



OPERATING INSTRUCTION

Reliable Measurement of Gas

Read the instructions before starting work!



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Original Document The RMGView^{EVC} operation instruction for the USM GT400 from November, 27th 2017 is a translation of the original German manual. Anyhow, this document may serve as reference for translations into other languages.

Remark Please use in case of any uncertainties the German version as main reference.

Note Unfortunately, paper is not updated automatically, whereas technical development continuously advances. Therefore, we reserve the right to make technical changes in regard to the representations and specifications of these operating instructions. The latest version of this manual (and the one of other devices) can be downloaded at your convenience from our Internet page:

www.rmg.com

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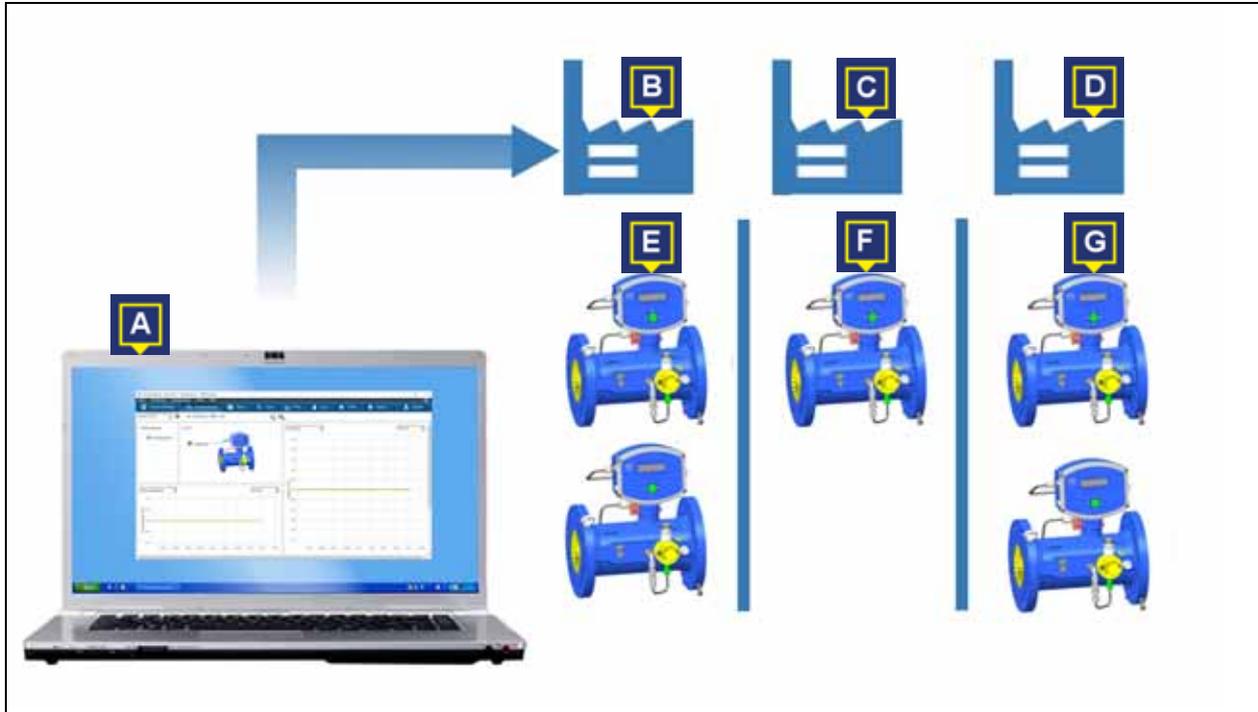
1 Introduction

In this chapter you will receive general information on the manual and on the device.

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1.1 Motivation for the software



A PC with RMGView^{EVC}

B Site 1

C Site 2

D Site 3

E Devices for site 1

F Devices for site 2

G Devices for site 3

Fig. 1-1: Application example

You can manage several sites with the RMGView^{EVC} software. For every site you can include as many devices with their connection data as you wish. Using these Modbus addresses, data can be read from the device and data can be transmitted from the PC (A) to the device.

The example shows how three sites (B, C, D) can be managed with the RMGView^{EVC} software. For every site, Modbus addresses are set up using RMGView^{EVC} to enable a connection to the devices.

- For site 1 (B), two Modbus addresses (E) were set up to establish the connection.
- For site 2 (C), one Modbus address (F) was set up.
- For site 3 (D), two Modbus addresses (G) were set up.

With RMGView^{EVC} you can:

- set up and manage several sites.
- assign several devices (EVCs) to a site and manage them.
- read out the actual measured values (actual values) in real time.
- display values in table form, as diagrams, as graphics or in individual fields.
- request predefined lists that read out and show certain parameters from the device.
- request predefined plots that display the parameters in a diagram.
- create user defined lists and output them as reports.
- create user defined plots that display the parameters in a diagram.
- RMGView^{EVC} automatically recognizes the firmware of the attached device. Only those parameters that are functional with the attached device are displayed.
- parameterize the attached device.
- create test reports.

1.2 About this manual

In this chapter you will receive information regarding the organization and objective of the manual and the knowledge prerequisites needed by the reader.

1.2.1 Trademarks

All the hardware and software names used in the manual may also be registered trademarks of third parties or under other brand protection. In this respect, the trade mark rights of third parties are to be respected.

1.2.2 Objective of the manual

The manual provides you with the information that is needed for trouble-free and safe operation.

The software is state of the art and conceived and programmed according to the recognized safety standards and guidelines.

However, hazardous situations may arise as a result of their use.

Possible hazards for:

- functions of the connected devices

For this reason, you may only operate the software as intended and in technically defect-free condition.

1.2.3 Prerequisite knowledge required

The manual assumes that the users are familiar with Microsoft Windows operating system and the operating elements, e.g. drop-down menus, buttons etc. MS Windows typical screens e.g. **Save As...** and their operating elements are not described in this manual.

1.2.4 Structure of information screens

The following information screens are used in the manual.

Notice

This warning screen informs you of potentially hazardous situations that can occur as a result of incorrect operation or human error. If these situations are not avoided, they can result in material damage to the machine or in the vicinity.



This information gives you tips on how to simplify your work. With this screen, you additionally receive further information on the product or the work process.

1.2.5 Abbreviations used

In this chapter of the manual, the abbreviations used are explained.

| | |
|----------------|---|
| ca. | circa, approximately |
| as app. | as applicable |
| EVC | electronic volume corrector in the following both texts will be used |
| max. | maximum |
| MID | Measurement Instruments Directive |
| min. | minimum |
| e.g. | for example |

1.2.6 Symbols used

The following symbols are used:

| | |
|---|--|
| 1, 2, ... | Steps within a work operation. |
|  | Marks steps in an illustration that are described in the text. |
| (A) | Reference to a component (element) marked with a letter in an illustration. |
|  | Marks elements in an illustration. The arrow points to the element being described. |
|  | Cross reference to another part in this manual or in another document. |
| Print Screen | Switches, regulators, slides, buttons and other terms from the software are marked by bold text. |

1.2.7 Validity

This manual describes the software RMGView^{EVC}.

The software RMGView^{EVC} is only a part of a complete site system. Please also observe the manuals of the other components of the site in order to guarantee safe operation.



2 Installation

In this chapter you will be given information on the system requirements for the PC, on the software installation and on making a connection to the device.

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2.1 System requirements

The PC must fulfill following specification:

- Operating system Microsoft Windows 7 (32 Bit and 64 Bit), Windows 10 (64 Bit)
- Min. screen resolution of 1024 × 768 pixel
- A converter that converts the signal for RS 232 / RS 485 is required for USB or COM interfaces.
- A converter is also required for the conversion to "Modbus over IP".

2.2 Files delivered

| | | | |
|-------------------------------|------------------|-----------------------|----------|
| deflist.xml | 26.07.2017 14:56 | XML-Dokument | 10 KB |
| defplot.xml | 20.07.2017 15:22 | XML-Dokument | 1 KB |
| fehstab.csv | 20.07.2017 15:22 | Microsoft Excel-CS... | 9 KB |
| fehstab_ru.csv | 20.07.2017 15:22 | Microsoft Excel-CS... | 7 KB |
| PEGRP32D.dll | 20.07.2017 15:22 | Anwendungserwe... | 3.016 KB |
| RMGViewEVC.exe | 12.10.2017 11:41 | Anwendung | 4.779 KB |
| TME400_001.rmx | 11.10.2017 17:15 | RMX-Datei | 61 KB |
| TME400_001_ARCH.xml | 25.08.2017 10:51 | XML-Dokument | 7 KB |
| TME400_001_ErrorBits.xml | 25.08.2017 10:51 | XML-Dokument | 3 KB |
| TME400_001_HintBits.Xml | 25.08.2017 10:51 | XML-Dokument | 1 KB |
| TME400_001_Languages.csv | 25.08.2017 10:51 | Microsoft Excel-CS... | 145 KB |
| TME400_001_Matrix.rmx | 22.09.2017 12:47 | RMX-Datei | 39 KB |
| TME400_001_StatusBits.xml | 25.08.2017 10:51 | XML-Dokument | 4 KB |
| TME400_001_VisibilityBits.xml | 12.10.2017 10:39 | XML-Dokument | 2 KB |
| TME400_001_WarningBits.Xml | 25.08.2017 10:51 | XML-Dokument | 1 KB |
| uninstall.exe | 12.10.2017 11:43 | Anwendung | 68 KB |
| XCrashReport.exe | 01.06.2016 11:44 | Anwendung | 608 KB |

Fig. 2-1: Files delivered

You will receive various files on delivery of the RMGView^{EVC} software. As an example the installation files and the associated rmx files in RMGView^{EVC} 1.0.3.2 version revision 339 are shown.

2.3 Preparing devices for connection

During installation, information on the COM port or the IP address will be required in order to make a connection between the software and the ultrasonic electronics.

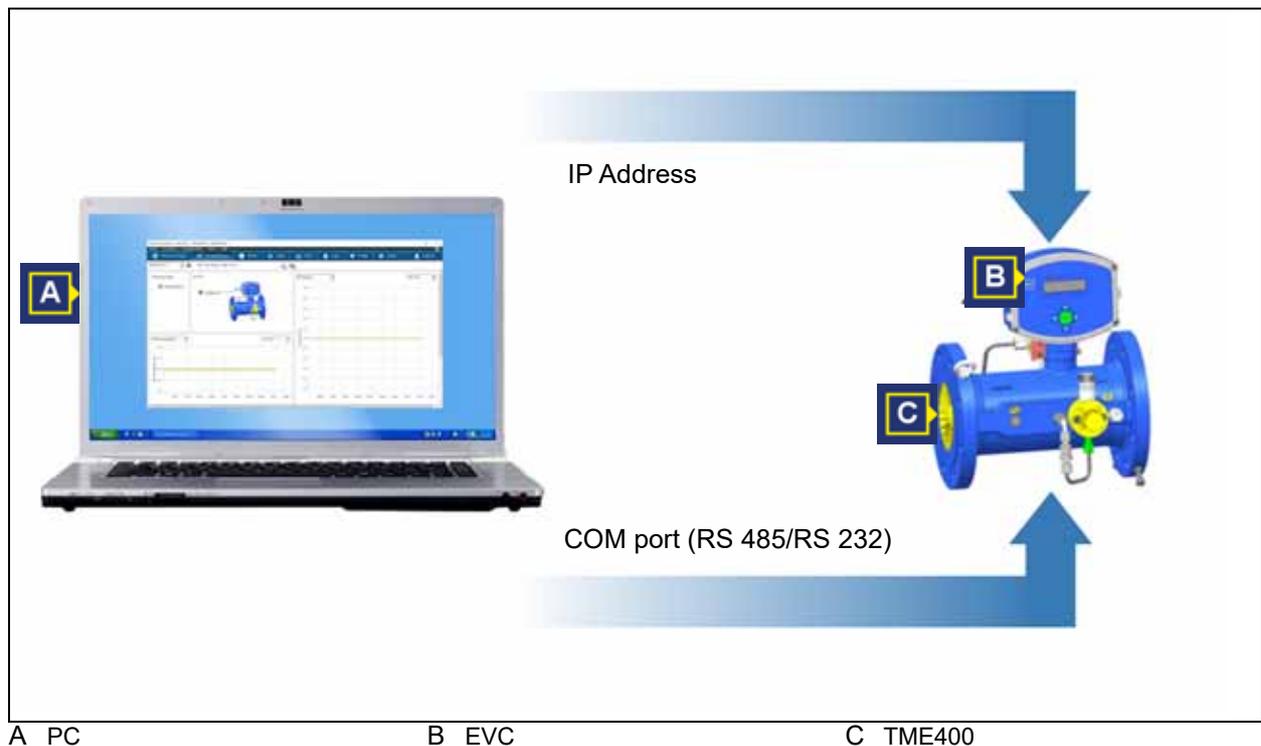


Fig. 2-2: Connection scheme

The following connection options to the EVC are available to you:

- Connection via a serial COM port (RS 485/RS 232) on the PC.
PC (A) and EVC (B) are connected with a cable.
- Connection via IP address.
For this the PC is connected to the Internet.

■ Determine connection data

- 1 Determine the IP address of the EVC respectively the name of the COM port on the PC.

2.4 Installing software



In order to install the new version of RMGView^{EVC} it is not necessary to uninstall the older version.

■ Starting installation

- 1 Double click here on the installation file e.g. RMGView^{EVC}installer xxx.exe.

The window RMGView^{EVC} **X.X Setup** opens.



Fig. 2-3: Agree to license contract

You must read the license contract and agree to it in order to continue with the installation.

- 2 Check the box **I agree to the terms and conditions of the license contract.**

3 Click the **Install** button.

The status of the installation is illustrated by an animated time bar.

The successful installation is displayed in the RMGView^{EVC} **xxx Setup** window.



Fig. 2-4: Finish installation

4 Click the **Finish** button.

The installation is then completed.

■ Connect PC

1 Connect the PC with the IP address of the device via the network.

Or

Connect the USE cable to the COM port on the PC.

⇒ COM port: see the USE operating instructions



Connection via cable

Use the following cable:

- Twisted pair and shielded cable
- maximum length 500 m
- Type LiYCX 2 × 2 × 0.75 mm²

2.5 Configuring the site and devices

■ RMGView^{EVC} start

- 1 Press the **Windows** key on the keyboard.
- 2 Click menu entry **RMGViewEVC**.

A start screen will be displayed.



Fig. 2-5: Start screen

After the starting sequence the **Select Site** screen will be displayed.

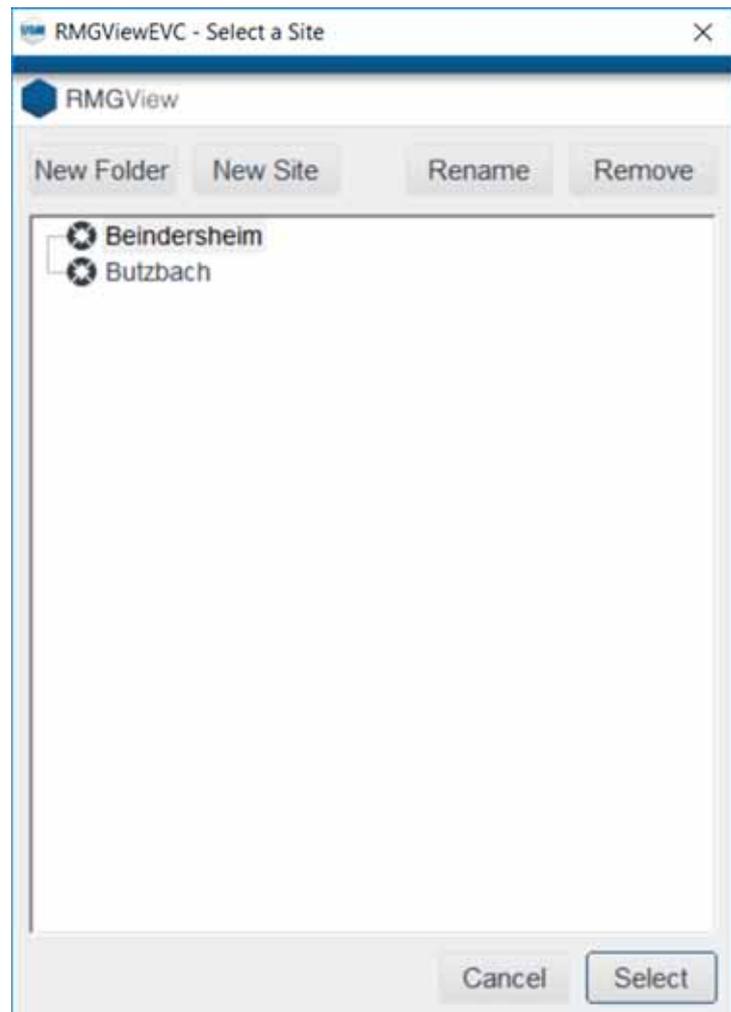


Fig. 2-6: Select Site screen

With RMGView^{EVC} you can manage several sites.

You can install and monitor several devices at every site.

■ Assigning site names

After starting the RMGView^{EVC} software, a site is shown in the **Select Site** window with the title **New Site 1**.

You can give this site a random name.

- 1 Click on **New Site 1** with the right mouse button.
The context menu is opened.
- 2 Click on the menu entry **Rename** and assign a name.
- 3 Confirm the name with the **Enter** key.

The **Select Site** window closes. The **EVC Settings:** window **Modbus** opens.



Using the context menu you can start following actions:

- Menu entry **New Folder**: File sites in folders.
- Menu entry **New Site**: Create further sites.
- Menu entry **Delete Site**: Delete sites. The devices in the site are also deleted.

In this window you can create a first device and set up the connection.

You have two alternatives for creating a connection to the device.

Connection via:

- IP address
- COM port on the PC

■ Setting up devices (Ultrasonic gas meter)

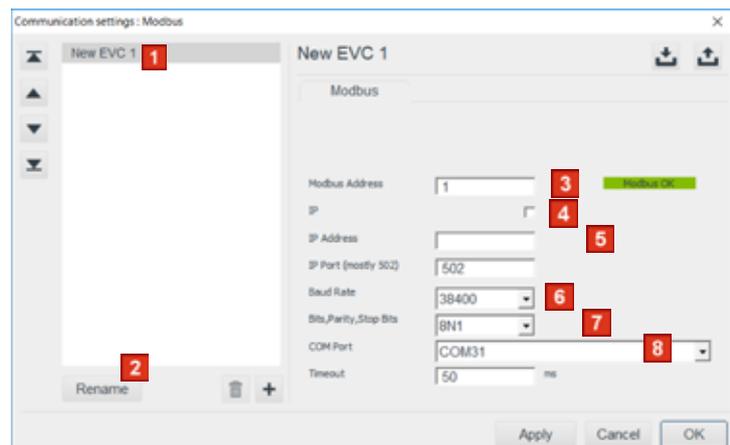


Fig. 2-7: USM settings window: Modbus

- 1 Select the device to which you want to create a connection.
 - 2 Rename the device - if you require.
 - 3 Enter the Modbus address with which the device should operate.
 - 4 Define type of connection
 - IP Address
 - ⇒ continue at step 5
 - COM Interface
 - ⇒ continue at step 6
- For connections via IP Address**
- 5 enter the IP Address of the EVC.
 - ⇒ continue at step 9

- Via COM port**
- 6 Select value **38400** for the baud rate.
 - 7 Select value **8N1** for Bits, Parity, Stop Bits.
 - 8 Select COM port on the PC to which the EVC is connected.

- Finish set up**
- 9 Click button **Apply**.

The **EVC settings window** closes. The **Site Overview - RMGView^{EVC}** window opens. Location and meter for the device are defined in this window.



If you want to create further connection data for a device, you will find information for this under:

⇒ „Adding further devices to the site“ on page 21

2.5.1 Set up-language and start window

■ Activate the window for user options

- 1 Activate **Dashboard - All EVCs** window.

⇒ Chapter 4.1, „Site overview“ on page 43

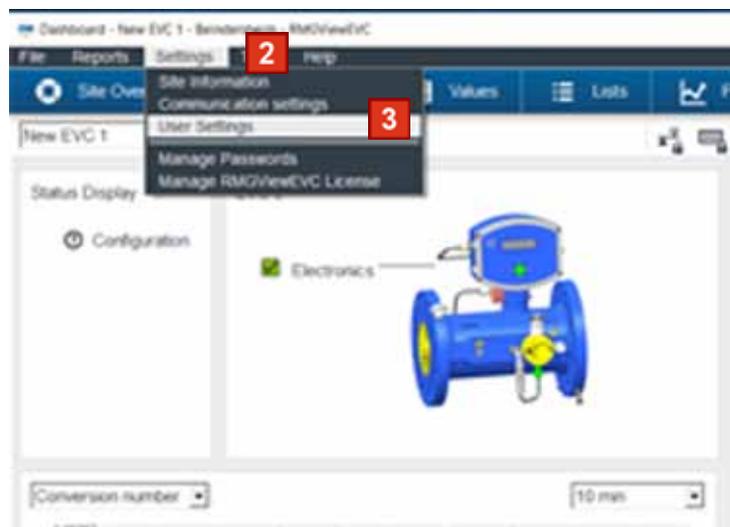


Fig. 2-8: Menu entry select user settings

- 2 Click on menu **Settings** in the menu ribbon.
- 3 Click on menu entry **User Settings**.

The **User Settings: User Interface** menu bar opens.

