kamstrup

Operation Manual

USB Meter Reader

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1 Introduction

The USB Meter Reader program is used for reading meters with wireless and wired M-Bus as well as water meters with one-way radio and meters with Kamstrup 434 MHz radio modules.

1.1 Data security

The USB Reader Meter program is a single-user program to be installed locally on a Windows computer.

The use of the program must take place through secured procedures on a secure machine.

When the program is used where the EU General Data Protection Regulation (GDPR)* applies, the user must be authorized to handle personal data as follows:

- Reading of consumption data
- Handling of consumption data
- Export of consumption data

* Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data, and repealing of Directive 95/46/EC (General Data Protection Regulation).

It is recommended to use password at the start-up of the program.

1.2 Wireless reading components

Wireless reading includes the following components:

- USB Reader
- Power Pack
- Charging cable
- Quick Guide

USB Reader

USB unit for wireless reading of Kamstrup meters. Connect the unit to a USB port on a Power Pack, as described below, or on a PC. Alternatively, it is possible to use a cigarette plug with USB.

The USB Meter Reader program can handle a USB Reader for 434 MHz and a USB Reader for Wireless M-Bus at the same time.

This means that you can read meters with a 434 MHz radio module and meters with Wireless M-Bus simultaneously.

Power Pack

Power supply for USB Reader. Before using Power Pack, it must be charged. For further information please see the instructions enclosed with the Power Pack.

It automatically switches on when the USB Reader is connected.

Charging cable

The charging cable is used for charging Power Pack. Connect the little plug to Power Pack and the big plug to a USB port, e.g. on a PC. The charging time is 3-5 hours, depending on how much power the USB port can supply.

Quick Guide

Describes how to download the program Kamstrup USB Meter Reader from Kamstrup's website and how to install it on the PC.

1.3 Wired reading components

Wired reading includes the following components:

- Kamstrup M-Bus Master MultiPort 250D or 250L
- Installation and User Guide for M-Bus Master
- USB cable 6699-336 for M-Bus Master

As M-Bus Master, it is recommended to use Kamstrup M-Bus Master MultiPort 250D or 250L. The master must be connected to the PC via the USB cable. When using a RS-232 connection, the master must be created manually in the program.

1.4 Usage/good practice, wireless reading

Introduction

This section describes how to use the USB Reader for collecting/reading data wirelessly from meters in the best way. The first time a meter is read, the reading duration may be longer as some extra data needs to be collected.

Using Power Pack

When you use Power Pack, the work procedure is as follows:

1. Create a job for the USB Reader that you use with Power Pack. Note: If another USB Reader is already connected to the PC, you do not need to add the USB Reader from the Power Pack. The job list will be sent to your USB Reader wirelessly.
2. The USB Reader starts the reading as soon as it is in motion (green diode starts to emit light). Therefore, the USB Reader starts to read when you start walking/driving. Note: There is a small delay before it starts to read. When the green diode flashes (once per second), you must stop and wait until it stops flashing. When it stops, you can carry on walking until it starts flashing again. Continue in this way until you have completed your route.
3. The next time, your USB Reader is in contact with the Kamstrup Meter Reader system, it will transfer the data to the system. Under "Home", click "USB Reader" to check if meters are missing. If this is the case, you can transfer the list of the missing meters to your USB Reader (see how to under "Home").

Pay attention to the "USB Reader" which is connected to a PC

If you use a Power Pack, it is best to keep a distance to the USB Reader which is connected to a PC. Thus, you avoid that the USB Reader inserted in the PC contacts your USB Reader during the reading. The USB Reader in the PC will continuously try to collect new data from your USB Reader. Therefore, each time you collect new data, your USB Reader must return the new data to the other USB Reader before it resumes the reading sequence. The communication also prevents the USB Reader from showing "Reading completed" (the orange diode flashes 3 times).

Using a PC for collecting data

The procedure when using the Kamstrup USB Meter Reader system for collecting data is as follows:

Collect data from a meter list

1. Create a job for the USB Reader which is inserted in the PC.
2. Click "Reading" on the toolbar, and select the tab "Read meter(s) on USB Reader".

Collect data from a specific meter

1. Click "Reading" on the toolbar, and select the tab "Read specific meter(s)".

1.5 Usage/good practice, wired reading

The establishment of a wired M-Bus network and reading of meters via M-Bus Master MultiPort 250 is described in the installation and user guide for M-Bus Master MultiPort 250.

1.6 Definitions

Introduction

This section contains the various definitions used in the Kamstrup Meter Reader program.

Missing meters

The definition "Missing meters" is used in the windows "Home" and "Reading". A meter is defined as missing if the latest reading time is before the definition "Missing meters" (see below). This means that if, for example, a meter was read on 26/11/2015 and the definition "Missing meters" is set to 2 days (standard), the meter appears in the list of missing meters on 29/11/2015. If the definition "Missing meters" is changed to 14 days, the meter appears in the list of missing meters on 11/12/2015.

The definition "Missing meters"

The number of days after which the data is considered as old. If the definition "Missing meters" is set to e.g. 2 (standard) and today's date is 20/10/2015, all data from 17/10/2015 as well as earlier data will be considered as old. The value can be entered under File ⇨ Setup. Meters which have been read prior to the pre-programmed number of days will appear from the list of missing meters.

Time of receipt

The time of receipt is the time when the Kamstrup USB Meter Reader system receives data from a USB Reader. Therefore, if you read data on e.g. 08/08/2015 and do not return to the office on the same day (but e.g. the following morning), the date of the "Latest reading" will be 09/08/2015.

Job / Job list

A job or job list is a list of meters that a USB Reader must read. To create a job (a job list), click "Job lists" on the toolbar and create the job in the dialog box "New job".

1.7 Menus and toolbars

Introduction

Kamstrup USB Meter Reader contains 1 menu bar and 1 toolbar which are described briefly in this section.

Topics:

- The menu bar
- The toolbar

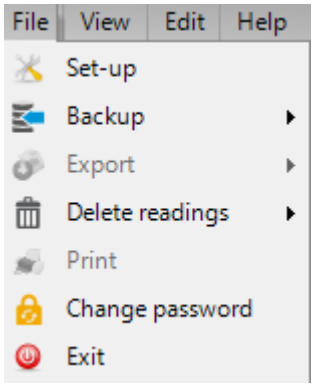
The menu bar

The menu bar consists of 4 menus: "File", "View", "Edit" and "Help".

The menu File

The menu "File" contains 4 submenus. Click the links to see a detailed description.

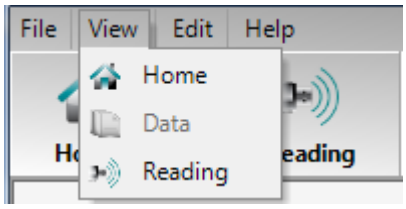
1. "Set-up" is used for changing settings such as language, definition of missing meters, etc.
2. "Backup" is used for making backup copies of all data and configurations or for restoring data. The function can also be used in connection with the replacement of a computer.
3. "Export" is only available if you are in the view "Data" on the toolbar (described briefly below) and is used for exporting all saved data to e.g. a PDF file.
4. "Print" is likewise only available if you are in the view "Data" on the toolbar (described briefly below). Clicking this opens the dialog box "Print Preview".
5. With "Delete readings", reading data from all meters in the database can be automatically deleted when it exceeds a certain age. It is also possible to delete reading data for a single or multiple meters. Note that the latest reading is never deleted.
1. "Exit" closes the program.



The menu View

The menu "View" contains 3 submenus representing the three depending views that are used in Kamstrup USB Meter Reader. Click the links to see detailed information about each view.

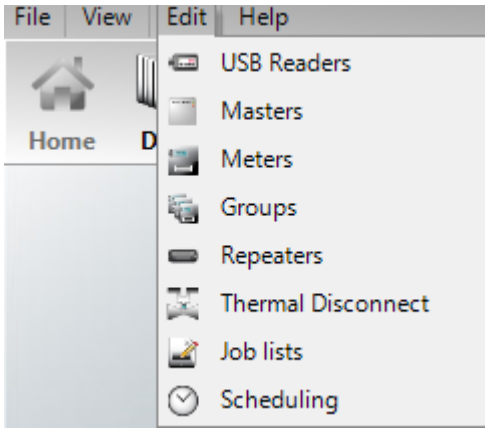
1. "Home" is the start window of Kamstrup USB Meter Reader
2. "Data" provides you with a detailed overview of all your meters
3. "Reading" is used for collecting data/reading meters.



The menu Edit

This menu contains 4 submenus. The menu is used for adding/editing or deleting USB Readers or meters in your system. Click the links below to get a detailed introduction to the dialog boxes.

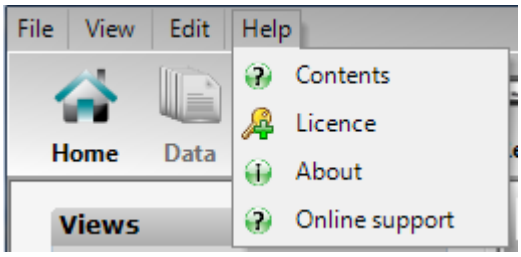
1. In "USB Readers", you can delete or change the name of a USB Reader in your system
2. In "Masters", you can edit the name of and configure connected M-Bus Masters
3. In "Meters", you can add/edit and delete meters
4. In "Groups", you can create or delete a group of meters
5. In "Repeaters", you can configure Radio Link repeaters
6. In "Thermal Disconnect", you open and close a thermal actuator connected to M-Bus module HC-003-22
7. In "Job lists", you can select the meters to be read by a specific USB Reader
8. In "Scheduling", you set at which times automatic meter reading must be carried out



The menu Help

The menu "Help" contains 4 submenus: "Contents", "Licence", "About" and "Online support". Click the links to see a detailed description.

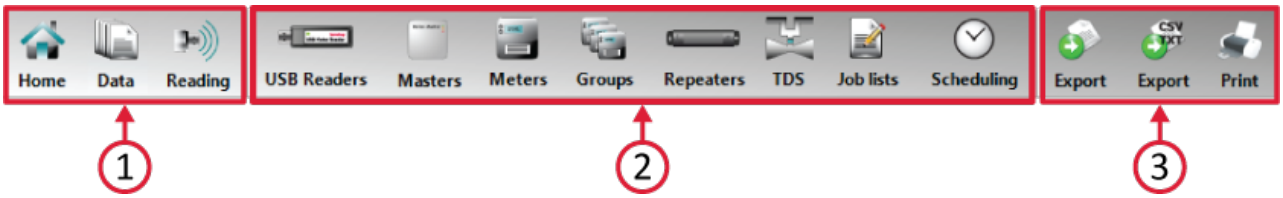
1. "Contents" opens the online help
2. "Licence" is used for installing further functionality
3. "About" opens the dialog box "About" where you can see the current software version and the product number of the Kamstrup USB Meter Reader.
4. "Online support" is only used by Kamstrup Metering Service



The toolbar

The toolbar consists of the following three parts:

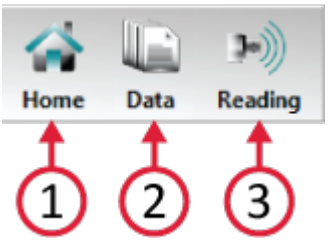
1. "View"
2. "Edit"
3. "File"



View

"View" consists of 3 buttons. The buttons symbolise the various views in Kamstrup USB Meter Reader. Click the links to see detailed information about each view.

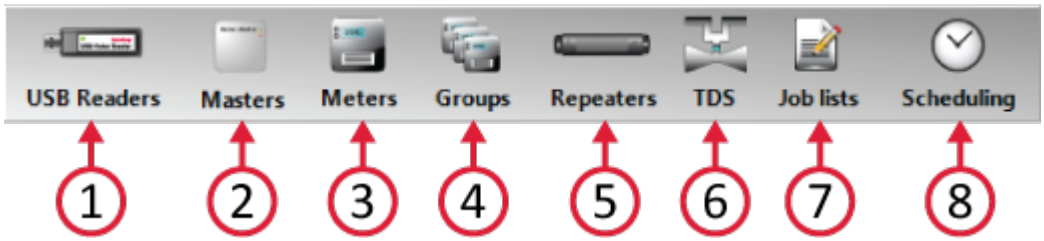
1. "Home" is the start window of Kamstrup USB Meter Reader
2. "Data" provides you with a detailed overview of all your meters
3. "Reading" is used for collecting data/reading meters.



Edit

This section contains 8 buttons used for adding/editing or deleting USB Reader units or meters in your system, configuring repeater 5, maintaining job lists and configuring automatic reading. Clicking a button in this section opens a new window. Click the links below to get a detailed introduction to the dialog boxes.

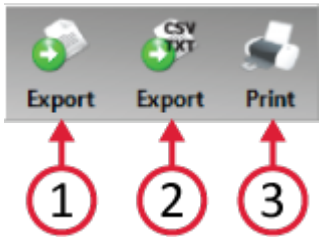
1. In "USB Readers", you can delete or change the name of a USB Reader in your system
2. In "Masters", you can configure, delete and change the names of M-Bus Masters in the system
3. "Meters" is the dialog box where you can add/edit and delete meters
4. In "Groups", you can create or delete a group of meters
5. In "Repeaters", you can configure Kamstrup's wireless M-Bus repeater
6. In "TDS", you open and close the thermal actuators
7. In "Job lists", you can select the meters to be read by a specific USB Reader
8. In "Scheduling", you define when the program must read meters automatically.



File

This section is only available in the view "Data" (see above). Here, you can export or print all your meters' data.

1. "Export" is used for exporting tables to either XLS, PDF or CSV formats. Select destination, file name and file type in the dialog box "Save meter data in file".
2. "CSV TXT Export" is used for exporting meter data in definable formats. This function requires that the corresponding licence key is installed.
3. Clicking "Print" opens the dialog box "Print Preview". You can also open this dialog box by clicking File ⇨ Print.



2 Views

This section contains a detailed description of each view in Kamstrup USB Meter Reader:

- Home
- Reading
- Data

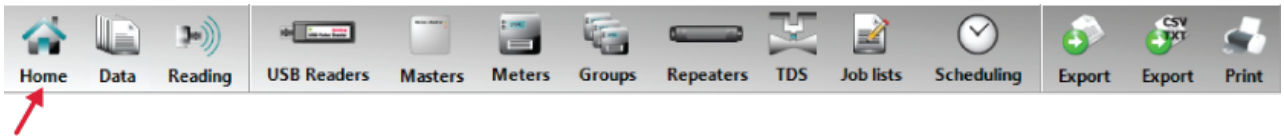
2.1 Home

Introduction

"Home" (or "Live view") is the starting window of your Kamstrup USB Meter Reader program. This window includes an overview of the USB Readers and M-Bus Masters in your system. This section explains in detail what you can see and do in "Live view".

Topics:

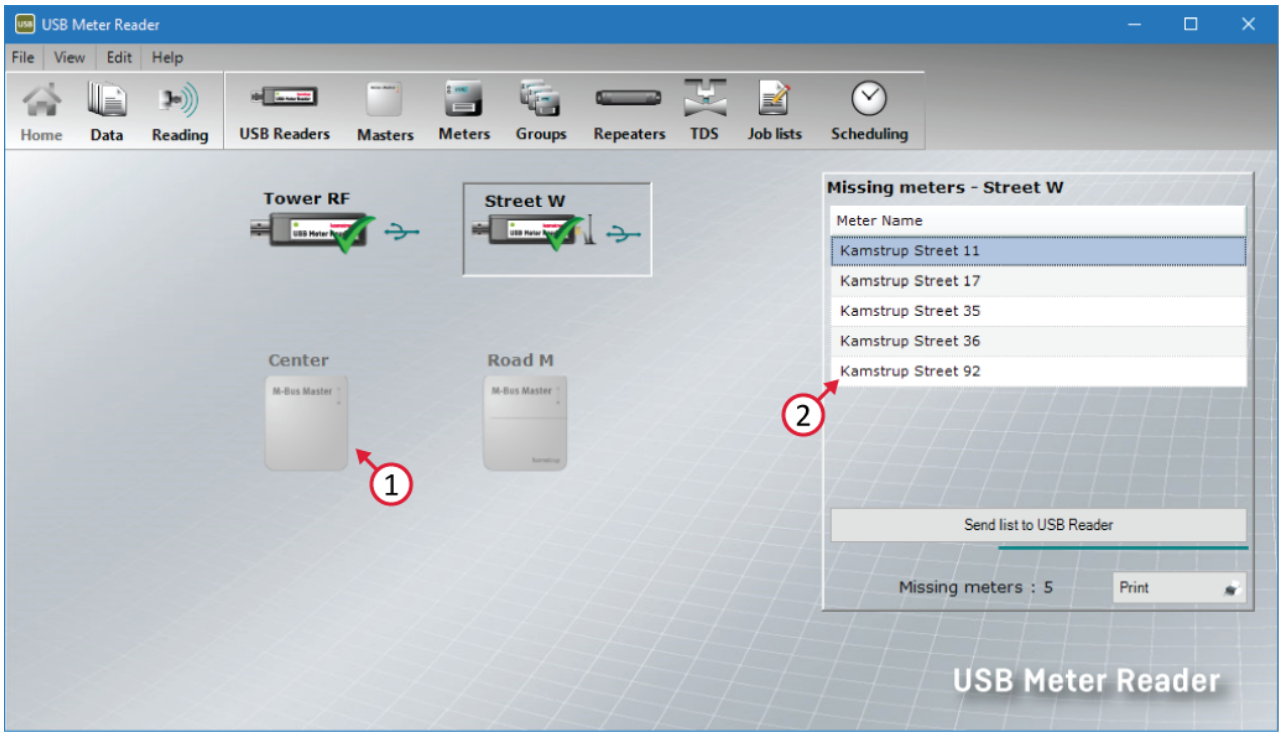
- Overview of "Home" ("Live view")
- Missing meters



Overview

Every time you start the Kamstrup USB Meter Reader program you will see a "Live view". The live view includes a list of USB Readers and M-Bus Masters (empty if none have been installed) and finally the window "Missing meters". The two elements appear from the screen display below where

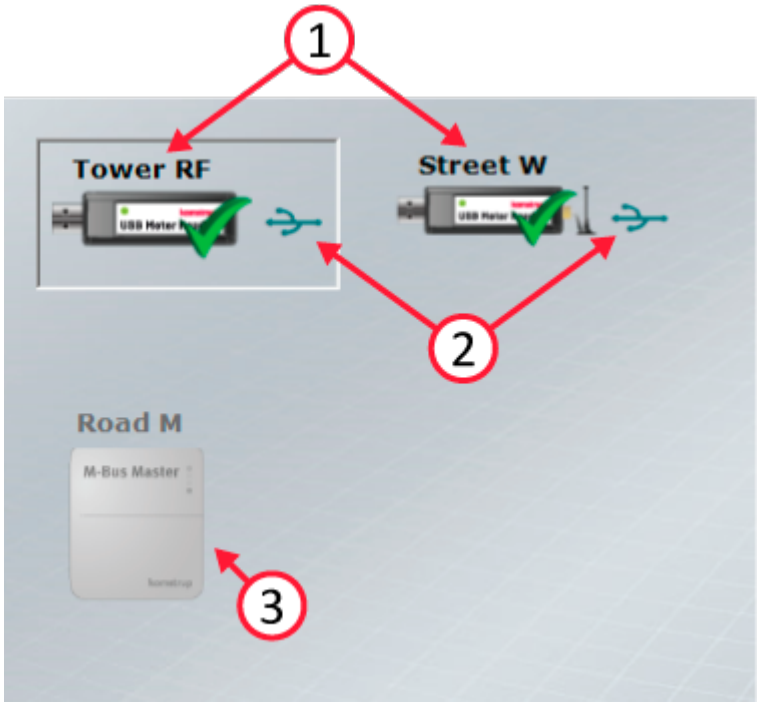
1. is the list of USB Readers and M-Bus Masters in the system.
2. to the right, shows the list of missing meters.



The list of USB Readers and M-Bus Masters

The list of USB Readers and M-Bus Masters can be seen in the middle of the screen display. The units which are not connected to the PC or out of reach will be grey. USB Readers and M-Bus Masters cannot be connected at the same time. The list includes various details on the connected units. Some of them are shown in the picture below where

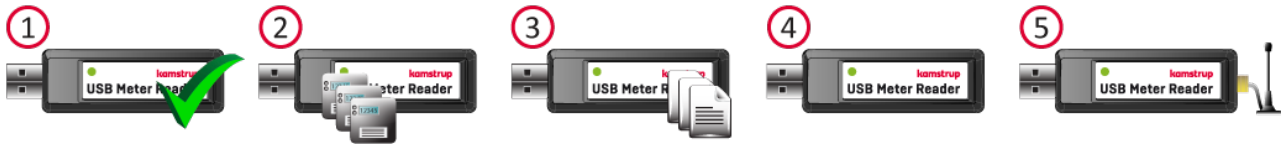
1. These units are connected and active.
2. The signal strength is shown in the picture. If the USB icon is visible, it means that the USB Reader is directly connected to the PC via the USB port.
3. The M-Bus Masters are grey as they are currently not connected to the PC.



USB Reader status icons

Each USB Reader has one or more status icons. These represent:

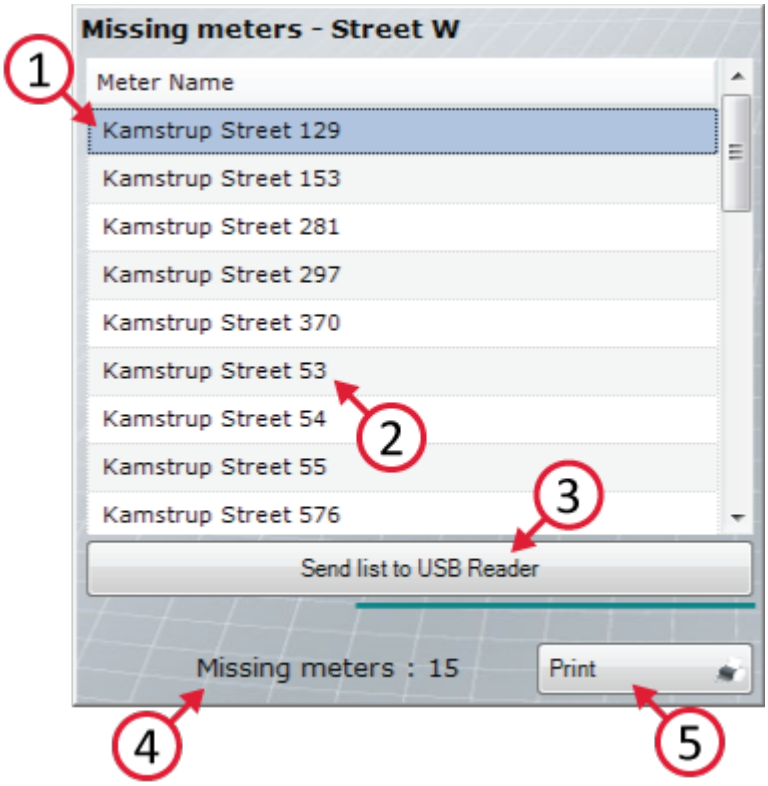
1. The USB Reader is updated. The job list is updated, and all meter data on the USB Reader has been collected and saved.
2. The job list on the USB Reader is too old and is being updated. Note that the list is updated automatically
3. The USB Reader contains new data. The system remembers this data continually. Note: This takes place automatically.
4. USB Reader with internal antenna
5. USB Reader with external antenna.



The window Missing meters

Missing meters are meters in a USB Reader or M-Bus Master job list which are older than the specified number of days (the definition of "Missing meters" is by default 2 days). If you click a USB Reader or an M-Bus Master, the dialog box "Missing meters" will be updated and show:

1. The name of the USB Reader/M-Bus Master
2. A list of meters defined as missing (older than the specified number of days)
3. The button "Send list to USB Reader" which collects the missing meters and sends them to the USB Reader or M-Bus Master, respectively. Note that the job list will be overwritten and subsequently only include missing meters.
4. The number of missing meters
5. The button "Print" that opens the dialog box "Print Preview". Here, you can print the list of missing meters.



2.2 Data

Introduction

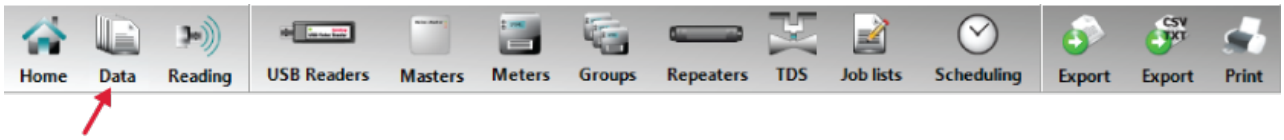
The view "Data" is, as the name indicates, the view in which you can see all your data. It contains a table/list of all your meters. This section describes how to sort, filter and keep an eye on detailed information about the meters in your Kamstrup USB Meter Reader system.

