

Livemeasurements Datasorage Management Settings

Management
Protocols can be exported as CSV and PDF

Table	Graph	Extras
O2 %	20.9	NO ppm
CO2 %	0.0	NOx ppm
CO ppm	0	CO Energy Ref. mg/kWh

Livemeasurements Datasorage Management Settings

Management
Intuitive navigation between customers, sites and protocols

Livemeasurements Datasorage Management Settings

Producer:



MRU GmbH, Fuchshalde 8 + 12, D-74172 Neckarsulm-Obereisesheim
Phone +49 71 32 99 62-0, Fax +49 71 32 99 62-20
email: info@mru.de * site: www.mru.eu

Managing director: Erwin Hintz
HRB 102913, Amtsgericht Stuttgart
USt.-IdNr. DE 145778975

Legal notices / Intellectual property rights comments

Original user manual

© 2020 by MRU

No part of this manual may be published in any form (print, photocopy, electronic media or any other publication form) without a written approval by the publisher.

All user trademarks and name mark descriptions, even those which are not marked as such, are properties of the respective owners.

Edition: 2020-02-26, V1.00.EN

1	License conditions	5
1.1.	Installing MRU4win	5
1.2.	Unlocking 30-Day-Trialversion	6
1.3.	Unlocking full version	7
2	Program description	9
2.1.	Livemeasurements	9
2.2.	Datastorage	9
2.3.	Management.....	9
2.4.	Settings	9
3	Connecting measuring device to MRU4win	10
3.1.	Connecting measuring device via USB	10
3.2.	Connecting the measuring device via Bluetooth	11
3.3.	Connecting the Modbus Device.....	11
4	Livemeasurements.....	15
4.1.	Configuring display format.....	15
4.2.	Selecting measured values.....	16
4.3.	Viewing Detail Information.....	17
4.4.	Assigning a measurement protocol.....	18
	Assigning measurement protocol to a site.....	18
	Do not assign the measuring protocol to a site	19
5	Datastorage	20
5.1.	Transferring sites from measuring device to PC	20
5.2.	Transferring sites to measuring device.....	21
5.3.	Transferring all sites to the measuring device	23
6	Management.....	24
6.1.	Create new customer	24
6.2.	Assign and create new site	26
6.3.	Editing existing customer data	27
6.4.	Editing existing site data.....	28
6.5.	Creating employees.....	30
6.6.	Creating your own address.....	31
6.7.	Importing data via CSV	31
6.8.	Displaying list of all sites.....	33
	Displaying all sites.....	33
	Displaying not assigned sites.....	34
6.9.	Displaying measurement protocols.....	34
	Displaying all measurement protocols.....	34
	Displaying not assigned protocols.....	35
	Assigning not assigned protocols to a site.....	35
	Exporting measurement protocol via CSV	37

6.10. Measurement protocol - Create PDF by template	38
Creating a template file.....	38
Create PDF file from template file.....	40
6.11. Create PDFs for Usability Test.....	42
6.12. Create multiple PDFs (Batch)	44
Create all measurements of a site as PDF	44
Create all measurements of a customer as PDF.....	47
6.13. Capture signature with pen for PDF export	49
7 Settings	51
7.1. General Settings.....	51
Editing PDF Templates	51
Request Remote Support	53
7.2. Setting units.....	54
Setting pressure	54
Setting Temperature	55
Setting Energy related	55
7.3. Configuring measurement	55
Setting Sampling rate	55
Setting Default Graph Span.....	56
Setting Average (points)	56
Setting Max protocol duration	56
Setting Timed measurement.....	57
7.4. Creating a backup of the database.....	58
7.5. Configuring CSV export.....	60
7.6. Setting language.....	60
7.7. Showing Help Function	61
7.8. Showing Licence Info	61
7.9. Showing version number.....	62

1 License conditions

MRU4Win is offered in a light version and a full version.

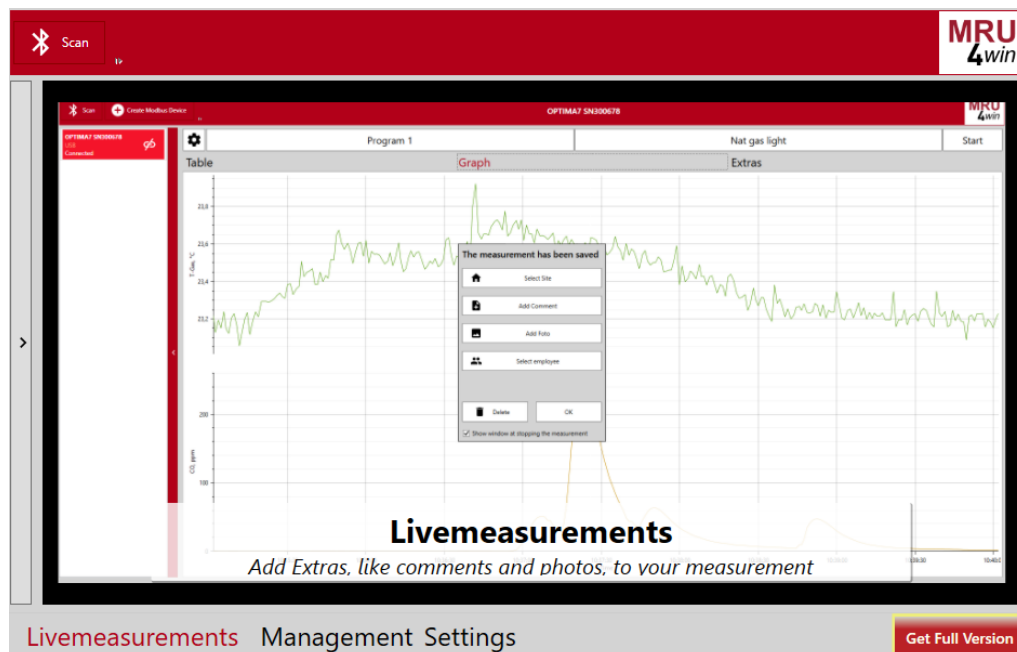
The light version of MRU4Win is freely available.

You can install the light version of MRU4Win as often as you like and use it for an unlimited period of time. But the light version has limitations.

You must unlock the full version of MRU4win to use the full range of functions.

1.1. Installing MRU4win

- ▶ Click on the setup file.
 - ⇒ A window appears.
- ▶ Select the setup language.
- ▶ Click "OK".
 - ⇒ A window appears.
- ▶ Select the desired destination folder.
- ▶ Click "Next".
- ▶ Select additional tasks if necessary.
- ▶ Click „Next“ .
 - ⇒ A window appears.
- ▶ Click „Install“ .
 - ⇒ The light version of MRU4win is installed.
- ▶ Click „Finish“ .
 - ⇒ A window appears.



1.2. Unlocking 30-Day-Trialversion

As long as you have not unlocked the 30-day trial version, the Datastorage category is not active. Activate the 30-day trial version to import and export data.

► Click "Get Full Version".

⇒ A window appears.

The screenshot shows the 'License Manager' window with the following fields and buttons:

- Username:** Empty text input field.
- Company:** Empty text input field.
- License authorization code (if available):** Three empty text input fields separated by dashes, with a close button (X) on the right.
- Product:** MRU4win, Version=1.0.7.0
- Hardware Id:** 20F1-A660-AC9A-BCD6-EA81-4C81-DAFA-669C
- Buttons:** '30-Days-Trial' (highlighted with a red box), 'Request License (W/ costs)', and 'Load License file'.

► Click "30-Days-Trail".

⇒ The 30-Days-Trail is unlooked.

⇒ The category Datastorage becomes active.

⇒ The remaining duration of the 30-day trial version is displayed.

The screenshot shows the 'License Manager' window after the trial is activated. The fields and buttons are updated as follows:

- Username:** Mustermann
- Company:** Mustermann GmbH
- License authorization code (if available):** Three empty text input fields separated by dashes, with a close button (X) on the right.
- Product:** MRU4win, Version=1.0.7.0
- Hardware Id:** 5CD4-670E-5217-B38C-F49C-BD62-F43F-A6A9
- Buttons:** 'Resume Trial', 'Request License (W/ costs)', and 'Load License file'.
- Left Panel:** A red vertical bar with the MRU AIR fair logo and the text 'Trial 29 Day(s)' with a green progress bar below it.

1.3. Unlocking full version

The full version of MRU4Win can only be installed on one computer.

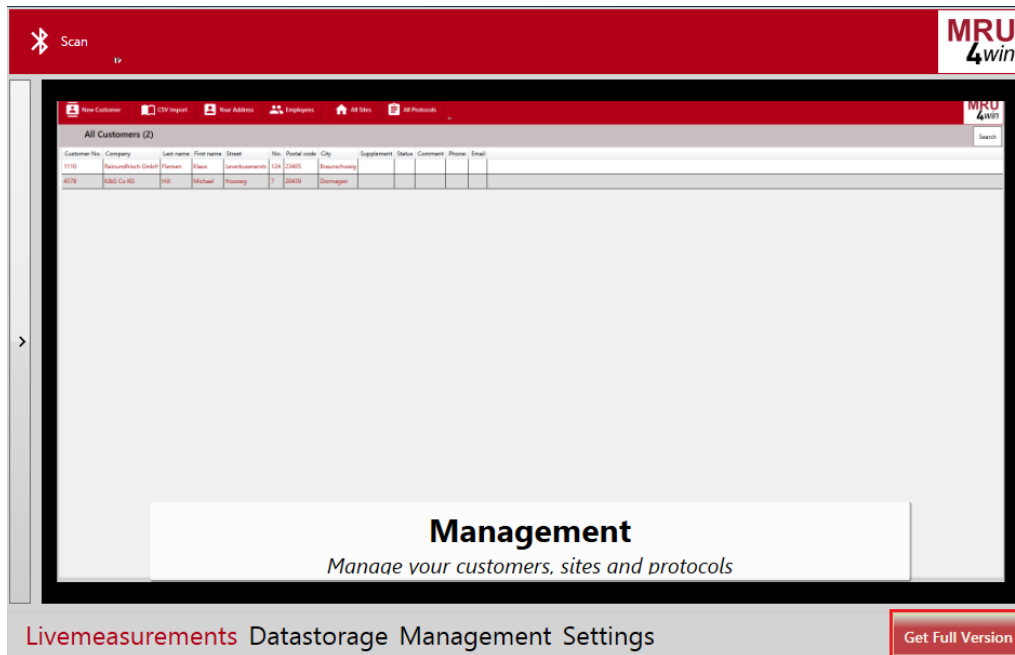
The full version is identified by a Hardware-ID.

Under Settings you can check the license information.

Here the status "light version" is displayed first.

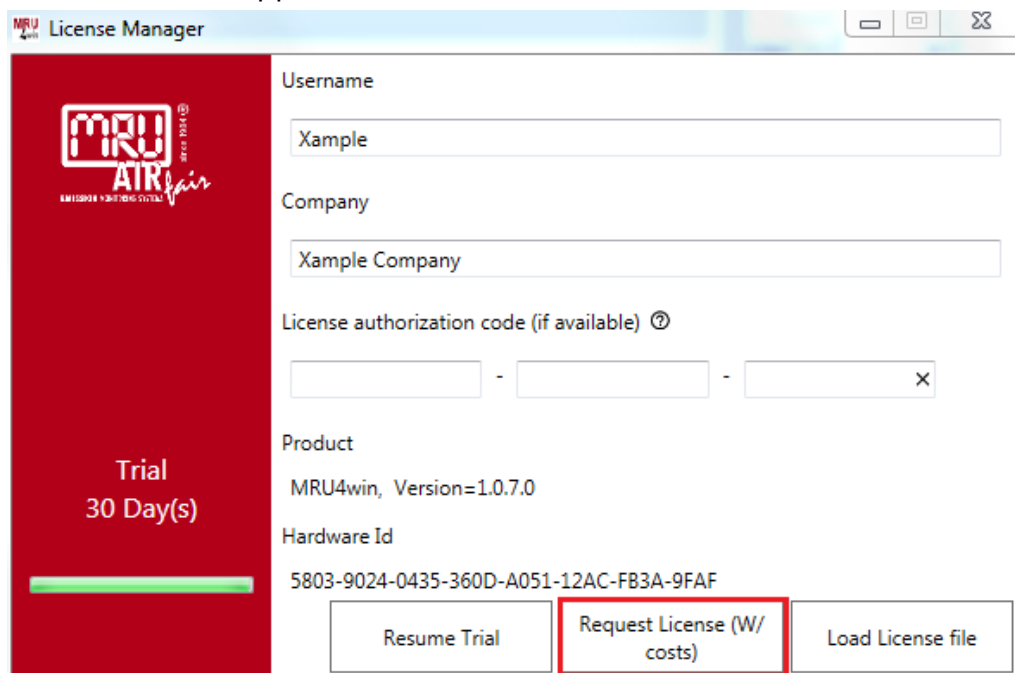
At the same time, a 30-day trial version is offered and the request for a fee-based license.

☞ See Chapter 7.8 Showing Licence Info, S.61.



► Click „Get Full Version“.

⇒ A window appears.



► Enter the name of the company.

⇒ The button „Request License (W/costs)“ becomes active.

► Click „Request License (W/costs)”.

⇒ A window appears.

Username	Xample
Company	Xample Companay
Product	MRU4win, Version=1.0.7.0
Hardware Id	5803-9024-0435-360D-A051-12AC-FB3A-9FAF
License authorization code	

**Your data was copied to clipboard.
Please send a mail with this data to MRU GmbH.
You will receive a licence soon.**

Copy To Clipboard **Send Mail** Back

► Click “Send Mail”.

⇒ A mail to a predefined address is created.

► Send the mail with this data to MRU GmbH.

⇒ The mail recipient at MRU generates a license authorization code for activating the full version (if necessary, after checking the receipt of payment).

► Wait until you receive the license authorization code.

► Enter the received the license authorization code.

2 Program description

MRU4win is an address and measurement data management program. MRU4win supports handheld devices that have implemented the DADEx protocol. DADEx is a proprietary MRU protocol.

MRU4win also supports industrial devices via the Modbus Interface. MRU4Win supports the simultaneous connection and data recording of several connected devices.

MRU4win is divided into four categories:

2.1. Livemeasurements

In the category Livemeasurements, you can display all measured values provided by the measuring instrument. The representation of the measured values is freely configurable. You can display the measured values as text/table form or as a curve graphic. All measured values are stored regardless of the selected display format.

The measured values are available at the end of the measurement.

☞ See Chapter 4 Livemeasurements, S. 15.

2.2. Datastorage

In the category Datastorage you can read out the data storage of the connected measuring device. Complex measuring sequences such as 4Pa test or leak tests can be read out and stored for further processing.

☞ See Chapter 5 Datastorage, S. 20.

2.3. Management

In the category Management you can create customer contacts and assign sites to the customer contacts

For the sites, in turn, you can save individual measurement logs.

As soon as you end a live measurement, you can assign the recorded live measurement to a site.

☞ See Chapter 6 Management, S. 24.

2.4. Settings

You can make basic settings for MRU4win in the category Settings.

For example, you can change the language or units and make a database backup.

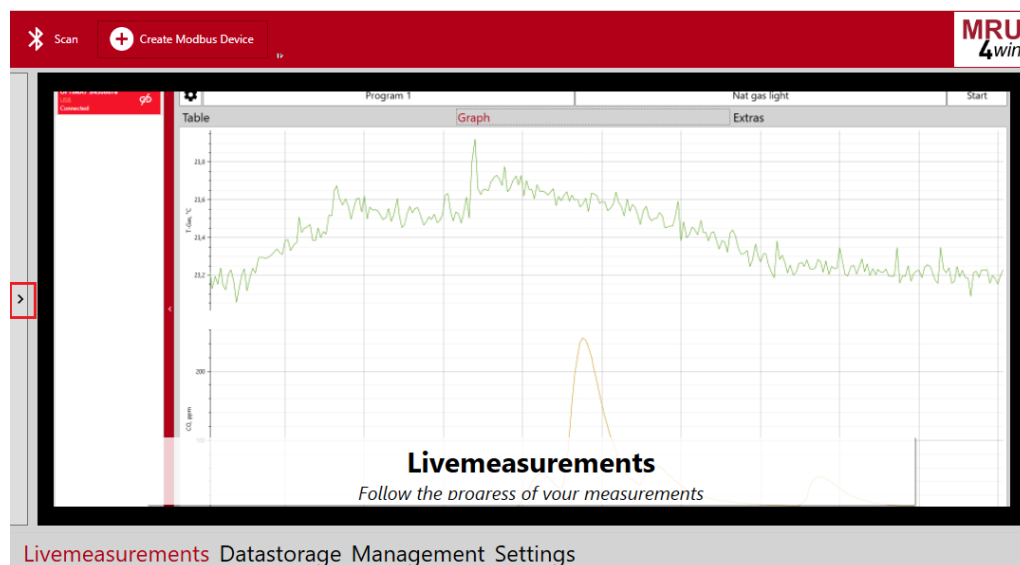
☞ See: Chapter 7 Settings, S 51.

3 Connecting measuring device to MRU4win

You can connect measuring devices that support the MRU protocol DADEX to MRU4win via USB or Bluetooth.

