TECHDOCS
Manual

WAGO Gateway Application

Version 1.0.0.0

Imprint

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Every conceivable measure has been taken to ensure the accuracy and completeness of this documentation. However, as errors can never be fully excluded, we always appreciate any information or suggestions for improving the documentation.
We wish to point out that the software and hardware terms, as well as the trademarks of companies used and/or mentioned in the present document are generally protected by trademark or patent.

WAGO is a registered trademark of WAGO Verwaltungsgesellschaft mbH.

Content

1. Information about This Documentation

1.1. Copyright

1.2. Number Notation

Number System	Example	Comment
Decimal	100	Normal notation
Hexadecimal	0x64	C notation
Binary	'100' '0110.0100'	In quotation marks, nibble separated by a period

1.3. Font Conventions

Font Type	Explanation
`monospaced`	Names of paths and files are displayed in a font type with uniform character width. Example: `notepad.exe`
Menu	Menu options are displayed in bold, e.g.: **Save**
>	A “greater than” symbol between two names denotes the selection of a menu option. Example: **File > New**
Input	Designation of input or optional fields are displayed in bold. Example: **Value**
“Value”	Input or selection values are displayed in quotation marks. Example: Enter the value “4 mA” under **Start of measurement range**.
[Button]	Buttons are displayed in bold in square brackets. Example: **[OK]**
[Keys]	Key labels on the keyboard are displayed in bold and enclosed in square brackets. Example: **[F5]**

1.4. Symbols

⚠ DANGER

Personal injury!
Indicates a high-risk, imminently hazardous situation which, if not avoided, can result in death or serious injury.

⚠ DANGER

Personal Injury Caused by Electric Current!
Indicates a high-risk, imminently hazardous situation which, if not avoided, can result in death or serious injury.

⚠ WARNING

Personal injury!
Indicates a moderate-risk, potentially hazardous situation which, if not avoided, could result in death or serious injury.

⚠ CAUTION

Personal injury!
Indicates a low-risk, potentially hazardous situation which, if not avoided, may result in minor or moderate injury.

NOTICE

Damage to property!
Indicates a potentially hazardous situation which, if not avoided, may result in damage to property.

NOTICE

Damage to property caused by electrostatic discharge (ESD)!
Indicates a potentially hazardous situation which, if not avoided, may result in damage to property.

Note

Important note!
Indicates a potential malfunction which will not result in damage to property, however, if not avoided.

Information

Additional Information!
Refers to additional information which is not an integral part of this documentation (e.g., the Internet).

2. Legal Bases

Subject to Change

WAGO Kontakttechnik GmbH & Co. KG reserves the right to make any alterations or modifications that serve to increase the efficiency of technical progress. WAGO Kontakttechnik GmbH & Co. KG owns all rights arising from the granting of patents or from the legal protection of utility patents. Third-party products are always mentioned without any reference to patent rights. Thus, the existence of such rights cannot be excluded.

Personnel Qualification

The use of the product described in this document is exclusively geared to specialists having qualifications in PLC programming, electrical specialists or persons instructed by electrical specialists who are also familiar with the appropriate current standards.
Moreover, the persons cited here must also be familiar with all of the products cited in this document, along with the operating instructions. They must also be capable of correctly predicting any hazards which may not arise until the products are combined.
WAGO Kontakttechnik GmbH & Co. KG assumes no liability resulting from improper action and damage to WAGO products and third-party products due to non-observance of the information contained in this document.

Limitation of Liability

This documentation describes the use of various hardware and software components in specific example applications. The components may represent products or parts of products from different manufacturers. The respective operating instructions from the manufacturers apply exclusively with regard to intended and safe use of the products. The manufacturers of the respective products are solely responsible for the contents of these instructions.
The sample applications described in this documentation represent concepts, that is, technically feasible applications. Whether these concepts can actually be implemented depends on various guidelines. For example, different versions of the hardware or software components can require different handling than that described here. Therefore, the descriptions contained in this documentation do not form the basis for assertion of a certain product characteristic.
Responsibility for safe use of a specific software or hardware configuration lies with the party that produces or operates the configuration. This also applies when one of the concepts described in this document was used for implementation of the configuration.
WAGO Kontakttechnik GmbH & Co. KG assumes no liability for the realization of these concepts.

3. Function Description

The WAGO Gateway Application for the WAGO 750-8212 PFC200 2nd Generation enables communication between different bus and/or communication systems and shortens the integration time. The user-friendly web interface allows the user to exchange information and measured values between different systems. The pre-configured application shortens startup times, especially in building technology. The WAGO Gateway Application currently enables communication with Modbus RTU, Modbus IP (TCP/UDP) and KNX-TP devices. Every conceivable combination is possible.

Application examples for WAGO Gateway Application:

- Building automation
- Chemical industry
- Printing industry
- Electrical engineering
- Aviation industry
- Plants
- Plastics processing
- Warehouses
- Food processing
- Logistics
- Engineering
- Metalworking
- Paper production
- Heavy industry
- Stations

...

3.1. Hardware

Maximum Number	Item Nr.	Description
1	750-8212	Controller PFC200; 2nd Generation; 2 x ETHERNET, RS-232/-485
4	753-646	KNX-TP1-Modul
4	750-652	RS-232-/RS-485-Interface

3.2. Software

Maximum Number	Description
255	KNX Group addresses per module (Item number: 753-646)
255	Modbus RTU register per module (Item number: 753-652)
11	Modbus IP subscriber, configurable
255	Modbus IP register per Modbus IP subscriber
1000	Data point connection

3.3. Supported Browsers

The following browsers have been successfully tested with WAGO Gateway Application:
- Google Chrome Version 56.0
- Mozilla Firefox Version 51.0
- Microsoft Edge Version 38

Note

Webvisualisierung
Web Visualization
Only one browser (client) at a time can access WAGO Gateway Application web visualization.
Example: Simultaneous display in a desktop browser and a display device is not possible.

Note

Other browsers
Although other browsers may also be used, we cannot rule out that the system may experience limited functions with these other browsers.

Note

Use of devices from the *e!DISPLAY* portfolio
One of the desktop browsers described above and a display device with the necessary resolution and screen size is required to properly use all of the WAGO Gateway Application functions. Devices from the ***e!DISPLAY*** portfolio are therefore unfortunately NOT supported.

4. Installation

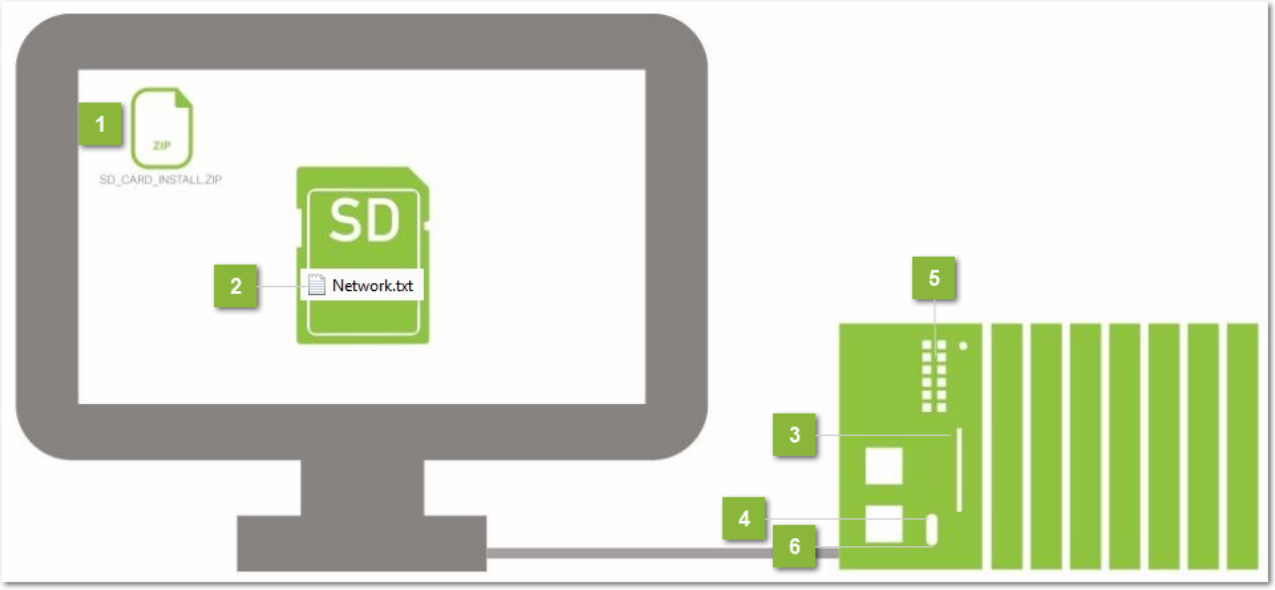
After registering at www.wago.com/applicationcontroller, you will receive an e-mail with the download link to the WAGO Gateway Application installation files. The required files for WAGO Gateway Application are downloaded as a ZIP archive.

Note

The existing settings are retained!
The existing settings are temporarily saved on the SD card during the installation and are retained after the update.

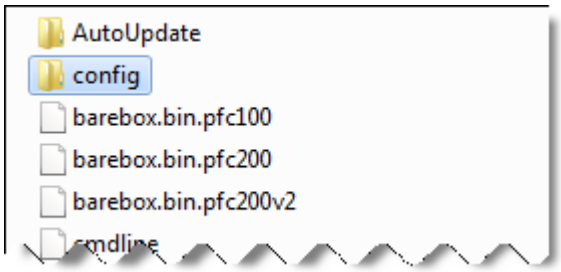
Hinweis

Use a WAGO SD card!
It is recommended to use a SD card from WAGO (758-879/000-001).



