AdminTools

Software for instruments and devices

JSC "Energomera"

Quick Start Guide

2017

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1. PRE-STARTING PROCEDURE

AdminTools installation package and complete operator's manual including the list of supported devices is distributed in electronic form on www.energomera.ru.

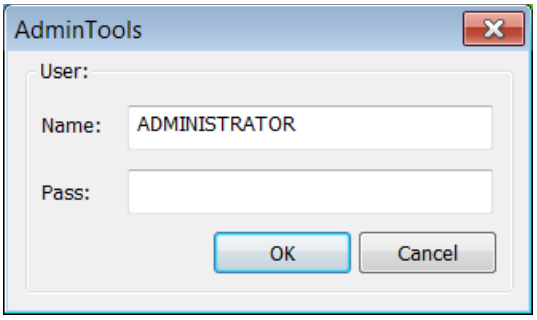
Program installation

AdminTools installation procedure on a PC with Windows XP, 7, 8, 10 OS:
1) Perform a pre-installation of additional software components:
- WindowsInstaller 3.1 (only for Windows 2000, WindowsXP);
- Microsoft .Net Framework 2.0 **(**dotnetfx.exe application from the installation directory);
- Microsotf .Net Framework 3.5.
2) Install AdminTools (AdminTools.msi application from the installation directory and follow the instructions).

The installation wizard places all the necessary files to the default folder («C:\Program Files\Energomera\AdminTools») and creates a shortcut to run the program. During installation the path can be changed. To work with the program, you must have access to the folder with the installed program.

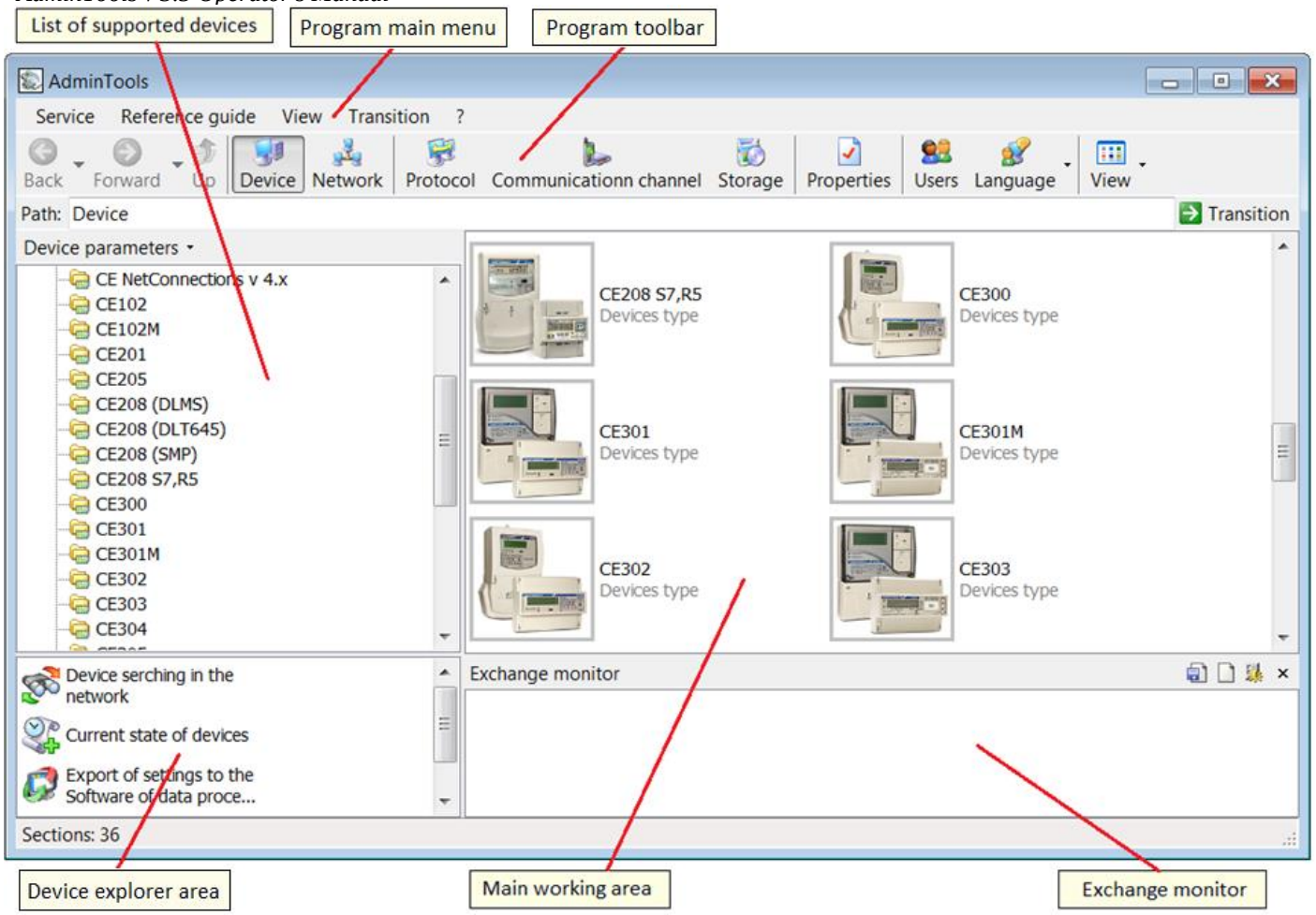
Program run

After the program run there will be the start screen where you must enter:
"Name" – user name; by default "ADMINISTRATOR" – admin user name;
"Password" - blank password is default

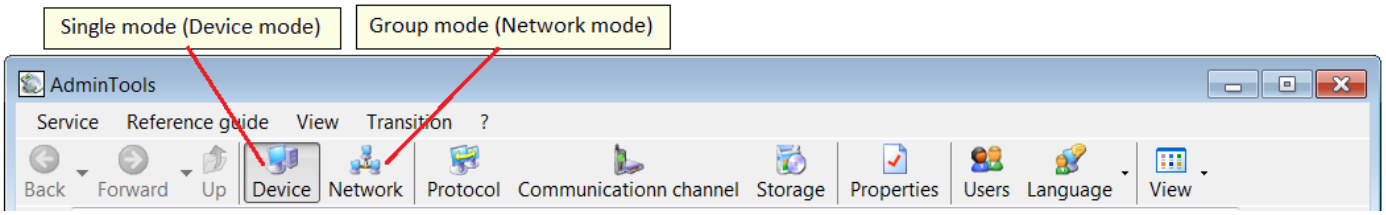


2. PROGRAM INTERFACE

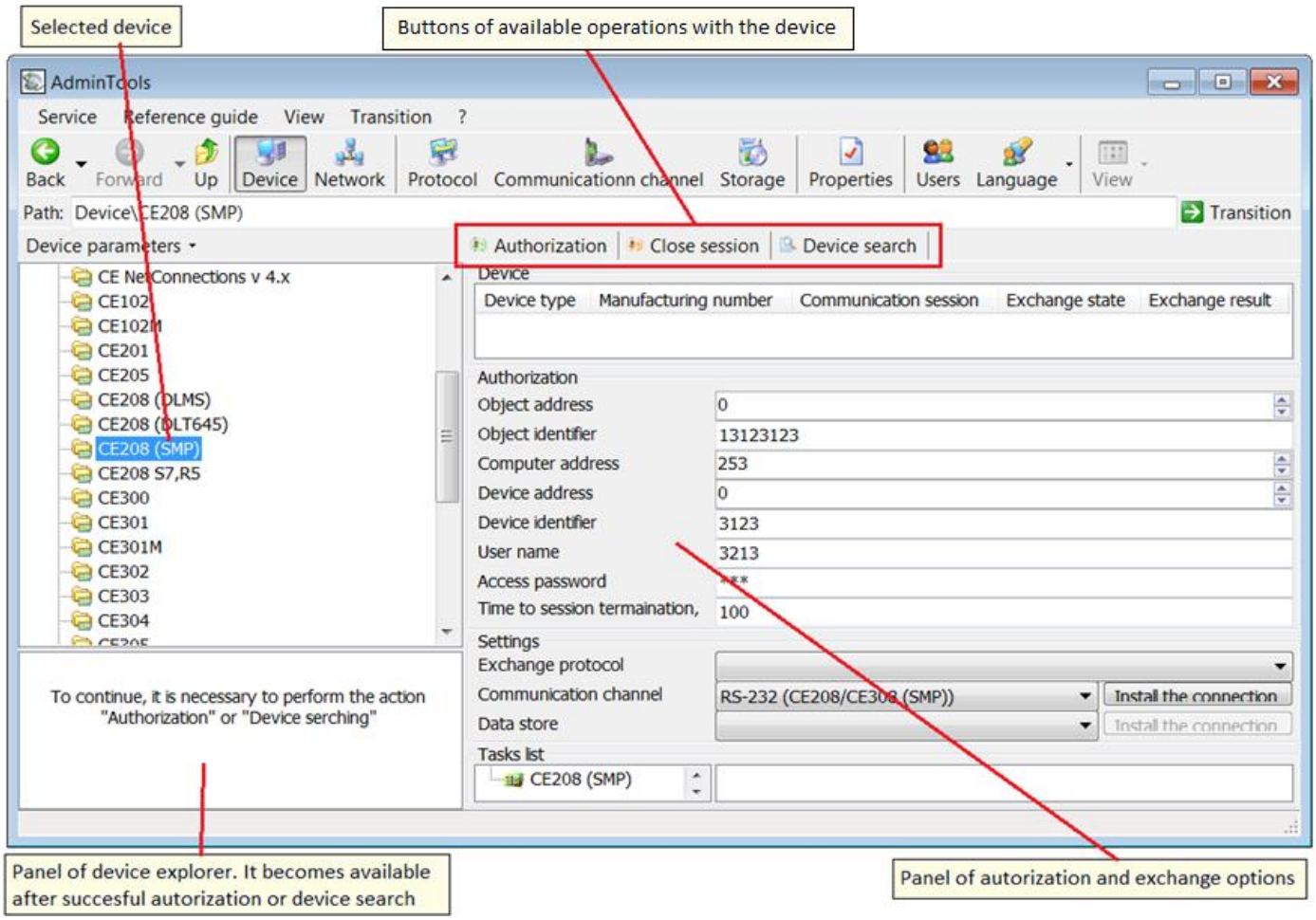
After entering the program the screen displays the main application window where all the basic operations are carried out:



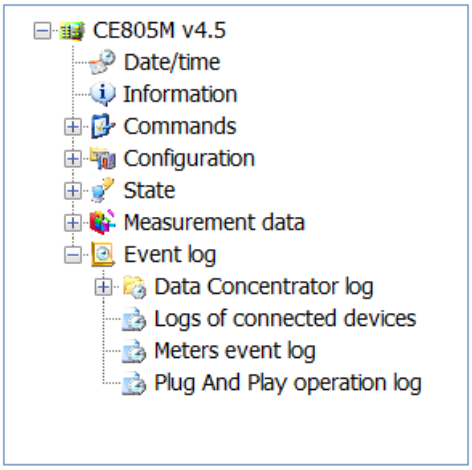
Available operating modes with a single device and with a group of devices that can be configured in the "Network devices":



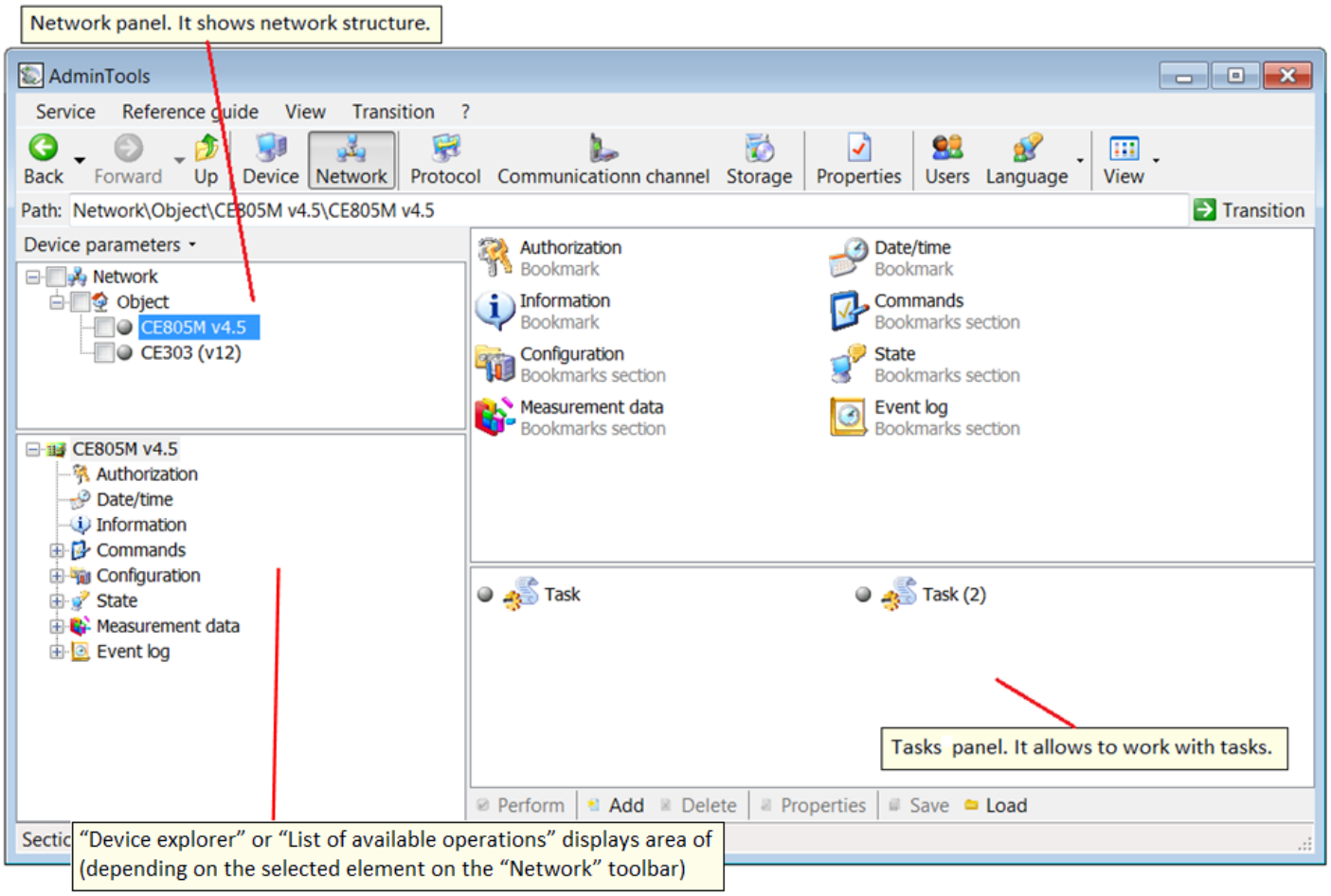
To work with the device in a single mode select it by double clicking on the image of the required device:



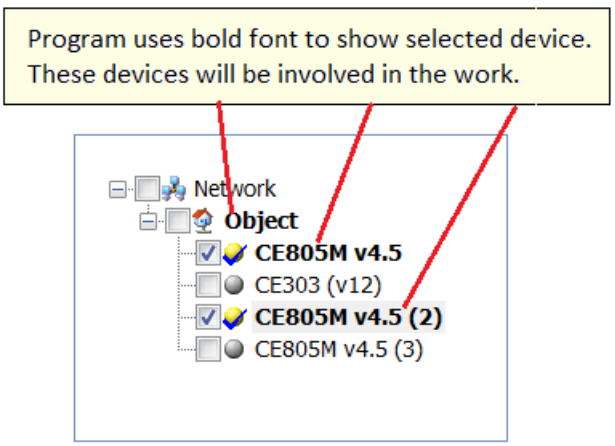
After successful device authorization a device explorer becomes available. It has the device parameters sections represented in a tree-like structure:



To work with the device in the group mode, add it to the “Network” window:



Network is displayed in a tree-like structure. Essential elements:
“Object” - is a group of devices connected in a subnet;
“Device” - a device manufactured by JSC “Energomera” (meter, Data concentrator etc.):

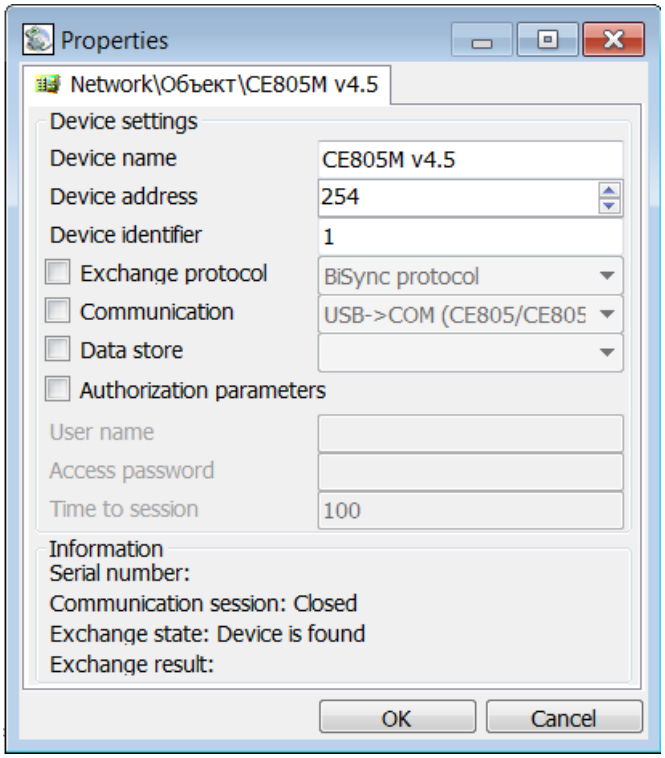


Any device on the “Network” toolbar can be “selected” by a single click on its icon or text description. “Selection” is made to specify the type of device with which it is necessary to carry out the operation (an explorer of the selected device type becomes available in the lower left part of the window after the “selection”) and also produces an indication of the device for which (if any tab is selected in the explorer) the data is currently displaying in the main window.

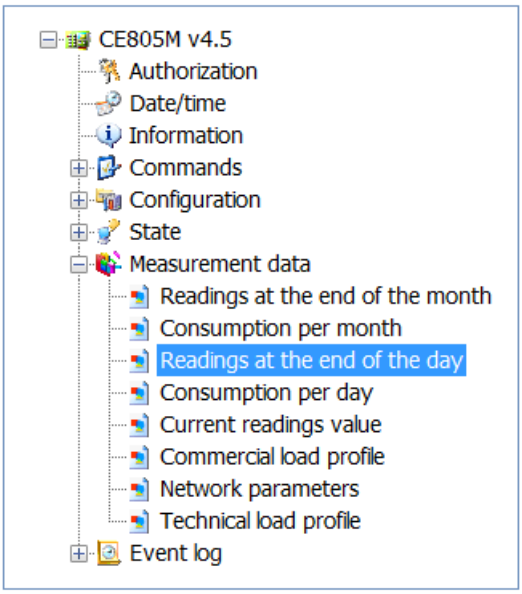
To carry out any operation with the device in the “Group mode” it is also necessary to “select” the required devices on the “Network” toolbar. “Selection” is done by selecting the checkbox of the required

device. Selection allows specifying the devices with which it is necessary to carry out operations.

Device “Properties” window (window of device network settings) allows configuring devices in the network. This window is called using the context menu that appears by right-clicking on any device in the “Network”:

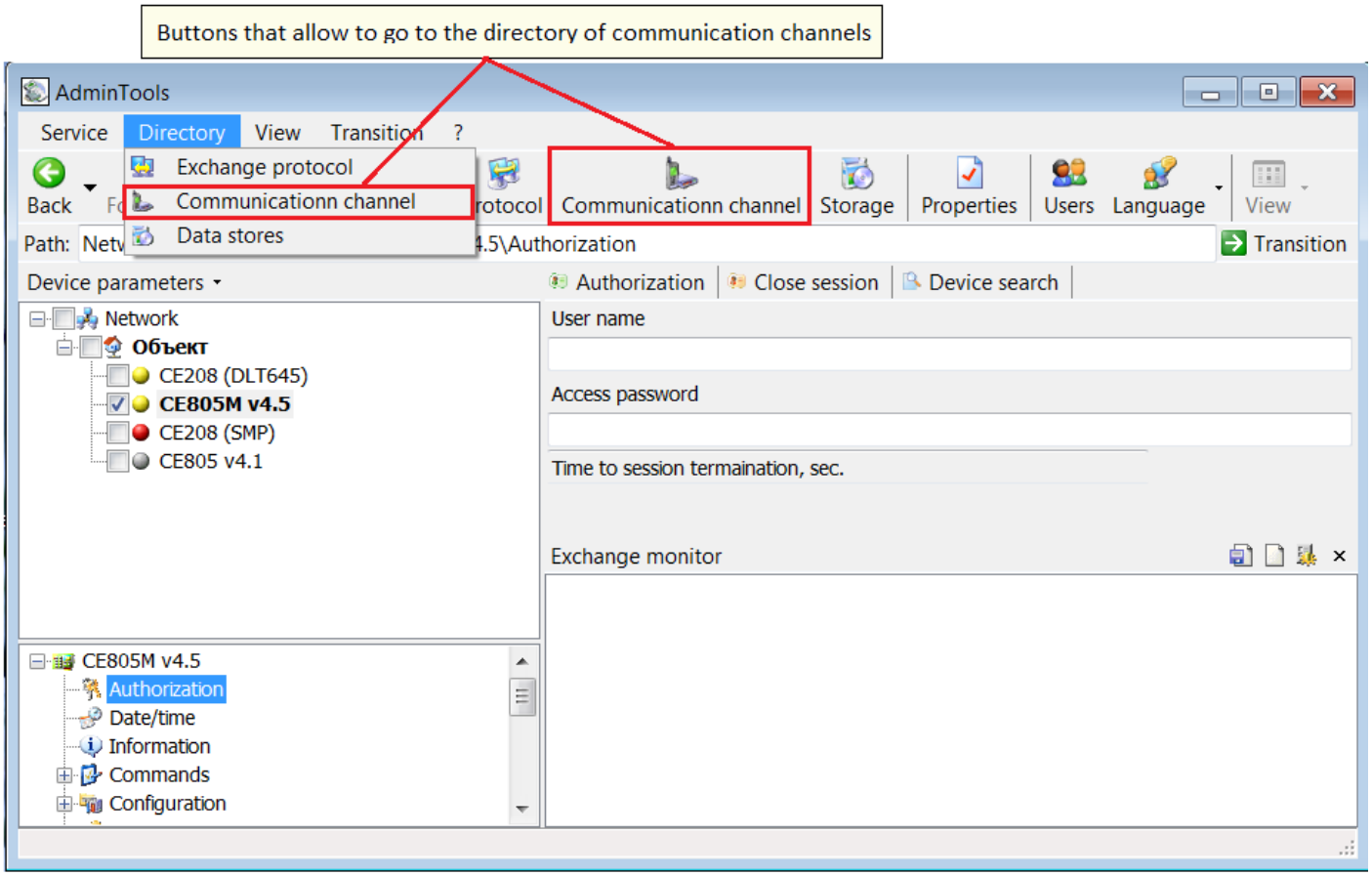


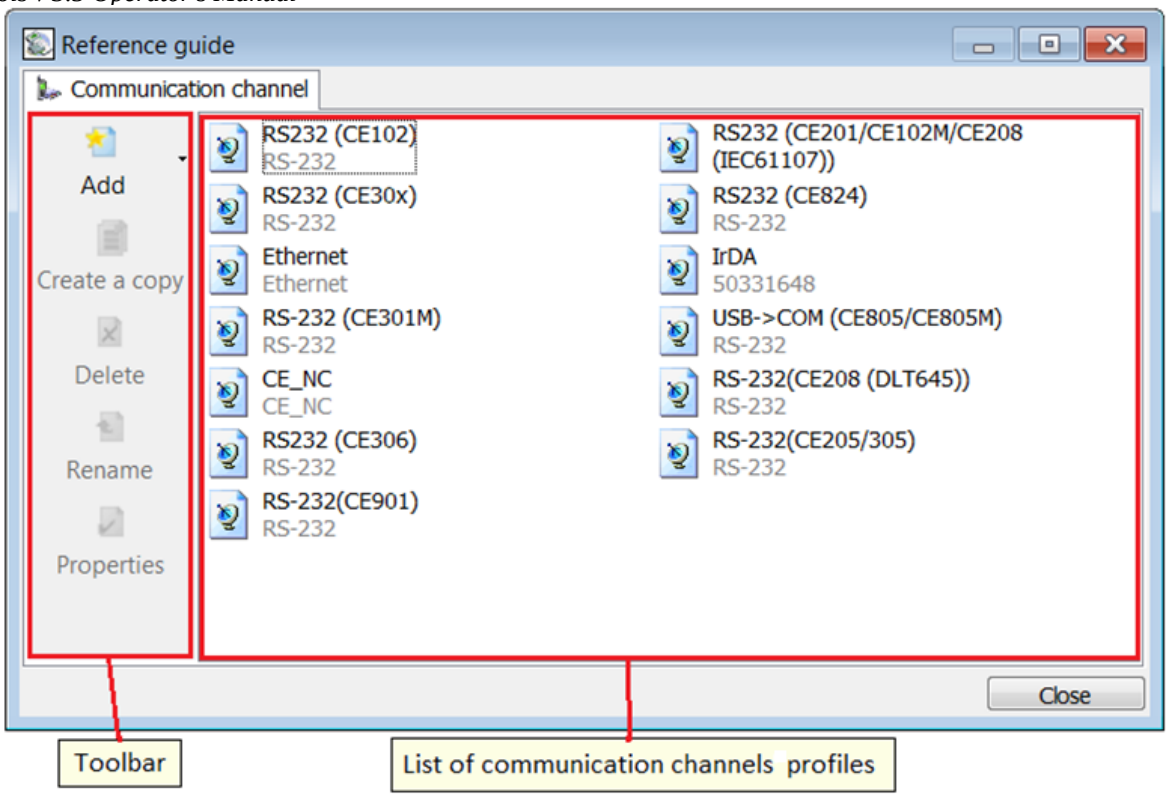
Device explorer window is located on the operation interface left side below the “Network” window (in the group mode), or under the “Device types explorer” (in the single operation mode) and is presented as a tree-like list, which displays all the device sections and tabs. For each type of device there is a specific tab-set. Each section allows certain types of operations with the device (configuration, reading data, etc.):



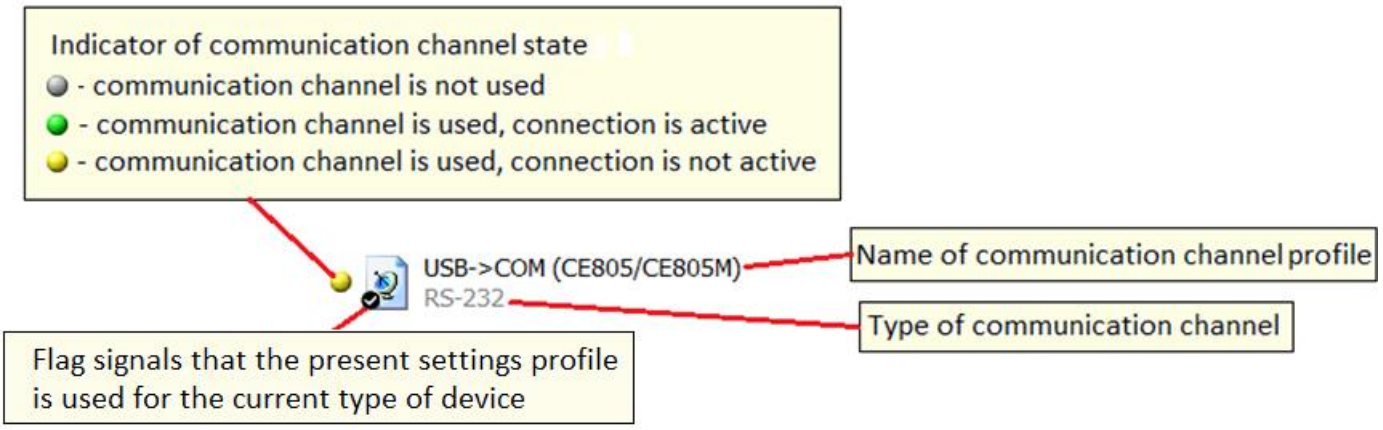
Communication channels directory

Access to the communication channels directory is provided by clicking on the “Communication channel” on the toolbar or by selecting from the main menu items “Directory” > “Communication channel”:

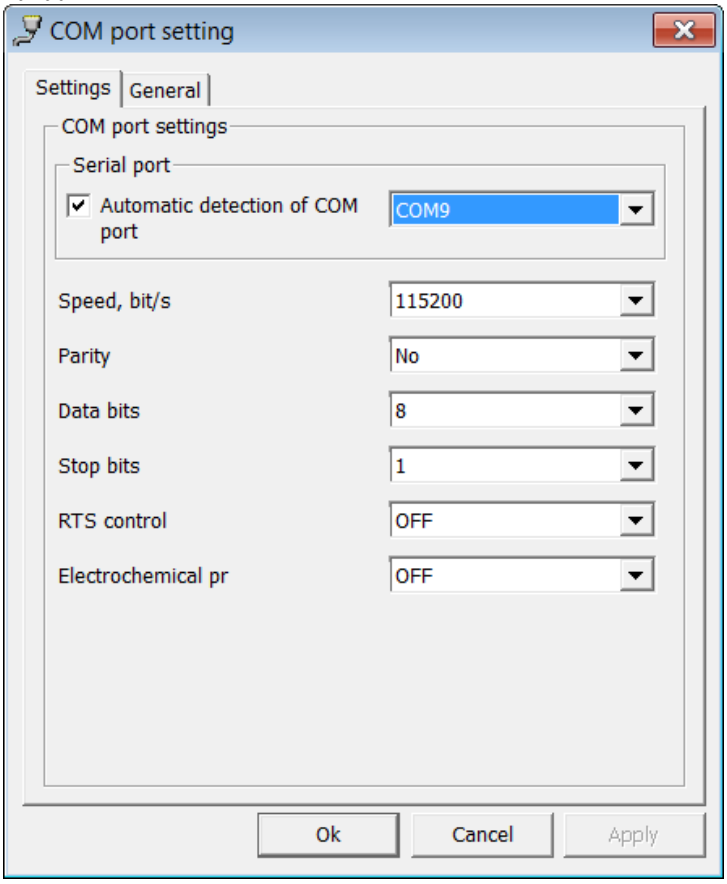




Each settings profile is displayed as a pictogram (the icon):

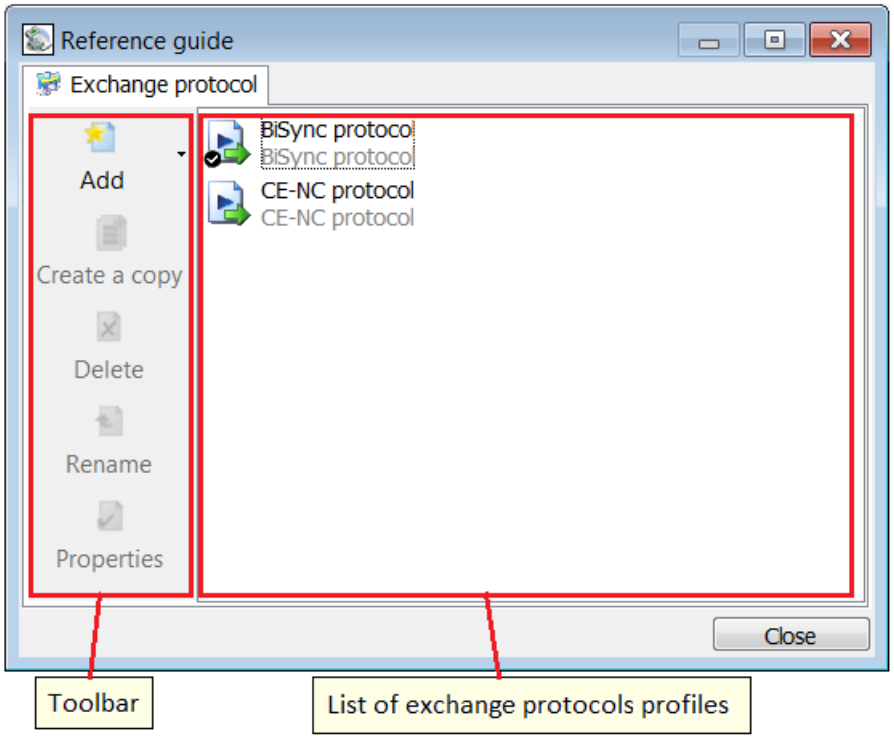


For example, RS232 communication channel serves for devices connection via a direct cable connection using PC serial communication ports (COM - ports or USB-ports through USB/COM converter):

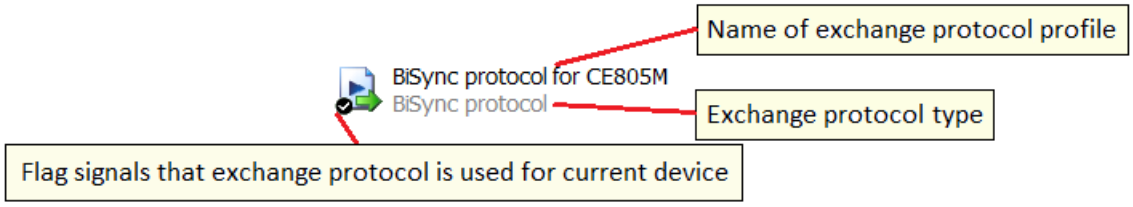


Exchange protocols directory

Exchange protocols directory opens in the way as the communication channels. Protocols settings directory is designed to create configure and store devices exchange protocols settings profiles. Access to the settings directory is carried out by clicking on the “Protocol” on the toolbar or by selecting from the main menu items “Directory”> “Protocol”:



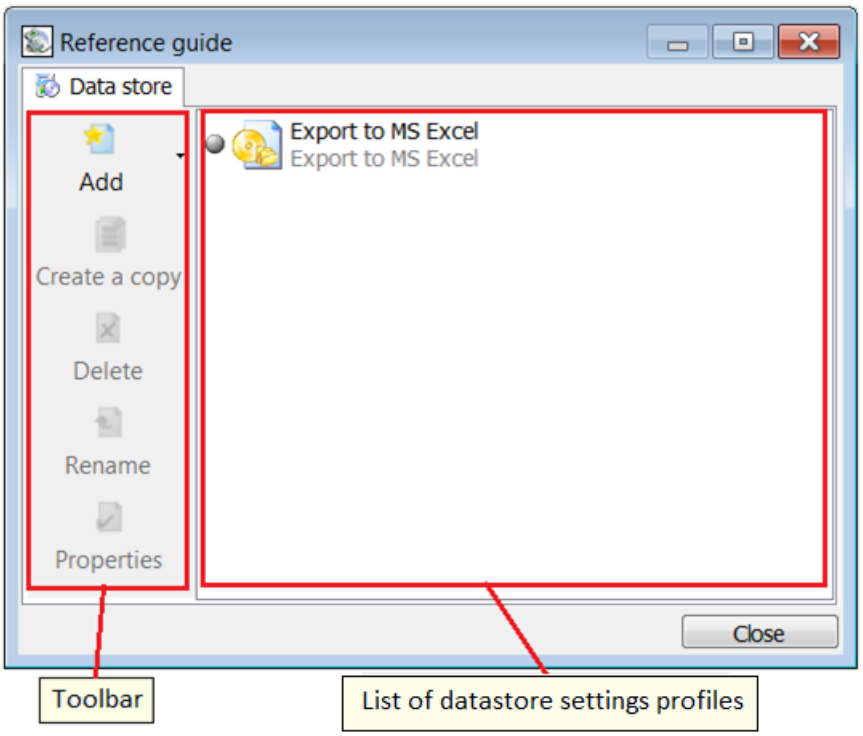
Each settings profile is displayed as a pictogram (an icon):



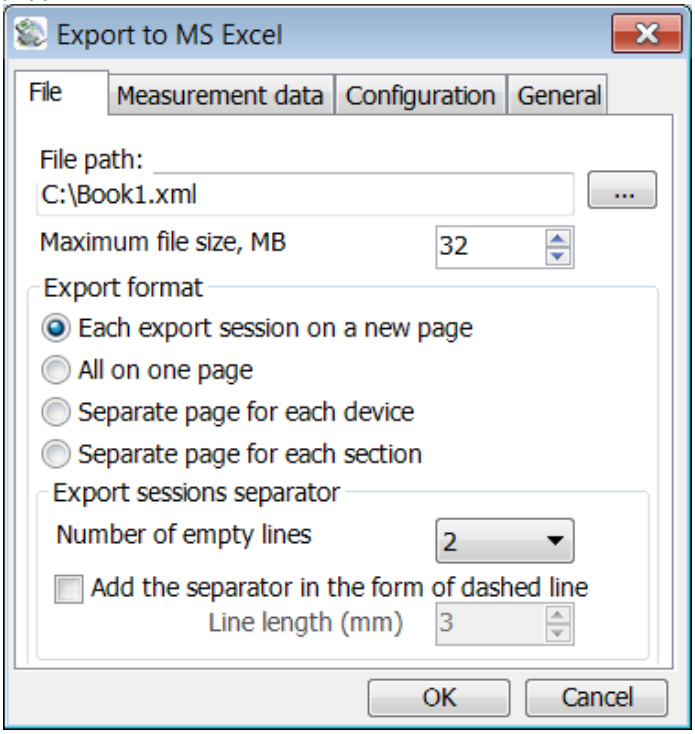
Datastore directory

Datastore settings directory serves for creation, configuring and storage of datastore settings profiles.

In particular, “Export to MS Excel” - is a storage for measurement and configuration data export to the file, supported by spreadsheets (MS Excel, OpenOffice Calc and other.):



Window of “Export to MS Excel” storage settings has four tabs:



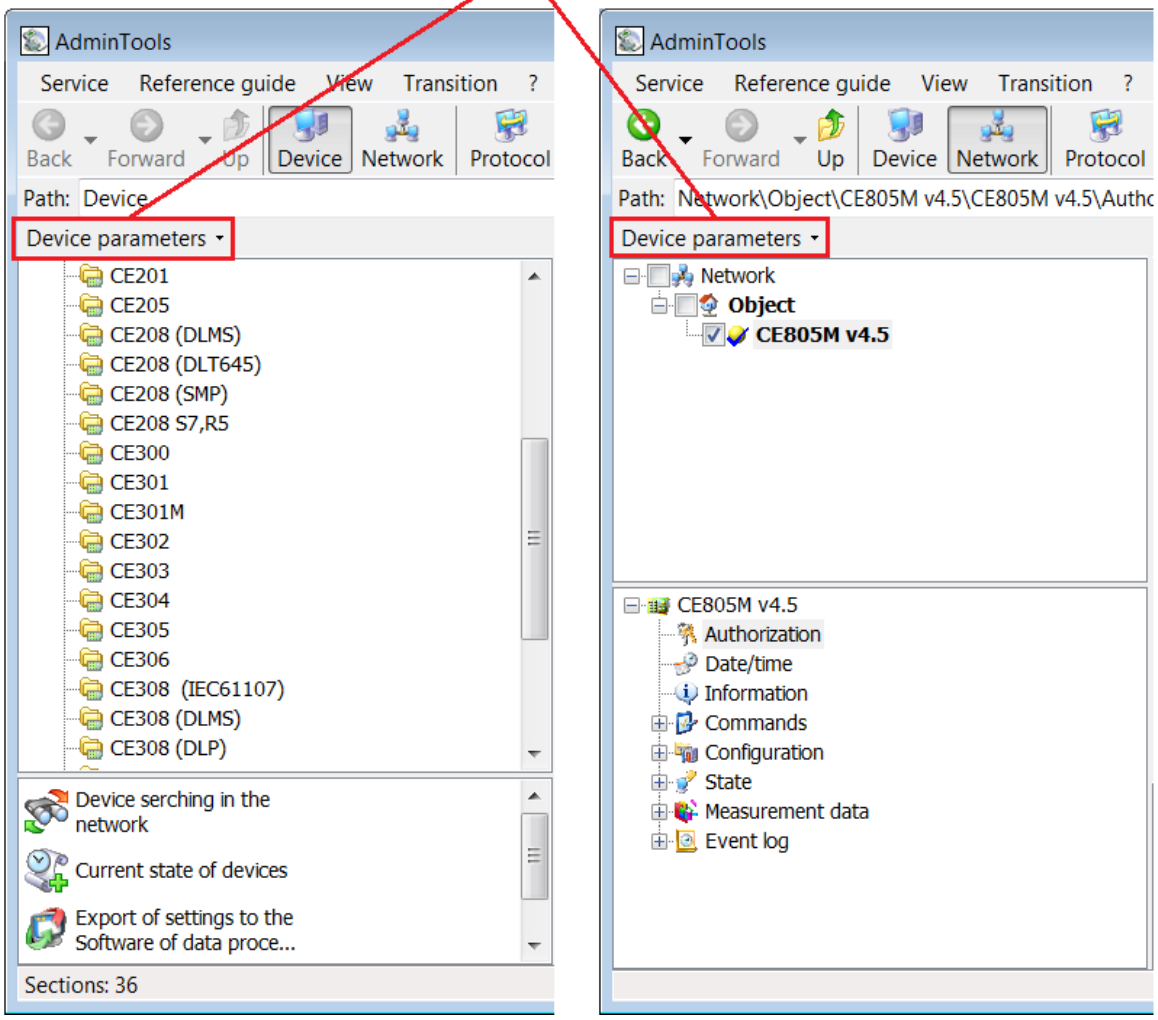
Event log

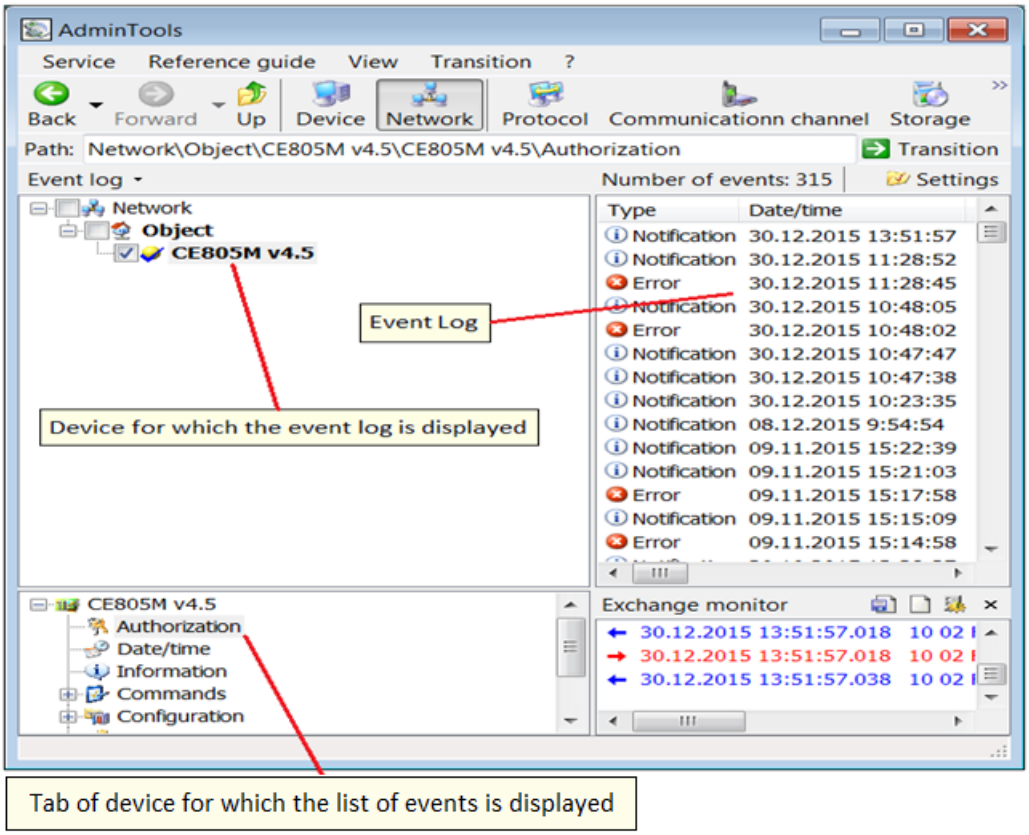
The event log is designed to register user's actions in the program and results of operations:

Mode switch "Device parameters" / "Event log"

“Single mode” of operation

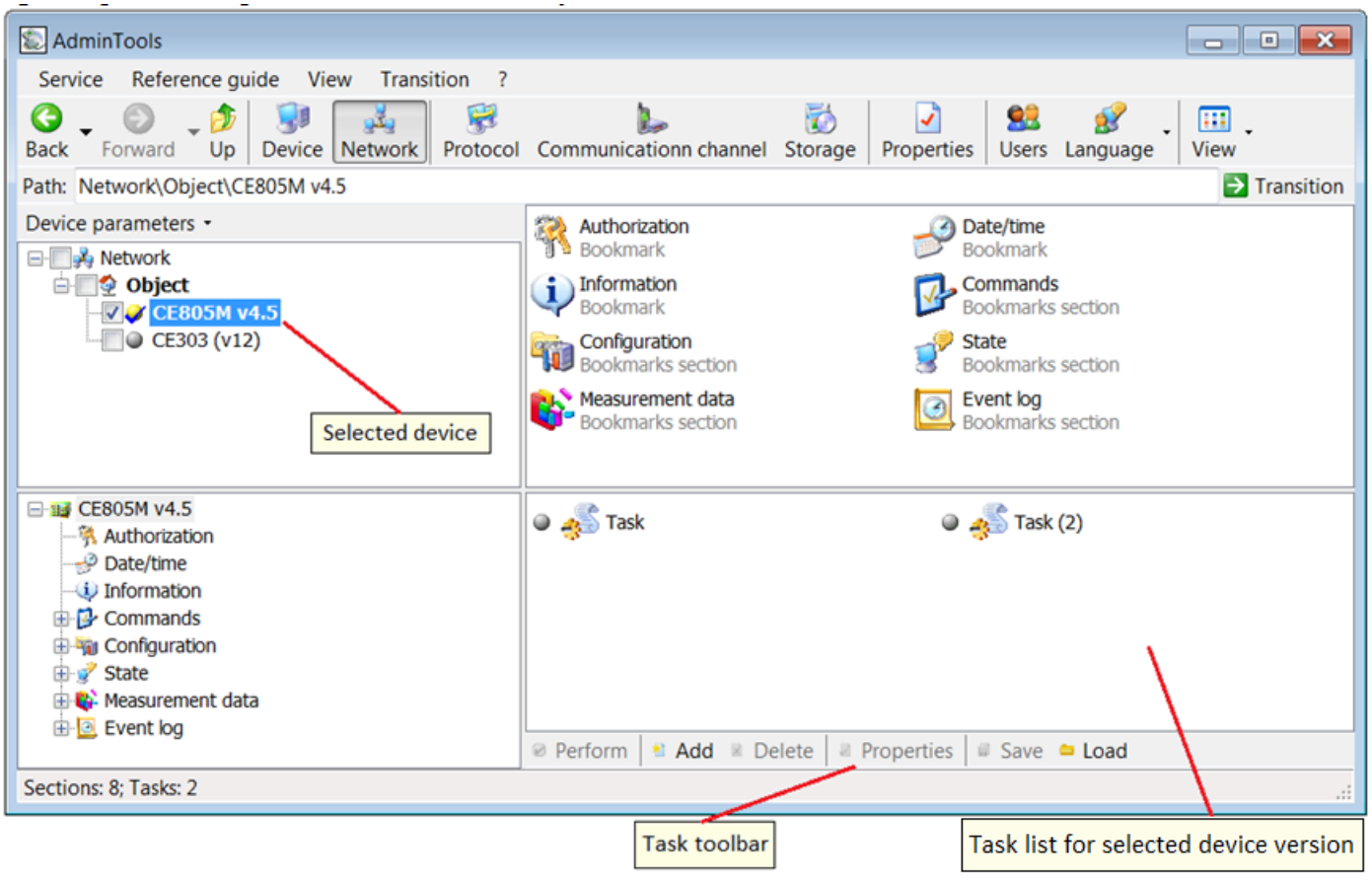
“Group mode” of operation





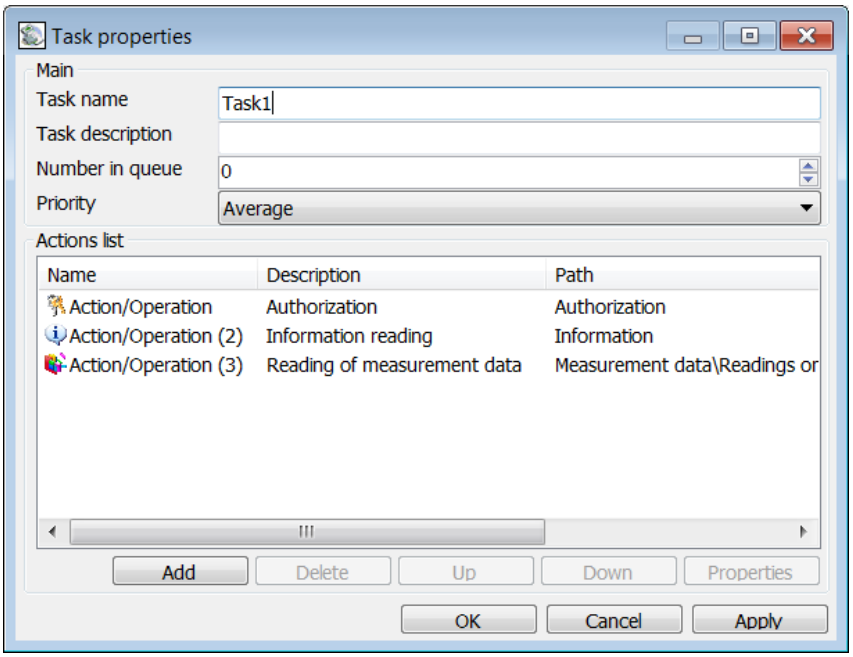
Tasks

Tasks module is designed to accelerate the different-type operations performed with a device, by combining the actions in a group for sequential execution. While working the user creates a task with the right sequence of operations and if necessary run it:



As a result, the “Task List” toolbar will be available in the lower right part of the window. This toolbar has a drop-down list “Device” and a list that displays the available tasks.

The “Task properties” window serves as a task editor, where the common task settings and a list of sequentially arranged operations are set:



3. STEP-BY-STEP EXPAMPLES OF PROGRAM OPERATIONS

Basic steps of program configuring

Basic steps of preconfiguring before using the device:

in the “Group mode” it is necessary to make program general configuring in the “Network” window, where the required structure of the object is created, the required number of devices and its network parameters (address, ID, and others.) are added; the network structure configuring is not required for the “Single mode”;

“Communication channels configuring” – creation of the required communication channel settings profiles in the settings directory and their assignment to devices or objects;

“Exchange protocol configuring” – creation of the required protocols settings profiles in the settings directory and their assignment to a device or to a group of devices;

“Datastore configuring” – creation of the required datastore settings profiles and their assignment to devices or objects.

By default, the program has the following presets:

in the network (in the “Network” window) there is not any device or object;

in the communication channels directory for each type of devices there are settings profiles, matching the factory settings of relevant types of devices communication channels;

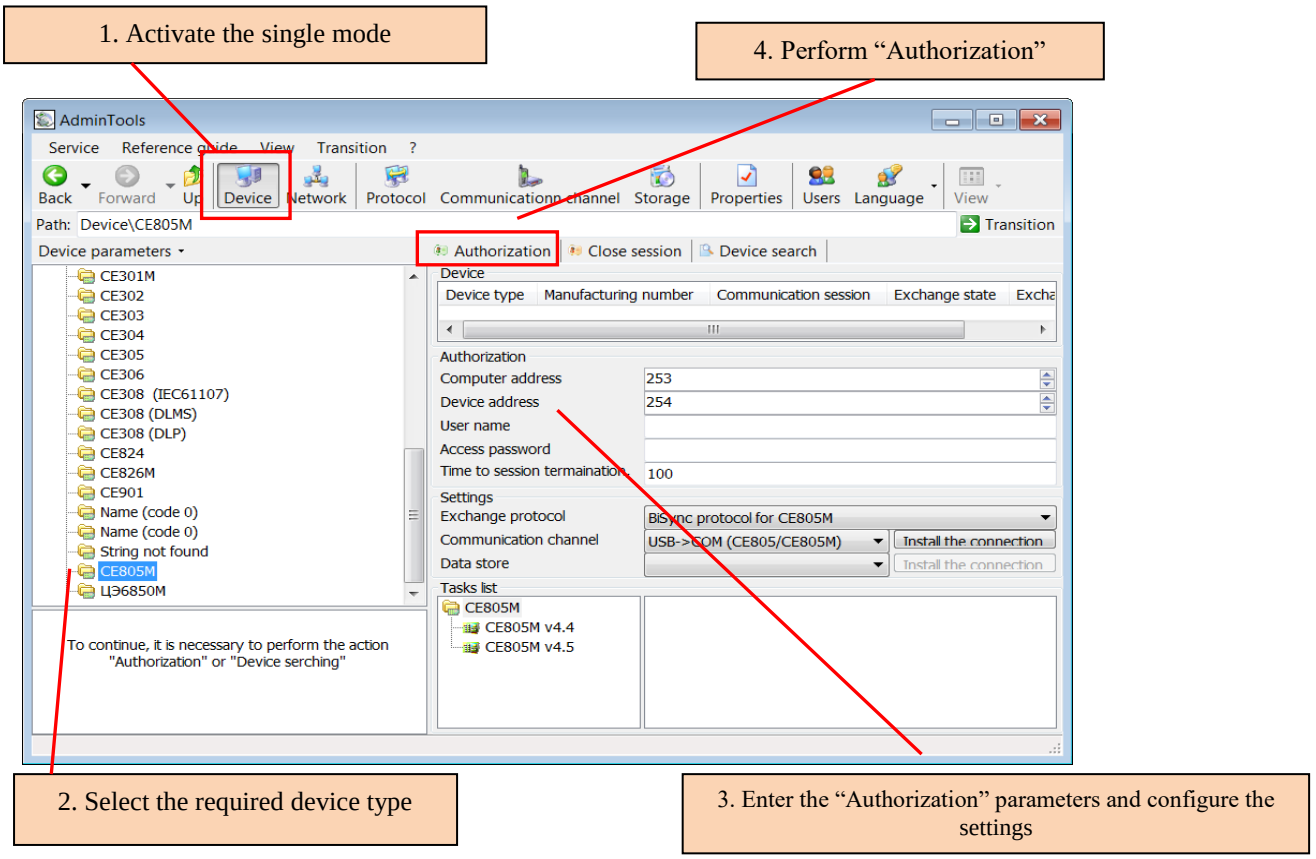
in protocols directory there are protocols settings profiles configured by default;

in datastore directory there are datastore settings profiles configured by default;