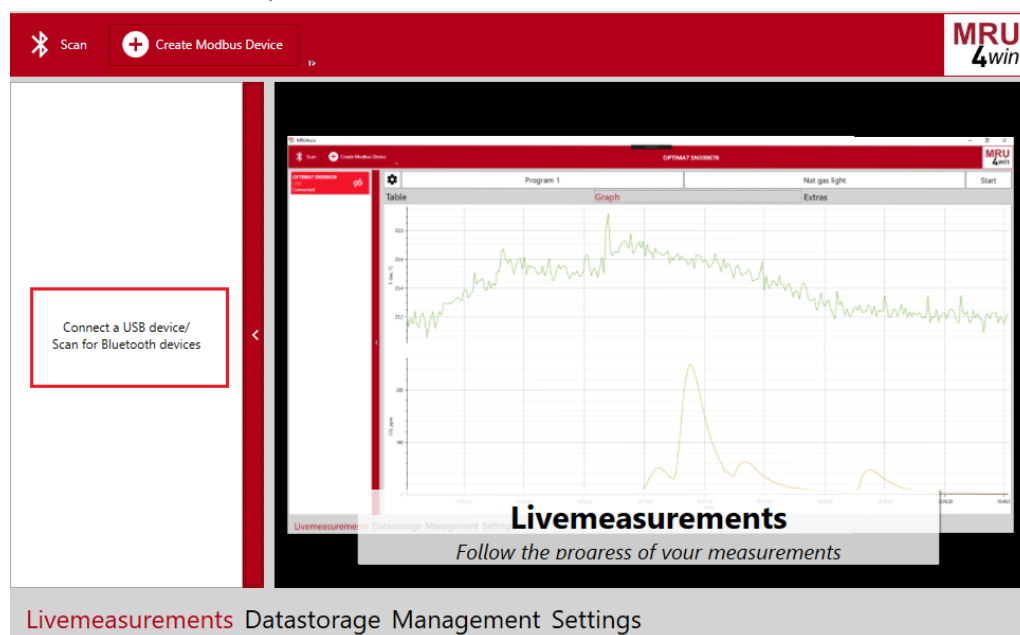
You can connect Modbus Devices to MRU4win via a Serial Interface or TCP/IP.

3.1. Connecting measuring device via USB



► Click ">" on the left side of the interface.

⇒ A column opens.

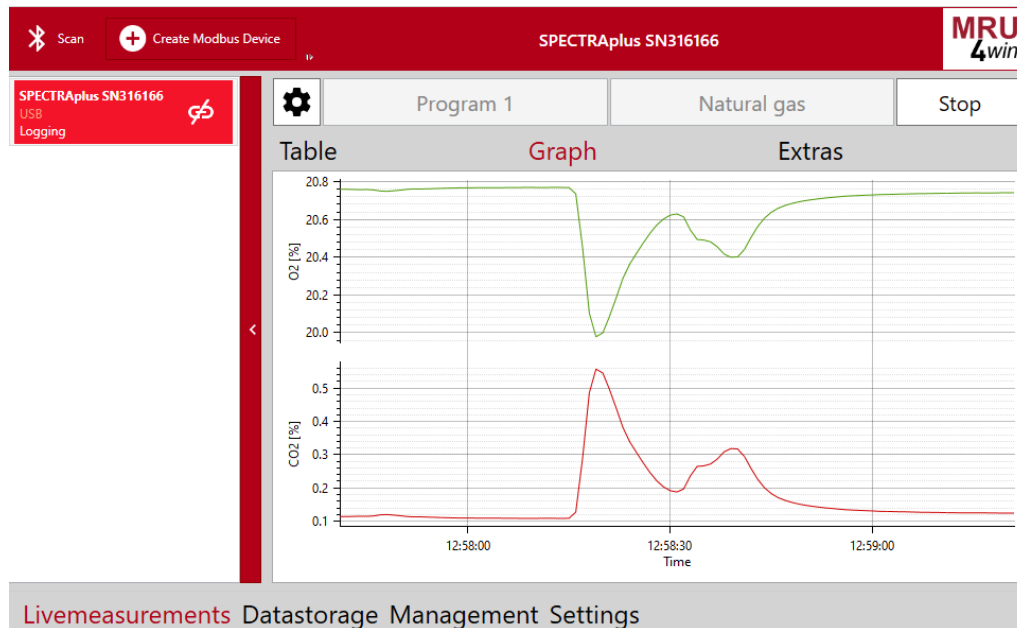


► Connect the measuring device to the PC.


⇒ The measuring device is automatically recognized.

► Click on the "Connect-Icon". 

- ⇒ The measuring device is connected.
- ▶ Click "Start".
- ▶ The Livemeasurement starts.



3.2. Connecting the measuring device via Bluetooth

- ▶ Note that the measuring device is not automatically recognized when connected via Bluetooth.
- ▶ Couple the measuring device with your operating system.
- ▶ Click ">" on the left side of the interface.
 - ⇒ A column opens.
- ▶ Click "Scan".
 - ⇒ The measuring device is recognized.
- ▶ Click on the "Connect-Icon". 
 - ⇒ The measuring device is connected.
- ▶ Click "Start".
 - ⇒ The Livemeasurement starts.

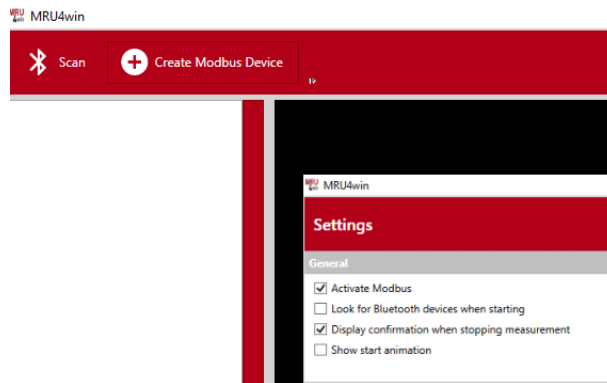
3.3. Connecting the Modbus Device

- ▶ You can connect Modbus devices with MRU4win via a serial interface (RS 485).
- ▶ You can connect Modbus devices to MRU4win via a TCP/IP Connection. Before you can connect the Modbus Device with MRU4win via a TCP/IP connection, you have to read out the IP address in the Modbus Device.

⇒ The TCP/IP connection can be made by LAN or WLAN.

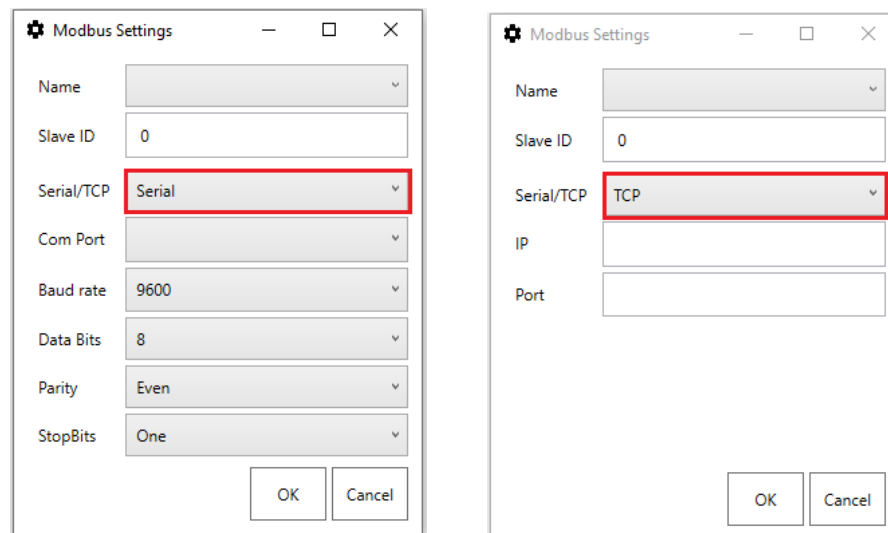
Modbus devices are not automatically identified in MRU4win. Before you can connect the analyser with MRU4win, you have to create a Modbus device.

- ▶ Open MRU4win.
- ▶ Click "Create Modbus Device".



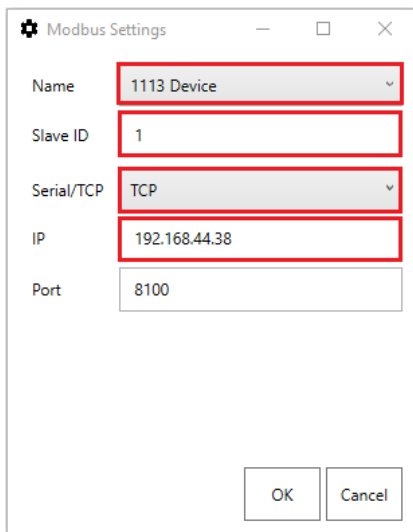
⇒ A window appears.

- ▶ You can connect the analyzer with MRU4win via a serial interface or via a TCP/IP connection.
- ▶ Select the desired connection type under " Serial/TCP".
If you select the connection type "TCP", the input window changes.



- ▶ Choose "Name"
⇒ A selection list appears.
- ▶ Choose your "Modbus Device".
In this example a connection is established with a "1113 Device"
- ▶ Set "Slave ID" to 1.
Note that the slave ID must match to the "Modbus Slave ID" of the analyzer. For example, if the analyzer has the "Modbus Slave ID" 2, the "Slave ID" in MRU4win must be set to 2.
- ▶ If necessary, enter your IP address, if you want to set up a TCP/IP connection.

In this example the LAN address is 192.168.44.38.



Modbus Settings

Name: 1113 Device

Slave ID: 1

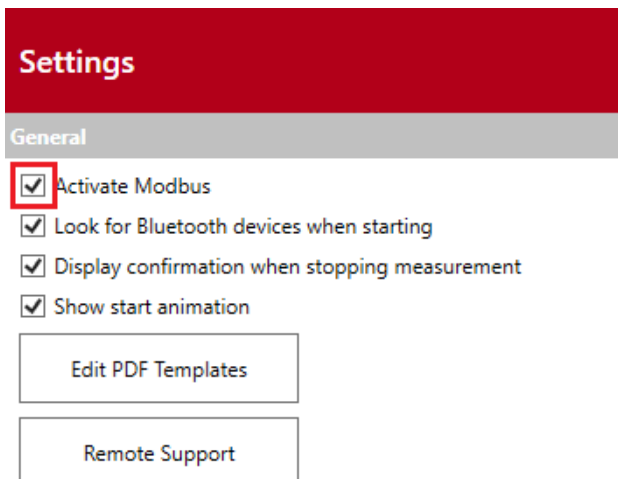
Serial/TCP: TCP

IP: 192.168.44.38

Port: 8100

OK Cancel

- ▶ Click "OK".
- ▶ Go to "Settings".



Settings

General

Activate Modbus

Look for Bluetooth devices when starting

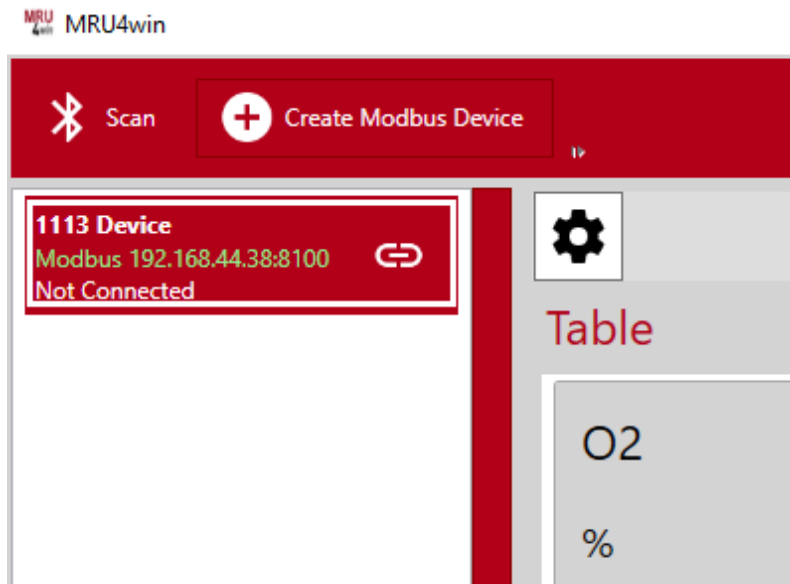
Display confirmation when stopping measurement


Show start animation

Edit PDF Templates

Remote Support

- ▶ Set under "General" a check mark at "Activate Modbus".
- ▶ Go to "Livemeasurements".
 - ⇒ The analyzer appears in the column of available analyzers.



- ▶ Click on the "Connect-Icon" 
 - ⇒ The analyzer is connected.

4 Livemeasurements

With measuring devices that support DADEX (portable devices) you can manage different measuring programs and fuels and log the measured values. With Modbus devices (industrial devices) you can generally only log measured values. In principle, all data supplied by the measuring device are recorded. The display format of the measured values has no influence on the logging. Measured values that are not displayed are also logged. In the full version the logging duration is unlimited. In the light version the logging duration is limited to one hour.

4.1. Configuring display format

You can display the measured values as a table or a graphic.

The screenshot shows the MRU4win software interface. At the top, there is a red header bar with 'SPECTRAplus SN316166' and the MRU4win logo. Below the header, there are buttons for 'Scan', 'Create Modbus Device', and 'Stop'. The main display area is divided into three tabs: 'Table', 'Graph', and 'Extras'. The 'Table' tab is selected, showing a table of measured values:

Gas	Value	Min	Max
O2	20.66	20.65	20.66
%			
CO2	0.2		
%			
CO	0		
ppm			

At the bottom of the interface, there is a navigation bar with 'Livemeasurements', 'Datastorage', 'Management', and 'Settings'.

► Click „Graph“.

The screenshot shows the MRU4win software interface with the 'Graph' tab selected. The graph displays two data series over time:

- O2 [%]:** A green line showing oxygen percentage. It starts at approximately 20.5%, drops to about 20.38% at 08:48:00, and then fluctuates between 20.4% and 20.5% until 08:48:30.
- CO2 [%]:** A red line showing carbon dioxide percentage. It starts at approximately 0.25%, rises to about 0.33% at 08:48:00, and then fluctuates between 0.28% and 0.35% until 08:48:30.

The x-axis is labeled 'Time' and shows the time range from 08:48:00 to 08:48:30. The y-axis for O2 ranges from 20.4 to 20.5, and for CO2 from 0.2 to 0.4.


At the bottom of the interface, there is a navigation bar with 'Livemeasurements', 'Datastorage', 'Management', and 'Settings'.

⇒ The display format changes.

In the graphical display you can zoom into the "graph" with the mouse wheel. With the left mouse button a cursor shows you the measured value.

4.2. Selecting measured values

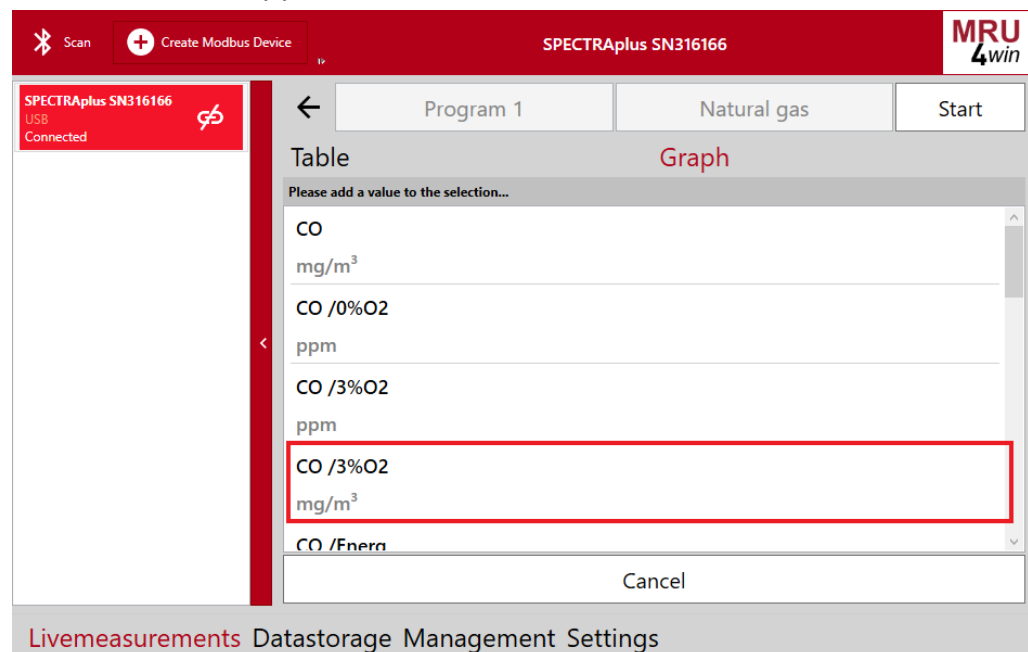
You can select the measured values to be displayed as table or graph via a selection window.

► Click on the „gear wheel icon.“ 

⇒ A window appears.

► Click „Add“ 

⇒ A window appears.



► Add the desired value to the selection.

⇒ A window appears.

► Click „OK“.

⇒ The desired values appear in the measured value window.