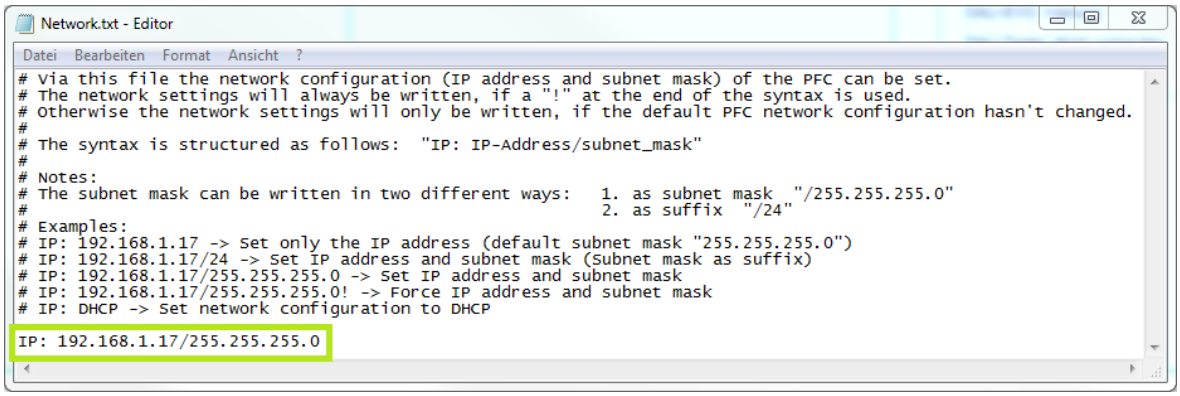
1 Select Zip-Datei

1. Select the installation file `sd_card_install.zip` from the subfolder **/Software**.
2. Unpack the zip file `sd_card_install.zip` into the main directory of the WAGO SD card (758-879 / 000-001).



2 Set the IP Adress

1. On the SD card, open the file `Network.txt` in the directory **/config**.



Set the desired IP address for the PFC and save the file.

Note

Important note!
If no changes are made to the file `Network.txt` and the network settings are still set as when delivered, the application controller is automatically given the IP address 192.168.1.17.

3 Insert SD Card

Insert the SD card into the memory card slot on the PFC.

4 Stop Software

1. Set the operating mode switch to “STOP”.
2. Reboot the PFC. The software is installed on the device after the reboot.

5 Install Software

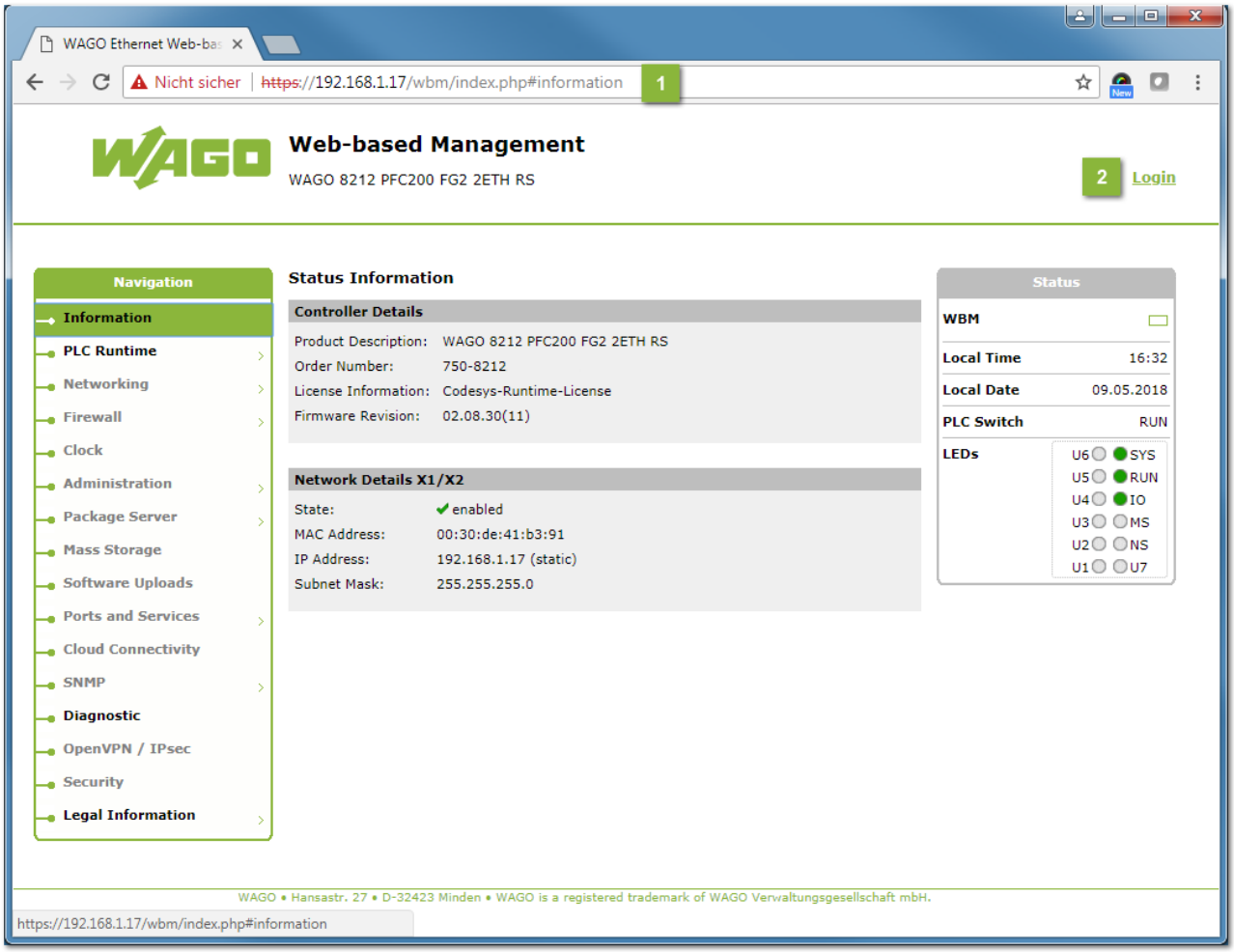
After the reboot, the LED display indicates the progress of the installation. Once all the LED light up green, the installation is complete.

6 Start Software

1. Remove the SD card from the memory card slot.
2. Set the operating mode switch to “RUN”.
3. Reboot the PFC.

The software is installed on the device after the reboot.

4.1. Change Passwords



1 Call-up address for WBM

1. Start a web browser to open the WBM.
2. Enter the following URL in your browser: “**https://<Controller-IP>/wbm”** (here: **https://192.168.1.17/wbm**).
3. Bypass the security message by continuing to load the website.

2 Login

1. In the dialog "Login", log in as the user "admin", password "wago".
2. Confirm this by clicking [**Submit**].

When login is successful **Username: admin** is displayed in the header and the link changes from **Login** to **Logout**. If you have not yet changed the password, the following message will appear: “Security message: please change your password!”.

User name	Rights	Default Password
admin	All (Administrator)	wago
user	Limited	user
guest	Only display	

Note

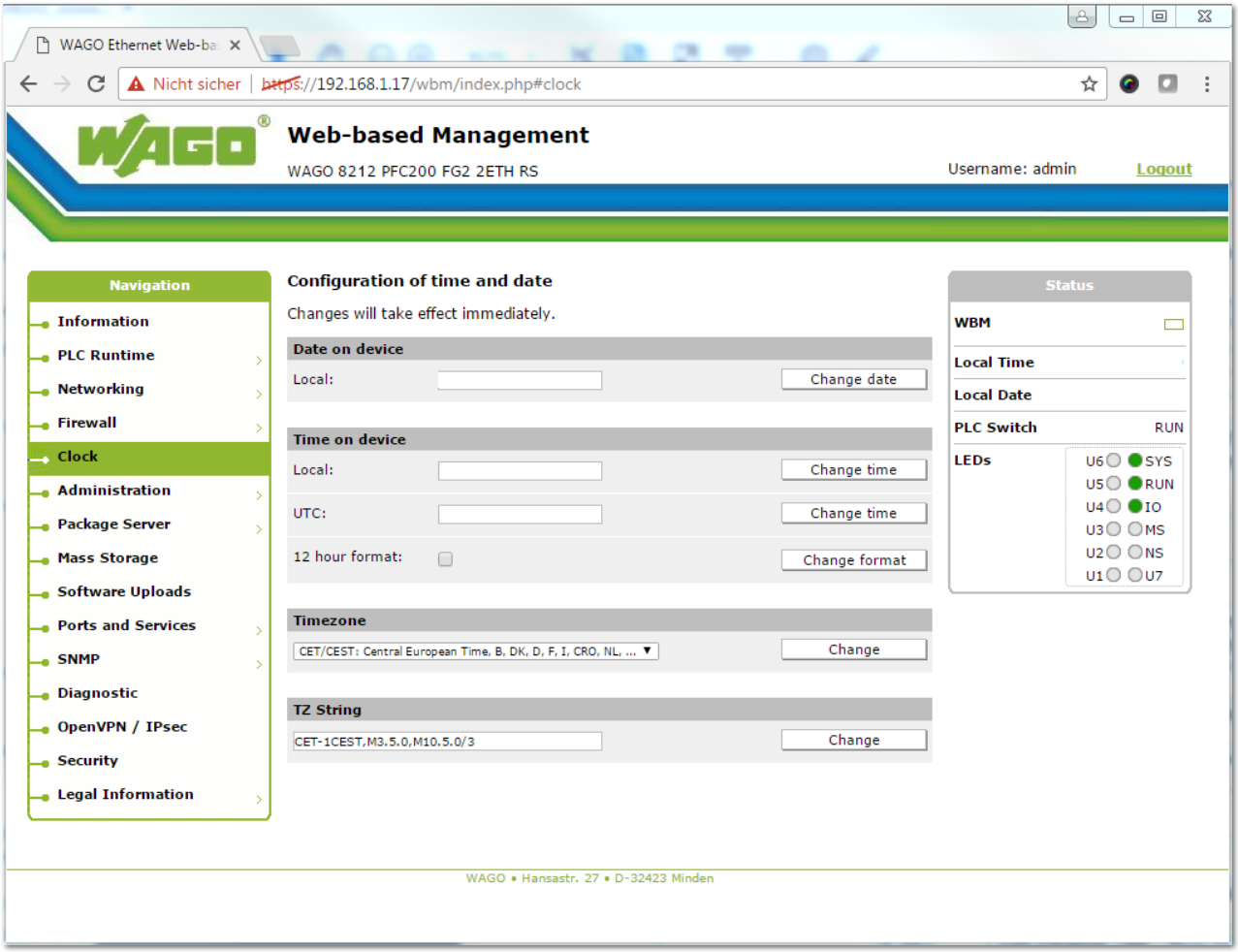
Change passwords

The default passwords are documented in these instructions and thus do not offer adequate protection. Change the passwords to meet your particular needs! If you do not change these passwords, a warning will appear each time you call up a website after logging in.

