

Livemeasurements Datasorage Management Settings

**Management**  
Protocols can be exported as CSV and PDF

Date	Info	Fuel	Live	Offline
8/19/2017	10:04:2018 17:05:02	Program 1	Yes	No
8/19/2017	10:04:2018 17:05:02	Program 1	Yes	No
8/19/2017	10:04:2018 17:05:02	Program 1	Yes	No

Parameter	Value	Unit
O <sub>2</sub> %	20.9	ppm
CO <sub>2</sub> %	0.0	ppm
CO ppm	0	mg/kWh

Livemeasurements Datasorage Management Settings

**Management**  
Intuitive navigation between customers, sites and protocols

Date	Info	Fuel	Live	Offline
8/19/2017	10:04:2018 17:05:02	Program 1	Yes	No
8/19/2017	10:04:2018 17:05:02	Program 1	Yes	No

Livemeasurements Datasorage Management Settings

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Original user manual

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# 1 License conditions

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

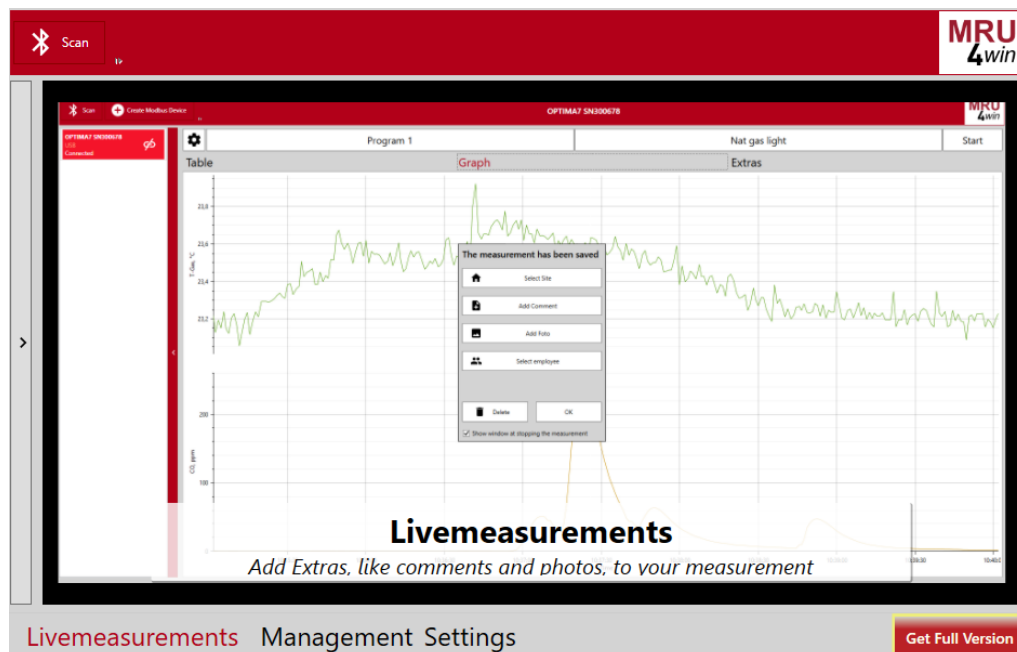
The light version of MRU4Win is freely available.

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'.
- Trial Status:** A red sidebar on the left displays '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.

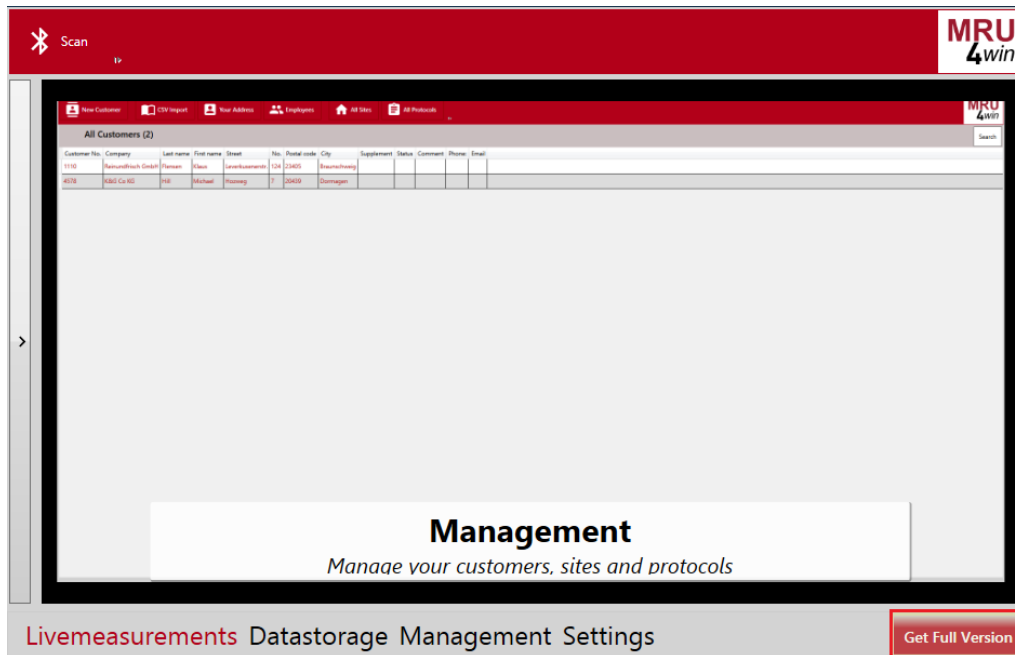
The full version is identified by a Hardware-ID.

Under Settings you can check the license information.

Here the status "light version" is displayed first.

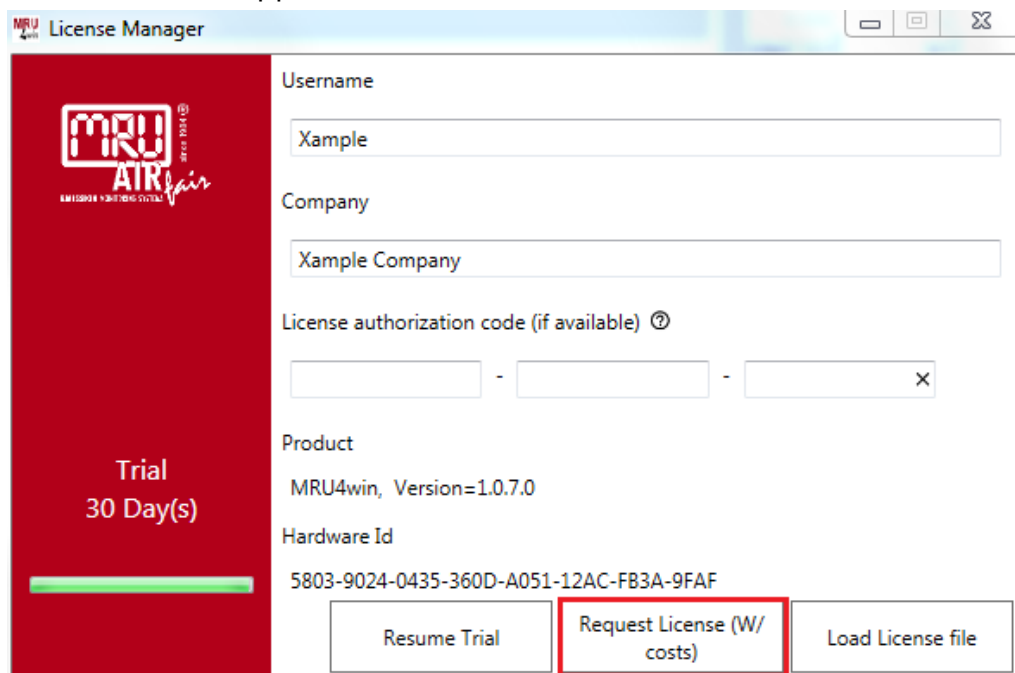
At the same time, a 30-day trial version is offered and the request for a fee-based license.

☞ 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.

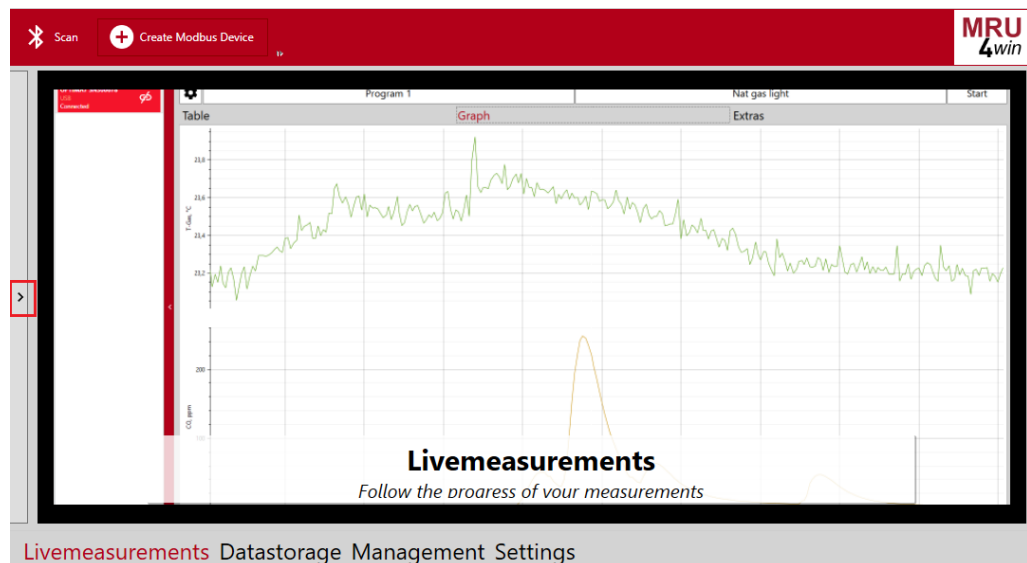
☞ See: Chapter 7 Settings, S 51.

### 3 Connecting measuring device to MRU4win

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

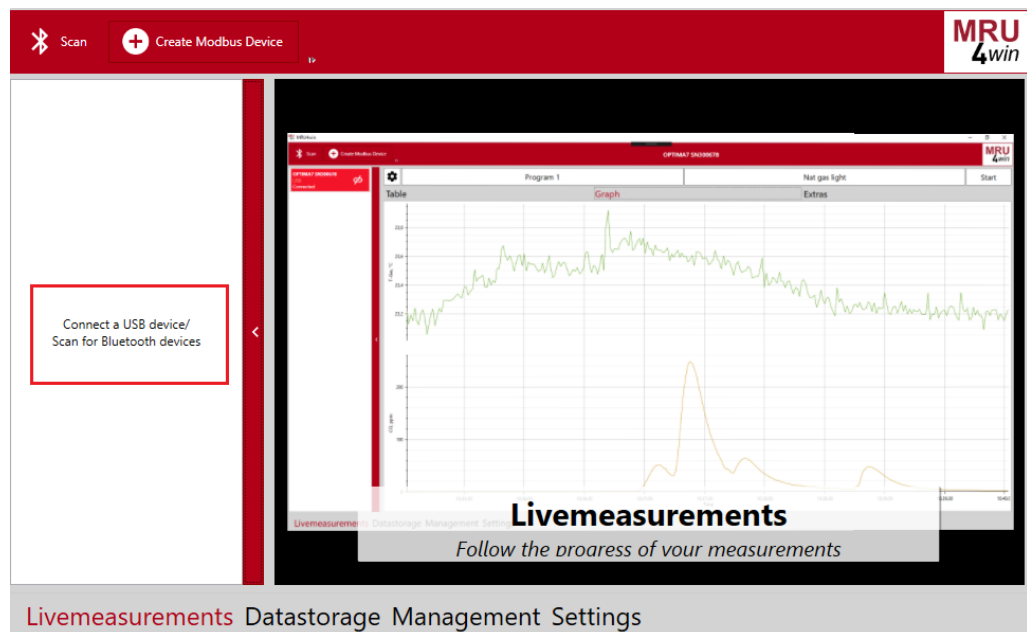
You can connect Modbus Devices to MRU4win via a Serial Interface or TCP/IP.

#### 3.1. Connecting measuring device via USB



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

⇒ A column opens.