SPECTRAplus SN316166
USB
Connected

Scan Create Modbus Device SPECTRAplus SN316166 MRU 4win

Program 1 Natural gas Start

Table Graph Extras

%	Max : 20.54
CO2	0.3
%	Min : 0.2 Max : 0.3
CO	0
ppm	
CO / 3%O2	0
mg/m ³	

Livemeasurements Datastorage Management Settings

NOTE



Note that you have to add the desired values for tabular and graphical display separately. There is no automatic update.

4.3. Viewing Detail Information

You can display detailed information about the measuring device and the current measurement.

► Click „Extras“.

⇒ A window appears.

SPECTRAplus SN316166
USB
Connected

Scan Create Modbus Device SPECTRAplus SN316166 MRU 4win

Program 1 Natural gas Start

Table Graph Extras

Device		Measurement	
Device type	MRU SPECTRAplus	Sampling rate	00:00:01
Serial number	316166	Average (points)	---
Firmware version	1.74.00		
Hardware version	4.00		
Operating hours	632		
Date of manufacture	4/9/2018		
Country code	en_GB		
Device identification number	MRAV00316166NEU0418		
Protocolversion	v1.00.02		

Livemeasurements Datastorage Management Settings

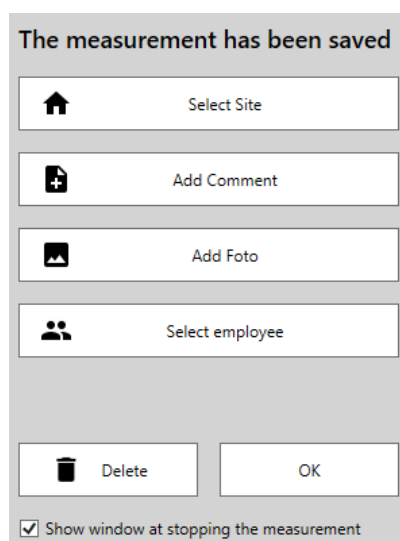
4.4. Assigning a measurement protocol

After you have stopped the measurement, you can save a measurement protocol.

- ▶ You have two options for saving the measurement protocol.
- ▶ You can assign the measurement protocol directly to a site.
- ▶ You can save the measurement protocol and not assign it to a site.

Assigning measurement protocol to a site.

- ▶ Click „Stop“.
 - ⇒ The measurement was saved.
 - ⇒ A window appears.



The measurement has been saved

Home Select Site

+ Add Comment

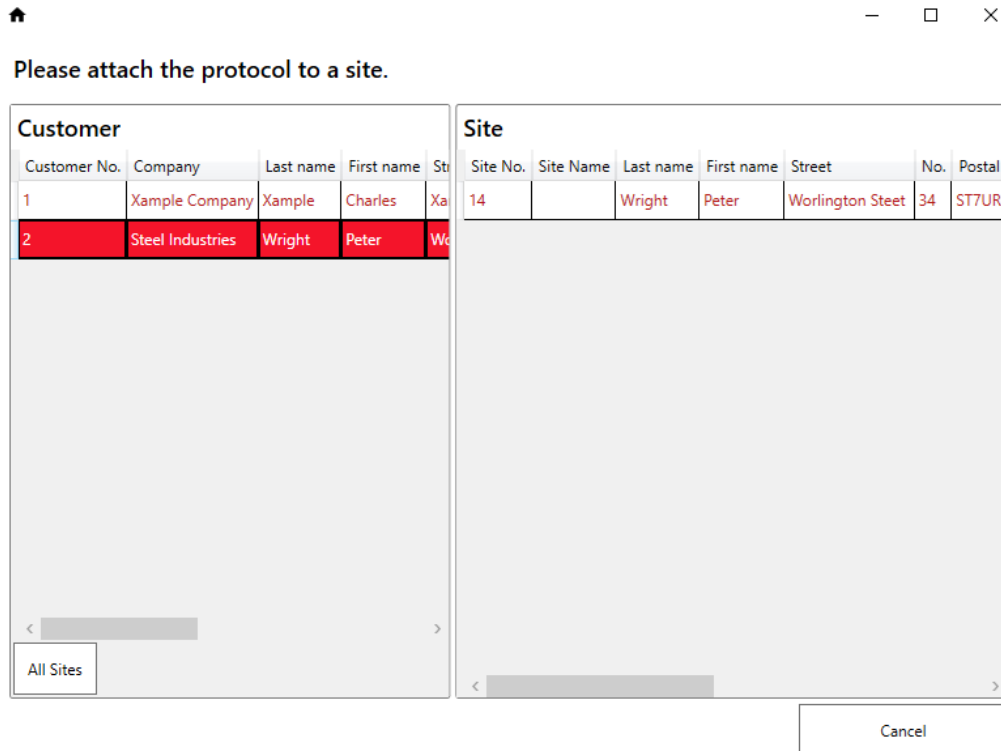
🖼️ Add Foto

👤 Select employee

🗑️ Delete OK

Show window at stopping the measurement

- ▶ Add a comment if necessary.
- ▶ Add a photo if necessary.
- ▶ Select an employee if necessary.
- ▶ Click „Select Site“.
 - ⇒ A window appears



- ▶ Click on the desired customer.
- ▶ Click on the desired site.
 - ⇒ A window appears.
- ▶ Click „OK“.
 - ⇒ The measurement protocol was assigned to the site.

Do not assign the measuring protocol to a site

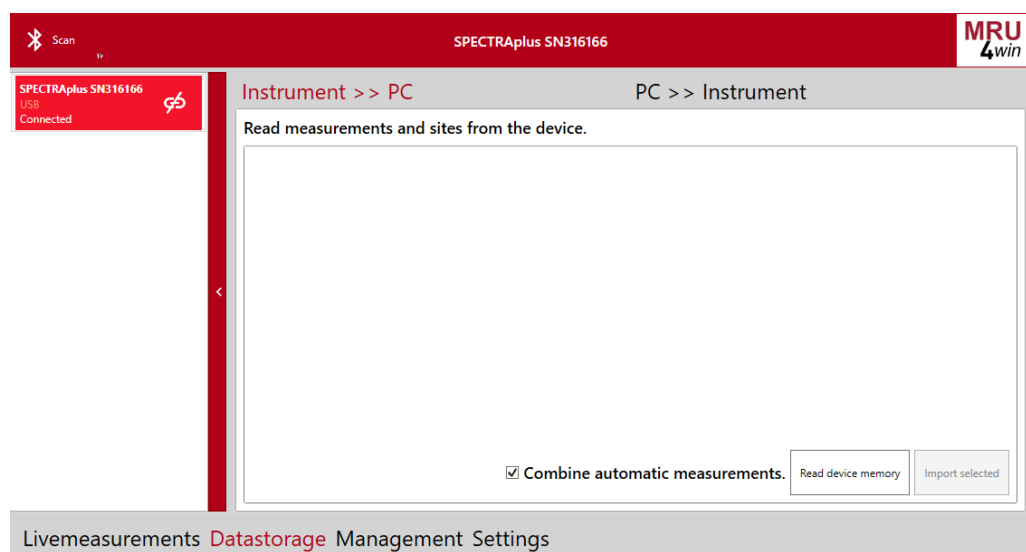
- ▶ Click „Stop“.
 - ⇒ The measurement was saved.
 - ⇒ A window appears.
- ▶ Click „OK“.
 - ☞ See also Chapter Displaying not assigned protocols. ,S. 35.

5 Datastorage

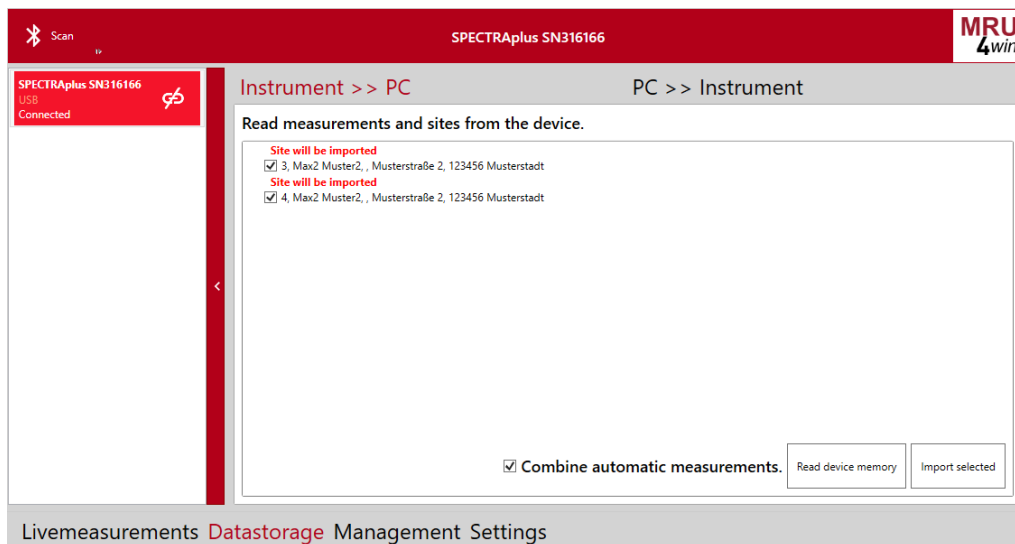
Under Data memory you have the possibility to import and export data. You can import measurements and sites from a measuring device. You can export sites to a measuring device.

5.1. Transferring sites from measuring device to PC

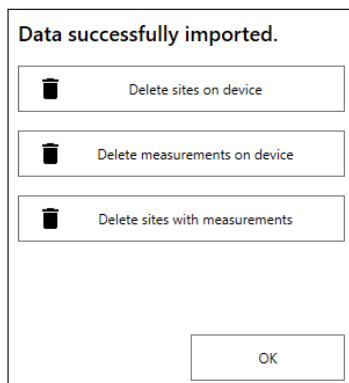
- ▶ Connect the measuring device to the PC.
- ▶ Connect the measuring device to MRU4win.
 - ☞ See Chapter: 3 Connecting measuring device to MRU4win, S. 10.
- ▶ Click „Datastorage“
 - ⇒ A window appears.



- ▶ Check whether the connected measuring device has a combined automatic measurement.
 - The automatic measuring stores the measurement continuously at a defined interval.
- ▶ Click „Combine automatic measurements“ if necessary.
- ▶ Click “Read device memory”.
 - ⇒ Measurements and sites from the measuring device are read in.
- ▶ Select the desired sites.



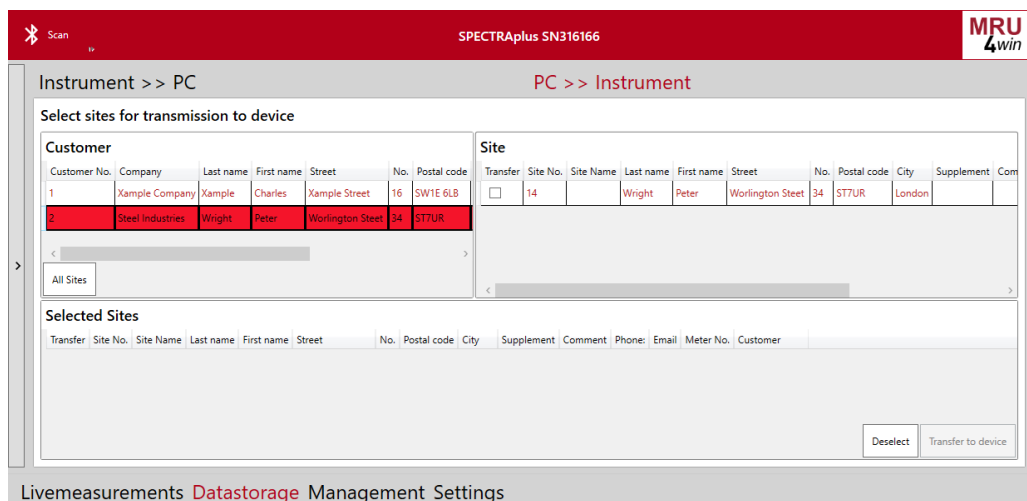
- ▶ Click „Import selected“.
- ⇒ Data will be imported.
- ⇒ A window appears.



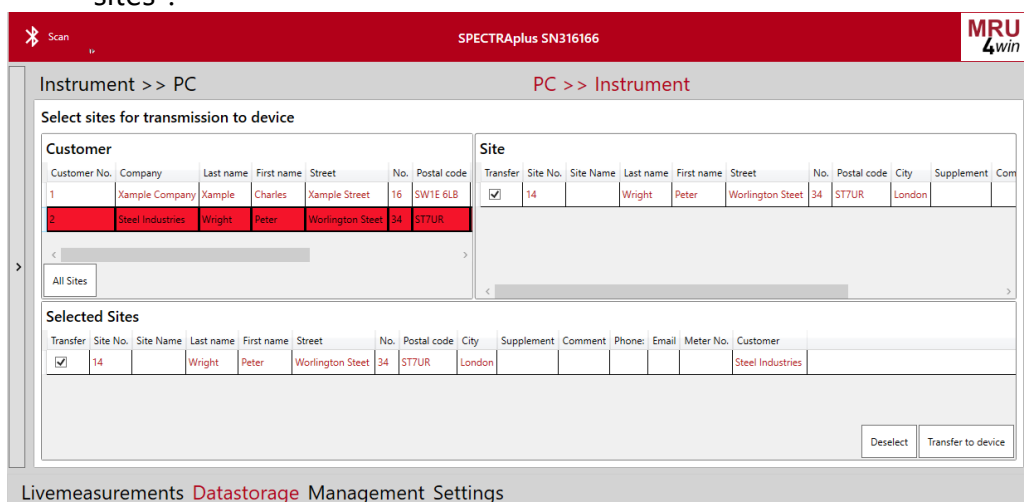
- ▶ You can select from several options.
You can „Delete sites on device“, „Delete measurements on device“ or „Delete sites with measurements“.
- ▶ Click the desired option if necessary.
⇒ The desired option is carried out.
- ▶ Press "OK" without selecting an option.
⇒ Sites and measurements remain stored on the measuring device

5.2. Transferring sites to measuring device

- ▶ Connect the measuring device to the PC.
- ▶ Connect the measuring device to MRU4win.
☞ See Chapter: 3 Connecting measuring device to MRU4win, S. 10.
- ▶ Click „Datastorage“.
- ▶ Click „PC >> Instrument“.
⇒ A window appears.



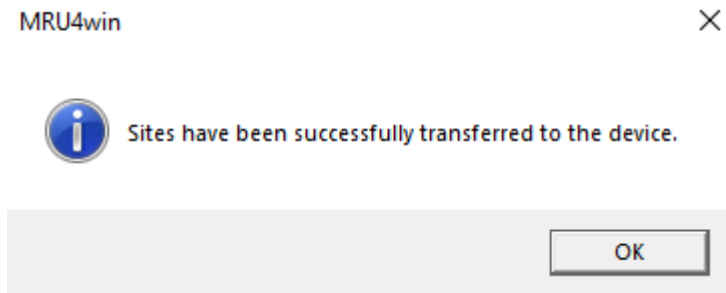
- ▶ Click on the desired customer.
 - ⇒ The sites of the customer appear.
- ▶ Click on the desired site.
 - ⇒ The desired sites will be transferred to the window "Selected sites".



- ▶ Click „Transfer to device“.
- ⇒ A window appears.



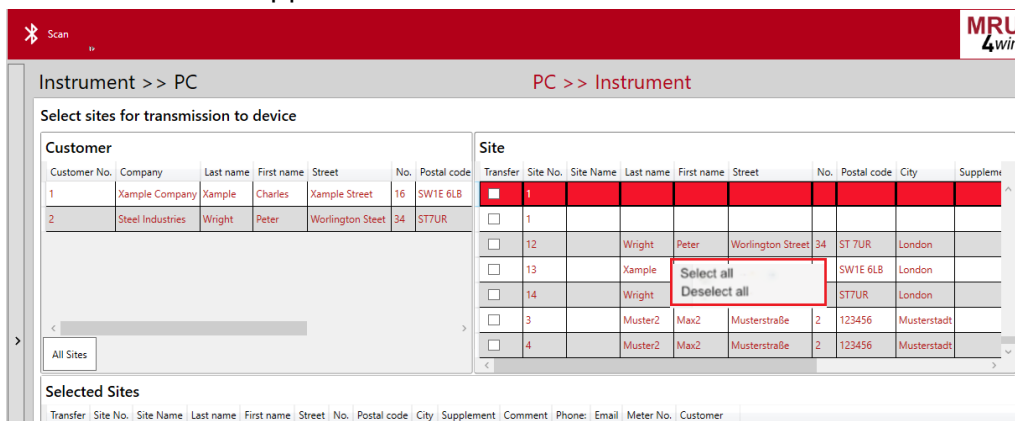
- ▶ Click on the desired option.
 - ⇒ The sites are transferred to the measuring device.
 - ⇒ A window appears.



- ▶ Click „OK“.

5.3. Transferring all sites to the measuring device

- ▶ Connect the measuring device to the PC.
- ▶ Connect the measuring device to MRU4win.
 - ☞ See Chapter: 3 Connecting measuring device to MRU4win, S. 10.
- ▶ Click „Datastorage“.
- ▶ Click „PC >> Instrument“.
 - ⇒ A window appears.
- ▶ Click on the right mouse button.
 - ⇒ A window appears.