4.2. Setting the Date and Time

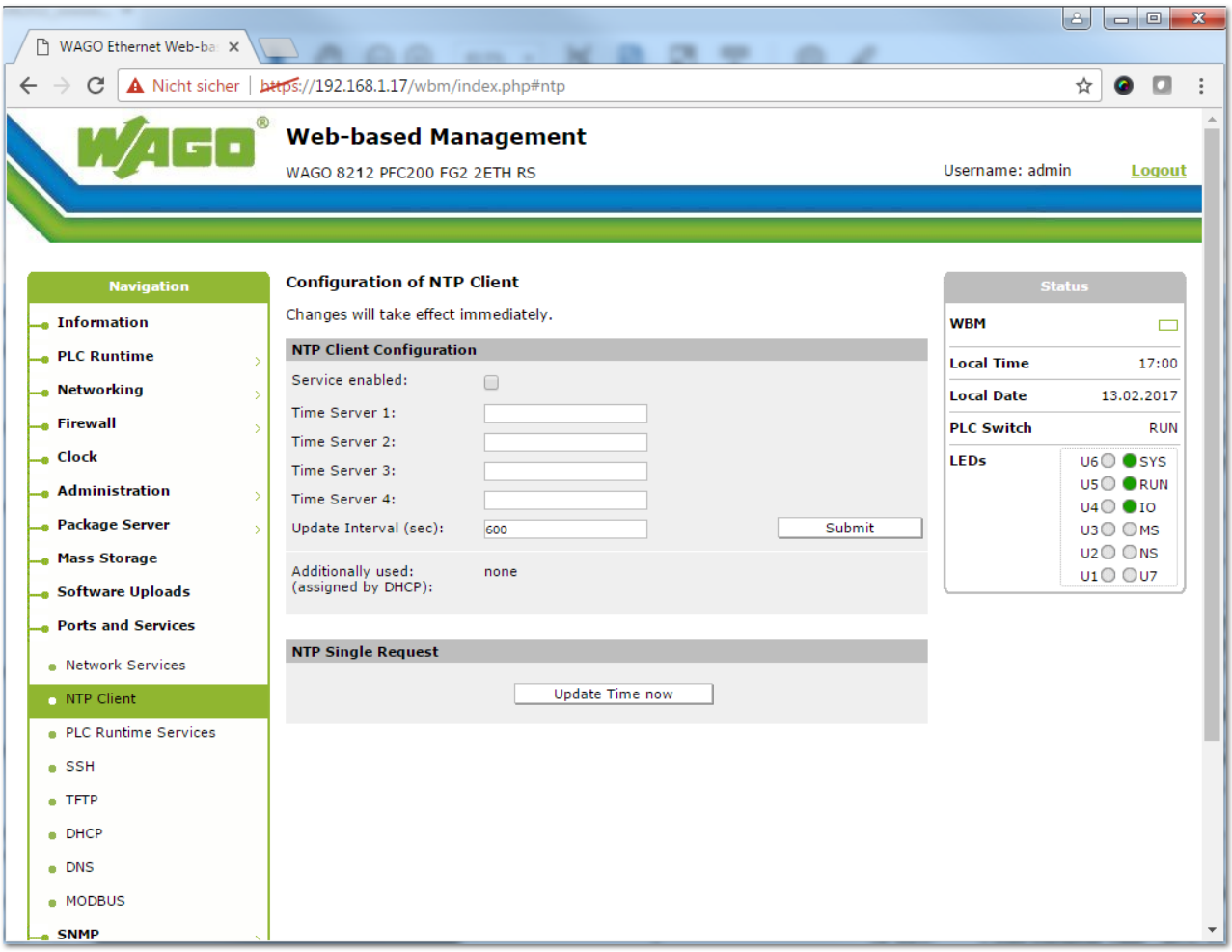
The date and time can be set in the **Web-based Management** system of the application controller under the **Clock** tab in the navigation bar. These settings are described in detail in the application controller manual.

We recommend synchronizing the time at regular intervals, as the system clock tends to drift. WAGO Gateway Application offers two options for this:
1. Synchronization of the system clock via an NTP server
2. Synchronization of the system clock using the GPS signal.



4.2.1. Synchronization via NTP Server

NTP clients can be set in the **Web-based Management** system of the application controller under **Ports and Services > NTC Client** in the navigation bar.
These settings are described in detail in the application controller manual.

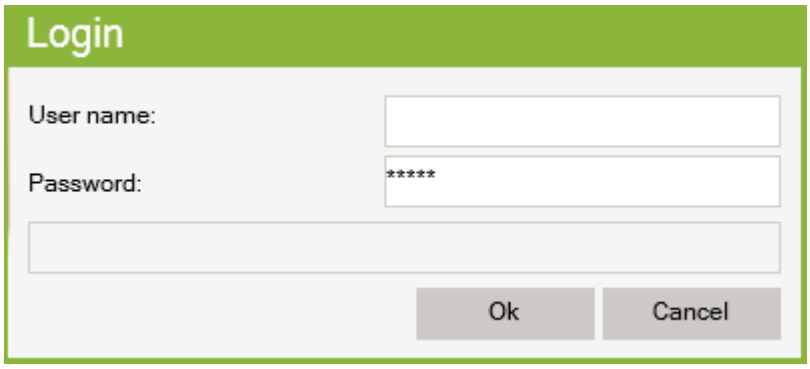


5. Wago Gateway Application

The WAGO Gateway Application is called up through the following link: „https://<Controller-IP>/webvisu/webvisu.htm“ (Here: https://192.168.1.17/webvisu/webvisu.htm).

1 Login

1. Click **[Login]**. The “Login” dialog window opens.



2. Log in using your user name and password.
3. Confirm your entry by clicking [**Ok**].
4. After a successful login, the main window opens.

If the user name or password are incorrect, the dialog stays open.

User name	Rights	Default Password
admin	All (administrator)	wago
user	Restricted (project settings and delete are locked)	user
guest	Only display	guest

5.1. File (Backstage)

1 File Tab

After login, the “File” tab view opens.

2 File Management

The Gateway settings can be saved/loaded or imported/exported here.

3 Project Settings

User management, language settings and project descriptions are presented here.

4 Information

Hardware and version information are presented here.

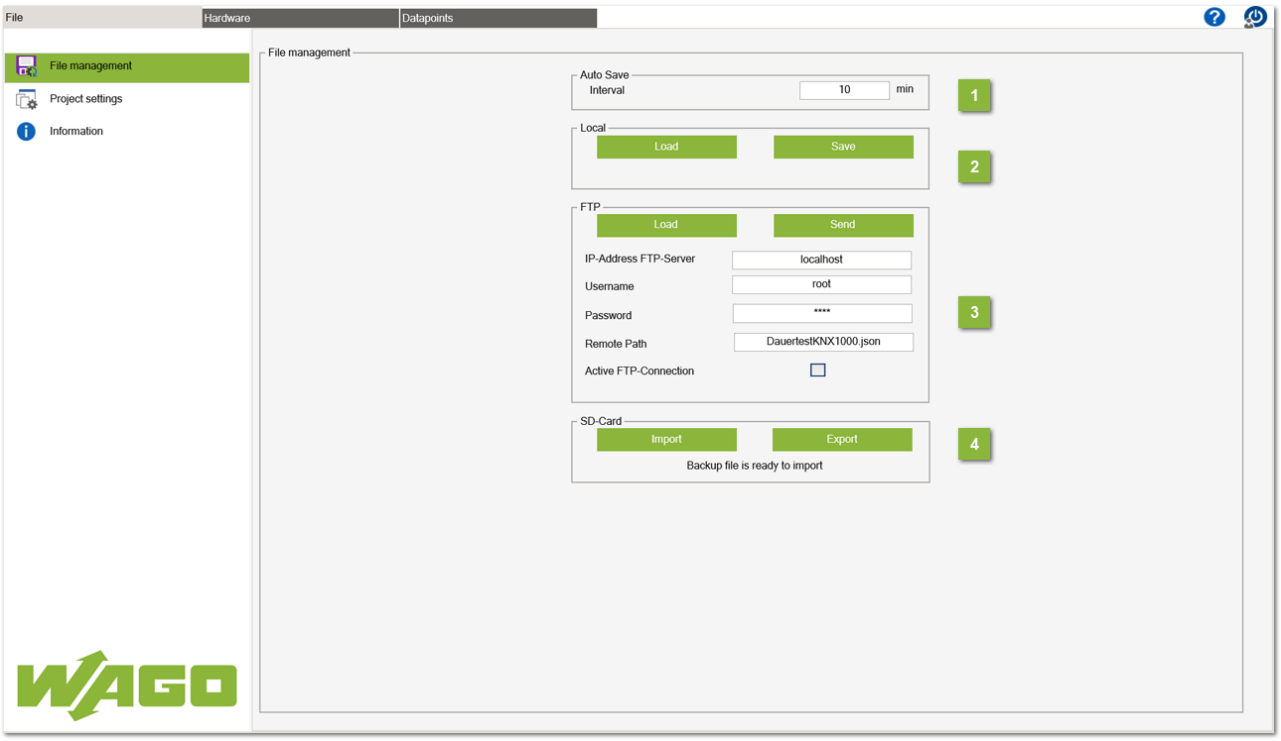
5 Help

Click **[Help]** to open the online documentation for the WAGO Gateway Application.

6 Logout

To log out, click **[Logout]**.

5.1.1. File Management



1 Automatic Saving

Designation	Description
Interval	The interval for automatic saving can be entered here. As long as a user is logged in, the current settings are cyclically saved. The settings are saved a last time when the user logs out.

Information

Deactivate Function
Setting an interval of zero deactivates the automatic saving.