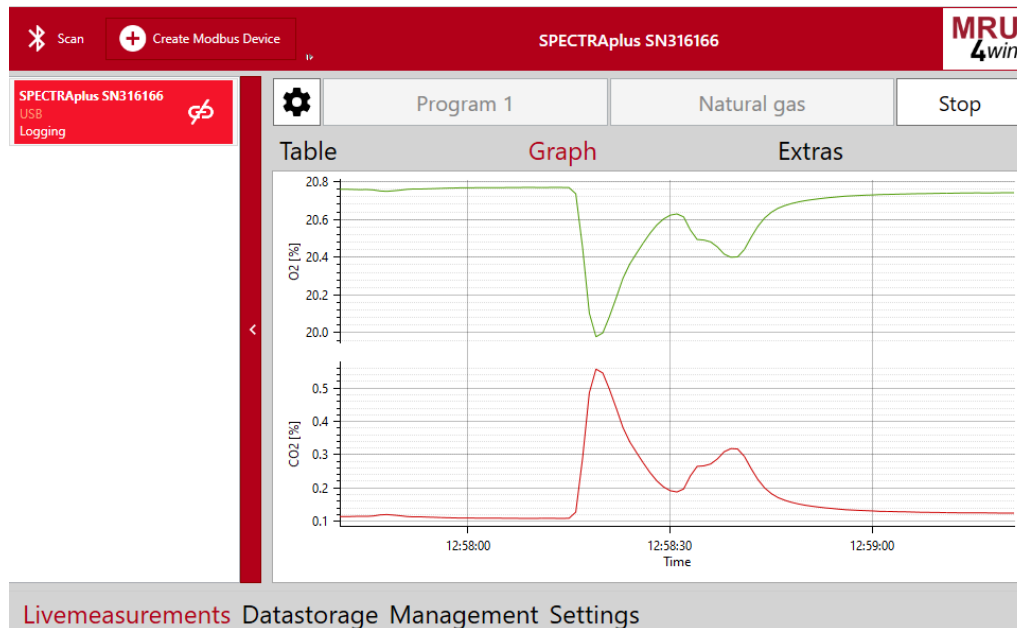


► Connect the measuring device to the PC.


⇒ 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.

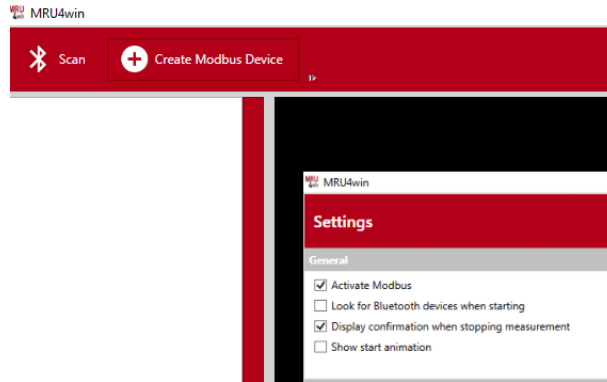
### 3.3. Connecting the Modbus Device

- ▶ 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.

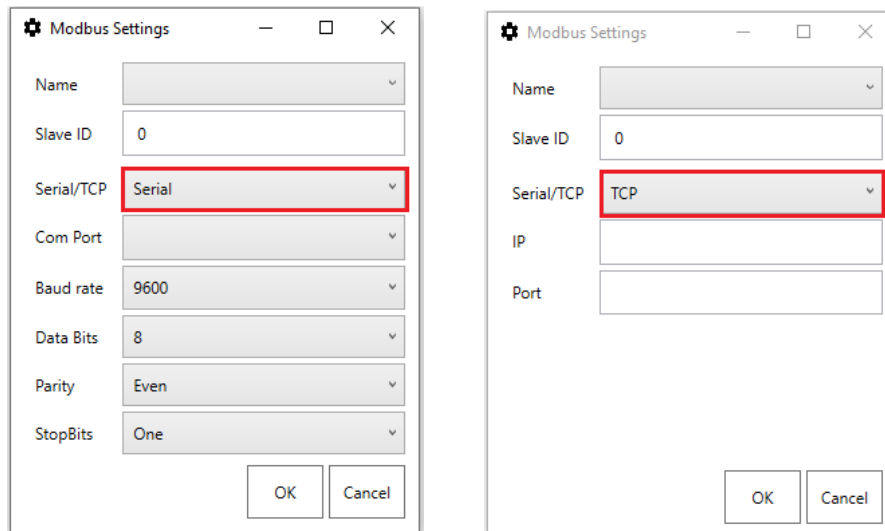
Modbus devices are not automatically identified in MRU4win. Before you can connect the analyser with MRU4win, you have to create a Modbus device.

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



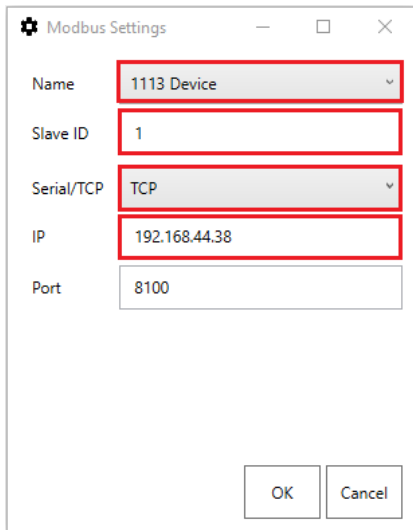
⇒ A window appears.

- ▶ 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.

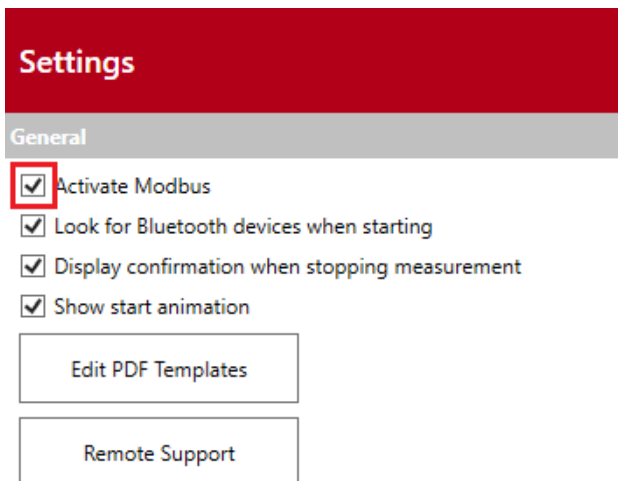


- ▶ Choose "Name"  
⇒ A selection list appears.
- ▶ Choose your "Modbus Device".  
In this example a connection is established with a "1113 Device"
- ▶ Set "Slave ID" to 1.  
Note that the slave ID must match to the "Modbus Slave ID" of the analyzer. For example, if the analyzer has the "Modbus Slave 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.

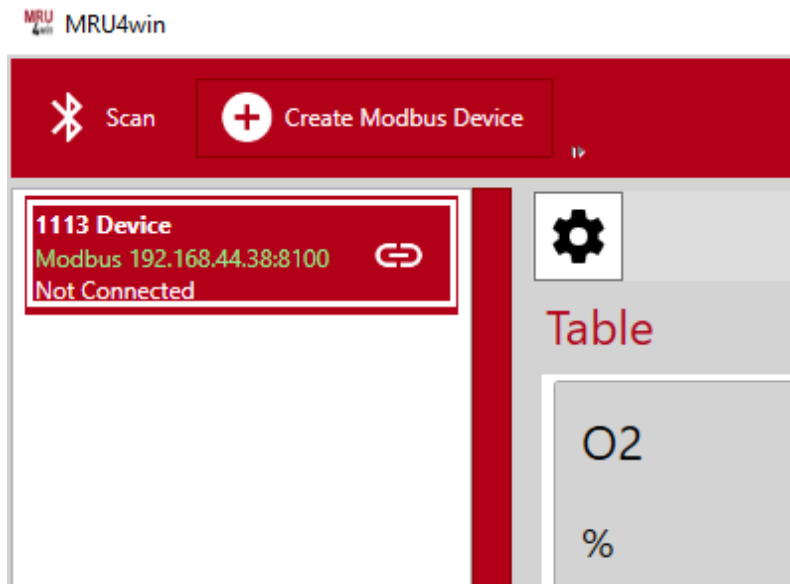
In this example the LAN address is 192.168.44.38.





- ▶ Click "OK".
- ▶ Go to "Settings".



- ▶ 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', 'Program 1', 'Natural gas', 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	Unit	Value	Min	Max
O2	%	20.66	20.65	20.66
CO2	%	0.2		
CO	ppm	0		

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 a fluctuating trend, starting around 20.5%, dipping to 20.4%, and then rising back to 20.5%.
- CO2 [%]:** A red line showing a fluctuating trend, starting around 0.25%, peaking at 0.35%, and then settling around 0.3%.


The x-axis is labeled 'Time' and shows two time points: 08:48:00 and 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

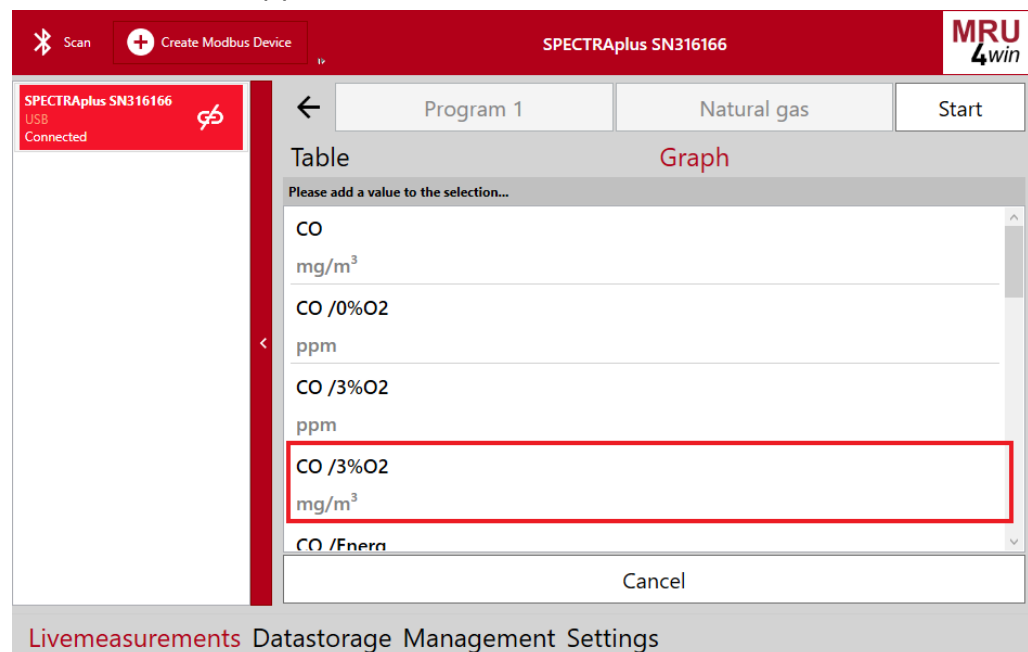
You can select the measured values to be displayed as table or graph via a selection window.

► 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.



The screenshot shows the MRU4win software interface for a SPECTRAplus SN316166 device. The 'Extras' tab is selected, displaying a list of measurements. A red box highlights the 'CO /3%O2' measurement, which is 0 mg/m³. Other measurements shown include CO2 at 0.3% and % at 20.54%.

Measurement	Value
%	20.54
CO2	0.3
CO	0
CO /3%O2	0

### 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.

The screenshot shows the MRU4win software interface for a SPECTRAplus SN316166 device. The 'Extras' tab is selected, displaying detailed information about the device and the current measurement.

