User manual

Inkasent PC 3

Version: 3.10.0

Version date: 01/09/2020

Table of contents

1. Introduction

This manual has been created for the Inkasent PC 3, version 3.10.0.

1.1. Scope of the document

The following chapters include step-by-step descriptions for using the application:

- Chapters 1 to 3 include the information necessary for working with the application and descriptions of the basic functions.
- Chapters 4 to 6 include information necessary for management of the measurement structure and reading routes.
- Chapters 7 to 8 include tips for working on the data acquired from measurement points.
- Chapter 9 includes a description of useful files to download.
- Chapter 10 includes answers to frequently asked questions (FAQ) about the system.
- Chapters 11 and 12 include lists of tables and figures facilitating navigation through the manual.

It is recommended that new users read the manual from start.

1.2. Basic terms

Table 1. Basic terms

Nr.	Name of concept	Description of concept
1.	**Alarm**	Provides information about incorrect measurement.
2.	**Terminal**	A mobile device such as a smart phone, palmtop, etc. with a meter reading application installed.
3.	**Metering structure**	Metering points located in the address structure, including devices installed at these locations. The measurement structure is hierarchical, which means that an element can be added if it has a suitable parent element present.
4.	**Measurement point**	A location within the network where a measurement is collected. A metering location is identified by an individual name and location. It comprises the utility service connections on which the metering devices and metering and transmission devices are mounted.
5.	**Measurement device**	A device used to measure a value, also referred to as a “meter”. It has a measurement interface installed on a utility service connection, such as a water meter.
6.	**Radio device (transmission device)**	A device for transmitting data. It may additionally collect readouts from measurement devices and transfer them to the system. A transmission device may have several interfaces, each of which may be connected to another measurement device, transmission device or measurement and transmission device.
7.	**Measurement and transmission device**	A device facilitating measurement of values and the transmission of data. It is responsible for measuring medium consumption, collecting readouts and their remote transmission to the system (e.g. InvonicH).
8.	**Slave meter**	A sublevel measurement device assigned to the master measurement device. For example: the master meter (water meter) is owned by a housing

Nr.	Name of concept	Description of concept
		cooperative and will be installed on the water supply service line connection point, whereas the slave meters (water meters) will be located in the flats.
9.	**Route**	A structured set of locations (buildings) for use by the data collector to collect the data.
10.	**Location**	Physical location of the device. The location should be indicated in such a way as to enable easy identification of the actual place of the device installation, using part of the address and the location type, e.g. Ul. Sobieskiego 3 – basement, crossing of Banacha and Sobieskiego — manhole).

1.3. Main functions of the application

The main functions of Inkasent PC 3 include:

- creating the metering structure,
- creating metering routes for data collectors,
- working with terminals,
- Presentation of data downloaded from the terminal,
- Data processing,
- Measurement point balancing,
- Exporting and importing the measurement structure,

1.4. The interface

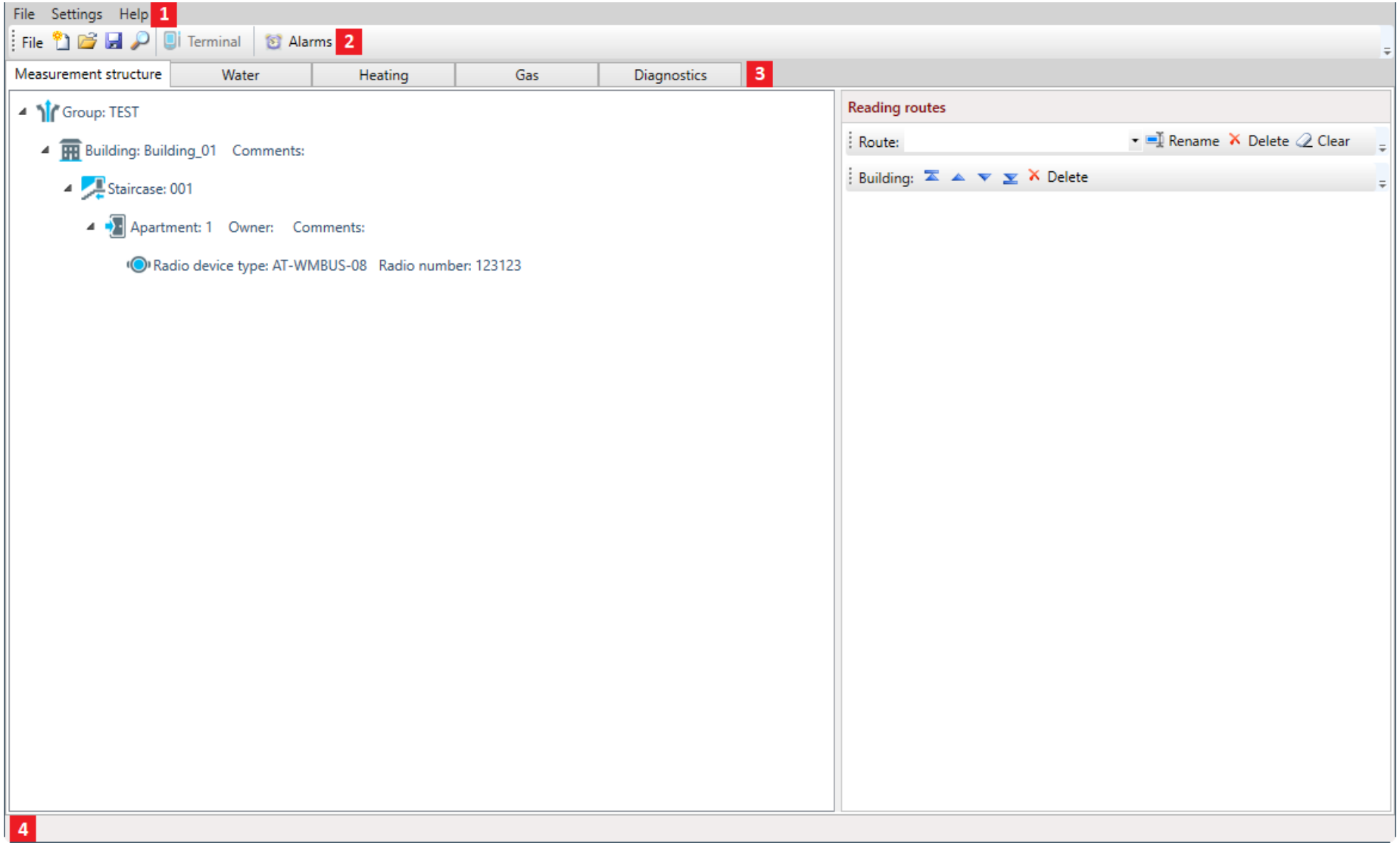


Fig. 1. Interface design

Explanations:

1. Main menu,
2. Tool bar,
3. Main panels,
4. Stanu bar.

1.4.1. Main panels

The user has five main panels available:

- **Measurement structure** – this panel includes a work area to manage the measurement structure to be used while creating routes, and a side panel: Data reading routes — to create data reading routes for data collectors.

- **Water** – this panel contains the following tabs:
  - **Measurement readings** – a tab for viewing water consumption readings.
  - **Monthly report** – a tab for viewing monthly water consumption reports.

- **Heat energy** – this panel contains tabs:
  - **Heat meter readings** – a tab for viewing heat meter values.
  - **Heat cost allocator readings** – a tab for viewing data for heating cost allocation.

- **Gas** – this panel is for viewing gas meter readings.

- **Diagnostics** – this panel includes the following tabs:
  - **Alarm readings** – a tab for viewing alarm readings.
  - **Diagnostic readings** – a tab for viewing diagnostic data.

2. First steps with the application

2.1. Start-up

To start the application, double click the app icon on the desktop or find the app in Windows' Start menu.

Fig 2. App icon

2.2. Language selection

After starting the app, you can select the system language. To select a language, on the main menu choose **Settings** and then **Language**.

Fig. 3. Window: Select a language

Restart the application after confirming your selection with the **OK** button. The restart will occur automatically after selecting **Yes** in the window shown below.

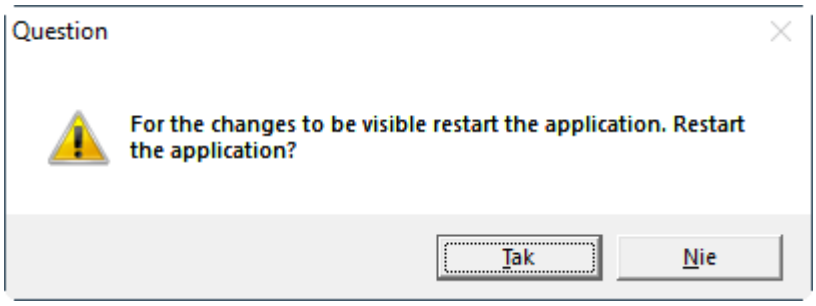


Fig. 4. Language selection — question

2.3. Communication with the terminal

The Inkasent PC 3 application works with data collector applications installed on mobile devices (e.g. the Inkasoid application).

To connect the application to a mobile terminal:

1. Start the mobile device.

2. Connect the mobile device to the PC with the software installed for synchronization with mobile devices (additional information on connecting the device to the PC is available in the user manual for the data collection application, such as Inkasent mobile).

To start communication with the mobile device:

1. From the main menu choose **Settings** and then **Terminal** from the context menu..
2. In the **Terminal settings** window, select the mobile device.

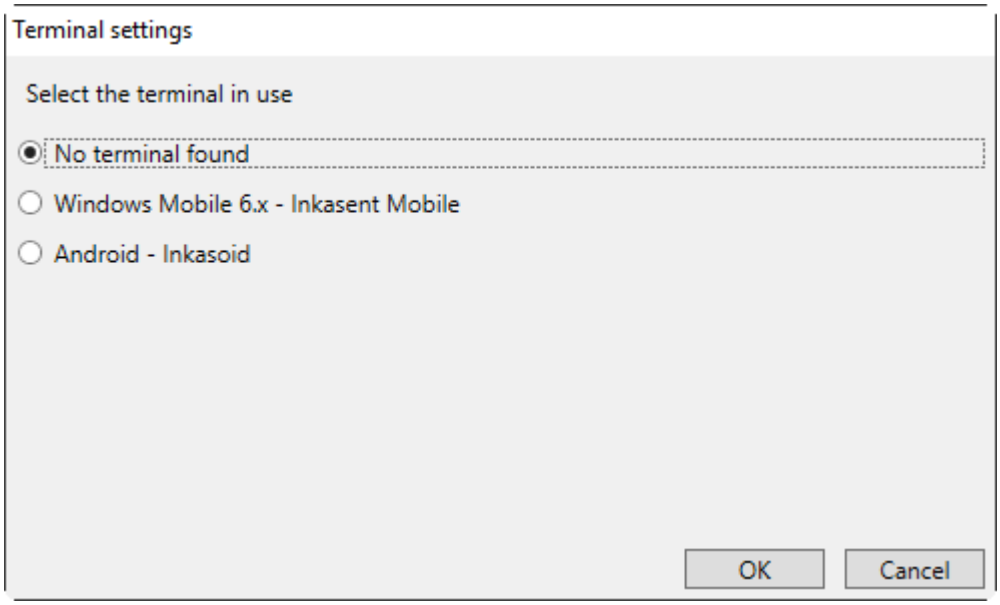


Fig 5. Window: Terminal settings

After selecting the terminal, the **Terminal** button on the tool bar will become active; this confirms a successful connection between the mobile device and PC.

3. Make sure that the data collection software is started on the mobile terminal. Starting communication with the terminal during program operation might result in a data loss.
4. Press the **Terminal** button. After each attempt to start communication, a message will be displayed to make sure that the data collecting software installed on the mobile device has been deactivated. Confirm the message by pressing **OK**.

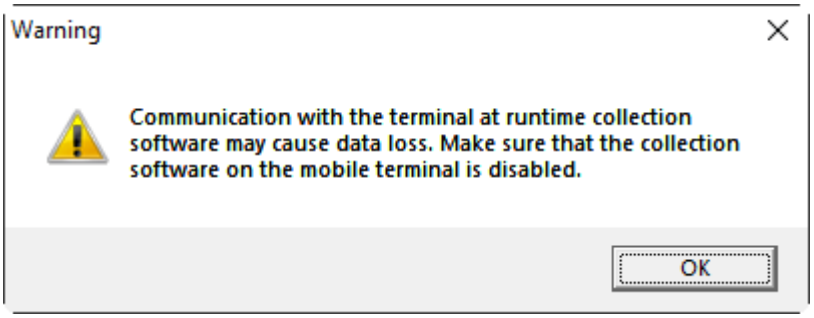


Fig 6. Communication with the terminal — Caution

If the communication with the mobile device has been established, the **Terminal Management** window will be displayed.

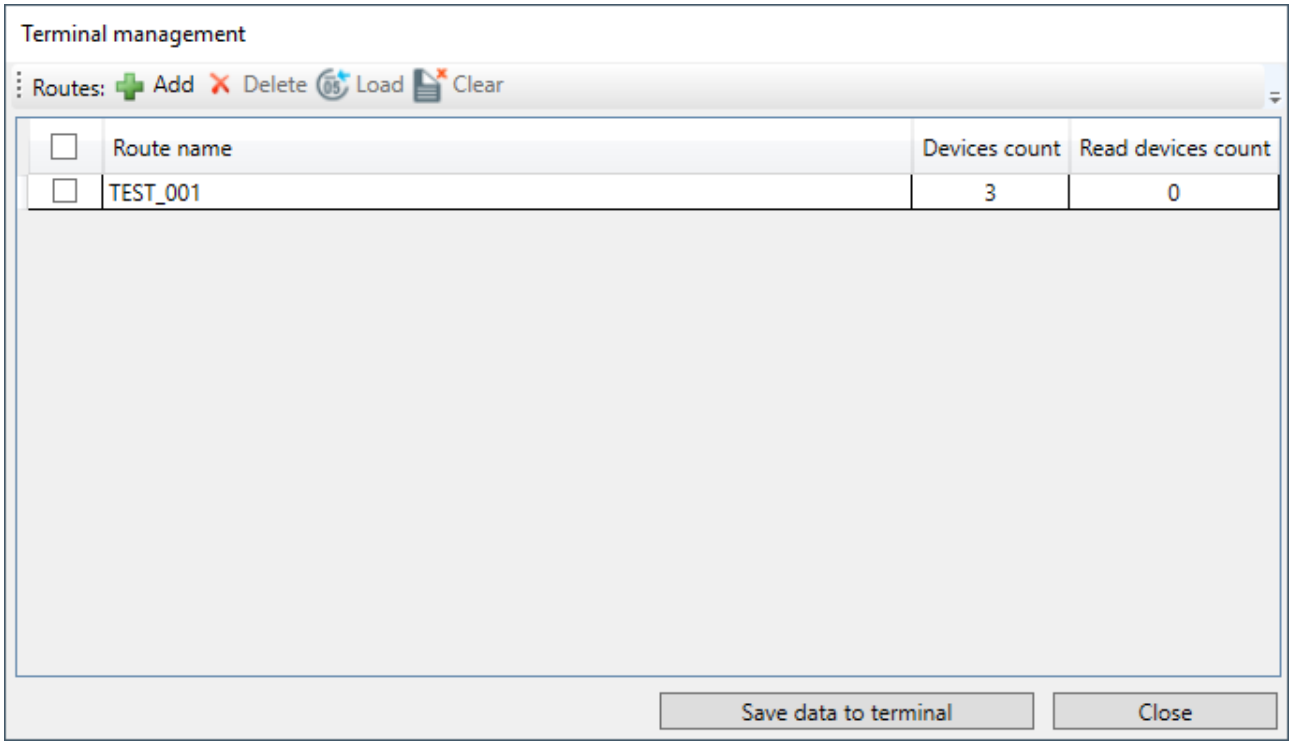


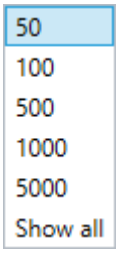
Fig 7. Window: Terminal Management

3. Basic application functionalities

3.1. Number of records displayed per page

In the top part of each panel is a group of tools for table data display handling.