- ▶ Click „Select all“.
 - ⇒ All sites are selected.
- ▶ Click „Transfer to device“.
 - ⇒ All sites are transferred to the measuring device.

6 Management

The category Management is a Protocol-Database.
The protocol database is divided into three sections.

- Data of the customer
- Sites for the customer
- Protocols for site

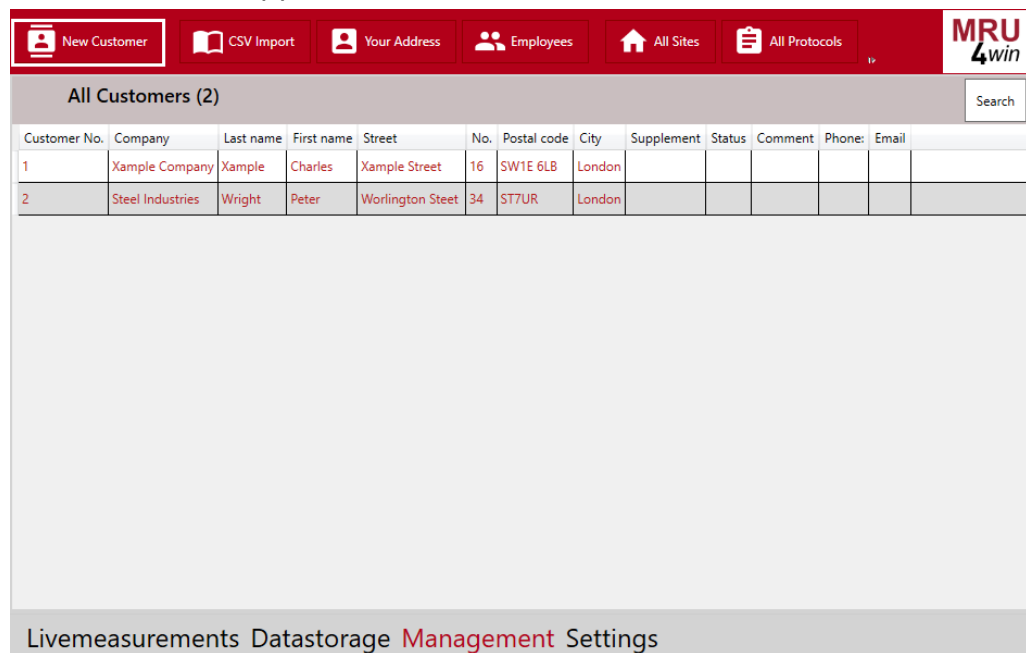
In the category Management you can:

- Create and edit a new customer
- Create and edit a new site
- Enter and edit employees
- Assign measurement protocols
- Create measurement protocols PDF by template
- Create several PDFs (Batch)

6.1. Create new customer

► Click „Management“.

⇒ A window appears.



The screenshot shows the MRU4win software interface. At the top, there is a navigation bar with several menu items: 'New Customer', 'CSV Import', 'Your Address', 'Employees', 'All Sites', 'All Protocols', and the MRU4win logo. Below the navigation bar, there is a table titled 'All Customers (2)' with a search button. The table has the following columns: Customer No., Company, Last name, First name, Street, No., Postal code, City, Supplement, Status, Comment, Phone, and Email. There are two rows of data in the table.

Customer No.	Company	Last name	First name	Street	No.	Postal code	City	Supplement	Status	Comment	Phone	Email
1	Xample Company	Xample	Charles	Xample Street	16	SW1E 6LB	London					
2	Steel Industries	Wright	Peter	Worlington Steet	34	ST7UR	London					

At the bottom of the interface, there is a footer with the text: 'Livemeasurements Datastorage Management Settings'.

► Click „New Customer“.

⇒ A window appears.

Create new customer

Customer No. Supplement

Company Status

Last name Comment

First name Phone:

Street No. Email

City

Postal code

Customer No.	Company	Last name	First name	Street	No.	Postal code	City	Supplement	Status	Comment	Phone	Email	Meter No.	Customer
1	Xample Company													
2	Steel Industries													

Livemeasurements Datastorage **Management** Settings

- ▶ Enter the customer data.
- ▶ Click „Save“.
- ⇒ New customer is saved.
- ⇒ The program opens the second section "Sites for the customer" of the protocol database.
- ⇒ You can assign a "New site" to the customer.

Sites (0) for customer:

Xample2 Company
David Spencer
Xample2 Street 28
SF2D 6LB London
Customer No. 3

Site No.	Site Name	Last name	First name	Street	No.	Postal code	City	Supplement	Status	Comment	Phone	Email	Meter No.	Customer
3	Xample2 Company													

Livemeasurements Datastorage **Management** Settings

☞ See also Chapter: 6.2Assign and create new site, Page 26.

6.2. Assign and create new site

Before you can create a new site, you have to select a customer to whom you assign the site.

You can also create a new customer and assign a site directly to the customer.

☞ See also Chapter 6.1 Create new customer, Page 24.

- ▶ Click „Management“.
- ⇒ A window appears.
- ▶ Click on the customer to whom you want to assign a site.
- ⇒ The program opens the second section "Sites for the customer" of the protocol database.

The screenshot shows the MRU4win software interface. At the top, there is a navigation bar with icons for 'New Customer', 'CSV Import', 'Your Address', 'Employees', 'All Sites', and 'All Protocols'. The main area is divided into two sections. On the left, there is a table titled 'All Custom' with columns 'Customer No.' and 'Company'. The table contains three rows: 1. Xample Company, 2. Steel Industries, and 3. Xample2 Company (highlighted in red). On the right, there is a section titled 'Sites (0) for customer:' for 'Xample2 Company'. It displays the customer's details: David Spencer, Xample2 Street 28, SF2D 6LB London, and Customer No. 3. Below this, there are buttons for 'New Site' (highlighted with a red box), 'Protocols', 'PDF', and 'Edit'. At the bottom of the interface, there is a footer with 'Livemeasurements', 'Datastorage', 'Management', and 'Settings'.

- ▶ Click „New Site“.
- ⇒ A window appears.

The screenshot shows the MRU4win software interface with the 'Create New Site' form open. The form is titled 'Create New Site' and is located within the 'Sites (0) for customer:' section. The form contains several input fields: 'Site No.' (15), 'Site Name', 'Last name' (Spencer), 'First name' (David), 'Street' (Xample2 Street), 'No.' (28), 'City' (London), and 'Postal code' (SF2D 6LB). There are also fields for 'Supplement', 'Status', 'Comment', 'Phone', 'E-Mail', and 'Meter No.'. A checkbox labeled 'Address as customer' is checked and highlighted with a red box. At the bottom right of the form, there are buttons for 'Delete', 'Save' (highlighted with a red box), and 'Cancel'. The footer of the interface shows 'Livemeasurements', 'Datastorage', 'Management', and 'Settings'.

- ▶ Enter the site data.
If necessary, mark the "Address as customer" checkbox, if Customer address and site address are identical.
- ▶ Click Save.
⇒ The site is assigned to the desired customer.

The screenshot shows the MRU4win software interface. At the top, there is a navigation bar with icons for 'New Customer', 'CSV Import', 'Your Address', 'Employees', 'All Sites', and 'All Protocols'. The main content area is divided into two panes. The left pane shows a list of customers with columns 'Customer No.' and 'Company'. The right pane, titled 'Sites (1) for customer:', displays details for 'Xample2 Company' and a table of sites. The table has columns: Site No., Site Name, Last name, First name, Street, No., Postal code, City, Supplement, Status, Comment, Phone, Email, and Meter No. The bottom navigation bar includes 'Livemeasurements', 'Datastorage', 'Management', and 'Settings'.

Customer No.	Company
1	Xample Company
2	Steel Industries
3	Xample2 Company

Sites (1) for customer:

Xample2 Company
David Spencer
Xample2 Street 28
SF2D 6LB London
Customer No. 3

Site No.	Site Name	Last name	First name	Street	No.	Postal code	City	Supplement	Status	Comment	Phone	Email	Meter No.
15		Spencer	David	Xample2 Street	28	SF2D 6LB	London						

Livemeasurements Datastorage **Management** Settings

6.3. Editing existing customer data

- ▶ Click „Management“
⇒ A window appears.
- ▶ Click on the desired customer
⇒ A window appears.

This screenshot is identical to the one above, showing the MRU4win software interface with the 'Management' tab selected in the bottom navigation bar.

- ▶ Click „[Edit](#)“.
- ⇒ A window appears.
- ▶ Enter the desired changes.

The screenshot shows the 'Management' window in MRU4win. The top navigation bar includes 'New Customer', 'CSV Import', 'Your Address', 'Employees', 'All Sites', and 'All Protocols'. The main content area is titled 'All Custom' and 'Sites (1) for customer:'. On the left, a table lists customer details:

Customer No.	Company
1	Xample Company
2	Steel Industries
3	Xample2 Company

The right side of the window shows the details for the selected customer (3):

Customer No. 3
 Company Xample2 Company
 Last name Spencer
 First name David
 Street Xample2 Street No. 28
 City London
 Postal code SF2D 6LB

Supplement
 Status
 Comment
 Phone: 07131555888
 Email: Xample2@company.com

Buttons: Delete, Save, Cancel

At the bottom, there is a table with columns: Site No., Site Name, Last name, First name, Street, No., Postal code, City, Supplement, Status, Comment, Phone, Email, Meter No.

Navigation: Livemeasurements, Datastorage, Management, Settings

- ▶ Click „[Save](#)“.
- ⇒ The changes are saved.

The screenshot shows the 'Management' window after saving changes. The top navigation bar is the same. The main content area is titled 'All Customers (3)' and 'Sites (1) for customer:'. On the left, the customer table is updated:

Customer No.	Company	Last name
1	Xample Company	Xample
2	Steel Industries	Wright
3	Xample2 Company	Spencer

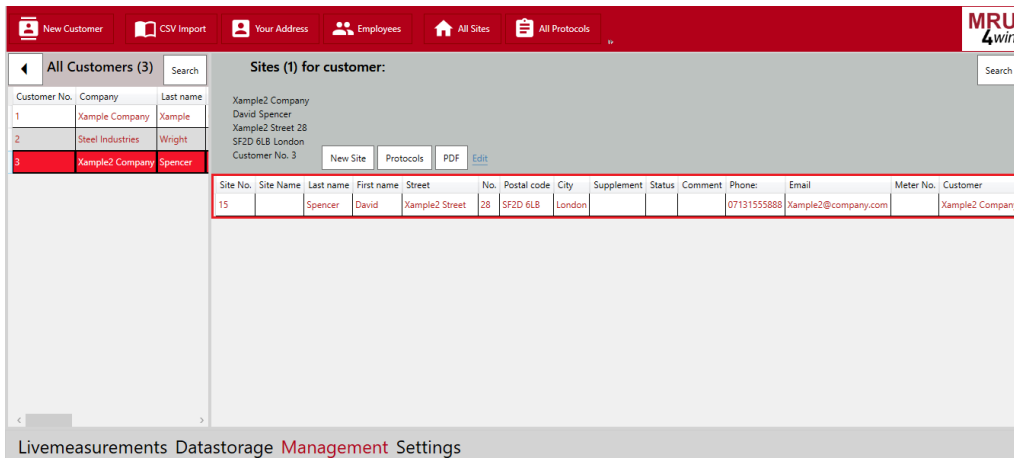
The right side shows the details for customer 3, including a 'New Site' button and a table with columns: Site No., Site Name, Last name, First name, Street, No., Postal code, City, Supplement, Status, Comment, Phone, Email, Meter No., Customer.

Navigation: Livemeasurements, Datastorage, Management, Settings

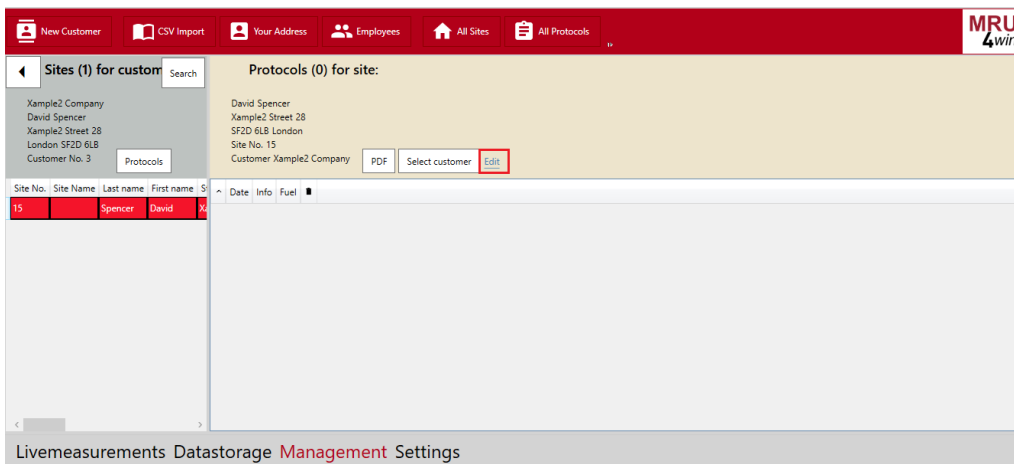
6.4. Editing existing site data

Before you can edit existing site data, you have to select the customer to whom the site is assigned.

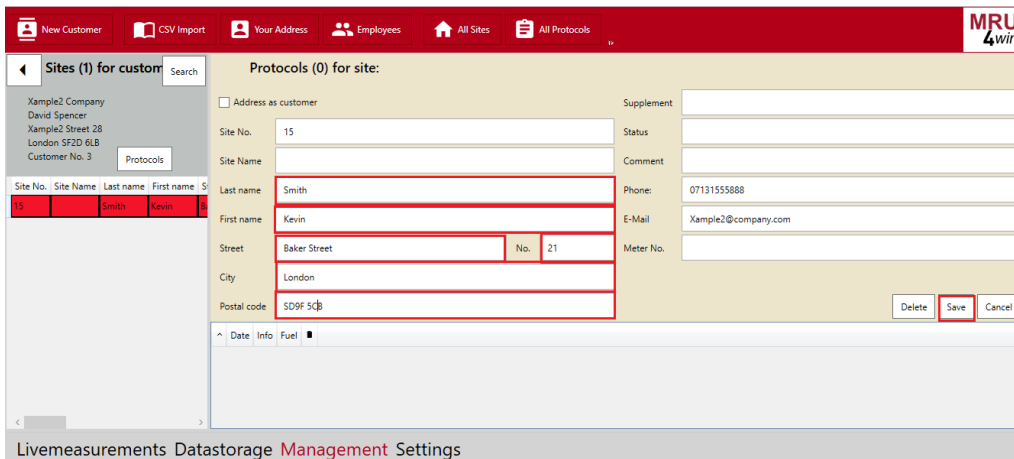
- ▶ Click „[Management](#)“.
- ⇒ A window appears.
- ▶ Click on the desired customer.
- ⇒ A window appears.



- ▶ Click on the desired site.
- ⇒ A window appears.



- ▶ Click „Edit“
- ⇒ A window appears.
- ▶ Enter the desired changes.



- ▶ Click „Save“.
- ⇒ The changes are saved.

6.5. Creating employees

- ▶ Click „Management“.
- ⇒ A window appears.
- ▶ Click „Employees“.
- ⇒ A window appears.

The screenshot shows a window titled "Employees" with a table at the top containing the following columns: Employee No., Last name, First name, Street, No., Postal code, and City. Below the table, there are two buttons: "New Employee" (highlighted with a red box) and "OK".

- ▶ Click „New Employee“.
- ⇒ A window appears.

The screenshot shows the "Employees" window with a form for entering employee data. The fields are filled with the following information: Employee No. (1), Last name (Holden), First name (James), Street (Mapple Street), No. (3), City (London), and Postal code (SF2D 6LB). Below the form, there are three buttons: "Save" (highlighted with a red box), "Delete", and "Cancel". At the bottom of the window, there are two buttons: "New Employee" and "OK".

- ▶ Enter the employee data.
- ▶ Click „Save“.
- ⇒ The employee appears in the window.

The screenshot shows the "Employees" window with the employee data entered in the previous step now displayed in the table. The table row is highlighted with a red box. The data is as follows:

Employee No.	Last name	First name	Street	No.	Postal code	City
1	Holden	James	Mapple Street	3	SF2D 6LB	London

At the bottom of the window, there are two buttons: "New Employee" and "OK".