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			
Protocol version			
v1.00.02			

#### 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.

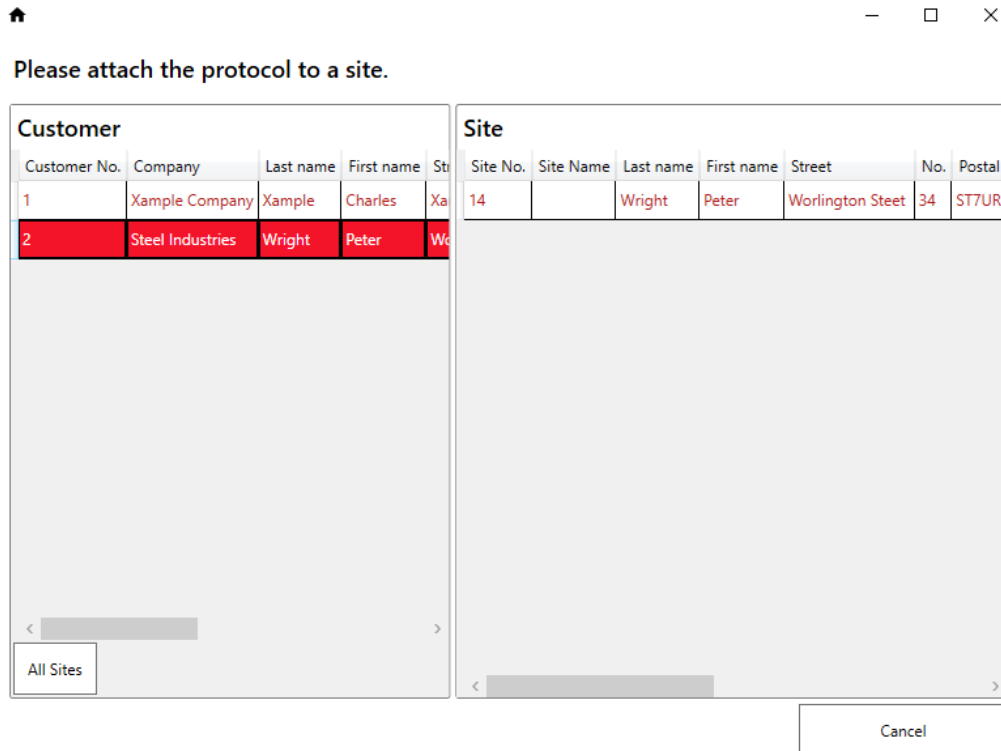
#### Assigning measurement protocol to a site.

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

The measurement has been saved

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

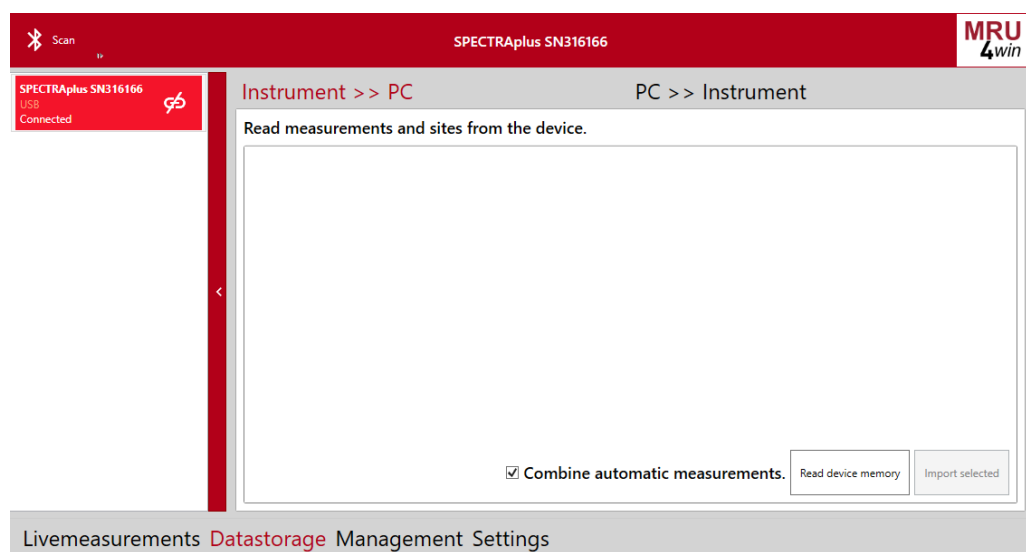
- ▶ Click „Stop”.
  - ⇒ The measurement was saved.
  - ⇒ A window appears.
- ▶ Click „OK”.
  - ☞ See also Chapter Displaying not assigned protocols. ,S. 35.

## 5 Datastorage

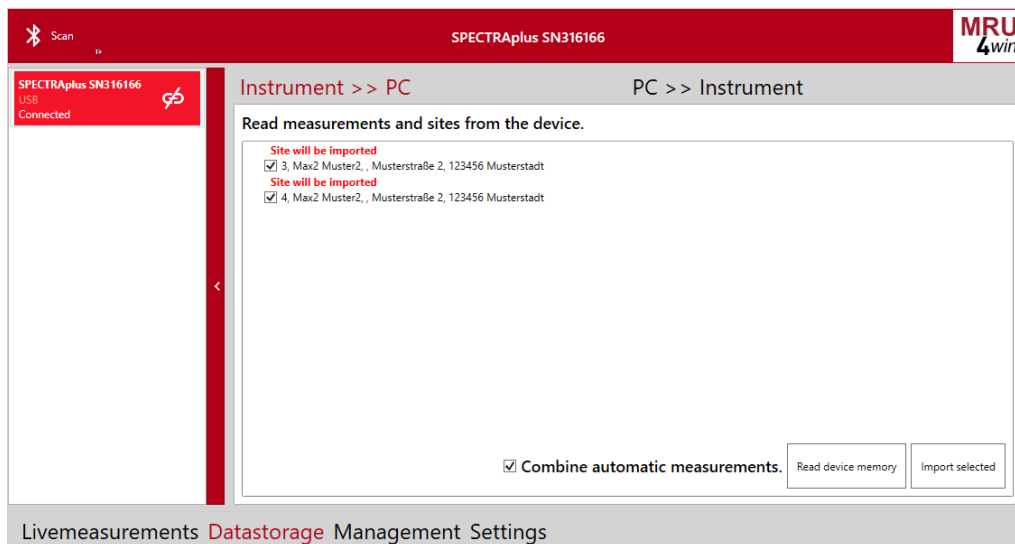
Under Data memory you have the possibility to import and export data. You can import measurements and sites from a measuring device. You can export sites to a measuring device.

### 5.1. Transferring sites from measuring device to PC

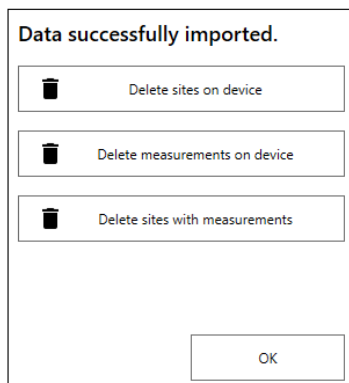
- ▶ Connect the measuring device to the PC.
- ▶ Connect the measuring device to MRU4win.
  - ☞ See Chapter: 3 Connecting measuring device to MRU4win, S. 10.
- ▶ Click „Datastorage“
  - ⇒ A window appears.



- ▶ 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.



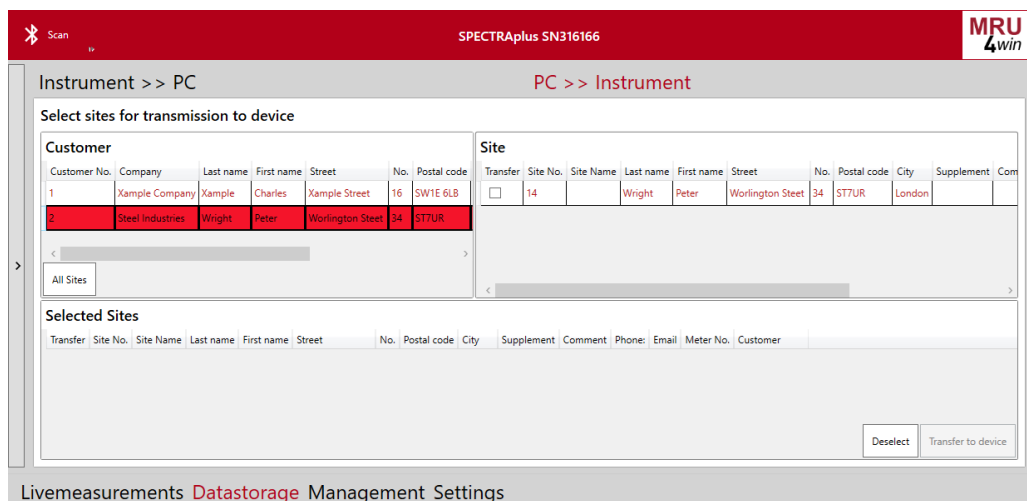
- ▶ Click „Import selected“.
- ⇒ Data will be imported.
- ⇒ A window appears.



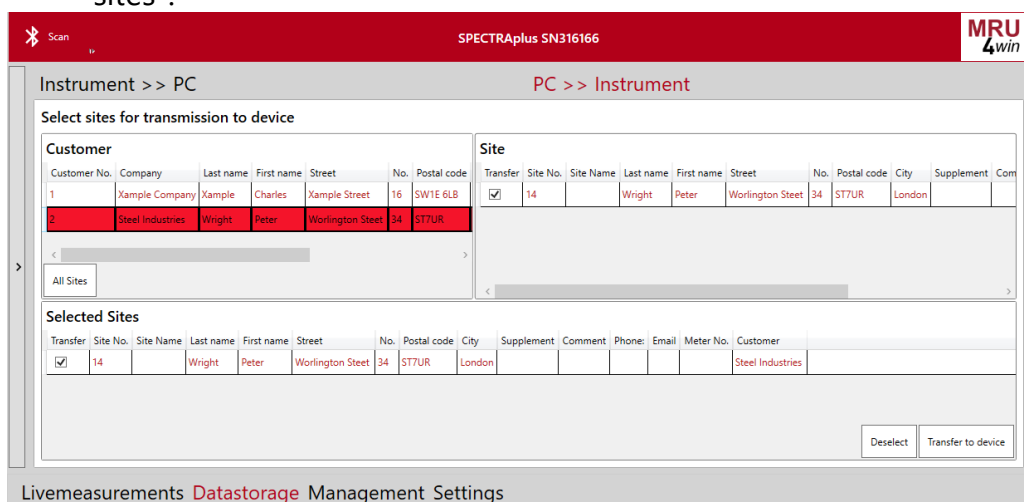
- ▶ You can select from several options.  
You can „Delete sites on device“, „Delete measurements on device“ or „Delete sites with measurements“.
- ▶ Click the desired option if necessary.  
⇒ The desired option is carried out.
- ▶ Press "OK" without selecting an option.  
⇒ Sites and measurements remain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



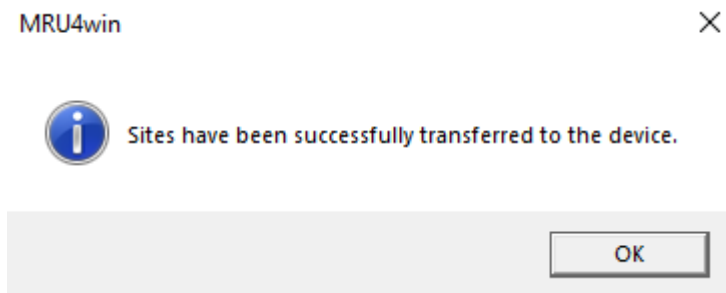
- ▶ Click on the desired customer.
  - ⇒ The sites of the customer appear.
- ▶ Click on the desired site.
  - ⇒ The desired sites will be transferred to the window "Selected sites".



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



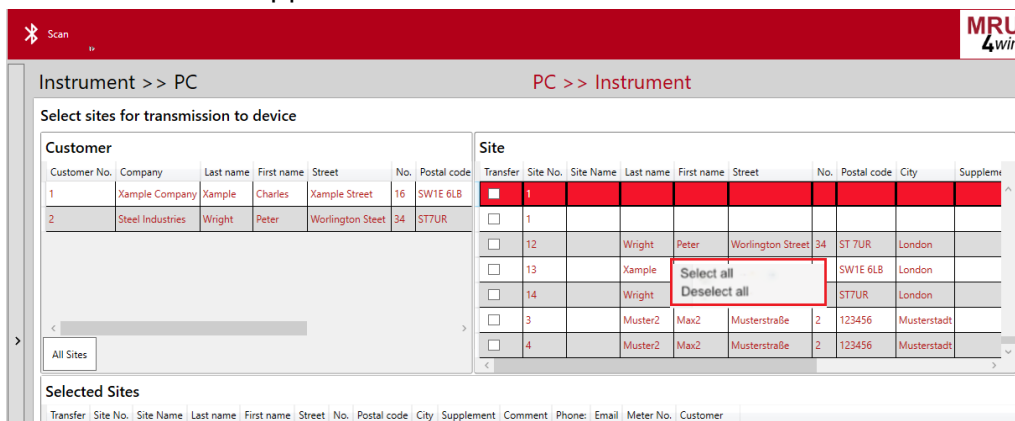
- ▶ Click on the desired option.
  - ⇒ The sites are transferred to the measuring device.
  - ⇒ A window appears.