2 Local

Designation	Description
Load	Click **[Load]** to load the project settings from the WAGO Gateway Application internal memory.
Save	Click **[Save]** to save the project settings in the WAGO Gateway Application internal memory.

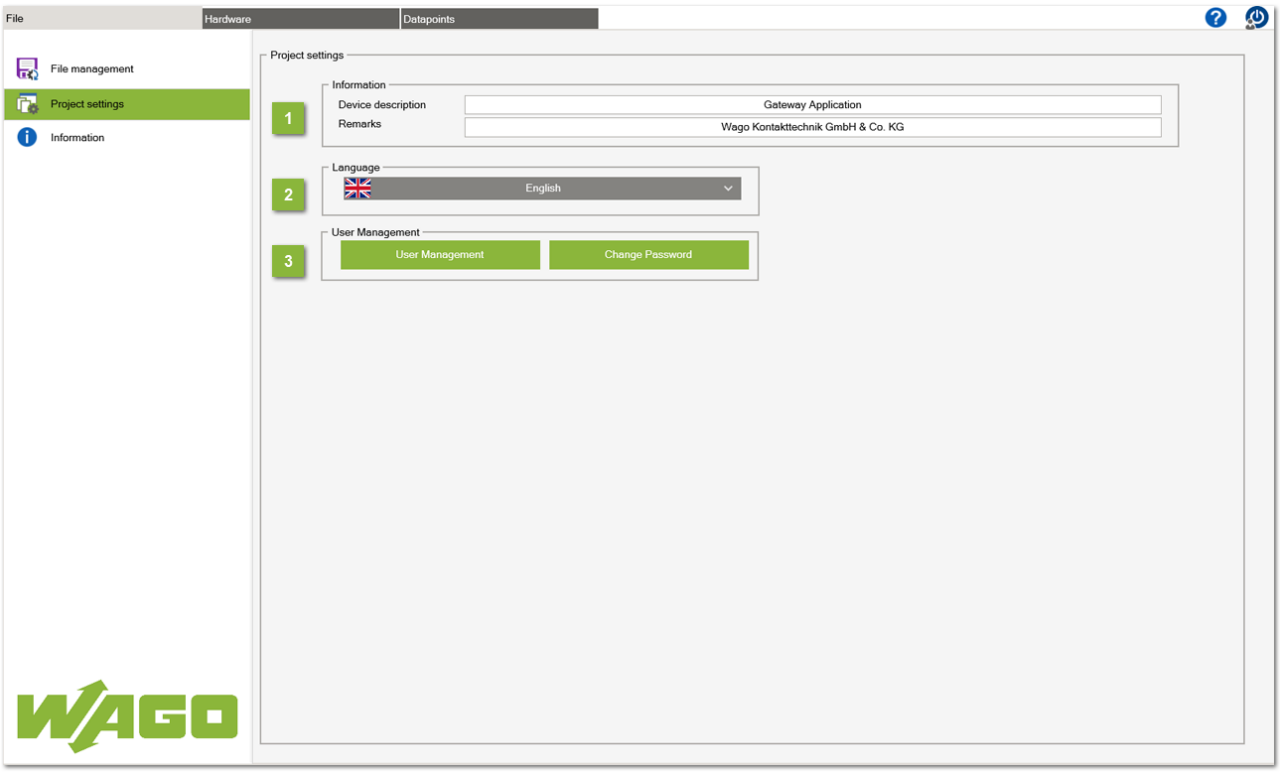
3 FTP

Designation	Description
Load	Click [**Load**] to load the project settings from an FTP server.
Send	Click [**Send**] to send the most recently saved configuration files to the FTP server.
IP Adress FTP-Server	Enter the IP address of the FTP server in the entry field; the IP address is entered in the format “0.0.0.0.”
Username	Enter the user name for logging in to the FTP server in the entry field.
Password	Enter the password for logging in to the FTP server in the entry field.
Remote Path	Enter the target directory on the FTP server in the entry field; the path is created automatically on the FTP server when the project settings are sent. **Note** **Directory Name** There may be no backslash (\) at the end of the directory name.
Active FTP-Connection	An active FTP connection is set up when the check-box is checked. If it is not checked, a passive FTP connection is set up.

4 SD Card

Designation	Description
Import	The message is displayed when a configuration file is (gw.json) found on the inserted SD card. Click the button to start the file import.
Export	The message is displayed when a formatted SD card is inserted. Click the button to start the file (gw.json) export.

5.1.2. Project Settings



1 Information

Designation	Description
Device description	In this entry field, user information about installation location or function descriptions can be entered.
Notes	In this entry field, general notes related to the user can be entered. The maximum length is 80 characters.

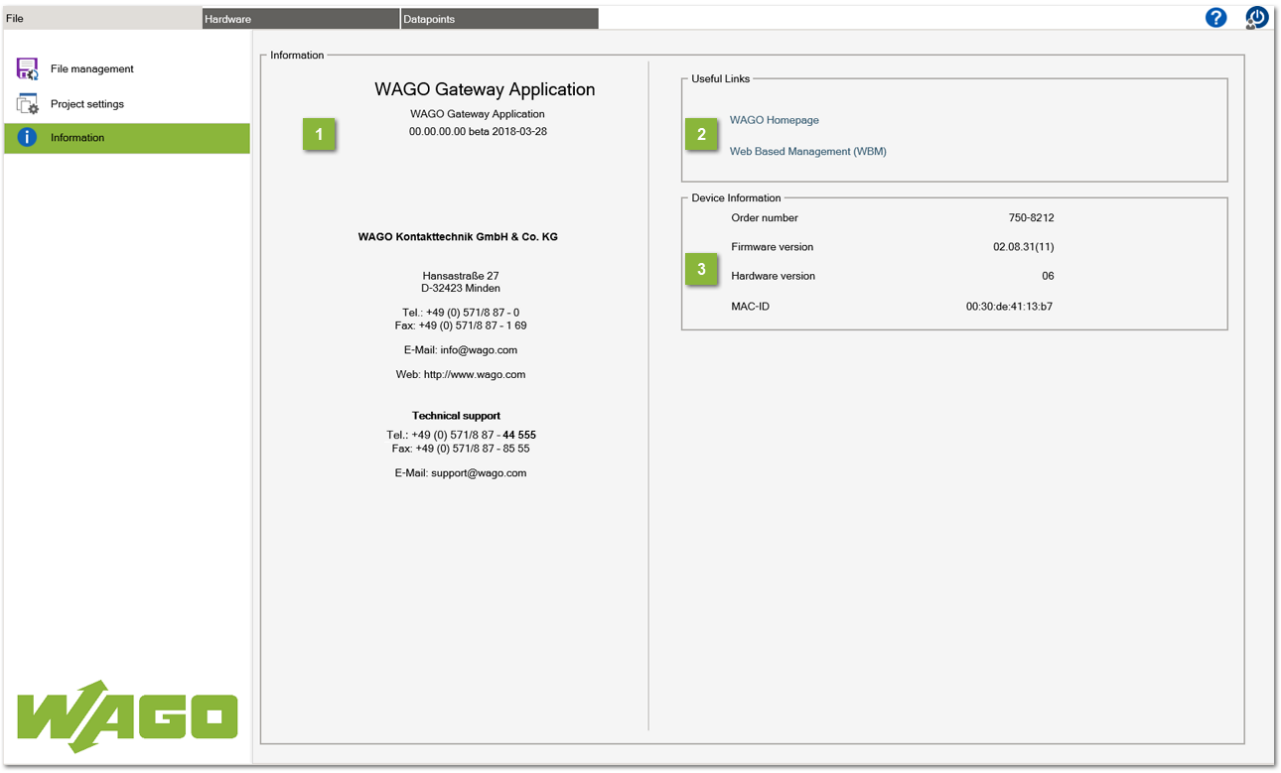
2 Language

In this selection field, the user interface language can be selected.

3 User Management

Designation	Description
User Management	The user management can be adapted in the dialog window that opens.
Change Password	The current user's password can be changed in the dialog window that opens.

5.1.3. Information



1 Information

Information on the WAGO Gateway Application version and contacts at WAGO Kontakttechnik GmbH & Co. KG and Technical Support is available here.

2 Useful Links

Designation	Description
WAGO Homepage	Click this link to open a new browser window with the URL for the WAGO homepage.
Web-Based-Management (WBM)	Click this link to open a browser window with the URL for the WAGO Gateway Application Web-Based Management.