■ Set language

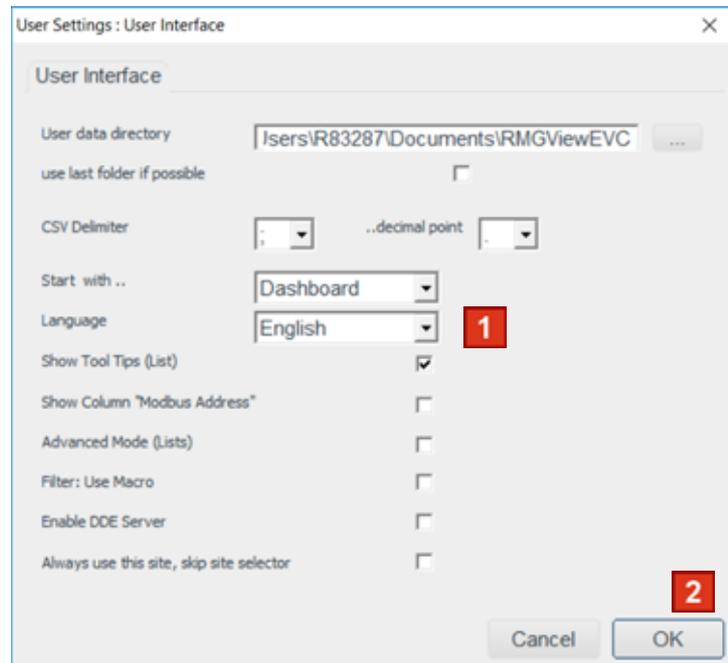


Fig. 2-9: Set language

- 1 Open drop down menu **Language** and select the appropriate entry.
- 2 Click **OK** button.

The settings are saved.

■ Set-up start screen

You can define a window as start screen that is displayed after the software is started. The windows that can be cued via the multifunction bar can be selected.

⇒ Chapter 3.1, „Operating and display elements“ on page 24

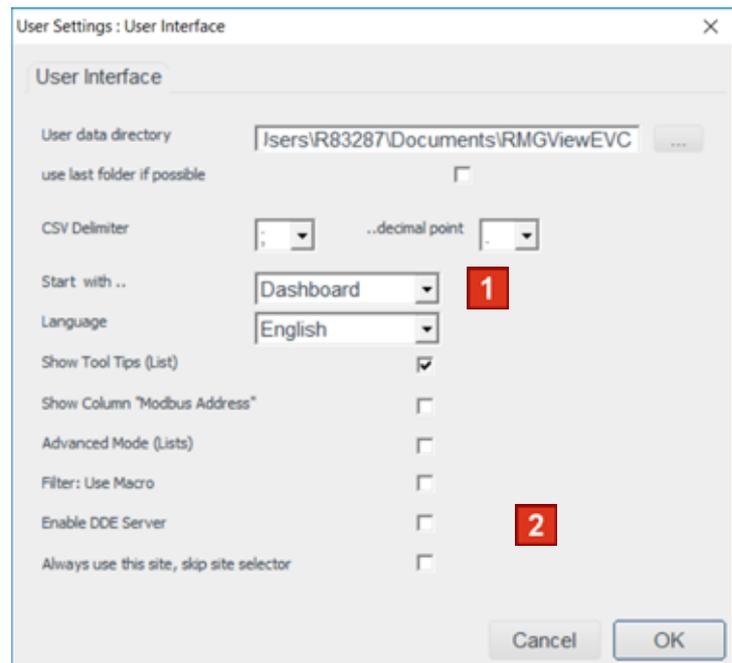


Fig. 2-10: Set-up start screen

- 1 Open drop down menu **Start with..** and select appropriate entry.
- 2 Click **OK** button.
The settings are saved.

2.5.2 Enter user data

- **Open window for site information**
 - 1 Activate **Dashboard - All EVCs** window.
⇒ Chapter 4.1, „Site overview“ on page 43

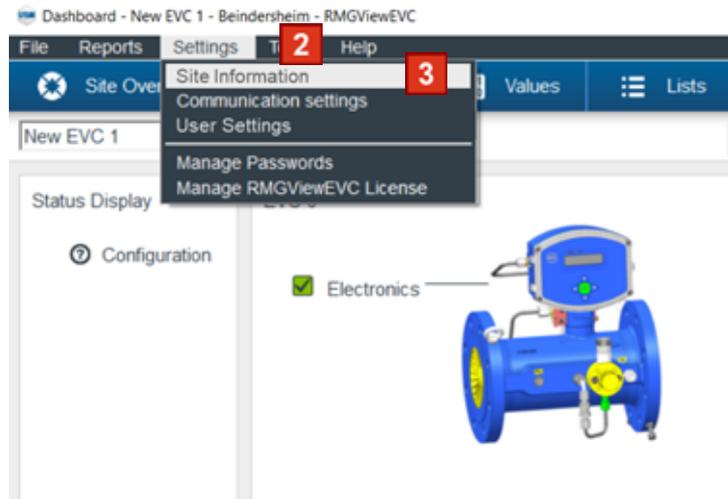


Fig. 2-11: Select menu entry Site Information

- 2 Click on menu **Settings** in the menu bar.
- 3 Click menu entry **Site Information**.
The **Site information** window opens.

■ Enter values

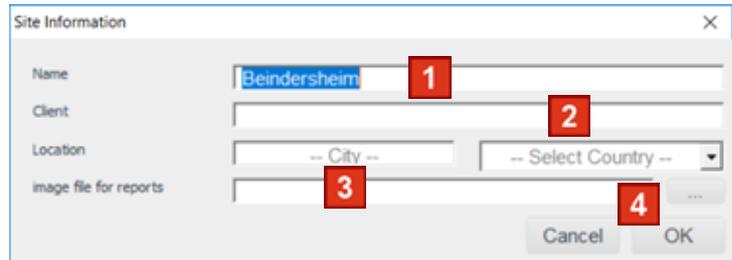


Fig. 2-12: Select menu entry Site Information

1 Complete fields **Name, Client and Location**.

⇒ Chapter 4.16, „Information on installation“ on page 66

2 Open drop down menu **Location** and select appropriate entry.

3 You may chose an image that will be displayed at the protocol as a logo. Press the button "..." and choose the appropriate image in the directories.

4 Click **OK** button.

The settings are saved.

2.6 Ensuring connection

In the **Site Overview** you can view the connection status for the installed Modbus addresses. Usually the connection can be made without any problems.

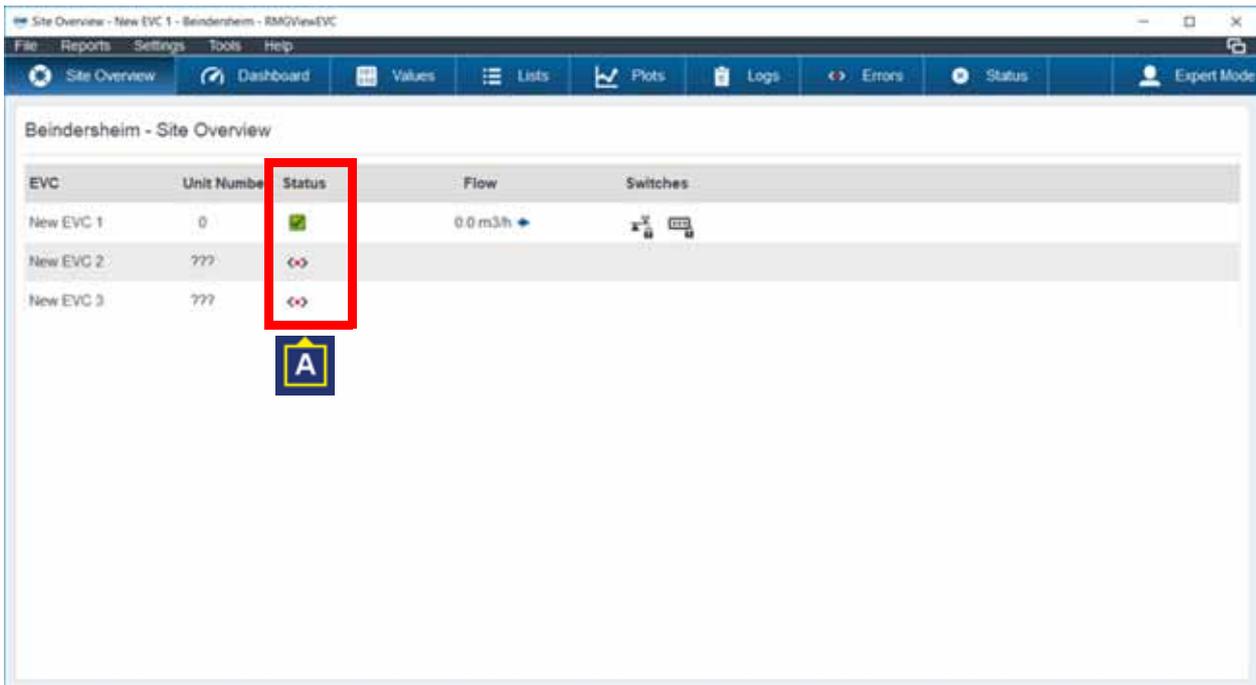


Fig. 2-13: Overview installation window

For a successful connection

The connection status to the device is shown as **(A)**.



The device is operating correctly. There are no errors.



A warning exists.



An alarm is pending.



There is a discontinuity between the PC and the device.

■ Open details on connection problem

You can find more information on the problem occurring in the **Errors** window.

⇒ Chapter 4.7, „Errors“ on page 55

- 1 Click **Errors** button.

The **Errors** window opens. The list informs you about the actions for setting up connections.

■ **Fix connection problems**

- 1 Check physical connections.
- 2 Check the Modbus address settings, if necessary, recreate Modbus address.
- 3 If the connection problems still exist, contact RMG service.
⇒ „Manufacturer“ on page I

2.7 Adding further devices to the site

You can add further devices to particular installation retroactively.

■ **Open the EVC Settings window**

- 1 Activate **Dashboard - All EVCs** window.
⇒ Chapter 4.1, „Site overview“ on page 43

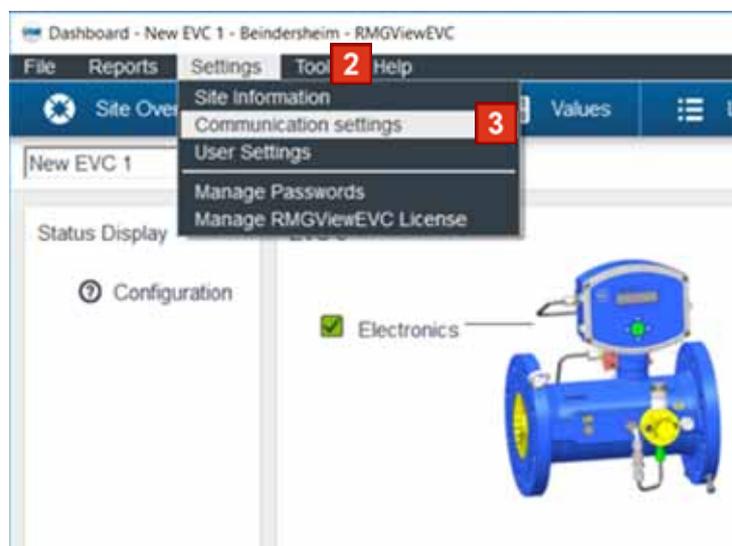


Fig. 2-14: Select menu entry Site Information

- 2 Click on menu **Settings** in the menu bar.
- 3 Click menu entry **EVC Settings**.

The **EVC Settings** window opens.

■ Setting up additional devices (USM)

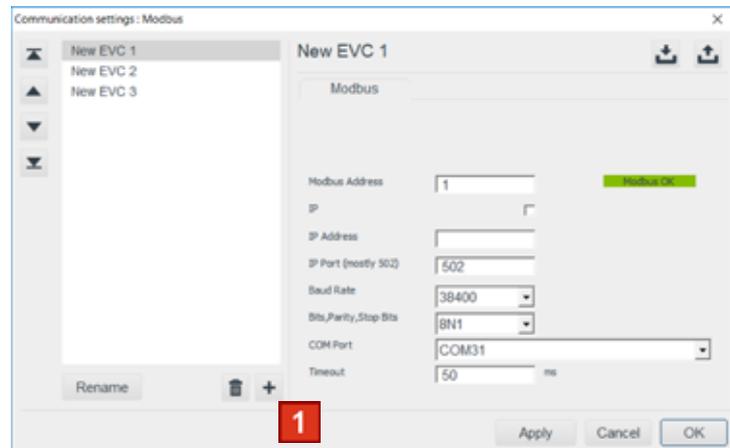


Fig. 2-15: USM Settings window: Modbus

1 Click **Add** button.

An additional device will be shown in the list.

2 Enter the device data.

⇒ „Setting up devices (Ultrasonic gas meter)“ on page 14

3 Software overview

In this chapter you will be given detailed information regarding user interface elements as well as functions and operating capabilities of the software.

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3.1 Operating and display elements

In this chapter you get an overview of the user interface for RMGView^{EVC}.

You will find the description of the individual windows and functions under:

⇒ Chapter 4, „Software description“ on page 41



A Header

B Menu bar

C Multifunction bar

Fig. 3-1: Dashboard window



Fig. 3-2: Header

Header The **header (A)** shows the name of the window opened. The description of the window can be found under this name in chapter "Description of the software". The content of the header for some windows changes depending on the lists, plots or parameters selected.



Fig. 3-3: Menu bar

Menu bar The **menu bar (B)** contains various menus with which the functions and windows can be called up.

Using the menus you can open following windows/functions:

- **File**

Clone opened window. Close window for a device. Open and save window arrangement on the desktop. Open folder for APP data user data. Close RMGView^{EVC}.

- **Reports**

Conduct device check. Output test reports as log file. Open the parameter list and the list of parameter changes. Depending on the license settings, there is the optional function of creating user-defined logs or changing existing logs.

- **Settings**

Enter user information for the device. Show or hide **Select Site** window for software start. Set communication settings for the device, change or add a new device for the selected site. Switch software to another language. Set start screen for the software to start. Show or hide tool tips display. Show or hide macro names for filtering certain data. Open the password list for the selected device, change, create and delete. Change current license settings.

- **Tools**

Open the log player. The log player plays the recorded log files in real time. Parameterize the ultrasonic gas meter with opened calibration switch. Calculate a characteristic curve correction for the values determined.

- **Help**

Open the operating instructions as a PDF file. Open the RMG website. Request information on the software.



Fig. 3-4: Multifunction bar

- Multifunction bar** The **multifunction bar (C)** comprises single buttons. Using these buttons you can access following data:
- **Site Overview**
List of devices that are set up for the selected site.
⇒ Chapter 4.1, „Site overview“ on page 43
 - **Dashboard**
Request values and status of the selected device. The values are displayed in graphic form.
⇒ Chapter 4.2, „Dashboard“ on page 44
 - **Values**
Display parameter, readings or display values.
⇒ Chapter 4.3, „Values“ on page 46
 - **Lists**
Request lists for one selected ultrasonic gas meter, for all ultrasonic gas meters or for several particular ultrasonic gas meters.
⇒ Chapter 4.4, „Lists“ on page 48
 - **Plots**
Request lists for one selected ultrasonic gas meter, for all ultrasonic gas meters or for several particular ultrasonic gas meters.
Open predefined or user defined plots. Create and change user defined plots.
⇒ Chapter 4.5, „Plots“ on page 50
 - **Logs**
Request list of actions, ParameterLog and EventLog, that are carried out via the software.
⇒ Chapter 4.6, „Logs“ on page 51
 - **Errors**
Request list of errors and warning messages that have occurred.
⇒ Chapter 4.7, „Errors“ on page 55
 - **Status**
Request lists of status displays.
⇒ Chapter 4.7, „Errors“ on page 55

- **Password Input**

Log into password-protected user level.

⇒ Chapter 4.9, „Password Input“ on page 57



A EVC preselection

B Display area

C Status bar

Fig. 3-5: Dashboard window

EVC preselection (A) The information on the selected device such as live values, functions or parameters are shown in the display area.

Display area (B) The display area shows the contents of the windows that have been opened using the multifunction bar.

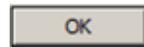
Status bar (C) The status bar gives information on the current status of the selected device. Connection to selected device, current readings and position of the service switch and of the calibration switch. A percent display gives information on the actual utilization of the device. The status for the code word of the device is displayed.

You will find possible symbols for the actual status here:

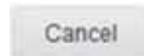
⇒ „Status icons“ on page 29

3.2 Standard buttons

The following buttons are a feature of many windows. Their functions are the same in all windows.



Confirm the entered value. The values will be saved.



Cancel the current entry. The entered values will not be saved.



The current screen will be saved as a jpg file.



Create a new, user-defined list or plot.



Delete user-defined list or plot.



Process user-defined list or plot.



Export data.



Import data



Move an entry down a list.



Move an entry up a list.



Record values or list and stop recording.



Refresh screen.



Clone window. The selected window will be opened a second time.



Enlarge view of plot.



Display plots in original size.

3.3 Status icons

The following icons are a feature of many windows. Their functions are the same in all windows.



Calibration switch for the EVC is closed. The parameters of the EVC *cannot* be programmed.



Calibration switch for the EVC is open. The parameters of the EVC can be programmed.



Connection between PC and the device is OK.



There is a discontinuity between PC and device.



The device is operating correctly. There is no warning.



A warning exists.



There is a defect.



The element (list or plot) is protected and cannot be changed.



The symbol is an attribute for lists or plots that are used by more than one device.



No password has been entered. Device is password-protected. Parameters that are protected by the password *cannot* be changed.



The password has been entered. Password-protected parameters can be changed.



The user level **Monitor** is active.

⇒ „User levels“ on page 31



The user level **Configurator** is active.



The user level **Expert Mode** is active.

3.4 User levels

To avoid incorrect operation the RMGView^{EVC} software is divided into different user levels.

These user levels are assigned to certain user groups.



Not all the contents and functions of the RMGView^{EVC} are displayed for every user group.

Only after you have entered a password for the user level are the information and functions for this user group displayed and can be operated.

The description of the windows and menus indicates which user level is enabled in the respective windows or menus.

⇒ „Software description“ on page 41

The following user groups are assigned to the user level.

All user groups

- Monitor

No password required. This user level serves to display the contents of the windows. The data cannot be processed.

Maintenance/setup personnel

- Configurator

Password required for Configurator. Set up all access rights and password for operating personnel.

Service personnel

- Expert mode

Password for Expert Mode required. All access rights for operating personnel, maintenance and setup personnel. In addition the licenses can be managed.

3.5 Structure of the software

The following chart shows the structure of the RMGView^{EVC} software. Every field represents a window.