- ▶ 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

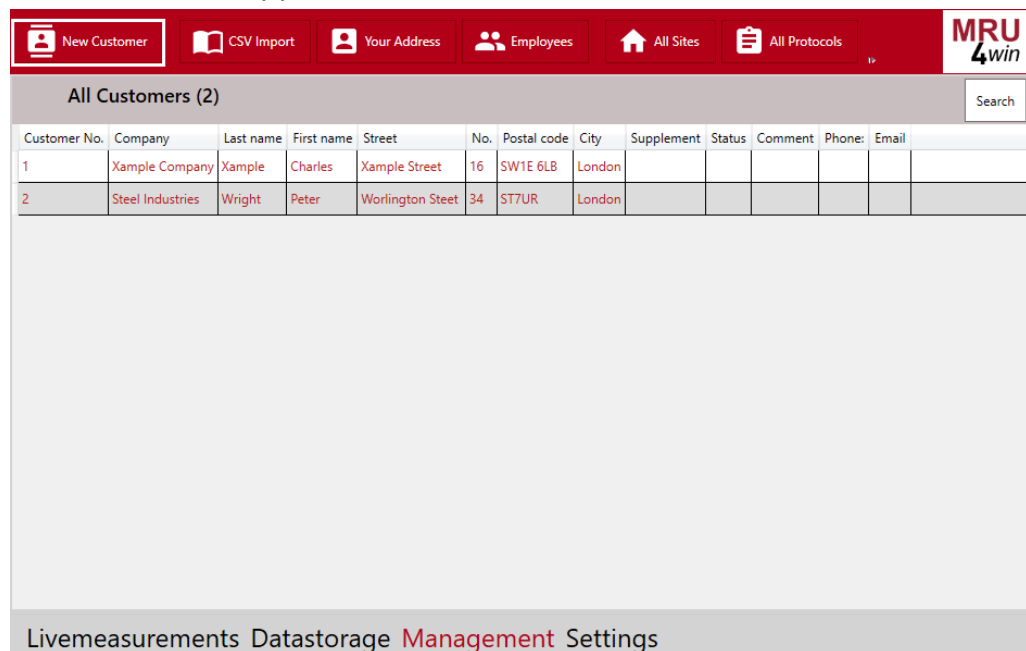
In the category Management you can:

- 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 Management 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 section titled "All Customers (2)" with a search button. The main content area displays a table with the following data:

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. 3 Supplement

Company Status

Last name Comment

First name Phone:

Street No. Email

City

Postal code

Delete Save Cancel

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

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

New Site Protocols PDF Edit

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

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 'Management' section of the MRU4win software. The top navigation bar includes 'New Customer', 'CSV Import', 'Your Address', 'Employees', 'All Sites', and 'All Protocols'. The main content area is titled 'Sites (0) for customer:'. On the left, a table lists customers with columns 'Customer No.' and 'Company'. The third row, '3 Xample2 Company', is highlighted. The main area displays details for 'Xample2 Company', including 'David Spencer', 'Xample2 Street 28', 'SF2D 6LB London', and 'Customer No. 3'. A 'New Site' button is highlighted with a red box. Below this, a table header is visible with columns: Site No., Site Name, Last name, First name, Street, No., Postal code, City, Supplement, Status, Comment, Phone, Email, Meter No., Customer. The bottom status bar shows 'Livemeasurements', 'Datastorage', 'Management', and 'Settings'.

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

The screenshot shows the 'Create New Site' form in the MRU4win software. The top navigation bar is the same as in the previous screenshot. The main content area is titled 'Create New Site'. A checkbox labeled 'Address as customer' is checked and highlighted with a red box. The form contains several input fields: 'Site No.' (15), 'Site Name', 'Last name' (Spencer), 'First name' (David), 'Street' (Xample2 Street), 'No.' (28), 'City' (London), 'Postal code' (SF2D 6LB), 'Supplement', 'Status', 'Comment', 'Phone', 'E-Mail', and 'Meter No.'. At the bottom right, there are 'Delete', 'Save', and 'Cancel' buttons. The 'Save' button is highlighted with a red box. The bottom status bar 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'. Below this is a sidebar with 'All Custom' and a search bar. The main content area is titled 'Sites (1) for customer:' and contains a table with the following data:

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						

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

### 6.3. Editing existing customer data

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

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'. Below this is a sidebar with 'All Custom' and a search bar. The main content area is titled 'Sites (1) for customer:' and contains a table with the following data:

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						

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

- ▶ 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 'Sites (1) for customer:' and contains a form for editing site data. The form fields are as follows:

Customer No.	3	Supplement	
Company	Xample2 Company	Status	
Last name	Spencer	Comment	
First name	David	Phone:	07131555888
Street	Xample2 Street	No.	28
City	London	Email	Xample2@company.com
Postal code	SF2D 6LB		

At the bottom of the form are 'Delete', 'Save', and 'Cancel' buttons. Below the form is a table listing all sites for the customer:

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						

The bottom navigation bar includes 'Livemeasurements', 'Datastorage', 'Management', and 'Settings'.

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

The screenshot shows the 'Management' window after the changes have been saved. The top navigation bar is the same. The main content area is titled 'Sites (1) for customer:' and shows the updated site data. The form fields are as follows:

Customer No.	3	Supplement	
Company	Xample2 Company	Status	
Last name	Spencer	Comment	
First name	David	Phone:	07131555888
Street	Xample2 Street	No.	28
City	London	Email	Xample2@company.com
Postal code	SF2D 6LB		

At the bottom of the form are 'New Site', 'Protocols', 'PDF', and 'Edit' buttons. Below the form is a table listing all sites for the customer:

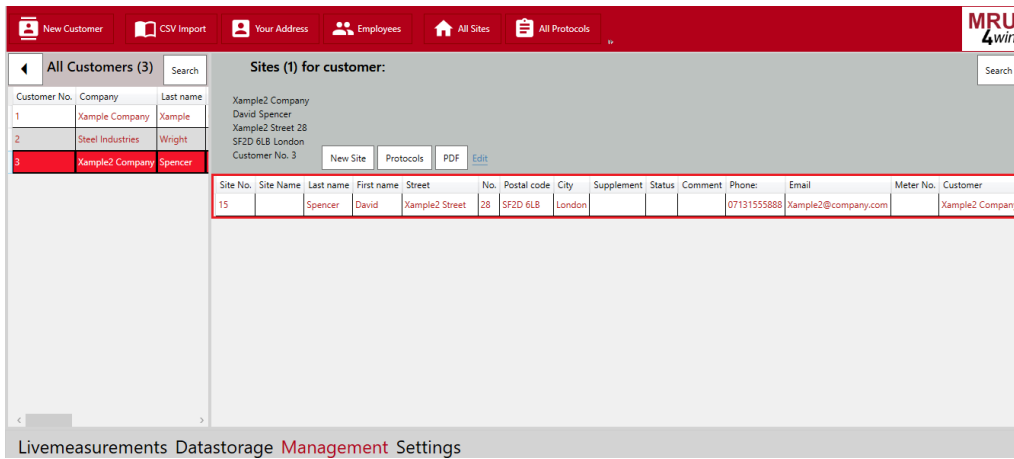
Site No.	Site Name	Last name	First name	Street	No.	Postal code	City	Supplement	Status	Comment	Phone	Email	Meter No.	Customer
15		Spencer	David	Xample2 Street	28	SF2D 6LB	London				07131555888	Xample2@company.com		Xample2 Company

The bottom navigation bar includes 'Livemeasurements', 'Datastorage', 'Management', and 'Settings'.

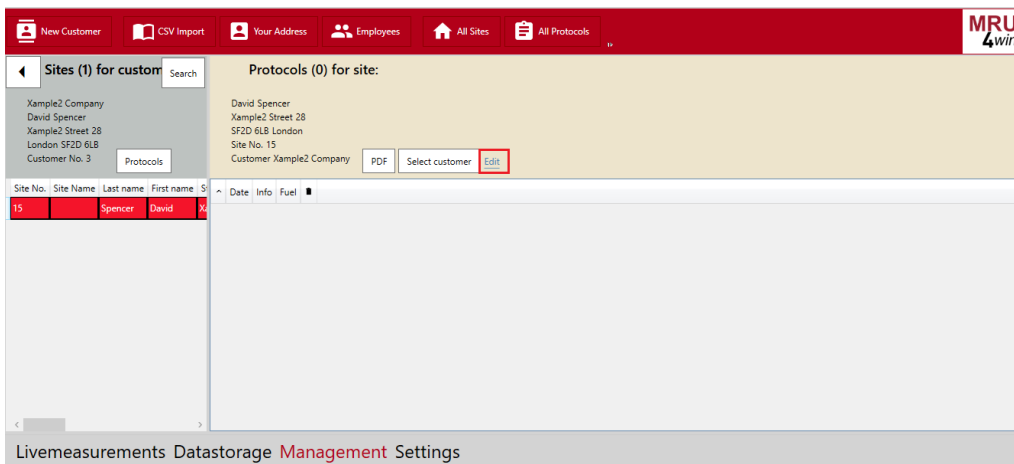
#### 6.4. Editing existing site data

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

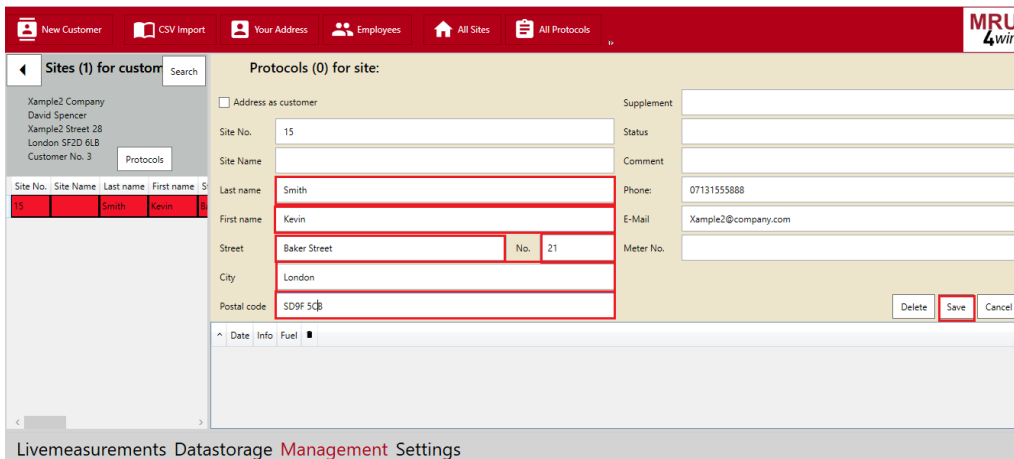
- ▶ Click „[Management](#)“.
- ⇒ A window appears.
- ▶ Click on the desired customer.
- ⇒ A window appears.



- ▶ 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. The table has 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 a window titled "Employees" with a form for entering employee data. The form fields are: Employee No. (1), Last name (Holden), First name (James), Street (Mapple Street), No. (3), City (London), 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 a window titled "Employees" with a table containing one row of data. The table is highlighted with a red box. The data in the row is: Employee No. 1, Last name Holden, First name James, Street Mapple Street, No. 3, Postal code SF2D 6LB, City London. Below the table, 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.