Topics:

- Opening the view "Data"
- Overview of the view "Data"
- View modes
- Using the filter to sort data in "USB Reader" or in a meter group
- Getting more out of the view "Data" – sorting and adjusting columns
- Exporting data to a PDF or Excel file

Changing to the view "Data"

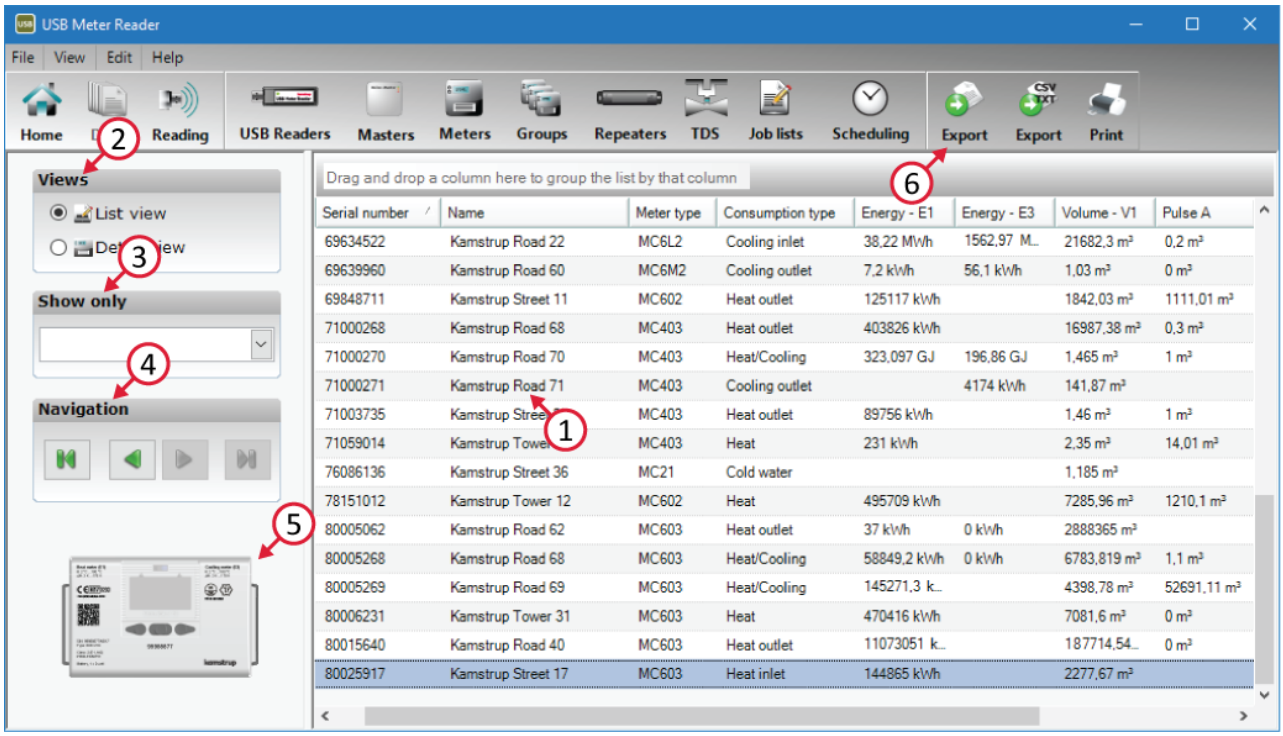
You can change to the view "Data" by clicking "Data" on the toolbar, as shown below, or via the menu Show ⇨ Data.



Overview

An image of the view "Data" is shown below. All the below items are described in more detail later.

1. A list of meters and the most common data
2. In the area "Views", you can change between "List view" and "Detail view"
3. In the area "Show only", you can change the list to include only the meter(s) belonging to a single job or a group of meters.
4. Use the navigation buttons to browse through the list. They are especially useful in "Detail view".
5. An image of the meter type selected on the list. Note: The image is also updated in "Detail view"
6. All data can be exported and/or printed.

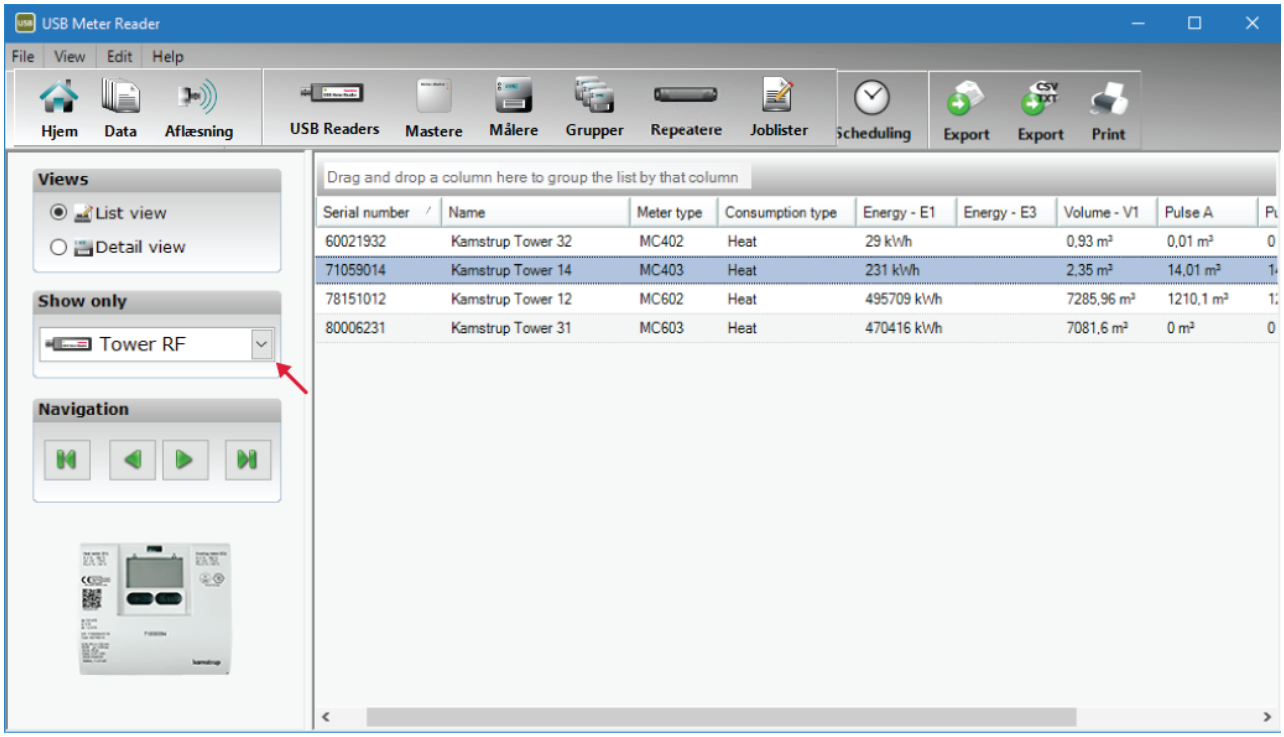


List view

You can change to "List view" in the area "Views" (see item 2 above). In "List view", you can gain an overview of the meters in your Kamstrup USB Meter Reader system. Navigate through the meters on the list by using the arrow keys on your keyboard or in the area "Navigation" (item 4 above). Note: All changes in the list are saved and available after restart. The view can be reset under File ⇨ Setup.

Sorting the list according to jobs

In the area "Show only", you can change the list to only contain a specific "USB Reader" job list or the meters in a specific meter group. Note: The number of columns can change as only used columns are shown.

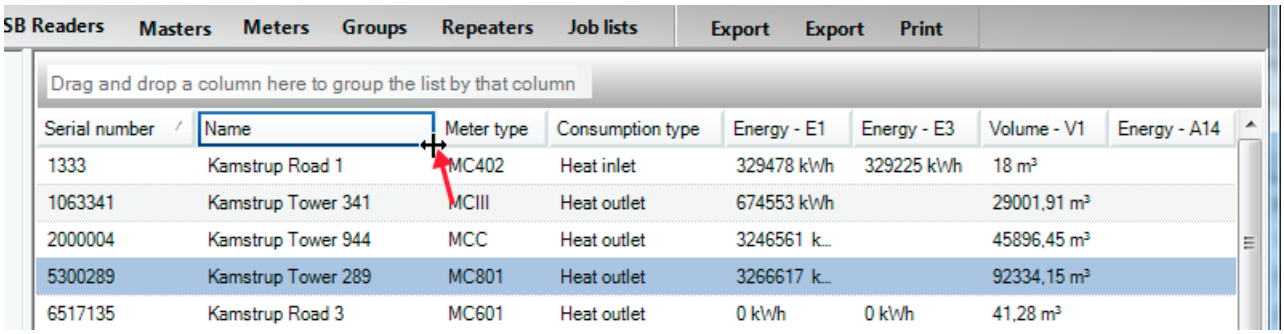


Adjusting columns

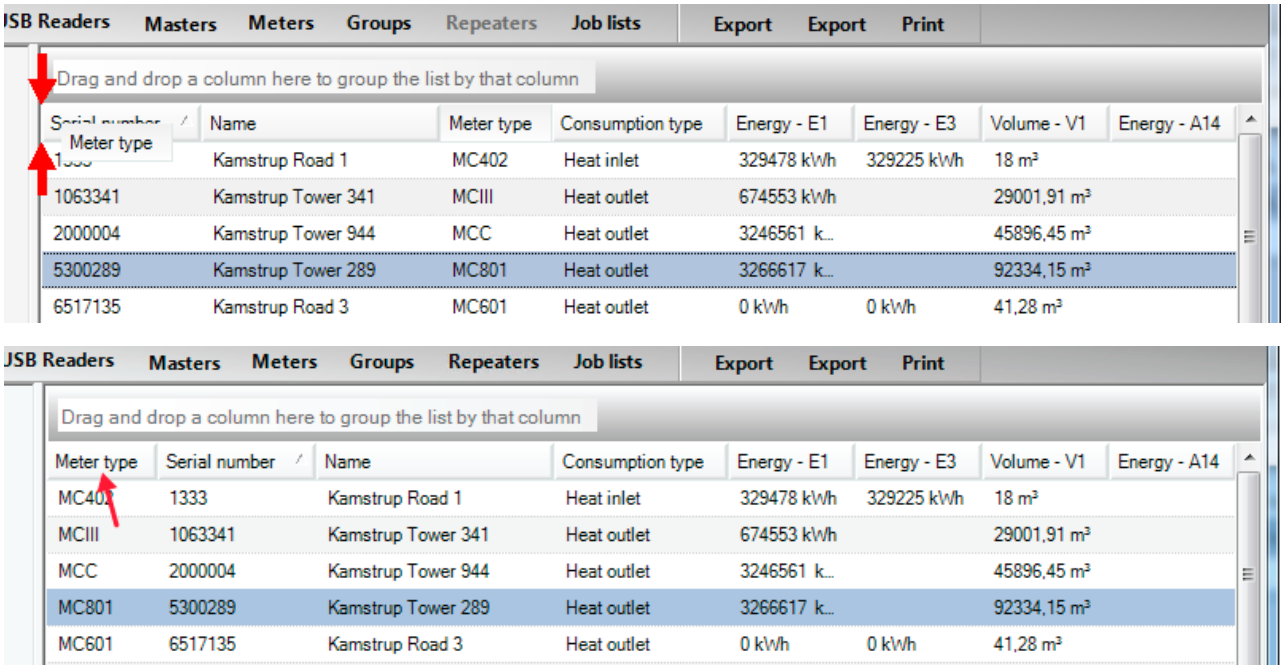
If you need to adjust the column width or change the order, you can do this in the following ways:

1. To make the column width fit the data width or the width of the heading, left-click with the mouse in the area between two columns as shown below.

2. To change the width of a column, click and hold down the left mouse button (between 2 columns as shown below). You can now change the width by moving the mouse to the right or to the left.

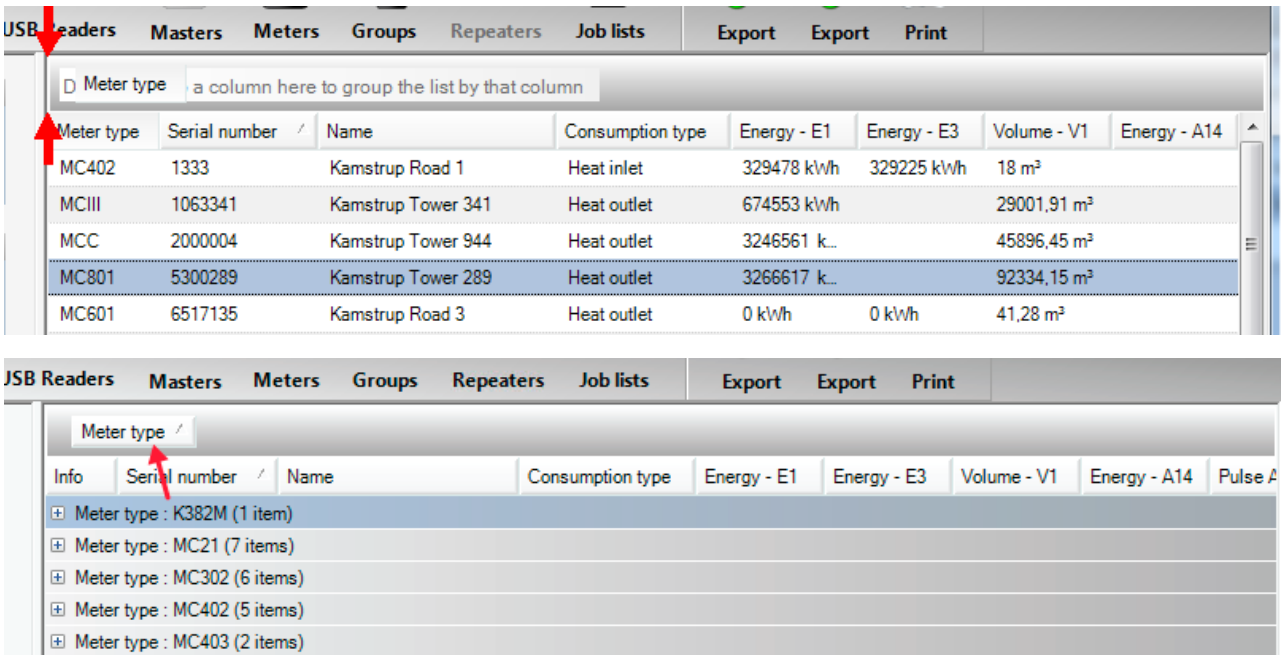


3. You can also move the columns around and place the ones you use most next to each other at the front. To do this, left-click the column heading and move the column to the wanted position while keeping down the button. This is shown below where the column "Meter type" is moved to the first position.

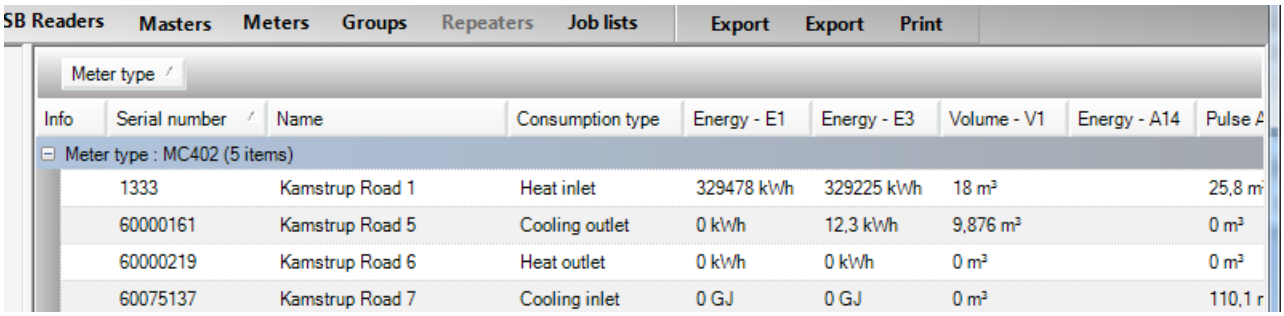


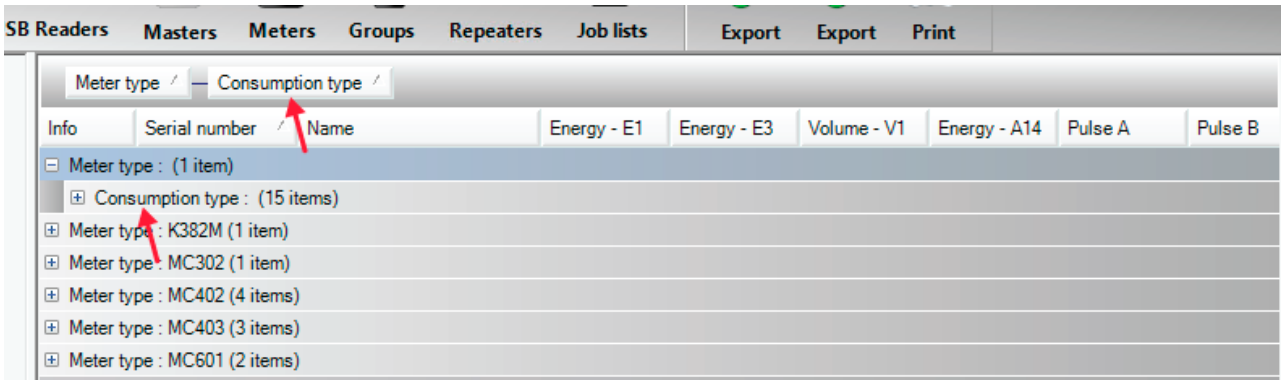
Sorting columns

To gain the full benefit from the view "Data", you can sort the table according to one or more columns. This is very useful and enables you to group your meters as desired. To sort according to e.g. meter type, drag the column "Meter type" to the "column sorting area" and drop it as shown below.

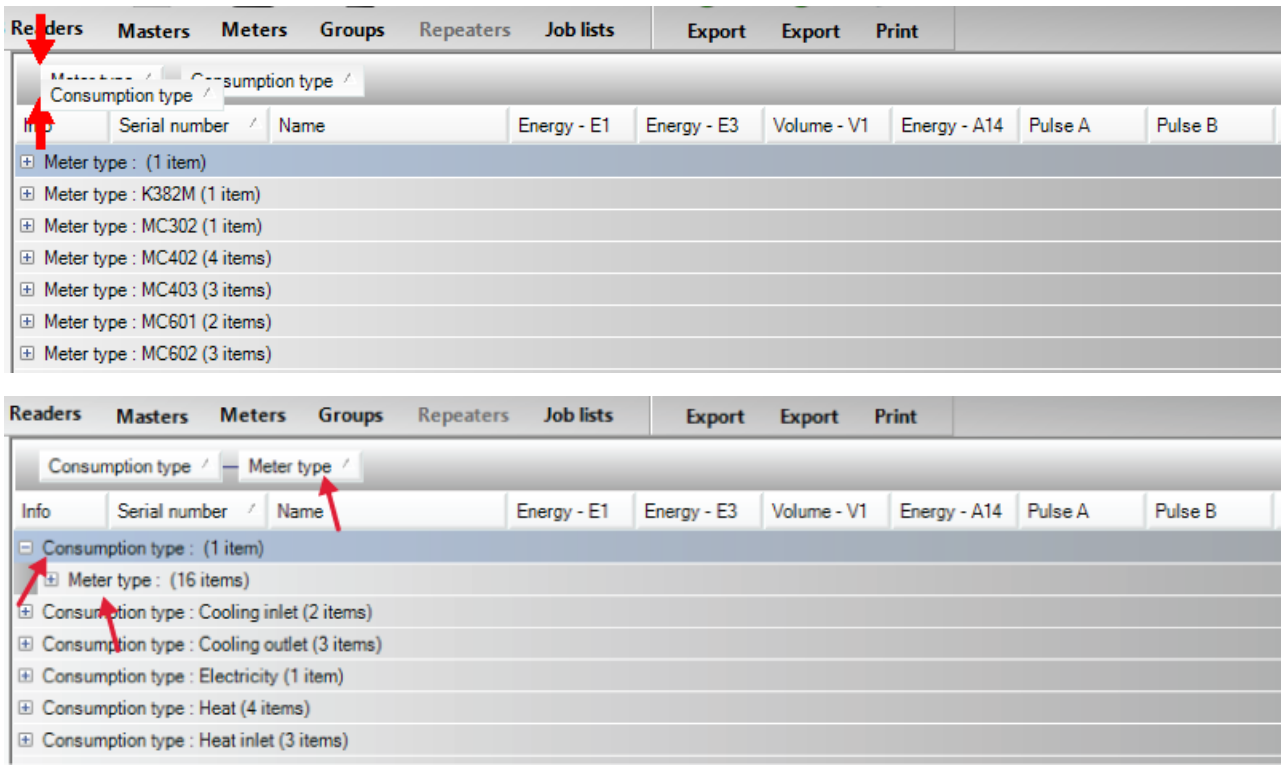


To sort according to another column, e.g. consumption type, drag the column "Consumption type" to the "column sorting area" as shown below.





It is also easy to change the order of the sorting columns. Just place e.g. the column "Consumption type" in front of the column "Meter type" to sort according to name. This is shown below.

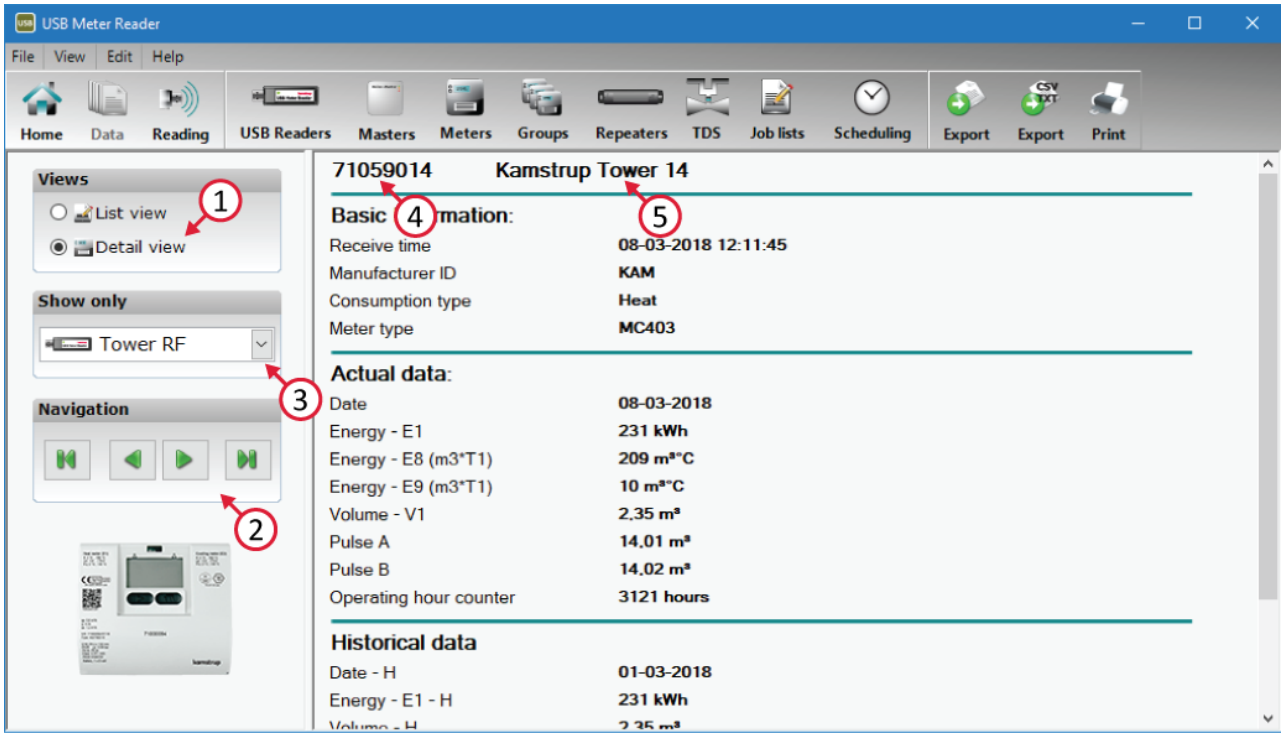

Readers
Masters
Meters
Groups
Repeaters
Job lists
Export
Export
Print
Consumption type
Info
Serial number
Name
Energy - E1
Energy - E3
Volume - V1
Energy - A14
Pulse A
Pulse B
Meter type : (1 item)
Meter type : K382M (1 item)
Meter type : MC302 (1 item)
Meter type : MC402 (4 items)
Meter type : MC403 (3 items)
Meter type : MC601 (2 items)
Meter type : MC602 (3 items)

Readers
Masters
Meters
Groups
Repeaters
Job lists
Export
Export
Print
Consumption type
Meter type
Info
Serial number
Name
Energy - E1
Energy - E3
Volume - V1
Energy - A14
Pulse A
Pulse B
Consumption type : (1 item)
Meter type : (16 items)
Consumption type : Cooling inlet (2 items)
Consumption type : Cooling outlet (3 items)
Consumption type : Electricity (1 item)
Consumption type : Heat (4 items)
Consumption type : Heat inlet (3 items)

Detail view

You can change to "Detail view" in the area "Views". In "Detail view", you can see all data collected from a specific meter.

1. Select "Detail view" in the area "Views".
2. In the area "Navigation", you can shift between the meters. The buttons navigate to first, previous, next and last meter, respectively.
3. Note: If you have selected e.g. "USB Reader" in the "Show only" area, you only navigate in the filtered list.
4. Meter number
5. Meter name.



2.3 Reading

Introduction

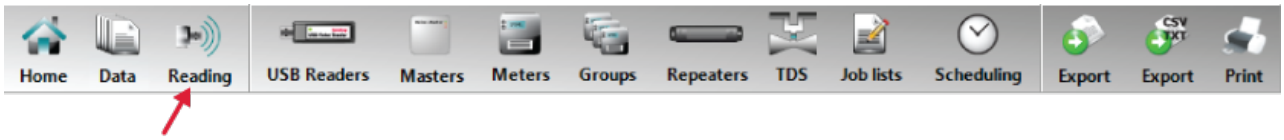
The window "Reading" is used for reading selected meters. It has two tabs: "Read meter(s) via USB Reader" or "Read meter(s) via M-Bus Master" and "Read selected meter(s)". This section explains in detail what you can see and do in the window "Reading".