6.6. Creating your own address

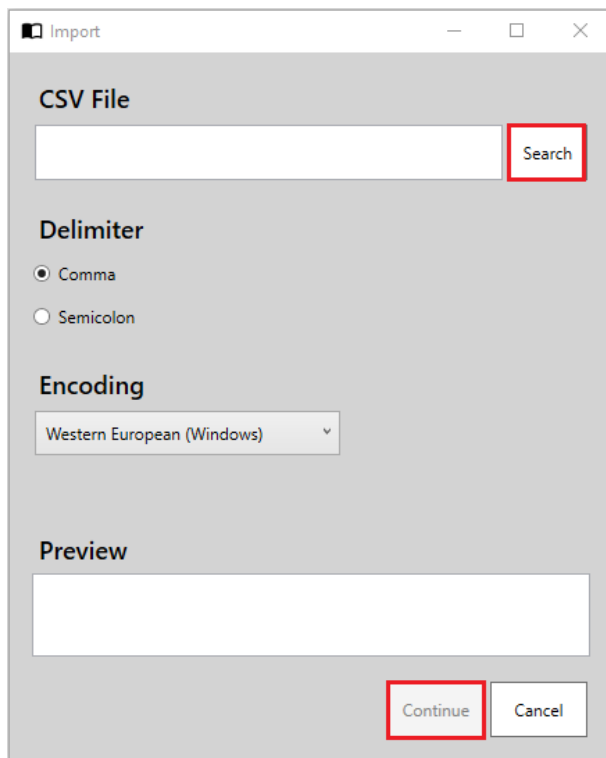
- ▶ Click „Management“.
- ⇒ A window appears.
- ▶ Click „Your Address“.
- ⇒ A window appears.

- ▶ Enter the address data.
- ▶ Click on "Load Icon", if you want to add your logo.
- ⇒ A window appears.
- ▶ Select your logo.
- ▶ Drücken Sie auf „Speichern“.
- ⇒ The address is saved.

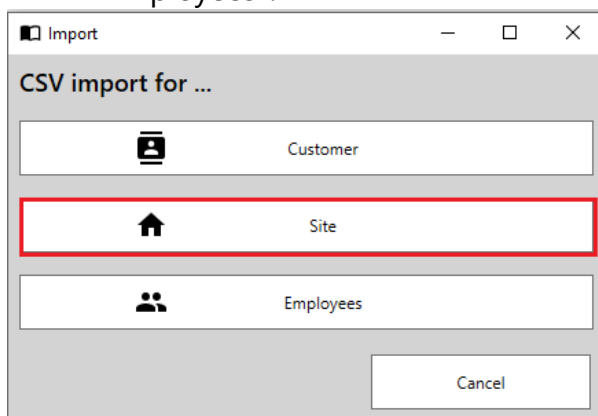
6.7. Importing data via CSV

You can create customers, sites and employees by hand or import from a CSV file.

- ▶ Click „Management“.
- ⇒ A window appears.
- ▶ Click „CSV Import“.
- ⇒ A window appears.



- ▶ Click „Search“.
- ▶ Select the desired CSV file.
 - ⇒ The Preview becomes active.
 - ⇒ The "Continue" button becomes active.
- ▶ Select the desired Delimiter.
- ▶ Select the desired Encoding.
- ▶ Click „Continue“.
- ⇒ A window appears.
You can optionally import data for "Customer", "Site" or "Employees".



- ▶ Select the desired option.
 - ⇒ In this example "Site" was selected.
 - ⇒ A window appears.

- ▶ Select the desired contents.
- ▶ You can "Add" or "Replace" content.
- ▶ Select the desired option.
 - ⇒ The contents will be added or replaced.

6.8. Displaying list of all sites

Displaying all sites

„All Sites“ shows a list of all stored sites.

- ▶ Click „Management“.
- ⇒ A window appears.
- ▶ Click „All Sites“.

Customer No.	Company	Last name	Site No.	Site Name	Last name	First name	Street	No.	Postal code	City	Supplement	Status	Comment	Phone	Email	Meter No.	Customer
1	Xample Company	Xample	C	12	Worlington Street	Wright	Peter	Worlington Street	34	ST 7UR	London						Not assigned
2	Steel Industries	Wright	P	13	Xample Street	Xample	Charles	Xample Street	16	SW1E 6LB	London						Xample Company
3	Xample2 Company	Spencer	C	14	Worlington Steet	Wright	Peter	Worlington Steet	34	ST7UR	London						Steel Industries
3		Muster2		3	Musterstraße	Max2		Musterstraße	2	123456	Musterstadt						Not assigned
4		Muster		4	Musterstraße	Max		Musterstraße	2	123456	Musterstadt						Not assigned
15		Smith		15	Baker Street	Kevin		Baker Street	21	SD9F 5CB	London			07131555888	Xample2@company.com		Xample2 Company

Displaying not assigned sites

It can happen that sites are not assigned to a customer.

This can happen, for example, if you delete a customer but not the site assigned to the customer.

You can display all "Not assigned sites".

Customer No.	Company	Last name	Site No.	Site Name	Last name	First name	Street	No.	Postal code	City	Supplement	Status	Comment	Phone	Email	Meter No.	Customer
1	Xample Company	Xample	12		Wright	Peter	Worlington Street	34	ST 7UR	London							Not assigned
2	Steel Industries	Wright	13		Xample	Charles	Xample Street	16	SW1E 6LB	London							Xample Company
3	Xample2 Company	Spencer	14		Wright	Peter	Worlington Street	34	ST7UR	London							Steel Industries
			3		Muster2	Max2	Musterstraße	2	123456	Musterstadt							Not assigned
			4		Muster	Max	Musterstraße	2	123456	Musterstadt							Not assigned
			15		Smith	Kevin	Baker Street	21	SD9F 5CB	London				07131555888	Xample2@company.com		Xample2 Company

- ▶ Click „Not assigned sites“.
 - ⇒ A window appears.
 - ⇒ The not assigned sites appear.

6.9. Displaying measurement protocols

You can display all protocols or display not assigned protocols.

Displaying all measurement protocols

- ▶ Click „Management“.
 - ⇒ A window appears.
- ▶ Click „All Protocols“.
 - ⇒ All protocols are displayed.

Site No.	Site Name	Last name	First name	Date	Info	Fuel
15		Smith	Kevin	1/28/2020		
				28.01.2020 13:45:40	Program 1	Natural gas
				28.01.2020 13:45:15	Program 1	Natural gas
				28.01.2020 13:17:44	Program 1	Natural gas
				28.01.2020 12:30:58	Program 1	Natural gas
				28.01.2020 11:10:04	Program 1	Natural gas
				28.01.2020 08:47:34	Program 1	Natural gas
				28.01.2020 08:40:05	Program 1	Natural gas
				11/28/2019		

Displaying not assigned protocols.

You can display not assigned protocols and assign them to a site.

- ▶ Click „Management“.
- ⇒ A window appears.
- ▶ Click „All Protocols“.
- ▶ Click „Not assigned protocols“.
- ⇒ The not assigned protocols appear.

Date	Info	Fuel
1/28/2020		
28.01.2020 13:45:40	Program 1	Natural gas
28.01.2020 13:45:15	Program 1	Natural gas
28.01.2020 11:10:04	Program 1	Natural gas
28.01.2020 08:40:05	Program 1	Natural gas
11/12/2019		
12.11.2019 14:16:32	Druck/Temperatur	Messgas
12.11.2019 12:39:57	Druck/Temperatur	Messgas
12.11.2019 12:39:52	Druck/Temperatur	Messgas

Assigning not assigned protocols to a site

- ▶ Click „Management“.
- ⇒ A window appears.
- ▶ Click „All Protocols“.
- ▶ Click „Not assigned protocols“.
- ⇒ The not assigned protocols appear.
- ▶ Select the desired protocol.
- ⇒ A window appears.

Date	Info	Fuel
1/28/2020		
28.01.2020 13:45:40	Program 1	Natural gas
28.01.2020 13:45:15	Program 1	Natural gas
28.01.2020 11:10:04	Program 1	Natural gas
28.01.2020 08:40:05	Program 1	Natural gas
11/12/2019		
12.11.2019 14:16:32	Druck/Temperatur	Messgas
12.11.2019 12:39:57	Druck/Temperatur	Messgas
12.11.2019 12:39:52	Druck/Temperatur	Messgas
11/11/2019		
11.11.2019 14:25:48	Druck/Temperatur	Messgas
11.11.2019 14:25:04	Druck/Temperatur	Messgas
11.11.2019 14:24:46	Druck/Temperatur	Messgas
11.11.2019 14:24:39	Druck/Temperatur	Messgas
10/31/2019		
31.10.2019 15:17:51	AUX-Anemometer	
31.10.2019 08:22:55	Druckmessung	

Table	Graph	Extras
O2		20.47
%		Min: 20.44 Max: 20.47
CO2		0.3
%		
CO		0
ppm		
CO /3%O2		0
mg/m³		

- ▶ Click „Select Site“.
- ⇒ A window appears.

Please attach the protocol to a site.

Customer					Site						
Customer No.	Company	Last name	First name	S	Site No.	Site Name	Last name	First name	Street	No.	Postal code
1	Xample Company	Xample	Charles	X	15		Smith	Kevin	Baker Street	21	SD9F 5CB
2	Steel Industries	Wright	Peter	W							
3	Xample2 Company	Spencer	David	X							

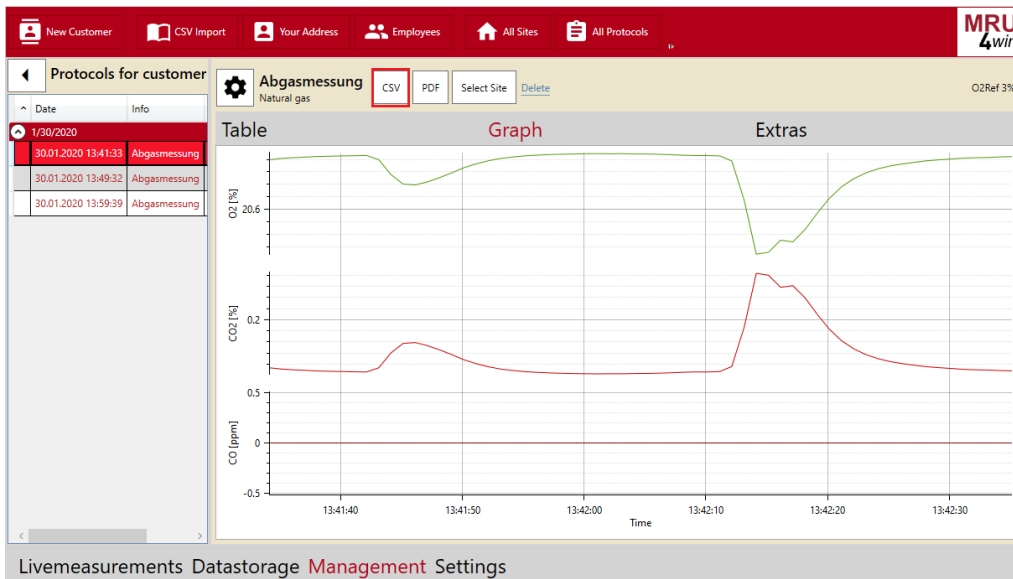
< All Sites >

Cancel

- ▶ Select the customer of the site.
- ▶ Select the site.
 - ⇒ The not assigned protocol is assigned to the site.

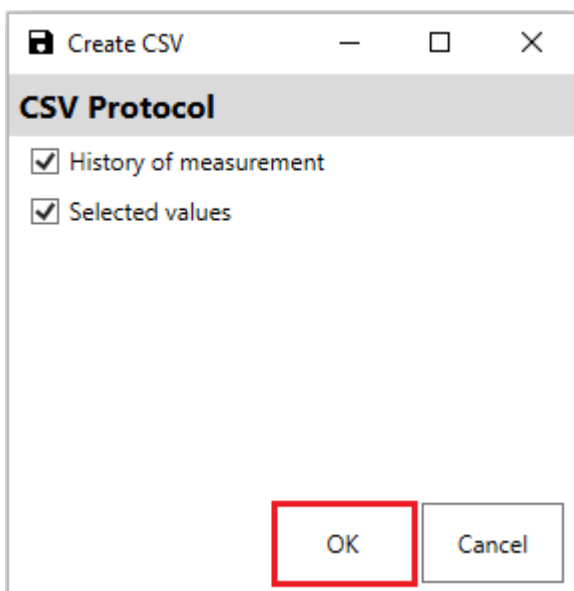
Exporting measurement protocol via CSV

- ▶ Click „Management“.
- ⇒ A window appears.
- ▶ Select a customer.
- ⇒ The sites assigned to the customer appear.
- ▶ Select a site.
- ⇒ The measuring protocols assigned to the site appear.
- ▶ Select the desired measurement protocol.

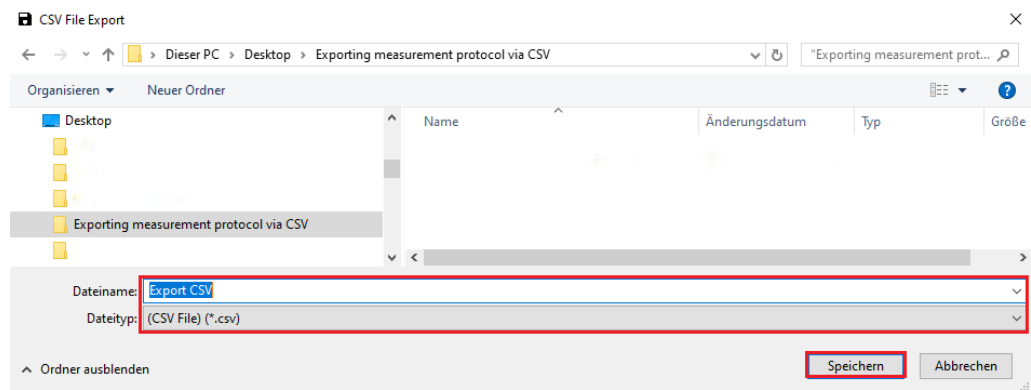


A window appears.

- ▶ Click „CSV“.
- ⇒ A window appears.



- ▶ Select the desired options.
- ▶ Click „OK“.
- ⇒ A window appears.



- ▶ Enter a name for the CSV file.
- ▶ Save the CSV file.
 - ⇒ The CSV file is saved.

6.10. Measurement protocol - Create PDF by template

Creating a template file

With MRU4win you can design PDF files individually. Before you can customize your PDF files, you must create a template file.

You can create the template file with the programs MS Word or Libre-Office. You have to save the template file in .DOCX format.

In the template file, you have to enter placeholders for addresses and measured values in addition to fixed texts.

The placeholders are then replaced with the corresponding data from the measurement.

Placeholders begin with a dollar sign (\$).

Examples for placeholders:

Placeholders	Meaning	Display in PDF
\$DeviceType	Device type	DM9600
\$Serial-number	Serial-number	880000
\$Firmware-version	Firmware	1.00.22
\$Graph	Diagram of the measuring curve	
\$Signature	Signature by pen	
\$Sitephoto	Photo of site	

☞ You can display all placeholders in MRU4win.
See chapter: Editing PDF Templates ,Page 51.

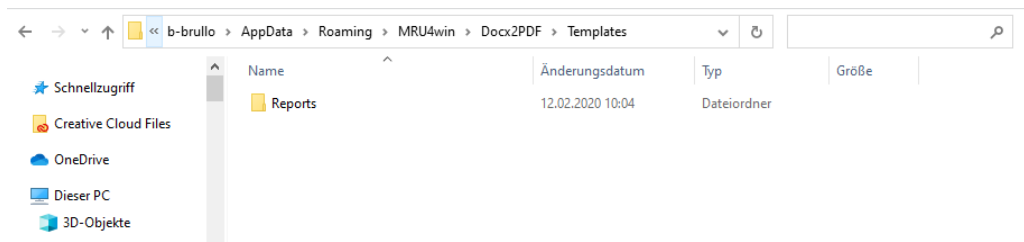
You do not need to install MS Word or Libre Office on the PC on which MRU4win was installed and PDF files are to be created.

You can create the .DOCX template files on any PC.

You can then copy the template files to the PC on which MRU4win is installed.

The template files must be saved in different directories according to the respective measuring application.

%appdata% \MRU4win\DOCX2PDF\Templates



Create PDF file from template file

- ▶ Click „Management“.
- ⇒ A window appears.
- ▶ Select a customer.
- ▶ Select a site assigned to the customer.
- ▶ Click „Extras“.
- ⇒ A window appears.

The screenshot shows the MRU4win software interface. The top navigation bar includes 'New Customer', 'CSV Import', 'Your Address', 'Employees', 'All Sites', and 'All Protocols'. The main content area is titled 'Protocols (3) for site:' and shows a table of protocols for site 13. The 'Extras' section is expanded, showing fields for 'Employees', 'Comment', and 'Images', all of which are highlighted with red boxes. The 'Measurement' section shows details for a protocol on 1/30/2020.