The screenshot shows a window titled "Your Address" with a close button (X) in the top right corner. The window contains several input fields:

- Company: Xample Measuring Company
- Last name: Michels
- First name: John
- Street: Evergreen Terrace
- No.: 33
- City: London
- Postal code: SF2D 6LB
- Supplement: (empty)
- Comment: (empty)
- Phone: (empty)
- Email: (empty)

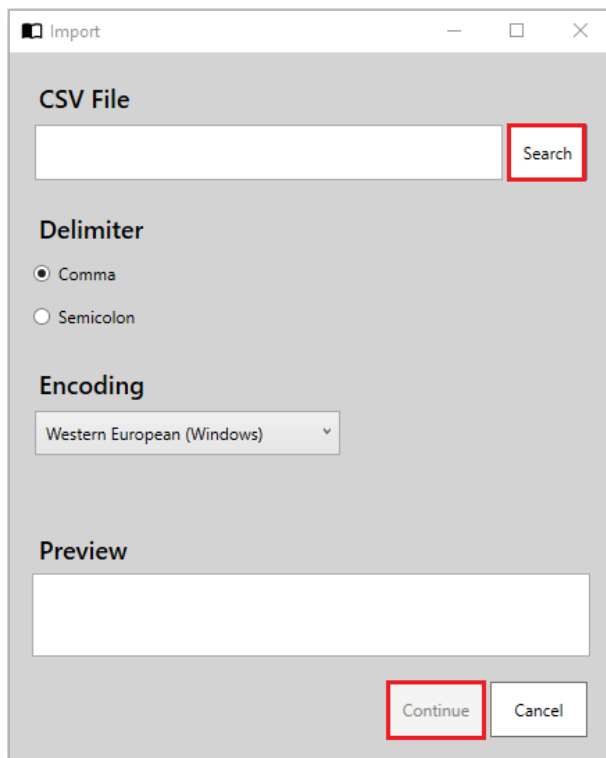
At the bottom of the window, there are four buttons: "Load Icon", "Delete Icon", "Save", and "Cancel". The "Load Icon" and "Save" buttons are highlighted with red boxes. A large black 'X' icon is positioned to the right of the input fields.

- ▶ 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.

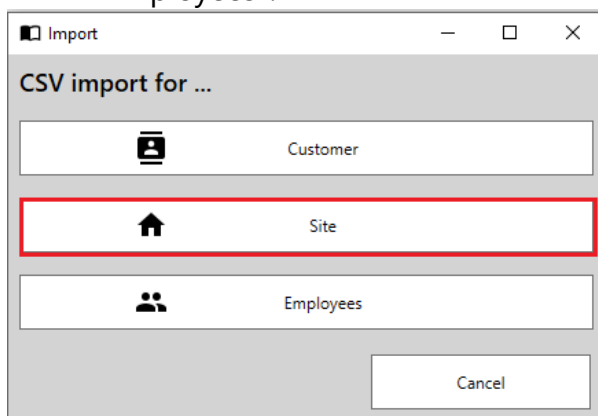
## 6.7. Importing data via CSV

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	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 Steet	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

## 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.

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

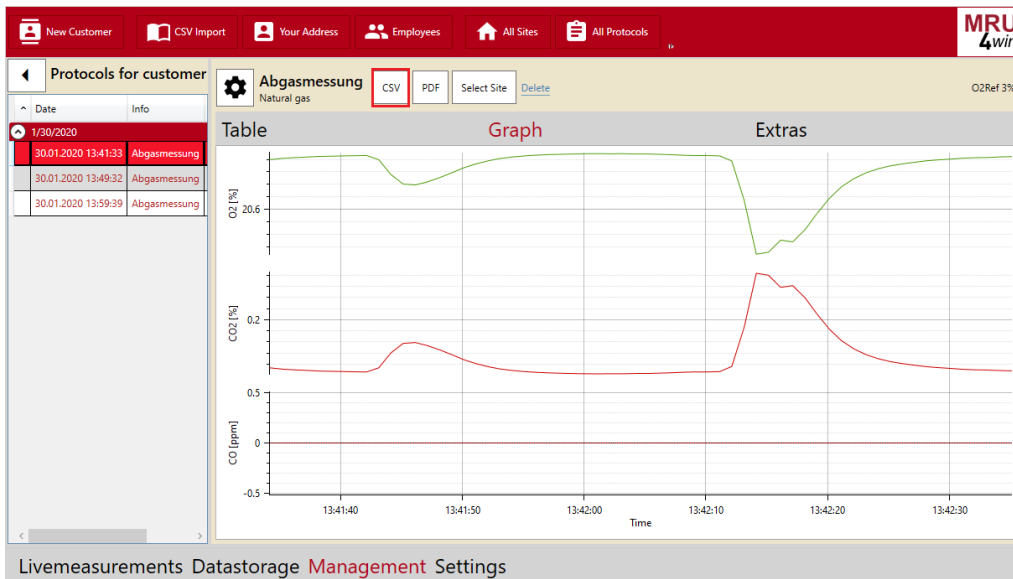
< [ ] >

Cancel

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

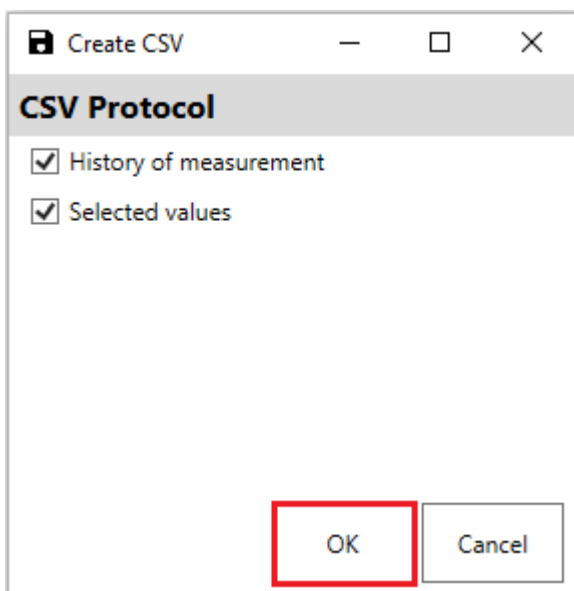
## Exporting measurement protocol via CSV

- ▶ 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.

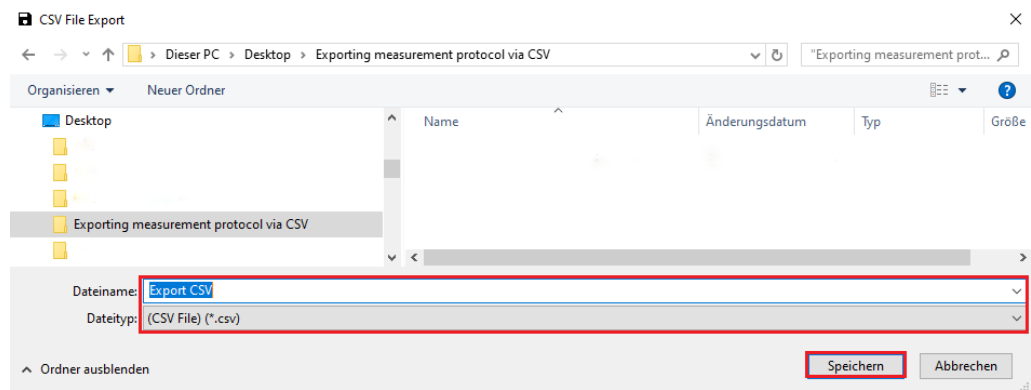


A window appears.

- ▶ 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.

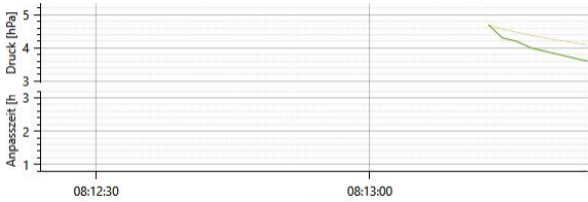

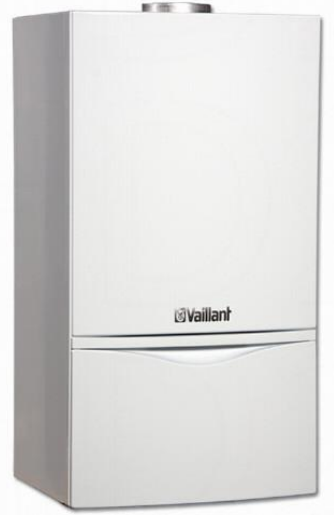
You can create the template file with the programs MS Word or Libre-Office. You have to save the template file in .DOCX format.

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.

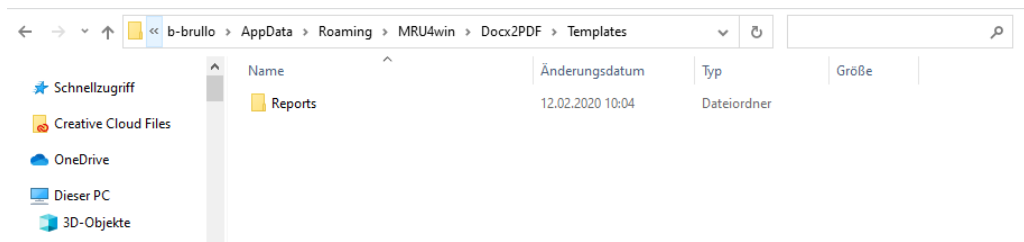
You do not need to install MS Word or Libre Office on the PC on which MRU4win was installed and PDF files are to be created.

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	
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**

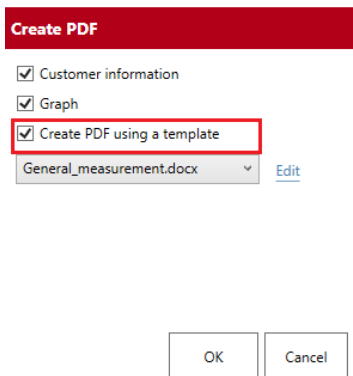
Device type	MRU SPECTRAplus
Serial number	316166
Firmware version	1.74.00
Hardware version	4.00
Operating hours	649
Date of manufacture	4/9/2018
Country code	de_DE
Device identification number	MRAV00316166NEU0418
Protocolversion	v1.00.02

**Measurement**

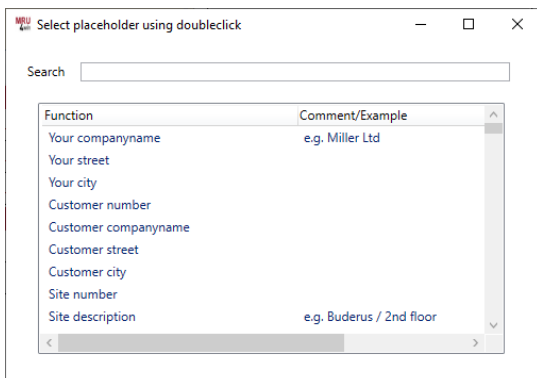
Start time	1/30/2020 1:41:34 PM
End date	1/30/2020 1:42:35 PM
Measuring time	0:01:02
Measuring interval	0:00:01
Averaging time	---
Measure values	20
Measurements (total)	62

- ▶ 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

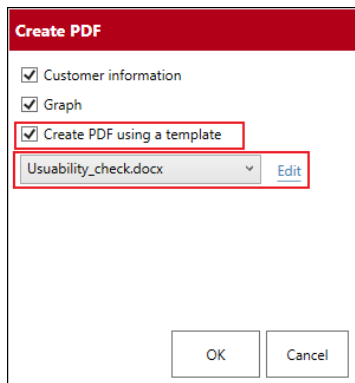
## 6.11. Create PDFs for Usability Test

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

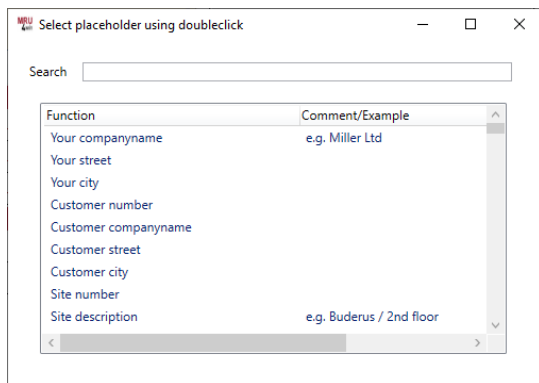
- ▶ Click "Management".
  - ⇒ A window appears.
- ▶ Select a customer.
- ▶ Select a site assigned to the customer.
- ▶ Select a measuring protocol assigned to the site.
- ▶ Click "Extras".

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 active, displaying a list of protocols for a specific site. The table has columns for Date, Info, Fuel, and a checkbox. The 'Info' column contains details like 'Usability Check', 'Tightness Test', 'Stress Test', and 'Pressure meas.'. The 'Extras' button is highlighted in the top right corner of the window.