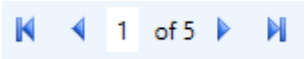
You can define the maximum number of records to be simultaneously displayed per page.



The **Paging** tool group features commands for navigating the individual data pages. These include:

- go to first page ,
- go to previous page ,
- go to next page ,
- go to last page .

The mid-section of the **Paging** tool group has an input field with the number of the currently displayed page. You can go directly to a desired page number by entering its number there and pressing **Enter.**



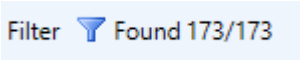
3.2. Filtering and sorting rules

3.2.1. Filtering

You can filter the data in specific columns by the criteria relevant to the data type in the column.

To filter the displayed data:

1. Select the **Filter** tool from the group.



2. In the window shown, select the data columns you want to filter.

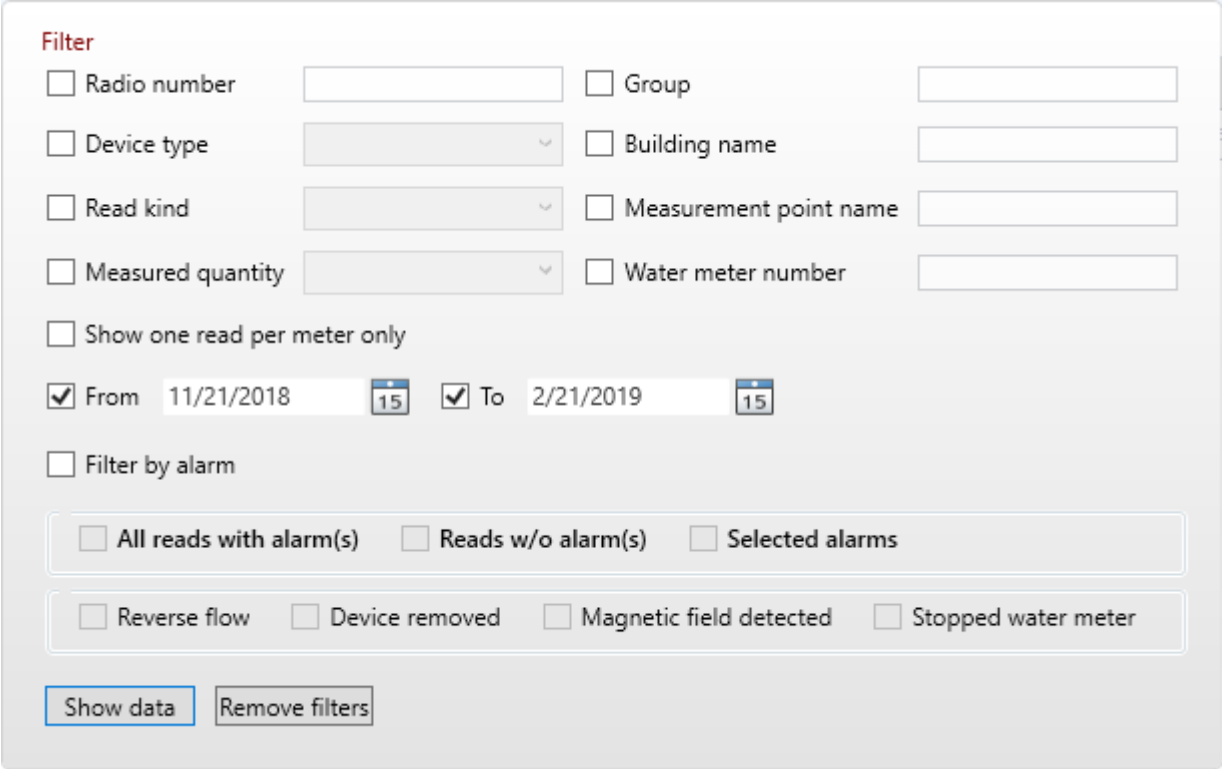


Fig 8. Window: Filtering

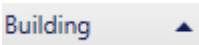
3. Select the data type or enter data value to display.
4. Press the **Show Data** button located in the lower left of the window.

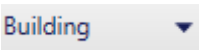
To **reset** the data filter:

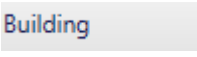
1. Select the **Filter** tool from the group**.**
2. In the displayed window, click **Reset filters** in the lower left of the window.
3. Press **Show Data**.

3.2.2. Sorting

You can sort the contents of table columns. To sort the table by the selected column, left-click the header for that column.

The first click enables the sort up function. 

The second click enables the sort down function. 

The third click disables the sorting function. 

To sort several columns at once, press and hold Shift while selecting the column headers.

3.3. Column functionalities

If required, you can display or hide selected table columns.

To display or hide any column, right-click anywhere inside the table and select **Column settings** from the context menu. A sub menu is displayed with the list of all columns in the table divided into categories. The columns that are displayed are marked with the following symbol ✓.

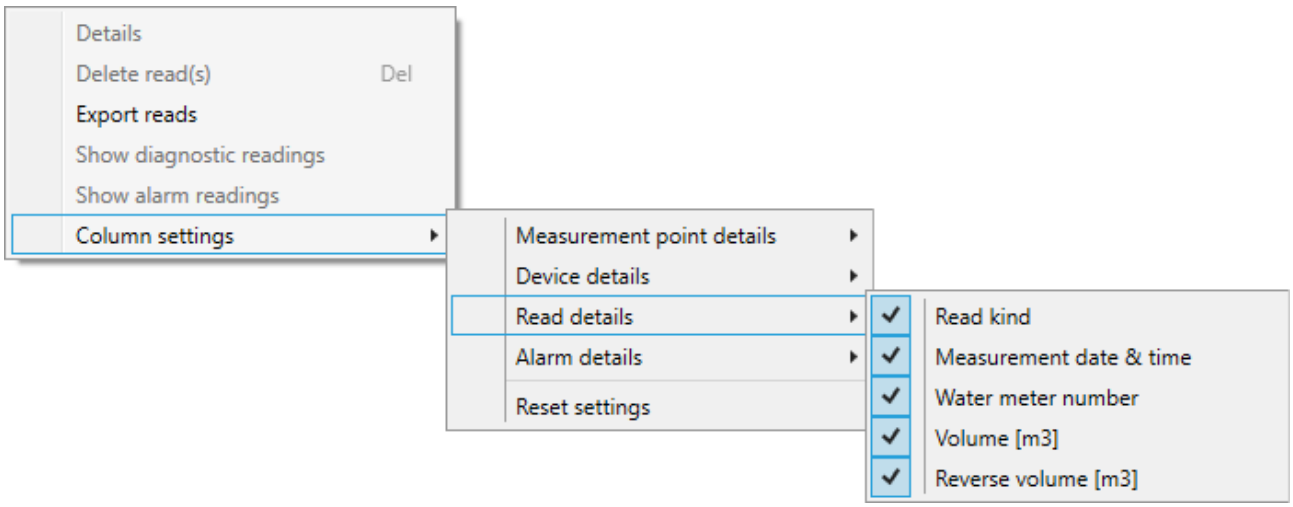


Fig 9. Column settings

3.4. Presentation of readings

The application panels display selected information on the metering readings:

- Water meters — **Water** panel,
- Heat meters — **Heat Energy** panel, **Heat Meter** Readings tab,
- Heat cost allocator — **Heat Energy** panel, **Heat Cost Allocator** Readings tab,
- Gas meters — **Gas** panel.

Additionally, alarm and diagnostic readings are shown.

3.5. Displaying additional information about the reading

To display additional information about readings, right click the reading and select Details.

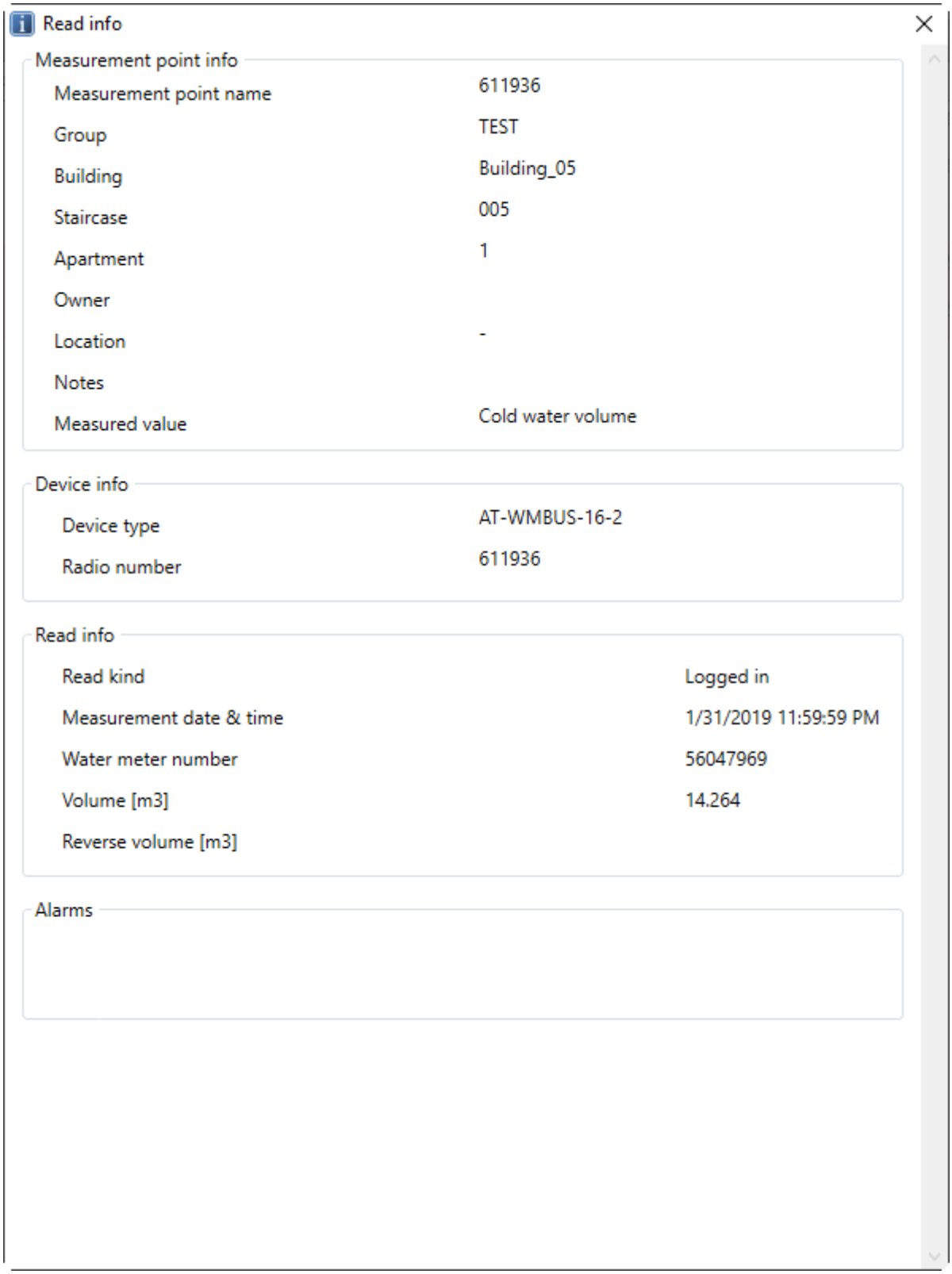


Fig. 10. Window: Information on the reading

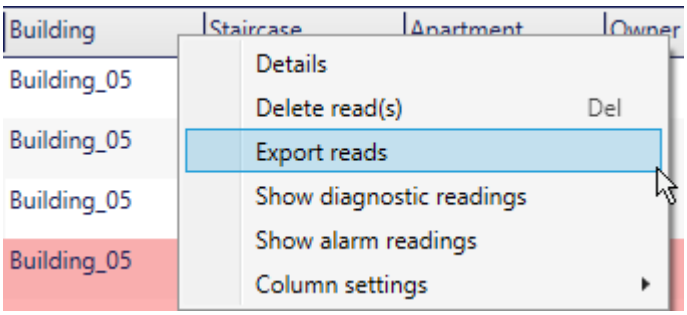
3.6. Reading data export

The application enables the displayed information to be saved in an **MS Excel** file.

To export readings to a file:

1. Select the panel with the readings to be exported.

2. Right click anywhere inside the readings chart and select **Export Readings**.



3. In the window shown, select:

- **Yes** – to export all readings for the selected medium.
- **No** – to export readings shown in the currently displayed table page.

3.7. Generating reports

The application uses data readings from water meters to generate a report automatically, showing volume separation per month.

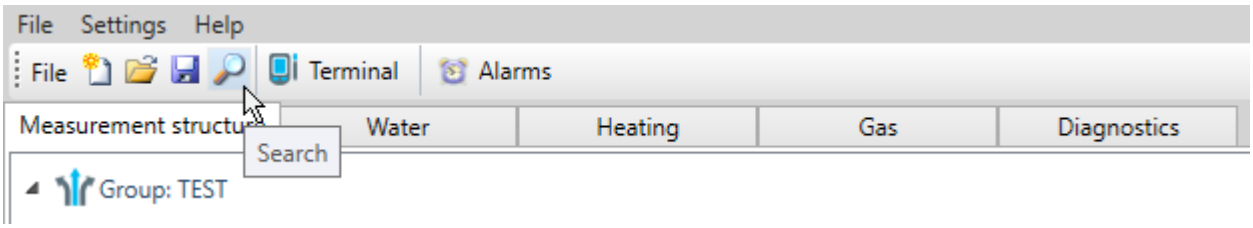
The report is displayed in the Water panel in the **Monthly Report** tab.