Date	Info
1/30/2020	
30.01.2020 13:41:33	Abgasmessung
30.01.2020 13:49:32	Abgasmessung
30.01.2020 13:59:39	Abgasmessung

Customer
Company: Xample Company
Name: Charles Xample
Street: Xample Street 16
City: SW1E 6LB London

Site
Site No.: 13
Site Name: Charles Xample
Street: Xample Street 16
City: SW1E 6LB London

Employees
Employee No.: ---
Name: ---
Street: ---
City: ---

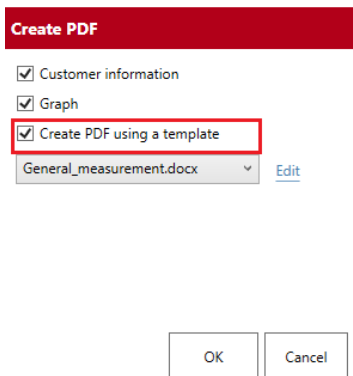
Comment
No Comment available

Images
Add Foto

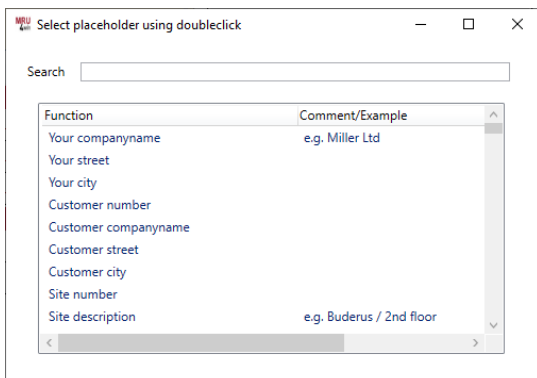
Device
Device type: MRU SPECTRAplus
Serial number: 316166
Firmware version: 1.74.00
Hardware version: 4.00
Operating hours: 649
Date of manufacture: 4/9/2018
Country code: de_DE

Measurement
Start time: 1/30/2020 1:41:34 PM
End date: 1/30/2020 1:42:35 PM
Measuring time: 0:01:02
Measuring interval: 0:00:01
Averaging time: ---
Measure values: 20
Measurements (total): 62

- ▶ If necessary, add " Employees", "Comment" and "Images" to the measuring protocol under "Extras".
- ▶ Click „PDF“.
- ⇒ A window appears.



- ▶ Add the desired contents to the PDF file.
If you have added "Create PDF using a template", all existing file templates for a measurement are displayed.
Several file templates (.docx files) can be available for one PDF.
For example, there are templates with and without graphics.
The difference lies in the placeholders used in the template.
This means whether the placeholder for e.g. graphic (\$Graph) is used in the file template or not.
- ▶ Select the desired template.
- ▶ If necessary, click "Edit" to edit a template.
 - ⇒ The template file opens in .DOCX.
 - ⇒ A window with placeholders opens.



- ▶ Select the desired placeholders.
 - ⇒ The placeholders are automatically transferred to the template file.
- ▶ Save the template file.
- ▶ Close the window with the placeholders.
- ▶ Click „OK“.
 - ⇒ A PDF file is created.
 - ⇒ The created PDF files are saved in the "Documents" directory under " MRU4Win Measurement protocols"

Name	Änderungsdatum	Typ	Größe
Messprotokoll_vom_2020-01-28-131744_...	12.02.2020 12:32	Adobe Acrobat-D...	7 KB
Messprotokoll_vom_2020-01-28-131744_...	12.02.2020 12:34	Adobe Acrobat-D...	8 KB
Messprotokoll_vom_2020-01-28-131744_...	12.02.2020 12:34	Adobe Acrobat-D...	7 KB
Messprotokoll_vom_2020-01-28-131744_...	12.02.2020 12:40	Adobe Acrobat-D...	5 KB
Messprotokoll_vom_2020-01-30-134133_...	12.02.2020 10:38	Adobe Acrobat-D...	39 KB
Messprotokoll_vom_2020-01-30-134133_...	12.02.2020 11:14	Adobe Acrobat-D...	11 KB
Messprotokoll_vom_2020-02-06-112751_...	12.02.2020 11:22	Adobe Acrobat-D...	7 KB
Messprotokoll_vom_2020-02-06-132417_...	12.02.2020 11:27	Adobe Acrobat-D...	8 KB

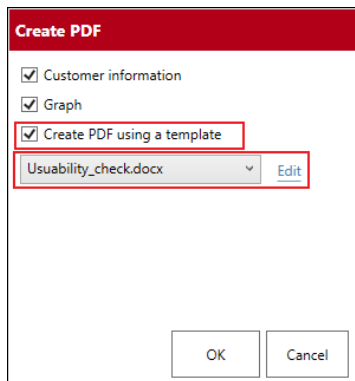
6.11. Create PDFs for Usability Test

You can create PDFs according to DVGW worksheet G600 / 2018.

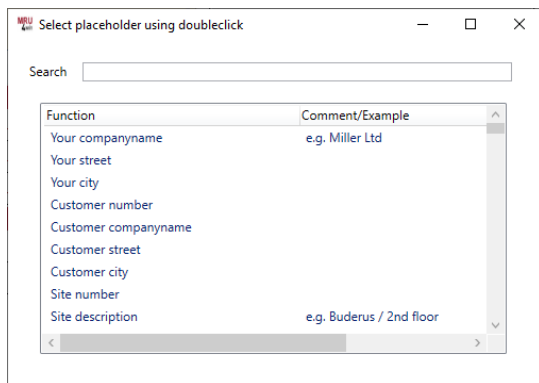
- ▶ Click "Management".
 - ⇒ A window appears.
- ▶ Select a customer.
- ▶ Select a site assigned to the customer.
- ▶ Select a measuring protocol assigned to the site.
- ▶ Click "Extras".

The screenshot shows the 'Usability Check' window in the MRU4win software. The window has a red header bar with navigation icons. Below the header, there are tabs for 'Table', 'Graph', and 'Extras'. The 'Table' tab is selected, displaying a list of protocols for a specific site. The 'Extras' section is expanded, showing various fields for customer, site, employee, device, and measurement data. Red boxes highlight the 'Employees', 'Images', and 'Comment' sections, indicating where additional information can be added.

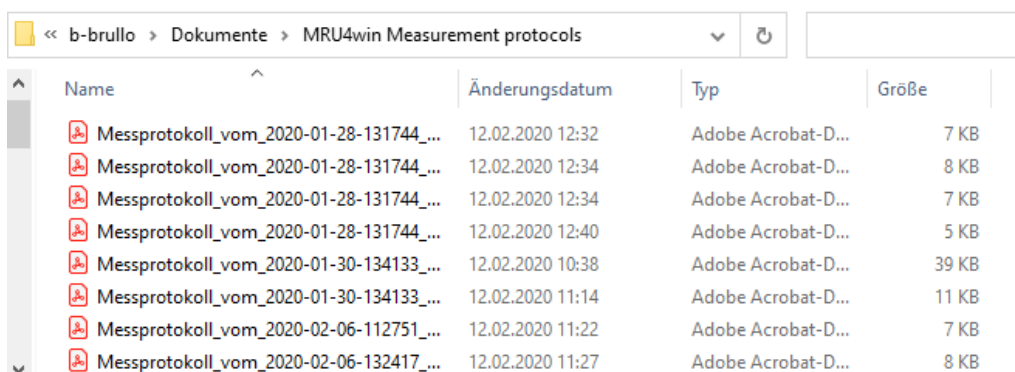
- ▶ If necessary, add " Employees", "Comment" and "Images" to the measuring protocol under "Extras".
- ▶ Click „PDF“.
- ⇒ A window appears.



- ▶ Add the desired contents to the PDF file.
- ▶ Click "Create PDF using a template"
 - ⇒ The template files appear.
- ▶ Select the template file "Usability_check.docx".
- ▶ If necessary, click "Edit" to edit a template.
 - ⇒ The template file opens in .DOCX.
 - ⇒ A window with placeholders opens.



- ▶ Select the desired placeholders.
 - ⇒ The placeholders are automatically transferred to the template file.
- ▶ Save the template file.
- ▶ Close the window with the placeholders.
- ▶ Click "OK".
 - ⇒ A PDF file is created.
 - ⇒ The created PDF files are saved in the "Documents" directory under "MRU4Win Measurement protocols"



6.12. Create multiple PDFs (Batch)

With this function you can create multiple PDF files for measurement protocols.

With this function you do not have the possibility to design and select a template file individually.

When you create PDF files, the predefined PDF template is used.

Create all measurements of a site as PDF

You can create all existing measurements of a site as PDF files.

- ▶ Click „Management“.
- ⇒ A window appears.
- ▶ Click „All Sites“.



- ⇒ A list with all stored sites appears.

All Sites (6)								
Site No.	Site Name	Last name	First name	Street	No.	Postal code	City	Supplement
12		Wright	Peter	Worlington Street	34	ST 7UR	London	
13		Xample	Charles	Xample Street	16	SW1E 6LB	London	
14		Wright	Peter	Worlington Steet	34	ST7UR	London	
3		Muster2	Max2	Musterstraße	2	123456	Musterstadt	
4		Muster	Max	Musterstraße	2	123456	Musterstadt	
15		Smith	Kevin	Baker Street	21	SD9F 5CB	London	

- ▶ Select the desired site.
- ⇒ The measuring protocols assigned to the site appear.
- ⇒ In this example, 5 measurement protocols are assigned to the the site 13.

Protocols (5) for site:

Charles Xample
 Xample Street 16
 SW1E 6LB London
 Site No. 13
 Customer Xample Company

PDF Select customer [Edit](#)

^	Date	Info	Fuel	
▲	1/30/2020			
	30.01.2020 13:41:33	Abgasmessung	Natural gas	<input type="checkbox"/>
	30.01.2020 13:49:32	Abgasmessung	Natural gas	<input type="checkbox"/>
	30.01.2020 13:59:39	Abgasmessung	Natural gas	<input type="checkbox"/>
▲	2/6/2020			
	06.02.2020 08:42:55	Program 1	Sample gas	<input type="checkbox"/>
	06.02.2020 08:44:39	Program 1	Natural gas	<input type="checkbox"/>

- ▶ Click „PDF“.
 - ⇒ A window appears.
- ▶ Set a check mark at „All Protocols“.
 - ⇒ The Option „Create individual PDF files“ appear.
- ▶ Set a check mark at „Create individual PDF files“.
 - ⇒ The options "Graph" and "Comment" appear.
- ▶ If necessary, set check marks at "Graph" and "Comment".

Create PDF

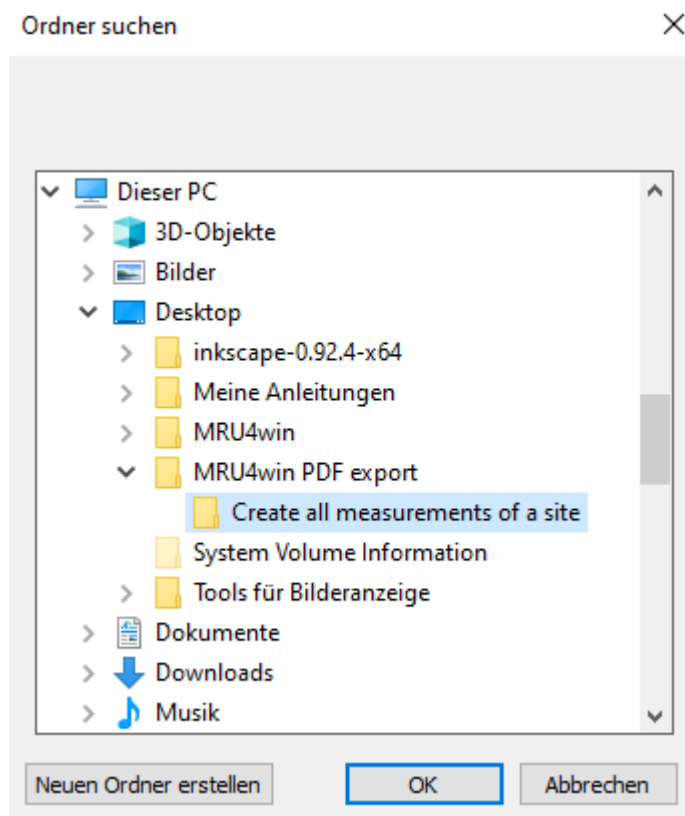
Customer information

All Protocols Create individual PDF files

Graph

Comment

- ▶ Click „OK“.
 - ⇒ A window appears.



- ▶ Select the directory where the PDF files should be saved.
- ▶ Click „OK“.
 - ⇒ A subdirectory with the name of the sites is created.
 - ⇒ The PDF files are saved in the subdirectory.

MRU4win PDF export > Create all measurements of a site > Site_13_---,London

Name	Änderungsdatum	Typ	Größe
20200130_134133_Abgasmessung.pdf	06.02.2020 11:02	Adobe Acrobat-D...	39 KB
20200130_134932_Abgasmessung.pdf	06.02.2020 11:02	Adobe Acrobat-D...	40 KB
20200130_135939_Abgasmessung.pdf	06.02.2020 11:02	Adobe Acrobat-D...	40 KB
20200206_084255_Program 1.pdf	06.02.2020 11:02	Adobe Acrobat-D...	38 KB
20200206_084439_Program 1.pdf	06.02.2020 11:02	Adobe Acrobat-D...	40 KB

Create all measurements of a customer as PDF

You can create all measurements for all sites of a customer as PDF files.

- ▶ Click „Management“.
- ⇒ A window appears.
- ▶ Select a customer.
- ⇒ A window appears.
- ⇒ In this example 5 sites are assigned to the customer.

Customer No.	Company	Last name	F
1	Xample Company	Xample	C
2	Steel Industries	Wright	P
3	Xample2 Company	Spencer	D

Sites (5) for customer:

Xample Company
 Charles Xample
 Xample Street 16
 SW1E 6LB London
 Customer No. 1

New Site Protocols **PDF** Edit

Site No.	Site Name	Last name	First name	Street	No.	Postal code	City
13		Xample	Charles	Xample Street	16	SW1E 6LB	London
16		Xample2	David	Xample Street2	16	SW1E 6LB	London
17		Xample3	James	Xample Street	16	SW1E 6LB	London
18		Xample4	Harry	Xample Street	16	SW1E 6LB	London
19		Xample5	Barry	Xample Street	16	SW1E 6LB	London

- ▶ Click „PDF“.
- ⇒ A window appears.
- ▶ Set a check mark at „All Protocols“.
- ⇒ The Option „Create individual PDF files“ appear.
- ▶ Set a check mark at „Create individual PDF files“.
- ⇒ The options "Graph" and "Comment" appear.
- ▶ If necessary, set check marks at "Graph" and "Comment".

Create PDF

Customer information

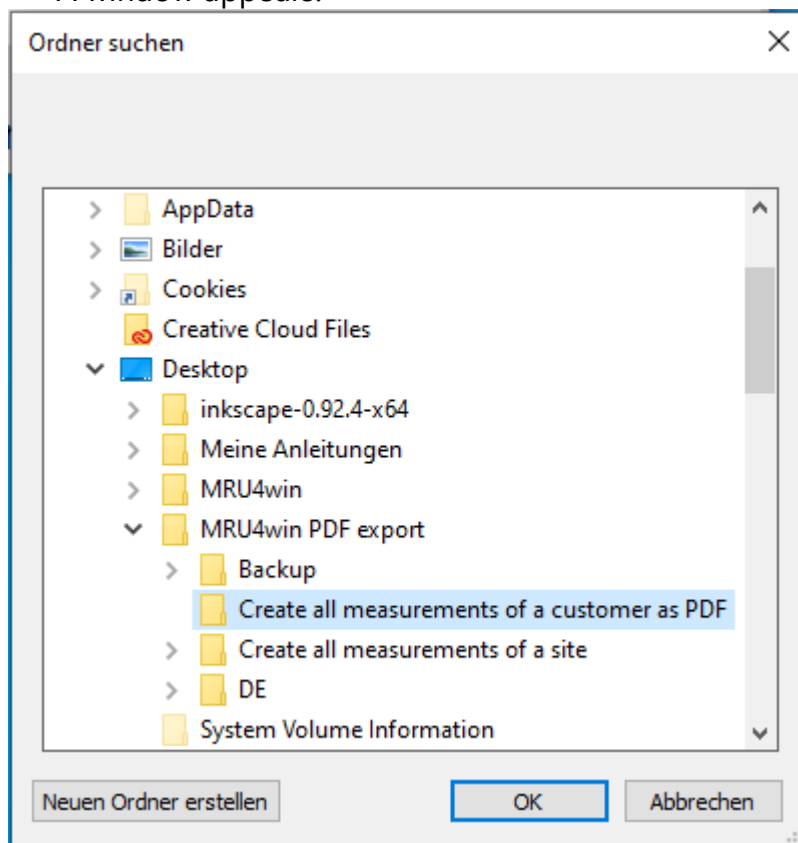
All sites

All Protocols Create individual PDF files

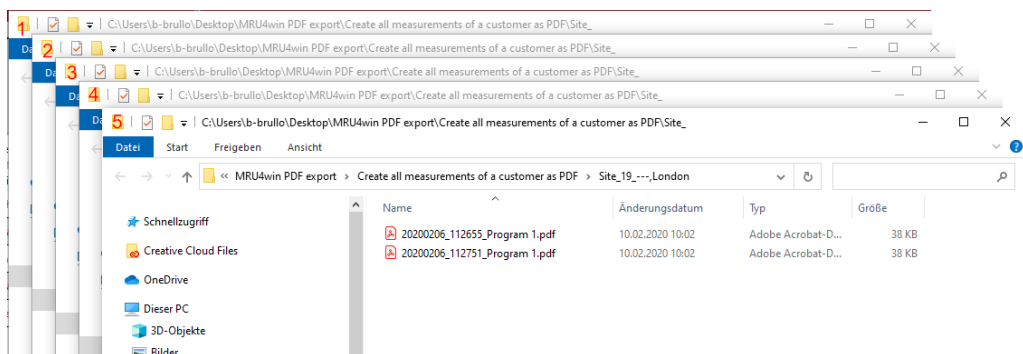
Graph

Comment

- ▶ Click „OK“.
- ⇒ A window appears.