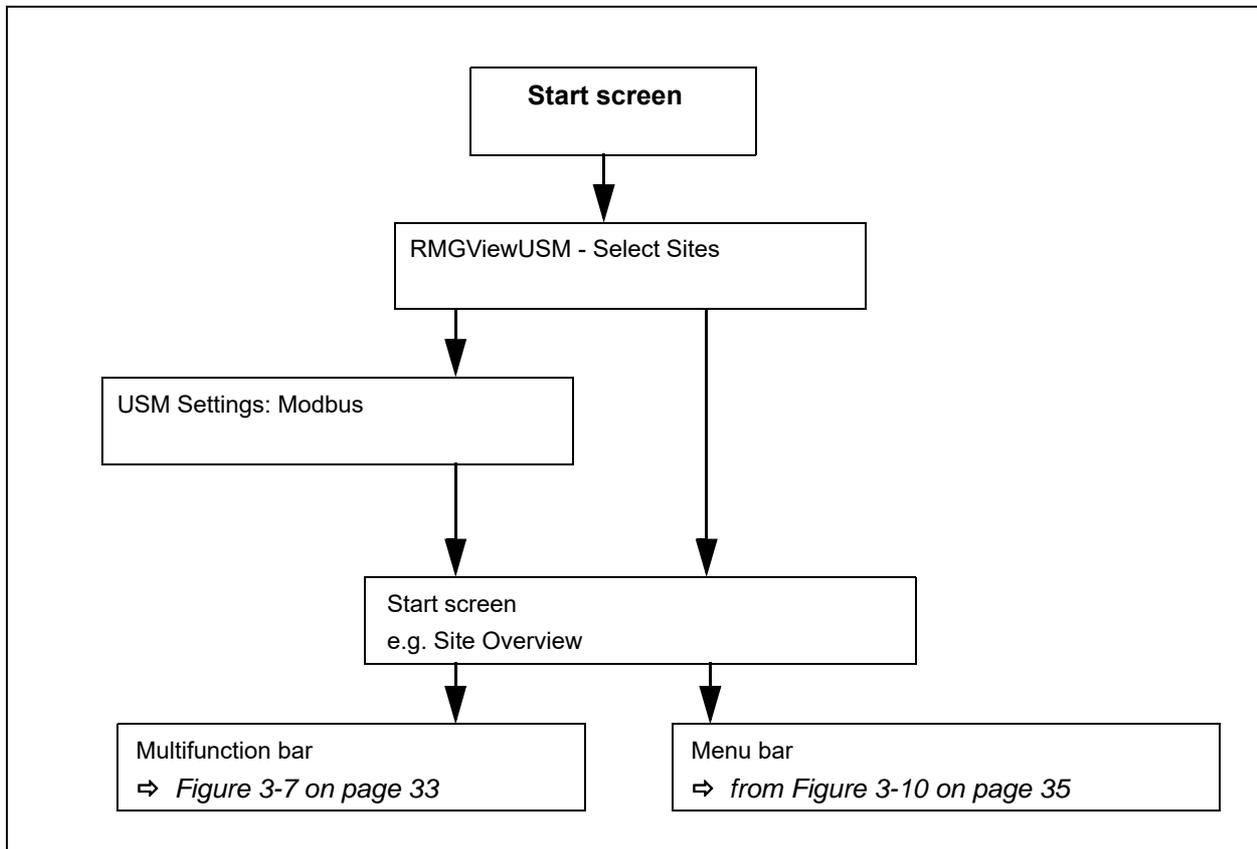


Fig. 3-6: Structure of the software



The start screen can be specified. The following windows can be selected as start screen:

- Site Overview
- Dashboard
- Lists
- Plots
- Logs
- Errors
- Status
- Input Password

⇒ Chapter 2.5.1, „Set up-language and start window“ on page 15

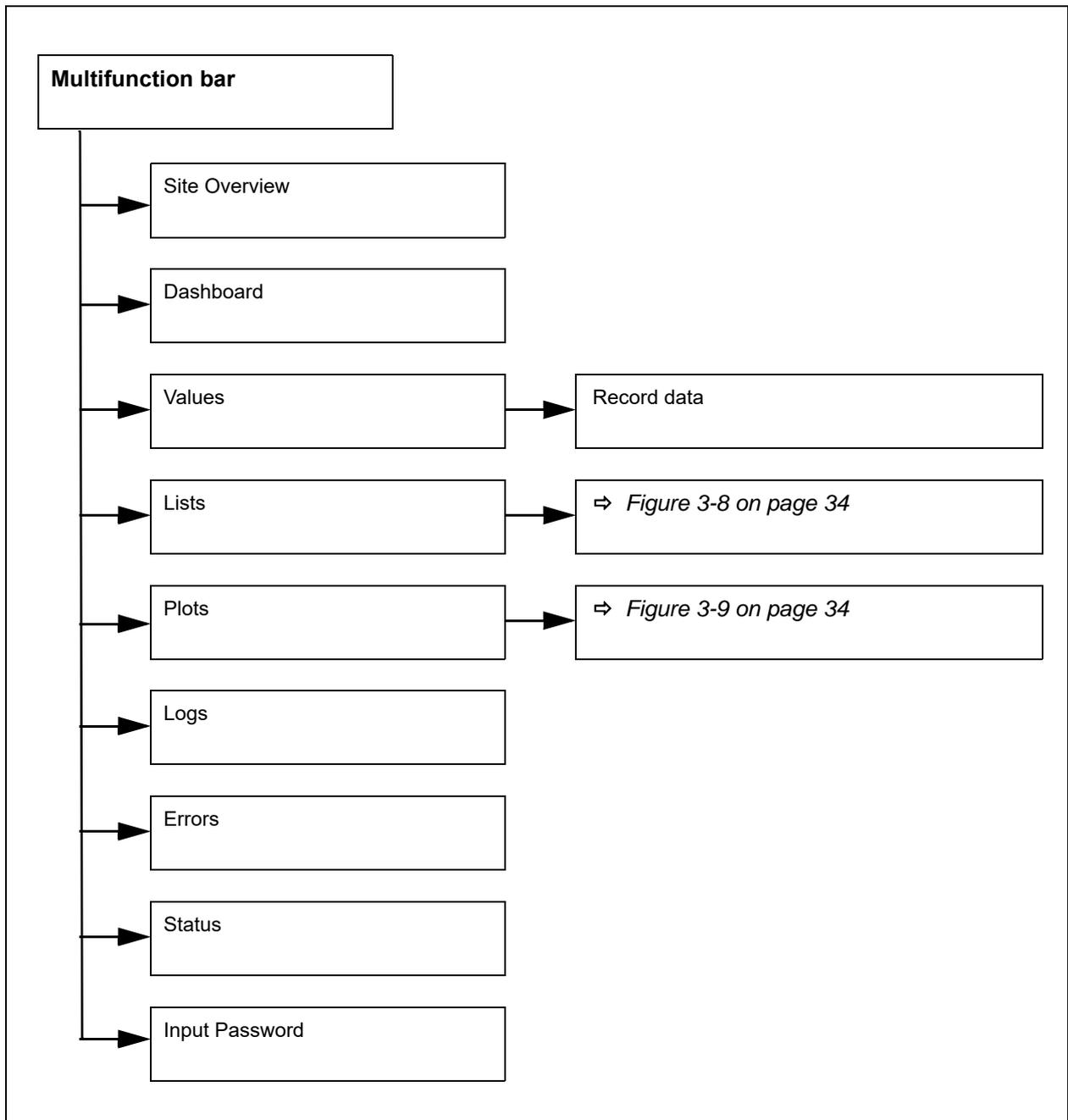


Fig. 3-7: Structure of multifunction bar

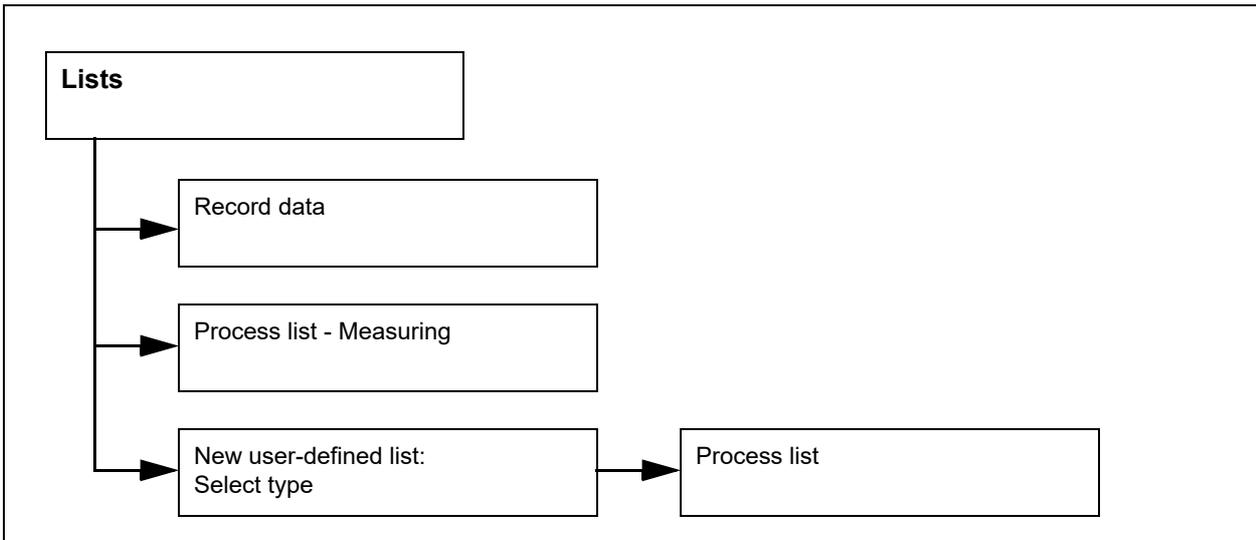


Fig. 3-8: Structure of lists

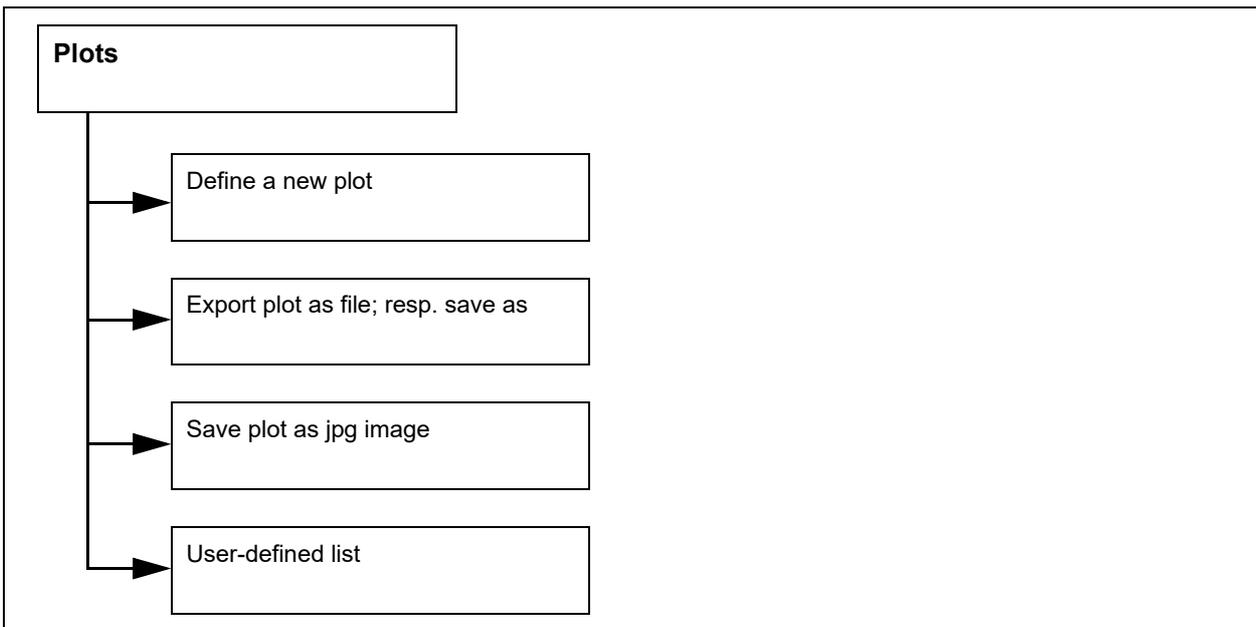


Fig. 3-9: Structure of plots

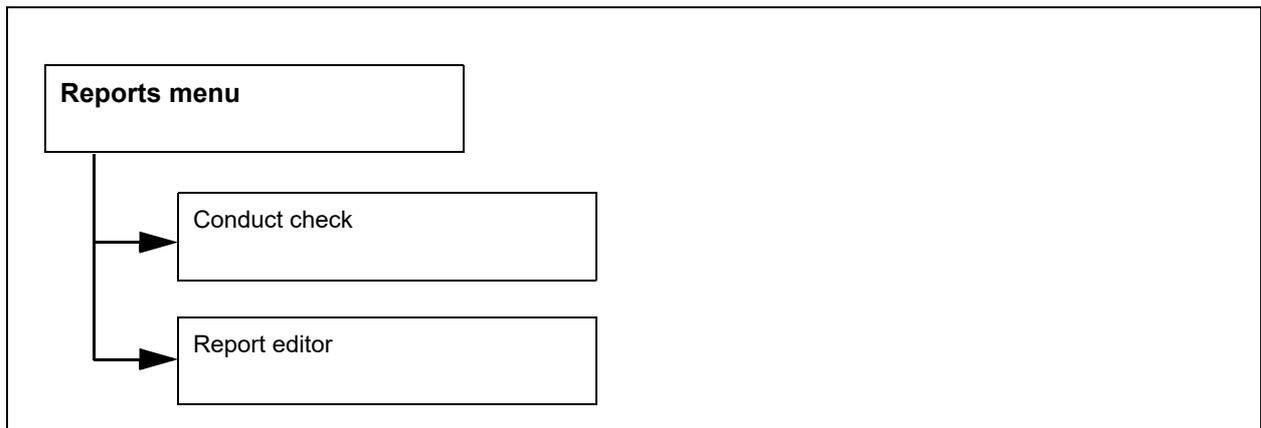


Fig. 3-10: Structure of reports menu

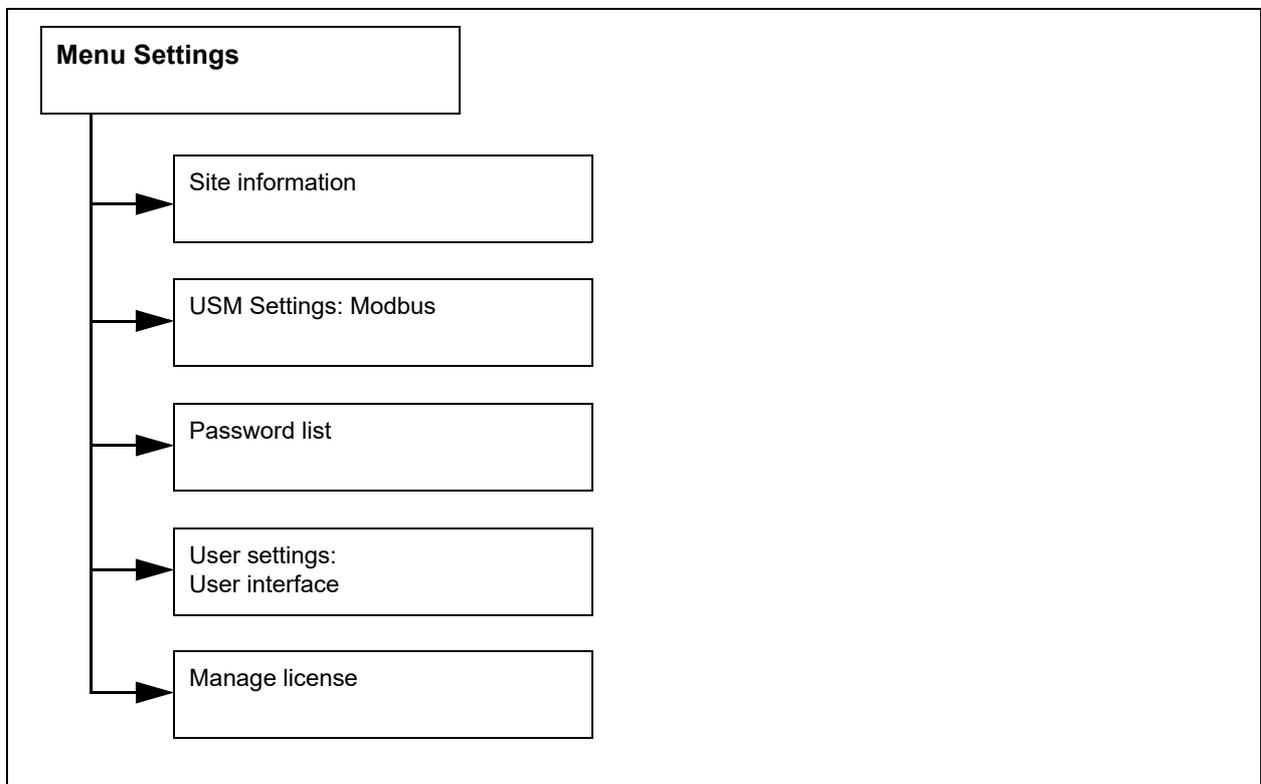


Fig. 3-11: Structure of menu settings

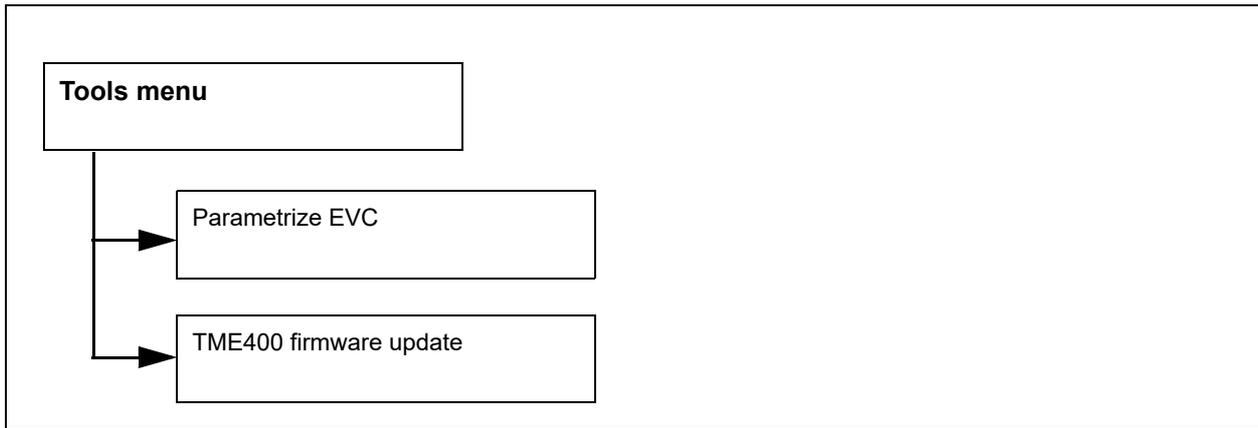


Fig. 3-12: Structure of tools menu

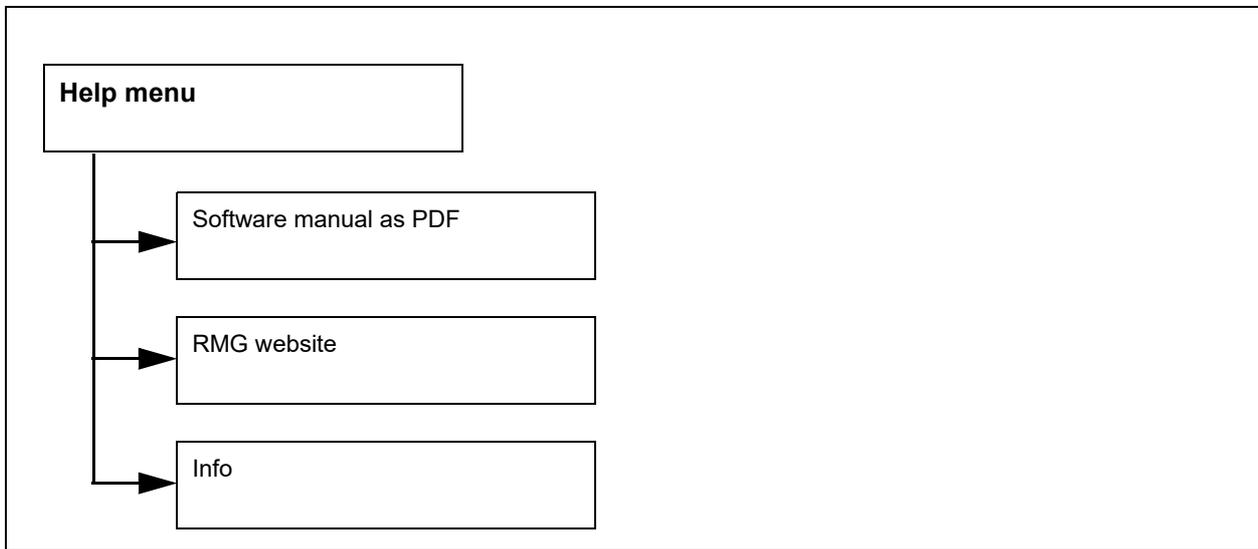


Fig. 3-13: Structure of help menu

3.6 Data/readings/parameters

The data/readings/parameters are stored in a coordinate system. Via the coordinates (letter for column and number for a row) data/readings/parameters can be addressed.

The data/readings/parameters can be opened using the ultrasonic electronics display or via the RMGView^{EVC} software and can be selected for tasks such as user-defined lists.

⇒ Chapter 4.13, „Site Specific, User-Defined List (plot)“ on page 61

Example Parameter structure

| EVC | Coordinate | Name | Value | Unit | Modbus Address |
|-----------|------------|-------------|-------|----------------|----------------|
| New EVC 1 | A-1 | Volume Base | 0 | m ³ | 6248 |



Fig. 3-14: Structure of a parameter

As a rule, parameters are structured as follows:

- Associated EVC **(A)**, e.g. new EVC 1.
- Coordinates of the parameter **(B)**, e.g. A-1.
- Name of the parameter **(C)**, e.g. for base volume.
- Value that the parameter should read out or specify **(D)**, e.g. 0.
- Assignment of the unit **(E)**, e.g. m³.
- Assignment to the Modbus address **(F)**, e.g. 6248.

3.7 Help function

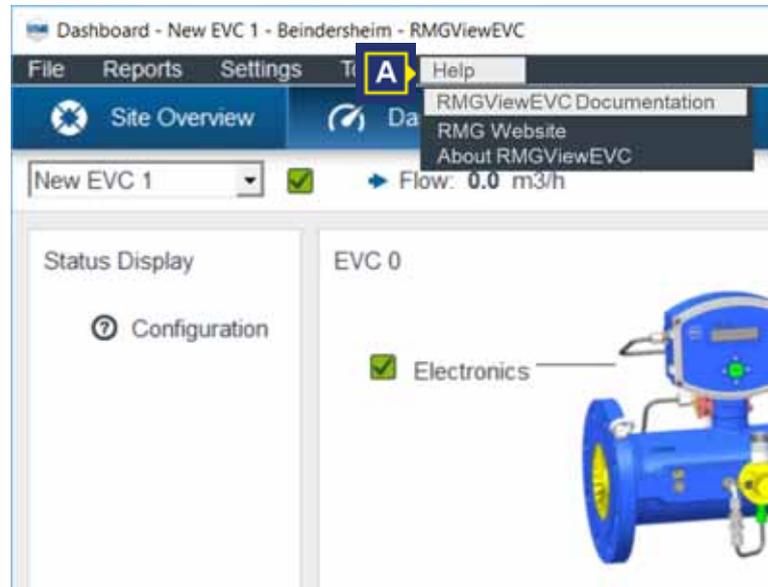


Fig. 3-15: Help menu

Using the **Help** menu, you receive following information:

- details of the software version and the license number
⇒ Chapter 4.20, „License Info“ on page 71
- Software manual as a PDF file
- Website www.rmg.com

3.8 File types

The following table describes the file types (file suffixes) that are needed to work with the RMGView^{EVC} software.

| | |
|-------------|---|
| CSV | List with recorded values of parameters, events or plots: The list can be imported for processing in a spreadsheet program. |
| RPR | File contains a template for generating PDF files. |
| RMW | Stored screen configurations. After this file has been opened the screens will be arranged according to the settings of this file. |
| RMX | Software system files RMGView ^{EVC} . |
| EXE | Executable files. |
| HTML | Output format for a RPR file, can be opened in any browser. |
| PDF | Output format for a RPR file, reports, graphic representation of readings (plots) or test certificate. This file can be opened by every PDF viewer. |
| JPG | Image file for graphics of readings (plots). |
| XML | File stores the RMGView settings, e.g. language settings, screen configuration. |

3.9 Password

With a password you will be given access to protected user levels in the RMGView^{EVC} software. On delivery of the RMGView^{EVC} software, you will have received a password from RMG for every protected user level.