3.8. Searching

The application enables searching for devices within the measurement structure

To search for the device within the structure:

1. Press „Search" on the application bar.



2. Select data from the list for **Measured Value** and **Device Type**.

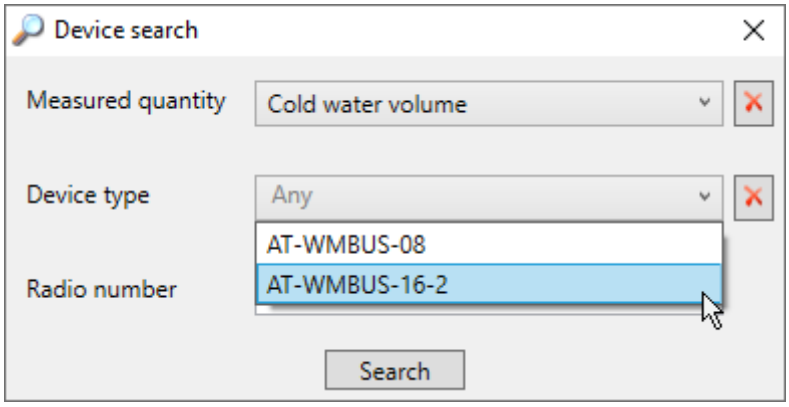


Fig 11. Window: Searching for the device using Measured Value and Device Type

3. Select from the list and use the keyboard to enter the **radio number**, then press **Search**.

After selecting Device Type, the list of numbers will be automatically reduced to include only the criteria selected by the user.

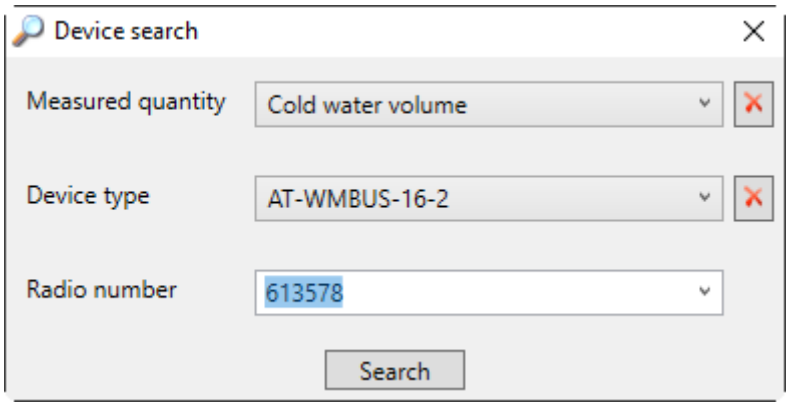


Fig. 12. Window: Selecting the device radio number

4. After pressing **Search**, the application will show the searched device in the measurement structure.

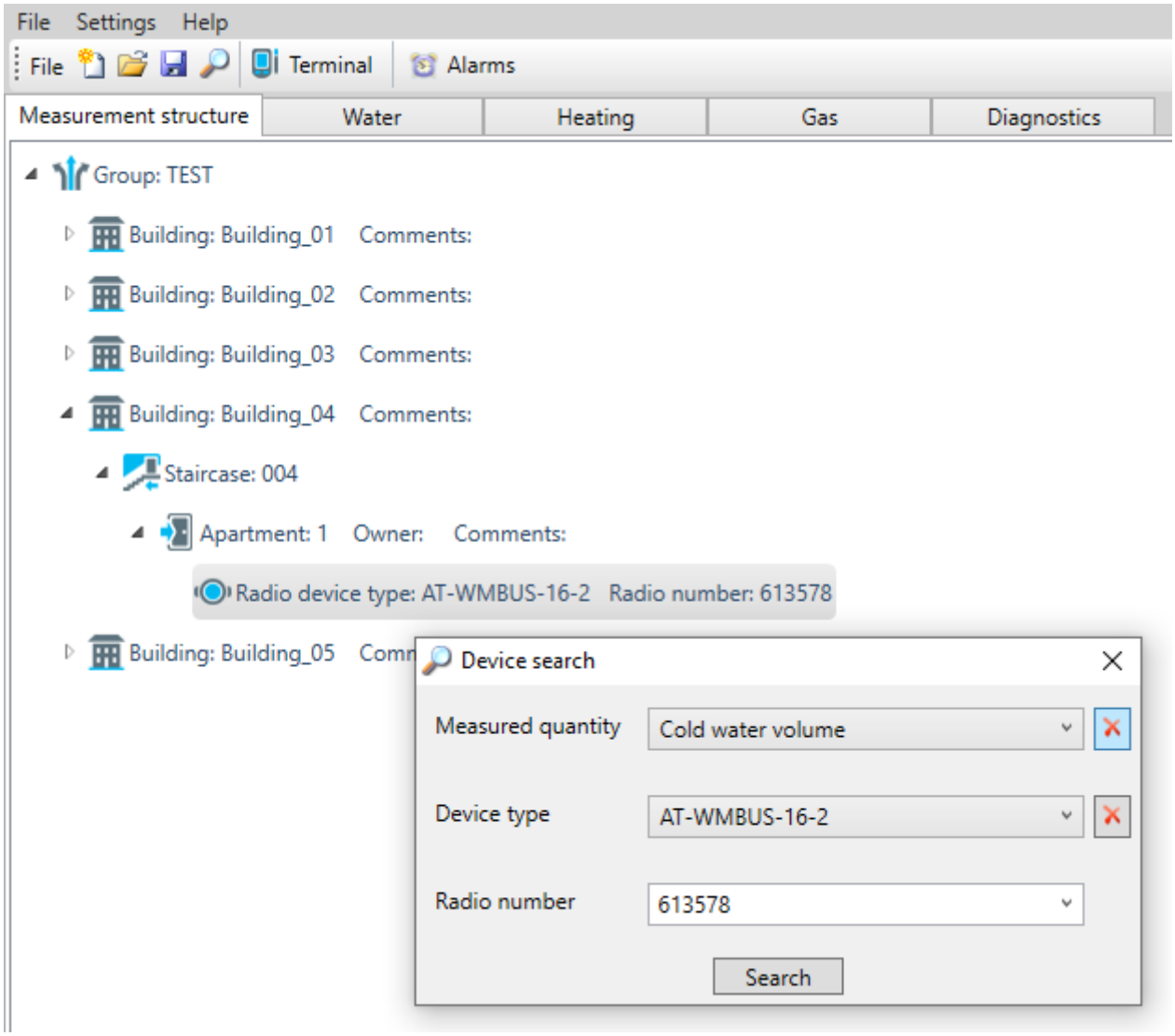


Fig. 13. Searched number

5. To delete the list selection, press the button

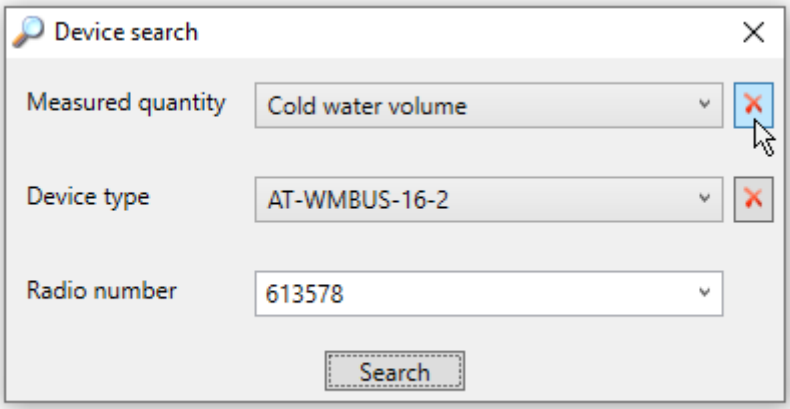


Fig 14. Searching for a device — deleting the selection

4. Measurement structure

Inkasent PC 3 enables the creation and management of the measurement structure.

The measurement structure is hierarchical, which means that an element can be added if it has an appropriate parent element present.

The measurement structure elements are shown below, from the highest tier to the lowest tier:

- Grup ,
- Budilding ,
- Staircase ,
- Flat ,
- Measurement point.

The measurement devices at the measurement point:

- Cold water volume ,
- Hot water volume ,
- Gas volume ,
- Heat energy consumption ,
- Heat energy costs .

4.1. Creating the metering structure

To create the measurement structure, use one of the following methods:

- Importing from a CSV import file,
- Importing from Inkasent PC 2 database file (mdb),
- Manual entry of the measurement structure elements in the application,
- Loading a database created in Inkasent PC 3 (sdf),
- Loading a measurement structure from a mobile terminal with the Inkasent mobile app..

4.1.1. Importing a measurement structure from a CSV file

To import the measurement structure from an import file:

1. From the main menu select **Help** and then For **Download**.
2. Download the **Import template**.
3. Fill in the template by entering data in correct columns.

Table 2. Measurement structure import file

Column	Value	Description
Housing cooperative	any character string	This value defines a building group.
Building	any character string	This value defines the building's address. It should include a street address and building number.
Entrance	any character string	This value is the entrance to the building. This field is optional.
Flat	any character string	This value is the flat number in the building. This field is optional.
Owner	any character string	This value is the owner of a measurement point. This field is optional.
Radio no.	numerical value	This is the radio number of the measurement device.
Device Type		This is a numerical value for the type of transmission device.
	0	- heat-meter,
	1	- gas meter,
	2	- water meter,
	4	- heat cost allocator.
Location		Location of the measurement point::
	0	- unknown,
	1	- kitchen,
	2	- bathroom,
	3	- staircase,
	4	- basement,
	5	- other,
	6	- toilet,
	7	- well.
Type of media		Numerical value to define the type of media for water meters:
	0	- cold water,
	1	- hot water.
Comments	any character string	Value for the name of the measurement point. Additional description. This field is optional.
Device Type	See table **Device Types**, column **Aliases**	This is a character string for the type of transmitting device. See Table 3. **Device types**.
Device model	any character string	Alphanumeric character string defining the model of transmission device.
Device number*	numerical value	The value defining the number of measurement device
Name of measurement point*	any character string	Value specifying name of measurement point name. Field is not required.
Notes to the building*	any character string	Value specifying notes to building. Filed is not required.
Notes to the staircase*	any character string	Value specifying notes to staircase. Filed is not required.
Notes to flat*	any character string	Value specifying notes to flat. Filed is not required.
Route*	any character string	Value specifying route which it will be assigned to the building in which is located measurement point. Filed is not required.

*The number of measurement device only for import file in the Inkasent PC3 format (Fig.15).

The available types of devices are listed in the table below:

Table 3. Device types

Device type	Aliases
APT-OMS-NA-1	AptOmsNa1
	APT-OMS-NA-1
APT-OMS-NA-2	AptOmsNa2
	APT-OMS-NA-2
APT-OMS-NA-3	AptOmsNa3
	APT-OMS-NA-3
APT-OMS-NA-4	AptOmsNa4
	APT-OMS-NA-4
APT-OMS-NA-5	AptOmsNa5
	APT-OMS-NA-5
APT-OMS-NA-6	AptOmsNa6
	APT-OMS-NA-6
AT-WMBUS-01	AtWmbus01
	AT-WMBUS-01
AT-WMBUS-04	AtWmbus04
	AT-WMBUS-04
AT-WMBUS-07	AtWmbus07
	AT-WMBUS-07
AT-WMBUS-08	AtWmbus08
	AT-WMBUS-08
AT-WMBUS-08-2	AtWmbus082
	AT-WMBUS-08-2
AT-WMBUS-09	AtWmbus09
	AT-WMBUS-09
AT-WMBUS-10	AtWmbus10
	AT-WMBUS-10
AT-WMBUS-11	AtWmbus11
	AT-WMBUS-11
AT-WMBUS-11-2	AtWmbus112
	AT-WMBUS-11-2
AT-WMBUS-16-1	AtWmbus161
	AT-WMBUS-16-1
AT-WMBUS-16-2	AtWmbus162
	AT-WMBUS-16-2
	AT-WMBUS-16
	AtWmbus16
AT-WMBUS-17	AtWmbus17
	AT-WMBUS-17
AT-WMBUS-17-2	AtWmbus172
	AT-WMBUS-17-2
AT-WMBUS-18a	AtWmbus18A
	AT-WMBUS-18a
AT-WMBUS-18b	AtWmbus18B
	AT-WMBUS-18b

Device type	Aliases
AT-WMBUS-19	AtWmbus19
	AT-WMBUS-19
AT-WMBUS-G-01	AtWmbusG01
	AT-WMBUS-G-01
AT-WMBUS-MR-01	AtWmbusMr01
	AT-WMBUS-MR-01
AT-WMBUS-MR-01z	AtWmbusMr01z,
	AT-WMBUS-MR-01z
AT-WMBUS-MR-02	AtWmbusMr02
	AT-WMBUS-MR-02
AT-WMBUS-MR-02z	AtWmbusMr02z
	AT-WMBUS-MR-02z
AT-WMBUS-MR-03z	AtWmbusMr03z
	AT-WMBUS-MR-03z
	AT-WMBUS-MR-03
	AtWmbusMr03
AT-WMBUS-MR-04z	AtWmbusMr04z
	AT-WMBUS-MR-04z
	AtWmbusMr04
	AT-WMBUS-MR-04
AT-WMBUS-MR-05z	AtWmbusMr05z
	AT-WMBUS-MR-05z
	AtWmbusMr05
	AT-WMBUS-MR-05
AT-WMBUS-MR-06z	AtWmbusMr06z
	AT-WMBUS-MR-06z
	AtWmbusMr06
	AT-WMBUS-MR-06
AT-WMBUS-MR-07z	AtWmbusMr07z
	AT-WMBUS-MR-07z
	AtWmbusMr07
	AT-WMBUS-MR-07
AT-WMBUS-MR-08z	AtWmbusMr08z
	AT-WMBUS-MR-08z
AT-WMBUS-MR-09z	AtWmbusMr09
	AT-WMBUS-MR-09
	AtWmbusMr09z
	AT-WMBUS-MR-09z
AT-WMBUS-MR-10	AtWmbusMr10,
	AT-WMBUS-MR-10
E-ITN-30.5	Eitn305
	E-ITN-30.5
E-ITN-30.51	Eitn3051
	E-ITN-30.51
E-ITN-30.6	Eitn306
	E-ITN-30.6

Device type	Aliases
UnifloGxE	UnifloGxE
UnifloGxS	UnifloGxS
APT-WMBUS-NA-1	APT-WMBUS-NA-1
Ultrimis	Ultrimis
AT-WMBUS-G-01	AT-WMBUS-G-01
InvonicH	InvonicH
Ceris	Ceris
CerisWmbus	CerisWmbus

4. Save the completed import template.
5. From the application's main menu, select **File** and then select **Import…** from the context menu
6. In the "**Opening**" window displayed, select file type for the Import file: **Inkasent PC 2 enhanced**, and browse to the file containing data to be imported.
7. Press the **Open** button.

The measurement structure will be loaded and displayed in the main panel in the Inkasent PC 3 application.

4.1.2. Importing data from an Inkasent PC 2 database file

To import a database created in an Inkasent PC 2 application:

1. From the application's main menu, select File and then select **Import…** from the context menu
2. In the "**Opening**" window displayed, select file type for the import file: **Inkasent PC 2** and browse for the file containing data to be imported.
3. Press the **Open** button.
4. In the "Import" window displayed, select the default type and model for the transmission device and source for the measurement point name.