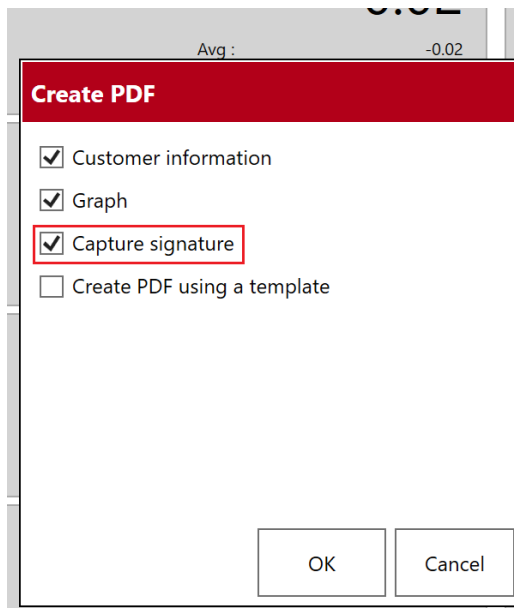
- ▶ Select the directory where the PDF files should be saved.
- ▶ Click „OK“.
- ⇒ For each site a subdirectory is created.
- ⇒ The PDF files are saved in the respective subdirectory.
- ⇒ In this example 5 installations are assigned to the customer.



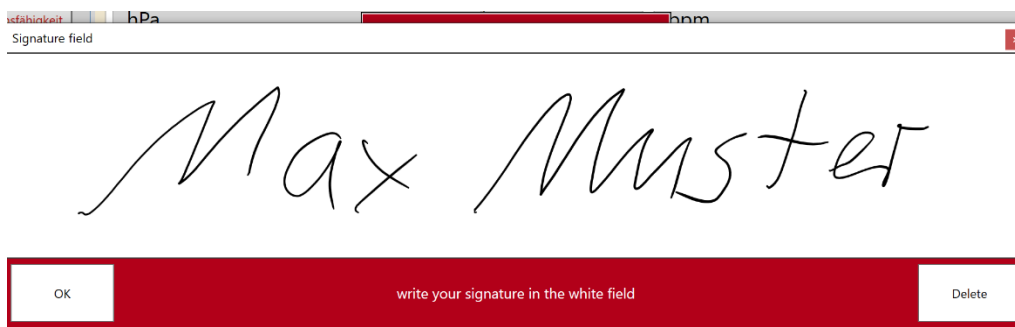
6.13. Capture signature with pen for PDF export

On devices that support pen input (tablets), you have the option of signing a measurement report with a pen.

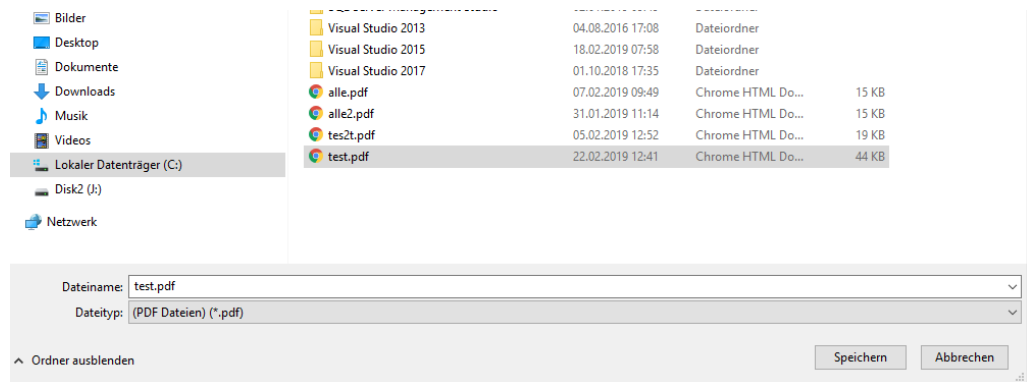
- ▶ Click „Management“.
 - ⇒ A window appears.
- ▶ Select a customer.
- ▶ Click „PDF“.
 - ⇒ A window appears.



- ▶ Click „Capture signature“.
- ▶ Click „OK“.
 - ⇒ A window appears.



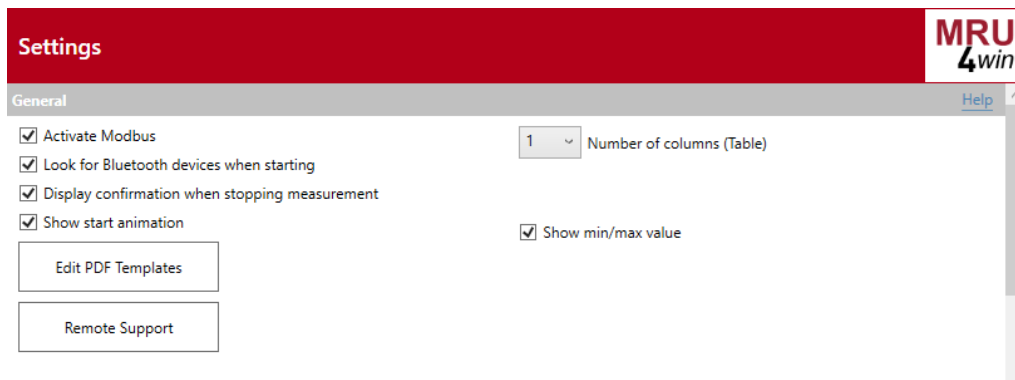
- ▶ Enter the signature using the pen.
- ▶ Click „OK“.
 - ⇒ A window appears.



- ▶ Give the PDF file a name.
- ▶ Save the PDF file.
 - ⇒ The captured signature is inserted into the created PDF file.

7 Settings

7.1. General Settings

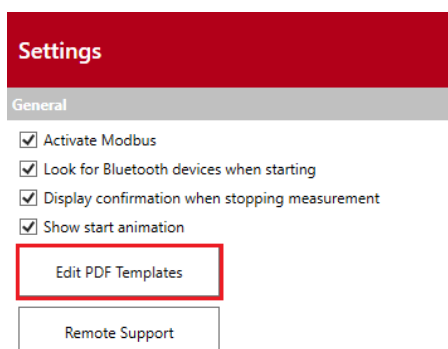


Under General settings you can:

- Activate/Deactivate Modbus
- Look for Bluetooth devices when starting
- Display confirmation when stopping measurement.
- Show start animation.
- Set Number of columns (Table).
- Show min/max value.
- Edit PDF Templates
- Request Remote Support

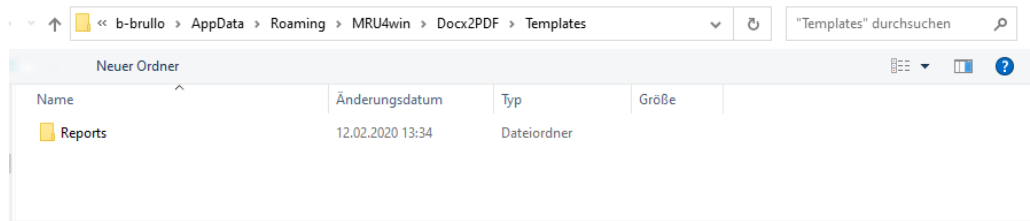
Editing PDF Templates

You can change PDF templates and add or remove placeholders.
You can display a list with all available placeholders.



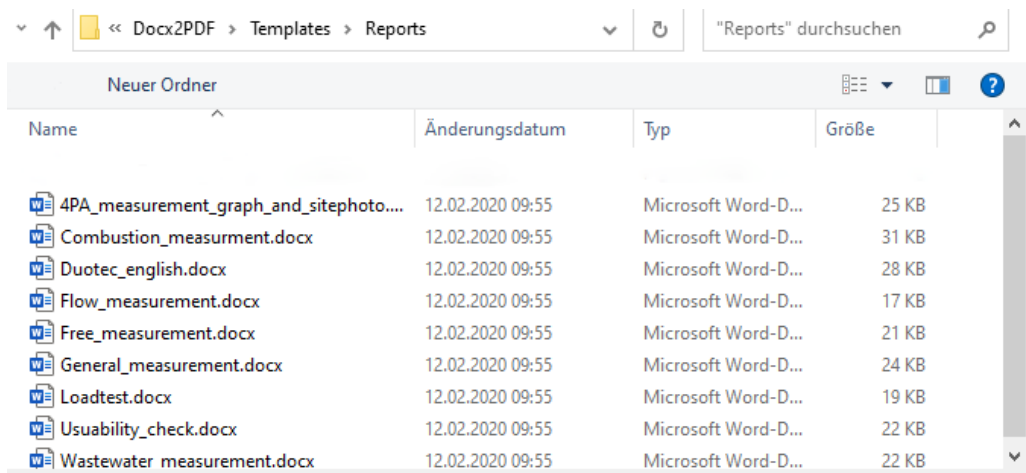
► Click „Edit PDF Templates“.

⇒ A window appears.



► Select the desired directory.

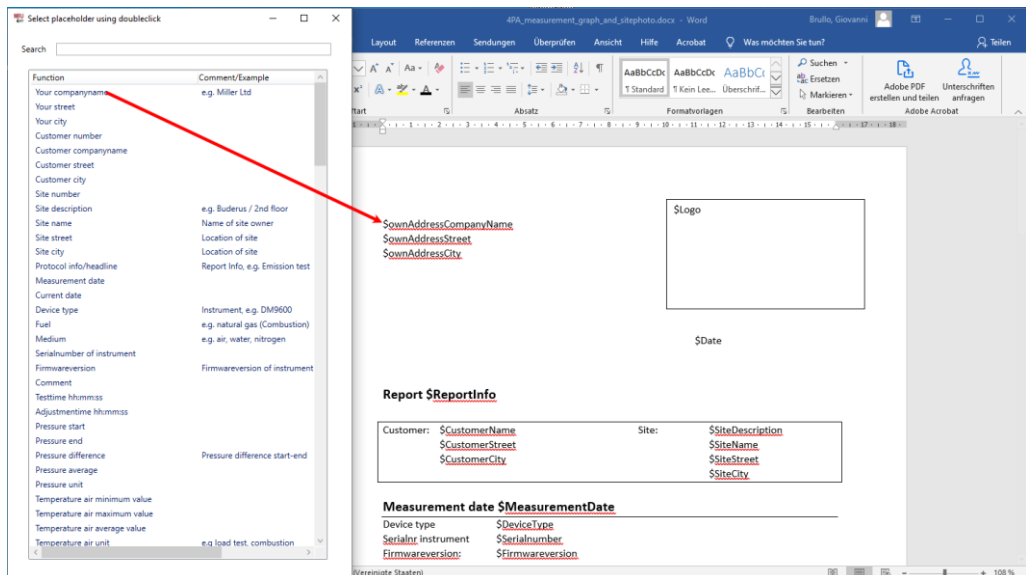
⇒ A window appears.



► Select the desired template file.

⇒ The template file opens.

⇒ A window with a list of all placeholders opens.

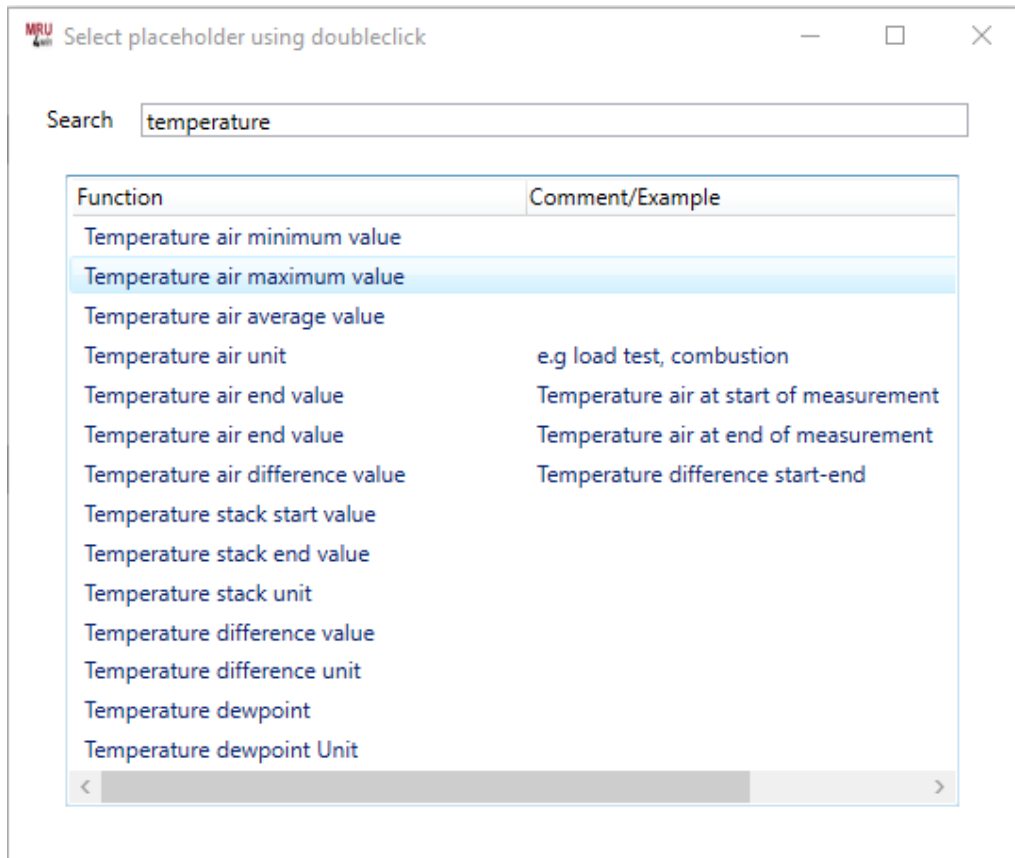


► Add the desired placeholders by double-clicking them in the template file.

► Save the template file.

The window with the list of all placeholders has a search function.

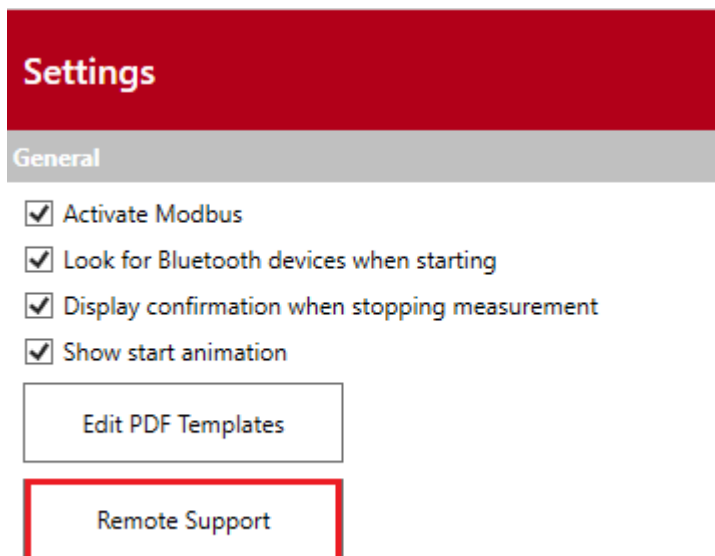
- ▶ Enter the desired search term in the search field.
- ⇒ The relevant placeholders appear in the window.



Request Remote Support

With Remote Support, you allow a trusted person to access your computer.

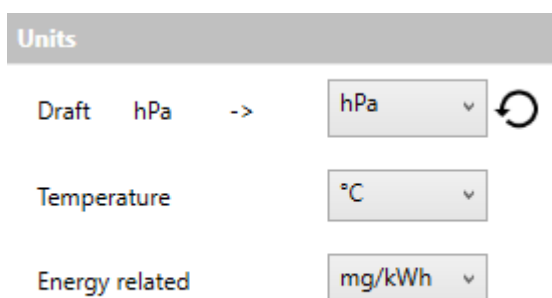
You have to enter a security code to unlock the screen. The trusted person can help you solve a problem regardless of location.



- ▶ Click „Remote Support“.
- ⇒ A window appears.
- ▶ Enter the 6-digit security code provided to you by the trusted person.
- ⇒ A button becomes active.
- ▶ Click the button.
- ⇒ The remote connection is established.
- ⇒ The trusted person has access to your computer.

7.2. Setting units

Under Units you can set the pressure, temperature and energy related.



Setting pressure

- ▶ Click Settings.
- ▶ Select the desired unit.
- ▶ Click ↻ to set the default settings.

Setting Temperature

- ▶ Click Settings.
- ▶ Select the desired unit.

Setting Energy related

- ▶ Click Settings.
- ▶ Select the desired unit.