Should the passwords no longer be available, then request these from the RMG service.

⇒ „Manufacturer“ on page 1

The user with the password to the user level **Configurator** can generate passwords with user level assignment.

⇒ Chapter 4.18, „Password List“ on page 68

3.10 License

With the help of the license you can enable the functions of the report editor, characteristic curve correction and header data for the raw data. With the report editor you can compile reports according to your requirements.

Training by RMG is required for working with the report editor.



As an alternative RMG offers the service of creating client-specific reports.

4 Software description

This chapter contains information on fields, sectors and other contents of the windows.

Operating system windows, e.g. **Save as** are not described.

You will find following information with respect to the windows:

- Name of the window.
- Details on the window path.
- Illustration of the window.
- General description of the window's functions.
- Field elements in the window.



Depending on the user level certain contents and functions of RMGView^{EVC} are displayed or hidden.

⇒ *Chapter 3.4, „User levels“ on page 31*

Notice

The RMGView^{EVC} software offers the possibility to create, organize and present data and parameters (and additionally calculated parameters) of the EVC.

- **Note that certain parameter settings may change the measuring behavior of the EVC.**
- **Since usually EVCs and RMGView^{EVC} are used together it will not be distinguished between individual parameters of these units.**

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4.1 Site overview

RMGView^{EVC} > Select Site > Site Overview

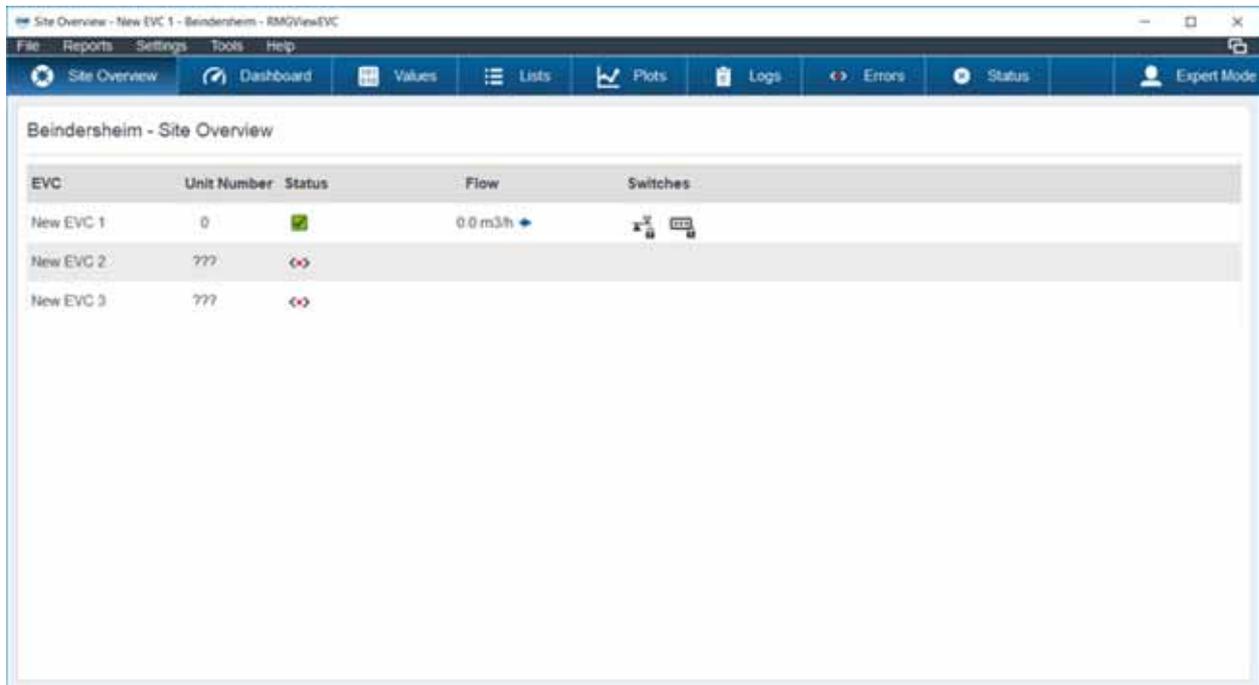


Fig. 4-1: Site Overview

In the **Site Overview** window you can manage the electronic volume corrector.

EVC Name of the electronic volume corrector. By clicking on an entry, you can switch to the **dashboard** of the selected EVC.
 ⇒ „Dashboard“ on page 44

Status Connection status between EVC and RMGView^{EVC}.
 ⇒ Chapter 3.3, „Status icons“ on page 29

Flow Volume flow rate per hour, e.g. cubic meters

- Negative value = Gas is flowing against the flow direction.
- Positive value = Gas is flowing in the flow direction.

Switches Configuration options for following switches:

- Calibration switch
- Password for the PC

⇒ Chapter 3.3, „Status icons“ on page 29

4.2 Dashboard

RMGView^{EVC} > Select Site > Dashboard

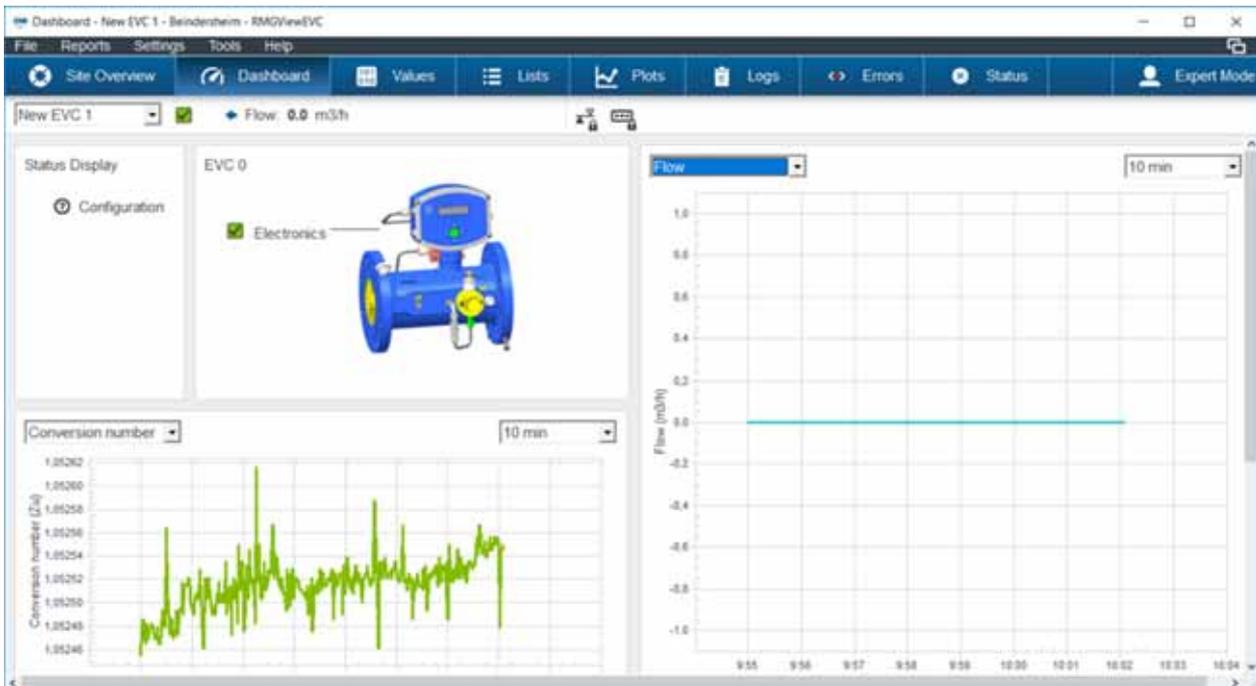


Fig. 4-2: Dashboard

In the window **Dashboard** you can display the current measurement values of the EVC.

- Status Display** Symbols for the user-defined warning and alarm signals.
- Frequency
 - Flow rate
 - Pressure
 - Temperature
 - Current output
 - Conversion number
 - Compressibility
- ⇒ Chapter 3.3, „Status icons“ on page 29

Trend overview



Fig. 4-3: Trend overview

The trend overview in figure 4-3 shows the temporal behaviour of the gas temperature.

4.3 Values

RMGView^{EVC} > Select Site > Values

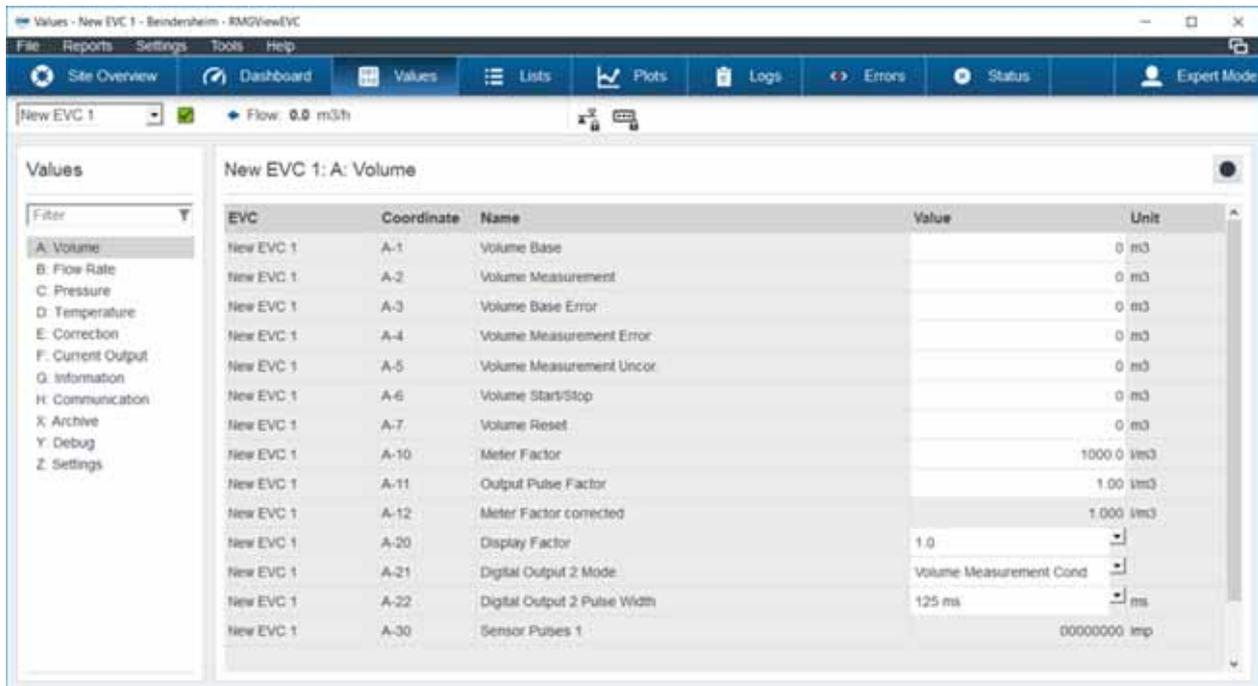


Fig. 4-4: Values

In the **Values** window you can have the actual data, measured values and parameter displayed. The data, measured values and parameter are read out via the RMGView^{EVC} from the EVC.

Values List with predefined data, measured values or parameter lists. The parameters associated can be displayed in the right-hand window area.

Filter Filter panel for searching for data, measured values or parameters, e.g. frequency. For the search you can enter keywords or parts of keywords but not use wildcards.

EVC Name of the electronic volume corrector.

Coordinate Memory cell for the parameter in the device. The parameter is stored in a coordinate system. A parameter can be addressed using the coordinates (letter for the column, number for the row).

The parameter can be called up using the **Lists** window and selected for tasks e.g. creating user-defined lists.

⇒ „Lists“ on page 48

| | |
|-----------------------|---|
| Name | Description of the parameter to be measured. |
| Value, unit | Numerical value and unit of the parameter to be measured. |
| Modbus address | Address of the communication protocol between PC and EVC. |

4.4 Lists

RMGView^{EVC} > Select Site > Lists

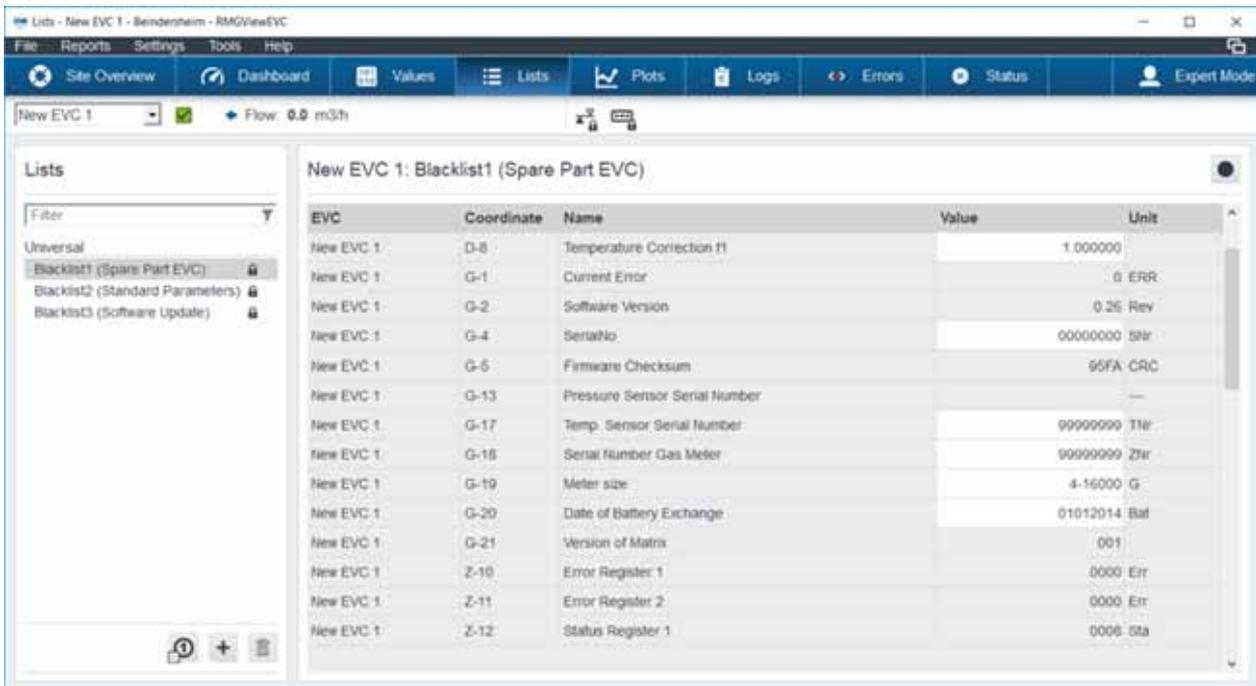


Fig. 4-5: Lists

In the **Lists** window you can, in the left-hand window sector, administer the predefined and the user-defined lists with the system parameters contained. In the right-hand window area you can view the parameter in the selected list. With lists you configure the parameter that are to be read out of the device.

Lists Universal or site specific list. A list can contain predefined or user-defined system parameter:

- Universal = Universal lists are configured with parameters for all types of EVCs in a site.
- Site-specific = Site-specific lists are configured with parameters for a selection of certain types of EVC in a site.



- Predefined lists are marked with the symbol of a locked padlock and cannot be changed or deleted.

- User-defined lists are shown without a symbol and can be changed or deleted.



- Several meters in a list are marked with the multi-EVC symbol.

- For universal parameters the symbol contains a list with values for all EVCs of a site.

- For site-specific parameters the symbol contains a list with values for all EVCs of a site.

Filter Filter panel for searching for data, measured values or parameters, e.g. frequency. For the search you enter keywords or parts of a keyword. You cannot use wildcards.

The columns are described in following position:

⇒ „Values“ on page 46

4.5 Plots

RMGView^{EVC} > Select Site > Plots

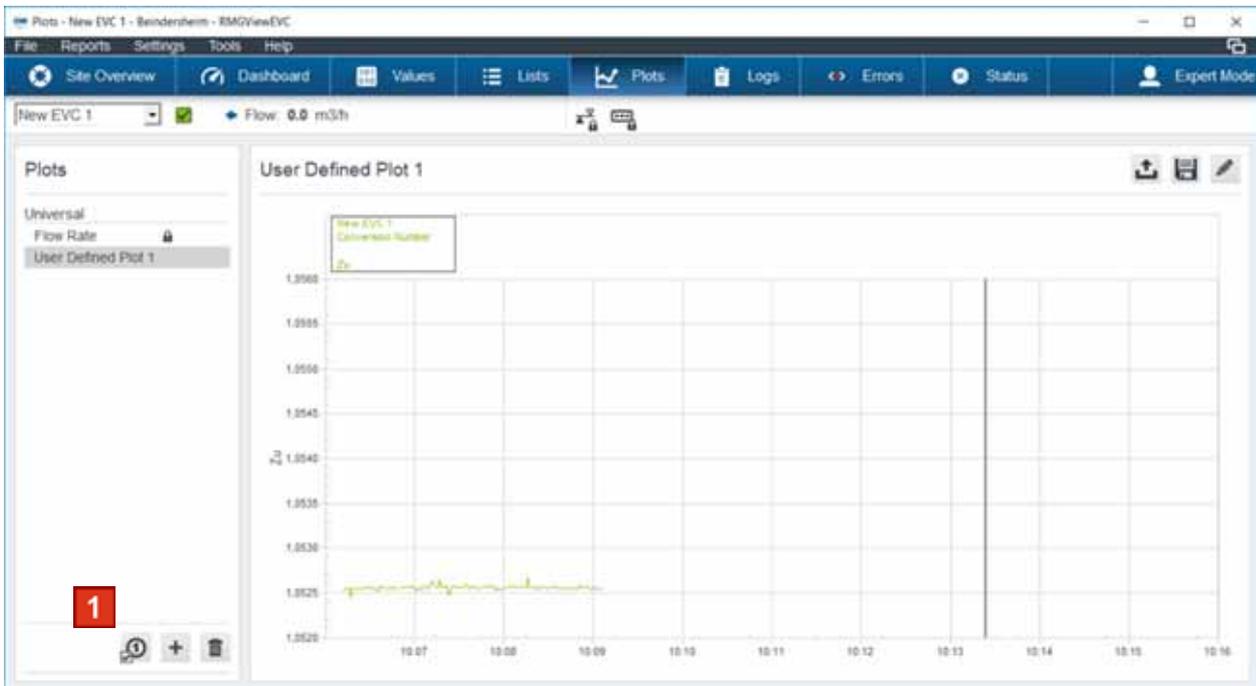


Fig. 4-6: Plots

In the **Plots** window you can show the trend as a graphic of the readings listed. Using the drop-down menu you must first select the device for the measurements.

In the left window you can select a parameter, e.g. temperature. In the right hand window sector the values measured for the parameter can be listed and displayed in a trend graphic.

Using the diskette symbol you can export a screenshot of the graphic displayed, as a jpg file.

⇒ „Save Plot as jpg Image“ on page 64

4.6 Logs

RMGView^{EVC} > Select Site > Logs

In the **Logs** window you can manage all RMGView^{EVC} reports.

In the left window sector you can select a protocol type:

- EVC History = Overview of all reports created.
- EVC Parameter Log = Reports of all changes to parameters.
- EVC Event Log = Reports of all events that have occurred.
- Modbus Messages = Reports of the connection status.

In the right-hand window sector the reports in the report types can be displayed.

4.6.1 EVC History

The **USM History** window all reports, changes and modifications created since the last login can be displayed.

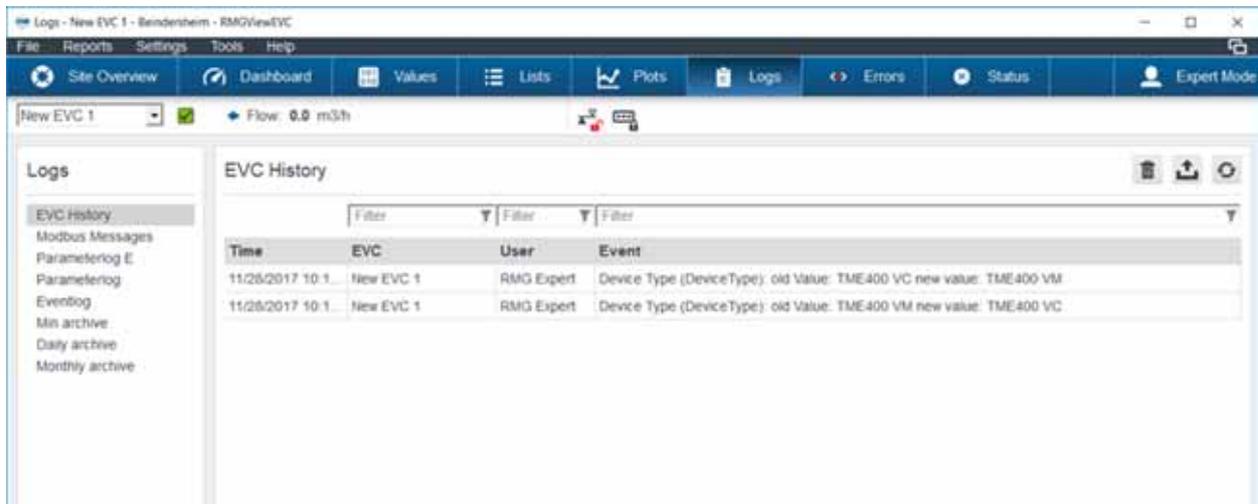


Fig. 4-7: USM History

Time Time stamp of the device for which a protocol entry was created.