Topics:

- Changing to the view "Reading"
- Overview of "Reading"
- Using "Read meter(s) on USB Reader" and "Read meter(s) on M-Bus Master", respectively
- Using "Read specific meter(s)".

Changing to the view Reading

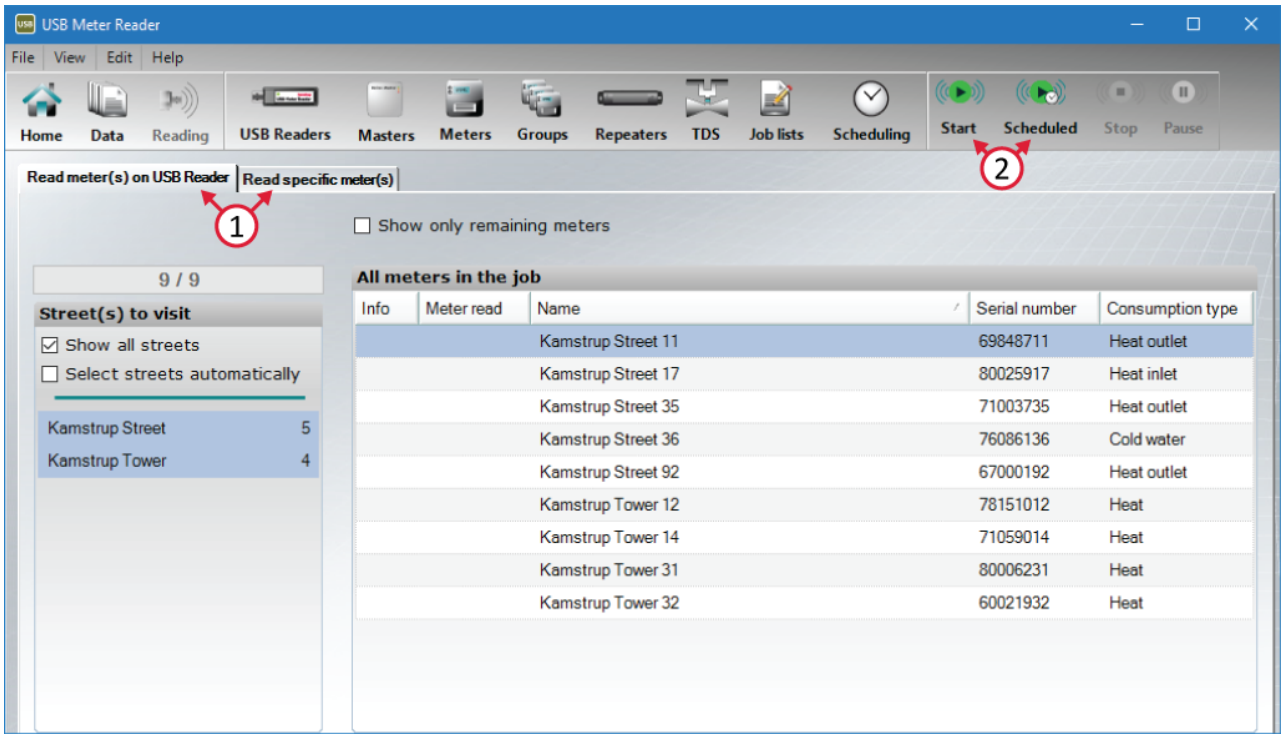
You can change to the view "Reading" by clicking "Reading" on the toolbar as shown below or via the menu Show ⇨ Reading.



Overview

In the view "Reading", you can change between two tabs depending on type of reading. An illustration of a USB Reader or an M-Bus network reading data from meters is displayed during reading. The components are shown below.

1. The two tabs "Read meter(s) on USB Reader or M-Bus Master" and "Read specific meter(s)".
2. The buttons “Start”, “Scheduled”, “Stop” and “Pause”.

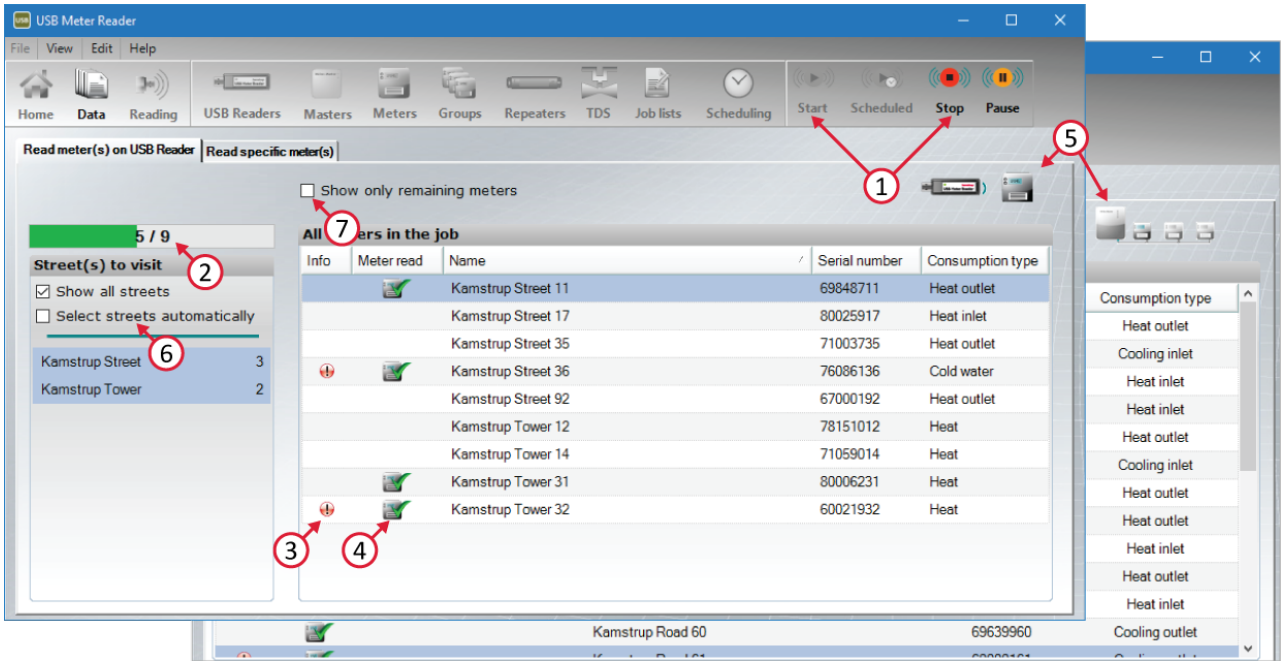


Collecting data from meters via USB Reader and M-Bus Master, respectively (the tab Read meter(s))

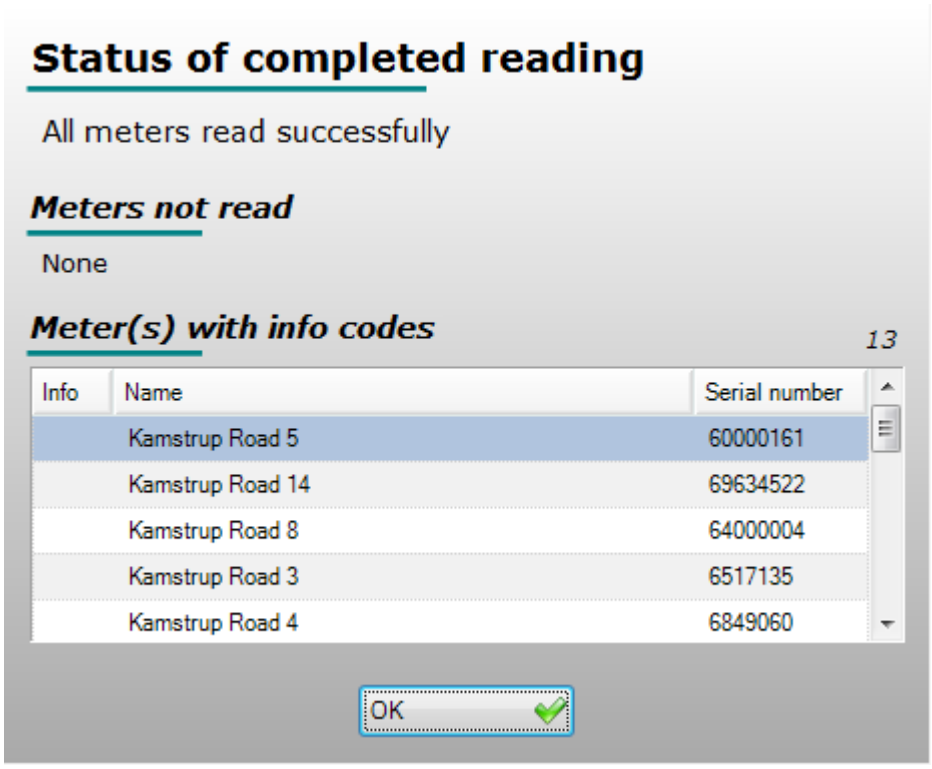
Select the tab "Read meter(s)" when reading/collecting data from "Job lists" in "USB Reader or M-Bus Master" that is currently connected to the computer. In order to start reading, click "Start". Note that the USB Reader does not necessarily read the meters in the same order as listed, but rather one at a time as the USB Reader obtains contact with them. The M-Bus Master reads the meters that support the fastest communication speed first.

While you read, the window will continuously keep you updated on the process:

1. The reading is started by clicking the “Start” or “Scheduled” button. With “Pause”, you can temporarily stop the reading, and you stop it by clicking the “Stop” button.
2. The process bar shows the number of meters that have not been read and the total quantity to be read.
3. "Info": Displays the info codes of the read meters, if any. If you hold the mouse over the !, further details are displayed
4. The icon "Meter read" indicates that the meter has been read.
5. The picture is shown as long as the USB Reader or the M-Bus Master reads meters.
6. "Street(s) to visit": Select "Show all streets" or "Select streets automatically".
   If you select "Show all streets", all meters to be read are displayed. If "Select streets automatically" is shown, only the meters on the street which has just been read or the street which is being read is displayed.
7. If you select "Show only remaining meters", just the meters that have not yet been read are displayed. Otherwise, all meters, both those read and those not read, are displayed.



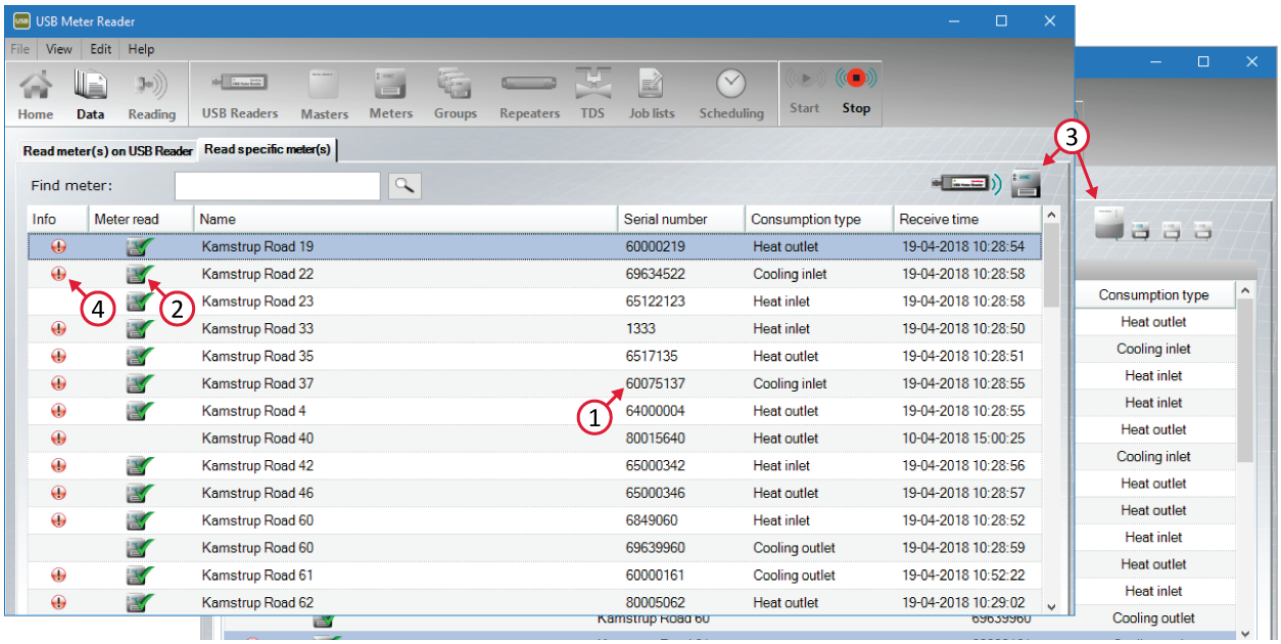
When you stop the reading by clicking "Stop", or if the reading is stopped automatically when all meters have been read, the status of the reading is shown. Likewise, any meters which have not been read or meters with info codes are shown.



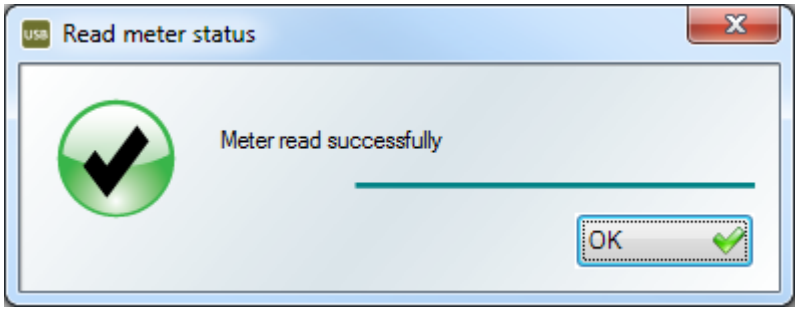
Reading of data from a specific meter (the tab "Read specific meter(s)")

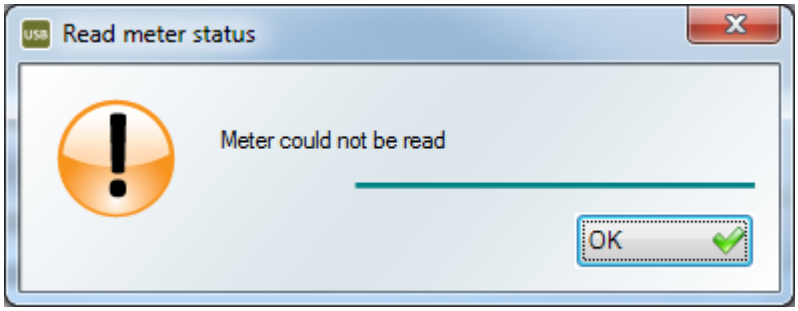
Use the tab "Read specific meter(s)" if you want to read/collect data from a specific meter. To read data from a meter, select the meter to read from the list and click "Start".

1. The meter, which you try to read/from which you try to collect data, is the one selected from the list.
2. The icon "Meter read" shows that the meter is not a "missing meter". Therefore, the icon "Meter read" is added to the meter if the reading succeeds
3. The picture is displayed while you attempt to read the meter.
4. "Info". Displays the info codes of the read meters, if any. If you place the mouse over the individual meter's info, further details are shown.



Depending on the result of the reading, a message appears informing you that the reading succeeded or that the USB Reader could not read the meter.





3 Dialog boxes

This section describes in detail each dialog box in Kamstrup USB Meter Reader.

- The dialog box "New USB Meter Reader"
- The dialog box "New M-Bus Master"
- The dialog box "Edit USB Meter Reader"
- The dialog box "Edit M-Bus Master"
- The dialog box "Edit Meter"
- The dialog box "New group"
- The dialog box "Repeater"
- The dialog box "Import of meter data"
- The dialog box "Thermal Disconnect (TDS)"
- The dialog box "Export of meter data"
- The dialog box "New job"
- The dialog box "Scheduling"
- The dialog box "Setup"
- The dialog box "About"

3.1 The dialog box "New USB Meter Reader"

Introduction

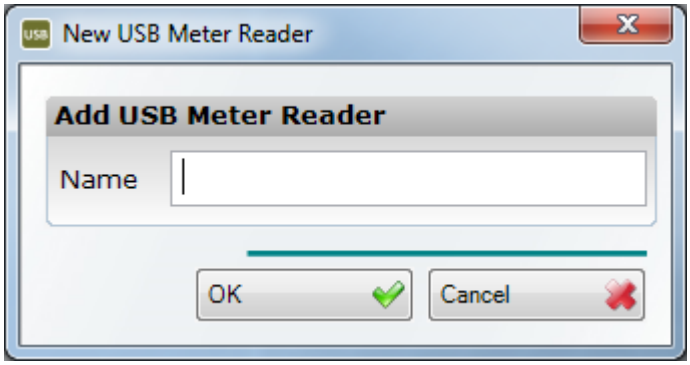
When you insert a new USB Reader into your PC, the dialog box "New M-Bus Master" shown below will be displayed. This section describes how to add a new USB Reader to a system.

Topics:

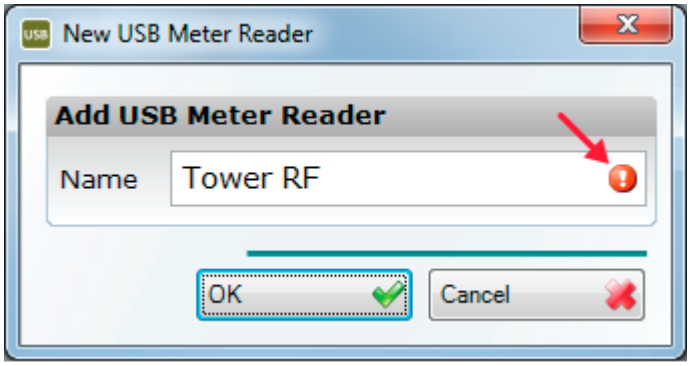
- Naming a USB Reader
- Cancelling changes
- Saving changes.

Naming a USB Reader

When the dialog box "New USB Meter Reader" is shown (see below), enter a random name for the "USB Reader" in question.



If you enter a name that already exists, the red error icon shown below is displayed. To solve the problem, you can either choose a different name or remove the new USB Reader, delete the old one and reconnect the new USB Reader.



Cancelling changes

To cancel your changes, click "Cancel".

Saving changes

To save your changes, click "OK".

3.2 The dialog box "New M-Bus Master"

Introduction

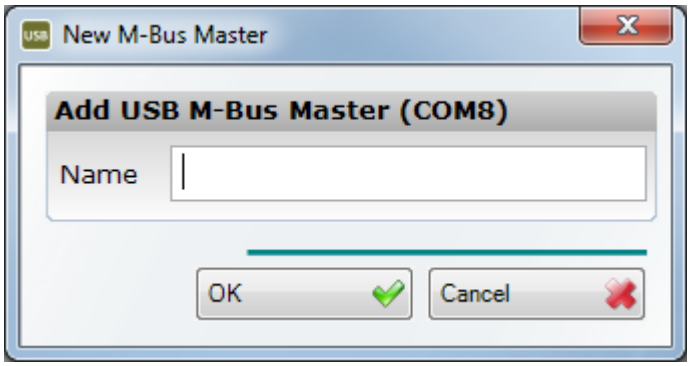
When you connect a new M-Bus Master to your PC, the dialog box "New M-Bus Master" shown below will be displayed. This paragraph describes how to add a new M-Bus Master to a system.

Topics:

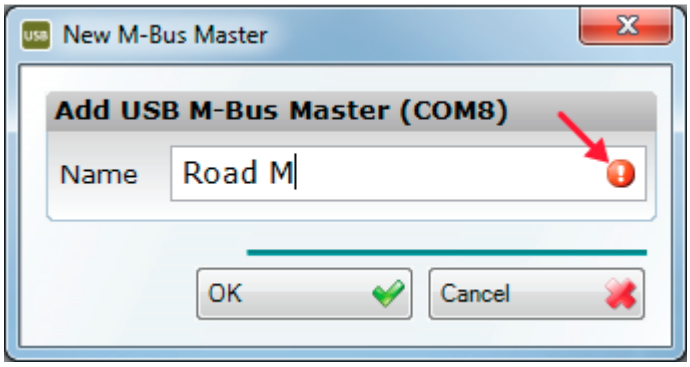
- Naming "M-Bus Master"
- Cancelling changes
- Saving changes.

Naming an M-Bus Master

When the dialog box "New M-Bus Master" is shown (see below), enter a random name for the master in question.



If you enter a name that already exists, the red error icon shown below is displayed. To solve the problem, you can either choose a different name or remove the new M-Bus Master, delete the old one an reconnect the new M-Bus Master.



Cancelling changes

To cancel your changes, click "Cancel".

Saving changes

To save your changes, click "OK".

3.3 The dialog box "Edit USB Meter Reader"

Introduction

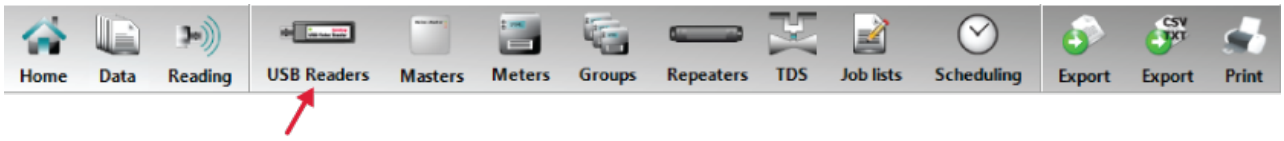
You can use the dialog box "Edit USB Meter Reader" for either changing the name of a random USB Reader in the system or deleting a USB Reader. This section describes step-by-step how to change the name of or delete a USB Reader.

Topics:

- Opening the dialog box "Edit USB Meter Reader"
- Changing the name of a USB Reader
- Deleting a USB Reader
- Cancelling changes
- Saving changes.

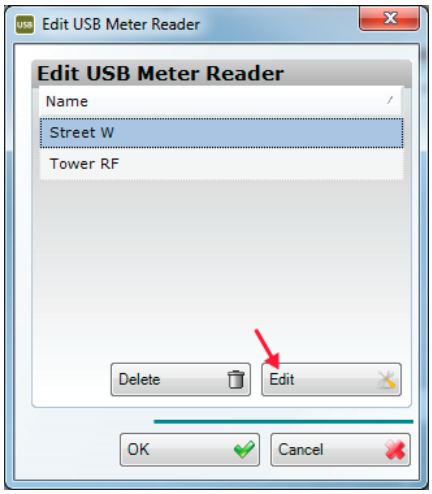
Opening the dialog box "Edit USB Meter Reader"

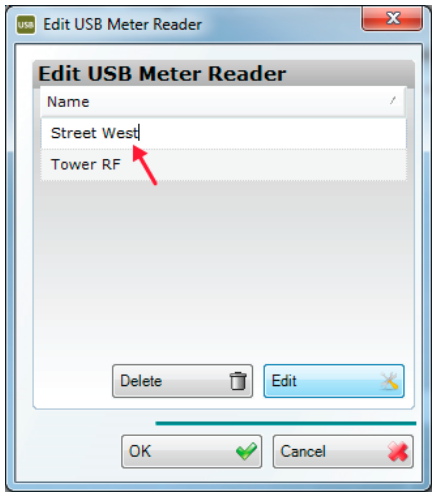
You can open the dialog box by clicking "USB Readers" on the toolbar or via the menu Edit ⇨ USB Readers.



Changing the name of a USB Reader

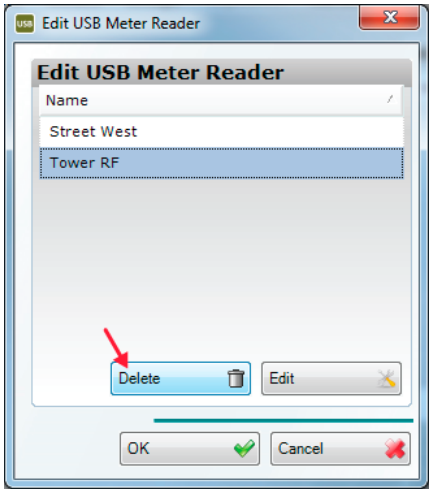
In order to change a name, click "Edit" or double-click the name that you want to change. You can change the names of as many USB Readers as you want – to edit the next USB Reader, repeat the procedure.

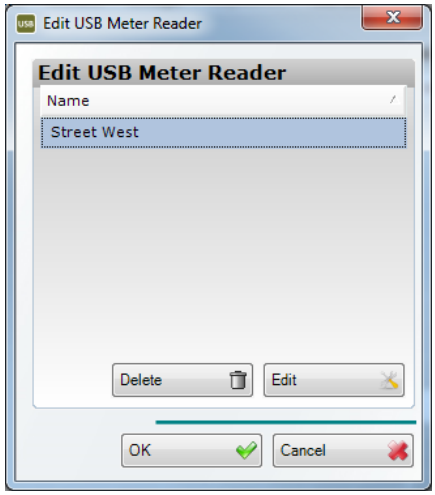




Deleting a USB Reader

You can delete a USB Reader by selecting the one that you want to delete and clicking "Delete".





Cancelling changes

To cancel your changes, click "Cancel".

Saving changes

To save your changes, click "OK".

3.4 The dialog box "Edit M-Bus Master"

Introduction

The dialog box "Edit M-Bus Master" is used for changing the names of, configuring and deleting M-Bus Masters in a system.

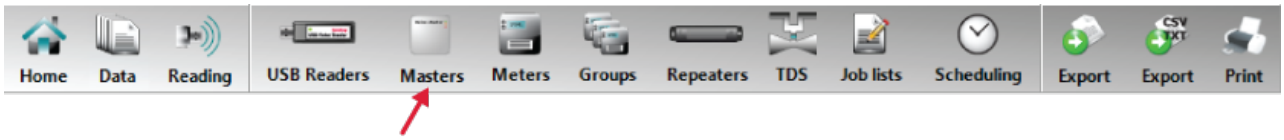
If Kamstrup M-Bus Master 250 is used via USB cable, the master is automatically detected and created. If other masters are used or Kamstrup M-Bus Master 250 is connected via RS-232, the master must be created manually.