Note

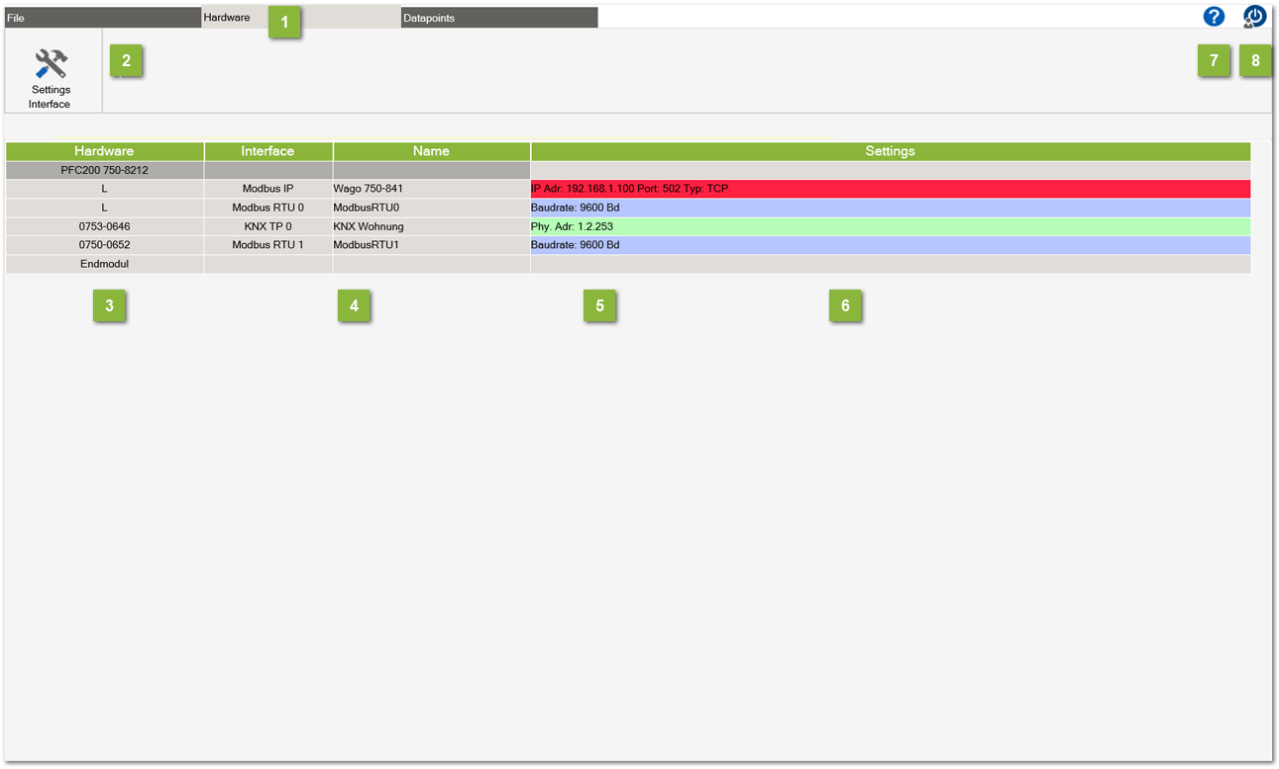
Pop-up Blocker

If the browser pop-up window is blocked, clicking the link will not open a new browser window.

3 Device Information

Designation	Description
Order number	Controller article/order number
Firmware version	Controller firmware version
Hardware version	Controller hardware version
MAC-ID	Controller MAC-ID

5.2. Hardware



1 Hardware Tab

To switch to the “Hardware” view, select the corresponding tab.

2 Interface Settings

To open the “Interface Settings” dialog for the selected interface, click [**Settings Interface**]; see Modbus IP, Modbus RTU and KNX TP.

3 Hardware

This column presents the controller and communication modules recognized during initialization. If no communication modules are installed, communication is only possible between the MODBUS IP and MODBUS RTU.

4 Interface

Different interfaces are provided depending on the installed hardware. The interfaces are displayed in this column.

5 Name

A symbolic name for the installed hardware can be specified. This name is displayed in this column and can be edited in the "Settings Interface" dialog.

6 Settings

This column presents an overview of the set interfaces. Clicking the respective cell opens the “Interface Settings” dialog; see Modbus IP, Modbus RTU and KNX TP.

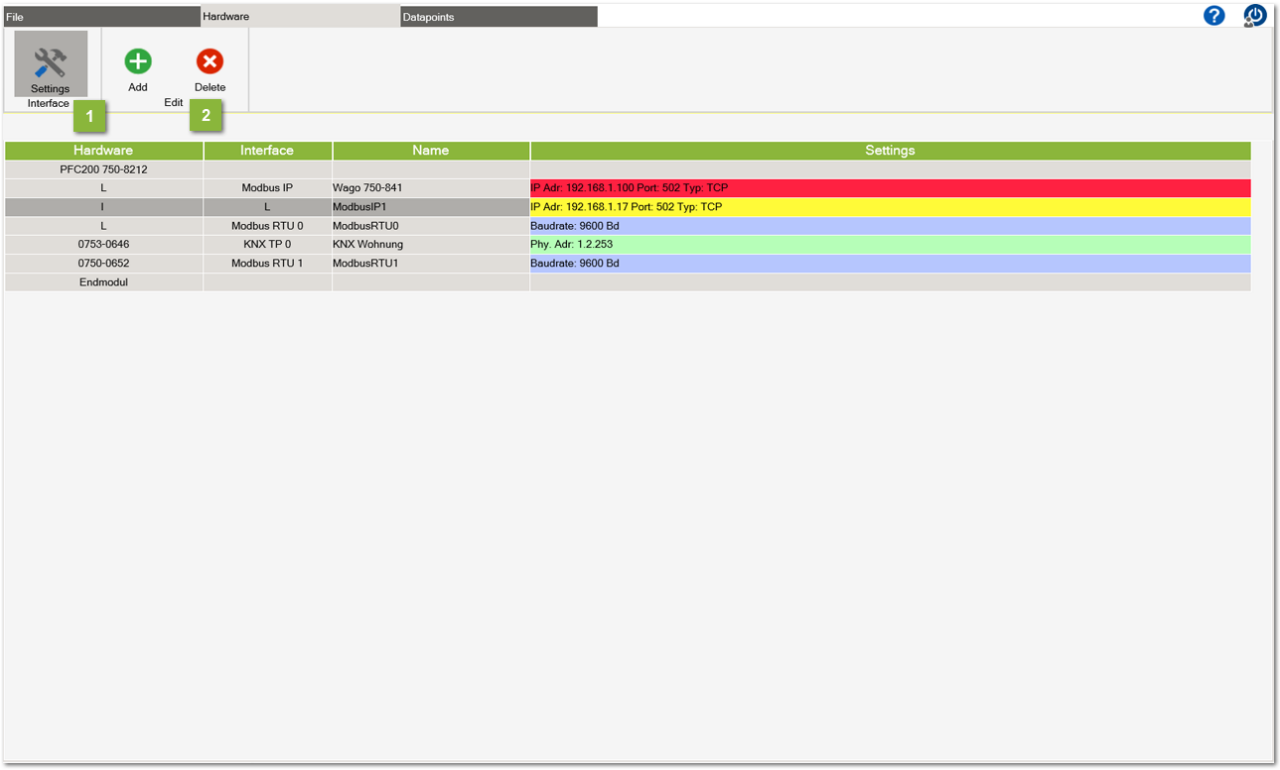
7 Help

Click [**Help**] to open the online documentation for the WAGO Gateway Application.

8 Logout

To log out, click [**Logout**].

5.2.1. Modbus IP



Operation of the graphical user interface is described in Section WAGO Gateway Applikation > Hardware. Clicking the line of a Modbus IP node displays the additional buttons [**Add**] and [**Delete**].

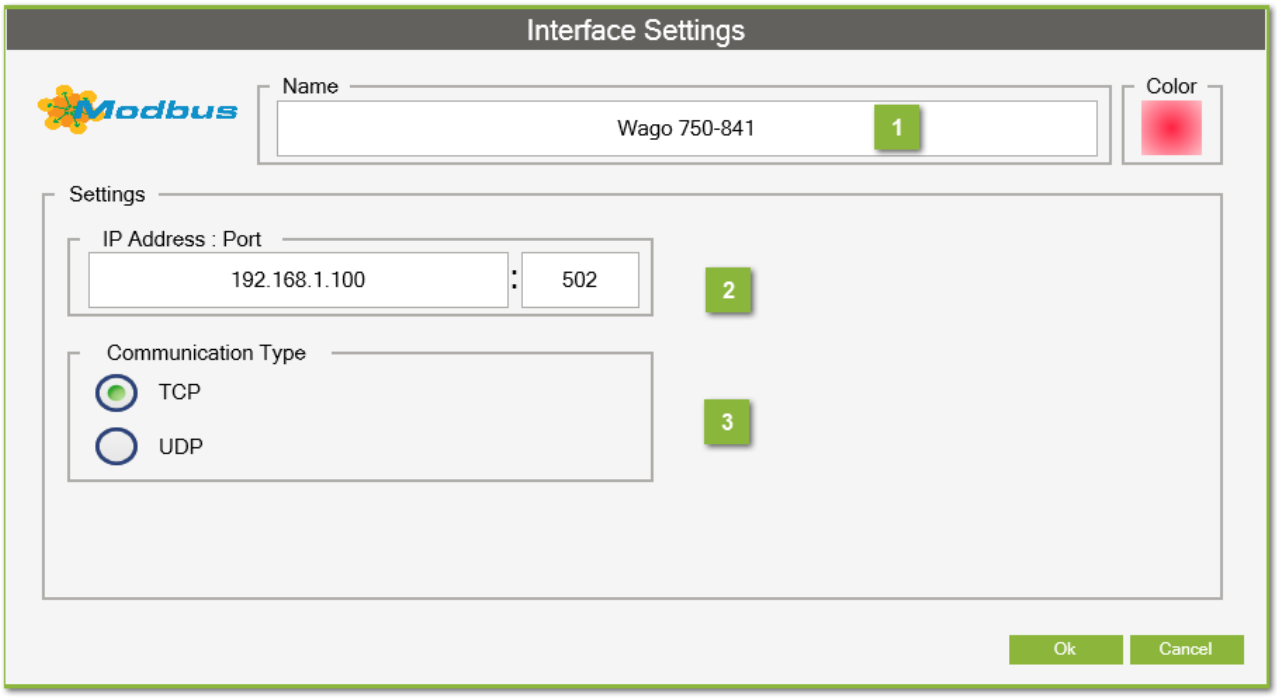
1 Settings Interface

To open the “Interface Settings” dialog for the selected interface, click [**Settings Interface**].

2 Edit

Designation	Description
[**Add**]	After [**Add**] is clicked, an additional Modbus IP node is added beneath the selected Modbus IP interface. Additional nodes can be added until the maximum number (10) has been reached.
[**Delete**]	After [**Delete**] is clicked, the selected Modbus IP is deleted. It is not possible to delete the first node.

5.2.1.1. MODBUS IP Interface Settings



1 General MODBUS

Designation	Description
Name	The interface name can be edited in this entry field. The entered name is used in the data point configuration.
Color	Clicking this button opens the dialog for setting the interface color.

