue opens.

In this dialog you can show and hide the individual control values.

► To show a control value, tick the checkbox.

► Confirm with **OK**.

✓ The dialogue is closed.

6.2.6 Setting control values

Prerequisite:

– The **MODE** menu is selected.
– A program step is selected and being edited.
– The **Set values & digital channels** tab is selected.

Procedure:

► Select a control value.

✓ The dialogue for the control value selected opens.

► Enter a new value.

► Confirm with **OK**.

► Repeat the steps from this example for the other control values.

✓ The current control values are displayed in the working area.

1)Varies depending on system

6.2.7 Configuring the display for the digital channels

Prerequisite:

– The **MODE** menu is selected.
– A program step is selected and being edited.
– The **Set values & digital channels** register is selected.

Procedure:

► Go to **Digital channels** and click the button.

✓ The **Select digital channels** dialog opens.

► To hide a digital channel, deselect the checkbox.

► Confirm with **OK**.

✓ The dialogue is closed.

✓ The digital channels selected are displayed in the working area.

6.2.8 Activating digital channels

Prerequisite:

– The **MODE** menu is selected.
– A program step is selected and being edited.
– The **Set values & digital channels** tab is selected.

Procedure:

► In the **Digital channels** section, select the button for the respective digital channel.

✓ The digital channel is activated. The display changes from inactive to active .

1)Varies depending on system

6.2.9 Creating a loop

A loop is a repetition of one or more program steps.

Prerequisite:

– The **MODE** menu is selected.
– A program step is selected and being edited.
– Control variables, nominal values and digital channels are already set.

A change in state in a program is always defined by 2 steps. The first step determines the initial condition. In the 2nd step, the final values and the time between both states are defined.

Procedure:

► In the footer bar, select the button.

✓ The **Generate loops** dialog opens → *Fig. 6-2 »Creating loops«* (page 76).

► In this dialog select the steps that you want to connect in a loop:

  ► Select the first step, e.g. **Step 2**.

  ► Select the last step, e.g. **Step 7**.

Fig. 6-2 Creating loops

✓ The steps that are between the first and last steps of the loop are selected automatically.

✓ The loop is distinguished by a green bar.

► Specify the number of cycles for the selected steps (here, e.g. 5). Take into account in doing so that the steps are already run through once before the repeat starts.

Example: If you want steps 2 to 7 to be run through a total of 5 times, enter the number 5.

1)Varies depending on system

- ► To complete generation of the active loop select the **Done** button.
- ✓ The loop is distinguished by a green bar. The number of cycles is in the box at the bottom end of the green bar.
- ► To generate another loop tap again on the first and last steps of the loop desired. In doing so you can integrate loops already generated if the new loop ends at least one step beyond the existing loop → *Fig. 6-3 »Nesting multiple loops«* (page 77).
- ► To complete the editing of the superordinate loop select the **Done** button.