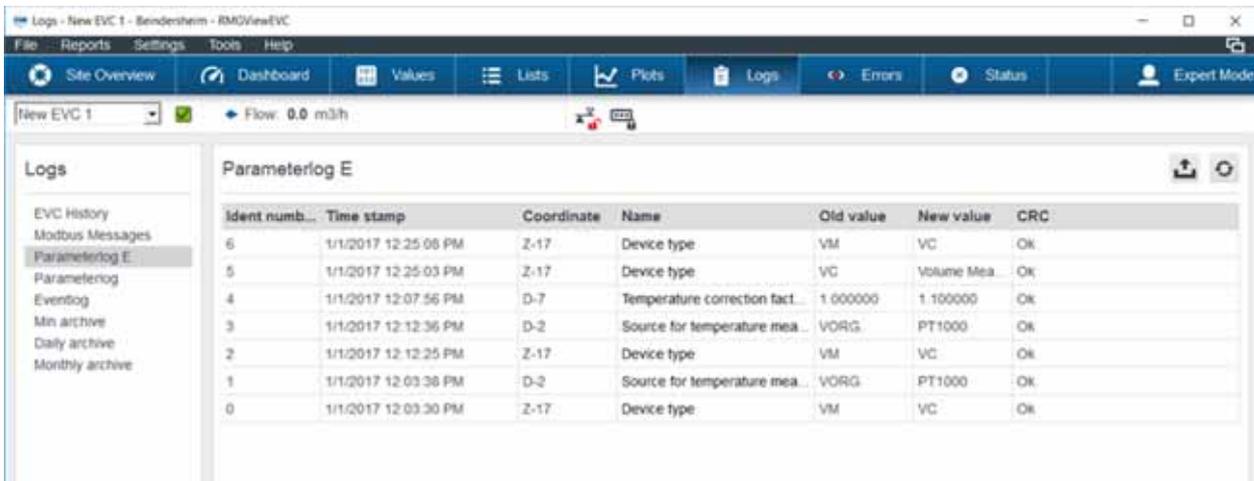
EVC Label of the device for which a protocol entry was created.

Operator Name of the user who caused an event.

Event Message for which a protocol entry was created.

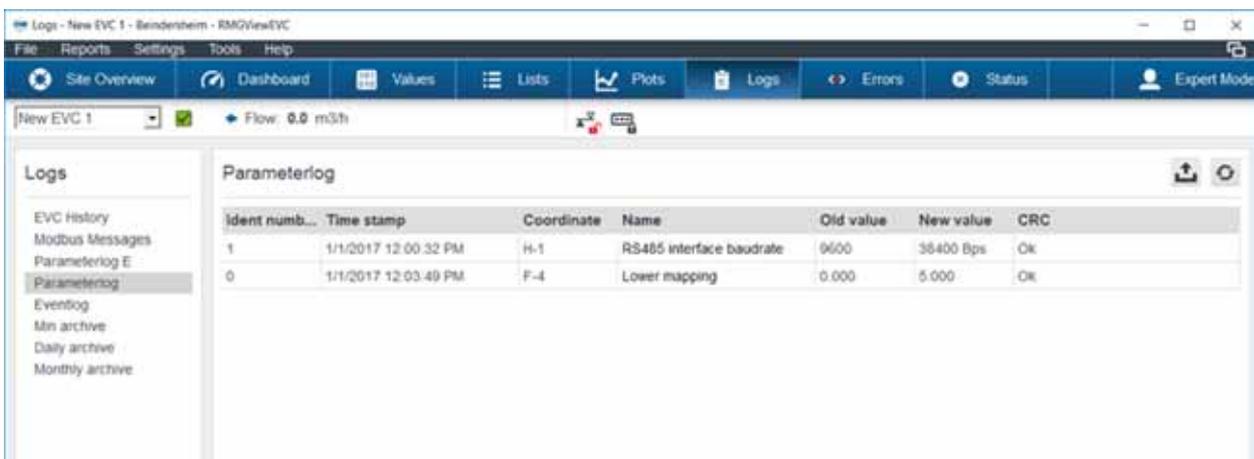
4.6.2 EVC Parameter Log

In the **EVC Parameter (E) Log** window you can display the reports for all parameters of the selected device. You select the device using the drop-down menu in the upper left hand corner.



| Ident numb... | Time stamp | Coordinate | Name | Old value | New value | CRC |
|---------------|----------------------|------------|--------------------------------|-----------|------------|-----|
| 6 | 1/1/2017 12:25:00 PM | Z-17 | Device type | VM | VC | Ok |
| 5 | 1/1/2017 12:25:03 PM | Z-17 | Device type | VC | Volume Mea | Ok |
| 4 | 1/1/2017 12:07:56 PM | D-7 | Temperature correction fact... | 1.000000 | 1.100000 | Ok |
| 3 | 1/1/2017 12:12:36 PM | D-2 | Source for temperature mea... | VORG | PT1000 | Ok |
| 2 | 1/1/2017 12:12:25 PM | Z-17 | Device type | VM | VC | Ok |
| 1 | 1/1/2017 12:03:38 PM | D-2 | Source for temperature mea... | VORG | PT1000 | Ok |
| 0 | 1/1/2017 12:03:30 PM | Z-17 | Device type | VM | VC | Ok |

Fig. 4-8: Protocols of the calibratable parameters E of the selected device



| Ident numb... | Time stamp | Coordinate | Name | Old value | New value | CRC |
|---------------|----------------------|------------|--------------------------|-----------|-----------|-----|
| 1 | 1/1/2017 12:00:32 PM | H-1 | RS485 interface baudrate | 9600 | 38400 Bps | Ok |
| 0 | 1/1/2017 12:03:49 PM | F-4 | Lower mapping | 0.000 | 5.000 | Ok |

Fig. 4-9: Protocols of the not-calibratable parameters of the selected device

Parameterlog E Calibratable parameters.

Parameterlog Not-calibratable parameters.

Ident number Sequential number 0 to 9999, followed by a rollover.
(helps to search for events when one or more times the time has been changed; e. g. longer downtimes of the EVC's.)

Time Time stamp when a parameter change was logged.

Coordinates Memory cell for the parameters in the device. The column is described in the following position:

⇒ „Coordinate“ on page 46

Name Identifier of the parameter.

Old value Value no longer currently valid.

New value Currently valid value.

CRC Check sum control.

4.6.3 EVC event log

In the **EVC Event Log** window you can display the reports for all occurring events of the selected device. You select the device using the drop-down menu in the upper left-hand corner.

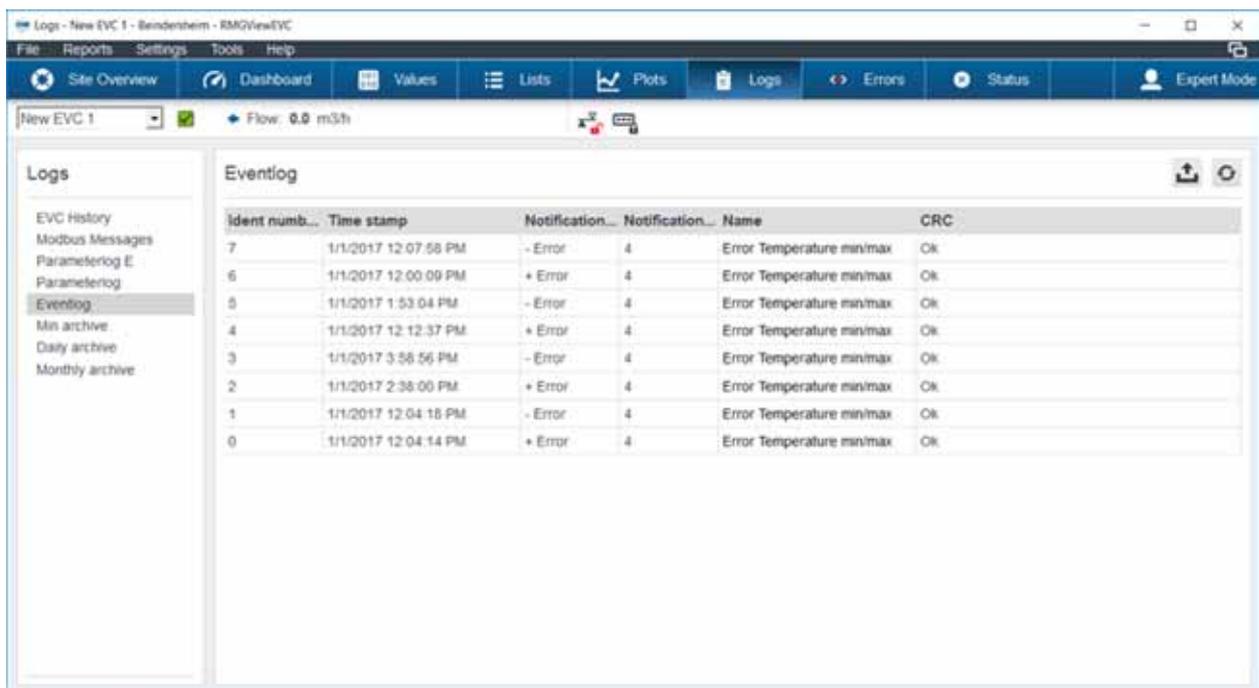


Fig. 4-10: Protocols of the parameters of the selected device

Ident number Sequential number 0 to 9999, followed by a rollover (see above).

Time stamp Time stamp when an event was logged.

Notification type Type of event, e.g. error or warning.

- = going error
(Error / warning was active)

+ = coming error
(Error / warning is actually active)

Notification number Error identification number.

Name Error description.

CRC Check sum control.

4.6.4 Modbus messages

In the **Modbus Messages** window you can display the messages of the status of the communication protocol.

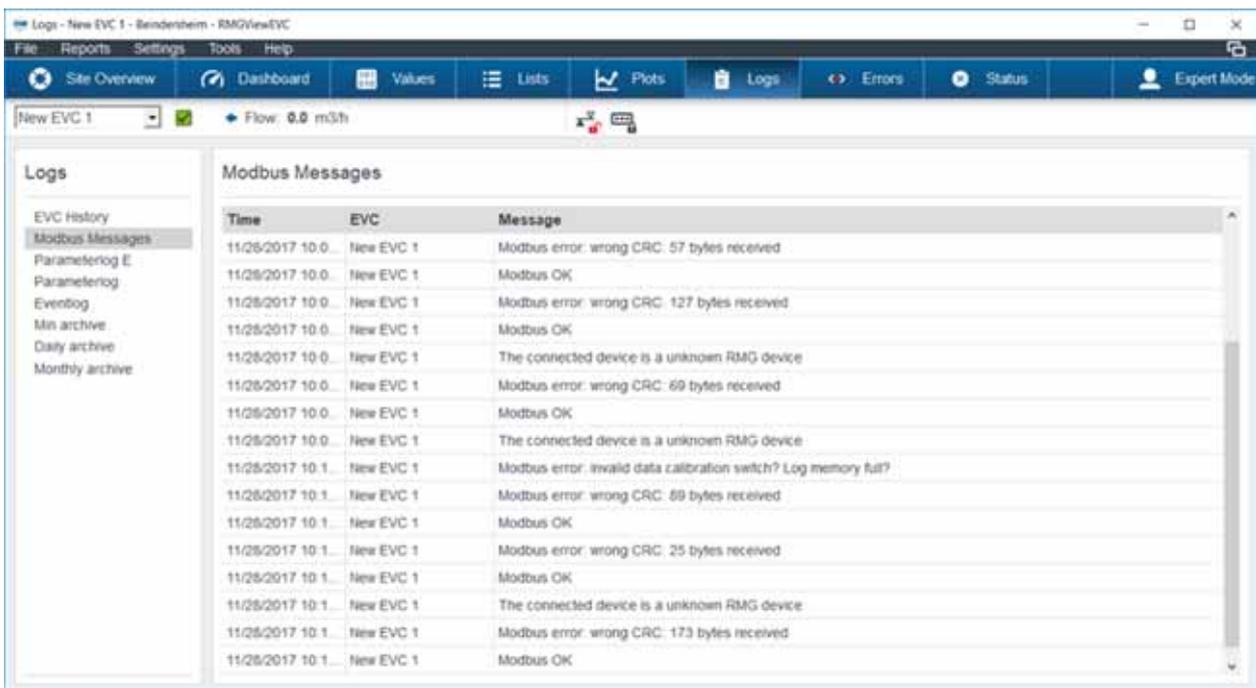


Fig. 4-11: Messages to the status of the communication protocol

Time Time stamp of the device for which a protocol was created.

EVC Name of the electronic volume corrector.

Message Messages on the status of the communication protocol.

4.7 Errors

RMGView^{EVC} > Select Site > Errors

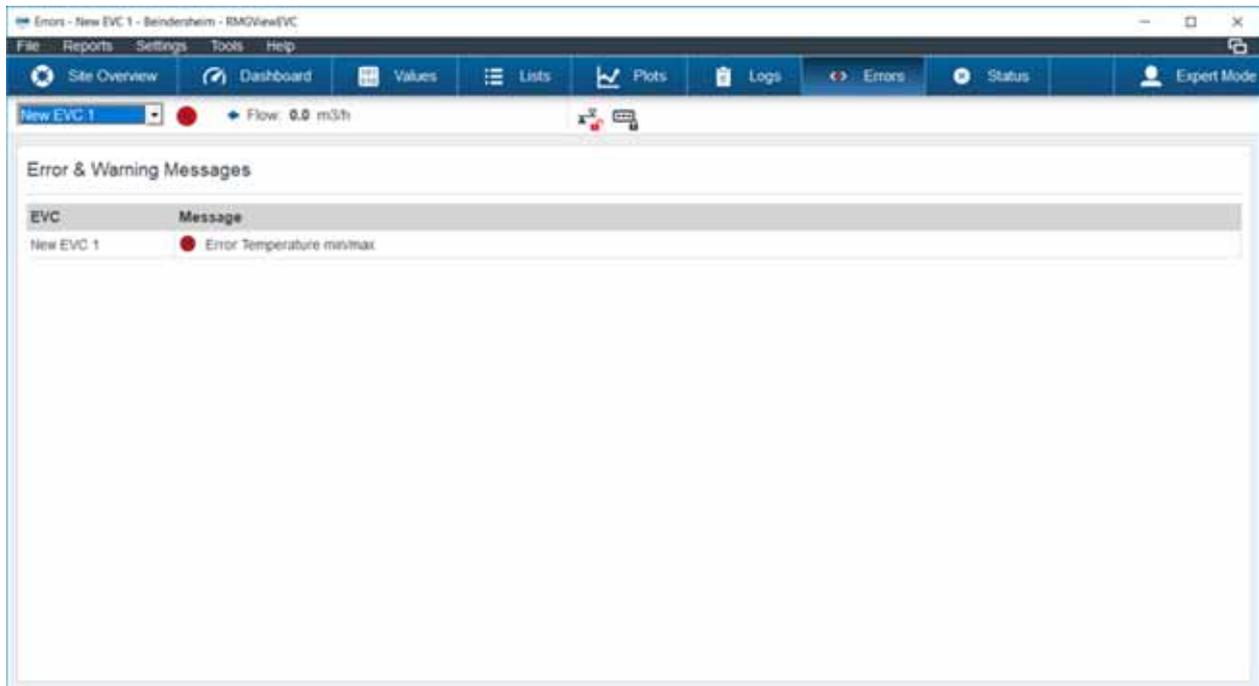


Fig. 4-12: Errors

In the **Errors** window you can display the warnings and error messages for the EVC selected or for all EVCs.

EVC Name of the electronic volume corrector.

Message Status display with messages about warnings and errors.

⇒ Chapter 3.3, „Status icons“ on page 29

4.8 Status

RMGView^{EVC} > Select Site > Status

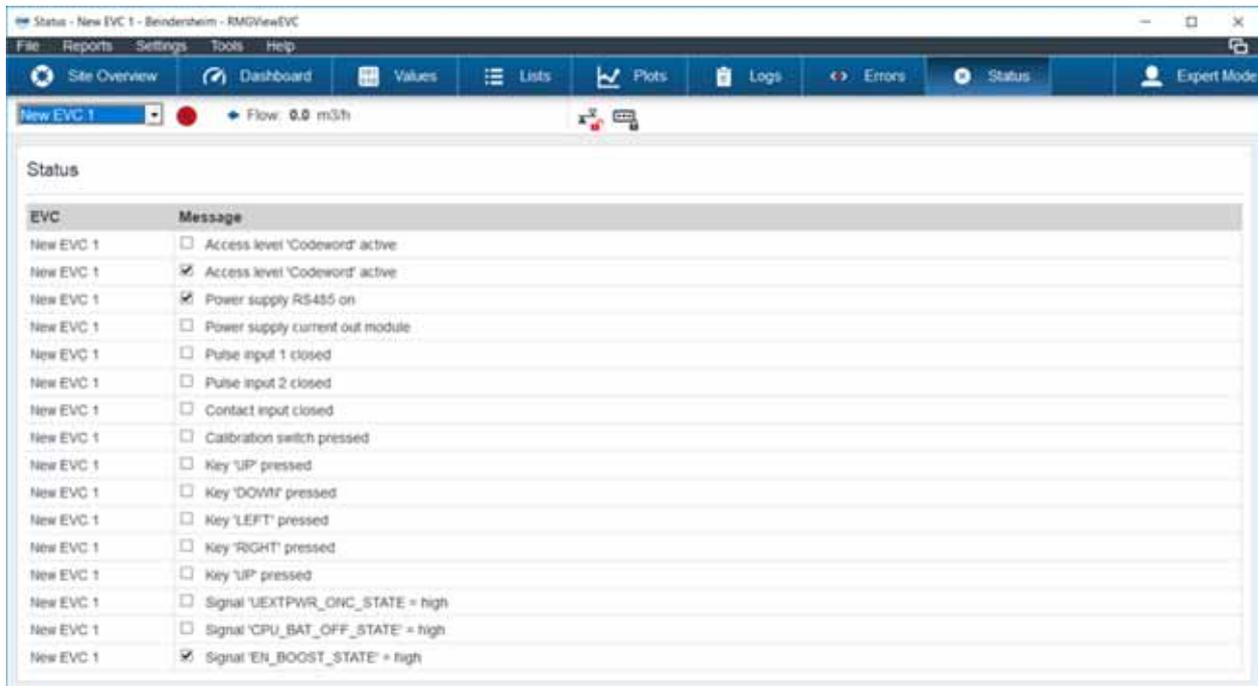


Fig. 4-13: Status

EVC Name of the electronic volume corrector.

Message Status messages.

⇒ Chapter 3.3, „Status icons“ on page 29

4.9 Password Input

RMGView^{EVC} > Select Site > Multi-function Ribbon > User Symbol

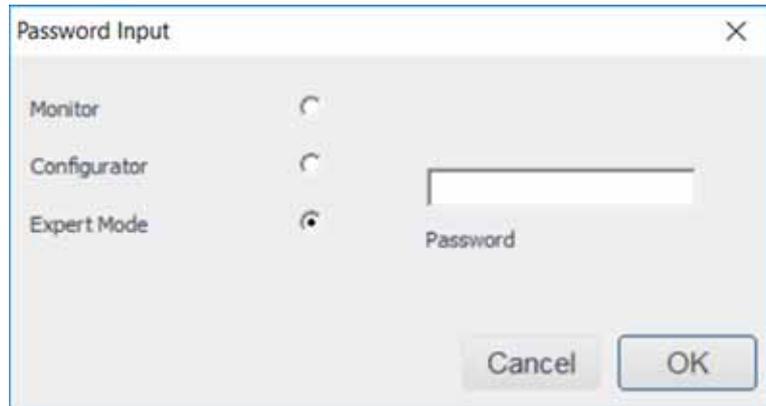


Fig. 4-14: Password Input

In the **Password Input** window you can log-in for a user level. Depending on the user level you have extended access to RMGView^{EVC}.



Depending on the user level certain contents and functions of RMGView^{EVC} are displayed or hidden.

Radio button user groups

Radio button for selecting the user groups.

- Monitor
- Configurator
- Expert mode

Notice

The user group "Experts" is reserved for RMG employees, only. However, all relevant settings can be made as a configurator.

Further information on the possibilities of the user groups can be found here:

⇒ Chapter 3.4, „User levels“ on page 31

Password

Entry field for the password.

As a default setting you may use the following passwords:

- configurator: RMGTME-P

4.10 Record data

RMGView^{EVC} > Select Site > Lists > Filled Circle

RMGView^{EVC} > Select Site > Values > Filled Circle

In the figures, which you may see if you activate one of two links above, a small black circle on a light-grey square can be seen in the upper right corner. If you click on it with the mouse, the following window is opening.

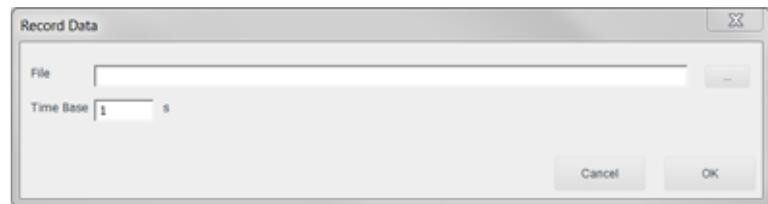


Fig. 4-15: Record data

In the **Record Data** window you can record the trend data and save it in a file.

File Storage location and name of the file.

Time Base Recording intervals of the trend values.