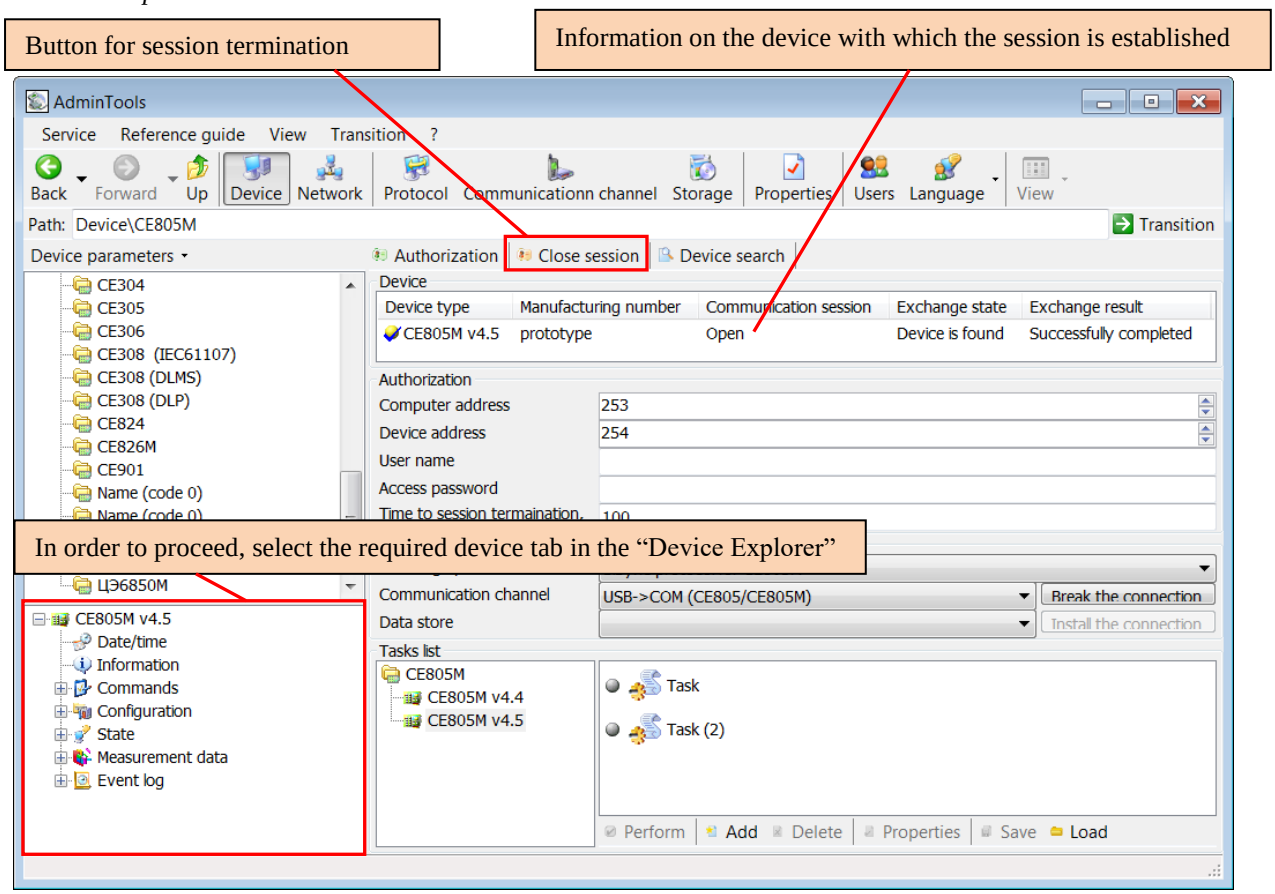
the required communication channel and the protocol are assigned to each type of device in accordance with the factory settings.

To start operation in the “Single mode” it is necessary to select the required type of device in the list

of “Device types”. To carry out session configuring it is necessary to enter parameters of “Authorization” (the number of parameters may be different depending on the type of device), then set the connection parameters according to the used communication interface. Complete “Device authorization” by clicking on the appropriate button on the available actions toolbar:



After a successful authorization (no error messages) in the “Information” group there will be device information, as well as the connection status:



Further operating principles consist in switching to the appropriate tab in the “Device Explorer”. Operating principle and description of operation with different types of tabs.

At the end of the work with the device in order to terminate the session it is necessary to click on the required type of device in the list of devices types.

After that on the tab of available actions, click on “Close session”.

Group mode. Basic operating principles

To start operation in the “Group mode” it is necessary to mark the checkboxes of the required instances of devices of the same type in the “Network” window. Then in the “Network” window select any device of the same type in one click (so that the device structure is shown in the “Device Explorer”):

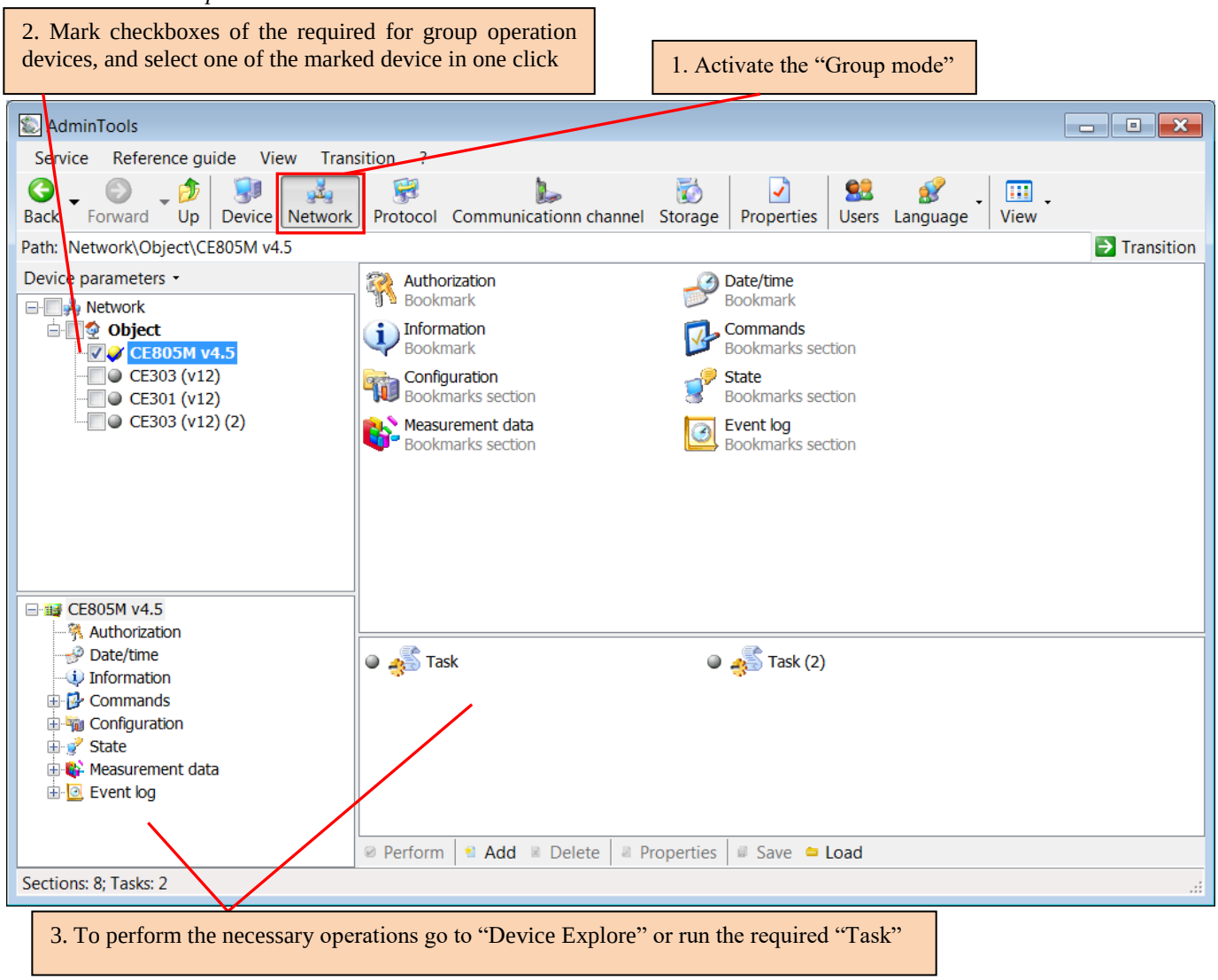


Figure 3.11 - Sequence of steps to start operation in the “Group mode”

As a result of the described steps, names of device that will participate in the “Group mode” are automatically highlighted in bold in the “Network” window.

To start operation it is necessary to open the session on the “Authorization” tab and enter the username and password to access the device.

The process of “Authorization” or any other action is performed sequentially for each of the selected device. In carrying on the “Exchange process” window is displayed. It shows the overall percentage completion for all participating devices and percentage completion of the current device.

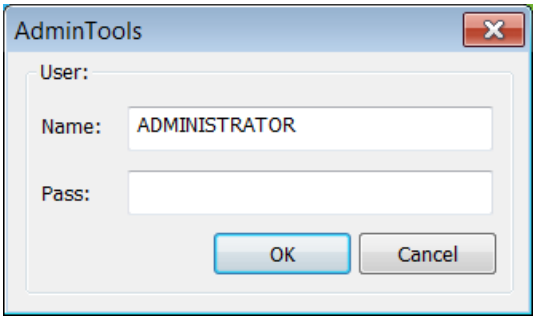
Number, name and content of sections and tabs differs for each type of device, though the basic operating principles for the same type sections are common. There are sections of the following types:

Authorization;
Date/Time;
Information;
Command;
Configuration;
State;
Measurement data;
Event log.

Example of work with the meter CE208 SMP via RF modem

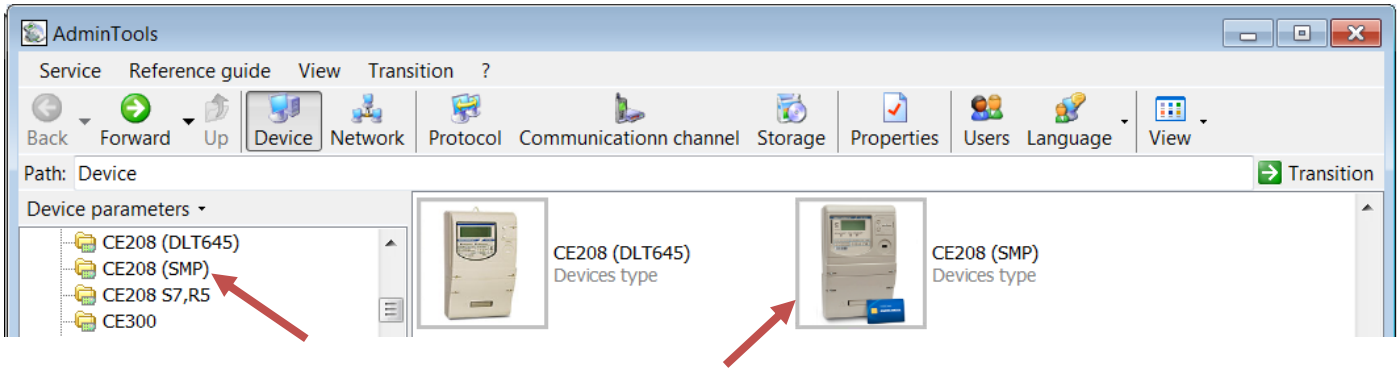
Run Admin Tools.

Login window will appear. Make sure that «ADMINISTRATOR» is entered as a user name (if the field is empty, fill it). Field "Password" leave blank and click on «OK»:

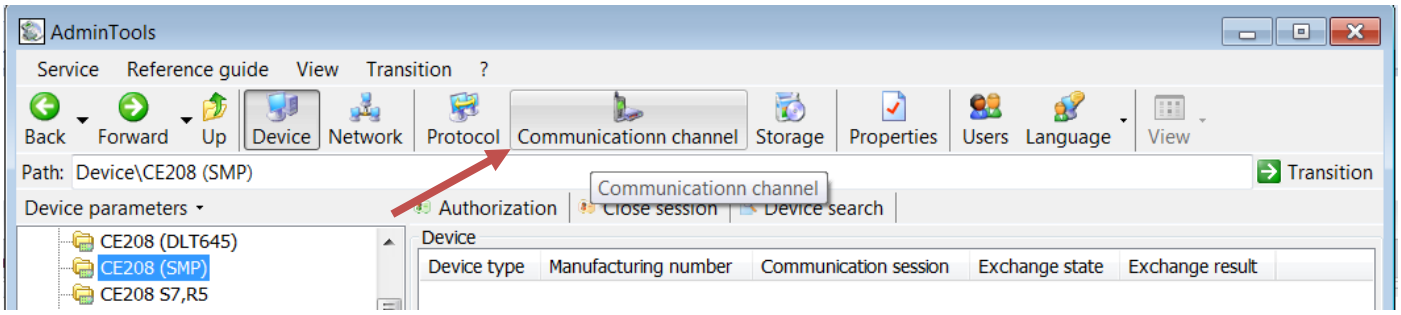


To establish connection with the meter, follow these steps:

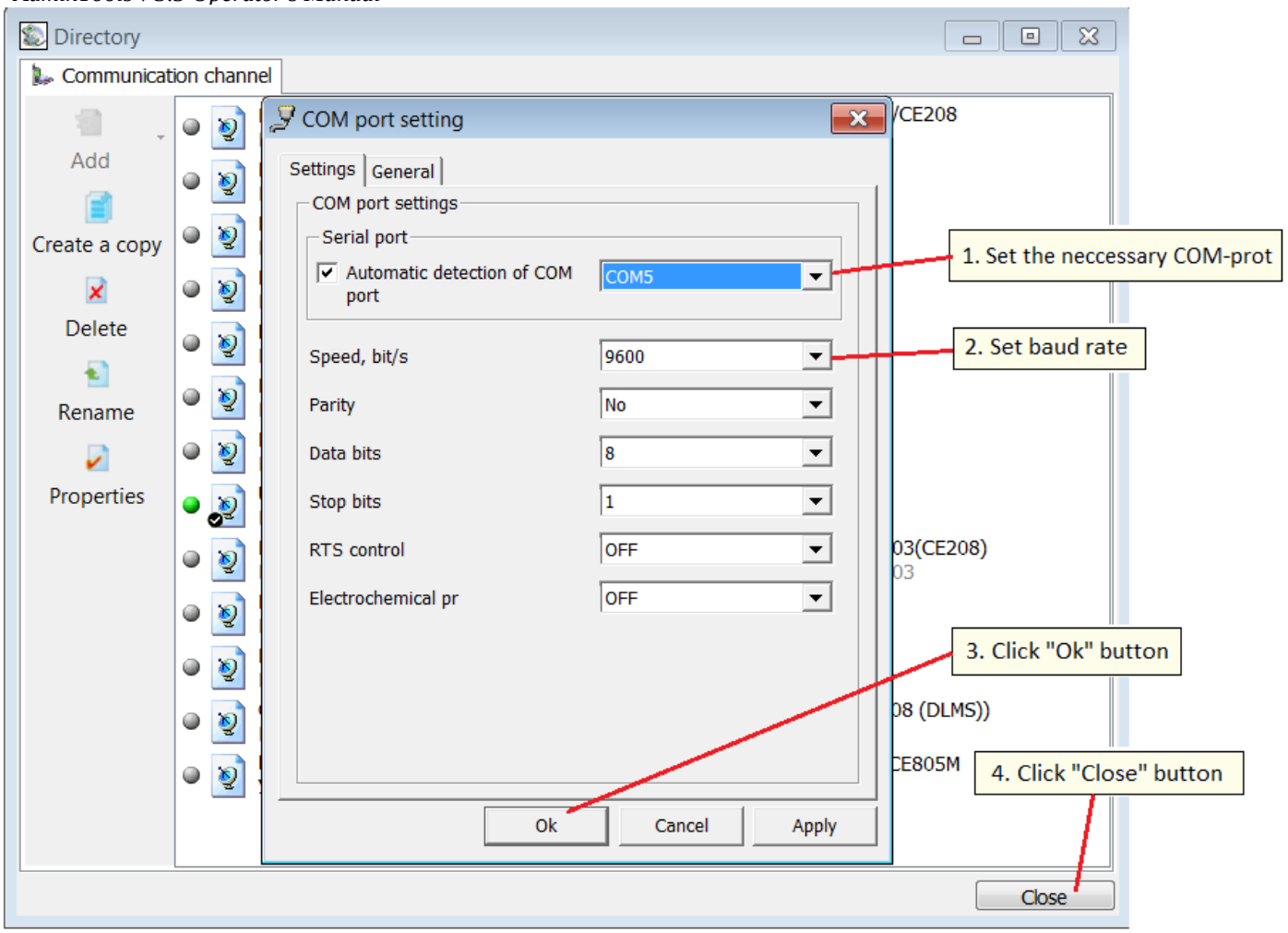
1) Select meter type – CE208 (SMP), in the left part of the window in the devices tree, or by double-clicking on the meter icon in the center of the window,



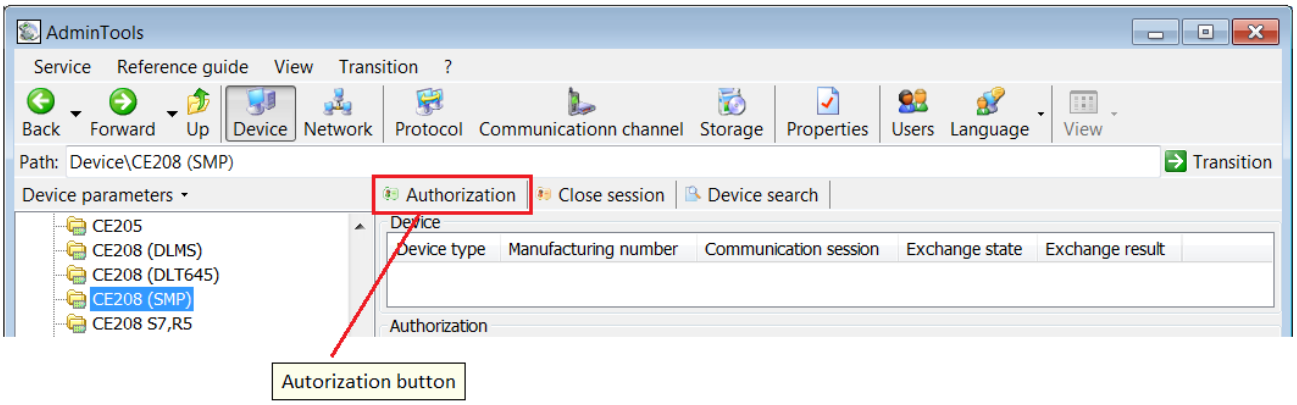
2) Click on "Communication channel"



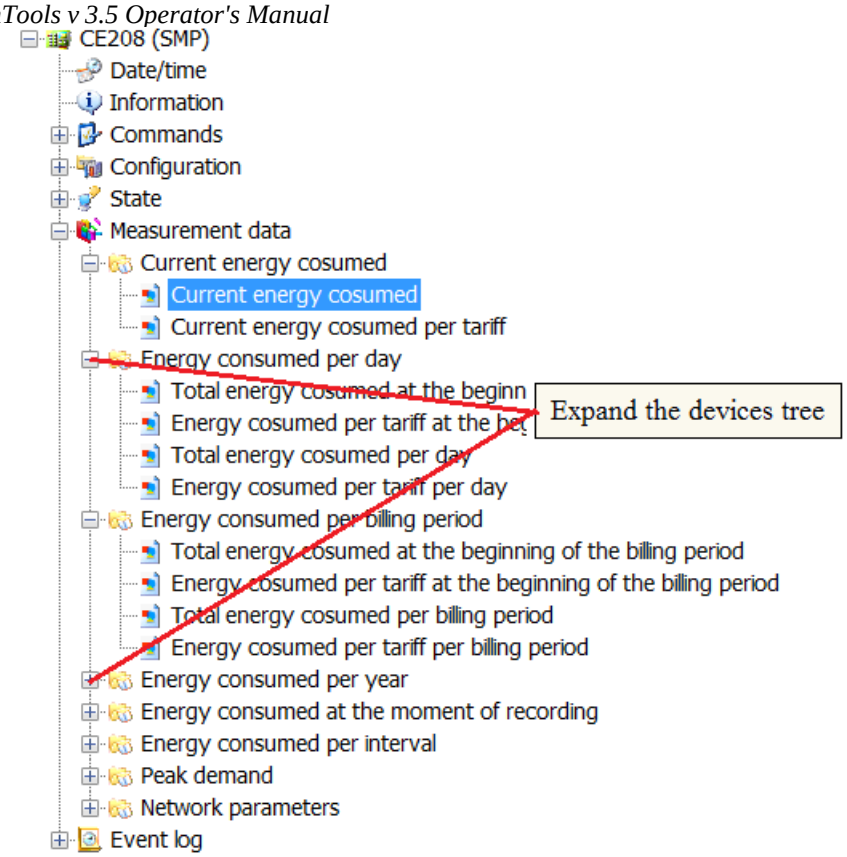
3) Click on the tab "COM-port" and check the COM-port number. COM-port number must match the number specified in paragraph 3.2. Close the library configuring window by clicking on «OK», and then close the Directory by clicking on "Close":



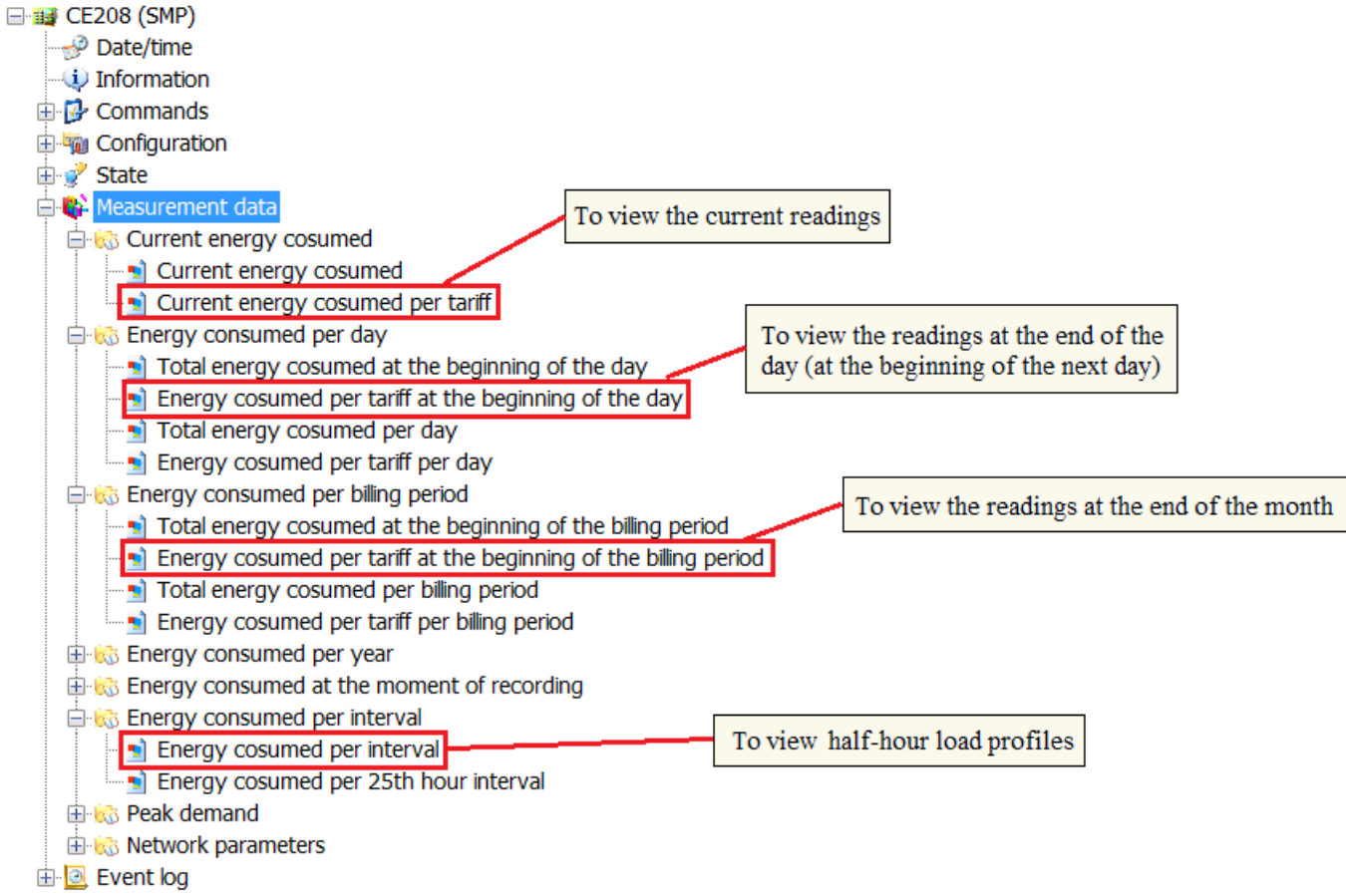
4) After communication channel configuring, connect to the meter by clicking on “Authorization”:



Connection was established successfully if there is a devices tree in the lower left part of the screen. For convenience, the devices tree can be expanded:



To view the meter readings, expand "Measurement data" group in the devices tree, and select the appropriate section according to the required type of readings as shown below:



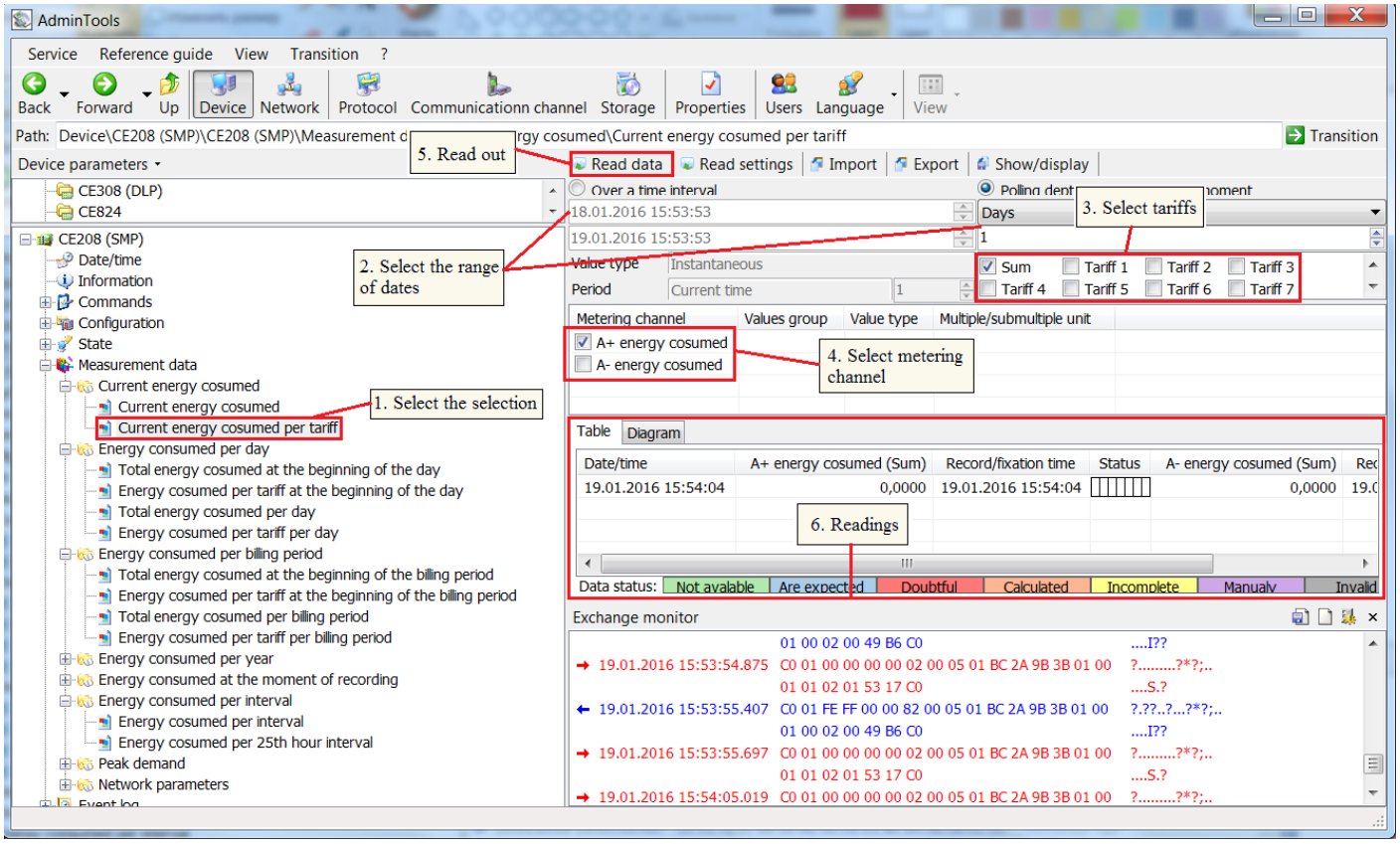
To view the current readings, select the "Current energy consumed per tariffs" and click on the

"Read data". Meter will display the recorded active import per the current day per Tariff 1 (and in total).