Topics:

- Opening the dialog box "Edit M-Bus Master"
- Changing the name of an "M-Bus Master"
- Selecting maximum baud rate of an "M-Bus Master"
- Using SND_NKE in an "M-Bus Master"
- Showing whether an "M-Bus Master" is connected

Opening the dialog box "Edit M-Bus Master"

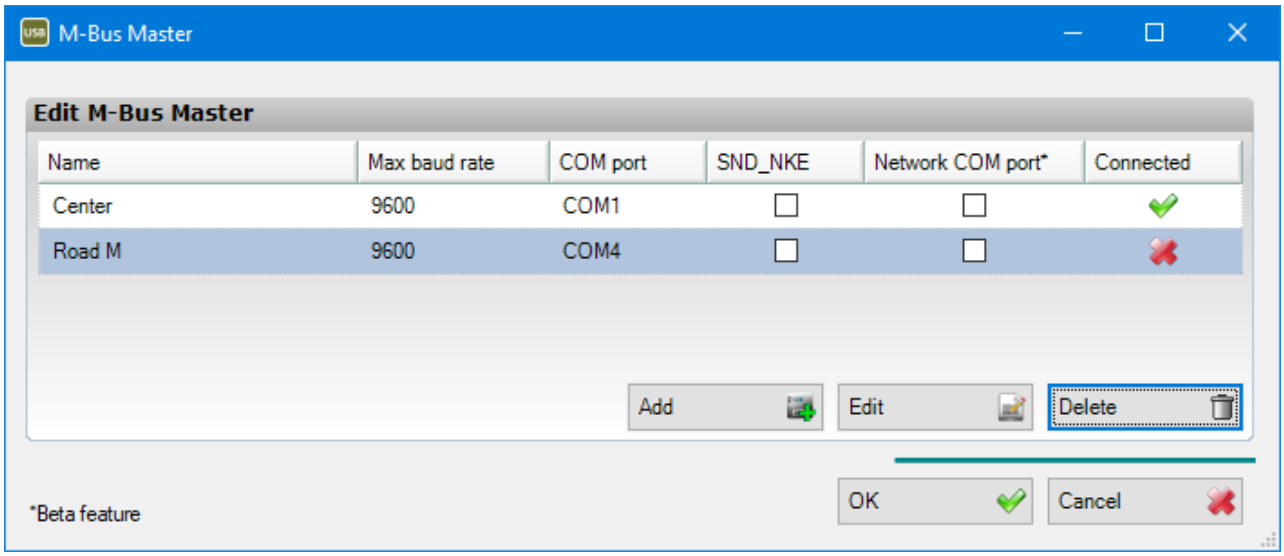
You can open the dialog box by clicking "Masters" in the toolbar or via the menu Edit ⇨ Masters.



Changing the name of an "M-Bus Master"

In order to change the name, click the button "Edit" and then the name you wish to change.

You can change the names of as many M-Bus Masters as you want – to edit the next M-Bus Master, repeat the procedure.



Selecting maximum baud rate of an M-Bus Master

The default maximum baud rate is 9600 Baud which can, however, be reduced to 2400 Baud or 300 Baud. This can be an advantage in installations with long cables where 9600 Baud may not provide stable readings or in systems in which none of the connected meters support 9600 Baud. In such cases, a lower maximum baud rate will reduce the reading time.

If 19200 or 38400 Baud are used, the selected M-Bus Master and the connected meters must support these baud rates.

Using SND_NKE in an M-Bus Master

In some M-Bus modules, data can be up to 15 minutes old when they are read. If you use the function SND_NKE (normalize M-Bus), all modules will supply current data.

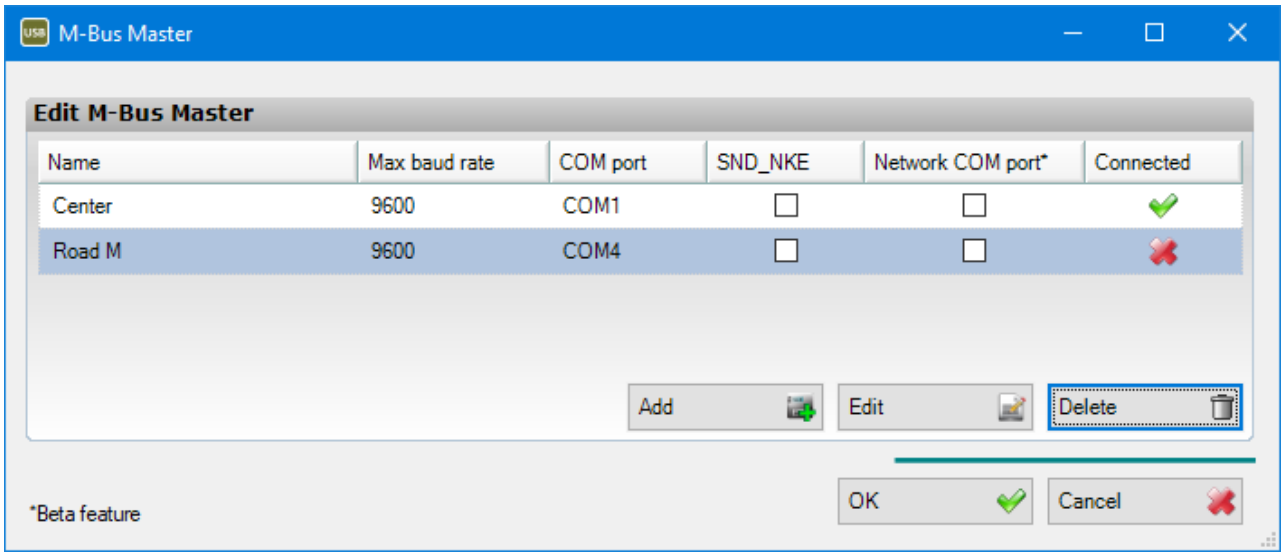
Network COM port

If M-Bus Master and the PC are connected using an RS-232 to Ethernet converter or similar, the stability can be improved by selecting this setup.

Showing whether an M-Bus Master is connected

This column shows whether an M-Bus Master is connected to the PC via its USB cable.

Masters connected via RS-232 COM port are not automatically selected. However, they are always shown as connected.

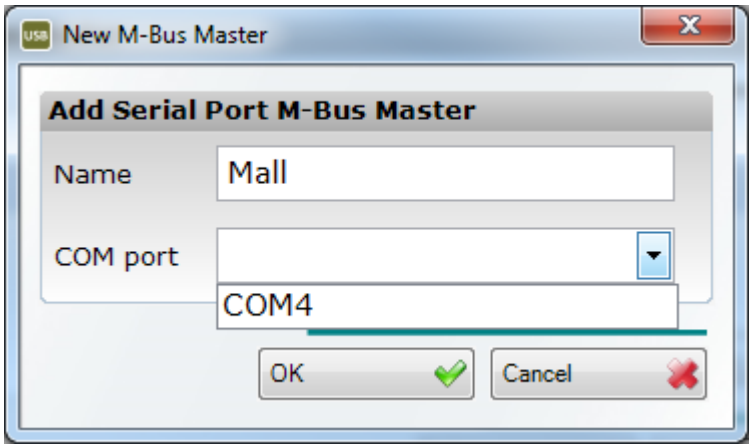


Cancelling changes

To cancel your changes, click "Cancel".

Saving changes

To save your changes, click "OK".



3.5 The dialog box "Edit Meter"

Introduction

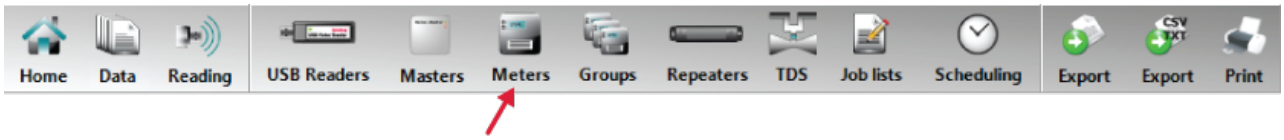
In this dialog box, you can add a new meter to your system, change the name of an existing meter and delete a meter from the system. This chapter shows you how to open the dialog box and add a new meter as well as change the name of an existing meter.

Topics:

- Opening the dialog box "Edit meter"
- Adding meters
- Possible errors while importing meters
- Changing a meter name
- Deleting a meter
- Cancelling changes
- Saving changes.

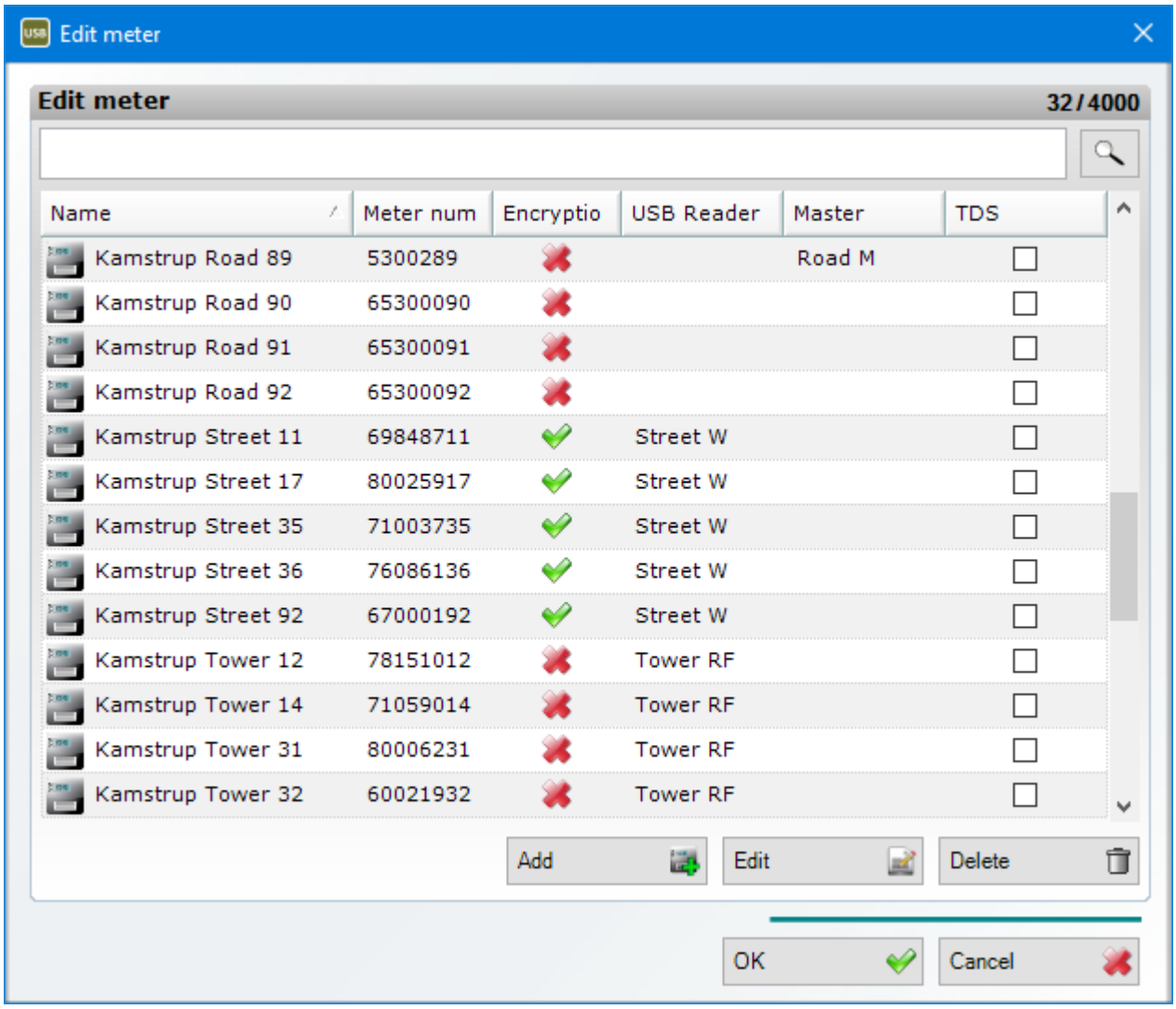
Opening the dialog box "Edit meter"

You can open the dialog box by clicking "Meters" on the toolbar, as shown below, or via the menu Edit ⇨ Meters.



Adding meters

Meters with wireless M-Bus can be delivered either with encrypted reading or with unencrypted reading.



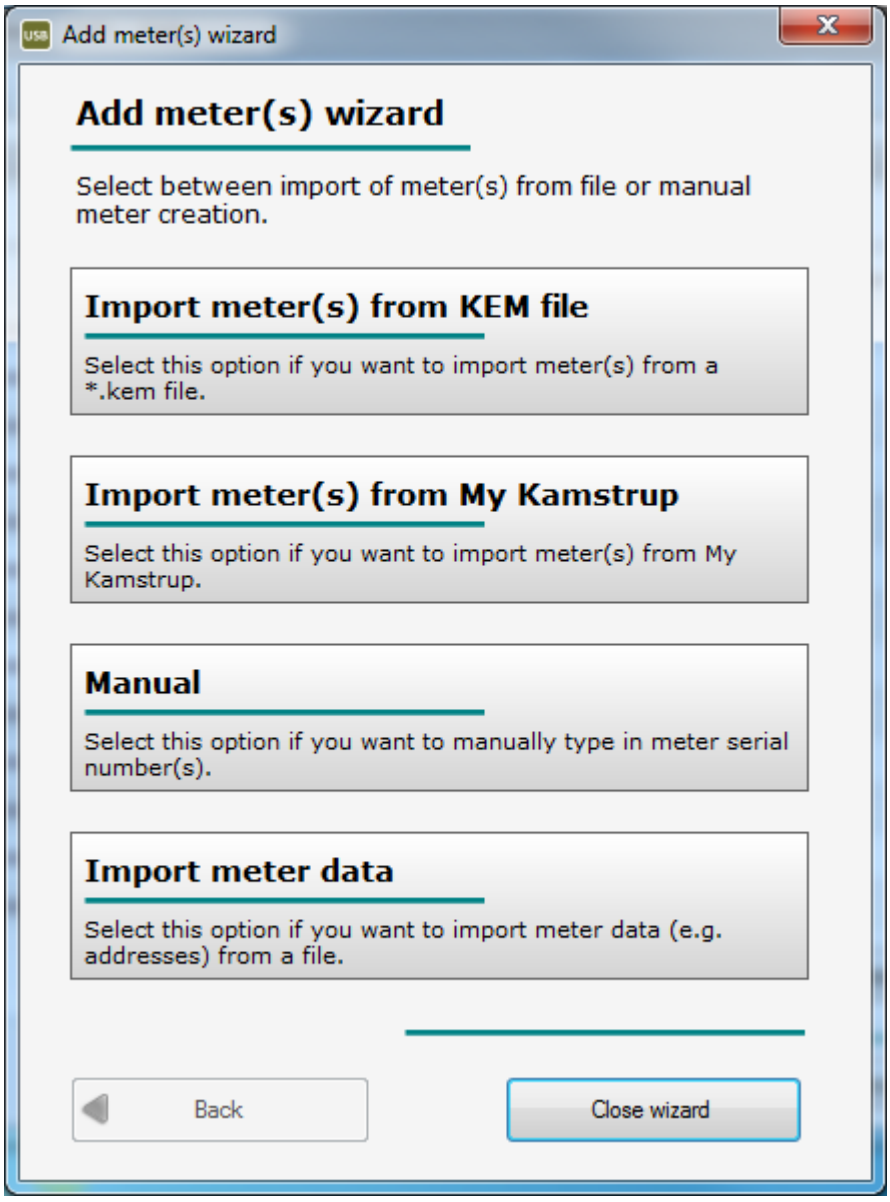
Adding meters with encrypted reading

In order to add meters to your system, the required information has to be imported first.

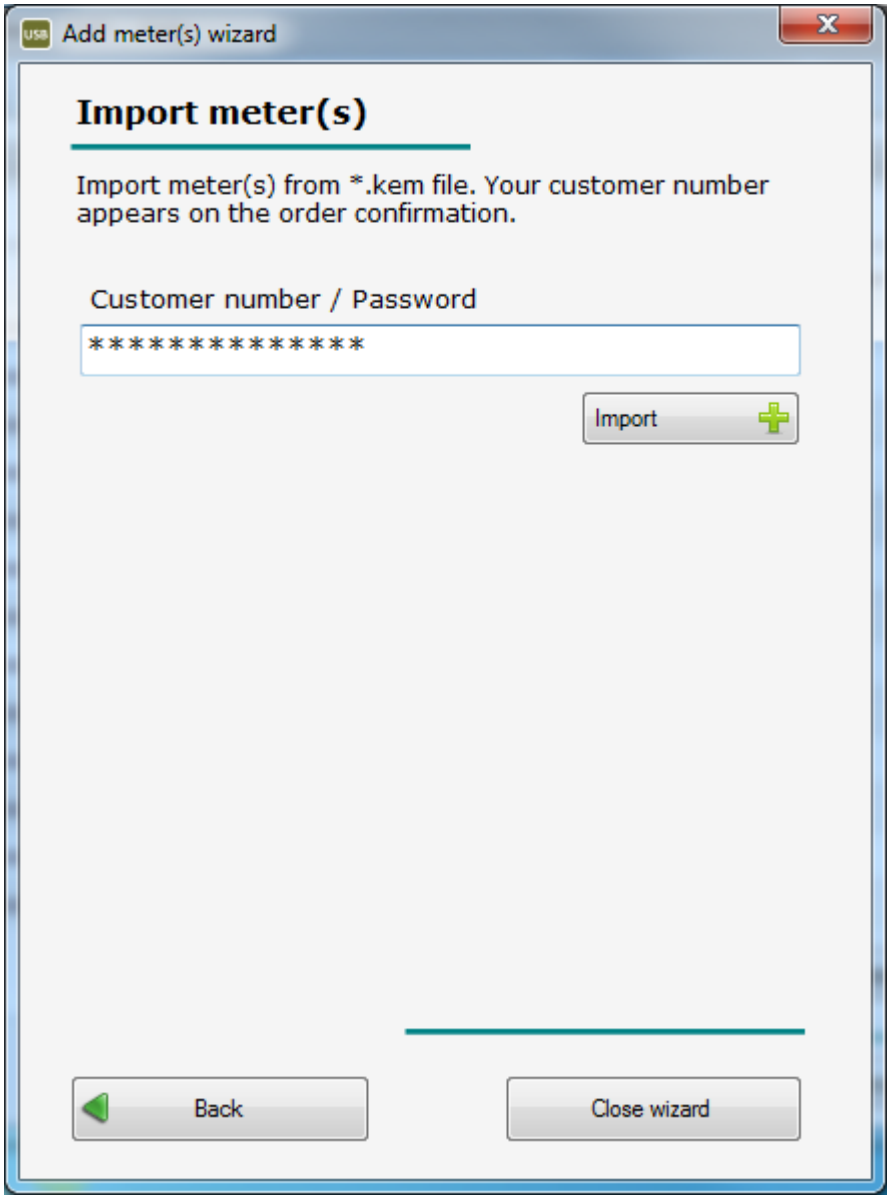
This can be done via "Import meter(s) from KEM file": For this purpose, you receive an email from Kamstrup with a link to be used for downloading the KEM file.

You can also import meters from "My Kamstrup" which is a customer portal from which the program automatically collects the required information.

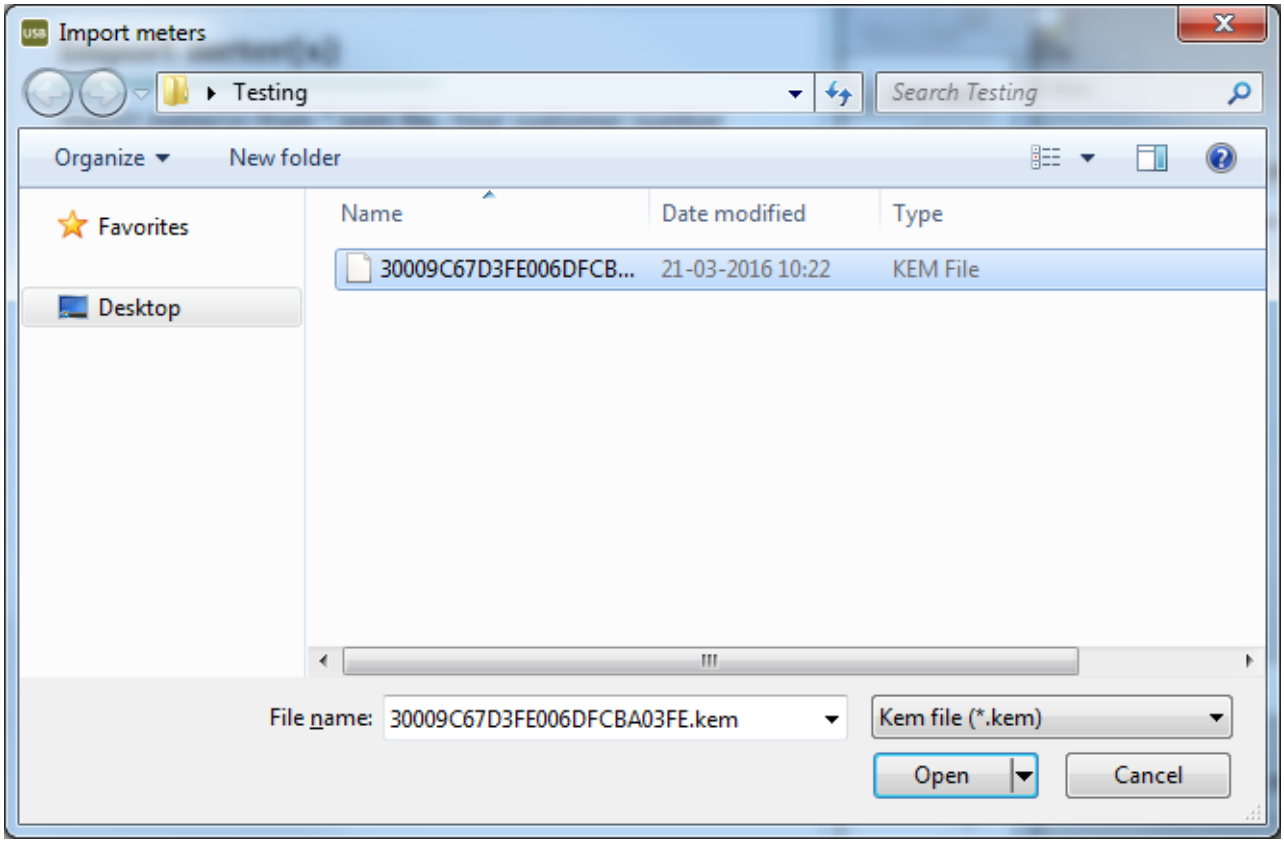
Click "Import meter(s) from KEM file".



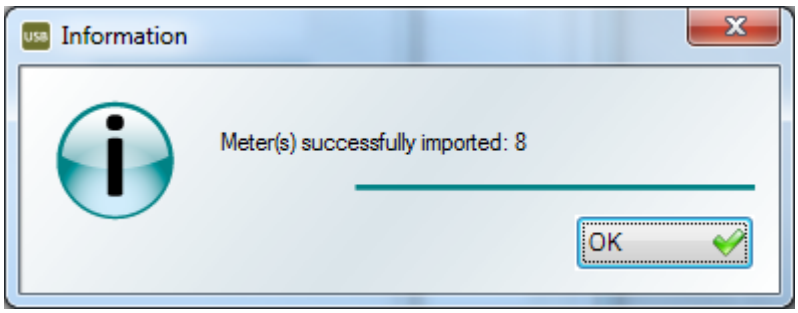
Enter your customer number (to be found in the top right part of your order confirmation), and click "Import".



Select the file that you have downloaded. The file name consists of a long string of numbers and letters and ends with "zip.kem".



The meters are then imported automatically.