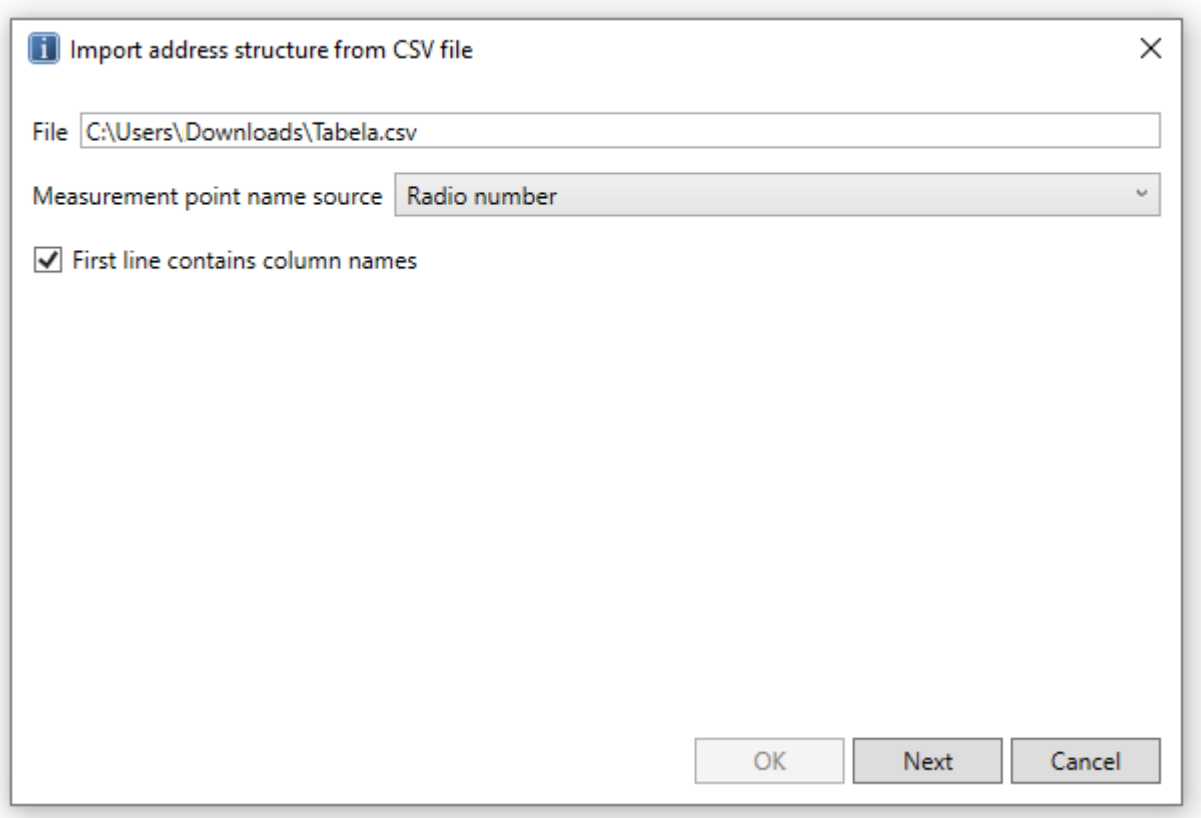


Fig. 15. Window: Import

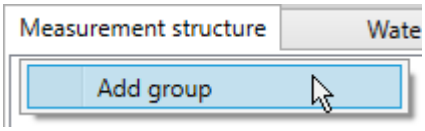
5. After selecting all the required values, press **Next**.
6. Read the displayed Import report and press **OK**.

The data will be saved in the application and confirmed with an applicable message.

4.1.3. Entering elements for the measurement structure in the application manually

Start the process of creating a new structure and creating a new **Measurement group**. To add a **Group** to the measurement structure:

1. Right click anywhere in the **Measurement Structure** window and select Add **group** from the context menu displayed.



2. In the **Add group** window, add the group name and confirm with the **OK** button.

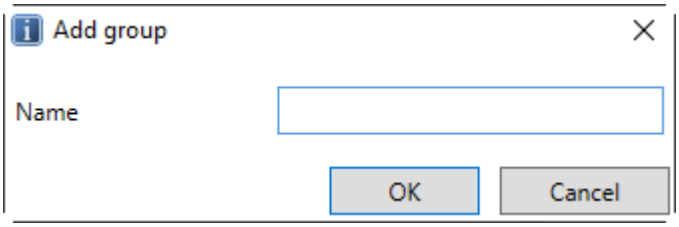
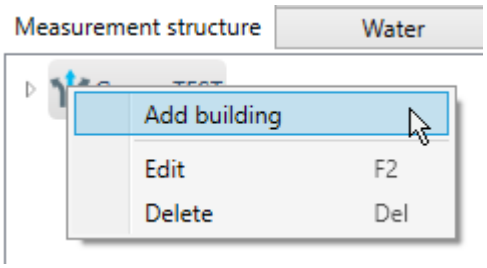


Fig. 16. Window: Add a group

The building type is the next element of the measurement structure. To **add a building**, select the group on the measurement structure tree for the building, and select **Add Building** from the context menu to display the **Add Building** window.



To add a building, use the same procedure as with adding a group, but after entering the name, you can also add notes.

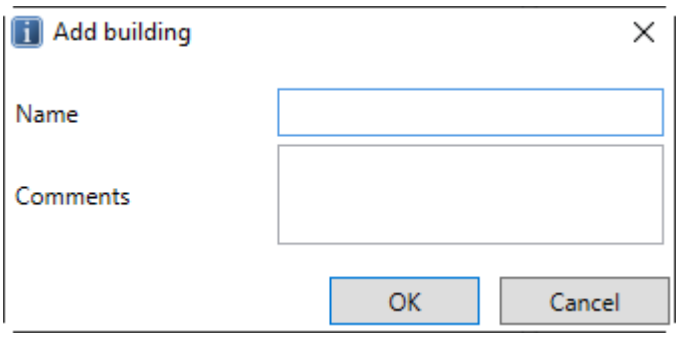


Fig. 17. Window: Add Building

The next element of the measurement structure may be **Block entrance** or **Flat**. You can only add a Flat to a Building, either the Building itself or Block Entrance. You can add these elements to the measurement structure in the same way as explained above, but you can specify the flat owner's name when adding a flat..

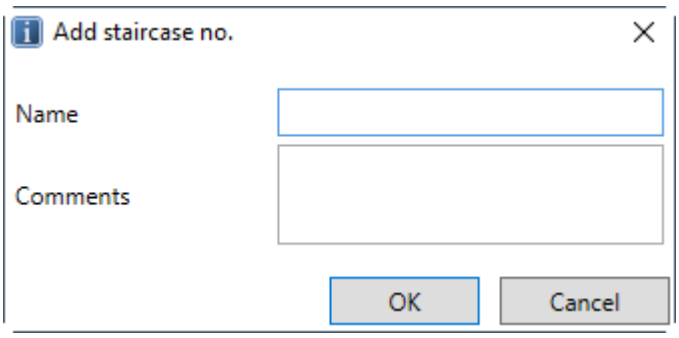


Fig. 18. Window: Add Block Entrance

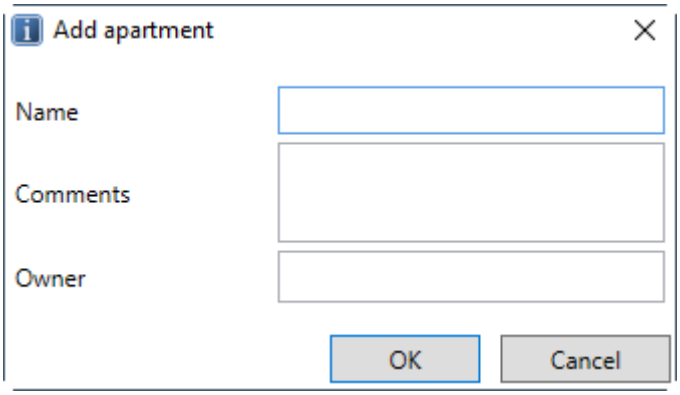


Fig. 19. Window: Add Flat

The measurement point is the last element of the measurement structure. You can add the measurement point to a building, block entrance or flat. To add a new measurement point:

1. Assign a name, define the type of media being measured and the installation location for the measurement device using the fields: **Name**, **Measured Value**, **Location**).
2. Optionally, you can add notes.
3. Select the type and enter the serial number for the measurement device installed at the measurement point.
4. Define the type, model and RF module ID for the radio device.
5. After completing all the fields, confirm the information with the **OK** button.

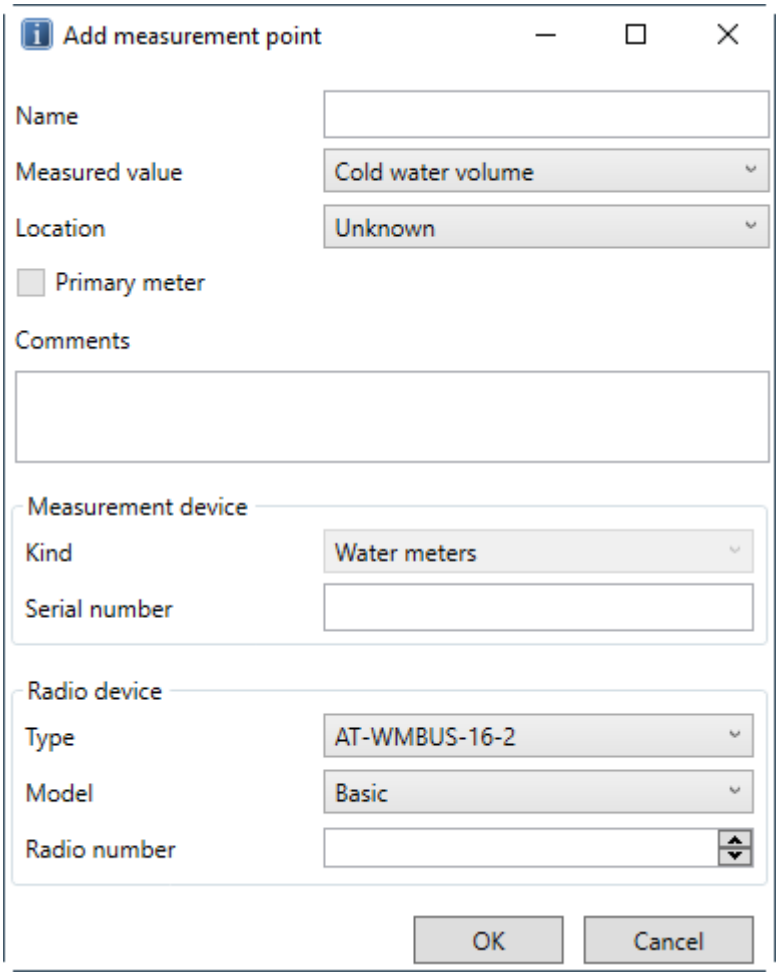


Fig. 20. Window: Add Measurement Point

A radio device with a specific RF module ID cannot be assigned to more than one measurement point simultaneously. If you enter an RF module ID of a device which has been already assigned to the measurement structure, the RF modules displayed in red boxes will be deleted from the **RF modules** group and an error will be reported. When this occurs, you must remove the RF module from the previous location and then retry adding a new measurement point.

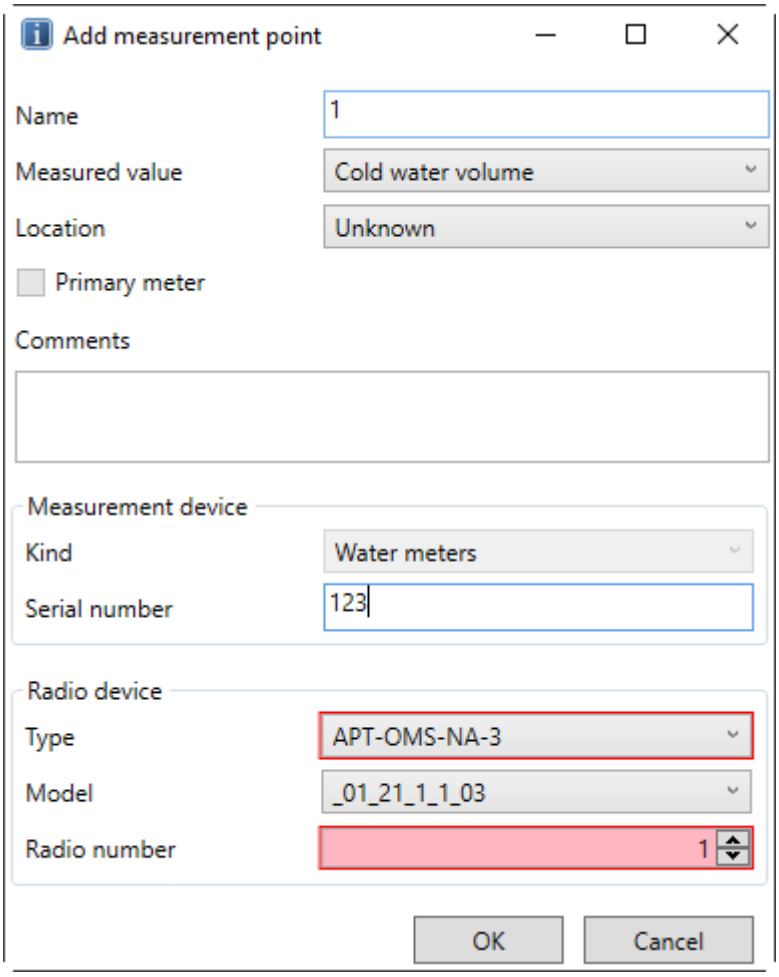


Fig. 21. Error while adding of a measurement point

4.1.4. Loading a measurement structure created using Inkasent PC 3

The application enables the user to load the measurement structure created using Inkasent PC 3 and saved on a hard drive in an sdf file (SQL Server Compact Edition Database File).

To load a measurement structure:

1. Press the **Open** button ( ) on the tool bar.
2. From the **Opening Window**, browse to the location of the file with the measurement structure saved.
3. Press the **Open** button.

If the measurement structure has been saved in an earlier Inkasent version than PC 3, then the following message will be displayed when you try to open it: **Incorrect database version**. Do you want to perform an update? Press **Yes** to continue. The measurement structure will be converted into the current version and then loaded into the application.

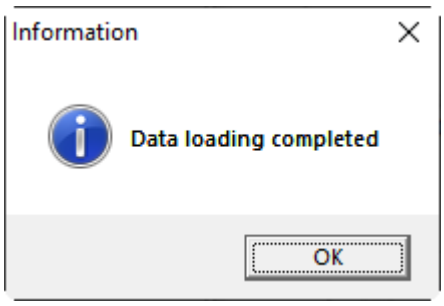
4.1.5. Loading measurement data from a mobile device

To load the measurement data from a mobile device:

1. Press the **Terminal** button (Terminal) located on the tool bar. In the **Terminal Management** window displayed, you will see a list of all measurement routes found on the device.

2. Select the routes for loading data to the application and then press the Load (Load) button.

   After the successful completion of the procedure, the following message will be displayed:



3. Confirm the message with the **OK** button, and press **Close** in the **Terminal Management** window.

The data will be loaded, and displayed in the application panels.

If the measurement data is not shown in the application panels but there is information about the measurement data available, press the **Filter** button and change the filter rules or remove the filters by pressing the **Delete Filters** button. Next, press the **Show Data** button.