You can also set the required range of dates, tariffs and type of energy.

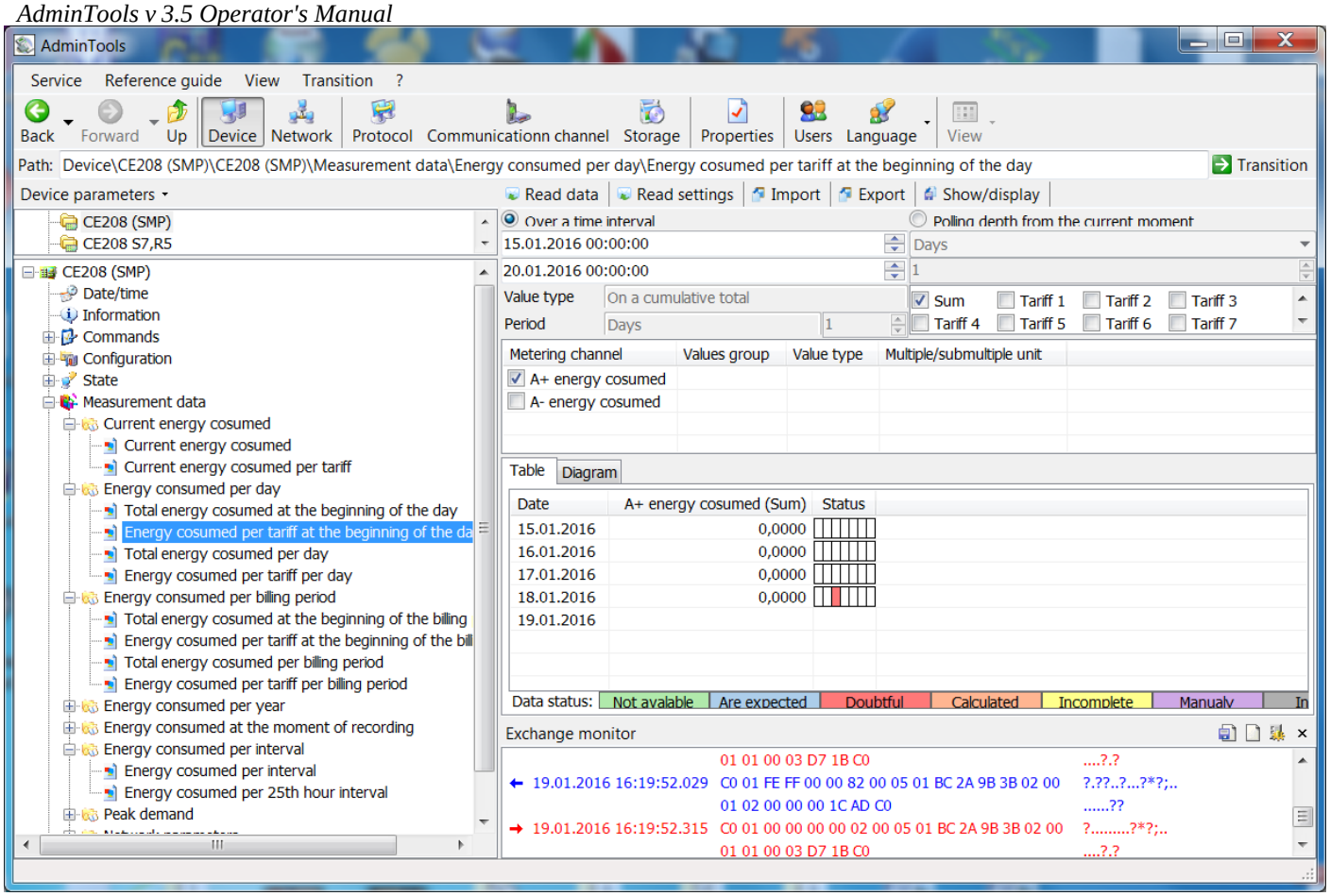
Also, if there is a warning window about the transmission of incorrect arguments, or otherwise, check the settings.

The meter readings can be obtained in the form of a table (default) or a diagram (switch to the "Diagram" tab):

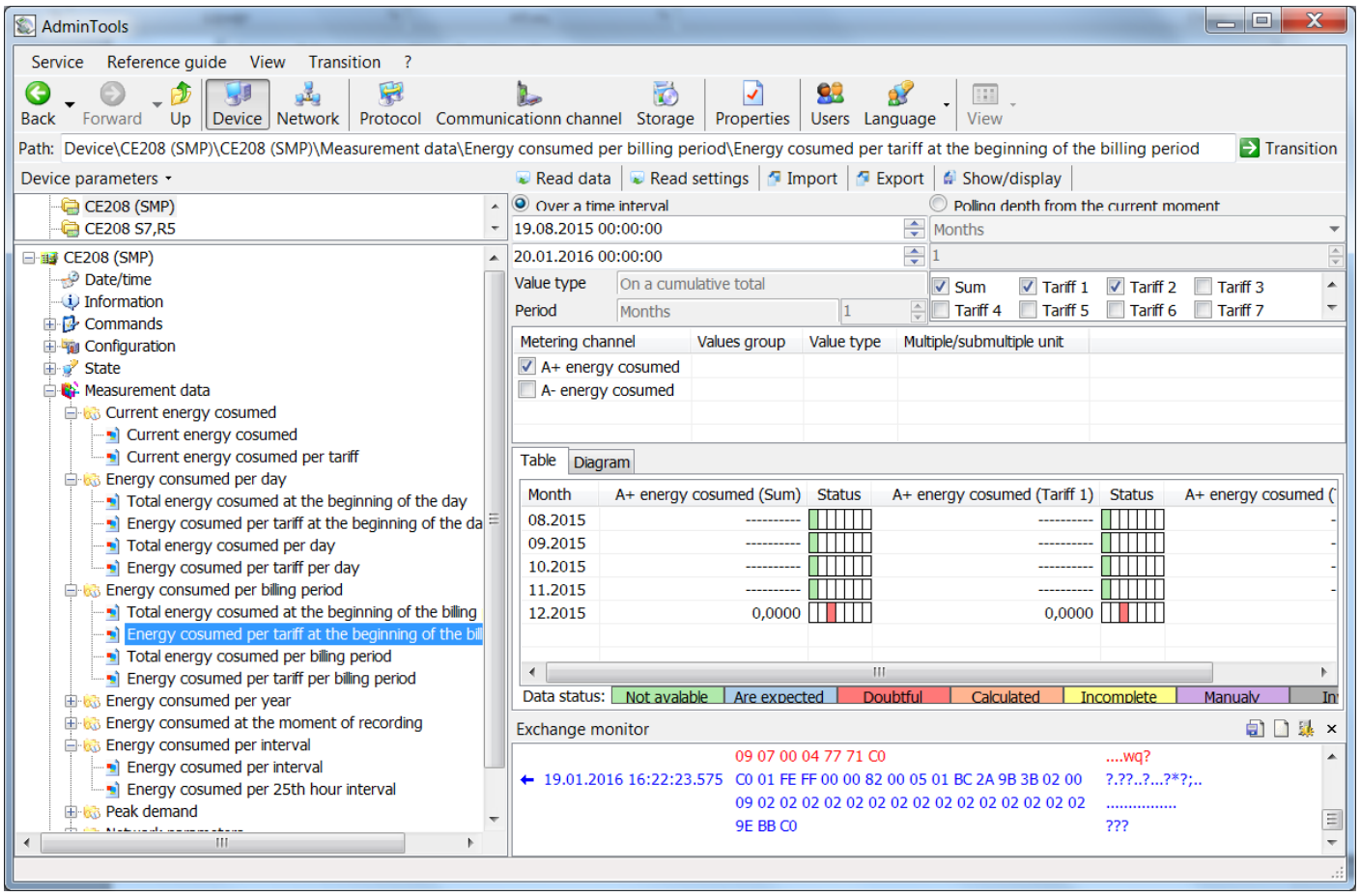


Readings at the end of the day, at the end of the month and half-hour load profiles are viewed in the same way as the current readings, except for the selection of the relevant section in the devices tree in the lower left part of the window.

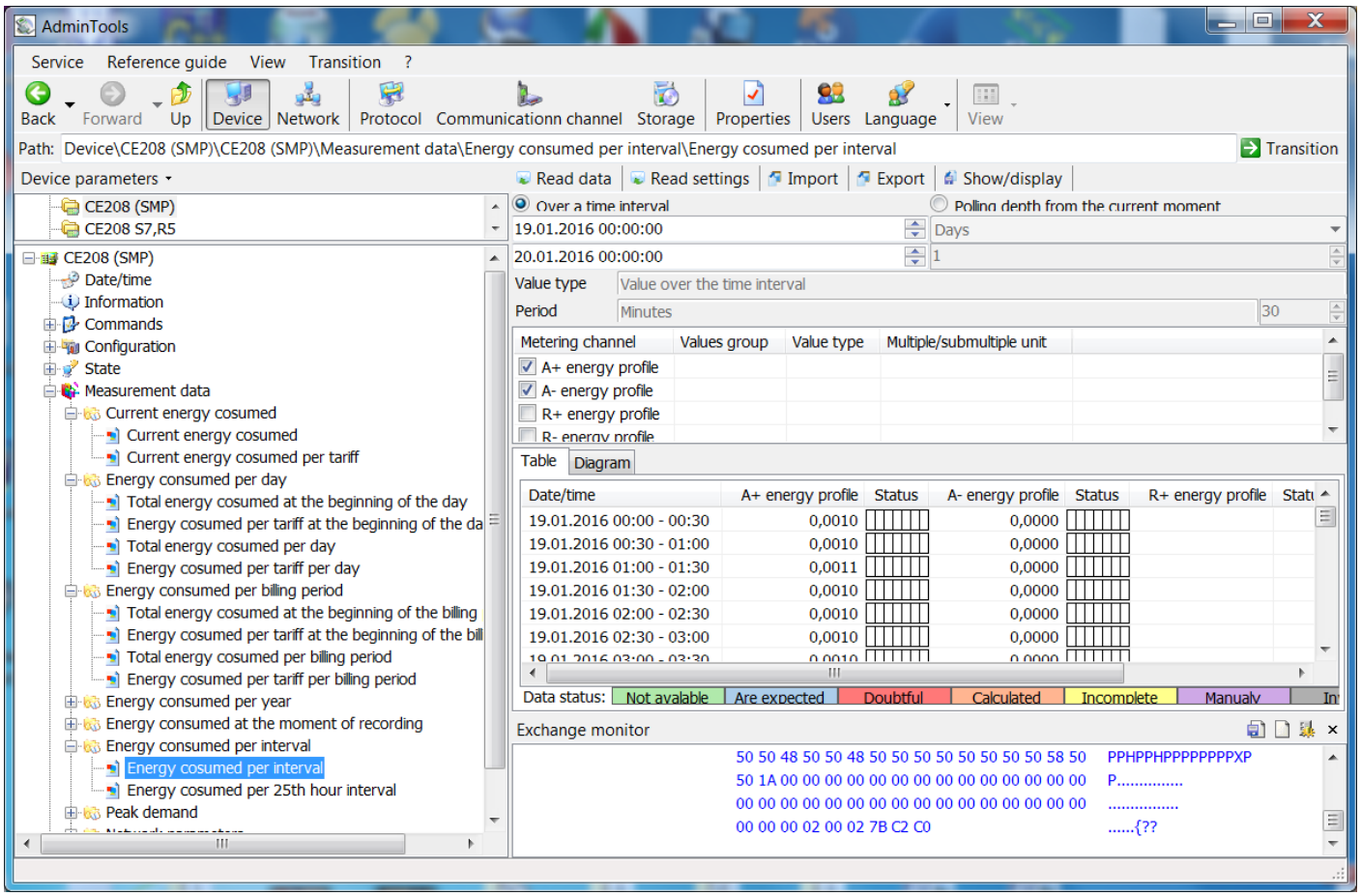
Example view of energy consumed at the beginning of the day (readings at the end of the day):