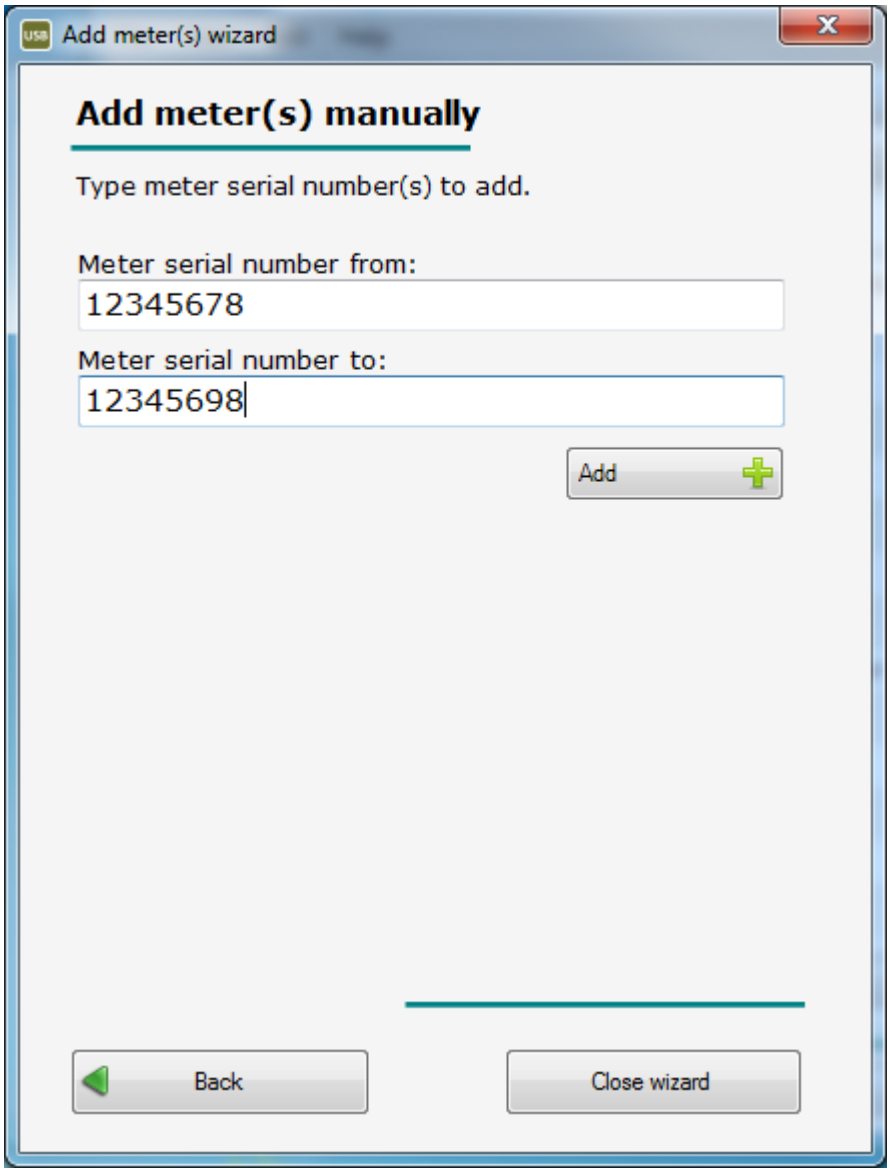
Adding meters with unencrypted reading

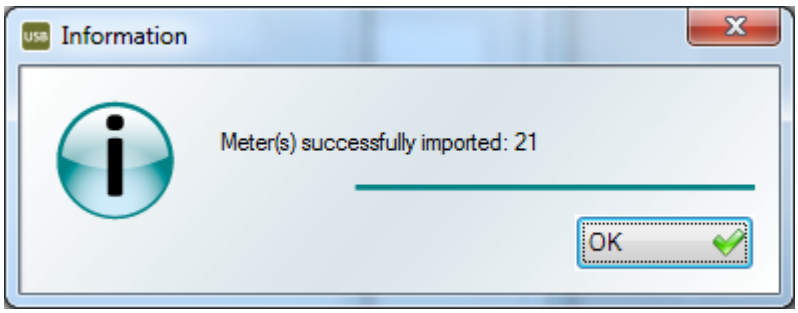
This function is primarily used for meters with wired M-Bus and Kamstrup 434 MHz radio.

Select "Manual" in the menu "Add meters".

Enter the number of the meter with the lowest serial number in "Meter serial number from" and the number of the meter with the highest serial number in "Meter serial number to".

Click "Add".



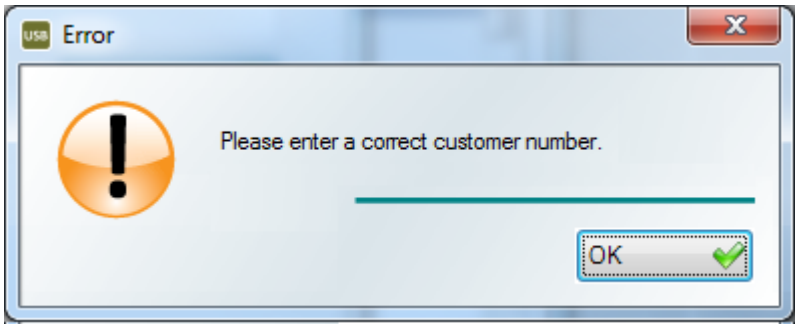


Errors while importing the KEM file

If you cannot import the KEM file, it could be due to one of the following errors:

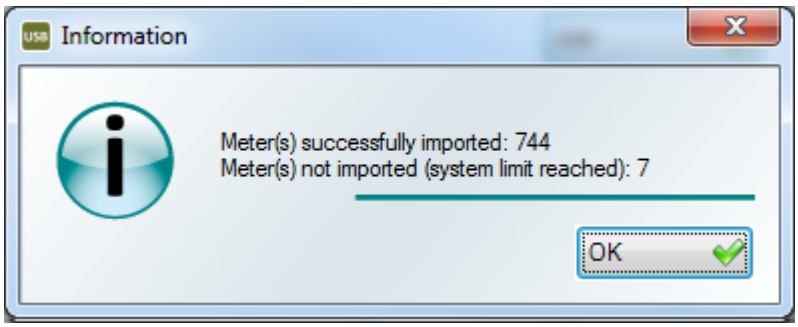
Wrong customer number

The customer number has been entered incorrectly. Check if the customer number has been entered correctly. If this is the case, please contact Kamstrup A/S.



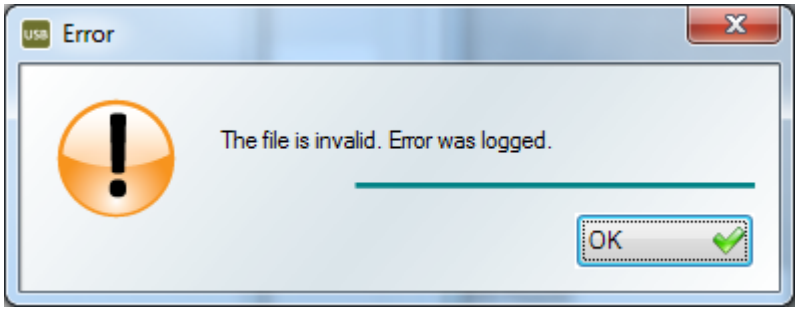
Too many meters in the system

Note that the system can contain maximum 800 meters. If this limit is exceeded, the system will import up to 800 meters. The remaining meters will not be imported.



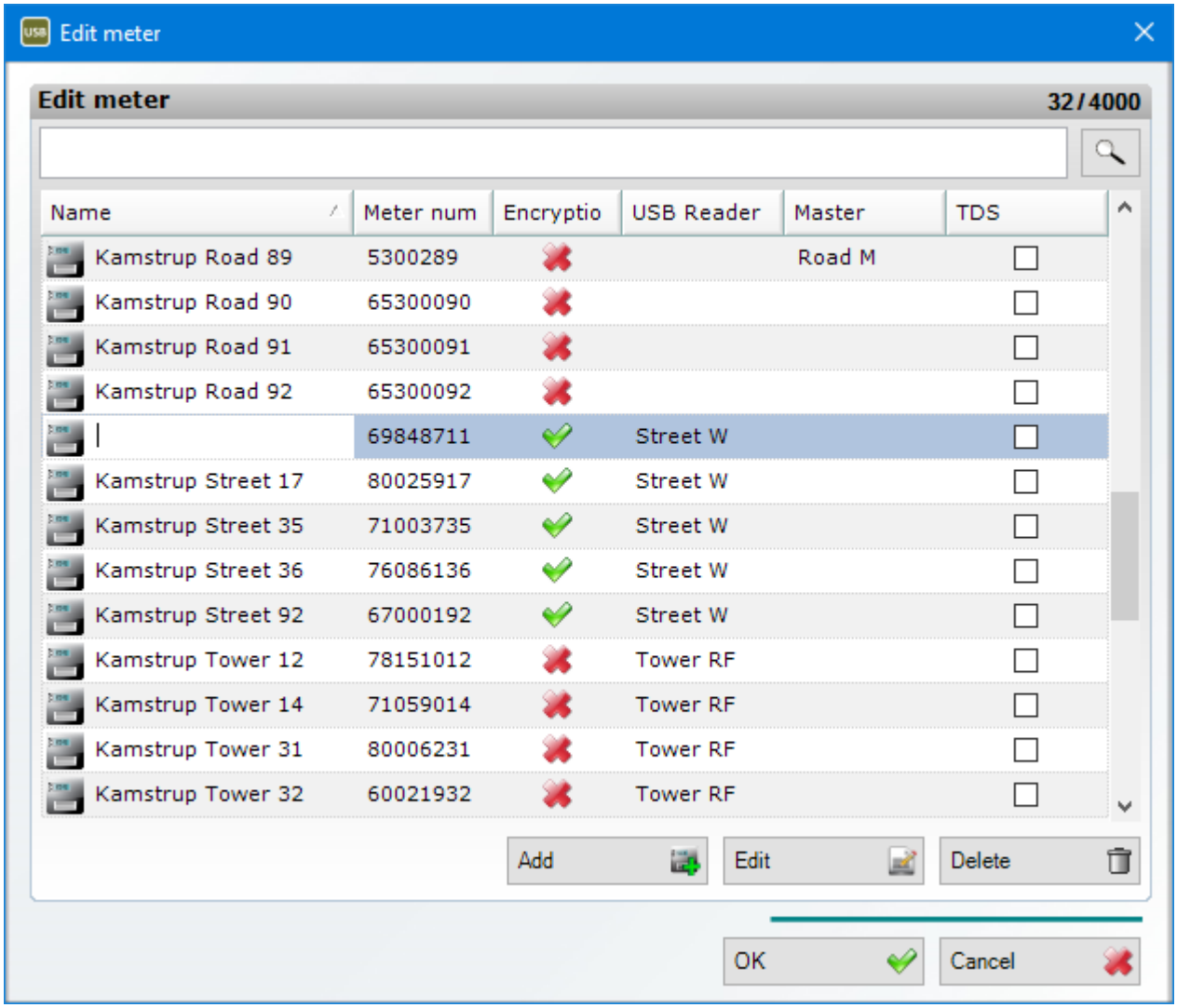
Unknown error

If an error has occurred while generating the file, or if the KEM file has been changed, the meters in this file cannot be imported. Please contact Kamstrup A/S to receive a new file.



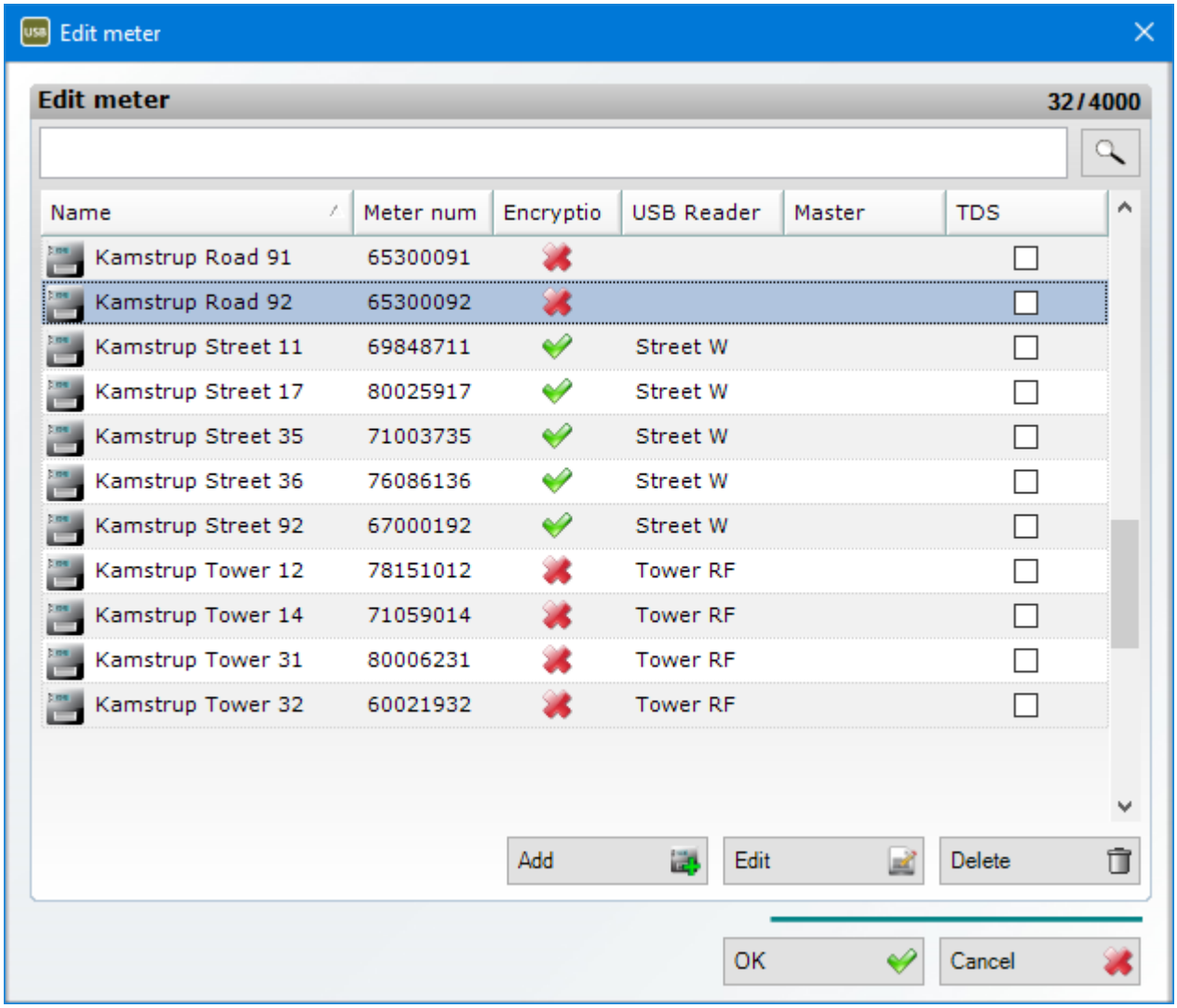
Changing a meter name

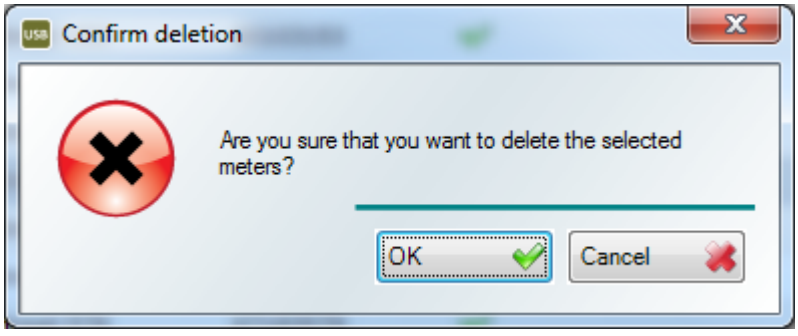
You can change the name of a meter by clicking "Edit" or by double-clicking the name that you want to change. Now, enter the new name, and either click "OK" (this will close the dialog box) or press the "Enter/Return" key on the keyboard. Note that it is not possible to change a meter number. To do this, you must delete the meter that you want to change and then add a new meter.



Deleting a meter

You can delete a meter by selecting the meter that you want to delete, and click "Delete".





Cancelling changes

To cancel your changes, click "Cancel".

Saving changes

To save your changes, click "OK".

Other details in the screen display "Edit meter"

Encryption

Shows whether the system includes an encryption key (KEM file) for the meter.

Encryption keys are used for meters with wireless M-Bus and one-way radio.

USB Reader

Shows the USB Readers to which the meter is connected and which can thus read the meter.

Master

Shows the M-Bus Masters to which the meter is connected and which can thus read the meter.

3.6 The dialog box "New group"

Introduction

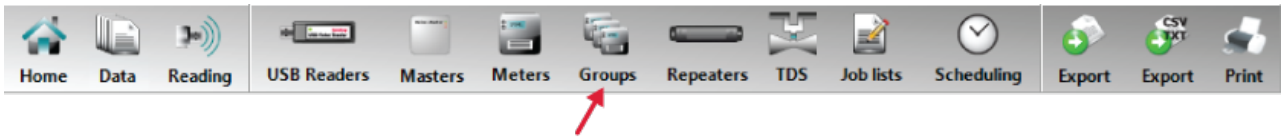
In this dialog box, you can create or delete a meter group and add a meter to or delete a meter from a meter group. This section describes how to open the dialog box and to carry out the various functions.

Topics:

- Opening the dialog box "New group"
- Creating a meter group
- Adding meters to a group
- Removing meters from a group
- Deleting a group
- Cancelling changes
- Saving changes

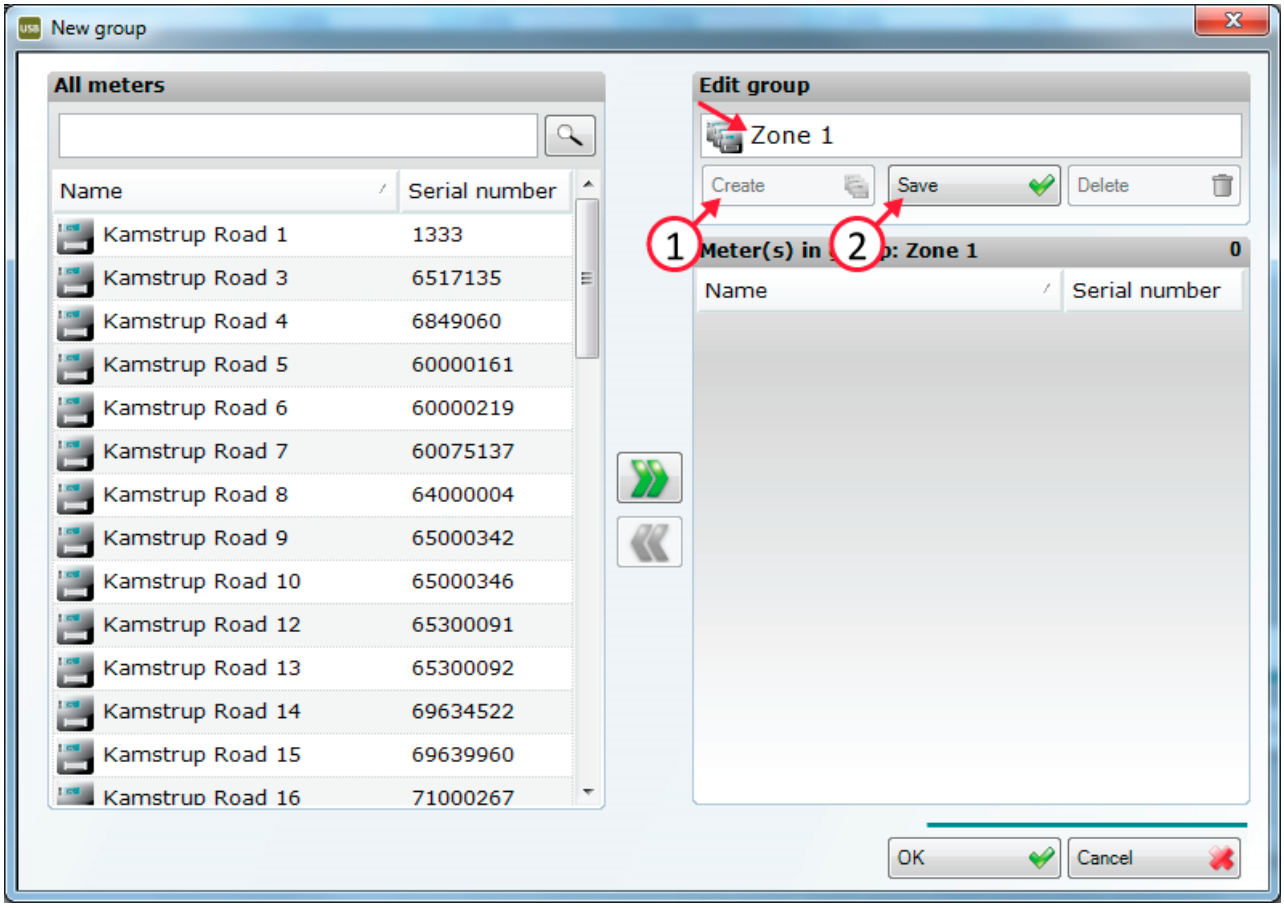
Opening the dialog box "New group"

You can open the dialog box by clicking "Groups" on the toolbar, as shown below, or via the menu Edit ⇨ Groups.



Creating a meter group

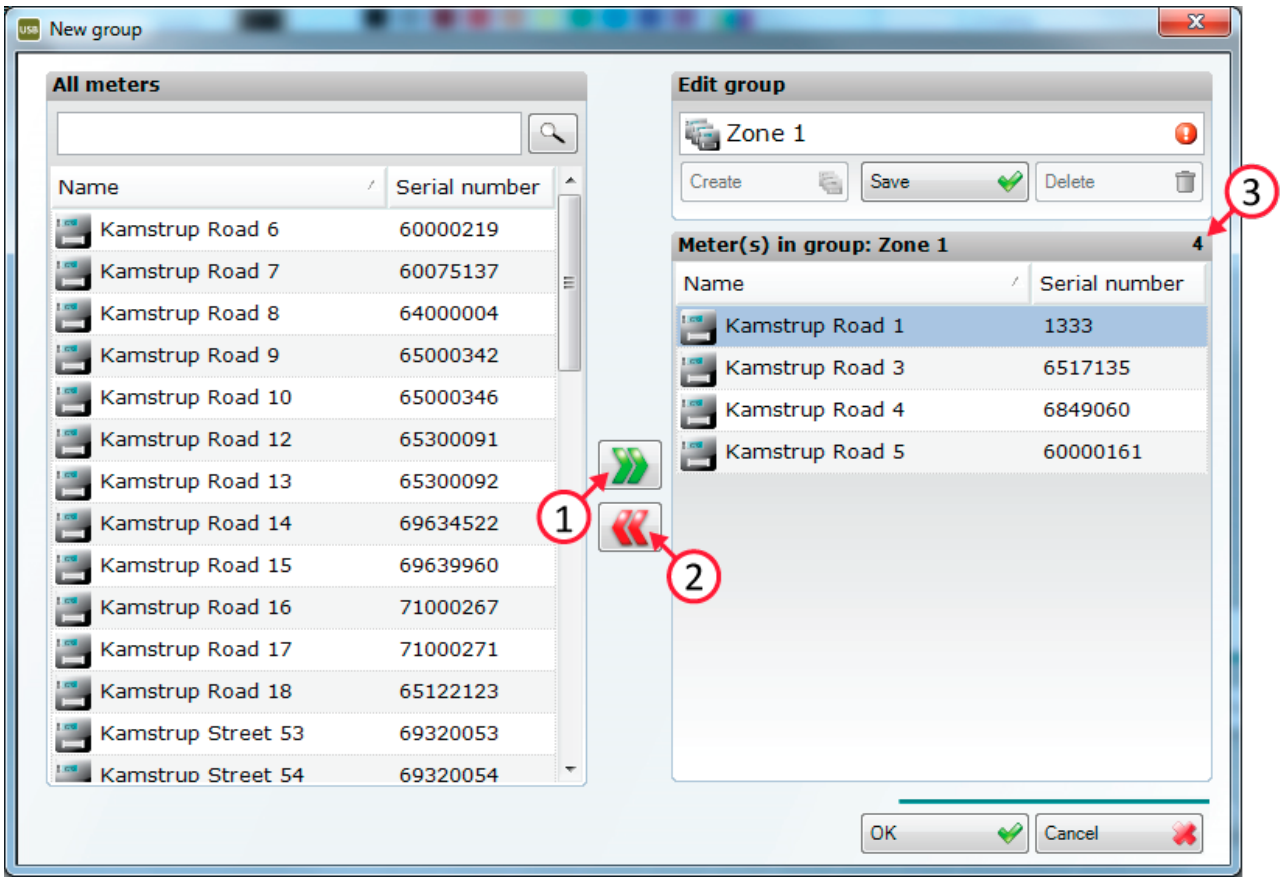
To create a new meter group, click "Create" (1). Enter a desired name (e.g. "Zone 1"), and click "Save" (2) or press the keyboard key "Enter/Return". The group has now been created, and you can add meters to the group as described in the next paragraph.