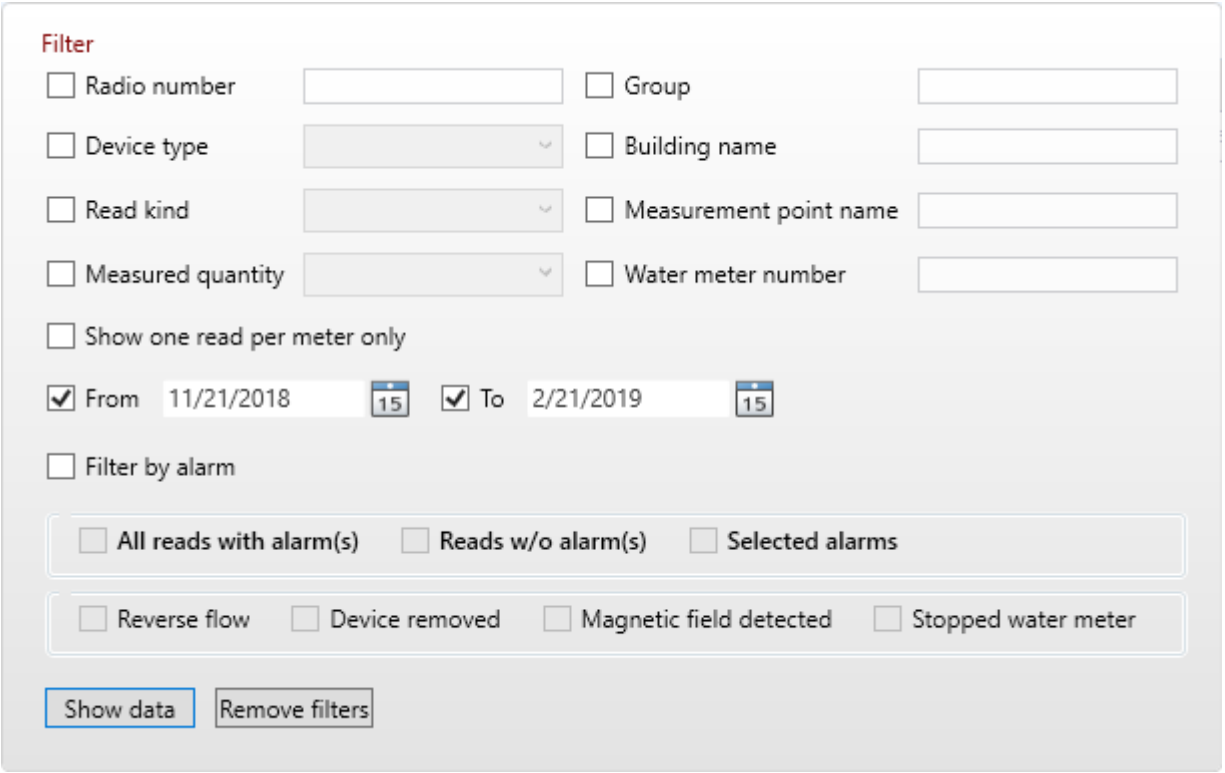
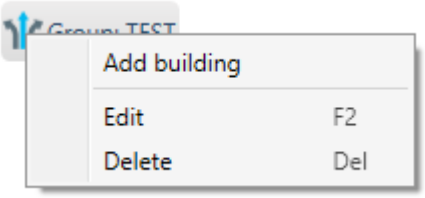


Fig. 22. Removing a data filter

4.2. Measurement structure management

You can always edit or delete individual address structure elements any time, while using the application. To edit or delete an address structure element, right-click on the selected element and select **Edit** or **Delete** in the menu displayed. When you delete an element, all the subordinate elements of the measurement structure are also deleted.

Caution: element deletion operation is irrevocable.



4.2.1. Replacement of the device in a measurement point

To replace a device:

1. Right click on the measurement point for which you want to replace the device and select **Device Replacement**.
2. In the window displayed, select the type and model for the RF module and enter the RF number for the new device.

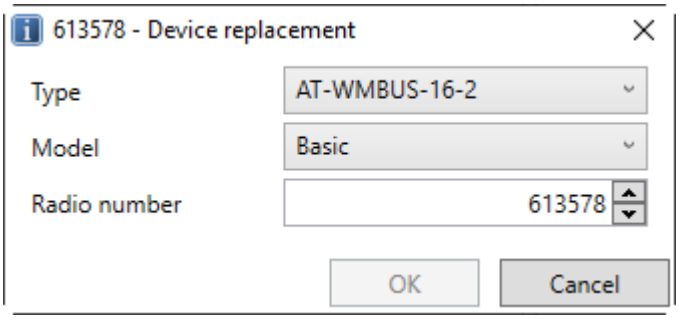


Fig. 23. Window: Device Replacement

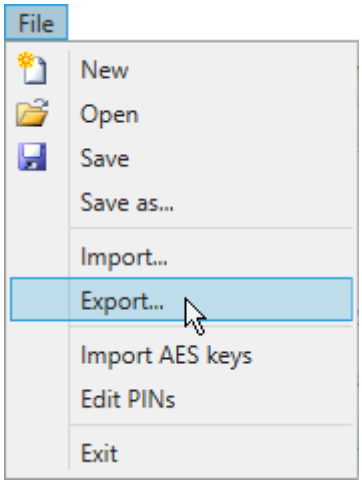
3. Confirm the data you entered with the **OK** button.

Remember to update the route data on the terminal after modifying the measurement structure.

4.3. Measurement structure export

To export the measurement structure to a file:

1. Select **File** from the main menu.
2. Select **Export…** from the context menu



3. Enter the name and select the location for the export file. Confirm by pressing the **Save** button.

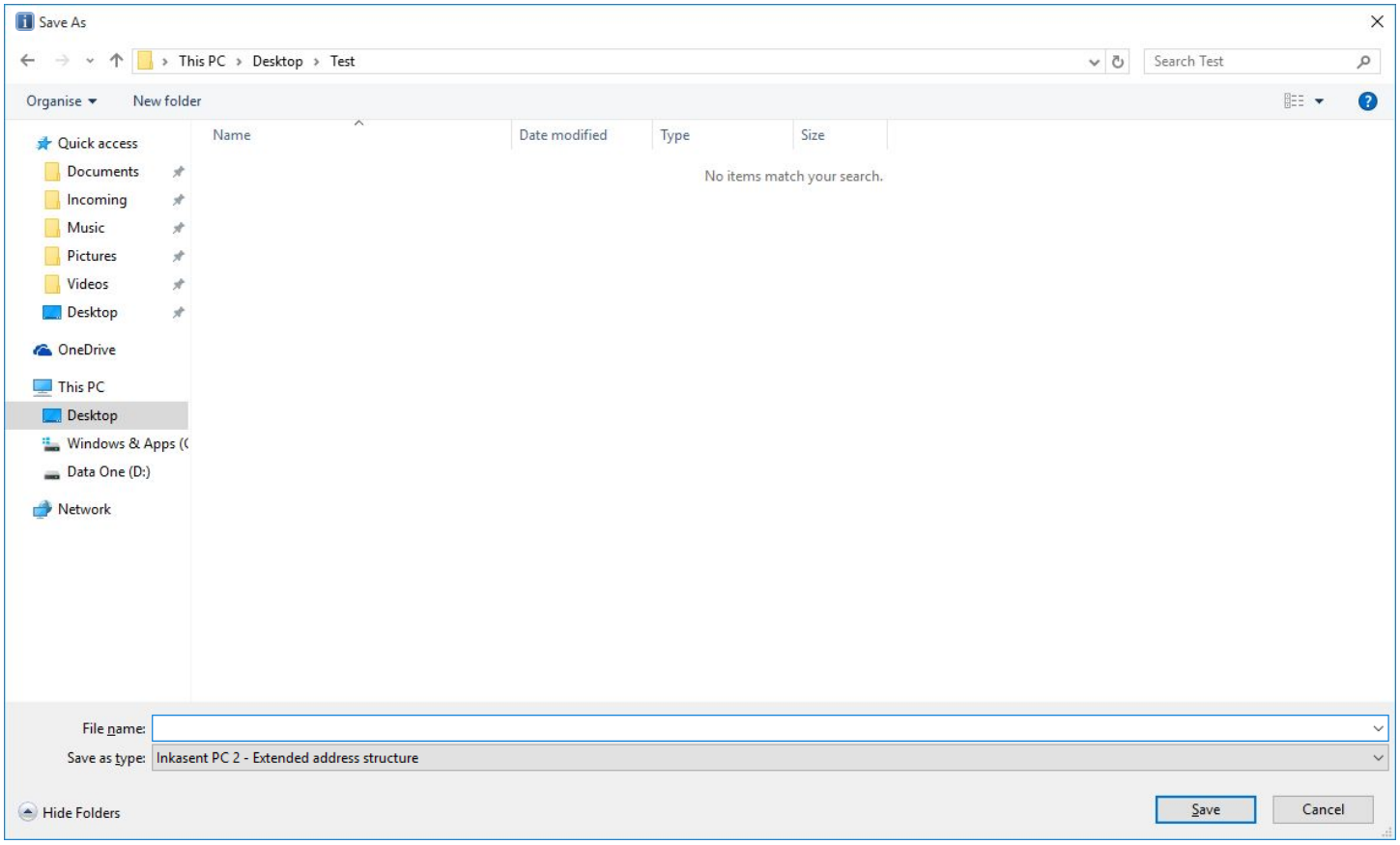
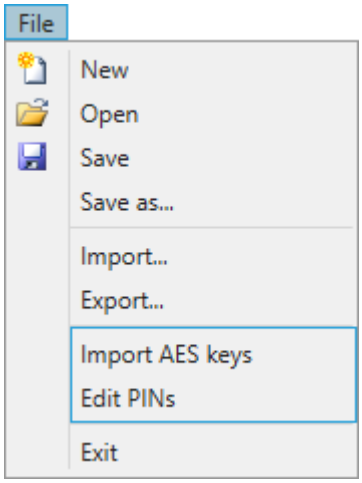


Fig. 24. Window: Save As

5. Access data



5.1. Importing AES keys

To import the AES keys:

1. From the main menu select: **File > Import AES keys**.
2. Download and complete the template and then import the template by pressing the following button: ...

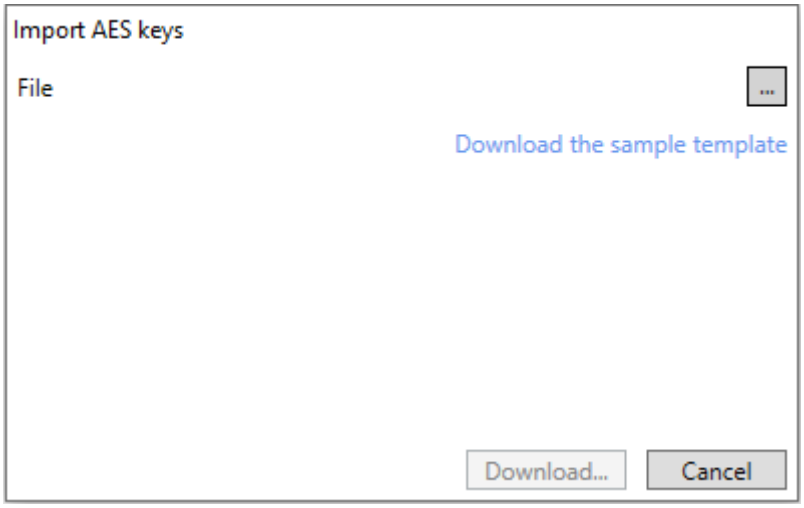


Fig. 25. Importing AES keys

5.2. Editing the PIN codes

A PIN code may be added to a given device type. Procedure:

1. From the main menu select: **File > Edit PIN codes.**
2. In the window displayed press **Add** (Add).
3. Select the device type and assign a PIN to the device. The PIN code must include four characters.

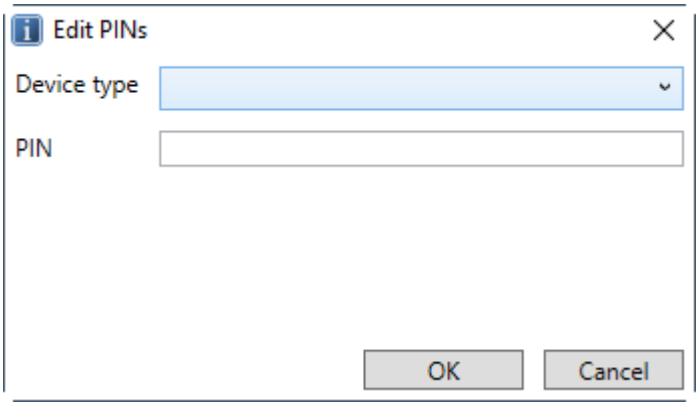


Fig. 26. Adding PIN codes

6. Reading routes

The reading routes for the **Measurement Structure** panel are displayed in the **Reading Routes** window.

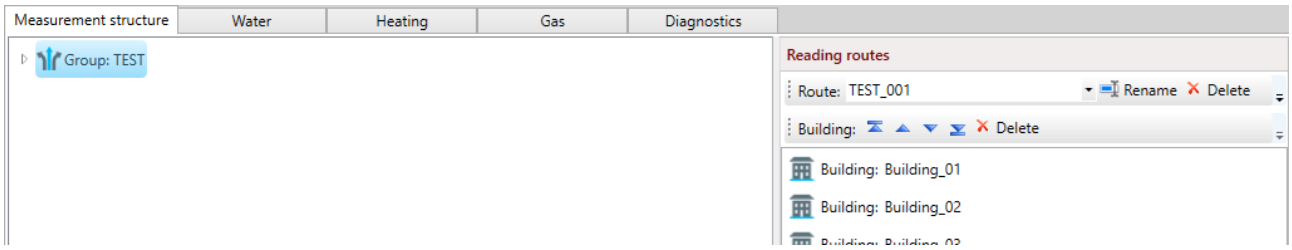
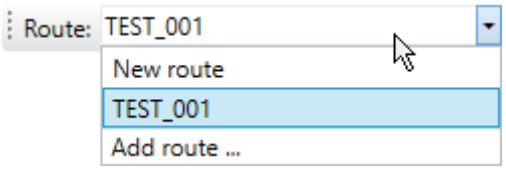


Fig. 27. Window: Reading Routes

Select the route to be displayed from the drop-down list.

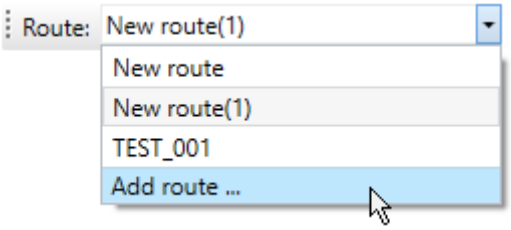


The reading route is created on the basis of the measurement structure see chapter 4.

6.1. Creating a reading route

To create a new reading route:

1. Create the measurement structure see chapter 4.1 for use as the basis for creating a route.
2. From the drop down list in the Reading Routes list, select **Add a Route...**



A route with the name **New Route** will be added to the drop down list.