As soon as the entries in this field are confirmed with "OK", the recording starts. This is indicated by changing the circle to a square. At the same time, a clock is running, which indicates the duration of the recording.

By clicking on the square the recording ends.

4.11 Edit list (Creating a new list)

RMGView^{EVC} > Select Site > Lists > Select List > Pencil Symbol

*RMGView^{EVC} > Select Site > Lists > Plus Symbol > Select Type
> OK Button*

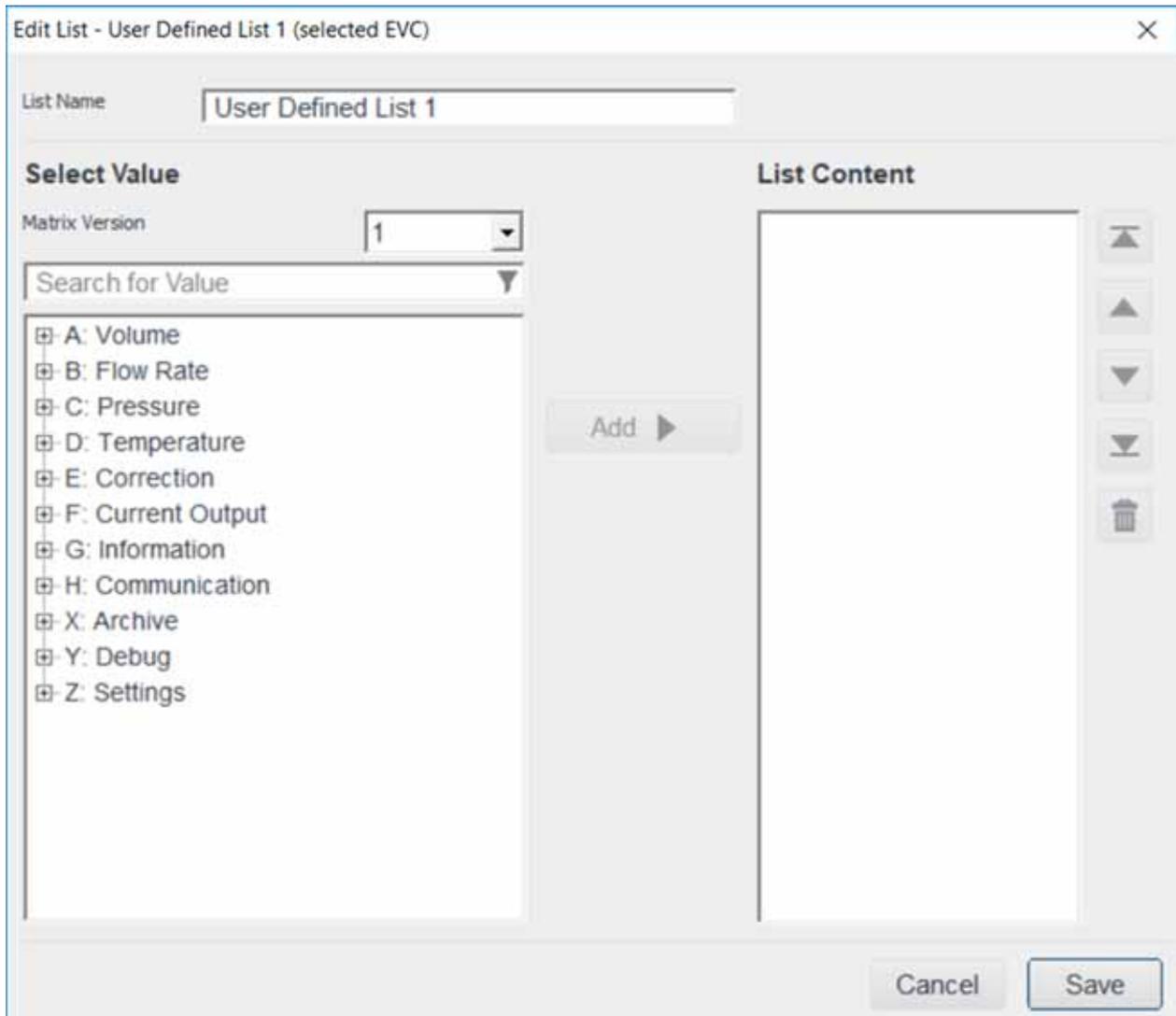


Fig. 4-16: Edit list

In the **Edit List** window you can process the parameter lists for each EVC or create new ones. Using the parameter readings reports and maintenance reports can be created. You can reuse the parameter lists for devices of the same type.

The elements of the window are shown in the following position.

⇒ „Site Specific, User-Defined List (plot)“ on page 61

In addition following fields are displayed:

- List Name** Identifier for self-defined list.
- Select Value** Select parameters for the self-defined list.

4.12 New User-Defined List: Select Type

RMGView^{EVC} > Select Site > Lists > Plus Symbol

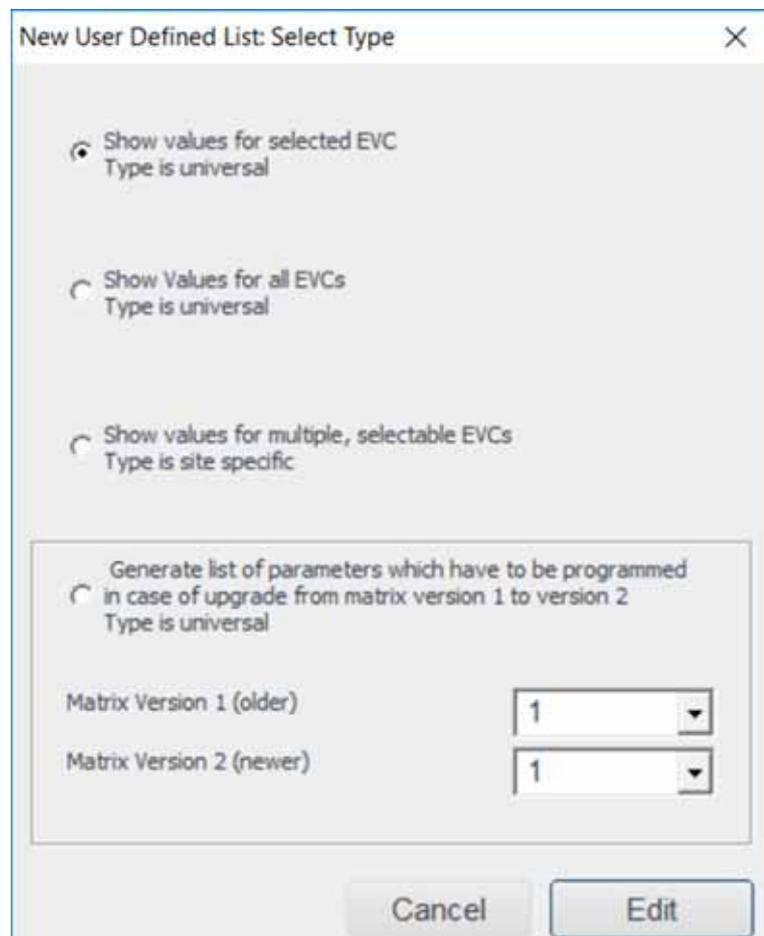


Fig. 4-17: *New User-Defined List: Select Type*

In the **New User-Defined List: Select Type** window you can create a new parameter list. Using parameter lists the values measured in the device can be read out.

- Display values for the selected EVC.
Type is universal:
List for the selected EVC. List of EVCs is selectable for all sites.
- Display values for all EVCs
Type is universal:
List of all EVCs in a site. List of EVCs is selectable for all sites.
- Display values for different, selectable EVCs.
Type is site-specific:
List for selected types of EVCs of a single site.
- Framed field:
Is only available for user level service personnel.

4.13 Site Specific, User-Defined List (plot)

RMGView^{EVC} > Select Site > Lists / Plots > Plus Symbol > Select Type > OK

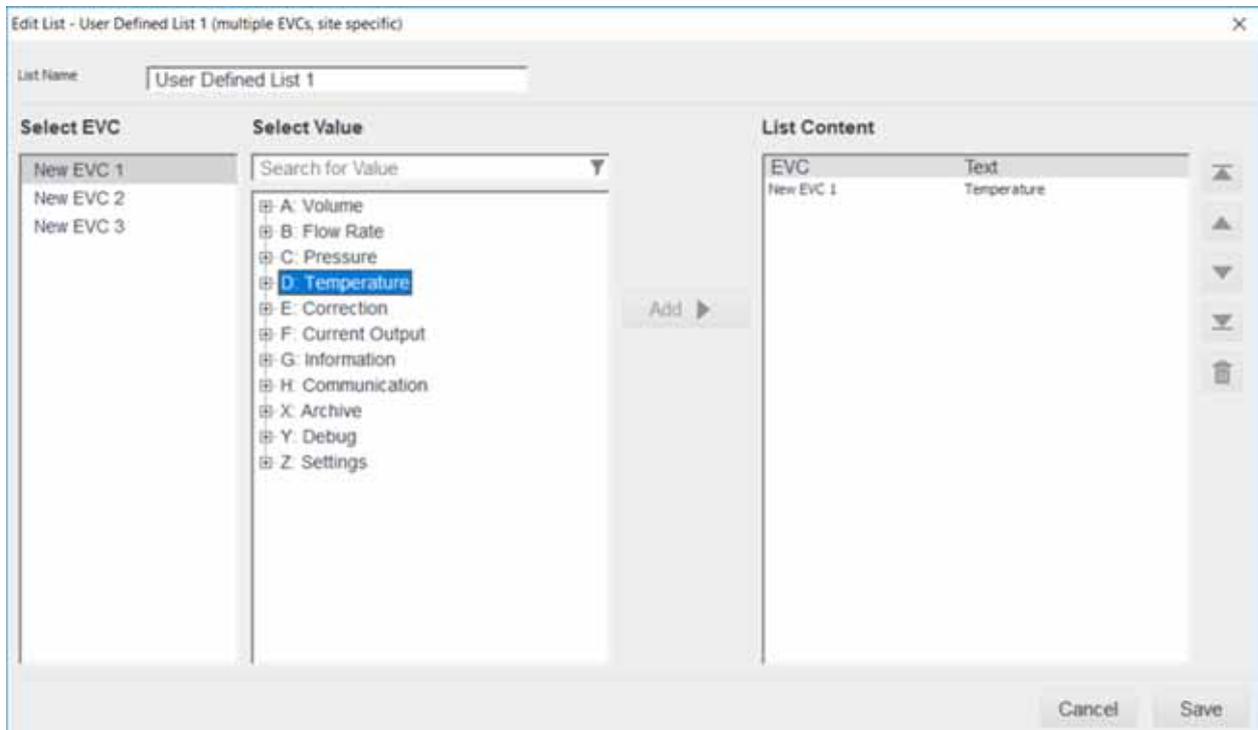


Fig. 4-18: User-defined list

In the **Edit List** window you can compile self-defined lists of parameters or measurements or self-defined lists of parameter

plots Trend overviews are created using the values read out for the parameters or the values measured. You can reuse the parameter lists and parameter plots for devices of the same type.

| | |
|---|--|
| Name of the plot | Label for plot. |
| Select EVC | List of EVCs in the site. |
| Select value | Select parameters for the plot graphic. |
| Filter panel (search for values) | Text panel to filter the list of parameters. |

Values in the plot

| | |
|-----------------------------------|--|
| EVC | Name of the electronic volume corrector. |
| Name | Parameter label for the plot. |
| Minimum (only Plot) | Minimum value for the parameter in the plot. |
| Maximum (only Plot) | Maximum value for the parameter in the plot. |
| Color (only Plot) | Name of the color for the graphic in the plot. |
| Line Thickness (only Plot) | Line thickness in pixels. |

Values in the list

| | |
|-------------|--|
| EVC | Name of the electronic volume corrector. |
| Text | Parameter in the self-defined list. |

4.14 Color, Line Thickness

RMGView^{EVC} > Select Site > Plots > Pencil Symbol

In the **Color, Line Thickness** window you can configure the graphic display of the trend curves for individual ultrasonic paths.

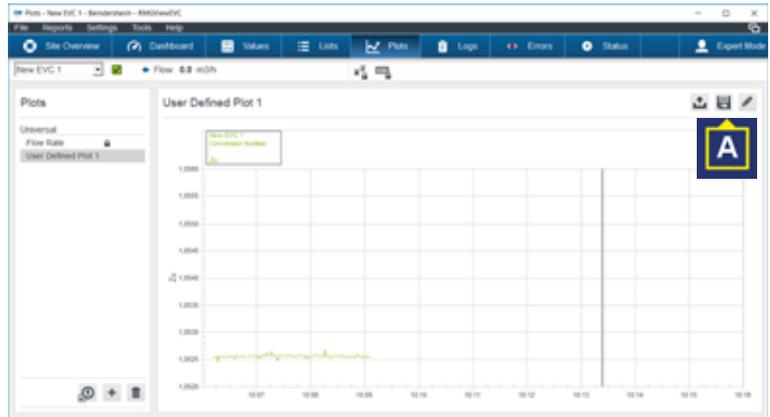


Fig. 4-19: Setting color and line thickness

You can activate the pencil icon (right above A).
The menu "Edit Plot" opens.

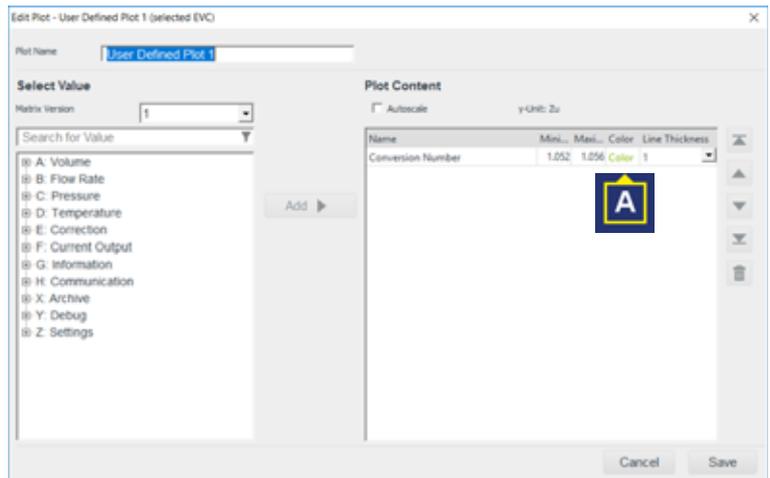


Fig. 4-20: Color and line size selection

A double-click on "Color" (above A) opens a color selection menu.

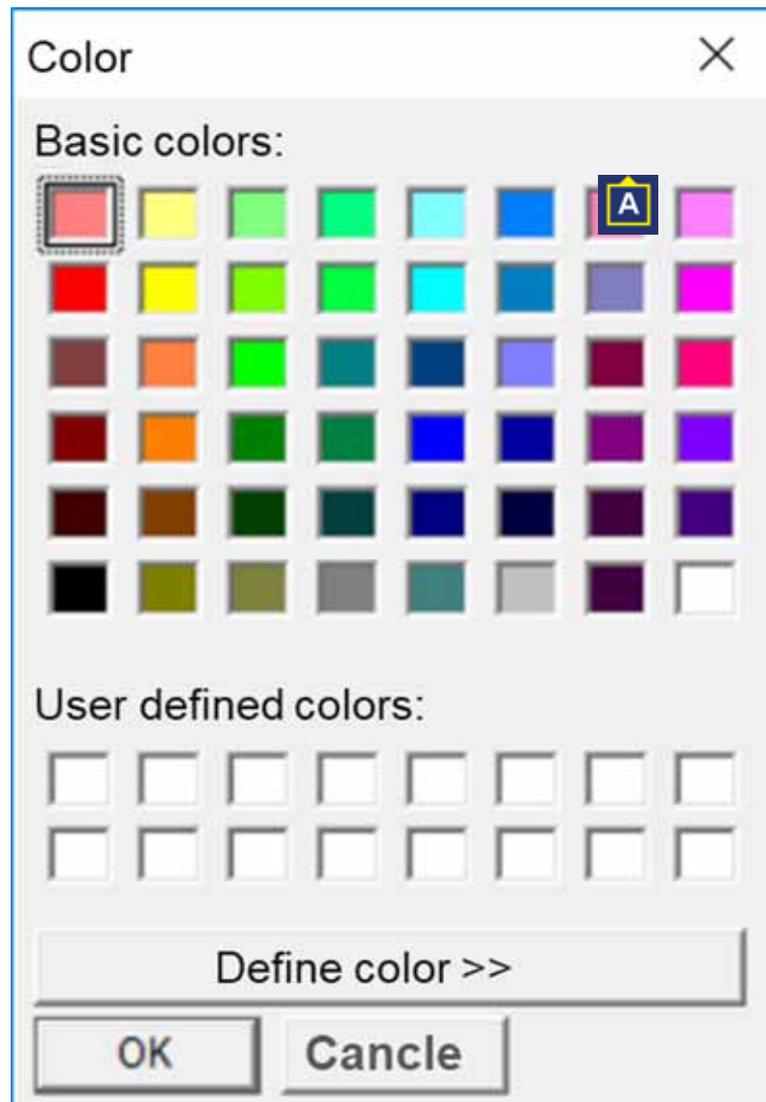


Fig. 4-21: Color selection

Any color can be set here.

To the right of the color selection in the previous picture, the line size can be selected in the range of 1 to 6 pixels.

4.15 Save Plot as jpg Image

RMGView^{EVC} > Select Site > Plots > Diskette Symbol



Fig. 4-22: Save Plot as a jpg Image

In the **Save Plot as jpg Image** window you can export the current display as a jpg image.

x Pixels Width x height of the image in pixels.

4.16 Information on installation

RMGView^{EVC} > Select Site > Settings > Site Information

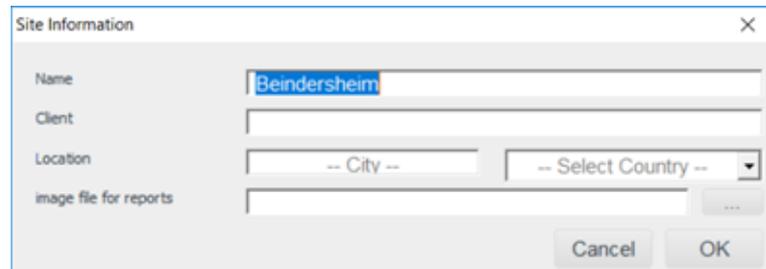


Fig. 4-23: Site information

In the **Site Information** window you can manage the information on the client and the location of his site.

- Name** Station name of the site.
- Customer** Name of the customer.
- Location** Location of the site.
- Select country** Location of the site.
- Always use this site, Skip Site Selection** If you want to manage a single site, then you can at the start of RMGView^{EVC} skip the window for Site Selection.
 - Skip the **RMGViewEVC – Select Site** window.
 - Open **RMGViewEVC – Select Site** window.

4.17 Communication settings

RMGView^{EVC} > Select Site > Settings > EVC Settings

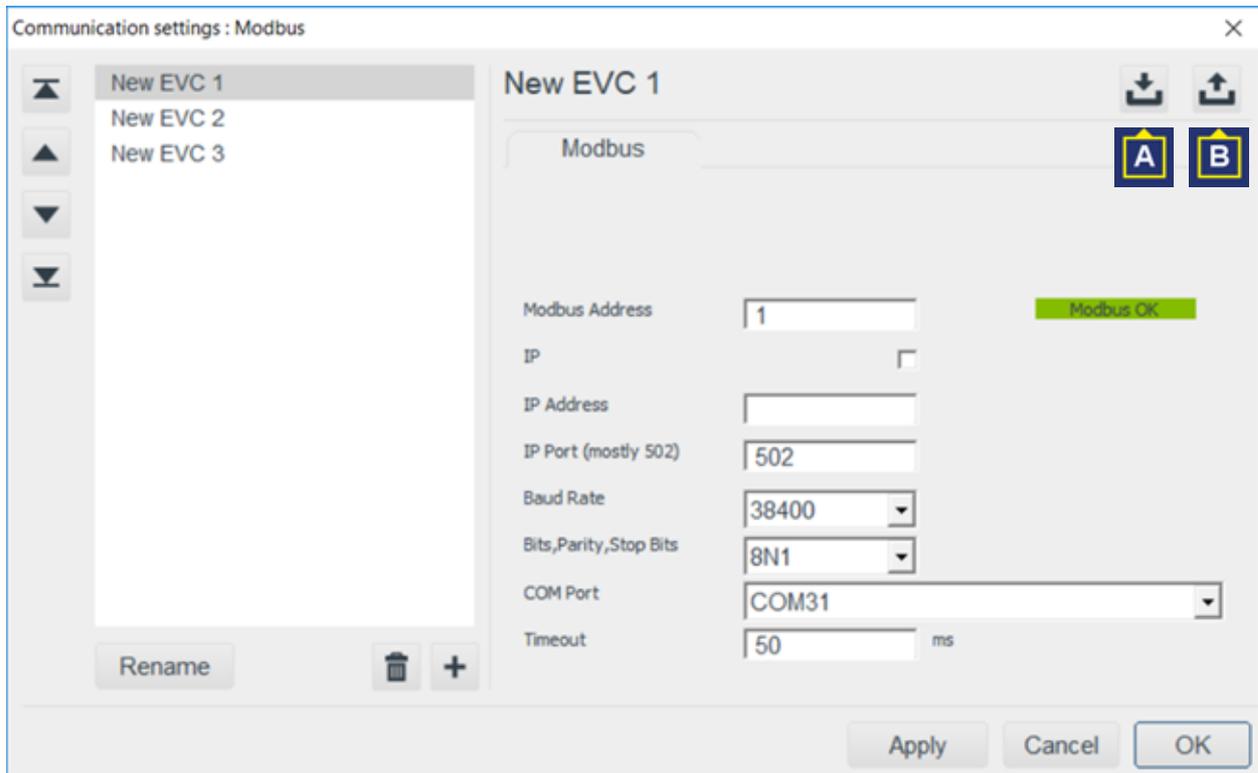


Fig. 4-24: USM Settings

In the **EVC Settings: Modbus** window you can conduct the configuration of the EVC in the site using the tabs.