Adding meters to/removing meters from a group

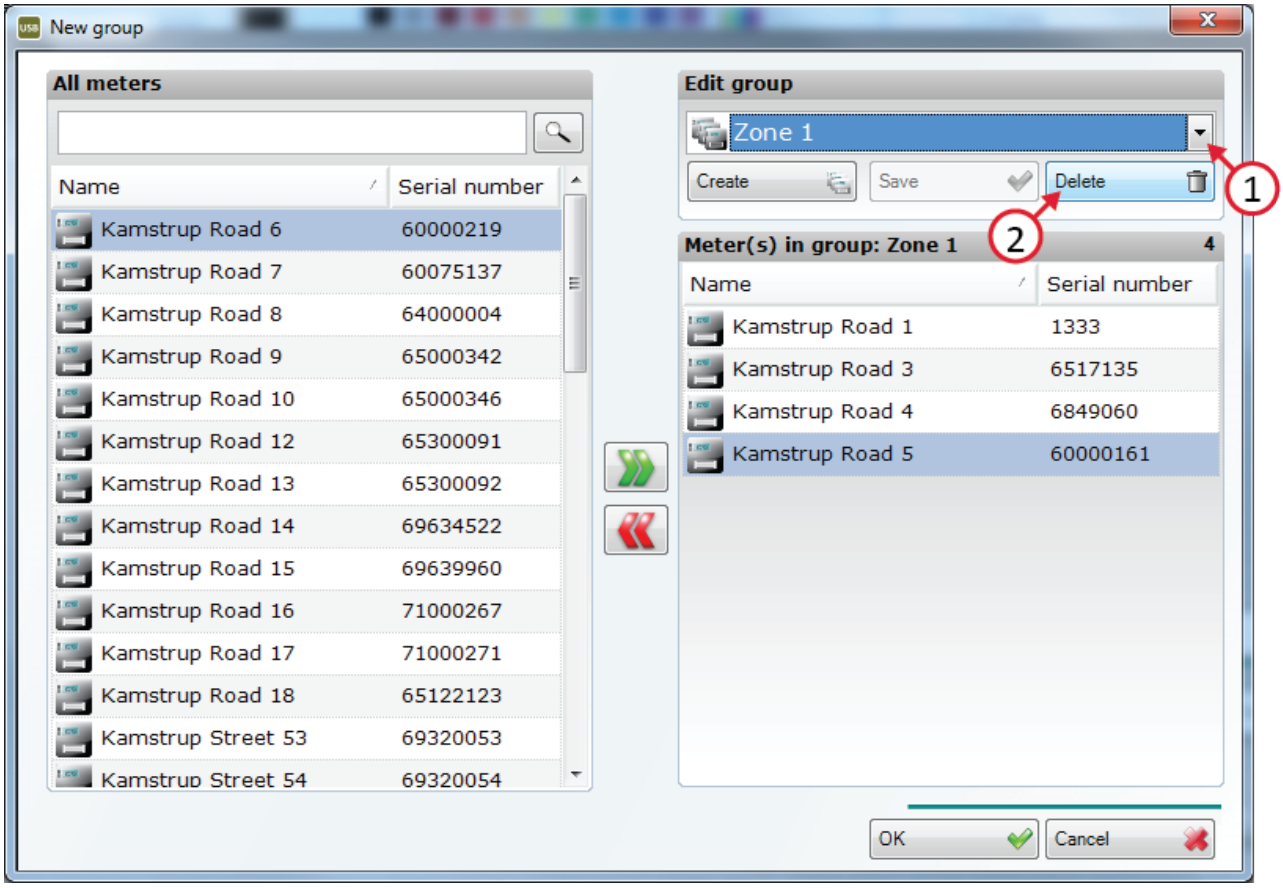
Select the group that you want to change. When you have selected a group, use the arrow buttons "Add" (1) or "Remove" (2) to add to or remove meters from a group.

1. The arrow button "Add" is used for adding a meter to a group
2. The arrow button "Remove" is used for removing a meter from a group
3. Here, the total number of meters in the group is shown. Note: A group can maximum contain 200 meters.



Deleting a meter group

To delete a group, select the group that you want to delete (1). Delete the group by clicking "Delete" as shown above (2). Before the group is deleted, you will be prompted to confirm. Note that only the group is deleted, not the meters in the group (see the dialog box "Edit meter" to delete the meters).

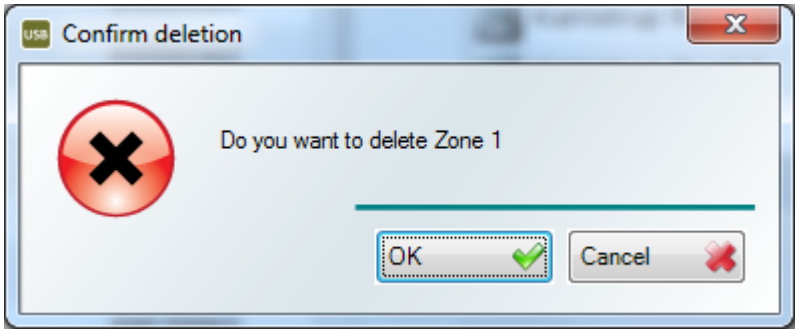


Cancelling changes

To cancel your changes, click "Cancel". Note that deleted and saved groups cannot be cancelled.

Saving changes

When clicking "OK", you are prompted to save changes that have not already been saved. You will not be prompted in case of no changes or if the changes have already been saved.



3.7 The dialog box "Repeater"

Introduction

In the menu "Repeaters", Kamstrup's wireless M-Bus repeaters can be added and configured.

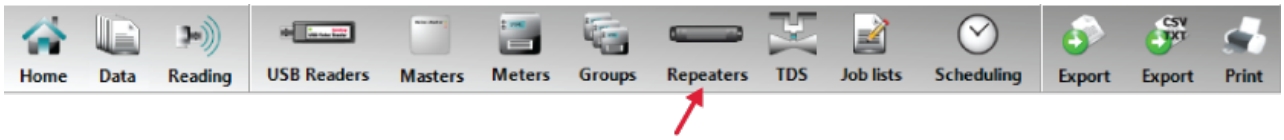
The functional module "Repeaters" is activated via the belonging licence key.

Topics:

- Opening the dialog box "Repeaters"
- Searching
- Meters
- Selecting a repeater
- Linking meters to a repeater
- Repeater info

Opening the dialog box "Repeaters"

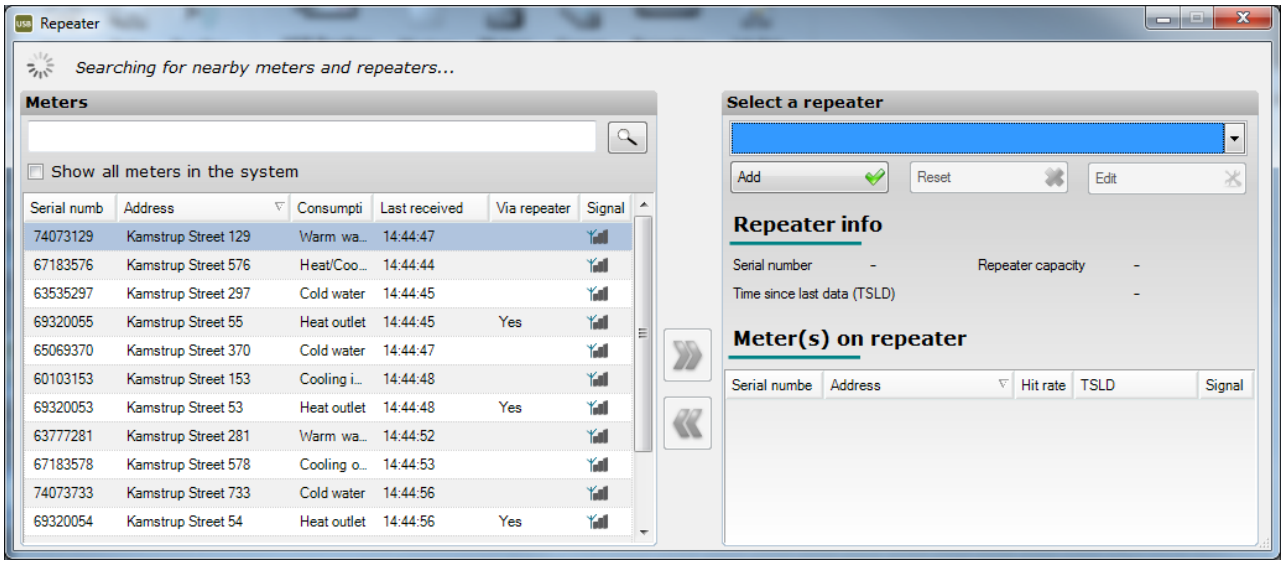
The dialog box is opened by clicking "Repeaters" on the toolbar, as shown below, or via the menu.



Searching

When opening the menu "Repeaters", the search for meters and repeaters within reach starts automatically.

Meters



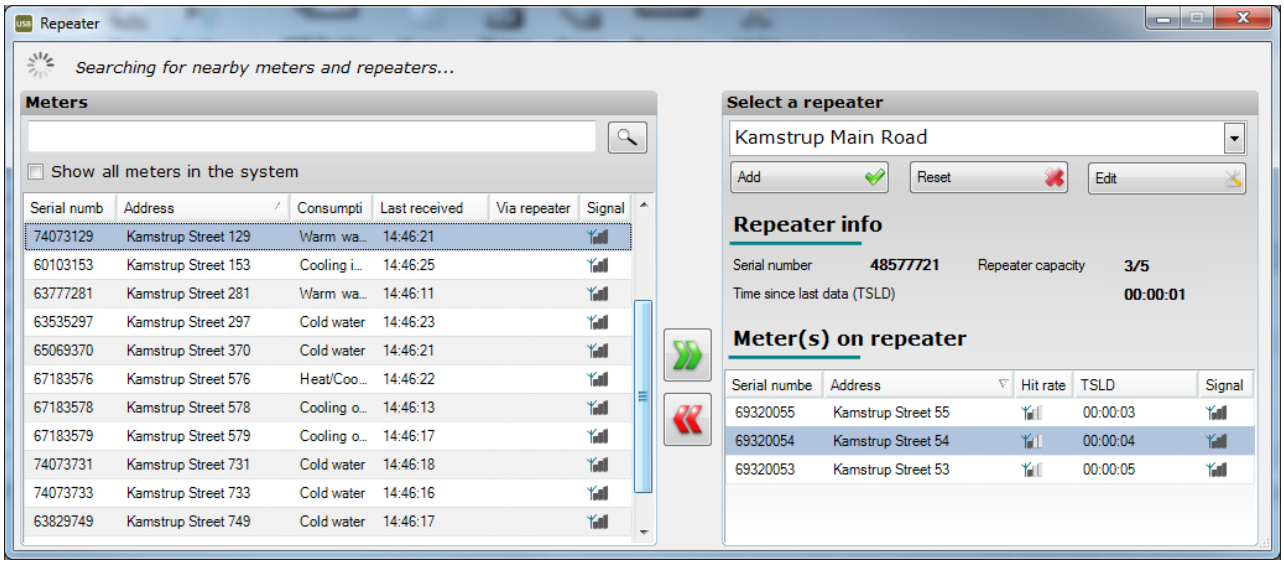
Here, all meters within reach are shown. In addition to serial number, address and consumption type, the following information is also shown:

- "Last received" which is the time for when the program received the last data from the meter
- "Via repeater" which shows if data from the meter has been received directly or via a repeater
- "Signal" which shows the signal strength of the radio signal received from the meter. If you move the mouse pointer over the antenna signal icon, the signal strength is also shown in dBm. The lower the numeric value, the better the radio signal.

Level	Signal level	Reading probability
	-127...-101	Less good
	-100...-91	Good
	0...-90	Very good

If "Show all meters in the system" is selected, all meters in the database are shown. Thus, it is possible to link meters to a repeater even if the meters are not within reach. In this way, it is possible to link already installed meters to repeaters even if the meters are not within reach. However, note that the repeater must be placed in such a way that the meters become within reach.

Select a repeater



Repeaters which are or have been within reach are shown.

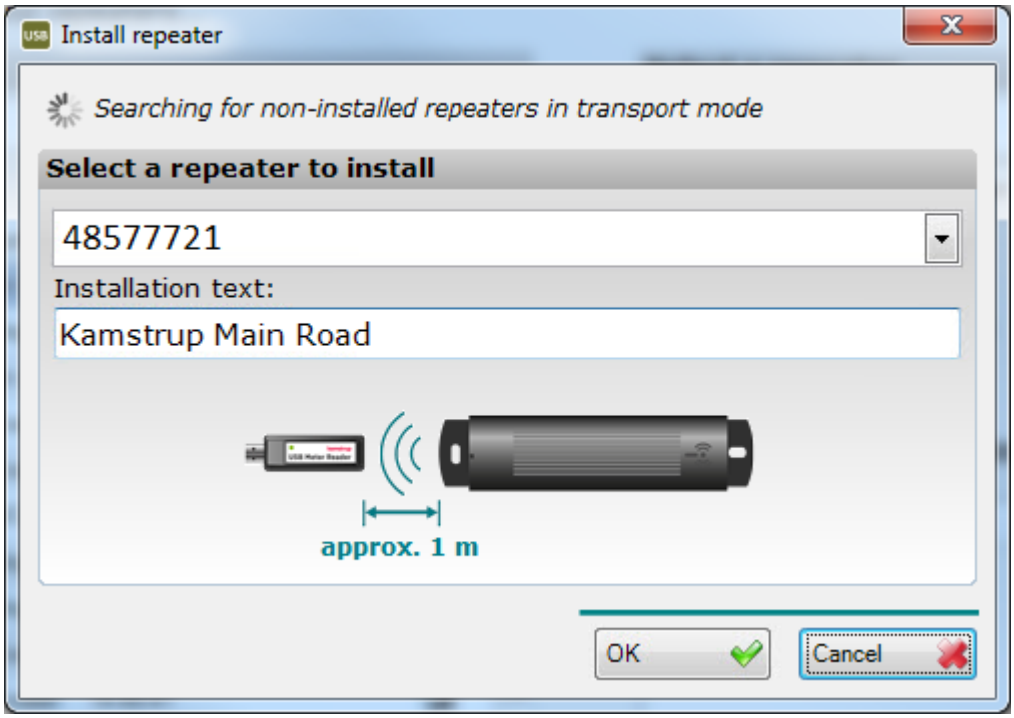
Add a repeater

To add a repeater, clik the add button, and follow the emerging dialog to install a new repeater.

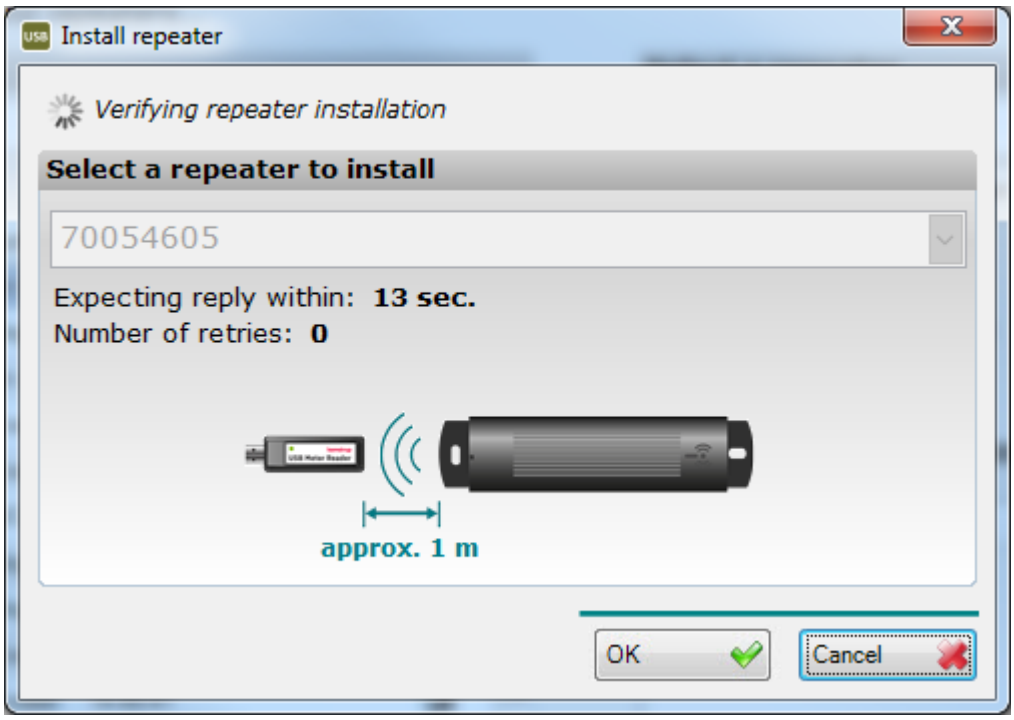
The repeater is set to transport mode on delivery from Kamstrup. To communicate with the repeater in transport mode, the repeater must be placed less than 1 m from the wireless M-Bus USB Reader.

Select the repeater on the basis of its serial number.

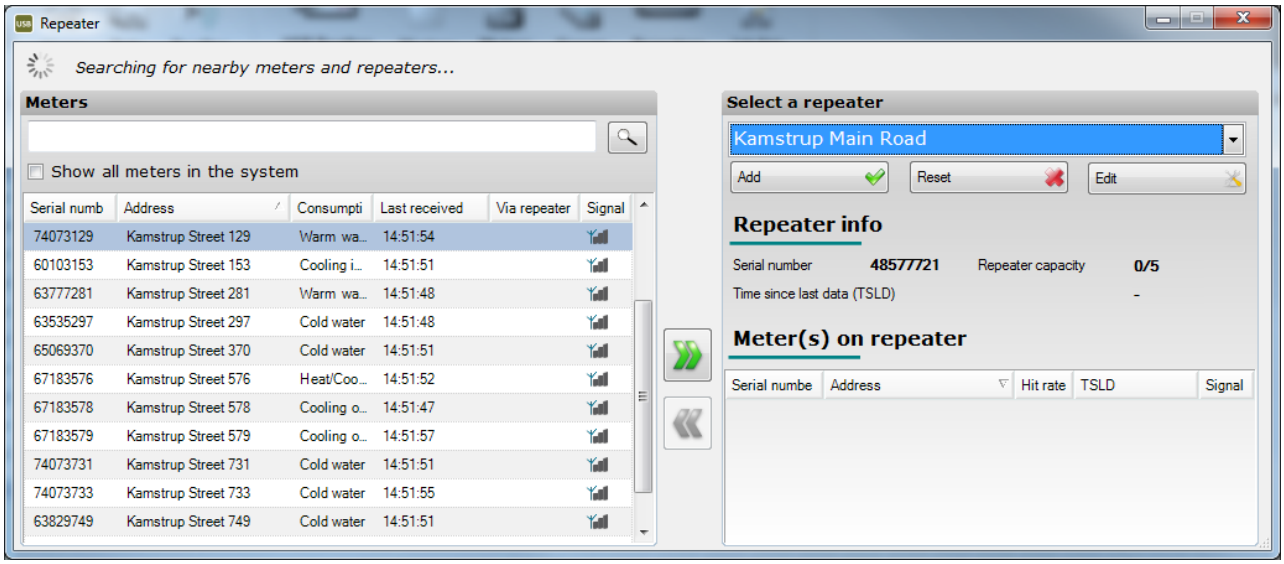
Enter a name for the repeater, e.g. the installation address.



Activation data is transferred to the repeater.

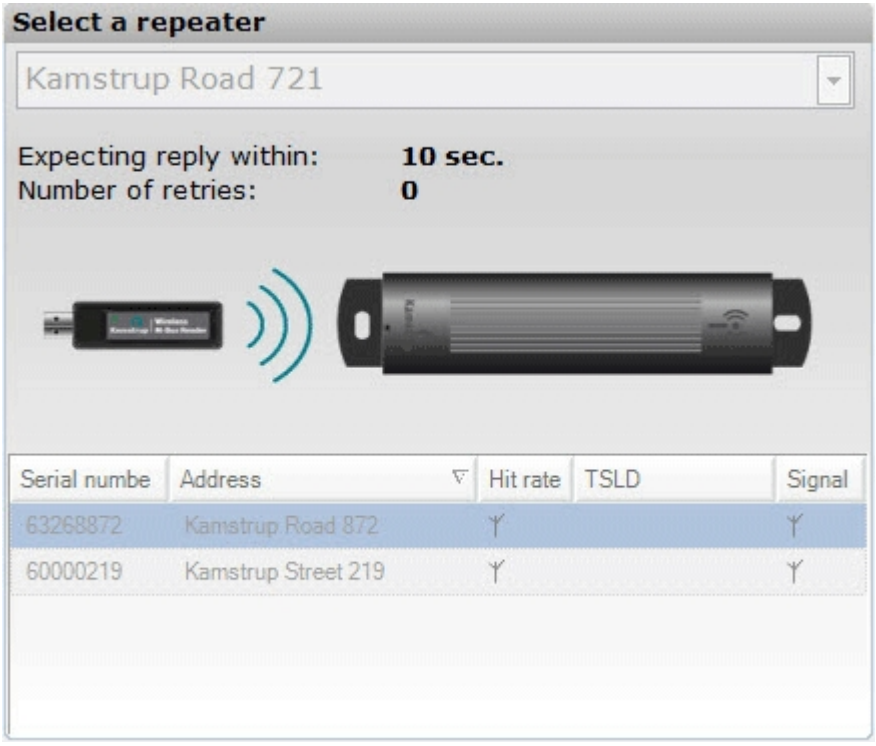

Install repeater
Verifying repeater installation
Select a repeater to install
70054605
Expecting reply within: 13 sec.
Number of retries: 0
approx. 1 m
OK
Cancel

Linking meters to a repeater

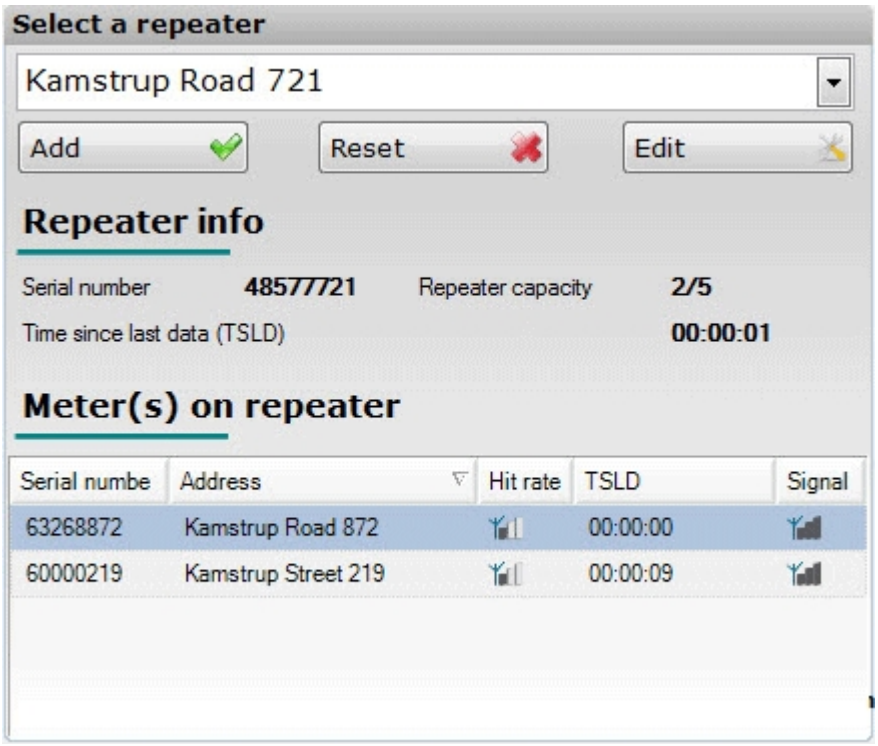


Select the meters which are to be linked to a repeater, and transfer them to the repeater by clicking the green double arrow.

Meter data is transferred to the repeater.



Repeater info



Serial number

Indicates the serial number of the selected repeater.

Repeater capacity

Indicates how many meters are linked to the repeater. The maximum number is 5.

Time since last data (TSLD)

Indicates how long time ago the program last time received data from the repeater. Typically, data is received within every 6 second.

The button Reset

Removes all linked meters from the repeater, resets it, and sets it to transport mode.

The button Edit

Enables changing the name of a repeater.

Meter(s) on repeater

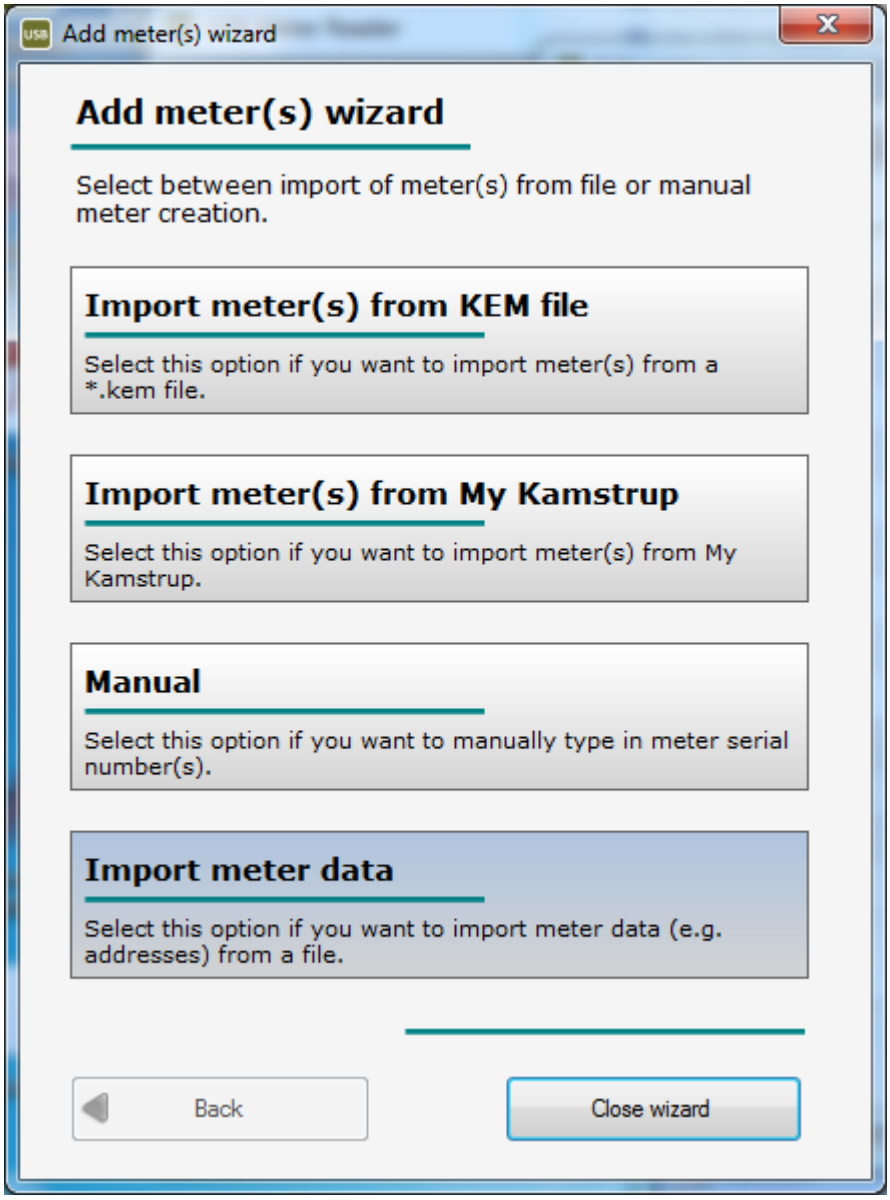
Shows the meters which are linked to the selected repeater.