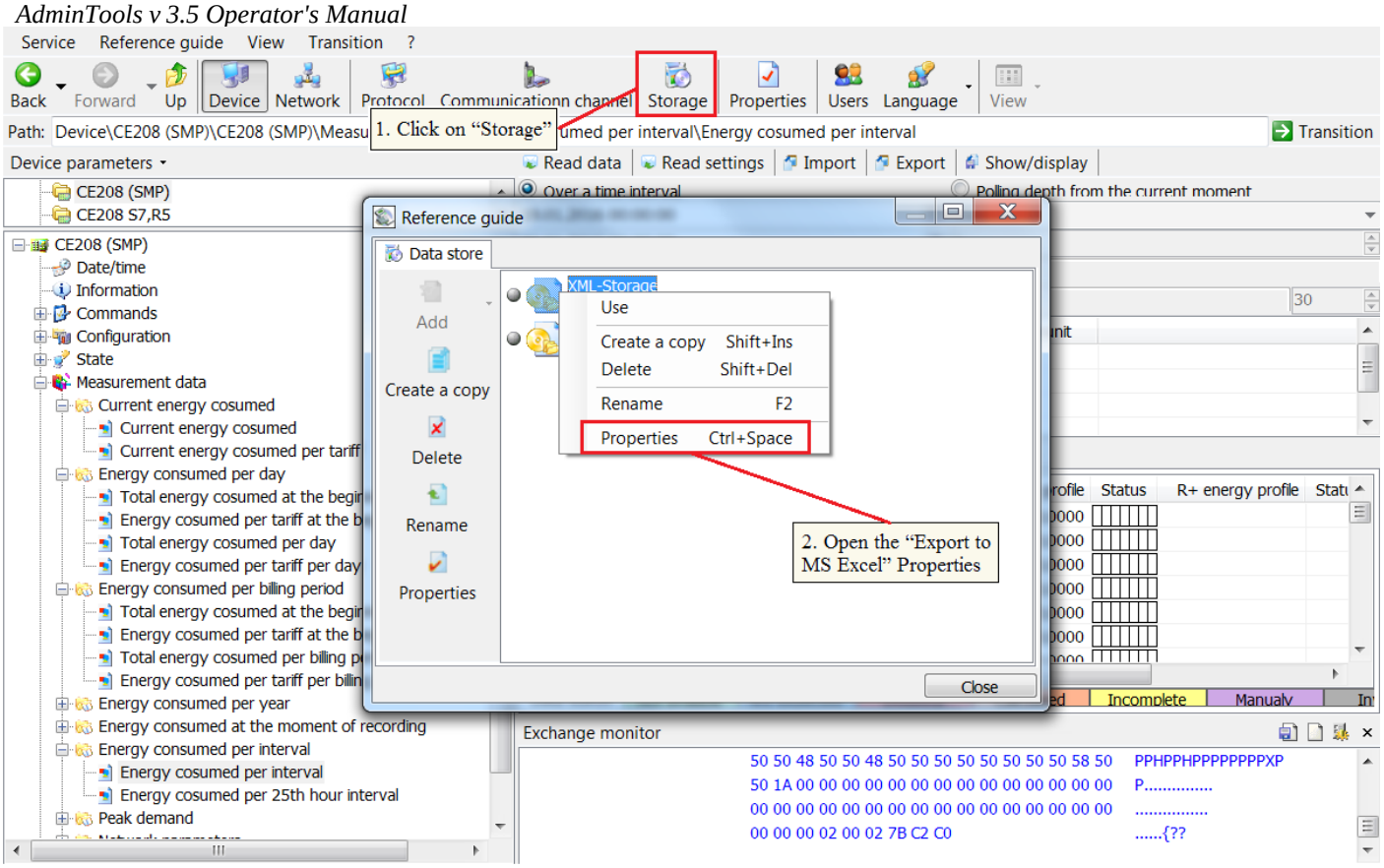
Example view of energy consumed at the beginning of the billing period (readings at the end of the month):



Example view of energy consumed for a 30-minute interval (load profile):



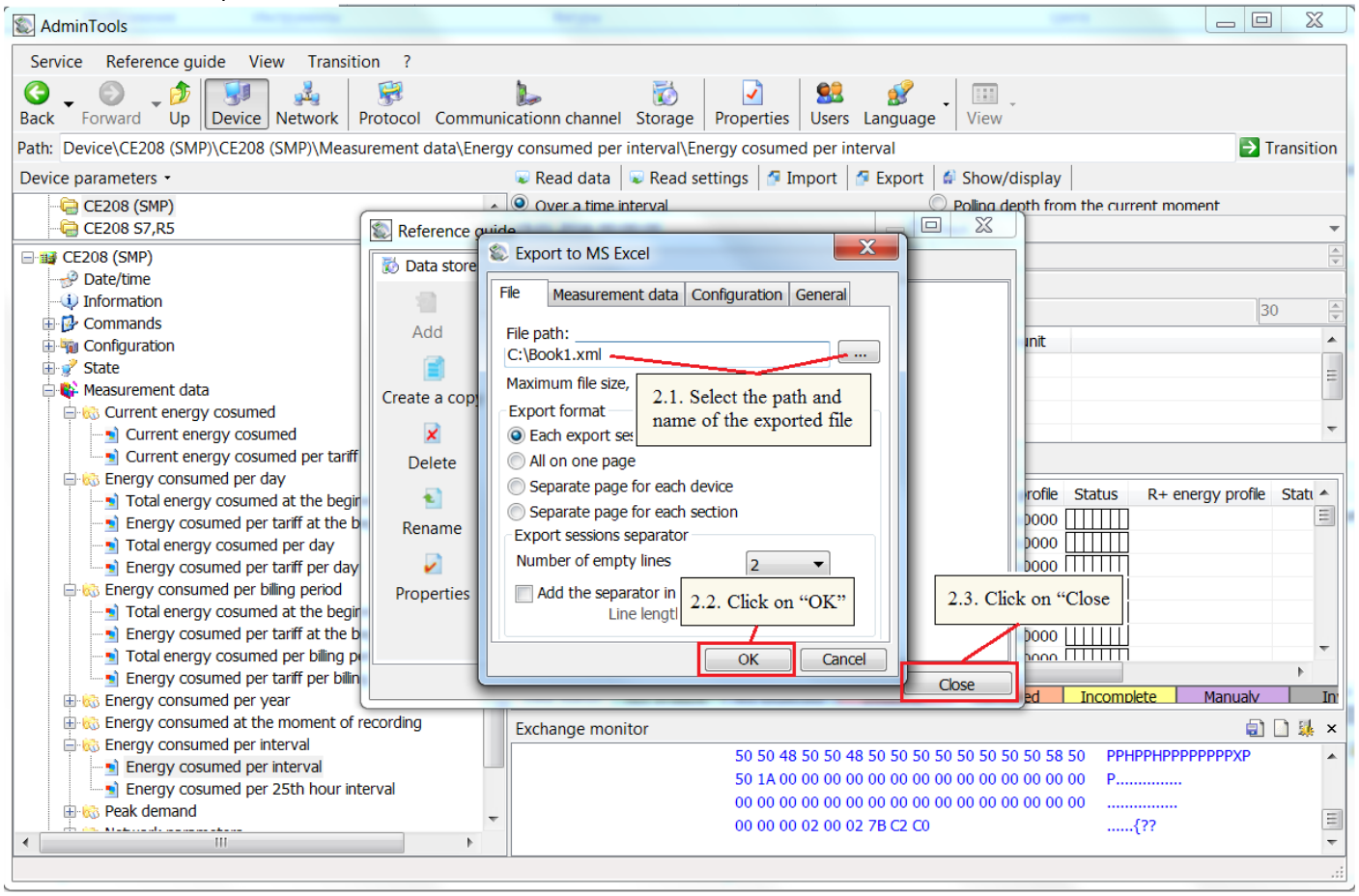
To save the read from the meter data in Excel, follow these steps:
1) Select “Storage”
2) Right-click on the option “Export to MS Excel” in the datastore directory and select “Properties”:



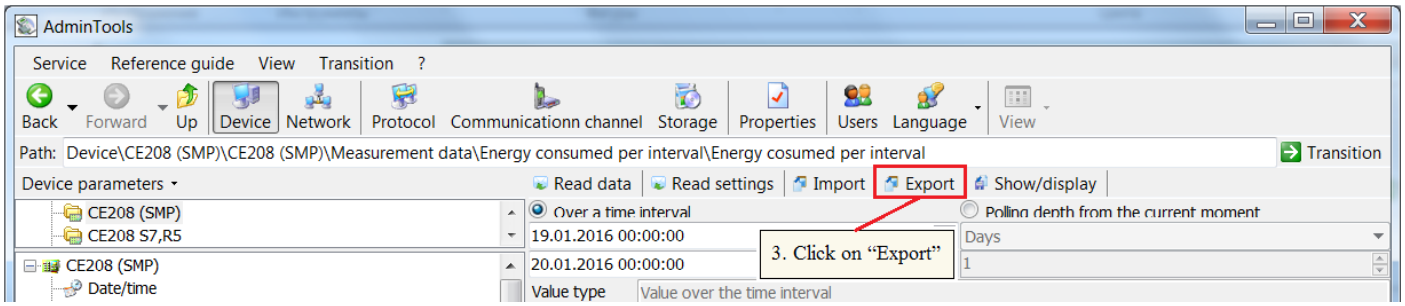
2.1) In the Properties window select the path and name of the exported file (the default installation path of the program is C:/Книга1.xml, but it is recommended to change it to the folder "My Documents").

2.2) Confirm the changes by clicking on “OK”.

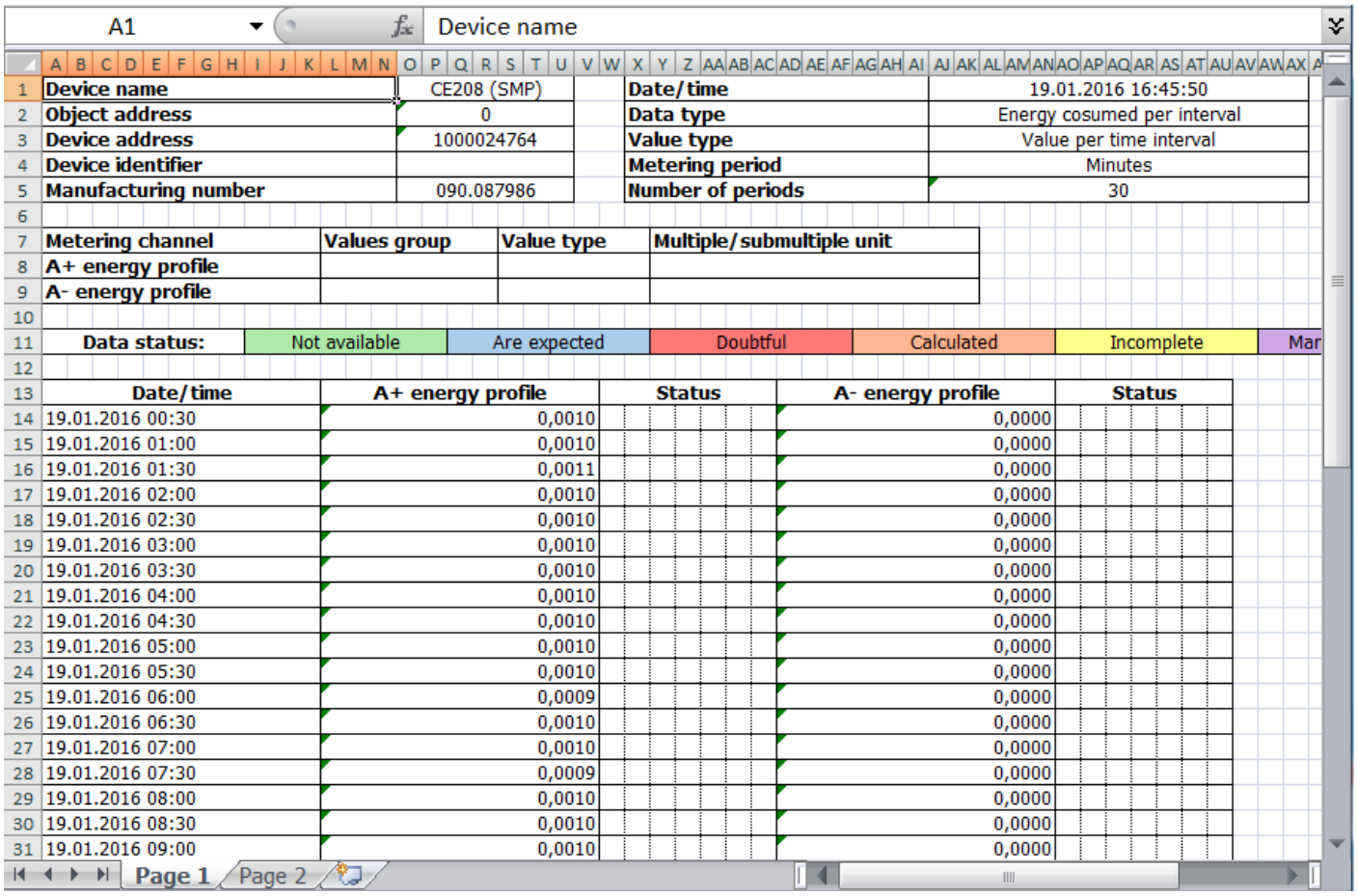
2.3) Close the window:



3) To export the table with data to Excel click on "Export". In case of an error, verify that the specified path is allowed to save files.



The exported file can be viewed in Excel:



A1 — Device name

Device name	CE208 (SMP)		**Date/time**	19.01.2016 16:45:50
Object address	0		**Data type**	Energy cosumed per interval
Device address	1000024764		**Value type**	Value per time interval
Device identifier			**Metering period**	Minutes
Manufacturing number	090.087986		**Number of periods**	30

Metering channel	**Values group**	**Value type**	**Multiple/submultiple unit**
A+ energy profile			
A- energy profile			

Data status:	Not available	Are expected	Doubtful	Calculated	Incomplete	Mar

Date/time	**A+ energy profile**	**Status**	**A- energy profile**	**Status**
19.01.2016 00:30	0,0010		0,0000	
19.01.2016 01:00	0,0010		0,0000	
19.01.2016 01:30	0,0011		0,0000	
19.01.2016 02:00	0,0010		0,0000	
19.01.2016 02:30	0,0010		0,0000	
19.01.2016 03:00	0,0010		0,0000	
19.01.2016 03:30	0,0010		0,0000	
19.01.2016 04:00	0,0010		0,0000	
19.01.2016 04:30	0,0010		0,0000	
19.01.2016 05:00	0,0010		0,0000	
19.01.2016 05:30	0,0010		0,0000	
19.01.2016 06:00	0,0009		0,0000	
19.01.2016 06:30	0,0010		0,0000	
19.01.2016 07:00	0,0010		0,0000	
19.01.2016 07:30	0,0009		0,0000	
19.01.2016 08:00	0,0010		0,0000	
19.01.2016 08:30	0,0010		0,0000	
19.01.2016 09:00	0,0010		0,0000	

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