3. To change the route name, select the **Change Name** button (Rename).
4. Add the buildings or groups to the reading route by dragging (press and hold the left mouse button down) the selected items from the measurement structure to the window containing the just created route.

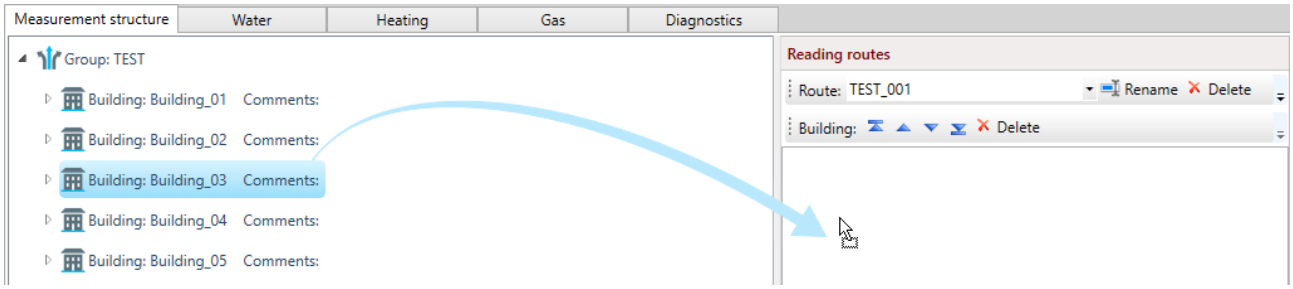


Fig. 28. Adding elements to the reading route

5. Arrange the buildings on the measuring route by changing their order using the buttons from the **Building tool bar**:
    a. Move to the start of the route ,
    b. Move higher ,
    c. Move lower ,
    d. Move to the end of the route ,
    e. Delete the building .

6.2. Managing the reading routes

ou can perform the following actions using the tools from the **Route** tool bar::

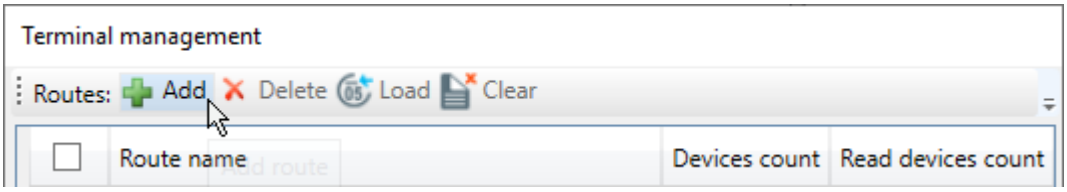
1. Change route name — select the measuring route and press **Change Name**.
2. Delete a route — select the measuring route and press **Delete**. You cannot undo deletion of the reading route.
3. Clear a route (delete all assigned buildings from the route) — select the reading route and press the **Clear** button.

6.3. Saving a route on the mobile device

To save the route on the mobile device:

1. Select the **Terminal** button from the main tool bar.

2. In the displayed window **Terminal Management**, select **Add**.



3. The window with route names will be displayed. Select the routes to be saved on the mobile device. You can select several or all routes.

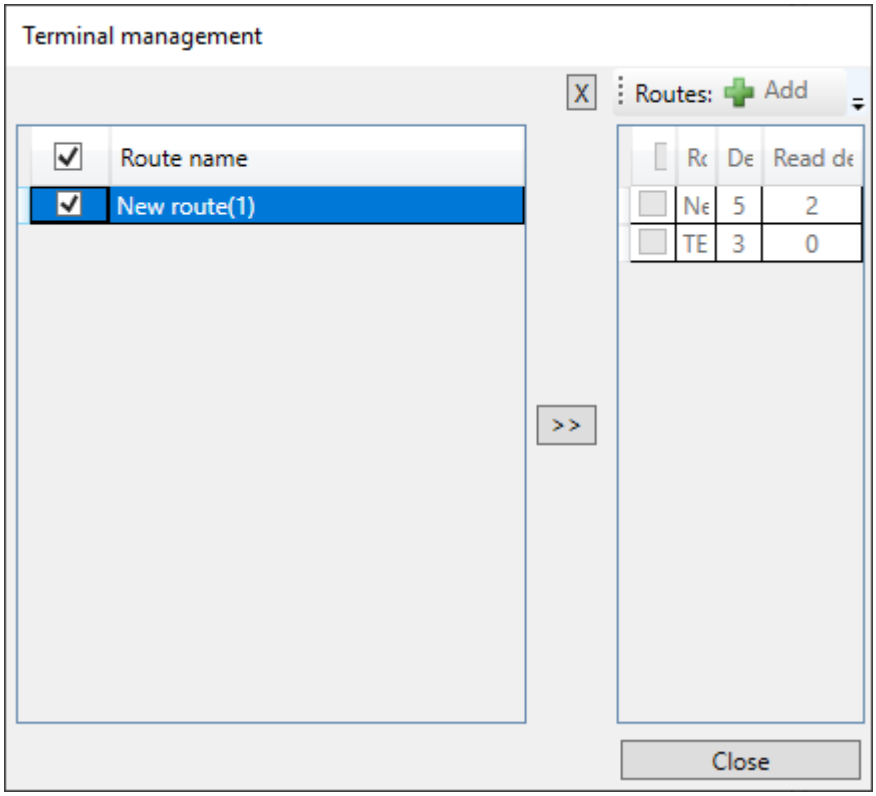


Fig. 29. Adding a reading route to the terminal

4. Confirm the route adding operation with the following button:

5. Close the window with route names to activate the **Save Data on the Terminal** button.

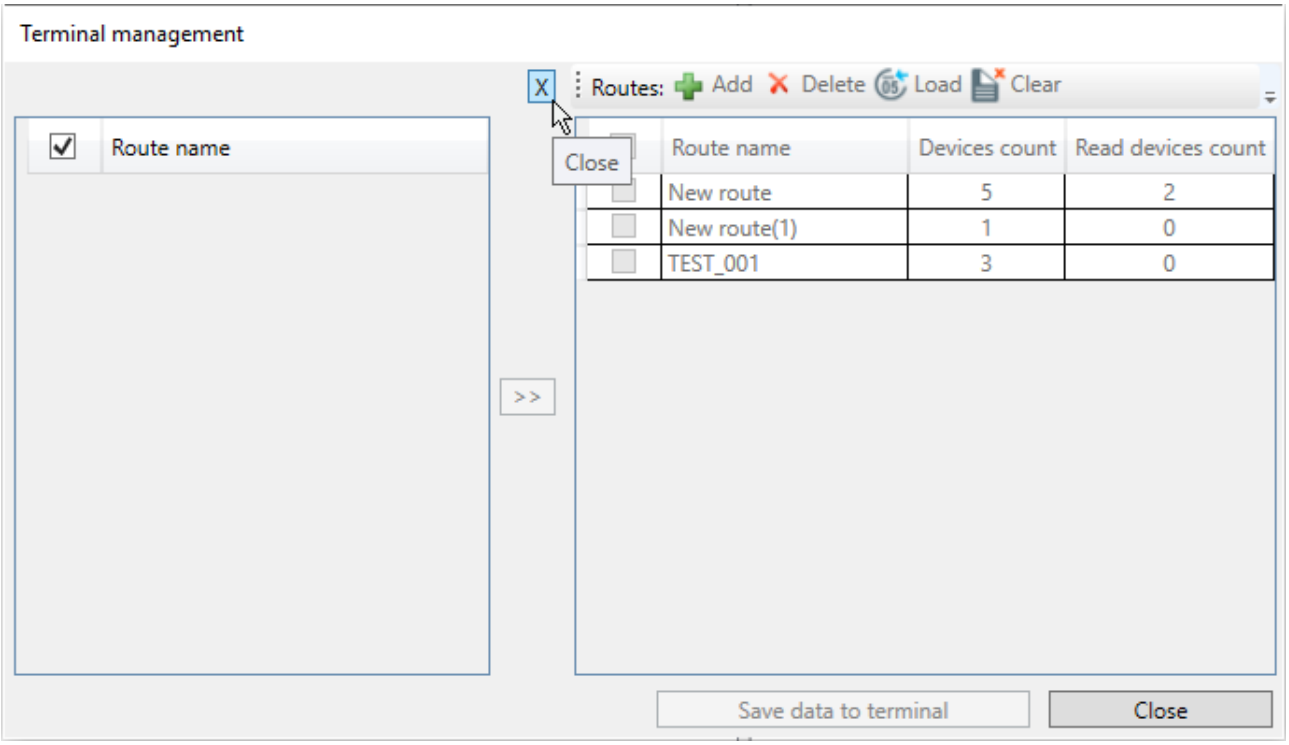


Fig 30. Closing the route names window

6. Select the **Save Data on the Terminal** button.

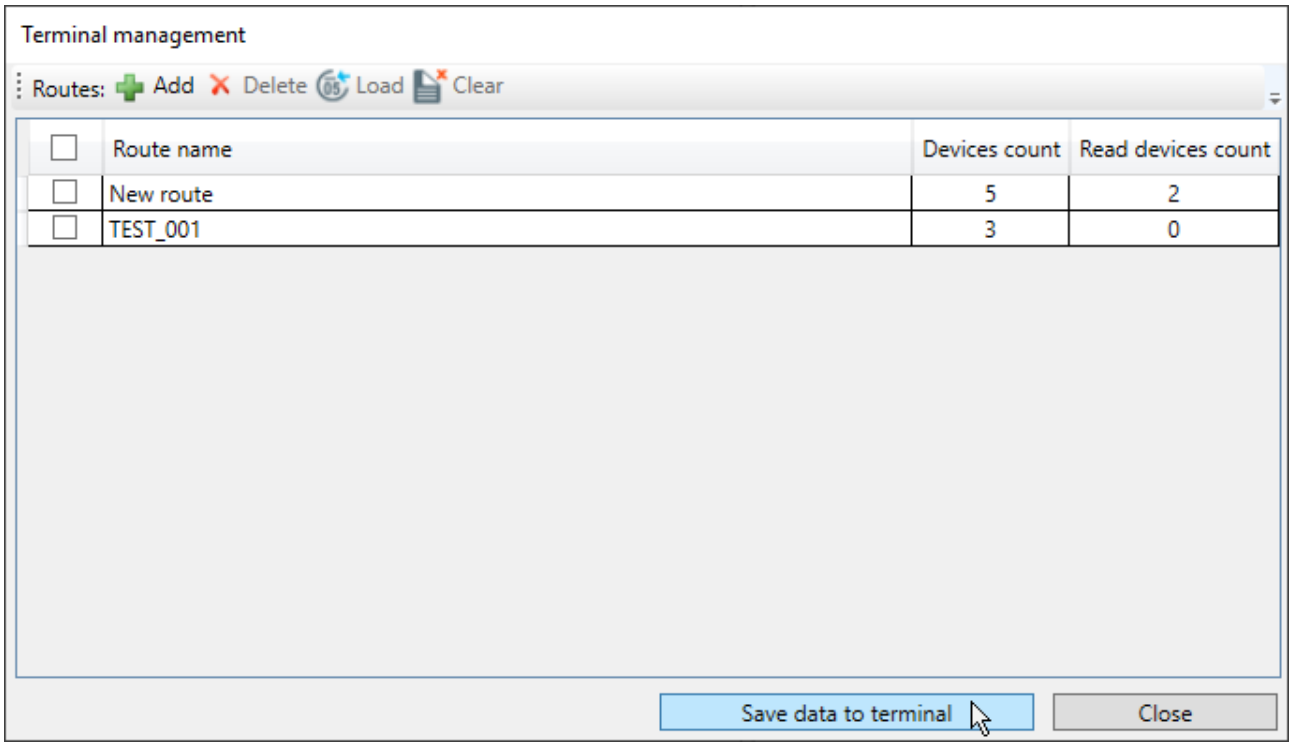


Fig 31. Saving data on the terminal

7. Balancing the measurement points

The procedure of balancing the water pipeline system is a list/summary of metered consumption values for the master (main) meter in relation to the slave meters (submeters).

To start the balancing procedure, main meters and submeters must be defined. Create a meter-submeter structure reflecting all real (physical) connections among the meters.

7.1. Meter-submeter structure creation

To create a meter-submeter structure:

1. In the measurement structure, select a water meter to be designated as the main meter.
2. Right-click the meter and select **Submeters**.
3. In the **Meter submeters...** window select the water meters to be designated as submeters in relation to the main meter.

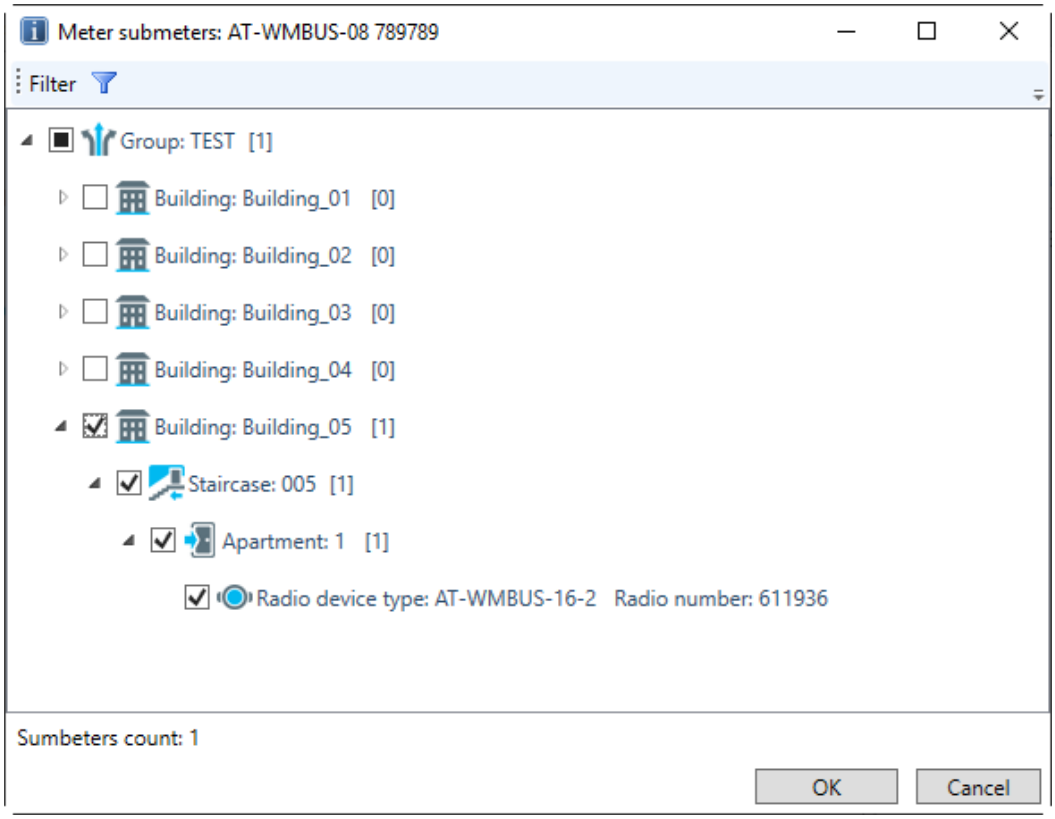


Fig. 32. Window: Submeters for the meter

Note that regardless of the complexity of the meter-submeter structure, the balancing operation is always performed for a selected main meter in relation to its submeters located on the lowest level of the structure hierarchy (i.e. in relation to meters without any submeters).