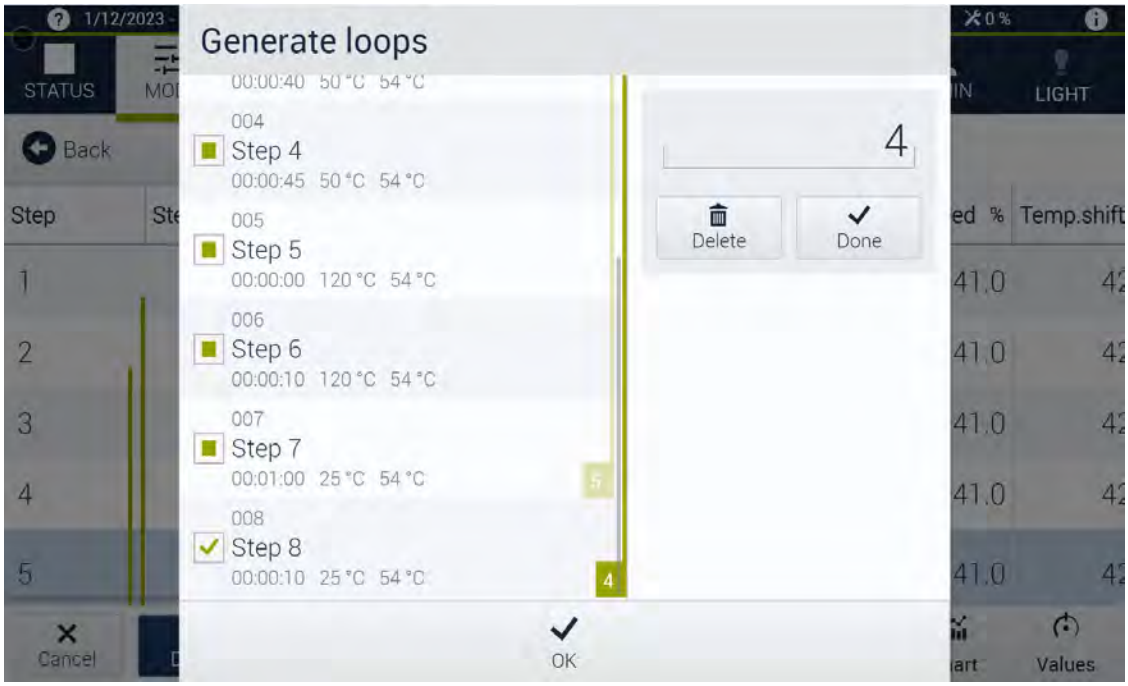


Fig. 6-3 Nesting multiple loops

- ✓ The loops nested and their count are indicated by green icons.
- ► To save and to close the **Generate loops** dialogue select the **OK** button.

NOTE

A change in value in the program always comprises 2 steps. Thus in the example a ramp is defined by the steps "Step 2" and "Step 3". The values at the end of "Step 2", here 25°C, form the start value for the ramp. "Step 3" becomes the end value of the ramp 50°C and the duration of 40 seconds is added. For this ramp to be repeated, it must be completely within the marked loop.

NOTE

The programmed loop is visualised as a green bar on all displays. The program can be "broken up" in addition in the graphical program view. This means that the loops become program steps through which the entire program sequence is illustrated.

1)Varies depending on system

6.2.10 Editing loops

- To edit a loop already generated, select the box with the number of cycles.

6.2.11 Deactivating process variables

To make programming clearer, it is possible to deactivate process variables that are not needed.

It is important here that inactive profiles are no longer treated in program mode. This means they keep the value set before the program start was set. If a process variable is to have a defined value in program mode, it must be programmed with it and may not be hidden.

6.2.12 Saving a program

- To quit editing the program select the  button in the footer bar.

✓ The program is saved and editing mode is exited.

- If during the course of creating the program you select another menu, a prompt, whether you really do want to quit editing, opens.

✓ In that case the program is not saved.

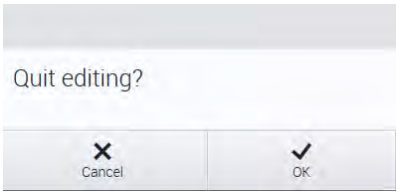


Fig. 6-4 Program editing - Quitting editing

1)Varies depending on system

6.3 Copy program

If you want to create a program that corresponds to a program already on hand, you can copy and modify the existing program. The programs in program slots 100 and 120 are write-protected factory-set programs. To edit you can copy a fixed program to a program slot < 100.

Prerequisite:

– The **MODE** menu is selected.

Procedure:

► Press the  button.

✓ The **Copy program** dialog opens.

► Select the program that is to be copied.

► In the dropdown menu select program slot in which the copy is to be kept.

► Press the **OK** button.

✓ If a program is already stored in the program slot selected, this generates a prompt whether the existing program should be overwritten.

✓ The program is added in the side bar in the program slot specified.

1)Varies depending on system

6.4 Starting a program

Prerequisite:

– The software limiter's limit values are set.
– The temperature limit controller is set.
– Nominal values, control values and digital channels are set.
– The **MODE** menu is selected.

Procedure:

► In the side bar select the program required.

► In the footer bar, select the  button.

✓ The **Start** [program name] dialog is opened.

In this dialog you are reminded to set the temperature limit controller. You can also change the start time, the number of run-throughs and the program's pre-run time.

► In order that the program does not start immediately, but rather at a later point in time, press the **Change start time** button to **On** and enter the start date and start time required.

► If the program is to start immediately, set the button to **Off**. Ignore time and date specification.

► In the **Program run-throughs** input field enter the number of program run-throughs required.

► In order that the program is running in synch with the actual time, set the **Real-time synchronous** button to **On**. Otherwise the program starts at 0:00.

► In the **Pre-run time** input field enter the time interval and the unit of time that you want to skip over. Using the **Pre-run time** function, you can start the program from any point of time within the program time. Example: If the program lasts for a total of 10h, you can skip over the first 3h of the program, for instance, by entering the **Pre-run time**.

► When the settings are completed, select the **OK** button.

✓ The program is started. The **RUNNING** state is shown in the menu bar.