2 Settings

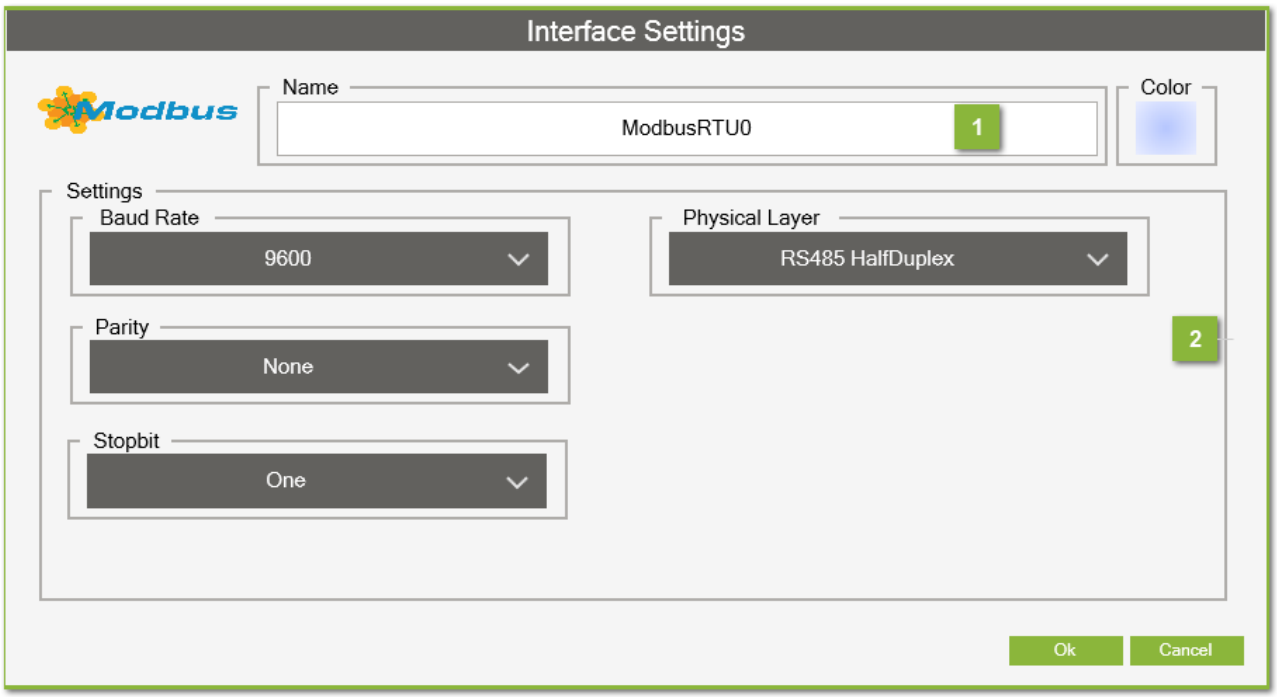
Designation	Description
IP Adress	The IP address is entered in this entry field.
Port	In this entry field, the MODBUS interface port is set. Usually, port 502 is used.

3 Communication Type

Designation	Description
TCP	When the checkbox “TCP” is checked, MODBUS TCP is used.
UDP	When the checkbox “UDP” is checked, MODBUS UDP is used.

Pressing the [**Ok**] button adopts the settings and closes the dialog box.
Pressing the [**Cancel**] button closes the dialog window without accepting the settings.

5.2.2. Modbus RTU



1 General MODBUS

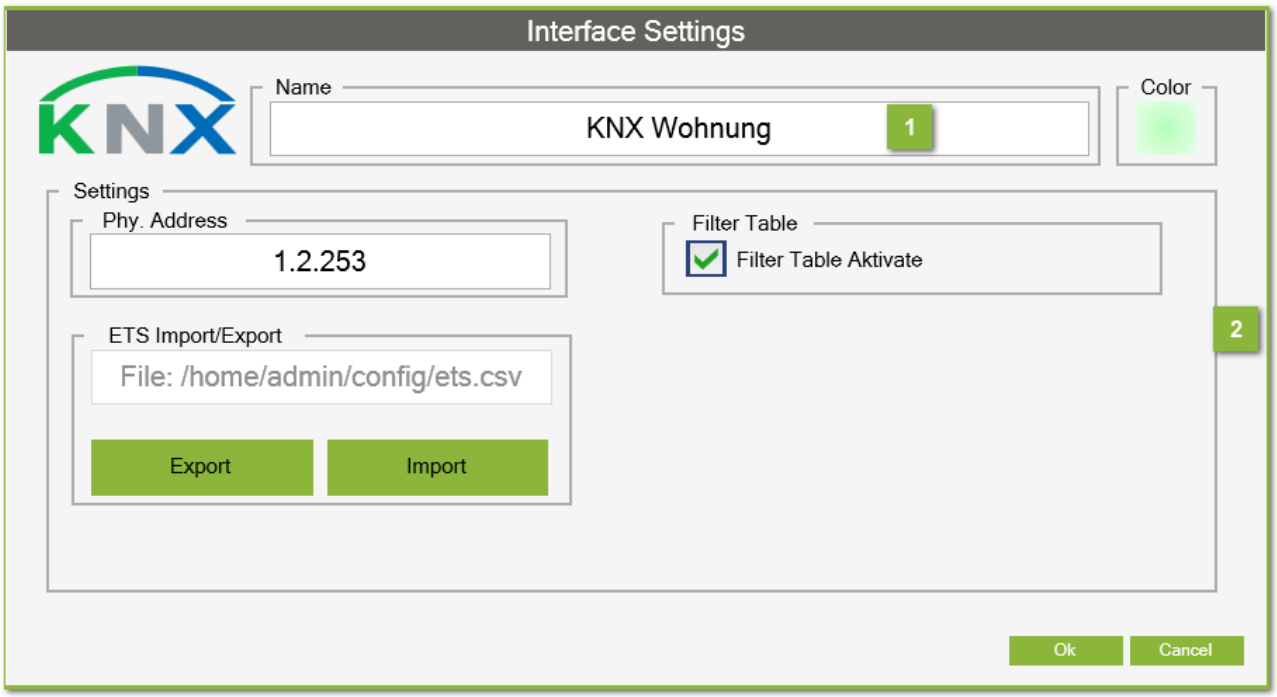
Designation	Description
Name	The interface name can be edited in this entry field. The entered name is used in the data point configuration.
Color	Clicking this button opens the dialog for setting the interface color.

2 Settings

Designation	Description
Baud Rate	In this selection field, the interface communication speed can be selected. The identical number of bits must be set for all nodes connected to this interface.
Parity	In this selection field, the interface parity can be selected. The identical number of bits must be set for all nodes connected to this interface.
Stop Bit	In this selection field, the number of stop bits for the interface can be selected. The identical number of bits must be set for all nodes connected to this interface.
Physical Layer	In this selection field, the physical communication standard can be selected. Usually, the standard “RS -485 HalfDuplex” is used.

Pressing the [**Ok**] button adopts the settings and closes the dialog box.
Pressing the [**Cancel**] button closes the dialog window without accepting the settings.

5.2.3. KNX TP



1 General KNX

Designation	Description
Name	The interface name can be edited in this entry field. The entered name is used in the data point configuration.
Color	Clicking this button opens the dialog for setting the interface color.

2 Settings

Designation	Description
Phy. Adress	The desired physical address of the KNX interface is entered in this entry field. The same address must not appear twice in the given installation.
ETS Import/ Export	This field displays which file can be imported and where it is saved for an export. If an SD card has been inserted, the file path is to the SD card. To export group addresses from the KNX configuration software (ETS), use the “CSV Export Function” of the “ETS Software.” In the end, the file name must be changed to “ets.csv.”
[Export]	Click [**Export**] to start the KNX group address export.
[Import]	Click [**Import**] to start the KNX group address import.
Filter Table	When this checkbox is checked, the filter table is activated. The table must always be active during normal operation.

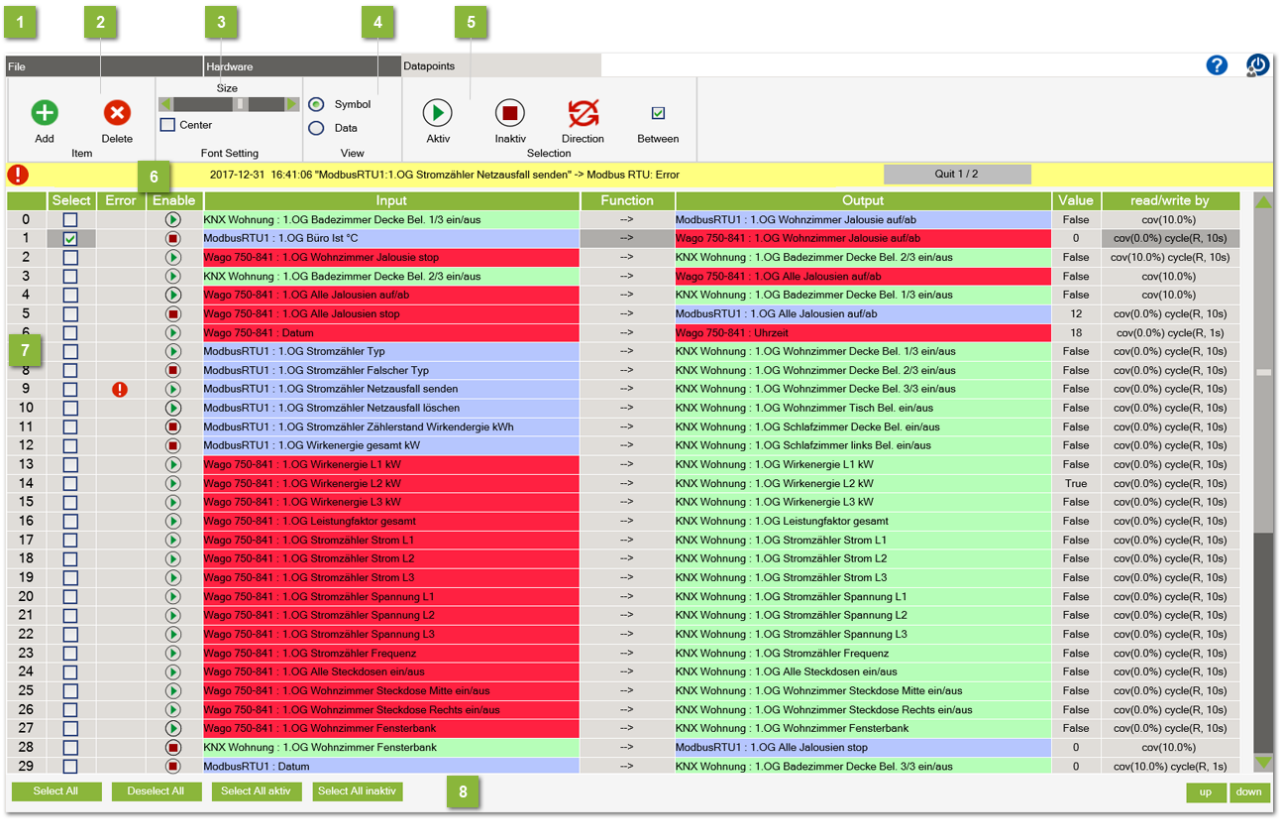
Note

Restart the controller!
The change of the physical KNX address will only be accepted after the next restart!