7.2. Starting the balancing of the measurement points

To start creating the Balancing report for a measurement point:

1. From the measurement structure, select the main meter you want to generate the balancing report.

2. Right-click the main meter and select **Balancing the Measurement Point**.
3. Enter the name for the report and parameters for the readings to be included in the balance.

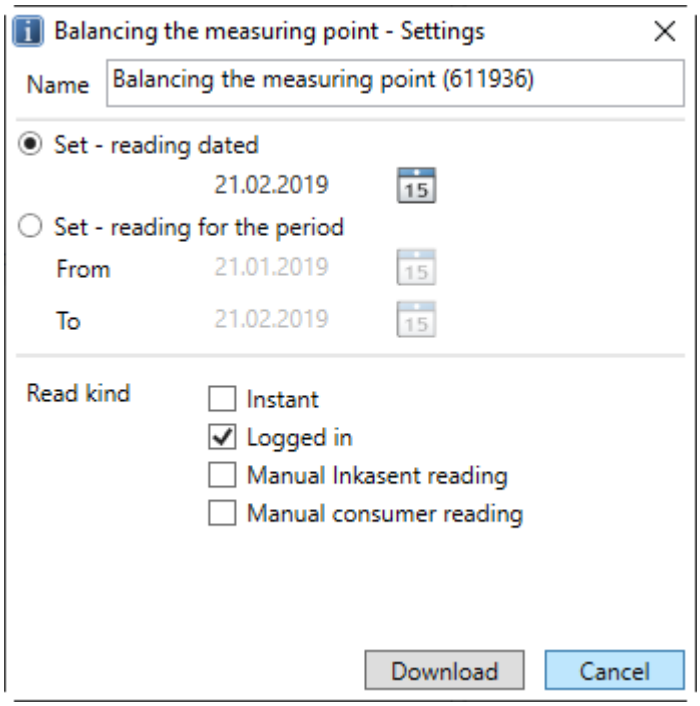


Fig. 33. Window: Balancing a measurement point — Settings

4. Confirm the settings with the **Download**... button.
5. Select the saving location for the report file and press **Save**.

8. Alarms

Those readings which include alarm events are displayed in the Readings panel in the **Alarm readings** tab and are highlighted in red in the readings tables available in the following panels: **Water, Heat, Gas and Diagnostics**).

To display the events which generate alarms, from the main menu select: **Settings** and then **Alarms**.

8.1. Alarms displayed

It is possible to select the events for which an alarm will be generated. Procedure:

1. From the main menu, select **Settings** and then **Alarms**.
2. Select the **Diagnostic mode** option.
3. Choose and select the events for which alarms should be generated.
4. Confirm the selection with the **Save** button.

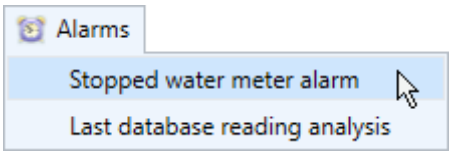
Odznaczenie opcji **Tryb diagnostyczny** spowoduje powrót do ustawień początkowych.

8.2. Alarm for inactive water meters

The application includes an **alarm for inactive water meters** to identify the meters which have not recorded any water consumption for a specific period or for the meters for which the consumption was smaller than the declared volume.

To generate the alarm for a water meter which does not record any activity:

1. From the tool bar, select **Alarms** and then **Alarm for inactive water meters**.



2. Select the option **Generate Alarm for Inactive Water Meters**.

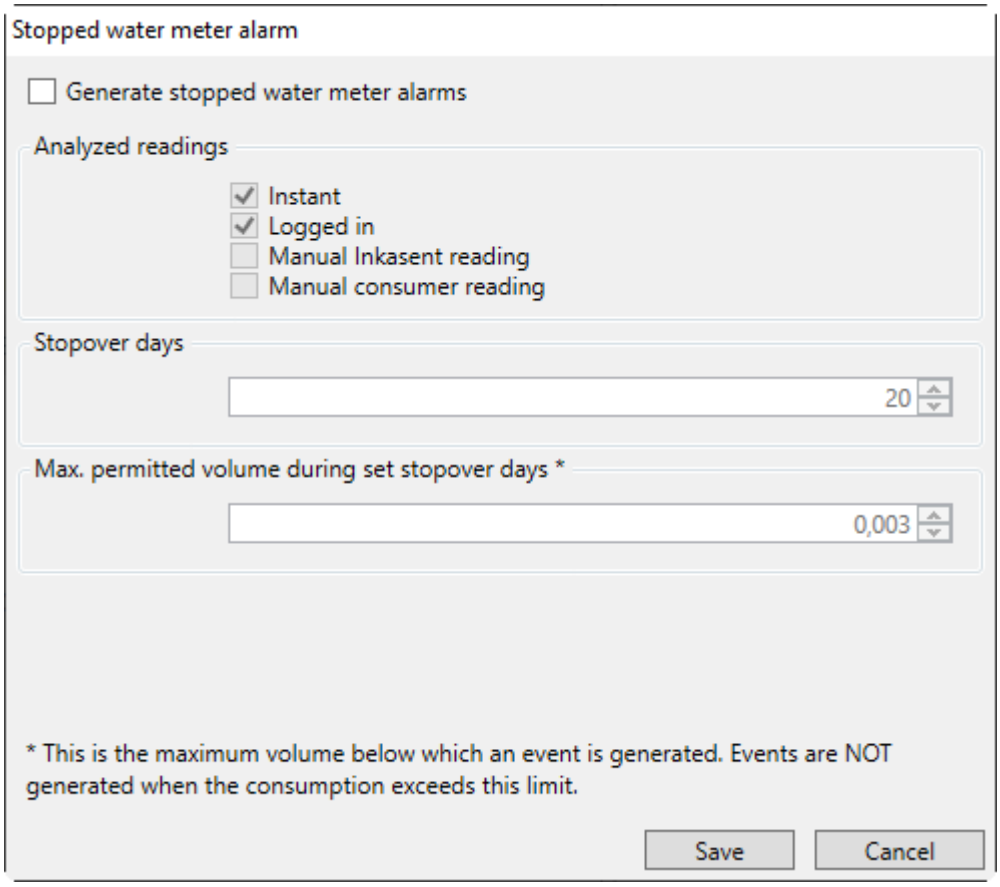


Fig. 34. Window: Alarm for inactive water meters

3. Define the type of readings to be included in the alarm.
4. Select the allowable number of days of inactivity (up to a year).
5. Select the maximum volume during pre-set number of shut-down days (up to 10 m^3). The alarm will not be triggered if the consumption volume exceeds the pre-set value.
6. Confirm the settings with the **Save** button.
7. From the tool bar, select **Alarms**, and then **Analyse the last readings in the database**.

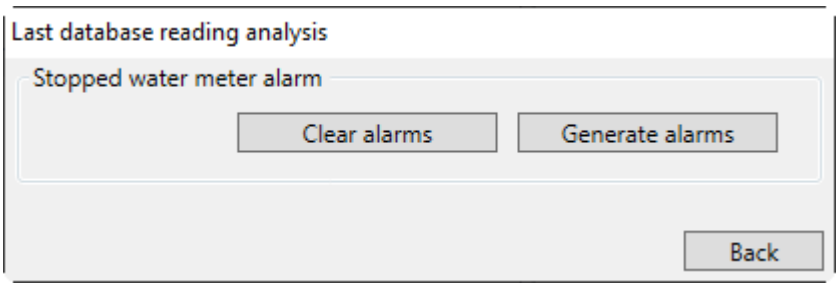


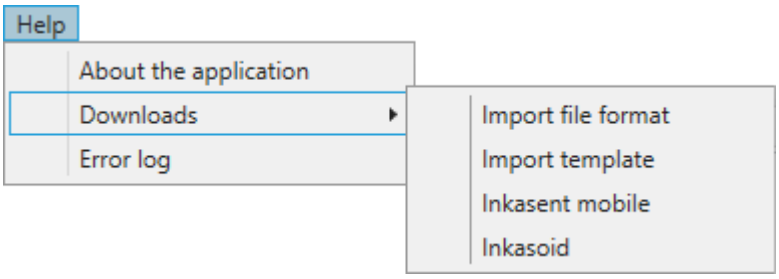
Fig. 35. Window: Analysis of the last database readings

8. **Generate alarms**.

To delete the Inactive water meter alarm, from the tool bar select **Alarms** and then **Analyse the Last Database Readings**, and then select the option **Clear Alarms**.

9. Files to download

In the main menu, the tab **Help > Files to download** includes some files which may be helpful during the use of application.



9.1. Format for the imported file

This file contains information about the Import file:

1. General information about the file,
2. Descriptions of columns,
3. Device types.

9.2. Import template

The Import template is provided for quick entering of the measurement structure to the application. The template contains example data.

9.3. Inkasent mobile

This gives the installation files for Inkasent mobile.

9.4. Inkasoid

This gives the installation files for Inkasoid.

10. FAQ

10.1. How to start communication with the terminal

To connect the application with the mobile terminal:

1. Start the mobile device.
2. Plug the mobile device into a PC with the required software installed in order to synchronize the PC and the mobile devices (additional information about making the connection is given in the user manual for Inkasent mobile).

To start communication with the mobile device:

1. From the main menu select **Settings** and then **Terminal** from the context menu.
2. In the **Terminal** settings window displayed, select the applicable mobile device with the system installed.

   After selecting the terminal, the **Terminal** button on the tool bar will be activated; this confirms the success of the connection between the mobile device and PC.

3. Make sure that the data collection software has started on the mobile terminal. Starting communication with the terminal during program operation might result in a data loss.
4. Press the **Terminal** button. After each attempt to start communication, a message will be displayed to make sure that the data collecting software installed on the mobile device has been deactivated. Read the message and press **OK**.

If communication with the mobile device has been established, the **Terminal Management** window will be displayed.

10.2. How to create a measurement structure

To create the measurement structure, you can use one of the following methods:

- Import from an import file (CSV) — see 4.1.1
- Import from an Inkasent PC 2 database file (mdb) –see 4.1.2
- Entering elements for the measurement structure in the application manually see 4.1.3
- Loading a database created in Inkasent PC 3 (sdf) – patrz 4.1.4
- Loading a measurement structure from the mobile terminal with Inkasent mobile – see 4.1.5

10.3. How to check if the device is supported in the application

When you are adding a measurement point (see Entering elements for the measurement structure manually 4.1.3) select the type for the measured value from the **Types** of Drop Down list. The names of all devices supported by the application will be shown according to the measured value selected.

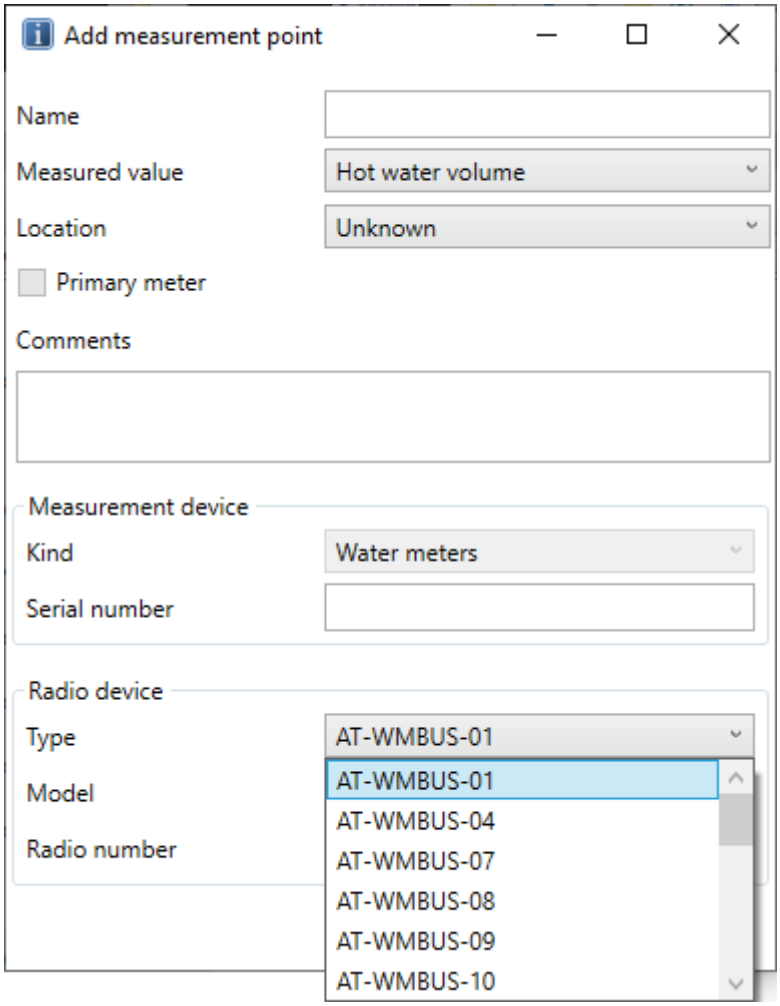


Fig. 36. Device type

You can also find the list of devices supported in the application in the file **Import file format** available from the main menu after selecting **Help > Files** to download.

10.4. Replacement of a device at the measurement point

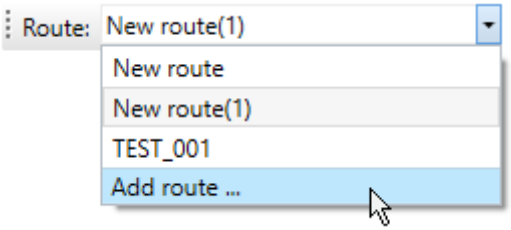
To replace a device:

1. Right click the measurement point location where you want to replace the device and select **Device Replacement**.
2. In the window displayed, select the type, model and the **RF ID** for the new device.
3. Confirm the data you entered with the **OK** button.

10.5. How to create a reading route

To create a new reading route:

1. Create the measurement structure (see 4.1) to use as the basis for creating a route.
2. From the drop down list in the Reading Routes list, select **Add a Route…**



A route with the name New Route will be added to the drop down list.

3. To change the route name, select the Change Name button (Rename).
4. Add the buildings or groups to the reading route by dragging (press and hold down the left mouse button) the selected items from the measurement structure to the window containing the just created route.

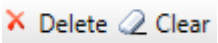
10.6. How to organize the buildings on the route in the order for the data collector to follow

To organize the buildings on the measuring route, you can change their order using the buttons on the **Building** tool bar:

- Move to the start of the route ,
- Move higher ,
- Move lower ,
- Move to the end of the route ,
- Delete the building .

10.7. What is the difference between Delete Route and Clear Route

When you delete a route it is removed from the route list, and when you clear a route then all the buildings are removed from the route while the name of the route remains on the list.



10.8. How to update route data

To add new buildings or groups, or to add buildings and groups after editing, to a reading route: drag the selected objects from the measurement structure to the window where you created your route (press and hold the left mouse button). Remember to update the modified route on the terminal..