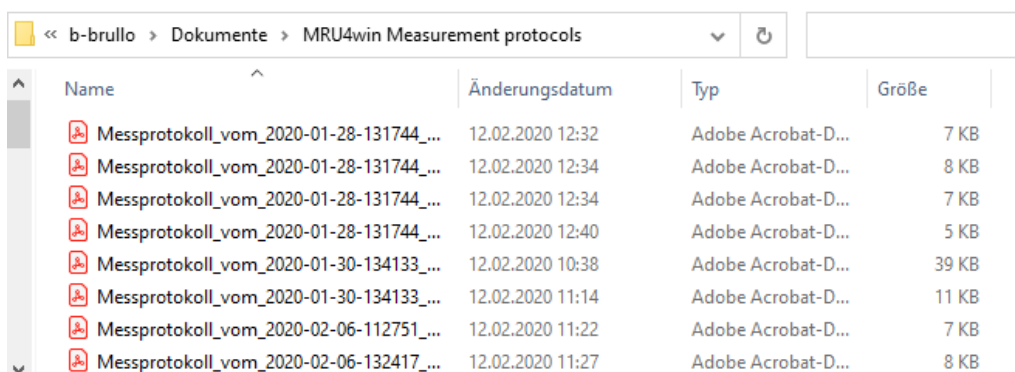
- ▶ If necessary, add " Employees", "Comment" and "Images" to the measuring protocol under "Extras".
- ▶ Click „PDF“.
- ⇒ A window appears.



- ▶ 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	
▲	<b>1/30/2020</b>			
	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"/>
▲	<b>2/6/2020</b>			
	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**

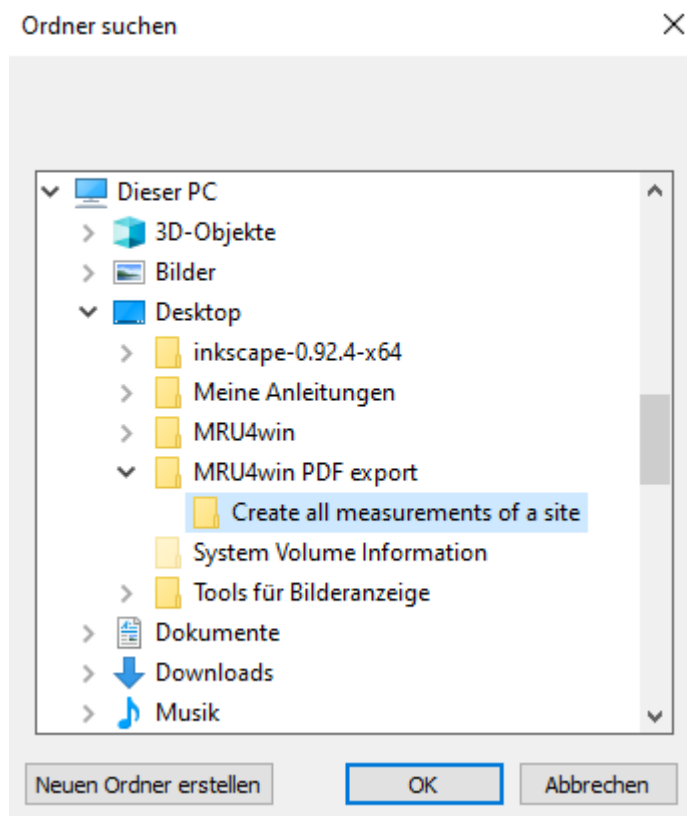
Customer information

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	Pr
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

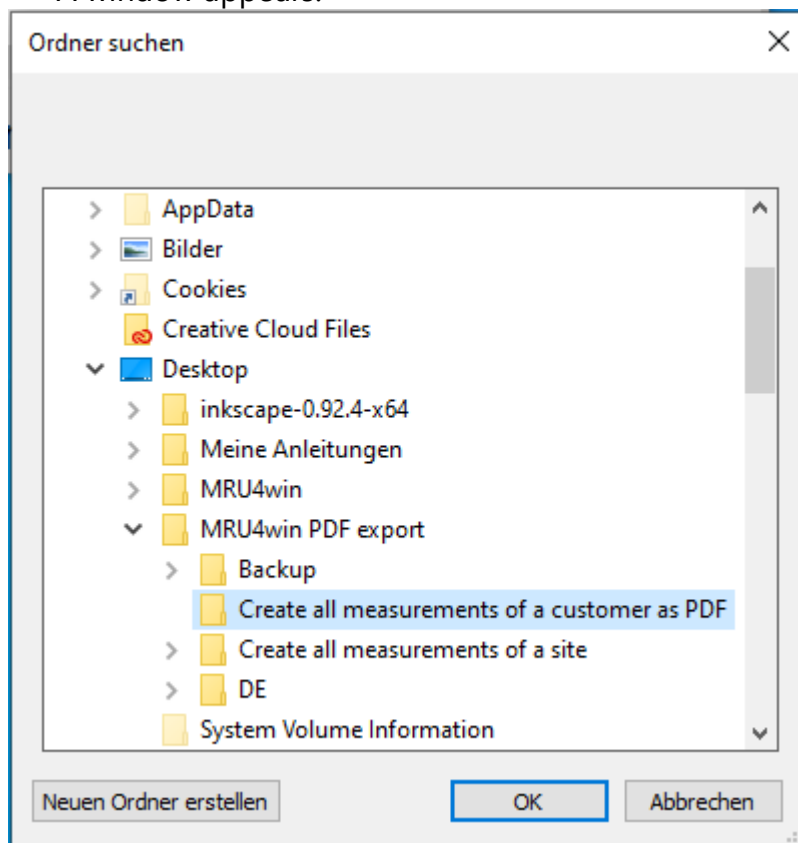
All Protocols  Create individual PDF files

Graph

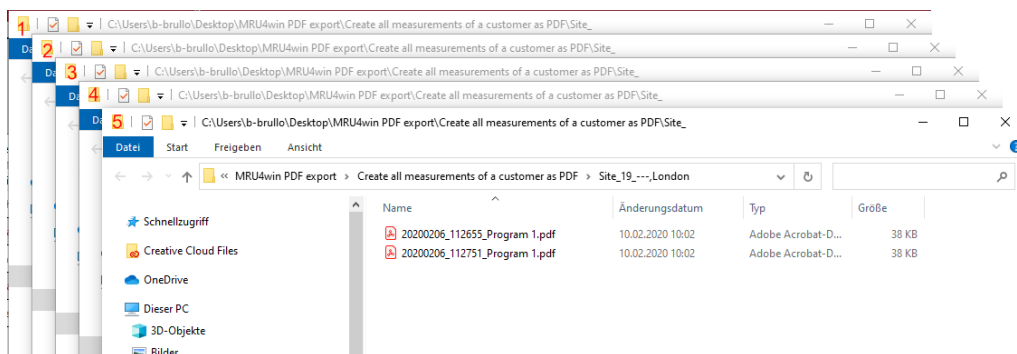
Comment

OK Cancel

- ▶ 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.

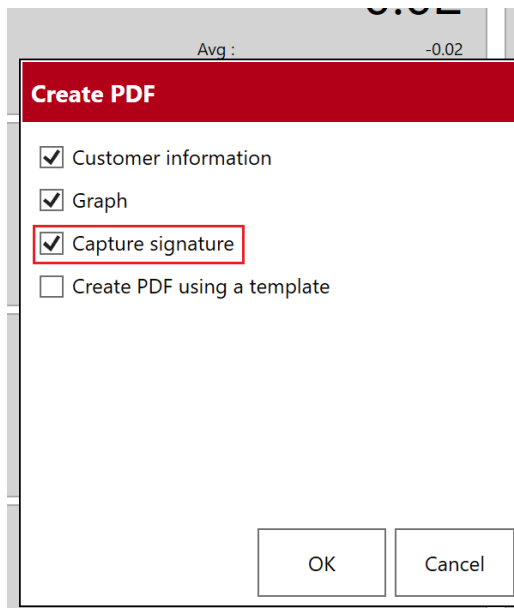




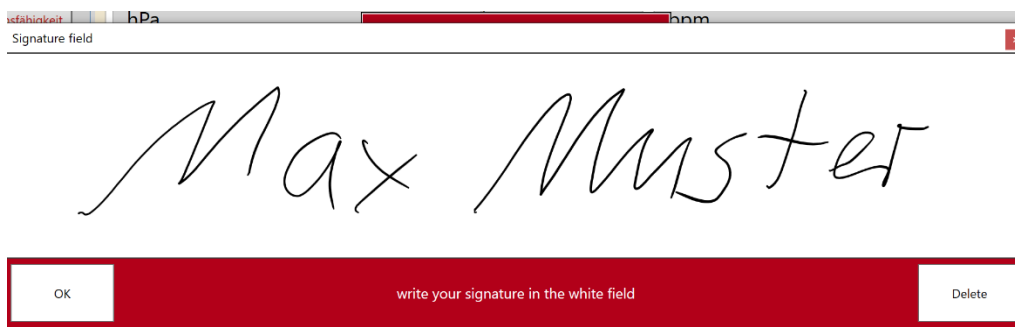
### 6.13. Capture signature with pen for PDF export

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

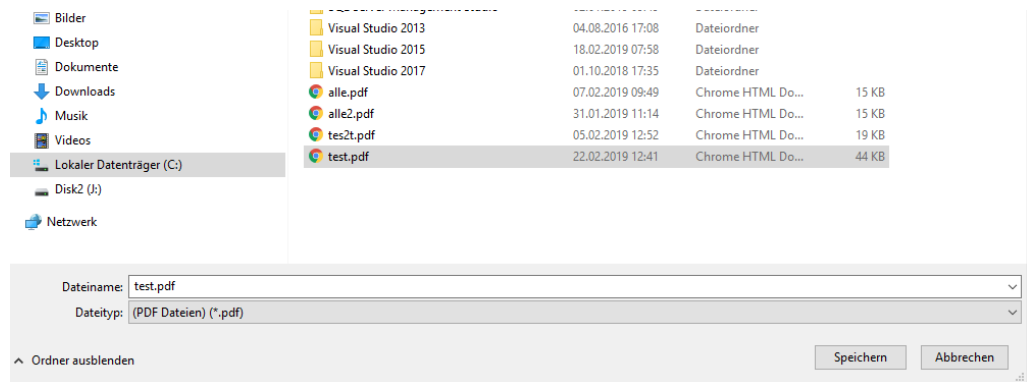
- ▶ Click „Management“.
  - ⇒ A window appears.
- ▶ Select a customer.
- ▶ Click „PDF“.
  - ⇒ A window appears.



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



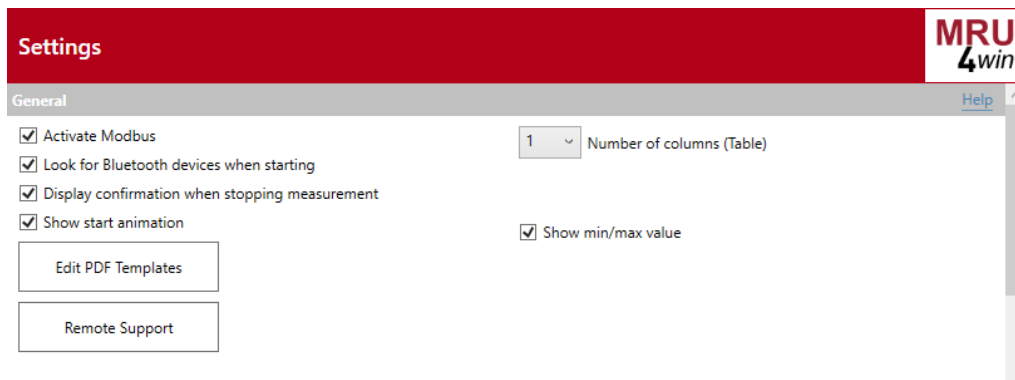
- ▶ Enter the signature using the pen.
- ▶ Click „OK“.
  - ⇒ A window appears.