Pressing the [**Ok**] button adopts the settings and closes the dialog box.

Pressing the [**Cancel**] button closes the dialog window without accepting the settings.

5.3. Data points



1 Datapoints Tab

To switch to the “Datapoints” view, select the corresponding tab.

2 Item

Designation	Description
[**Add**]	When this button is clicked, a new data point is added at the end of the data point list.
[**Delete**]	When this button is clicked, selected data points are deleted. If no data point was selected, the last entry is deleted.

3 Font Setting

Designation	Description
Size	Use the slider to adjust the font size in the data point list.
Center	When this checkbox is checked, the text justification is changed from left to centered.

4 View

Designation	Description
Symbol	When the checkbox “Symbol” is checked, the interface and data point names are displayed. The set parameters are faded out.
Data	When the checkbox “Data” is checked, the set parameters are displayed. The symbolic names are faded out.

5 Selection

Designation	Description
Active	Click this button to activate communication for the selected data points.
Inactive	Click this button to deactivate communication for the selected data points.
Direction	Click this button to change the communication direction. The input data point is exchanged with the output data point for the selected communication connections.
Between	It is possible to select a wider range of communication connections. To do so, select the first and last connection of the range to be configured. Then check the "Between" checkbox.

6 Error

Saved error messages are saved in this area. As soon as an error is remedied and the message confirmed, the next existing error is displayed. The list is displayed until all errors have been remedied and all messages confirmed.

7 Data Point Entry

Data point entry in the data point list; additional information in Section Configuring Data Points.

8 Buttons

Designation	Description
[**Down**]	To scroll downward page by page, click this button.
[**Up**]	To scroll upward page by page, click this button.
[**Select all inactive**]	When this button is clicked, all inactive connections are selected.
[**Select all active**]	When this button is clicked, all active connections are selected.
[**Deselect all**]	When this button is clicked, all data points are deselected.
[**Select all**]	When this button is clicked, all data points are selected so settings can be made for several of them at the same time.

5.3.1. Configure Data Points

Note

First create an additional backup!
Create an additional backup on an SD card and / or via FTP before changing the gateway configuration. If no external FTP server is available, you can specify "localhost" as the IP address to store the file locally in the file system of the controller!

1 Entering data points

A consecutive number is displayed here.

2 Selection

Here, one or several data points can be selected for group parameterization. The selected data points are marked in gray.

3 Error

Whether a communication error has occurred is displayed here. The error is saved until it is confirmed. Even though an error was detected, continuing attempts are made to establish communication and update the data point.

4 Enable

A data point connection can be activated/deactivated here. The respective operating status is displayed.

5 Input

The input data point is displayed here. Clicking the cell opens the “Connection Entry” dialog.

6 Function

The current Gateway function is displayed here. In this example, the input value is transferred directly to the output value. Click the cell to open the configuration window for the Gateway Function.

7 Output

The output data point is displayed here. Clicking the cell opens the “Connection Entry” dialog.

8 Value

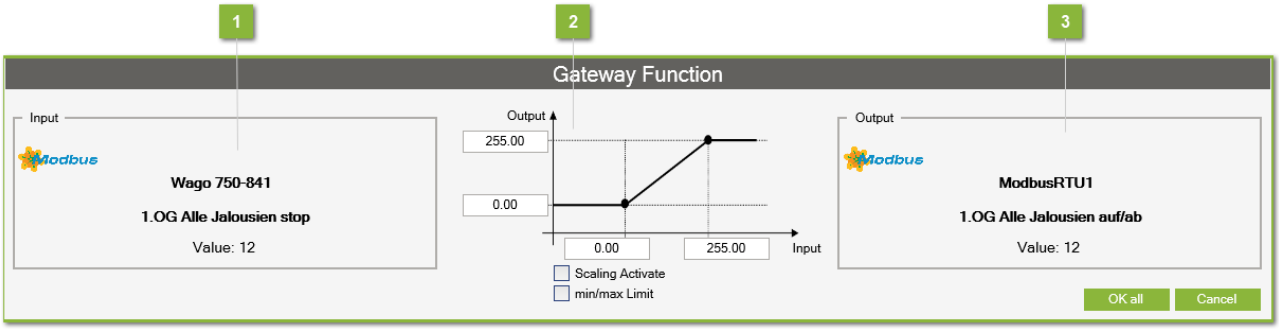
The most recently sent output value is displayed here. Whether or not a data point is sent depends on the settings in the "Read/Write Conditions" dialog.

9 Read/Write Conditions

The conditions that must be met to copy the input value to the output value are set here. Click the cell to open the configuration window.

5.3.1.1. Gateway Function

To open the “Gateway Function” dialog window, click the corresponding cell in the “Function” column.



1 Input

Displays the current name and measurement value of the input.

2 Value Ranges

Designation	Description
Output Value Range	In these entry fields, the value range for the output can be set. This range is used for the scaling and is permanently associated with the output data point.
Input Value Range	In these entry fields, the value range for the input can be set. This range is used for the scaling and is permanently associated with the input data point.
Scaling Activate	When this checkbox is checked, the scaling is activated.
Min./Max. Limit	When this checkbox is checked, the output value is limited to the range set in the value range.

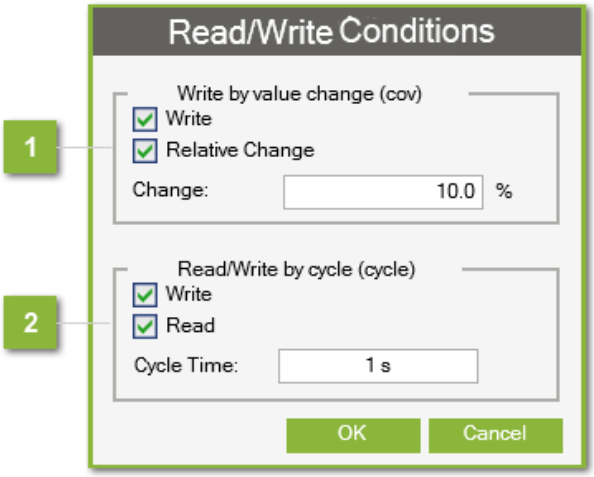
3 Output

Displays the current name and measurement value of the output.

Pressing the [**Ok**] button adopts the settings and closes the dialog box.
Pressing the [**Cancel**] button closes the dialog window without accepting the settings.

5.3.1.2. Read/Write Conditions

To open the “Reading/Writing Conditions” dialog window, click the corresponding cell in the “Read/Write Conditions” column.



1 Writing for Changes (cov)

Designation	Description
Write	When this checkbox is checked, the monitoring of “Value Changes (cov)” is activated. When the function is active, a value that is changed on the input is transferred to the output.
Relative Change	Absolute or relative value change monitoring can be selected by checking/unchecking the checkbox. This function is only active when the checkbox “Write” is checked! If “Relative Change” is active, a percent sign is displayed after the checkbox.
Change	The absolute or relative value is entered in this entry field.

2 Cyclical Reading/Writing (cycle)

Designation	Description
Write	When this checkbox is checked, the output values are written cyclically.
Read	When this checkbox is checked, the input values are read out cyclically.
Cycle Time	The cycle time in seconds is entered in this entry field.

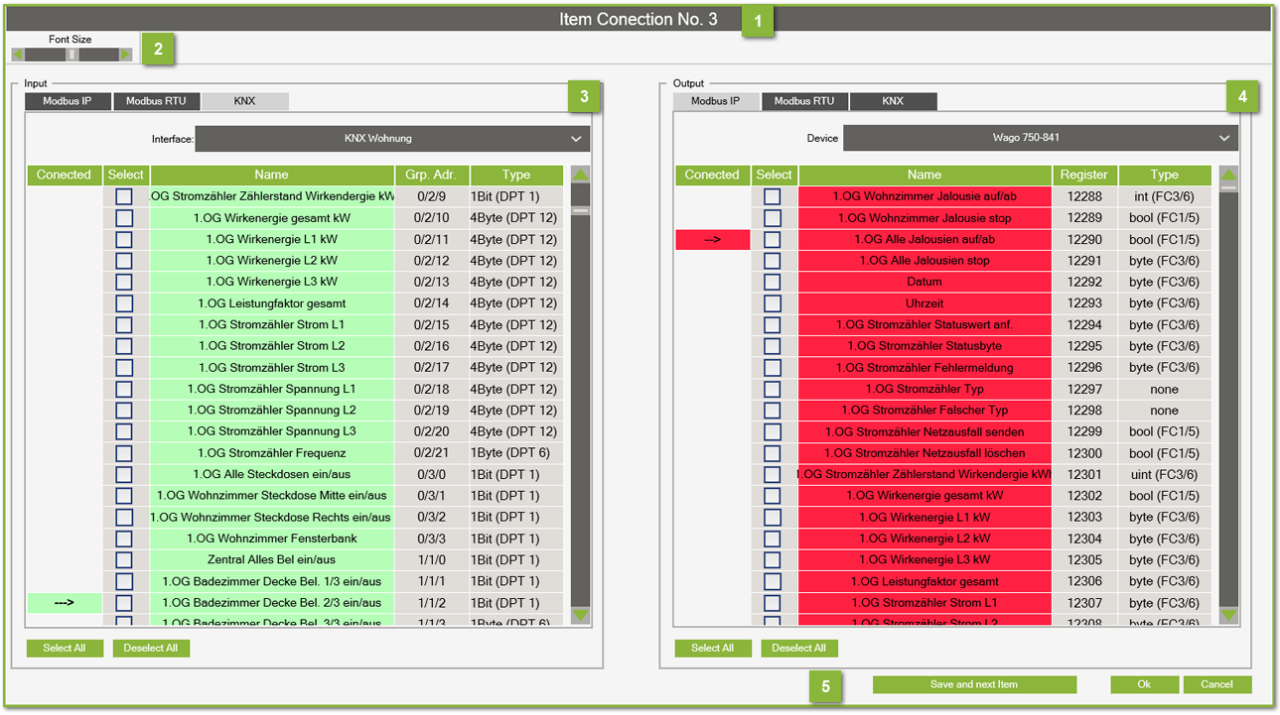
Pressing the [**Ok**] button adopts the settings and closes the dialog box.
Pressing the [**Cancel**] button closes the dialog window without accepting the settings.