10.9. How to upload a route to the terminal

To save a route on a mobile device, see 6.3.

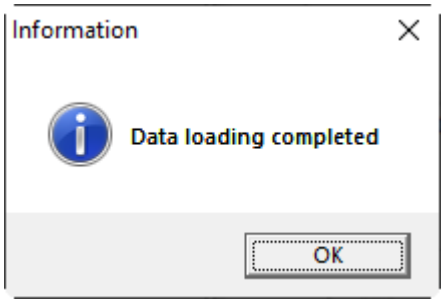
10.10. How to download reading data from a terminal

To download reading data from a terminal:

1. Press the **Terminal** (Terminal)button located on the tool bar. In the **Terminal Management** window displayed, a list is shown of all measurement routes found on the device..

2. Select the routes you want to download and press the **Download** button (Load).

   After the successful completion of the download, the system displays the following message:



3. Confirm the message with the **OK** button in the **Terminal Management** window, and press **Cancel**.

The data will be downloaded, and shown in the applicable panels.

10.11. How to display the details of readings not shown in the table

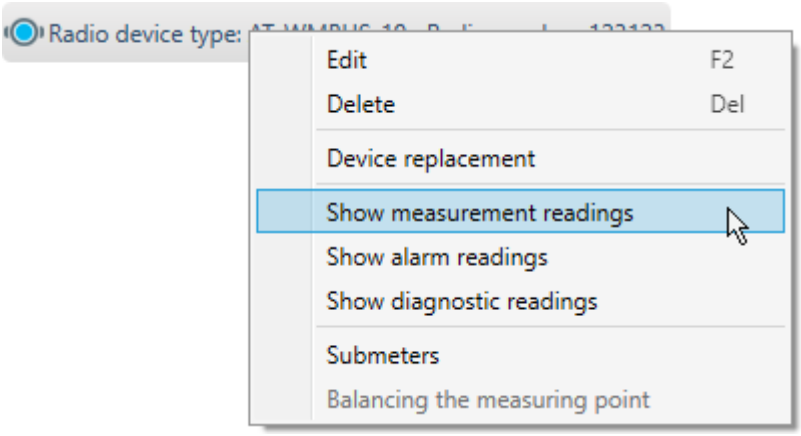
To display additional information about the readings, right click the selected reading and select **Details** (see 3.5).

10.12. How to create a balancing report for a measurement point

1. Create a main meter–submeter structure (see 7.1).
2. From the measurement structure, select the main meter for which you want to generate the balancing report.
3. Right-click the main meter and select **Balancing the Measurement Point**.
4. Enter the name for the report and parameters for the readings to be included in the balance.
5. Confirm the settings with the **Download**... button
6. Select the save location for the report file, and press **Save**.

10.13. How to display readings for the selected measurement point

To display readings for the selected measurement point, right click the measurement point in the structure and select the readings to display.



10.14. How to check which events generate alarms

To check which events generate the alarms, from the main menu select **Settings** and then **Alarms**. The events which have alarm function activated are shown with the following symbol:: ☑.

10.15. How to generate an alarm for inactive water meters

To generate an alarm, see 8.2.

10.16. How to update the application

There are two methods of updating the application.

- The first method is to download the latest version from: http://software.telemetria.eu/

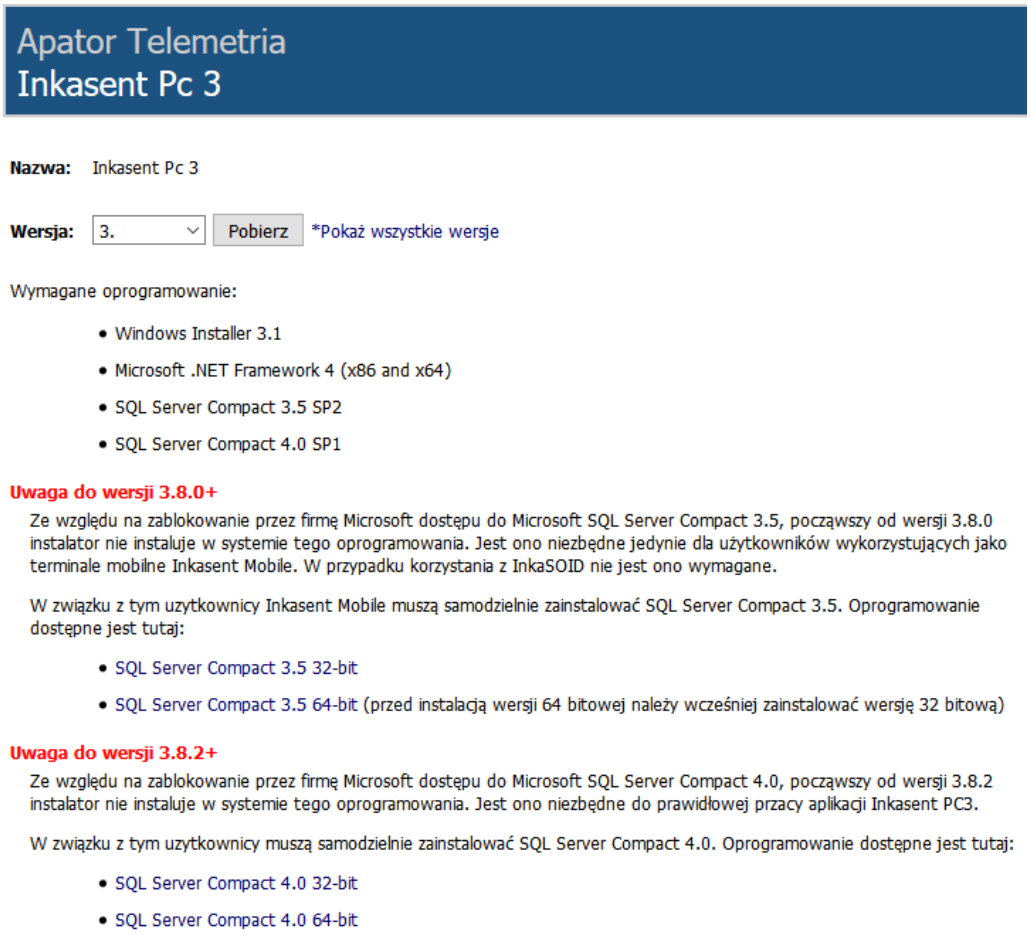
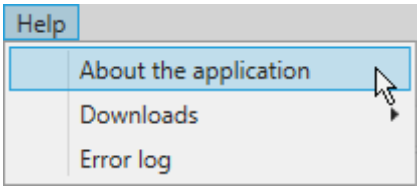


Fig. 37. Downloading the new version of software from the website

The **Version** field shows stable versions by default. To see all available versions, select **Show All Versions**.

- The second method is to run update from the application.

From the menu select **Help** and then **About the Application**.



A window will be displayed containing information about the application; in this window, press **Update**. If the version of the application is up to date, then this button will be inactive.

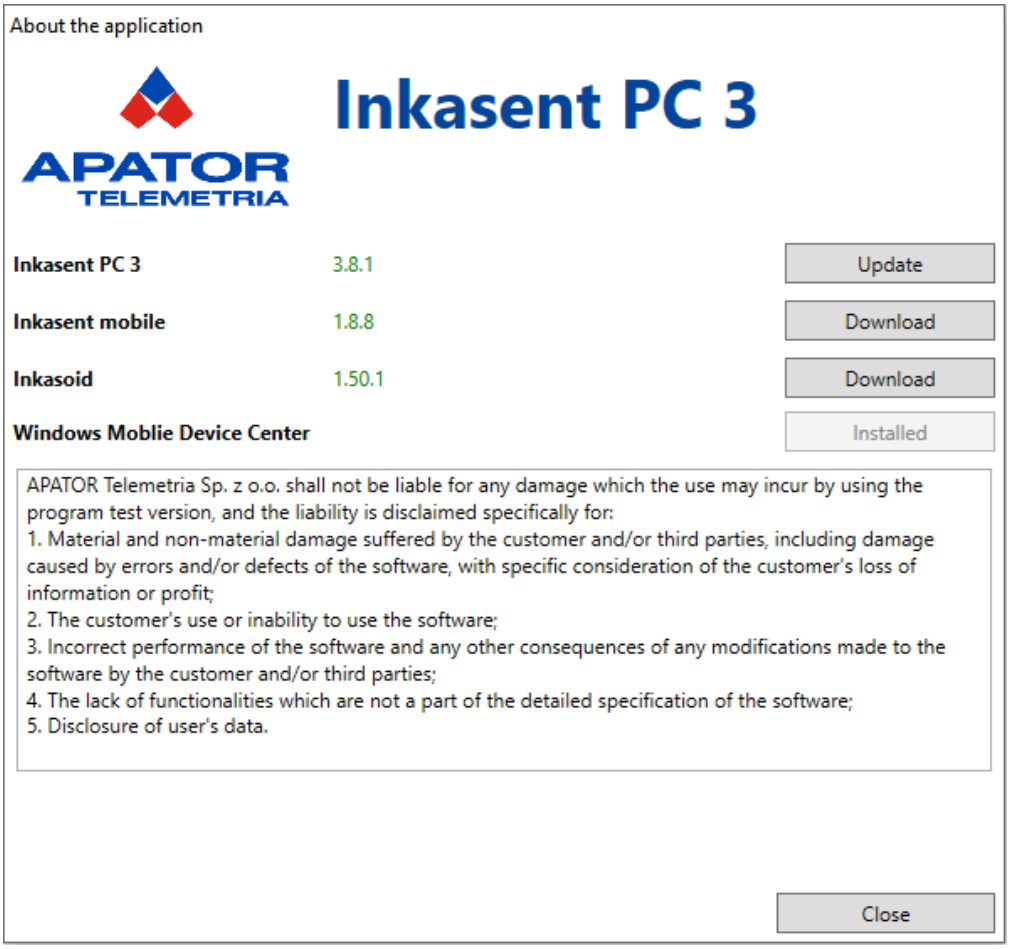


Fig. 38. Window: About the application — an update is available

Press the Update button to start the update for the application.

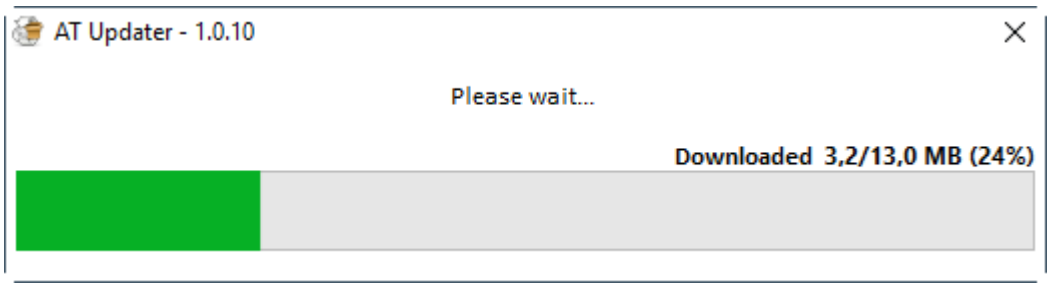


Fig. 39. Update

After the completion of update process, information about your application being up to date is shown in the **About** window.

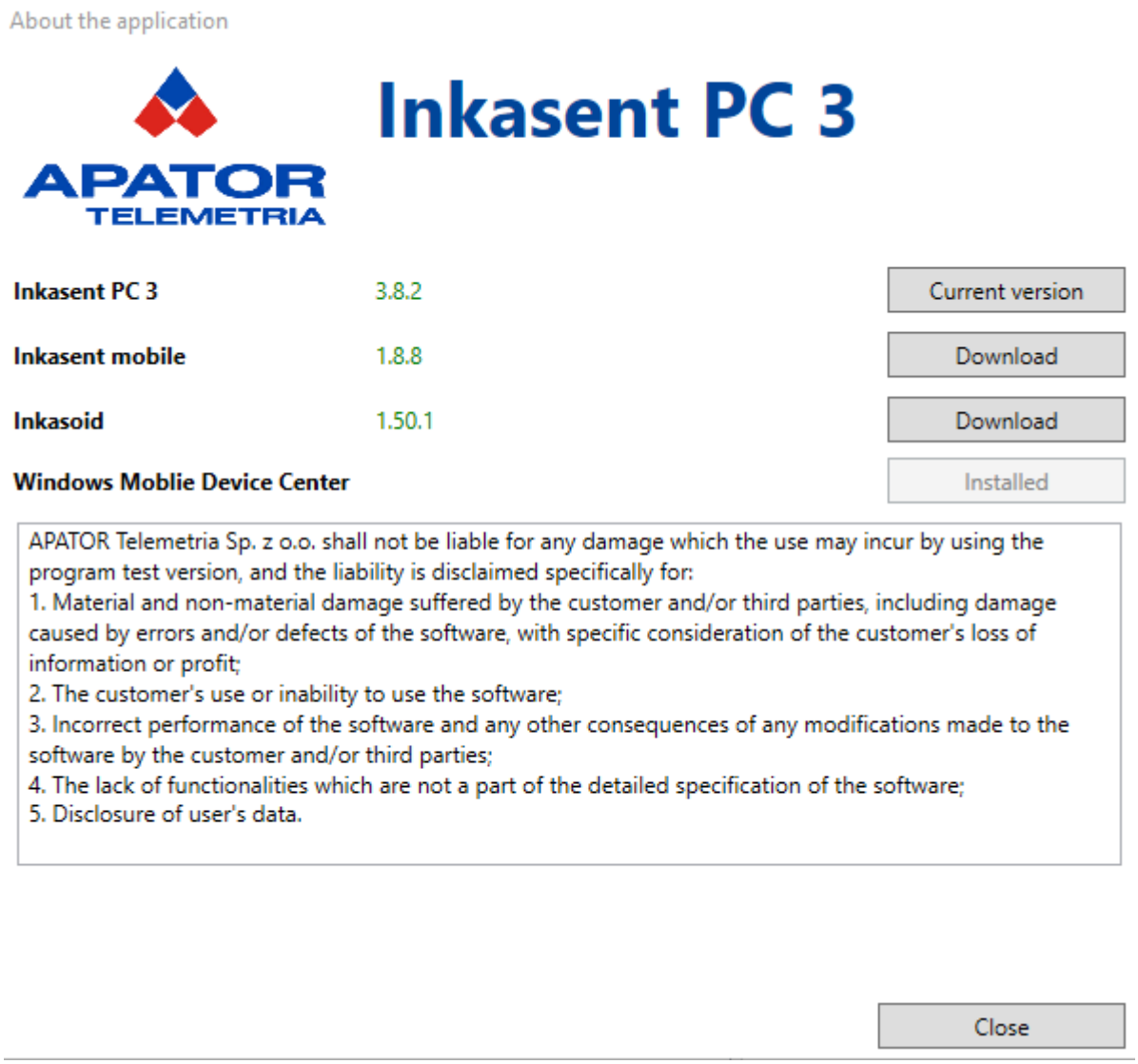


Fig. 40. Window: About the Application — current version

11. List of tabels

12. Pictures list