In addition to the serial number and the address of the meter, the following information is also shown:

- "Hit rate" indicates how stable the communication with the meter and the repeaters is.
- "TSLD" is the time since the last data was received from the meter.
- "Signal" shows the signal strength of the radio signal received from the meter. If you move the mouse pointer over the antenna signal icon, the signal strength is also shown in dBm.

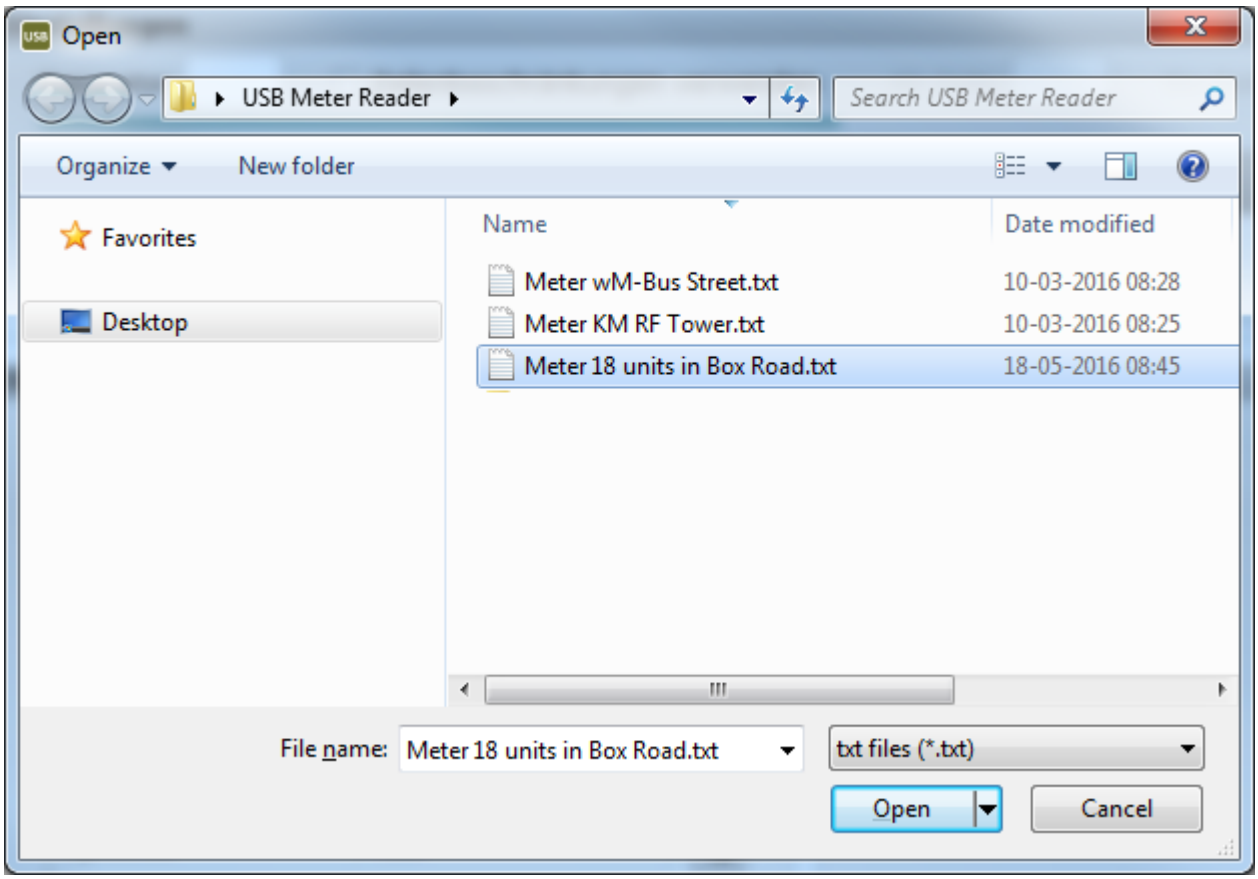
3.8 The dialog box "Import of meter data"

If the function module "Import/Export" is installed by means of the corresponding licence key, it is possible e.g. to import installation addresses from a billing program.

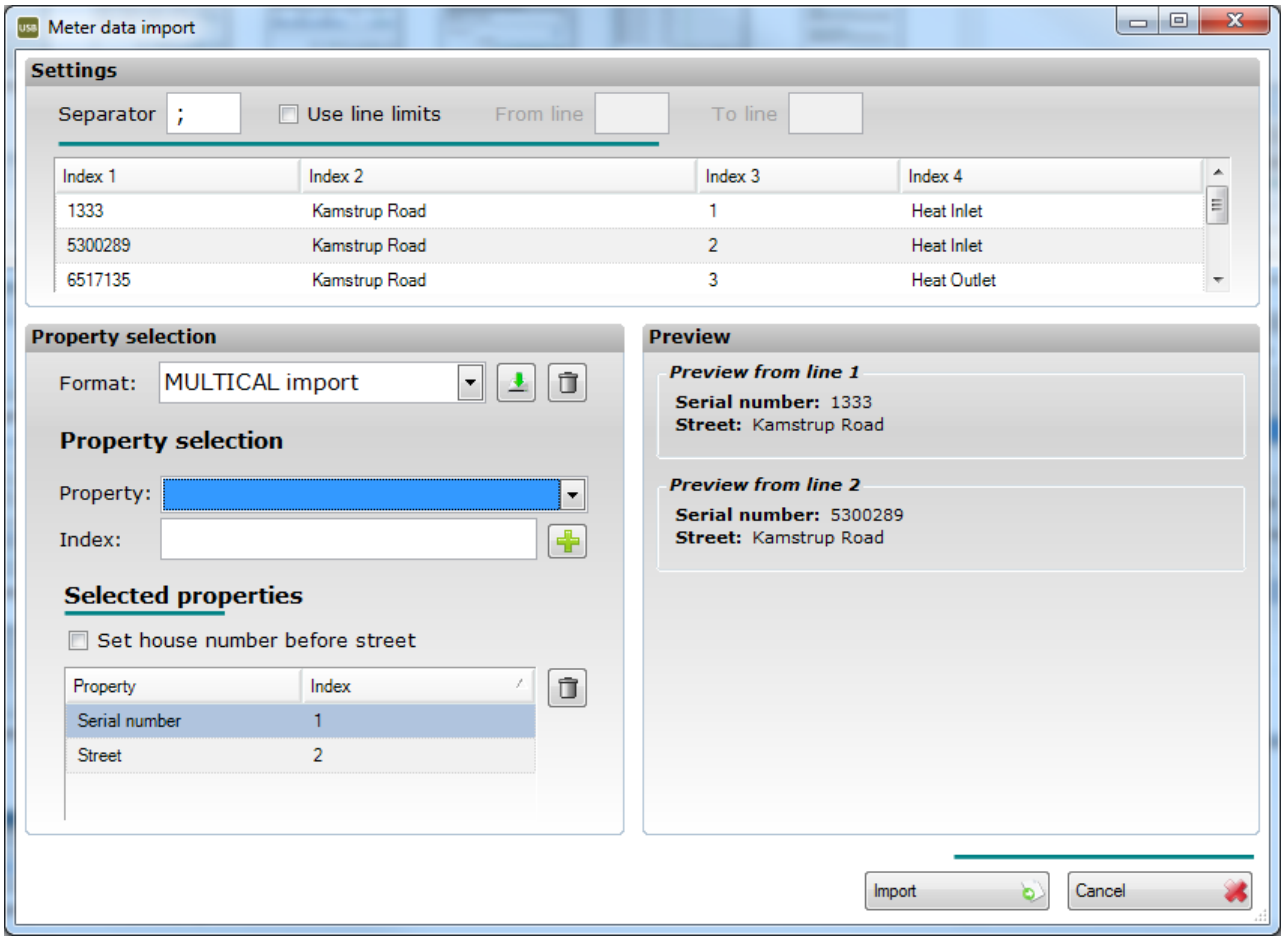


Select the file that contains the relevant meter information.

The file must be in the format TXT or CSV.


Open
USB Meter Reader
Search USB Meter Reader
Organize
New folder
Favorites
Desktop
Name
Date modified
Meter wM-Bus Street.txt
10-03-2016 08:28
Meter KM RF Tower.txt
10-03-2016 08:25
Meter 18 units in Box Road.txt
18-05-2016 08:45
File name:
Meter 18 units in Box Road.txt
txt files (*.txt)
Open
Cancel

Configuring format for import of meter data



Settings

Separator

Enter the character that is used as separator in the file to be imported.

Typically, characters such as semicolon or comma are used.

Use line limits

If you do not want to import all data from the import file, you can enter the lines that you want to import.

Index

Here the content of the import file and the order of the different registers are shown. In the example, the meter number is placed at 1 and the address at 3.

Property selection

Here you select the registers that you want to import and where in the import file the single registers are to be placed.

Format

If you have previously created and saved an import format, you can select it here for reuse.

If you want to save changes to an already created format, click .

If you want to delete an already created format, select the format, and click .

Property selection

Here you select in which order the registers are to be placed.

Property

Select the register that is to be placed.

Index

Enter the number of the placement of the current register.

Selected properties

Here the result of the recent selection is shown.

If the house number in the import file is placed before the address, the check box "Set house number before street" must be selected.

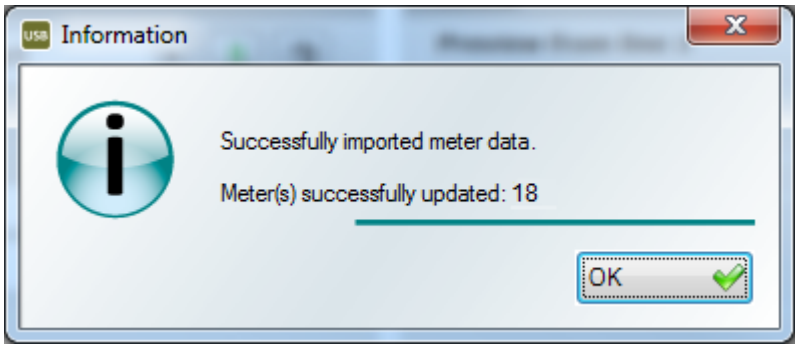
If you want to delete an already selected index, select the index, and click .

Preview

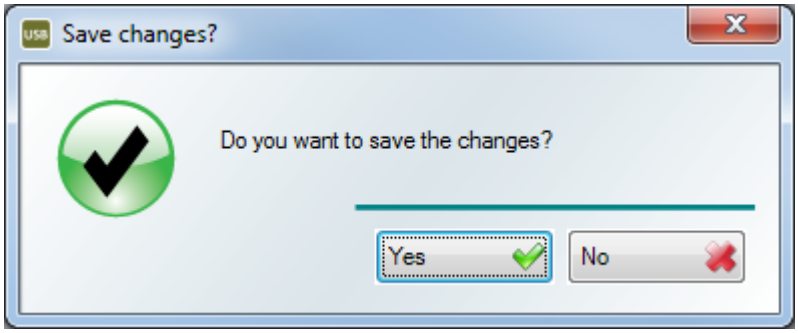
Here it is shown how the import format is interpreted with the recent selection.

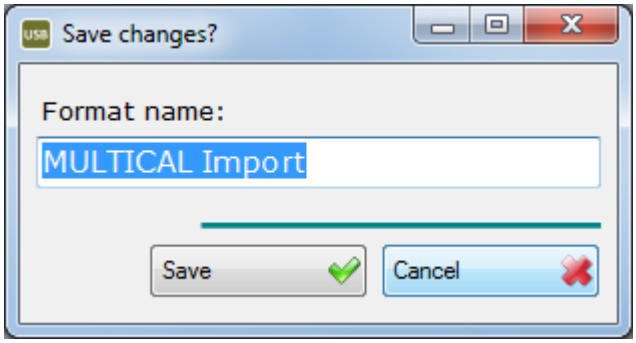
Import

When clicking this button, the result of the data import is shown.



After importing the data, it is possible to save the setup for reuse.



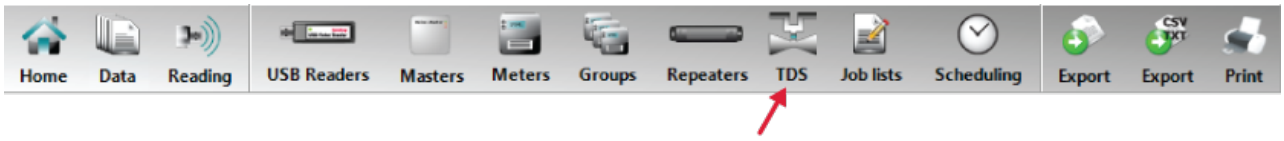


3.9 The dialog box "Thermal Disconnect (TDS)"

Introduction

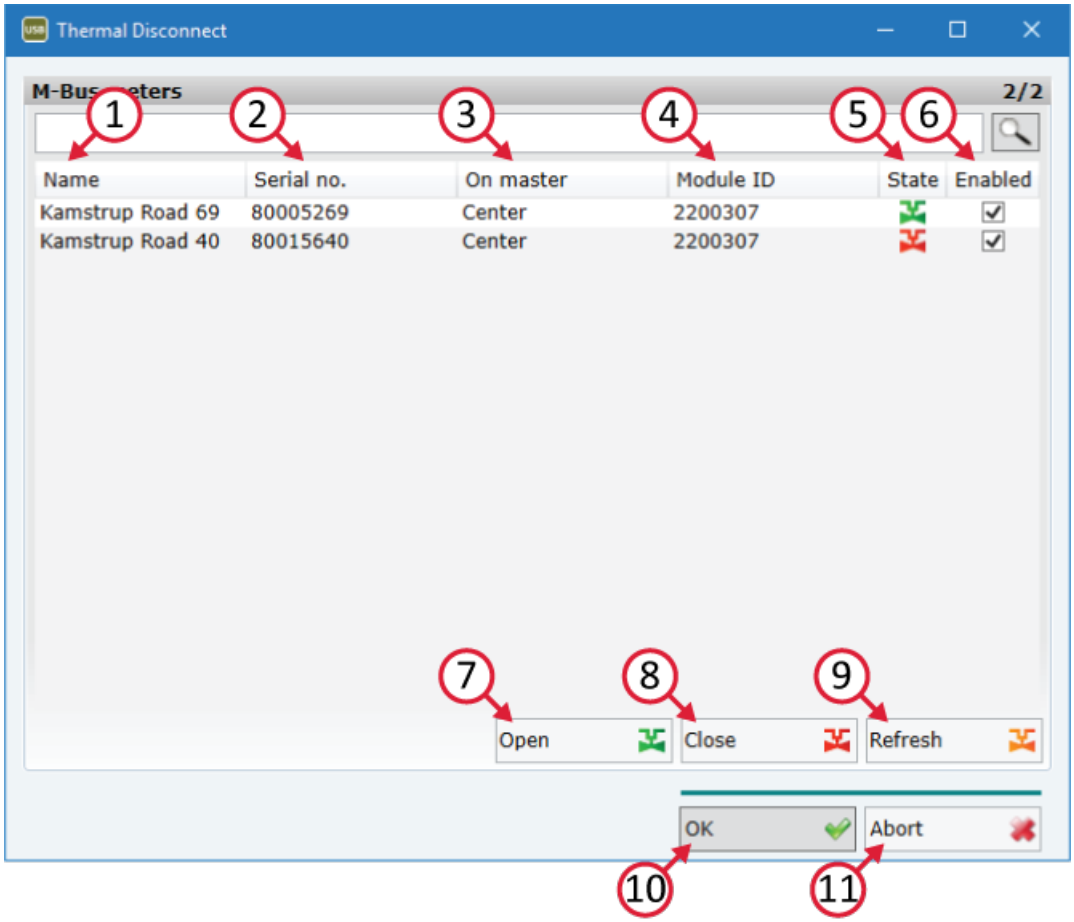
In the menu "Thermal Disconnect", you can open and close a thermal actuator connected to M-Bus module HC-003-22, which can be mounted in MULTICAL® 403 and MULTICAL® 603.

Note: When using Thermal Disconnect, the meter's PP configuration must be set to 99.



Topics:

1. Name
2. Serial no.
3. On master
4. Module ID
5. Status
6. Enabled
7. Open
8. Close
9. Refresh
10. OK
11. Abort



Name
Shows the name of the meter.

Serial No.
Shows the serial number of the meter.

On master
Shows to which M-Bus master the meter is connected.

Module ID
Shows module type and its configuration.

Status
Shows whether the actuator is open or closed.

Enabled
Shows whether the meter is enabled for Thermal Disconnect.

Open
Opens the actuator of the selected meters.

Close
Closes the actuator of the selected meters.

Refresh
Retrieves the status of the actuators of the selected meters.

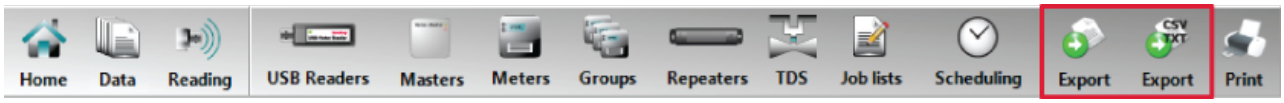
OK
Closes the dialog box.

Abort
Stops initiated tasks.

3.10 The dialog box "Export of meter data"

By default, reading data can be exported in the following fixed formats: XLS, XLM, TXT, CSV and PDF.

If the function module "Import/Export" is installed by means of the corresponding licence key, it is possible to create individual TXT and CSV export formats.



Individual export

Settings

Separator section

Enter the character that is to be used as separator in the file to be exported.

Typically, characters such as semicolon or comma are used.

Enter the number of separators which in total are to be inserted in the export format.

Meter selection

Select all meters, or select a meter on the basis of a user-defined list. The user-defined list is described further below in this paragraph.

Time limits

Choose the period from which the readings should be retrieved.

Property selection

Here, you select the registers that you want to export and where in the export file the single registers are to be placed.

Format

If you have previously created and saved an export format, you can select it here for reuse.

If you want to save changes to an already created format, click .

If you want to delete an already created format, select the format, and click .

Property selection

Here, you select the registers that you want to export and their order in the export format.

Property

Here, you select the single registers that are to be exported.

Index

Enter the number of the order placement in the export format.

Selected properties

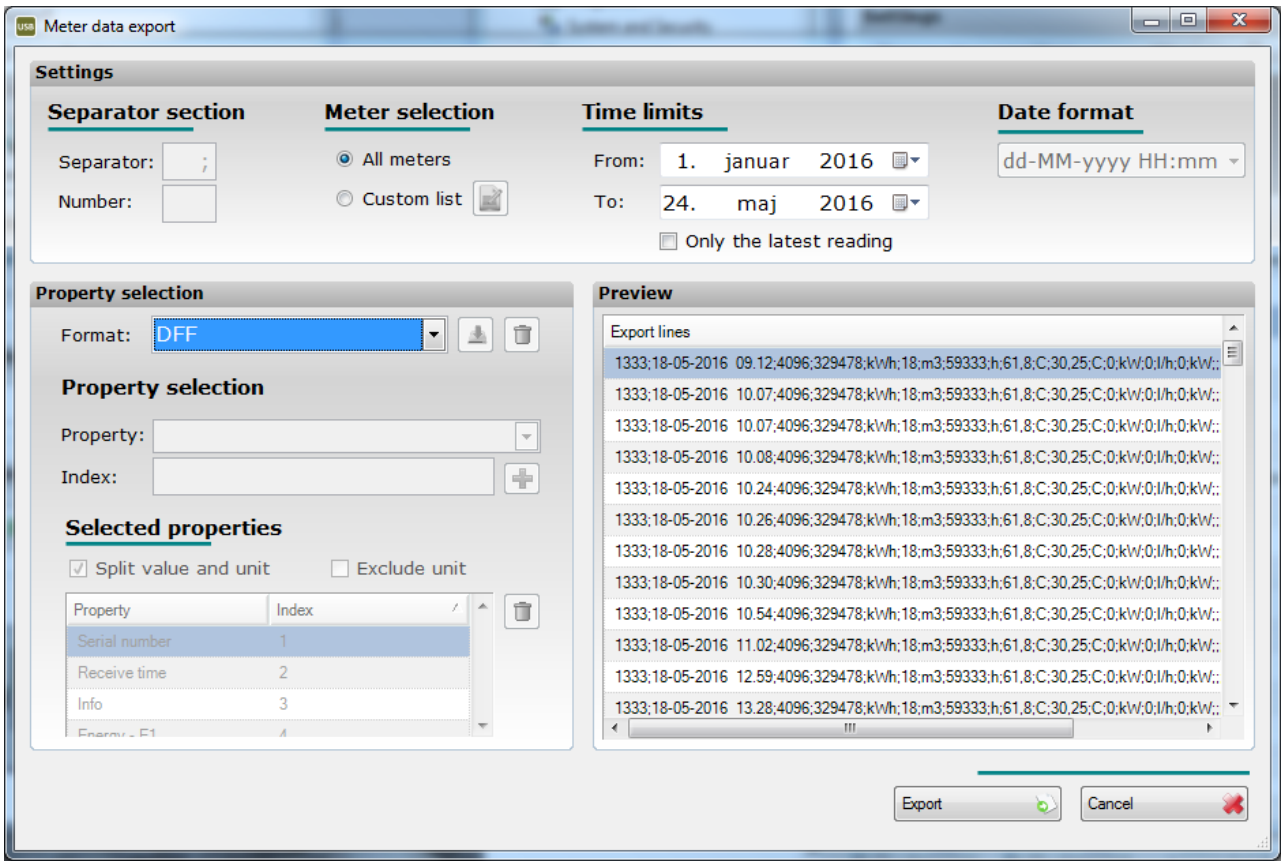
Here the result of the recent selection is shown.

If you want to separate values from units, select "Split value and unit".

If you want to delete an already selected placement, select the register, and click .

Preview

Here, it is shown how the export format looks with the recent selection.



Custom meter list selection

This function is used if you do not want to export all meters in the database.

All meters

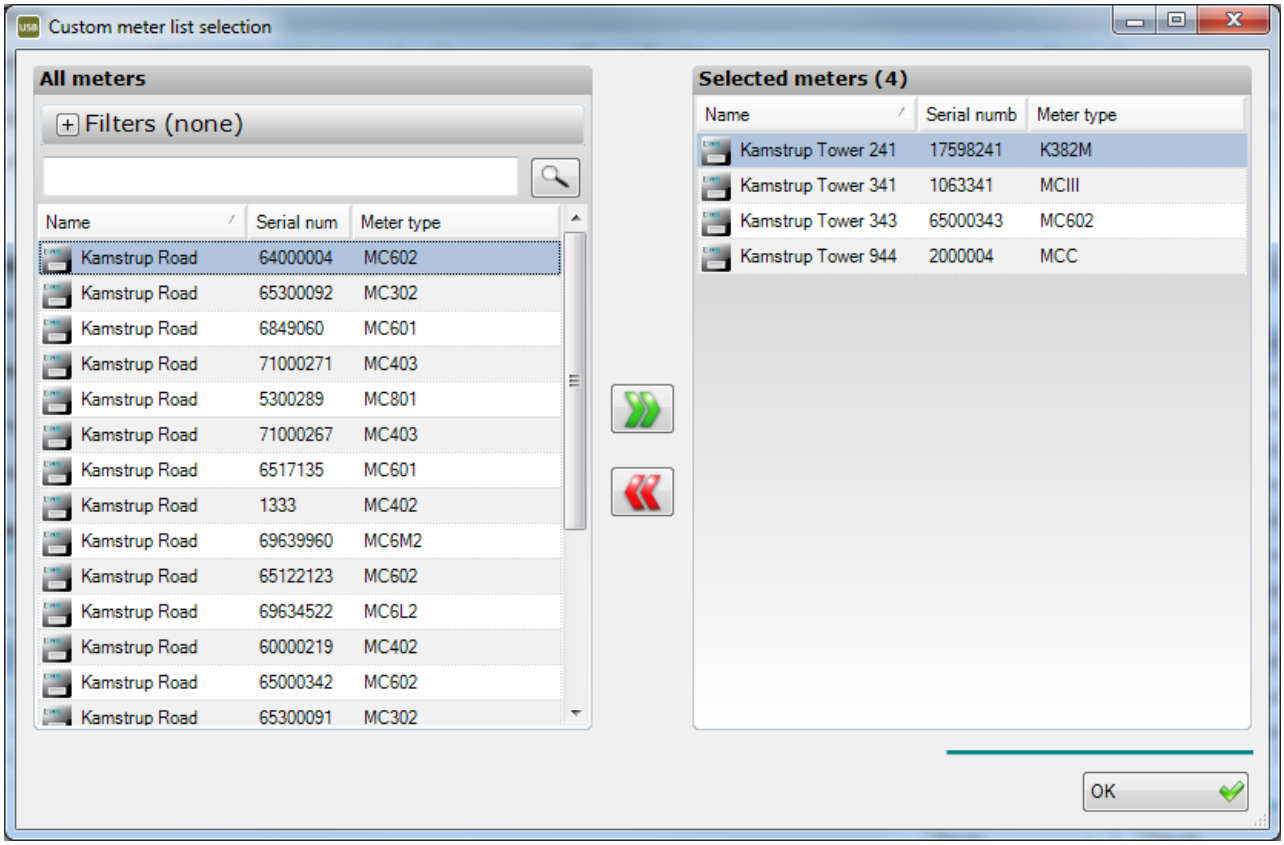
Here, the meters available in the database are shown.