In the left window sector you can maintain the list of the EVCs:

- Select EVC
- Rename EVC
- Delete EVC
- Add EVC

Import This button can be used to import the configurations from a file.

Export This button can be used to export the configurations to a file.

Modbus address Address of the EVC at the bus.

IP For connection use Internet protocol address of a network or serial interface.

- IP-Adresse (network cable)

- Serial interface (e.g. RS 485) (serial cable)
- IP Address** IP address, for the connection between EVC and RMGView^{EVC}, e.g. 10.20.13.34
- IP-Port (usually 502)** Address of the EVC at the bus.
- Baudrate** Transmission speed of the serial communication.
(Recommended: 38400)
- Bits, Parity, Stopbits** Interface parameters.
(Recommended: 8N1)
- Com-Port** Designation of the serial connection for the connection between EVC and RMGView^{EVC}.
- Timeout** Time until a transmission attempt is rejected as an error.
Recommendation for connections:
IP address = Timeout of 500 ms (milliseconds).
Serial interface = Timeout of 50 ms (milliseconds).

4.18 Password List

RMGView^{EVC} > Select Site > Settings > Manage Passwords



Fig. 4-25: Password List

In the **Password List** window you can manage the user and passwords.

- Name** User's name.
- Password** Password character sequence.
- Unnamed column** User level selection

4.19 User Settings

RMGView^{EVC} > Select Site > Settings > User Settings

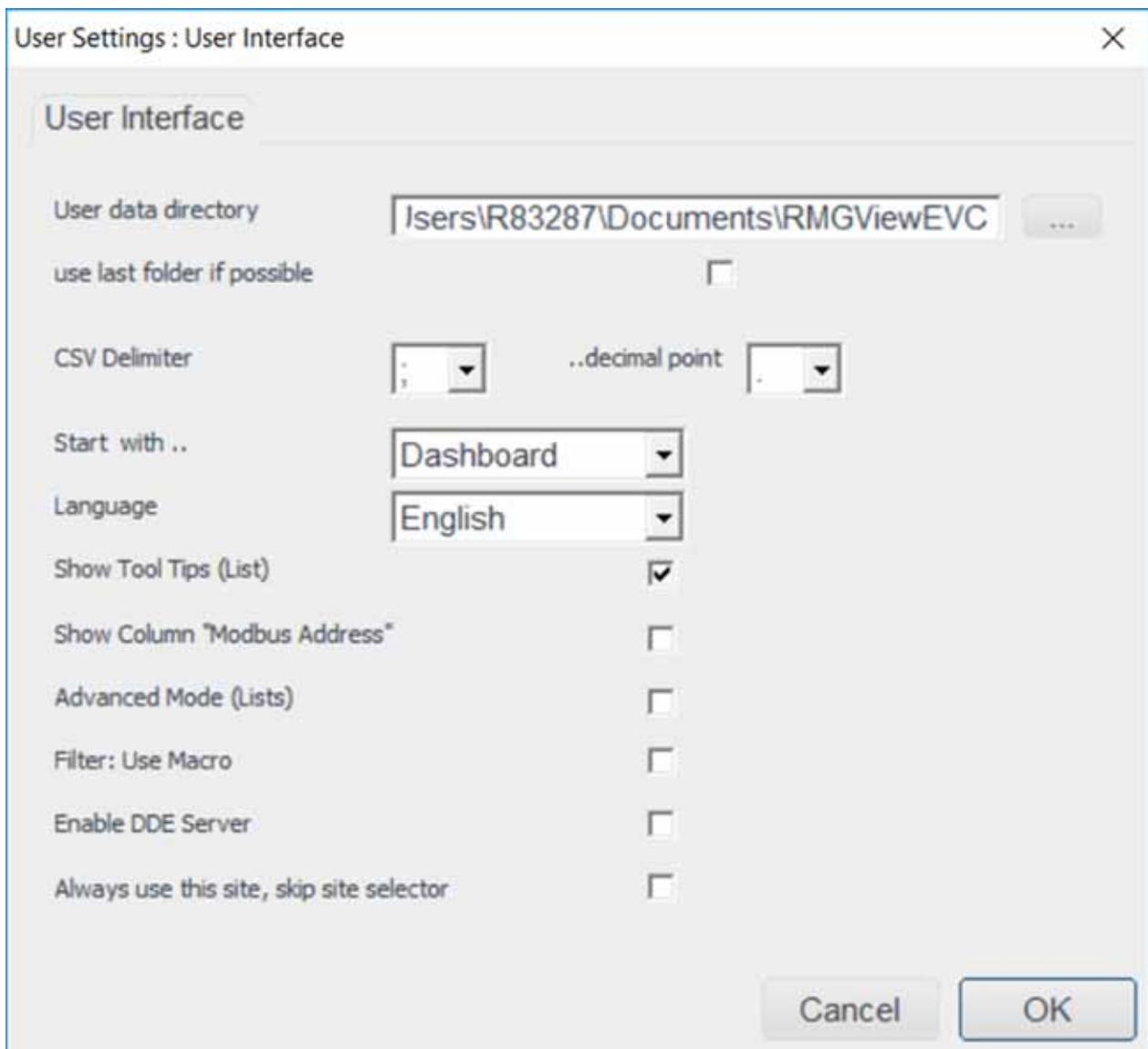


Fig. 4-26: User Settings: User Interface

| | |
|---|---|
| | In the User Settings: User Interface window User Interface you can maintain the user-defined settings in RMGView ^{EVC} for the graphic interface. |
| User data directory | Source path for user interface configuration file. |
| Use last folder if possible folder as standard | Use last default setting: <input checked="" type="checkbox"/> Use the lastly selected directory path. <input type="checkbox"/> Do not use default setting. |
| CSV Delimiter | Selection of the delimiter used in CSV files. <ul style="list-style-type: none"> • ; = use semicolon separator. • TAB = Use tabulator separator. |
| .. decimal point | Select the indicator for the decimal place for values. <ul style="list-style-type: none"> • . = Use point, e.g. 15.0 bar. • , = Use comma, e.g. 15,0 bar. |
| Start with.. | Select the window with which RMGView ^{EVC} is started: <ul style="list-style-type: none"> • Site Overview • Dashboard • Values • Lists • Plots • Reports • Errors • Status |
| Language | Language to be used for the user interface. |
| Display tool tips (list) | Display information on list elements in tool tips. <input checked="" type="checkbox"/> Display tool tips for list elements. <input type="checkbox"/> Do not display tool tips for list elements. |
| Filter: Use Macro | Filter macro and display. <input checked="" type="checkbox"/> Filter for macros and list. <input type="checkbox"/> Do not filter for macros. |
| Always use the actual site Site selection | If activated, the system selection dialog is skipped. The system is always shown with the last one selected. |

4.20 License Info

RMGView^{EVC} > Select Site > Help > About RMGView^{EVC}

In the **License Info** window, information on the software license is displayed: If you have any questions or queries please contact the RMG service personnel.

Notice

Till today the RMGView^{EVC} software is available without any license fee. Therefore, no information window is opening actually.

⇒ „Manufacturer“ on page I

4.21 Process License

RMGView^{EVC} > Select Site > Settings > RMGView^{EVC} Process License

4.22 Report Editor

RMGView^{EVC} > Select Site > Reports > User-Defined Reports > Report Editor

In the **Report Editor** window you can compile protocols according to your requirements. A training by RMG is required before working with the Protocol Editor.



As an alternative RMG offers the service of creating client-specific reports.

If you have any questions or queries please contact the RMG service personnel.

⇒ „Manufacturer“ on page I



5 Operation

In this chapter you will receive information on carrying out operations with the software.

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5.1 User settings

In this chapter you will receive information on logging in and out of a user level.

5.1.1 Login users

The users are assigned the access rights for the user level by logging in with their password.

■ Logging users in at a protected user level

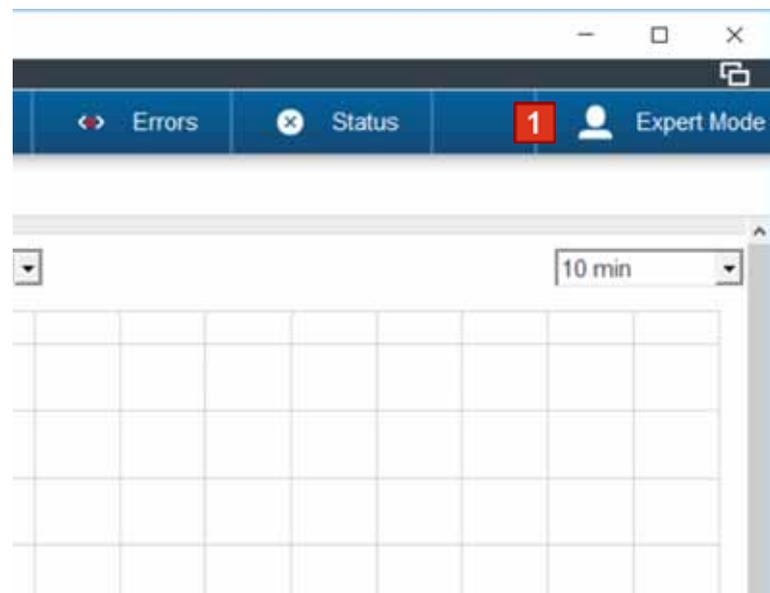


Fig. 5-1: Opening Password Input window



The following steps are conducted from the **Dashboard - All EVCs** RMGView^{EVC} window.

⇒ Chapter 4.1, „Site overview“ on page 43



- 1 Click the **Password Input** button.
The **Password Input** window opens.

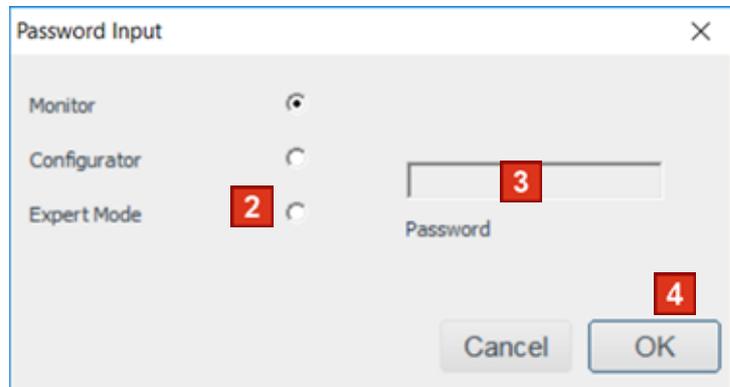


Fig. 5-2: Login user

- 2 Click the radio button for the user level e.g. **Configurator**.
- 3 Enter the password in the **Password** field.
- 4 Click the **OK** button.



If the password was entered correctly, the button on the **Password Input** field changes to the name of the user e.g. **Expert Mode**.

If the password was not entered correctly „wrong password“ appears.



The number of login attempts is not limited.

5.1.2 Log out users

For security reasons you must make sure that you log out of the protected user level before you leave the PC.

■ Logging out users from a protected user level

- 1 Open the **Password Input** window.

For this you carry out following steps:

⇒ Step 1, „Logging users in at a protected user level“ on page 74

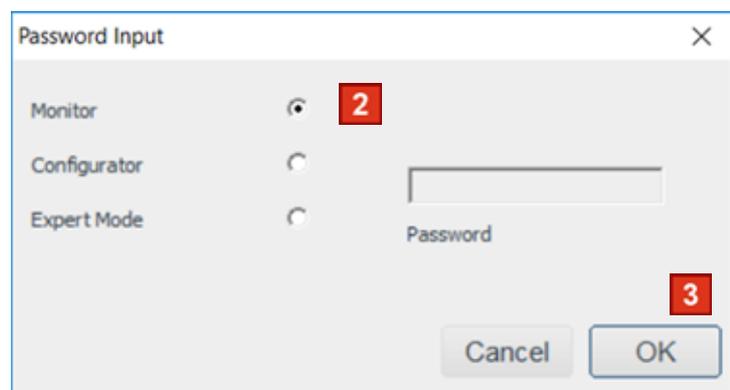


Fig. 5-3: Login users

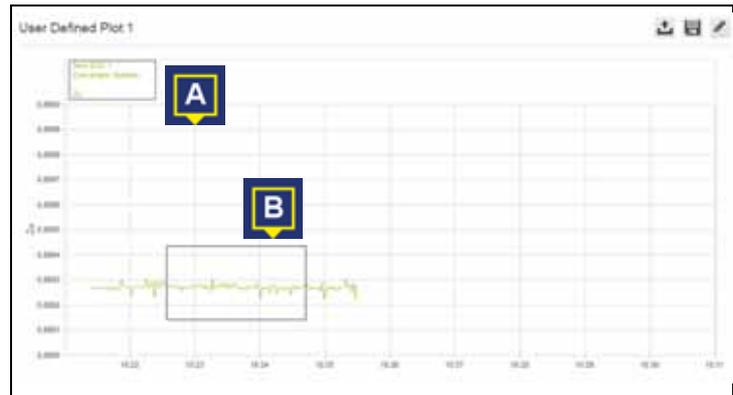
- 2 Click the **Monitor** radio button.
- 3 Click the **OK** button.

Access to the previously opened user level is disabled.

5.2 Adjusting the size of graphic contents

In order to enhance your view, you can enlarge or shrink areas of diagrams (plot).

■ Enlarging areas



A A display area of the plot. B Area marked for enlargement

Fig. 5-4: Zooming a plot

- 1 With left mouse button pressed mark the desired area **(B)** of the plot **(A)**.
- 2 After releasing the left mouse button the view of the marked frame is enlarged.

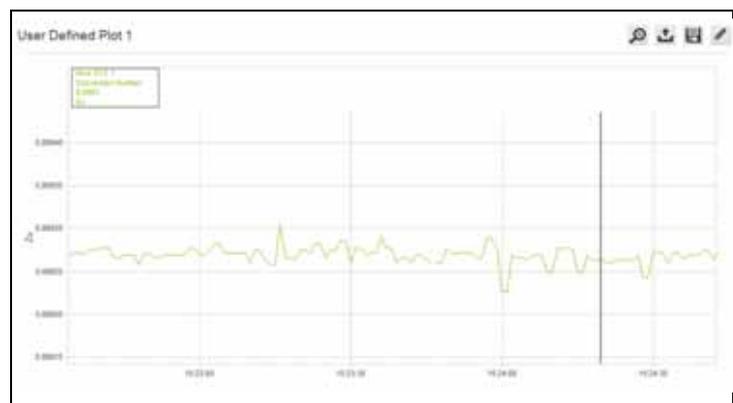


Fig. 5-5: Zoomed area B of the plot

■ Reset areas

- 1 Press the **Z** key on the keyboard.

The previously enlarged view is set back to the original size.

5.3 Working with windows

In this chapter you will receive information on organizing the windows.

5.3.1 User defined window configurations

You can arrange the windows on your desktop and save the configuration under a desired name. This configuration can be opened again any time.

■ Save Window Configuration

- 1 Open the **Dashboard - All EVCs** window.
⇒ Chapter 4.1, „Site overview“ on page 43
- 2 Arrange the windows on the desktop to your requirements.

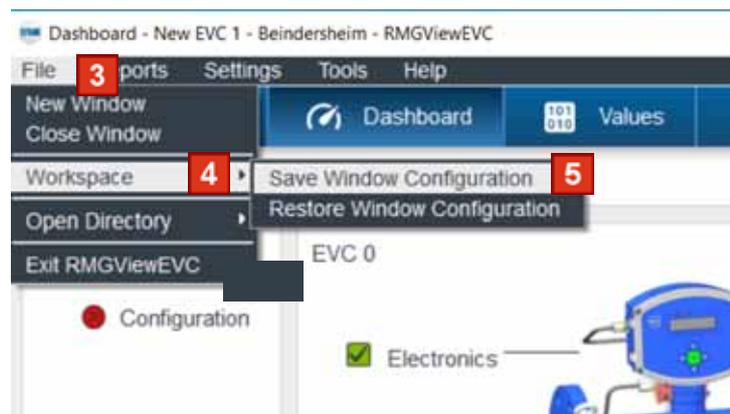


Fig. 5-6: Save window configurations

- 3 Click menu item **File** in the menu bar.
- 4 Click menu item **Workspace**.
- 5 Click menu item **Save Window Configuration**.

The arrangement of the opened windows is saved as a RMW file.



Tip!

Give the RMW file a name that you can easily recognize as being your configuration.

■ **Opening window configurations**

- 1 Open the **Dashboard - All EVCs** window.

⇒ Chapter 4.1, „Site overview“ on page 43



Fig. 5-7: Save Window Configuration

- 2 Click menu item **File** in the menu bar.
- 3 Click menu item **Workspace**.
- 4 Click menu item **Restore Window Configuration**.

Windows are opened automatically and arranged according to the configuration on the desktop.

5.3.2 Cloning windows

■ Cloning windows

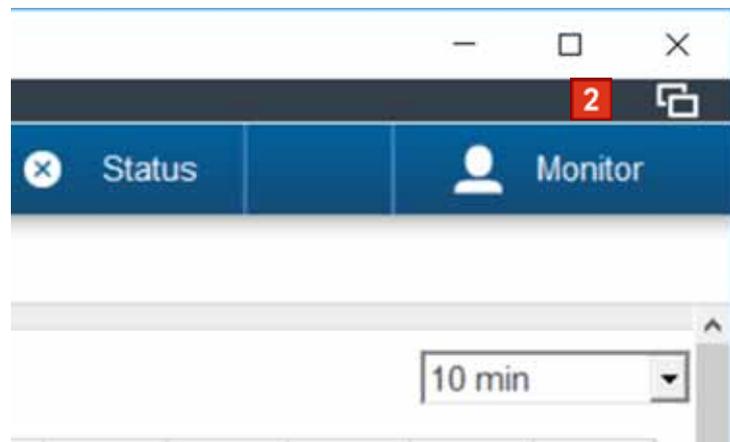


Fig. 5-8: Cloning buttons

- 1 Open window that is to be opened again.
- 2 Click the **Clone window** button.
The current window is opened once again.



5.3.3 Closing RMGView^{EVC}

You can close all RMGView^{EVC} windows with just a few mouse clicks.

■ Exiting the software

- 1 Open the **Dashboard - All EVCs** window.

⇒ Chapter 4.1, „Site overview“ on page 43

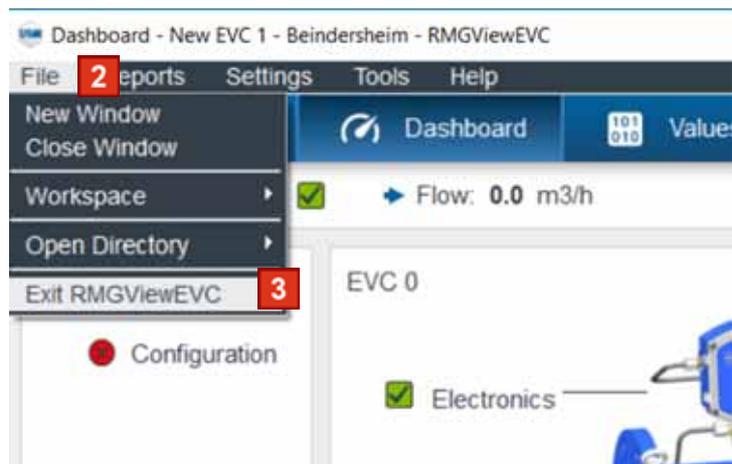


Fig. 5-9: Menu item RMGView

- 2 Click menu item **File** in the menu bar.
- 3 Click menu item **Exit RMGView^{EVC}**.

All windows of the software are closed.

5.3.4 Close windows for a device

■ Close windows

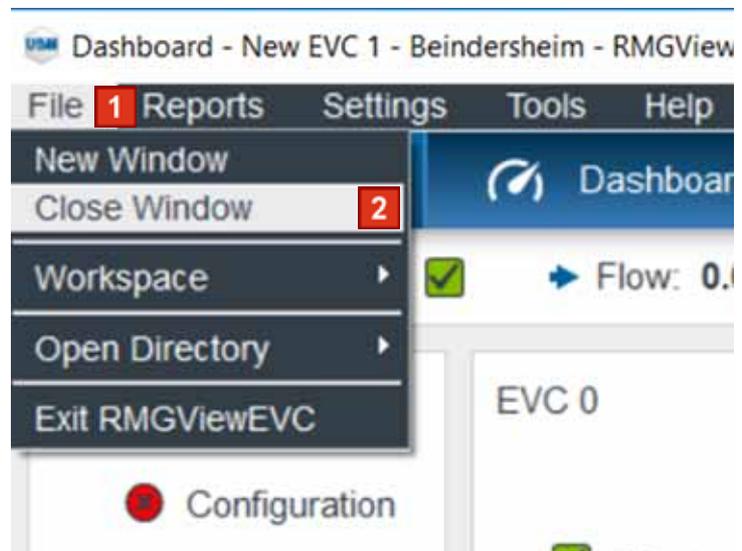


Fig. 5-10: Menu item RMGView

- 1 Click menu item **File** in the menu bar.
- 2 Click menu item **Close Window**.