- ▶ 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

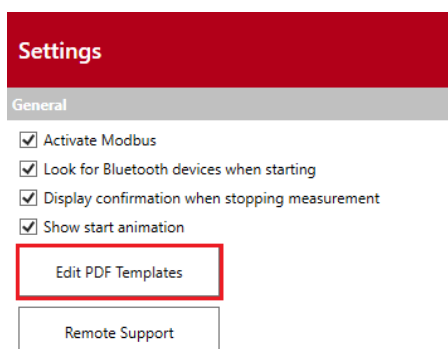


Under General settings you can:

- 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

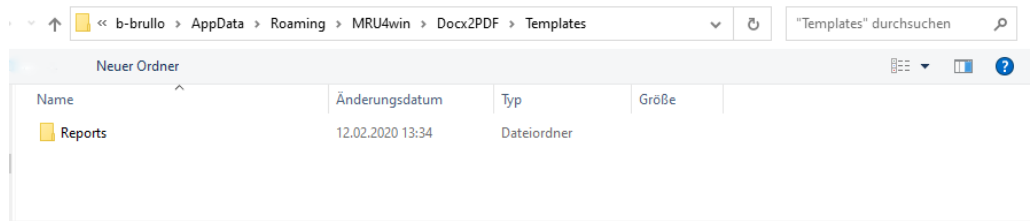
### Editing PDF Templates

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



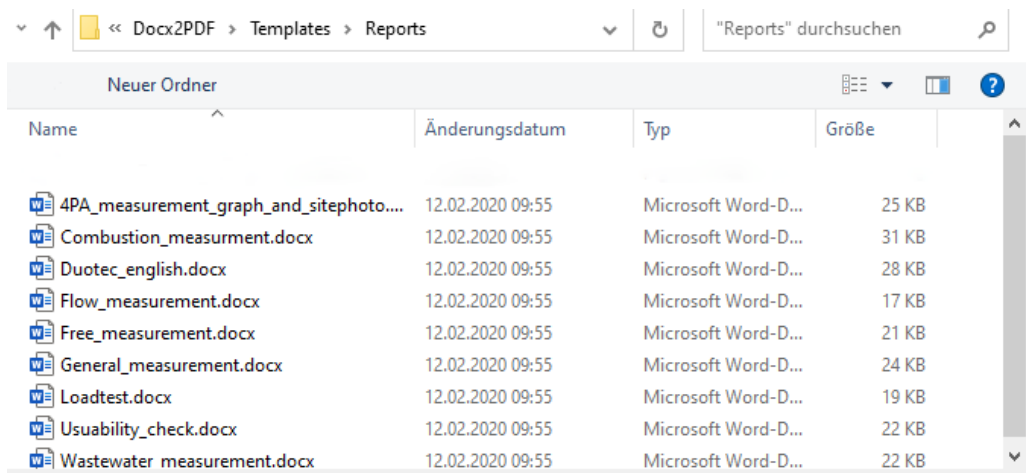
► Click „Edit PDF Templates“.

⇒ A window appears.



► Select the desired directory.

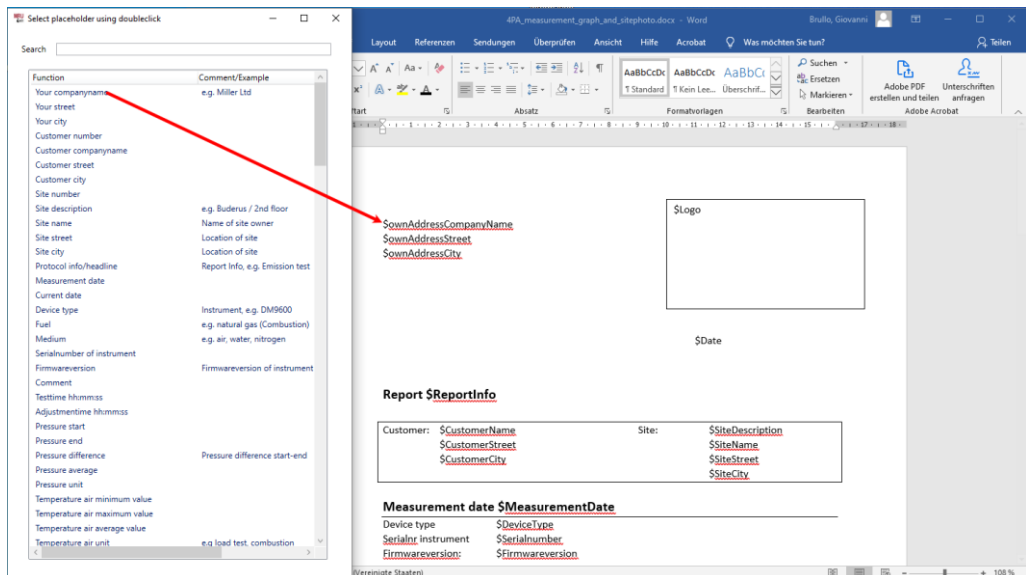
⇒ A window appears.



► Select the desired template file.

⇒ The template file opens.

⇒ A window with a list of all placeholders opens.

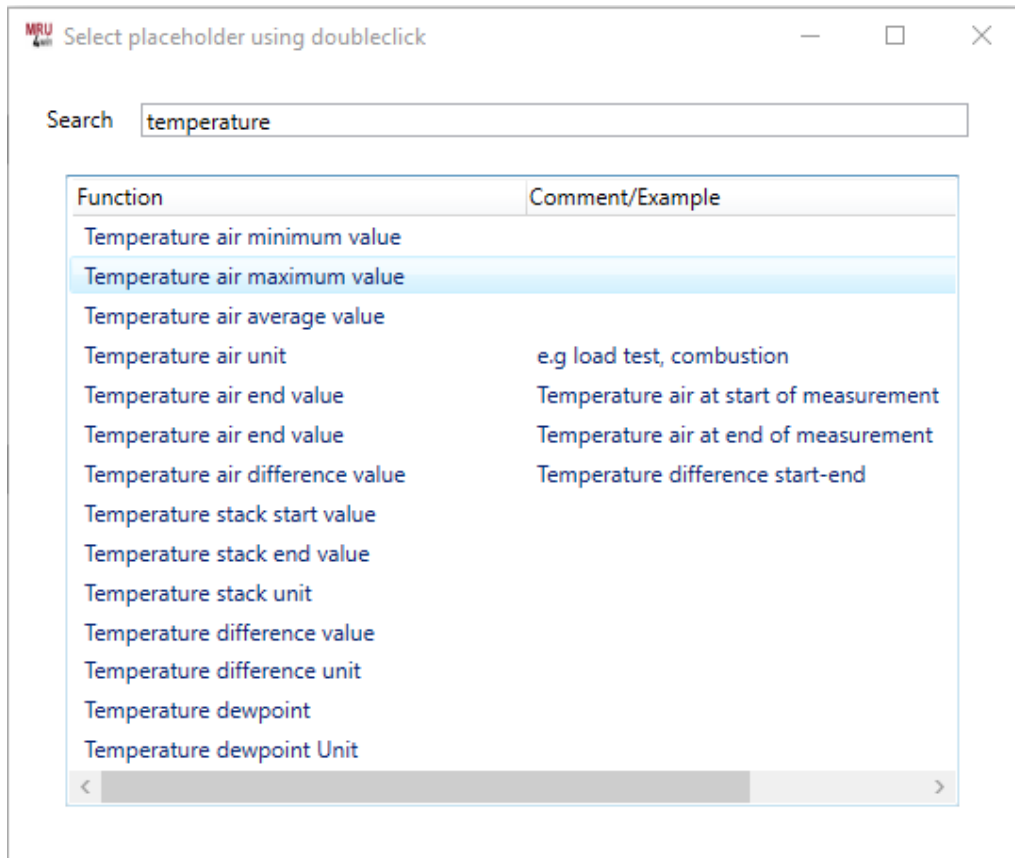


► Add the desired placeholders by double-clicking them in the template file.

► Save the template file.

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

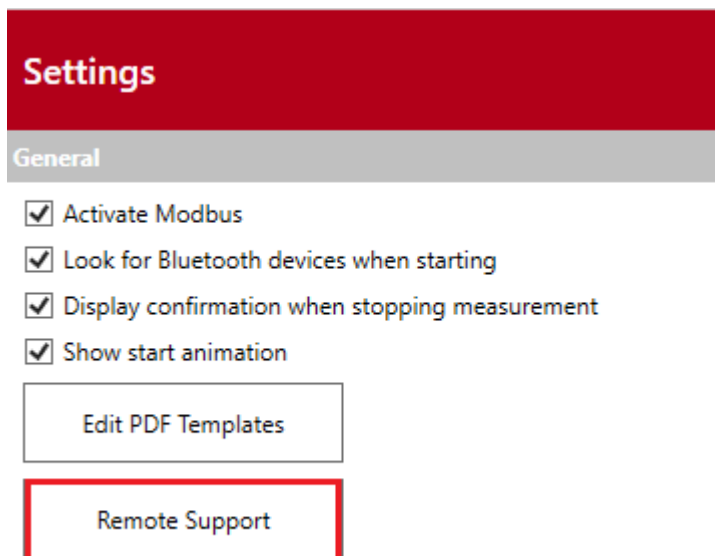
- ▶ Enter the desired search term in the search field.
- ⇒ The relevant placeholders appear in the window.



### Request Remote Support

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

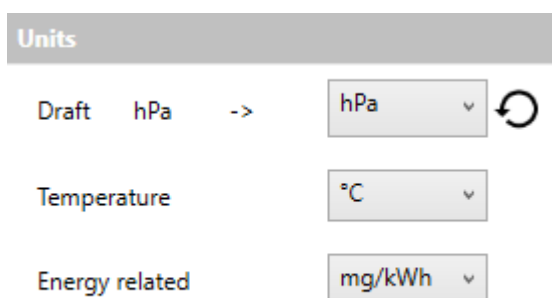
You have to enter a security code to unlock the screen. The trusted person can help you solve a problem regardless of location.



- ▶ 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**

Sampling rate

[dd] [hh]:[mm]:[ss] 00 : 00 : 01 ↻

Default Graph Span

[hh]:[mm] 02 : 05 ↻

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

[dd] [hh] 00 : 00 ↻

Average (points)

Off No Averaging.

Timed measurement  
(Measurement stops after time has elapsed) (not active)

[dd] [hh]:[mm] 00 : 00 : 00 ↻

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.

Sampling rate

[dd] [hh]:[mm]:[ss] 01 : 22 : 00 : 01 ↻

Sampling rate

[dd] [hh]:[mm]:[ss] 02 : 13 : 52 : 14 ↻

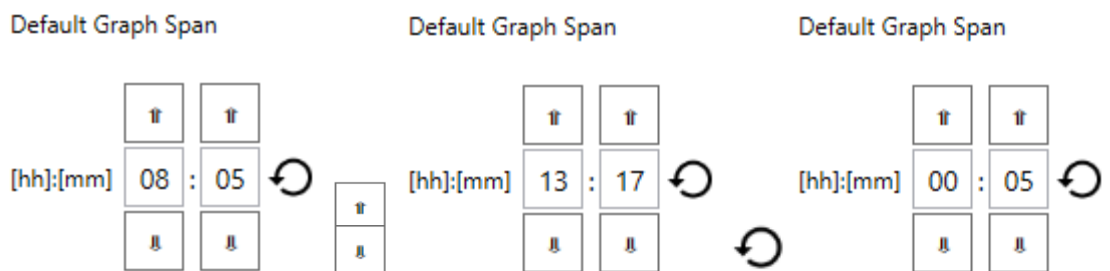
Sampling rate

[dd] [hh]:[mm]:[ss] 00 : 00 : 00 : 01 ↻

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

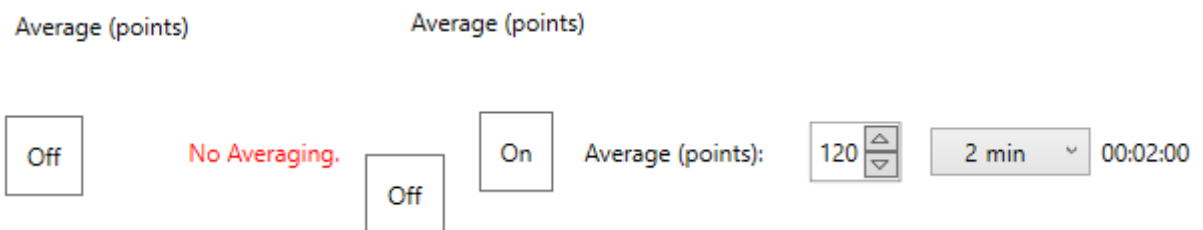
## Setting Default Graph Span

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.