Select the meters from which you want to export data, and move them to "Selected meters" by clicking the green arrow.

Selected meters

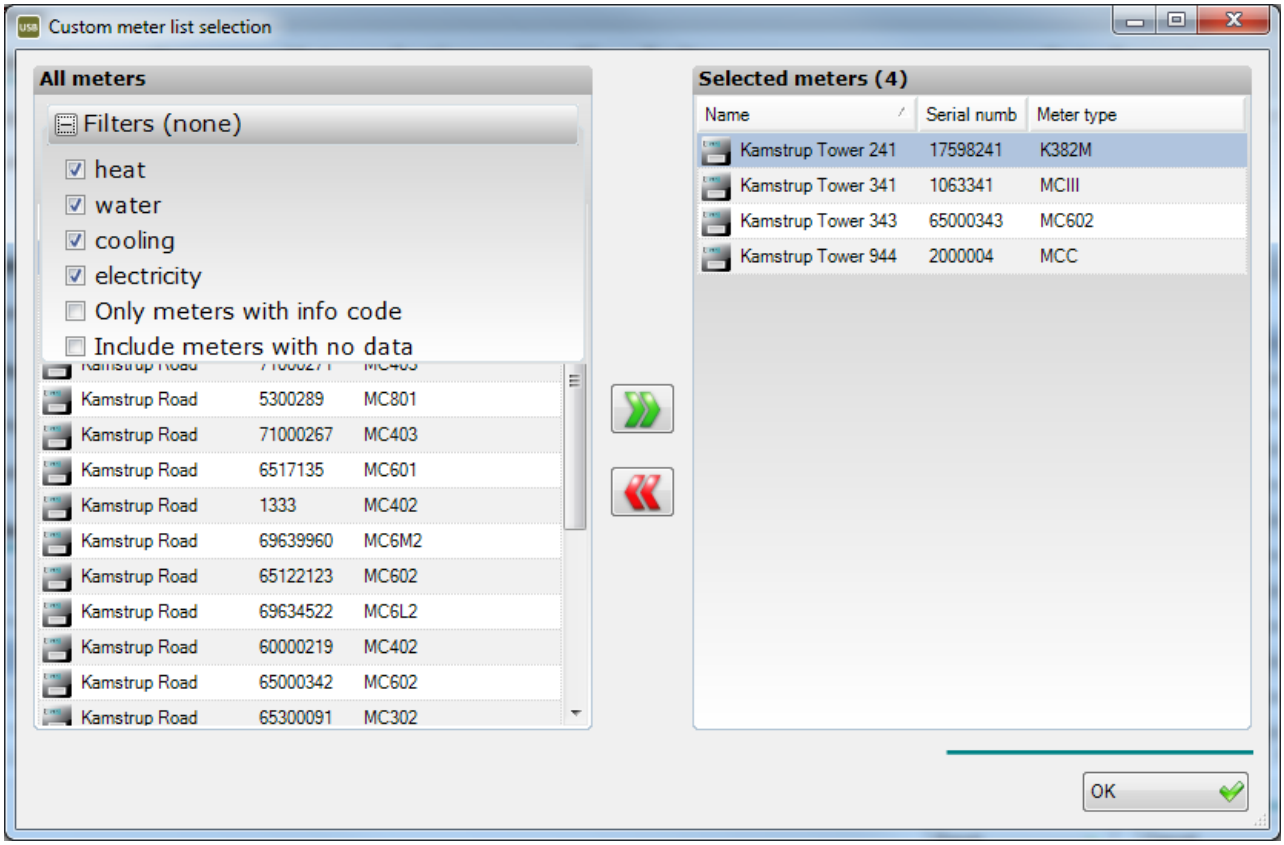
Here, the meters are shown from which data is exported.

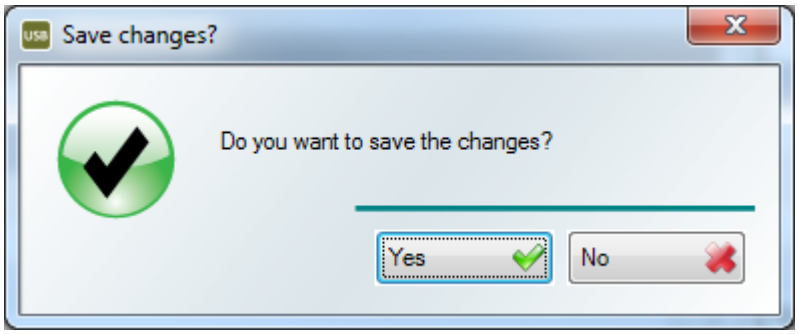
Meters are removed by moving them back to "All meters" by clicking the red arrow.



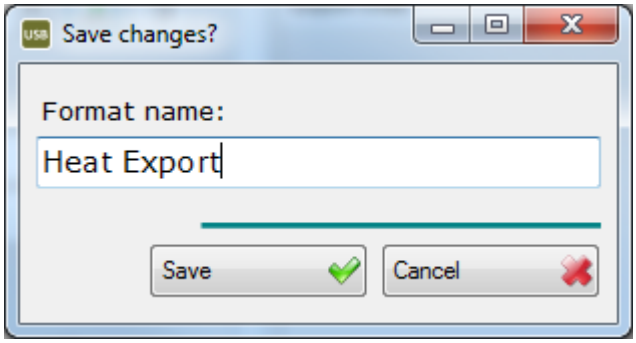
Filters in the menu All meters

Via the filter function, you can select and deselect the display of meters. If you e.g. only want to export heat meters, deselect all other meters than heat meters. Then, only heat meters are shown.





After exporting the data, it is possible to save the setup for reuse.



3.11 The dialog box "New job"

Introduction

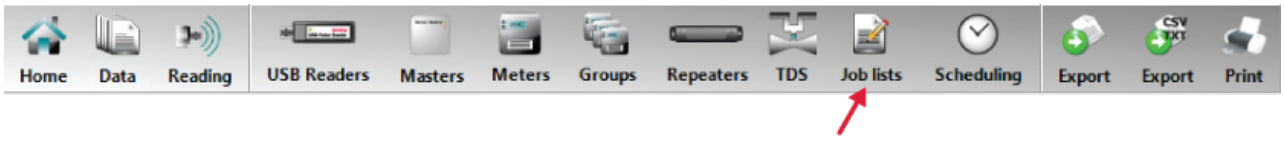
In this dialog box, you can define a list of meters to be read by a specific USB Reader and M-Bus Master, respectively. In the Kamstrup USB Meter Reader program, it is called a job. This section describes how to open the dialog box and define a job (meter list) for a USB Reader and an M-Bus Master, respectively.

Topics:

- Opening the dialog box "New job"
- Adding a meter to a USB Reader and an M-Bus Master, respectively
- Disconnecting a meter from a USB Reader and an M-Bus Master, respectively
- Sending a job to a USB Reader and an M-Bus Master, respectively
- Cancelling changes
- Saving changes.

Opening the dialog box "New job"

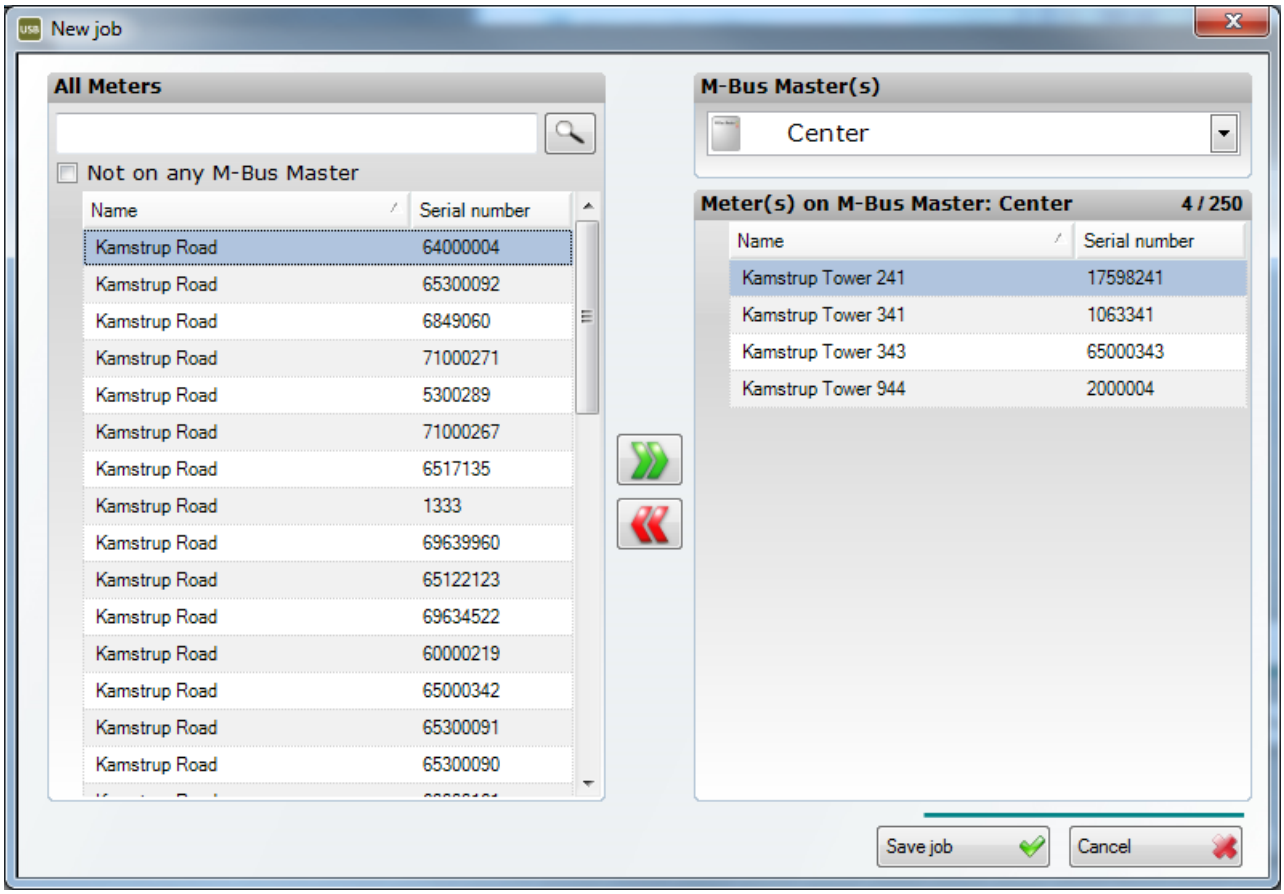
You can open the dialog box by clicking "Job lists" on the toolbar, as shown below, or via the menu Edit ⇨ Job lists.



Overview

In the dialog box "New job", you can add meters or groups to a job. The dialog box contains the following:

- A list of meters and groups not included in the job list
- A group. Note the group icon, and that you can expand the group by clicking +
- A meter. Note the meter icon
- The arrow buttons "Add" and "Remove"
- Drop-down menu listing all USB Readers and M-Bus Masters in the system.
- Job list
- Number of meters in the job list. Note that a job can maximum contain 200 meters.



Creating/changing a job (Adding meters to/removing meters from a USB Reader and an M-Bus Master, respectively).

First, select the USB Reader for which you want to create/change a job. When you have selected a USB Reader, use the arrow keys "Add" and "Remove" to add groups to and remove groups from the job, respectively. All changes that you make will be remembered, but not saved. Thus, you can change the job lists of as many USB Readers and M-Bus Masters, respectively, as you want before saving the changes.

Sending a job to a USB Reader and an M-Bus Master, respectively

See "Saving changes".

Cancelling changes

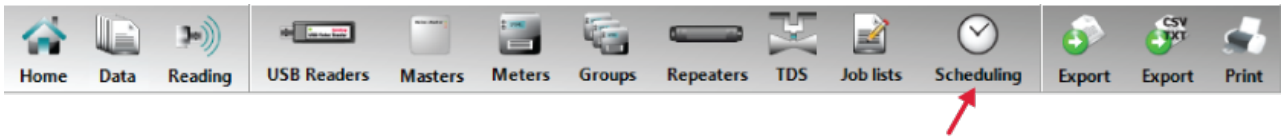
To cancel your changes, click "Cancel".

Saving changes

To save your changes, click "OK". When you have saved the changes, the new job will be sent to the USB Reader and M-Bus Master, respectively, the next time the system obtains contact with the USB Reader and M-Bus Master, respectively. Thus, you can define a new job for a USB Reader at any time, even without having contact to the USB Reader or M-Bus Master in question.

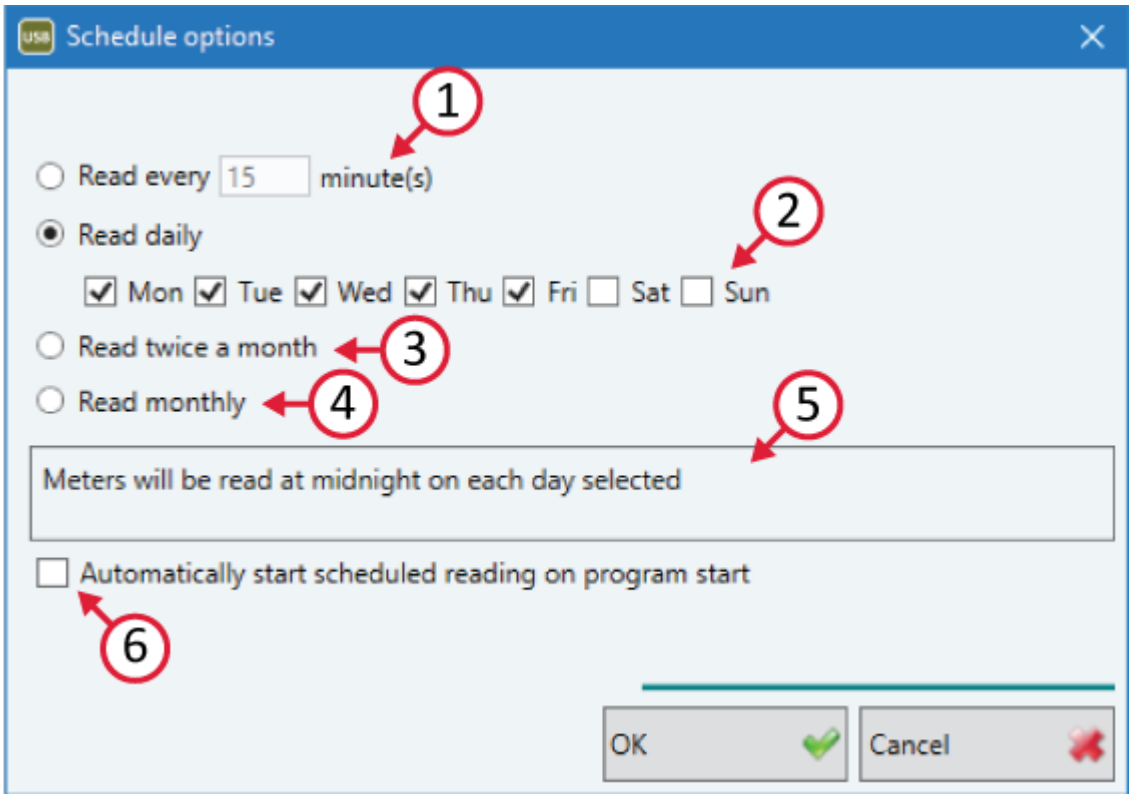
3.12 The dialog box "Scheduling"

Introduction
In the menu "Planning", select how often you want to read the meters that are active in the menu "Job lists".



Topics:

1. Read every XX minute
2. Read daily
3. Read twice a month
4. Read monthly
5. Info box
6. Automatically start scheduled reading on program start



Read every XX minute
Here, you can select a minute interval between 0 and 1440. If you select 0, a new reading starts as soon as the previous reading is completed.

Read daily
The meters are read at midnight on each of the selected days.

Read twice a month
The meters are read at midnight on the 15th and on the last day of each month.

Read monthly
The meters are read at midnight on the last day of each month.

Info box
Describes the function of the selected reading type.

Automatically start scheduled reading on program start
When selecting this function, USB Meter Reader automatically starts the scheduled reading when the program is started.

3.13 The dialog box "Set-up"

Introduction

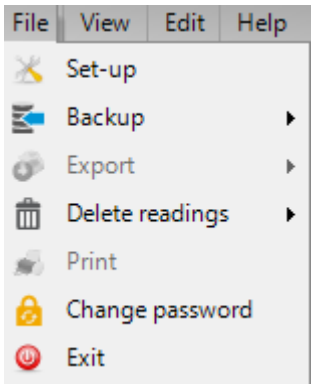
In this dialog box, you can change the settings for your Kamstrup USB Meter Reader. This section describes how to open the dialog box, to change the language, to define missing meters and to save data.

Topics:

- Opening the dialog box "Set-up"
- Changing the language
- Changing the definition "Missing meters"
- Changing the data folder (path)
- Re-establishing the standard settings for viewing

Opening the dialog box "Set-up"

You can open the dialog box via the menu File ⇨ Setup, as shown below.



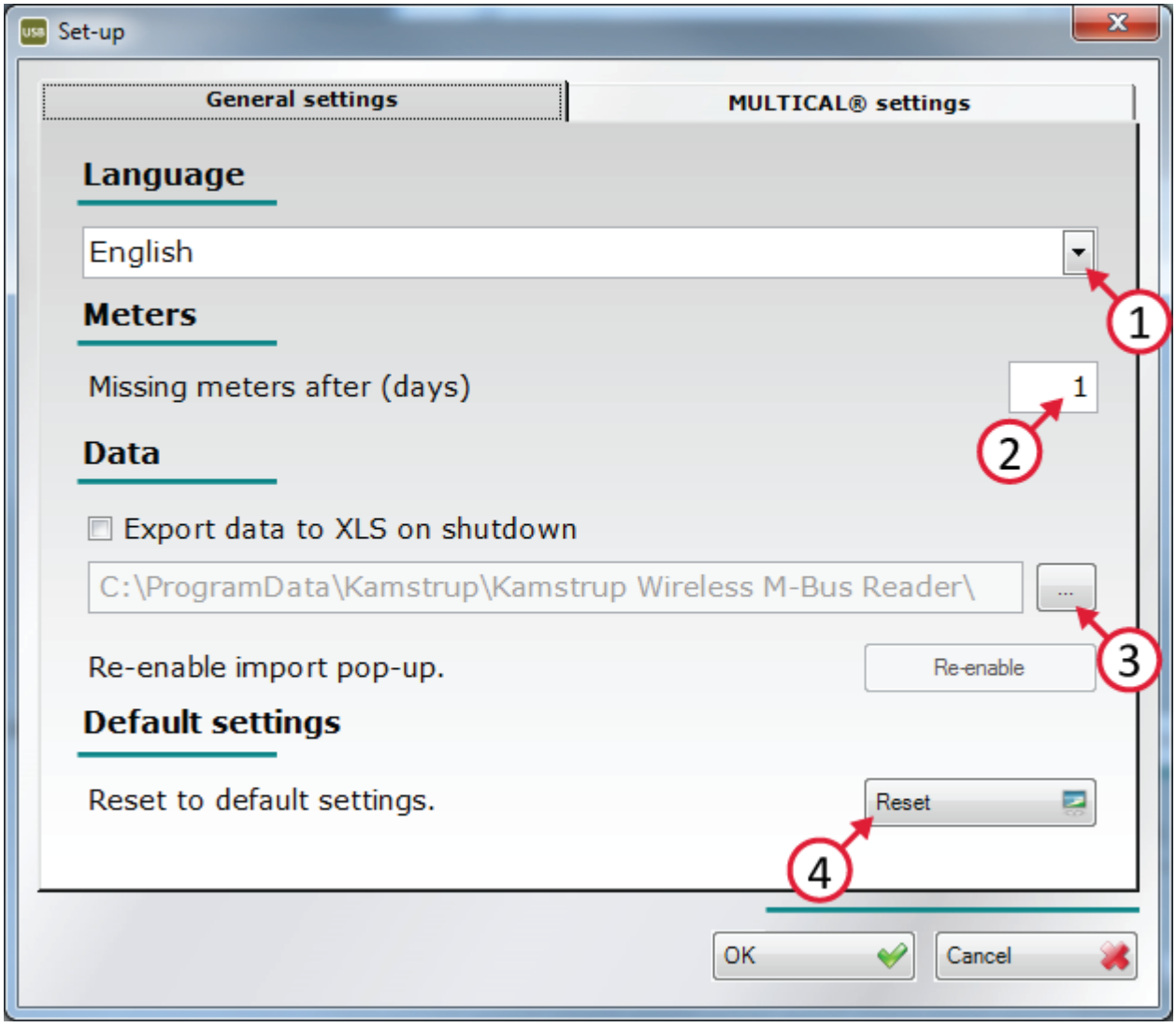
The dialog box "Set-up"

Here, you can change the following three settings in the Kamstrup USB Meter Reader system:

1. To change a language, select the desired language in the dialog box below.
2. A change of the definition "Missing meters" means changing when data is considered to be obsolete. Number of days is an integer that is set in the text box below.
3. All data is by default saved in the folder:

   XP: "\Documents and Settings\All Users\Application Data\Kamstrup\Kamstrup USB Meter Reader\Data".
   Win7/Win10: "\ProgramData\Kamstrup\Kamstrup USB Meter Reader\Data".

   This can be changed by means of the "folder browser". Note that a change of placement does not cause the current data to be moved to the folder in question.
4. Click the button "Reset" if you, for example, have changed the table/list in the view "Data" and want to re-establish the standard settings.



Cancelling changes

To cancel your changes, click "Cancel".

Saving changes

To save your changes, click "OK".

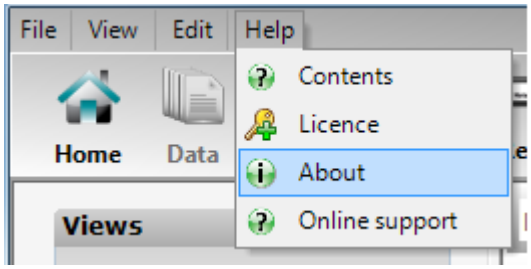
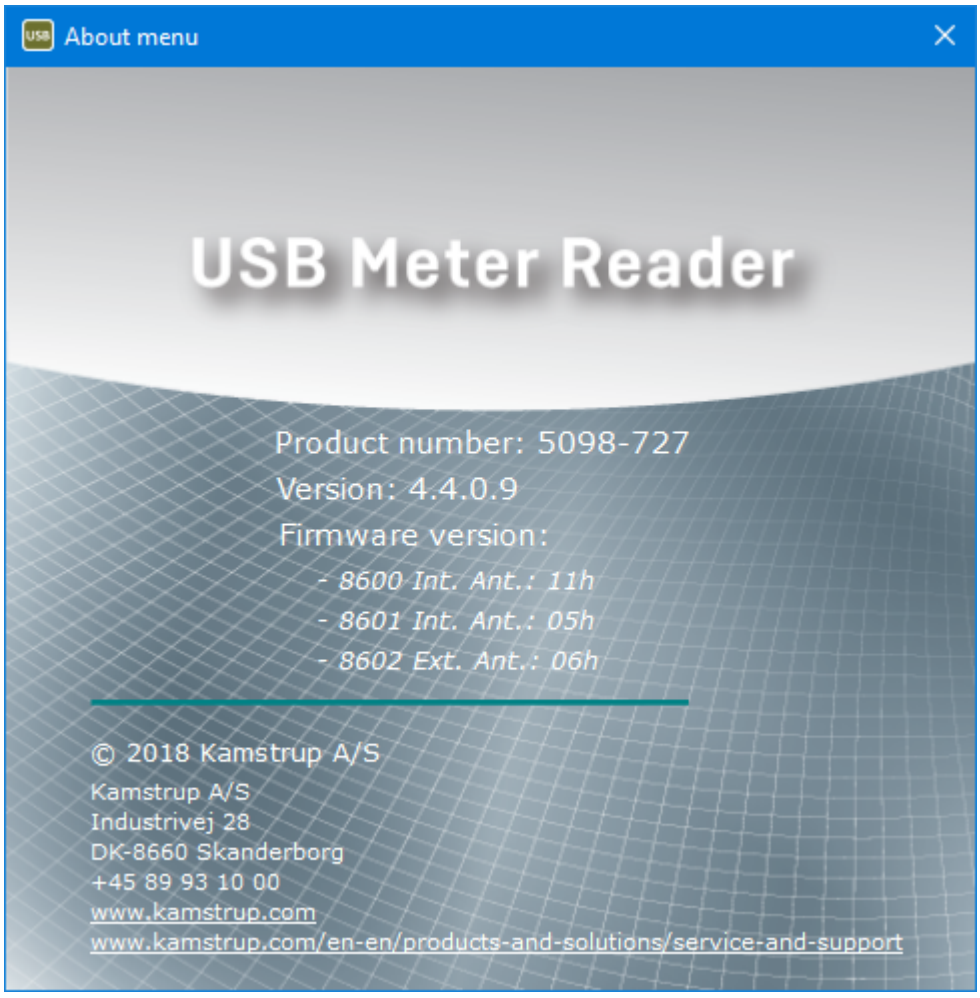
3.14 The dialog box "About"

Introduction

In this dialog box, you can see the current software version and the product number of your Kamstrup USB Meter Reader system. This section describes how to open the dialog box.

Topics:

- Opening the dialog box "About"

Opening the dialog box "About"

You can open the dialog box via the menu Help ⇨ About, as shown below.