5.3.2. Data Point Connection

The dialog window “Item Connection No. n” is opened by clicking the cell of a data point in the columns “Input” or “Output.”

Note

Disable affected data points before editing connection entries!
Changes in the dialog window "Item Connection No. n" are applied immediately and are not reversible with the button [**Cancel**]! Therefore deactivate the affected data points before editing connection entries!



1 Item Connection

The consecutive number of the data point connection is displayed here.

2 Font Size

Use the slider to adjust the font size in the data point list.

3 Input

In this area, the input data point is specified and edited; see Sections MODBUS IP Data Point, MODBUS RTU Data Point and KNX Data Point.

4 Output

In this area, the output data point is specified and edited; see Sections MODBUS IP Data Point, MODBUS RTU Data Point and KNX Data Point.

5 Buttons

Designation	Description
[**Select all**]	When this button is clicked, all data points are selected so settings can be made at the same time.
[**Deselect all**]	When this button is clicked, the selected data points are deselected.
[**Apply & Next Connection**]	When this button is clicked, the entry is confirmed and the next connection opens automatically. The current data point number is displayed in the title of the dialog.

Pressing the [**Ok**] button adopts the settings and closes the dialog box.
Pressing the [**Cancel**] button closes the dialog window without accepting the settings.

5.3.2.1. Modbus IP Data Point

1 Communication Type Selection

The selected communication type is displayed here. In this tab, a different communication type can be changed to.

2 Connected

The data point for communication (input/output) is selected here.

3 Select

One or several data points can be selected here. The parameters of the data point that can be adjusted together are marked in gray.

4 Name

To edit the data point name, click the corresponding cell in the “Name” column.

5 Register

To enter the register to be read out or to write, click the corresponding cell in the “Register” column.

6 Type

The data type of the configured data point is displayed here. Clicking the corresponding cell opens an entry dialog for changing the data point.

7 Device

The device to be filed in the hardware configuration is selected in this selection field.

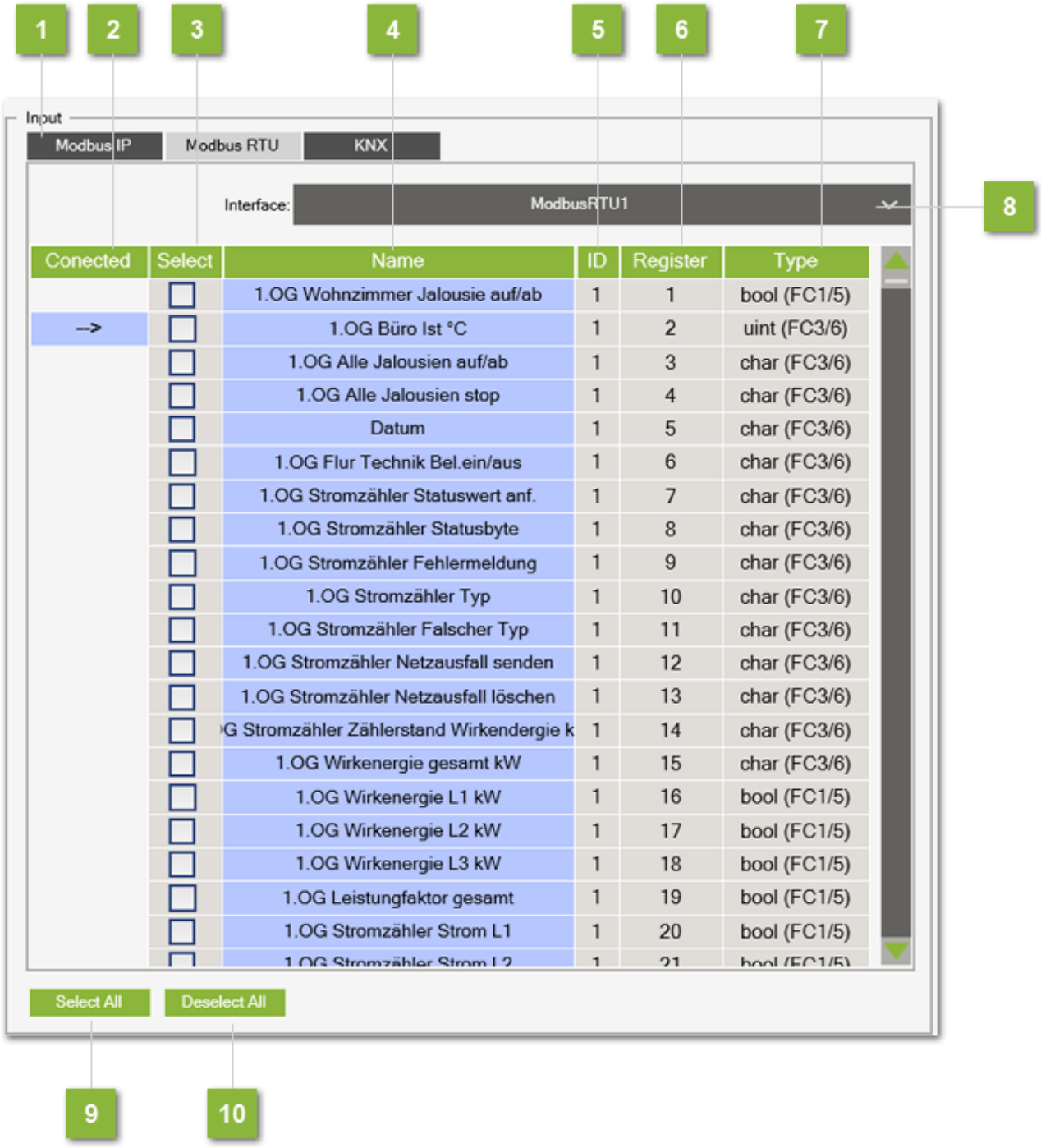
8 Select All

Click [**Select All**] to select all data points, so settings can be made at the same time.

9 Deselect All

Click [**Deselect All**] to deselect the selected data points.

5.3.2.2. Modbus RTU Data Point



1 Communication Type Selection

The selected communication type is displayed here. In this tab, a different communication type can be changed to.

2 Connected

The data point for communication (input/output) is selected here.

3 Select

One or several data points can be selected here. The parameters of the data point that can be adjusted together are marked in gray.

4 Name

To edit the data point name, click the corresponding cell in the “Name” column.

5 ID

The address ID of the MODBUS RTU node can be entered in this entry field.

6 Register

To enter the MODBUS register to be read out or write, click the corresponding cell in the “Register” column.

7 Type

The data type of the configured data point is displayed here. Clicking the corresponding cell opens an entry dialog for changing the data point. Depending on the connection configuration, the application automatically decides whether the data point is read or written.
Binary Statuses:
FC1 Read Coil Status
FC5 Force Single Coil
Numeric Values:
FC3 Read Holding Registers
FC6 Preset Single Register

8 Interface

In this selection field, the hardware interface to be used can be selected. The name can be edited in the **Hardware** menu in the "Interface Settings" dialog.

9 Select All

Click [**Select All**] to select all data points, so settings can be made at the same time.

10 Deselect All

Click [**Deselect All**] to deselect the selected data points.

5.3.2.3. KNX Data Point

1 Communication Type Selection

The selected communication type is displayed here. In this tab, a different communication type can be changed to.

2 Connected

The data point for communication (input/output) is selected here.

3 Select

One or several data points can be selected here. The parameters of the data point that can be adjusted together are marked in gray.

4 Name

To edit the data point name, click the corresponding cell in the “Name” column.

5 Group Address

The data point group address is entered here. The address is entered in three sections and can be taken or imported from the KNX programming software (ETS).

6 Type

The data type of the configured data point is displayed here. Clicking the corresponding cell opens an entry dialog for changing the data point.

7 Interface

In this selection field, the hardware interface to be used can be selected. The name can be edited in the **Hardware** menu in the "Interface Settings" dialog.

8 Select All

Click [**Select All**] to select all data points, so settings can be made at the same time.

9 Deselect All

Click [**Deselect All**] to deselect the selected data points.

6. Performance

The information below serves as a guideline for transferring a value from one interface to another, taking into account the total number of data points activated in the Gateway Application.
If there is additional data traffic on an interface at the same time, the delays are longer depending on the interface.

Source Interface	Target Interface	Active Datapoints	Expected Delay [ms]
KNX	Modbus RTU	1	about 250
		100	about 400
		(max. Interface) 256	about 600
		(max. Application) 1000	about 1650
	Modbus IP	1	about 200
		100	about 300
		(max. Interface) 256	about 600
		(max. Application) 1000	about 1700

Source Interface	Target Interface	Active Datapoints	Expected Delay [ms]
Modbus RTU	KNX	1	about 400
		100	about 600
		(max. Interface) 256	about 1300
		(max. Application) 1000	about 1850
	Modbus IP	1	about 200
		100	about 400
		(max. Interface) 256	about 950
		(max. Application) 1000	about 3150

Source Interface	Target Interface	Active Datapoints	Expected Delay [ms]
Modbus IP	Modbus RTU	1	about 400
		100	about 600
		(max. Interface) 256	about 1450
		(max. Application) 1000	about 4650
	KNX	1	about 700
		100	about 800
		(max. Interface) 256	about 1400
		(max. Application) 1000	about 4000

Appendix

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