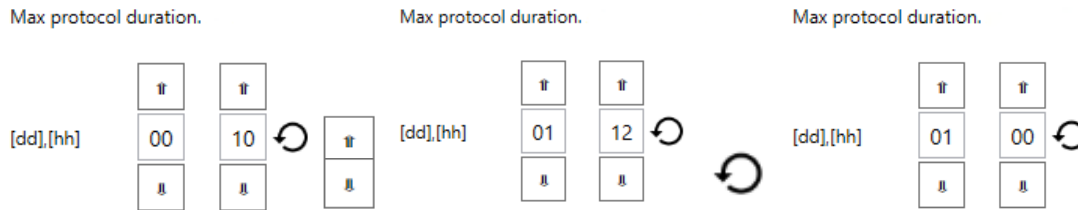
## Setting Max protocol duration

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.

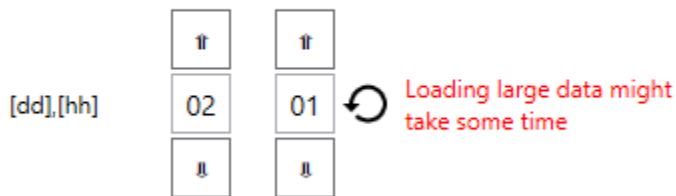


⇒ The "Timed measurement" becomes inactive.



- ▶ 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.

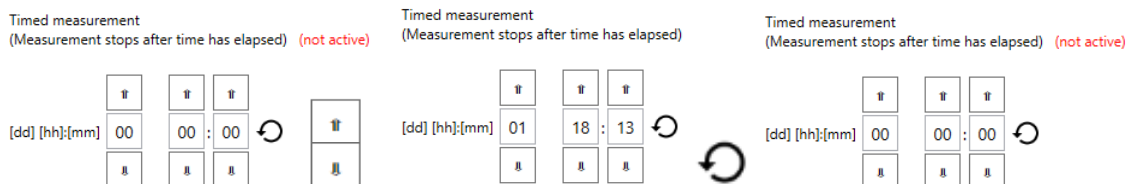


- ▶ Click ↻ to set the default settings.

### 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".

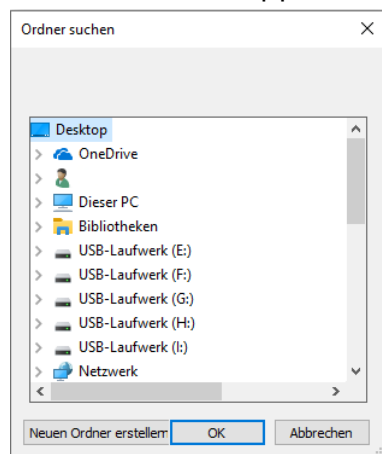


- ▶ Click Settings.
- ▶ Set the desired time period.
  - Note that the maximum settable time span can be 2 days, 23 hours and 59 minutes.
- ▶ Click ↻ to set the default settings.

## 7.4. Creating a backup of the database

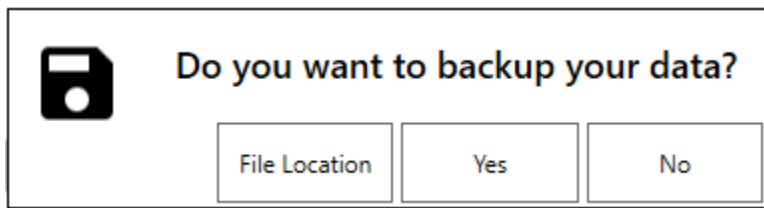
You can set whether the database should be saved to a location you specify when MRU4Win is closed.

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

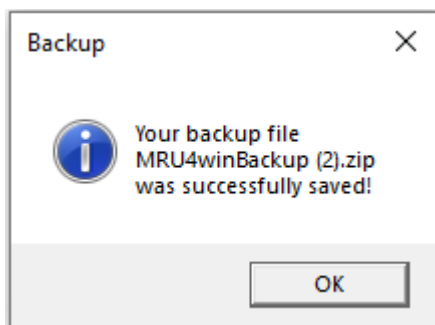


- ▶ Select the desired folder for the database backup.
- ▶ Click „OK“.
  - ⇒ The selected location appears in the field "Choose location".

- ▶ 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.



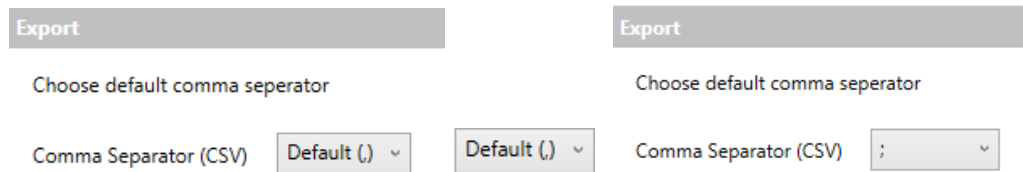
- ▶ Select the desired option.
- ▶ Click „Yes“.
  - ⇒ A window appears.
  - ⇒ The database is backed up to the chosen location.



- ▶ 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.

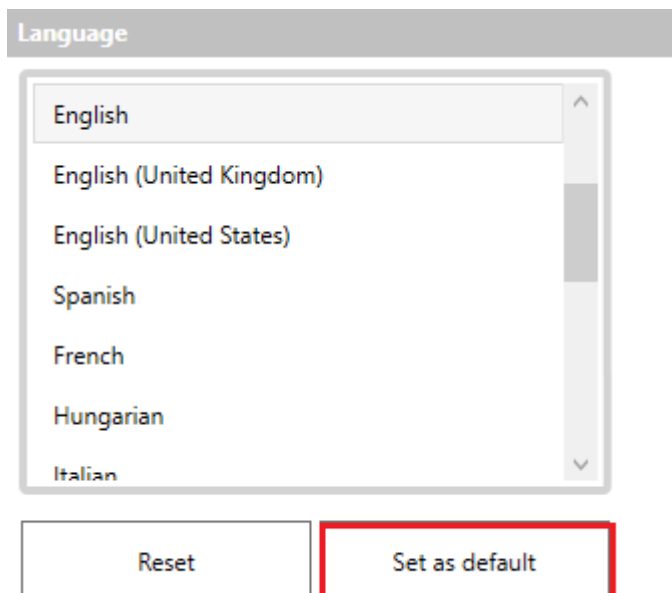
## 7.5. Configuring CSV export

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

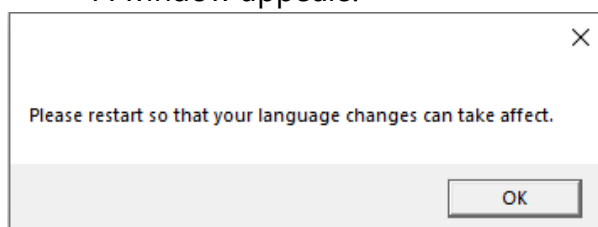


- ▶ Click Settings.
- ▶ Choose the default comma separator.

## 7.6. Setting language

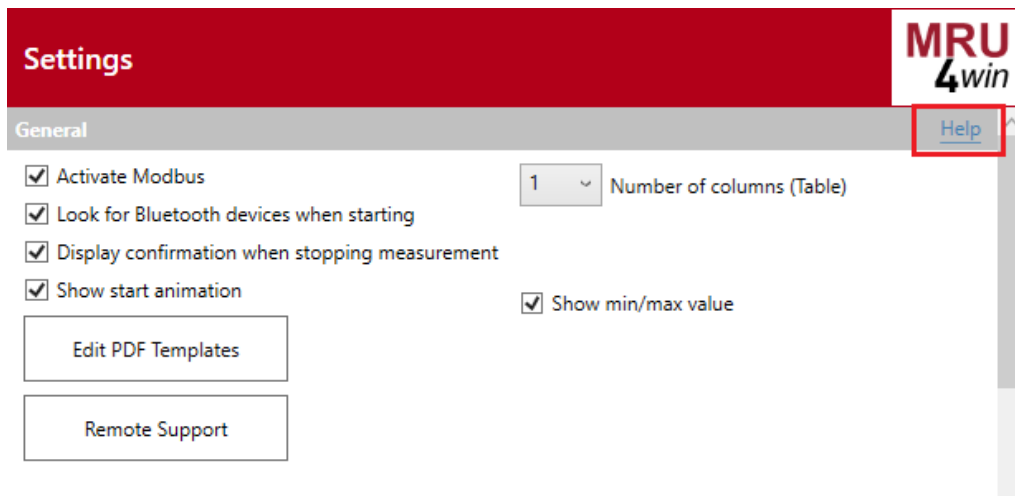


- ▶ Click Settings.
- ▶ Wählen Sie die gewünschte Sprache aus.
- ▶ Choose the desired language.
- ▶ Click „Set as default“.
- ⇒ A window appears.



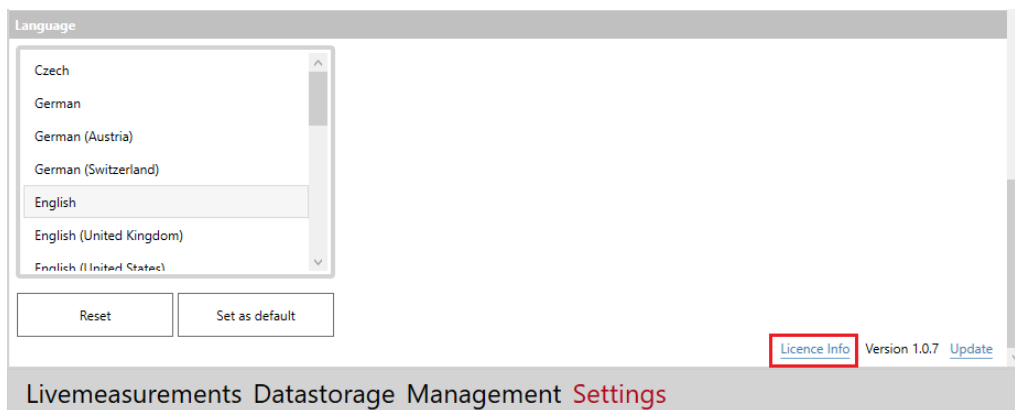
- ▶ Click „OK“.
- ▶ Close MRU4Win.
- ▶ Start MRU4Win.
- ⇒ The desired language has been set as default.

## 7.7. Showing Help Function

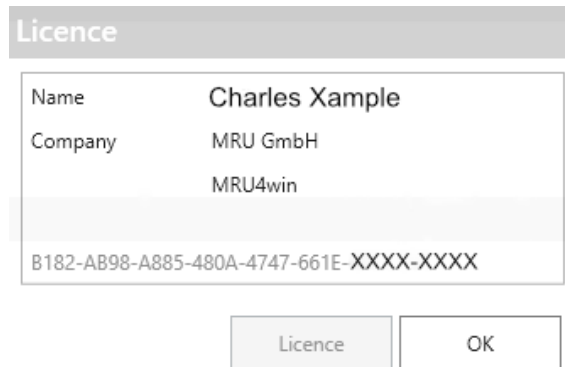


- ▶ Click Settings.
- ▶ Klicken Sie auf „[Help](#)“.
- ⇒ A window appears.

## 7.8. Showing Licence Info



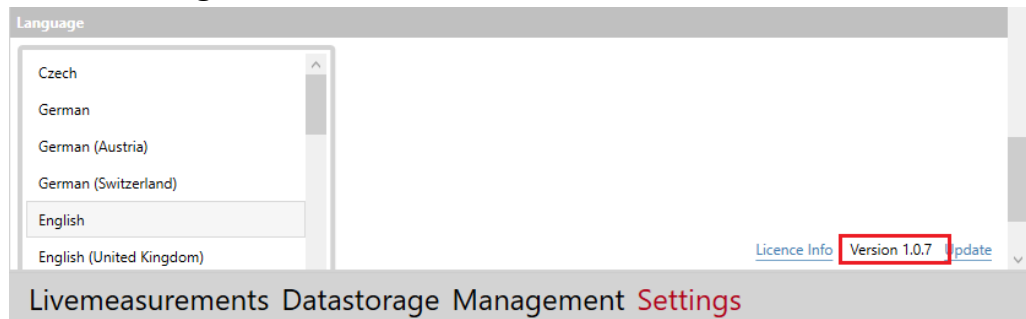
- ▶ Click Settings.
- ▶ Click „[Licence Info](#)“.
- ⇒ A window appears.



► Click „OK“.

⇒ The license info is closed.

## 7.9. Showing version number



► Click „Settings“.

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