6.5 Changing a view

Using the  ,  and  buttons, you can change to the respective program view in the Editor:

– In the **Chart** view you can monitor and analyse the behaviour of the new program's nominal values and actual values. The values cannot be edited in this view.
– In the **Table** view, you can have several steps, set nominal values and actual values as well as control values and digital channels displayed at the same time and edit them. Proceed as follows to change a value:
  ► Select a new program line.
  ✓ The line is highlighted blue.
  ► Click the respective column in the table.
  ✓ The input field belong to the respective value opens.
– The steps are displayed as a list in the **Values** view. After a step has been selected, it can be edited as required.

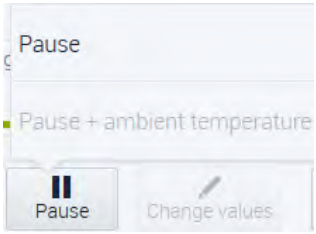
1)Varies depending on system

6.6 Pausing a program

A program can be paused in two ways: **Pause** and **Pause + room temperature**.

► To pause a program select the ⏸ button.

✓ A menu with the selection options **Pause** and **Pause + room temperature** is opened.



► Select one of the options as required:

Pause

Only the program time is stopped. The control variable controller, the digital channels and the control values remain enabled. The temperature is retained.

✓ The state immediately prior to the pause is maintained.

✓ The program time is stopped.

✓ The recording of the actual values is continued.

Pause + room temperature[1)]

✓ The program time is stopped.

✓ The conditions are rendered safe as quickly as possible. Operating conditions that pose a risk to people (e.g. gases or rays) are deactivated.

✓ Safe opening, loading or even entering the system is possible → *operating manual for the associated system*.

1)Varies depending on system

6.7 Resuming a program[1)]

You can resume the program after a pause at any time.

- ► To resume a program select the  button.
- ✓ The effects differ as follows:

Pause

- ✓ Since the operating conditions were maintained during the pause, the program is continued absent changes in the conditions.

Pause + room temperature

- ✓ Resumption depends on the system's programming.

6.8 Stopping a program

If you stop a program, you stop the entire operation. The program is deleted and cannot be resumed again.

- ► To stop a program select the  button.
- ✓ A dialog opens for confirmation.
- ► Confirm the dialog with **OK**.
- ✓ The program is stopped.

1)Varies depending on system

6.9 Deleting a program

A program is deleted in the following cases:

– If a new program is cancelled
Note: For the time of input up to cancellation, the program is created in the controller and is locked for other people.
– If the page is closed during program input
Note: This is followed by the note that the program has not been saved. If the page is still closed, a newly created program is deleted.
– If it is deleted directly via the bottom menu bar.
Note: A safety query is displayed.

► Select the **MODE** button in the menu bar.

► Select the **Manual mode** button in the side bar

► In the footer bar, select the  button

✓ The dialogue for deleting a program is opened.

► Activate the selection field of the program to be deleted.

► Select the  button in the footer bar.

✓ The programis deleted

Every program deletion is noted in the **REPORT** menu. → *3.5.6 »Menu REPORT«* (page 41)

1)Varies depending on system

1)Varies depending on system

INDEX

1)Varies depending on system

1)Varies depending on system

Passionately **innovative.**

We work in partnership to support companies in research, development, production and quality assurance.
With 23 companies in 18 countries at 29 locations.

weisstechnik
For a safe future.

Environmental Simulation

The first choice for engineers and researchers for innovative, safe environmental simulation facilities. In fast motion, our test systems can simulate all the influences in the world as well as for instance in space. In temperature, climate, corrosion, dust or combined stress tests. With a very high degree of reproducibility and precision.

Air Solutions

As the leading provider of clean rooms, climate technology and air dehumidification, we consistently ensure optimal climatic conditions for people and machines. For industrial production processes, in hospitals, mobile operation tents or in the field of information and telecommunications echnology. From project planning to implementation.

Heat Technology

Experienced engineers and designers develop, plan and produce high-quality, reliable heat technology systems for a broad range of applications from heating and drying cabinets to microwave systems and industrial furnaces.

Pharmaceutical Technology

With decades of experience and know-how, we guarantee the most sophisticated clean air and containment solutions. Our comprehensive and innovative range of products includes barrier systems, laminar flow systems, safety workbenches, isolators, airlocks and stability test systems.

Weiss Technik GmbH

Greizer Straße 41–49
35447 Reiskirchen/Germany
T +49 6408 84-0

Beethovenstraße 34
72336 Balingen/Germany
T +49 7433 303-0

info@weiss-technik.com
weiss-technik.com

Test it. Heat it. Cool it.