7.3. Configuring measurement

Measurement		
<p>Sampling rate</p> <p>[dd] [hh]:[mm]:[ss]</p> <p>00 : 00 : 01</p>	<p>Default Graph Span</p> <p>[hh]:[mm]</p> <p>02 : 05</p>	<p>Max protocol duration. After expiration a new protocol is created.</p> <p>[dd]:[hh]</p> <p>00 : 00</p>
<p>Average (points)</p> <p>Off</p> <p>No Averaging.</p>		<p>Timed measurement (Measurement stops after time has elapsed) <i>(not active)</i></p> <p>[dd] [hh]:[mm]</p> <p>00 : 00 : 00</p>

The following settings can be made under Measurement:

- Sampling rate
- Average (points)
- Default Graph Span
- Max. Protokolllänge
- Max protocol duration
- Timed measurement

Setting Sampling rate

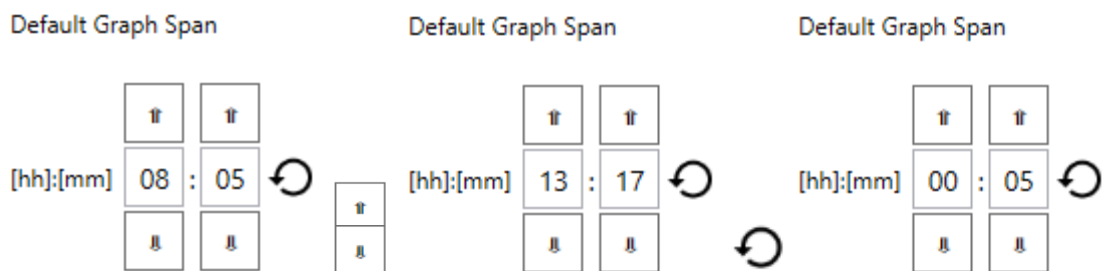
The "Sampling rate" is the interval at which new measured values are transmitted to MRU4Win from a connected measuring device.

<p>Sampling rate</p> <p>[dd] [hh]:[mm]:[ss]</p> <p>01 : 22 : 00 : 01</p>	<p>Sampling rate</p> <p>[dd] [hh]:[mm]:[ss]</p> <p>02 : 13 : 52 : 14</p>	<p>Sampling rate</p> <p>[dd] [hh]:[mm]:[ss]</p> <p>00 : 00 : 00 : 01</p>
--	--	--

- ▶ Click Settings.
- ▶ Set the desired sampling rate.
- ▶ Click ↻ to set the default settings.

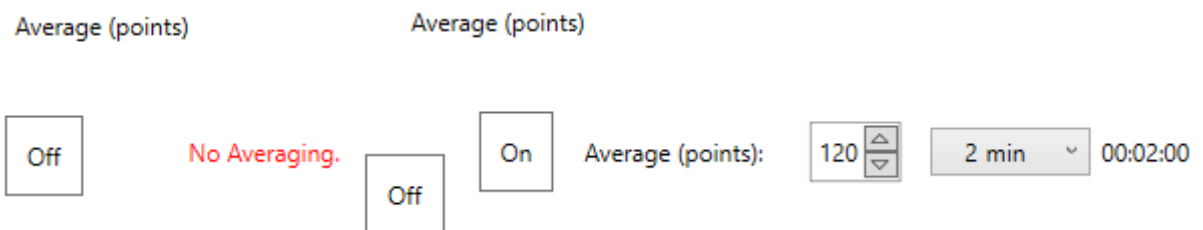
Setting Default Graph Span

The "Default Graph Span" is the standard length of a graph in a live measurement.



- ▶ Click Settings.
- ▶ Set the desired Default Graph Span.
- ▶ Click ↻ to set the default settings.

Setting Average (points)



Click Settings.

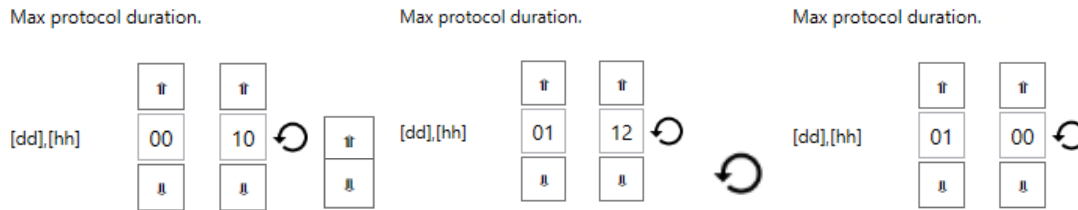
- ▶ Click „Off“.
- ⇒ Averaging becomes active.
- ▶ Set the desired values.

Setting Max protocol duration

When the set "Max. protocol length" expires, a new protocol will be created automatically.

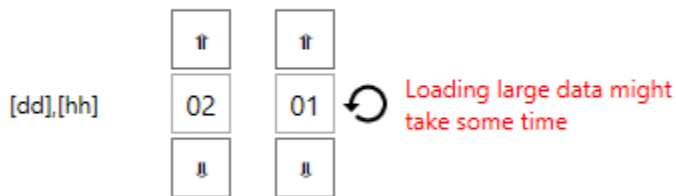
- ▶ When setting the "Max. protocol duration", ensure that the "Timed measurement" is not active.
- ▶ If the "Timed measurement" is active, set 0 days, 0 hours and 0 seconds.

⇒ The "Timed measurement" becomes inactive.



- ▶ Click Settings.
- ▶ Set the desired „Max protocol duration“.
- ▶ Set all values to 0 to create an "endless" measuring protocol.
 - ⇒ If you set a "Max. protocol duration" that is longer than 2 days and 1 hour, the message "Loading large data might some time" appears.

Max protocol duration. After expiration a new protocol is created.

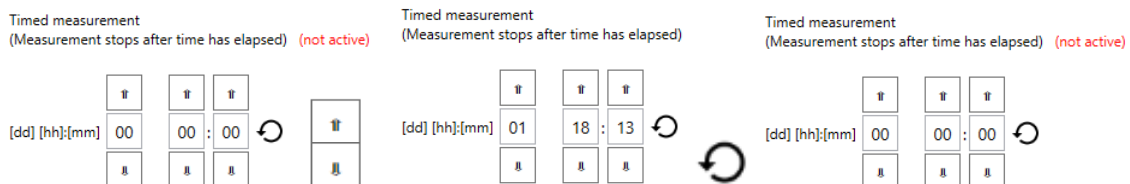


- ▶ Click ↻ to set the default settings.

Setting Timed measurement

With a timed measurement you can set the time span after which a measurement is automatically stopped.

- ▶ Note that the "Timed measurement" is not active by default. If you activate the "Timed measurement" you cannot set a "Max. protocol duration".

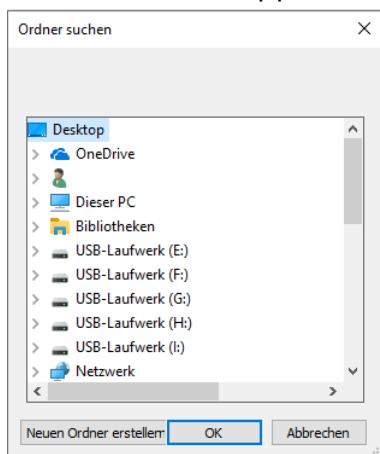


- ▶ Click Settings.
- ▶ Set the desired time period.
 - Note that the maximum settable time span can be 2 days, 23 hours and 59 minutes.
- ▶ Click ↻ to set the default settings.

7.4. Creating a backup of the database

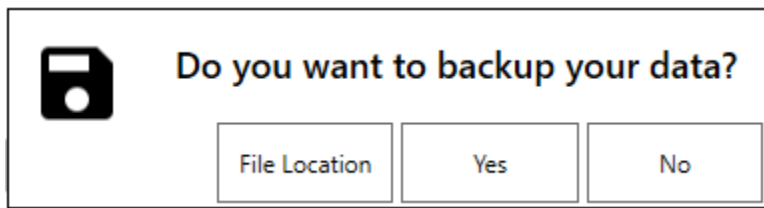
You can set whether the database should be saved to a location you specify when MRU4Win is closed.

- ▶ Click Settings.
- ▶ Set a check mark at „Backup when closing program“.
 - ⇒ The search button becomes active.
- ▶ Click „Search“.
 - ⇒ A window appears.

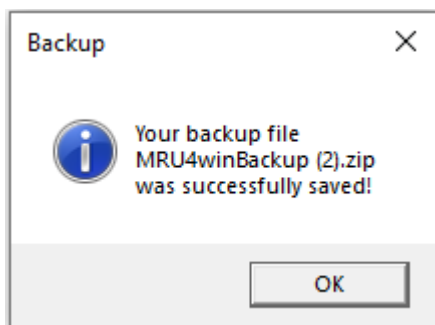


- ▶ Select the desired folder for the database backup.
- ▶ Click „OK“.
 - ⇒ The selected location appears in the field "Choose location".

- ▶ Set a check mark at "Backup when closing program, if a backup should be created after each closing of MRU4win.
 - ⇒ When you exit the program, a message appears.



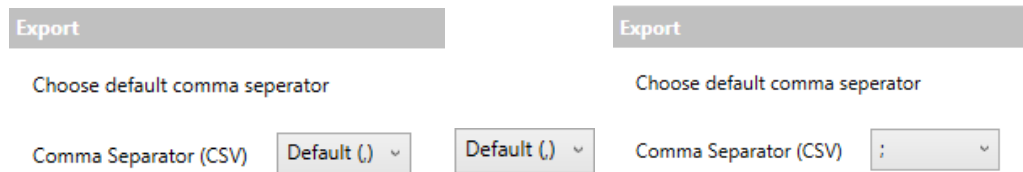
- ▶ Select the desired option.
- ▶ Click „Yes“.
 - ⇒ A window appears.
 - ⇒ The database is backed up to the chosen location.



- ▶ Click „OK“.
 - ⇒ The program is closed.
- ▶ Click „No“.
 - ⇒ The database is not saved.
 - ⇒ The program is closed.
- ▶ Click „File Location“.
 - ⇒ A window appears.
- ▶ Select the desired folder for the database backup.
- ▶ Click „OK“.
 - ⇒ A window appears.
- ▶ Click „Yes“.
 - ⇒ A window appears.
- ▶ Click „OK“.
 - ⇒ The backup is saved to the desired location.
 - ⇒ The program is closed.

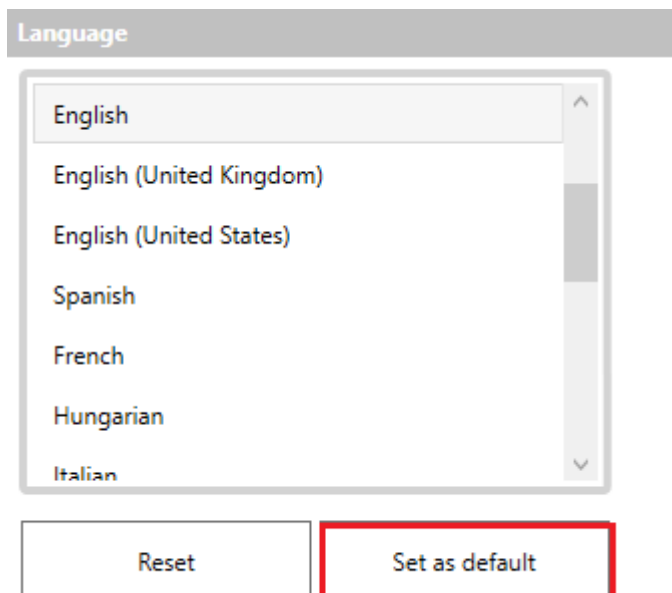
7.5. Configuring CSV export

Under „Export“ you can choose the default comma separator.

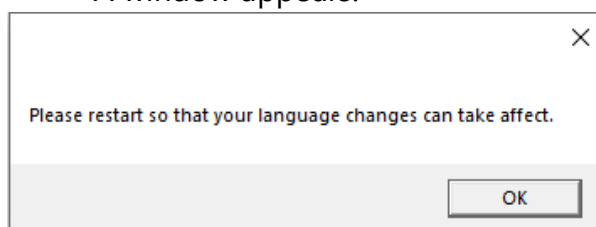


- ▶ Click Settings.
- ▶ Choose the default comma separator.

7.6. Setting language

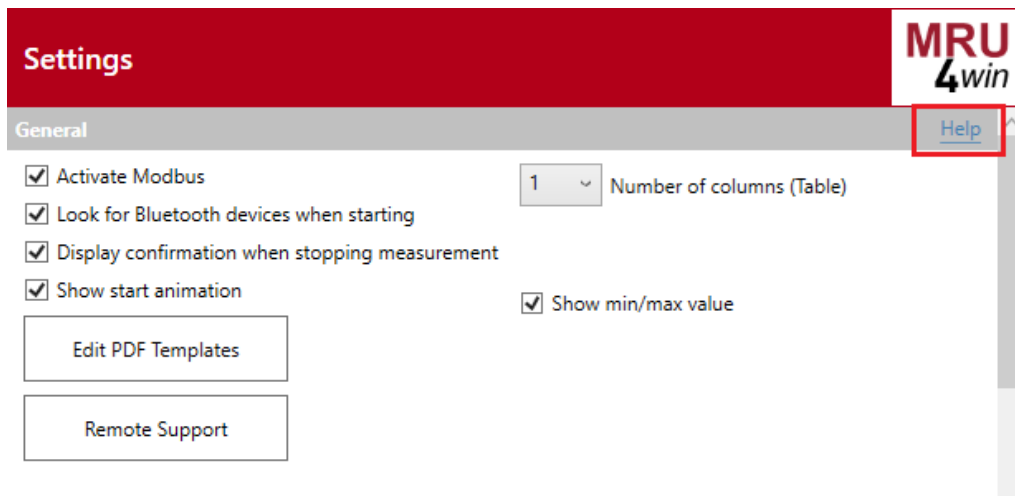


- ▶ Click Settings.
- ▶ Wählen Sie die gewünschte Sprache aus.
- ▶ Choose the desired language.
- ▶ Click „Set as default“.
- ⇒ A window appears.



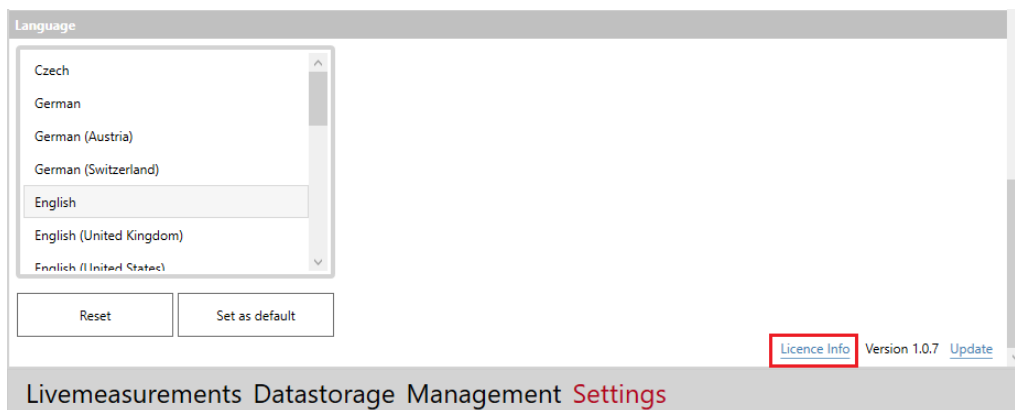
- ▶ Click „OK“.
- ▶ Close MRU4Win.
- ▶ Start MRU4Win.
- ⇒ The desired language has been set as default.

7.7. Showing Help Function

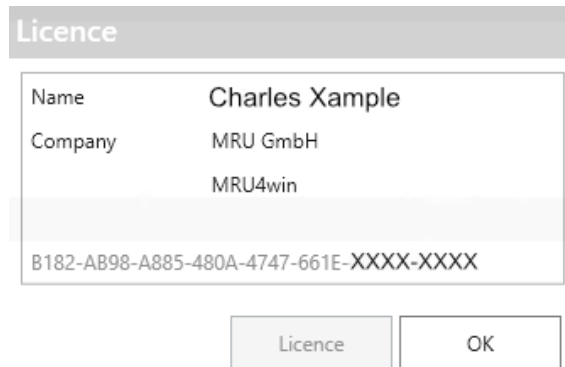


- ▶ Click Settings.
- ▶ Klicken Sie auf „[Help](#)“.
- ⇒ A window appears.

7.8. Showing Licence Info



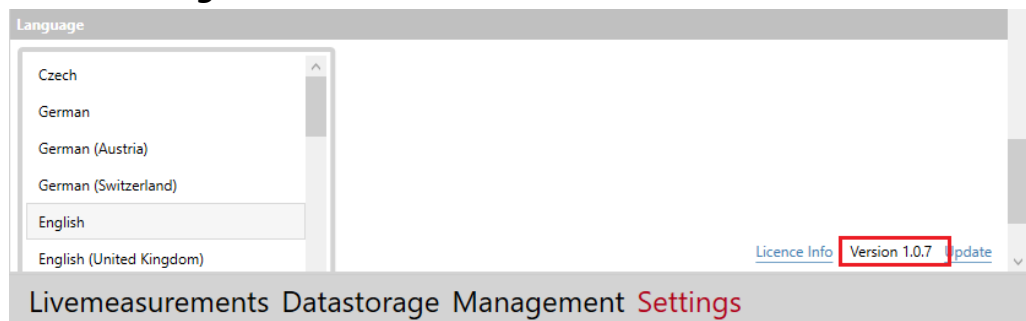
- ▶ Click Settings.
- ▶ Click „[Licence Info](#)“.
- ⇒ A window appears.



► Click „OK“.

⇒ The license info is closed.

7.9. Showing version number



► Click „Settings“.

⇒ The version number is located in the lower right margin.