The current window is closed.

5.4 Parametrize EVC



To use this function you have to login as a configurator user (at minimum).

In order to transfer values into the electronic volume corrector you first have to press the calibration button of the electronic volume corrector (see next figure: Calibration switch, red arrow). After pressing the opened calibration switch is indicated via blinking letters „Input“ in the display.

Notice that for this work the seal is broken. The EVC must not be used with damaged seals for custody transfer tasks. The device no longer has the status „Calibrated“.

- Only carry out these tasks if you are authorized.
⇒ Please check the "Operating instructions TME400".



Fig. 5-11: Calibration switch

■ Create a CSV file for parameterizing

- 1 Create a CSV file.
- 2 Remove the lead seal from the calibration switch.
- 3 Press the calibration switch
In case the calibration switch has not been pressed correctly you'll get the message:

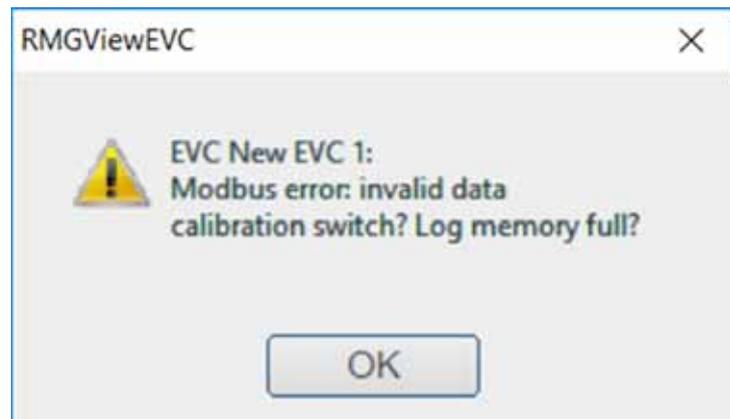


Fig. 5-12: Message

If this message is displayed, check the setting of the calibration switch.

- Transfer CSV file to EVC
- 1 Login user in at user level Configurator.
⇒ „Login users“ on page 74
- 2 Open the Dashboard - All EVCs window.
⇒ Chapter 4.2, „Dashboard“ on page 44

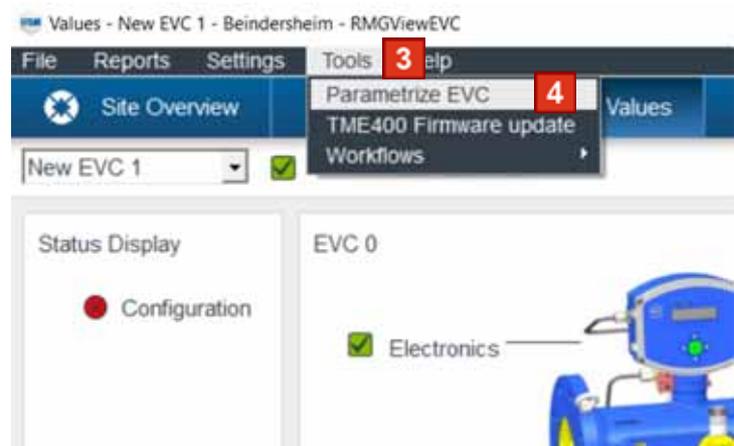


Fig. 5-13: Menu item Parameterize EVC

- 3 Click menu item **Tools** in the menu bar.
 - 4 Click menu item **Parameterize EVC**.
A Windows screen for selecting a CSV file will be displayed.
 - 5 Select CSV file and confirm selection.
- The **Parameterize EVC: Parameter_OB.csv** window opens.

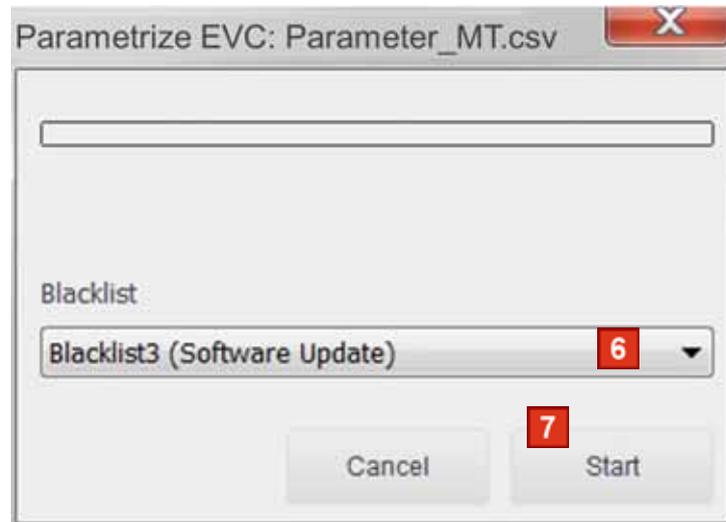


Fig. 5-14: Select Blacklist and start process

Collect all the parameters that are not to be transferred to the EVC in a list. Ready-made lists (blacklists) are available.

- 6 Select blacklist.
- 7 Click the **Start** button.

The status of parameterization is illustrated by an animated time bar.

The CSV file is transferred to the EVC and the EVC are parameterized with the values from the CSV file.

Successful parameterization is displayed in the **Parameterize EVC: Parameter_MT.csv** window.

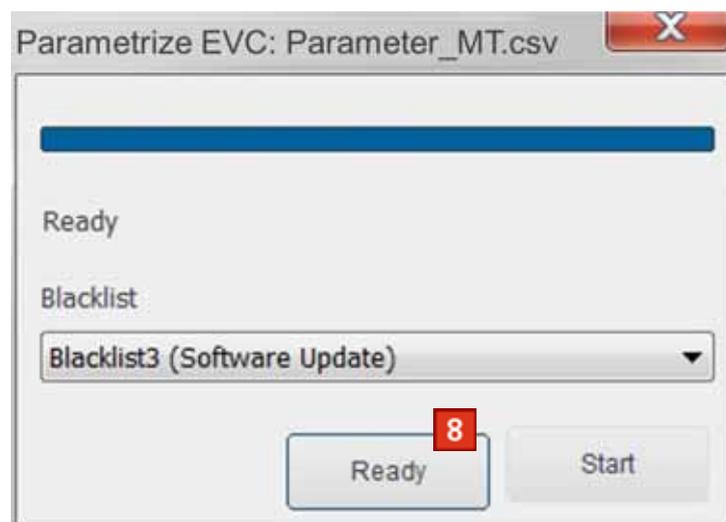


Fig. 5-15: Parameterization successfully completed

8 Click the **Ready** button.

Parameterization is completed.

■ **Complete work on the EVC**

9 Reset the calibration switch by pressing again to the switch position **Protected**.

⇒ *"Operating instructions TME400"*

10 Have the lead seal on the calibration switch replaced by an authorized test center.

5.5 Open Folder User Data

You can open the folder User Data using the RMGView^{EVC} software.

■ Open Folder User Data

- 1 Open the **Dashboard - All EVCs** window.

⇒ Chapter 4.1, „Site overview“ on page 43

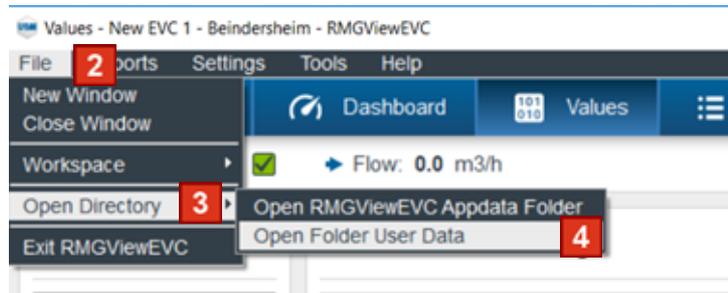


Fig. 5-16: Menu item Open Folder User Data

- 2 Click menu item **File** in the menu bar.
- 3 Click menu item **Open Directory**.
- 4 Click menu item **Open Folder User Data**.

Windows Explorer opens. The filing location is displayed.

5.6 Open Appdata Folder

You can open the AppdataFolder using the RMGView^{EVC} software.

■ Opening the APPDATA Folder

1 Open the **Dashboard - All EVCs** window.

⇒ Chapter 4.1, „Site overview“ on page 43

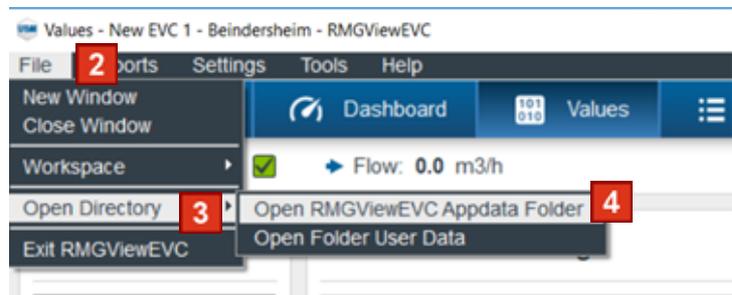


Fig. 5-17: Menu item APPDATA Folder

- 2 Click menu item **File** in the menu bar.
- 3 Click menu item **Open Directory** .
- 4 Click menu item **Open RMGView Appdata Folder**.

The Windows explorer opens. The filing location of the APP data is displayed.

5.7 Screen dump in jpg format

You can create a jpg file of **Plots**.

■ Creating the jpg file

1 Open the **Plots** window.

⇒ Chapter 4.5, „Plots“ on page 50

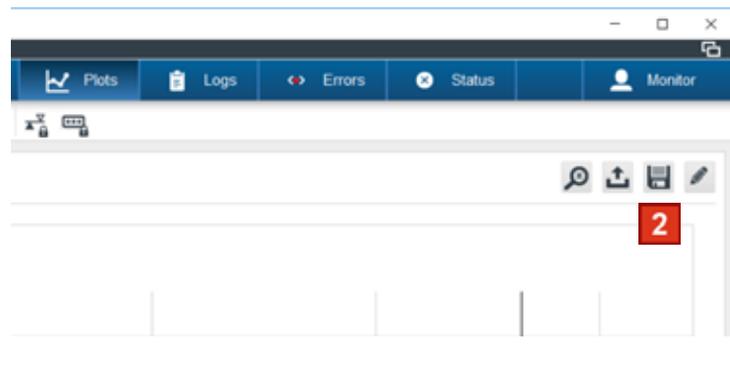


Fig. 5-18: Button save as jpg image



2 Click the button **Save as jpg image**.

Windows Explorer opens. The jpg file is created. .

5.8 Reading error and warning messages

The RMGView^{EVC} software stores error and warning messages from the EVC. For analysis purposes, the error and warning messages can be called up.

■ Retrieving error and warning messages



Fig. 5-19: Errors window

1 Open **Errors** window

⇒ Chapter 4.7, „Errors“ on page 55

5.9 Creating a log of user actions

Every user action executed by the user is recorded by the RMGView^{EVC} software. You can open this list as a window. It is also possible to export this list as a PDF file.

■ Display log

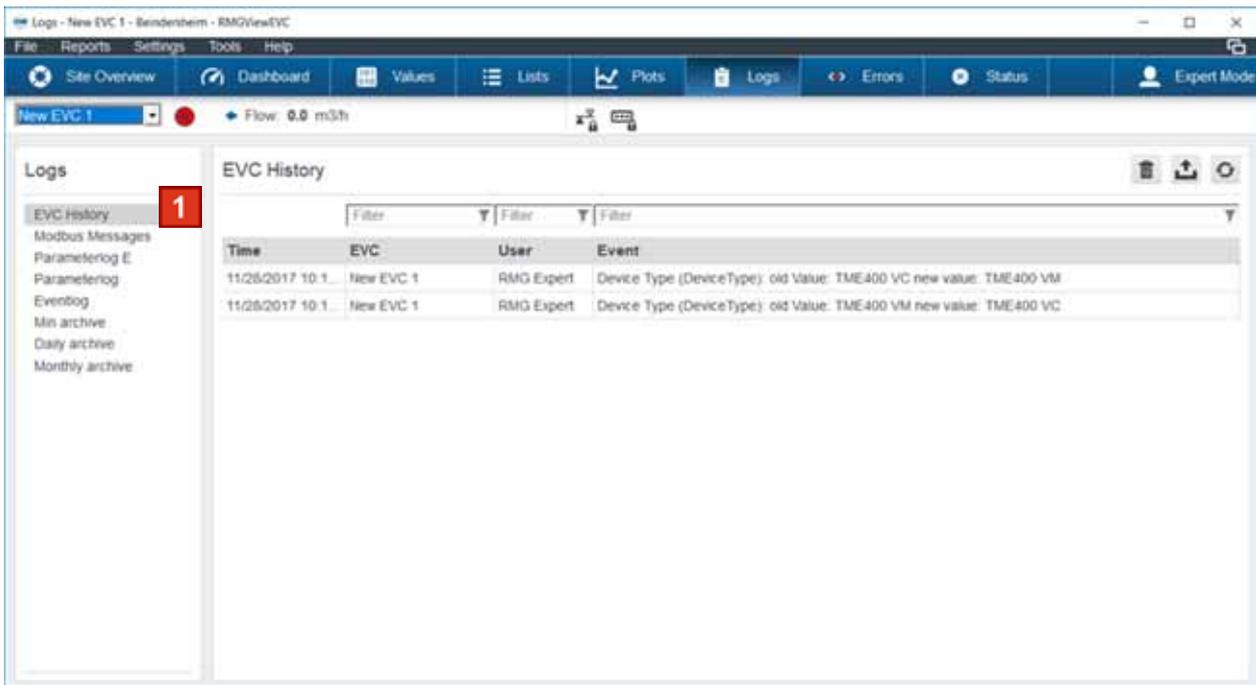


Fig. 5-20: EVC History

1 Click the **EVC History** entry.

The **EVC History** window opens. All the actions taken are listed.



The contents of the list can be filtered for a certain meter, user or for a message.

⇒ Chapter 4.6, „Logs“ on page 51

■ Creating a log file as a PDF

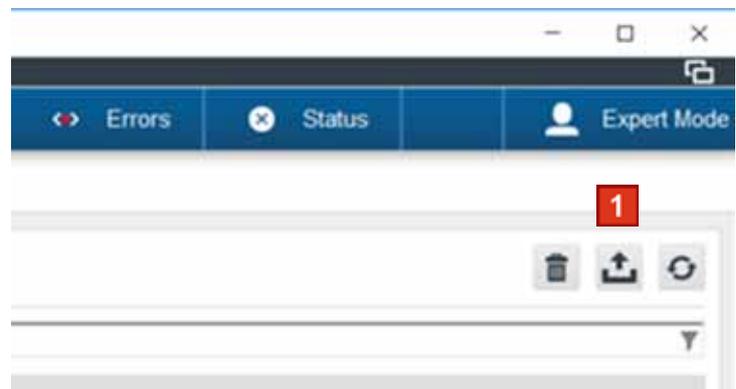


Fig. 5-21: Exporting a list as a PDF file

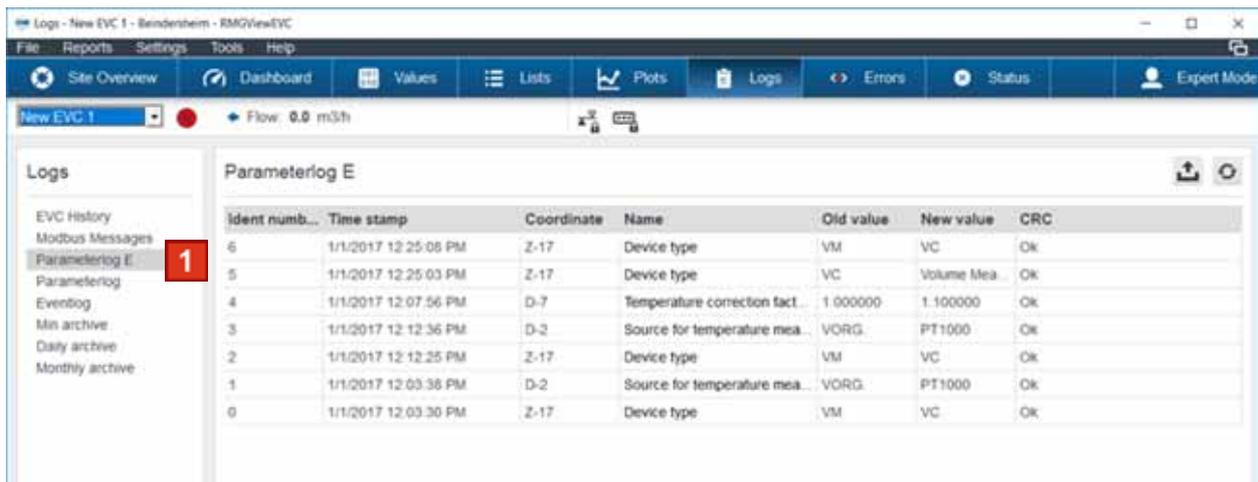
- 1 Click the **Export** button.

The **Save as...** dialog box opens. The filing location must be selected. The PDF file is created.

5.10 Creating a log on parameter changes

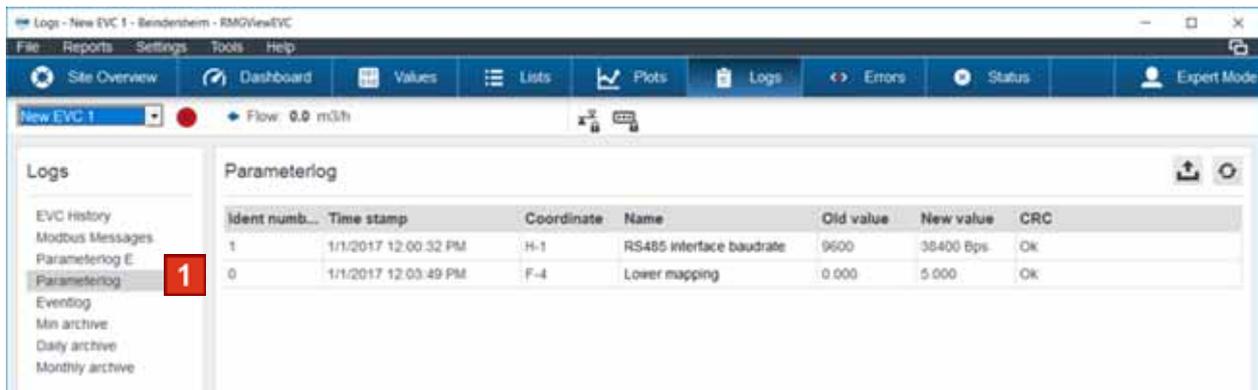
Every parameter change that can have an impact on the accuracy of measurement is recorded by the ultrasonic gas meter. You can open this list as a window. In addition it is possible to export this list as a PDF.

■ Display log



| Ident num... | Time stamp | Coordinate | Name | Old value | New value | CRC |
|--------------|----------------------|------------|--------------------------------|-----------|------------|-----|
| 6 | 1/1/2017 12:25:08 PM | Z-17 | Device type | VM | VC | Ok |
| 5 | 1/1/2017 12:25:03 PM | Z-17 | Device type | VC | Volume Mea | Ok |
| 4 | 1/1/2017 12:07:56 PM | D-7 | Temperature correction fact... | 1.000000 | 1.100000 | Ok |
| 3 | 1/1/2017 12:12:36 PM | D-2 | Source for temperature mea... | VORG | PT1000 | Ok |
| 2 | 1/1/2017 12:12:25 PM | Z-17 | Device type | VM | VC | Ok |
| 1 | 1/1/2017 12:03:38 PM | D-2 | Source for temperature mea... | VORG | PT1000 | Ok |
| 0 | 1/1/2017 12:03:30 PM | Z-17 | Device type | VM | VC | Ok |

Fig. 5-22: List of changed custody transfer-relevant parameters



| Ident num... | Time stamp | Coordinate | Name | Old value | New value | CRC |
|--------------|----------------------|------------|--------------------------|-----------|-----------|-----|
| 1 | 1/1/2017 12:00:32 PM | H-1 | RS485 interface baudrate | 9600 | 38400 Bps | Ok |
| 0 | 1/1/2017 12:03:49 PM | F-4 | Lower mapping | 0.000 | 5.000 | Ok |

Fig. 5-23: List of changed not-custody transfer-relevant parameters

- 1 Click the **EVC Parameter Log E** or the **EVC Parameter Log** button.

The list opens. All custody transfer-relevant actions (with E; or not custody transfer-relevant = without E) are listed.



The contents of the list can be filtered for a certain EVC, user or for a message.

⇒ *Chapter 4.6, „Logs“ on page 51*



6 Troubleshooting

In this chapter you will receive information on possible problems and how you solve the problems.



If you cannot find a solution to your problem with the RMG component, then please contact the RMG service.

⇒ „Manufacturer“ on page 1

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| 6.3 | Display „The file TME400_001.rmx ...“ | 98 |

6.1 Discontinuity in connection to the meter

The following message will be displayed: „You have just removed COM 5.“

- 1 Please check the USB cable connection from the device to the computer.

A loose USB connection could also be responsible for the timeout. The cause could also be an excessively long or poorly shielded cable.

Please only use twisted pair shielded cables up to a maximum length of 500 m. Recommended type LiYCX 2 x 2 x 0.75 mm². The green status LED at the bottom left shows if communication is operating correctly.

6.2 Display „RMGView^{EVC} is already running....“

The following message will be displayed: „RMGView^{EVC} is already running on COM 5.“

This means that one instance of RMGView^{EVC} is already running. It cannot be started a second time at the same interface.

- Fix**
- 1 Close RMGView^{EVC} or, if this doesn't work, use the Windows Task Manager, (right mouse key on the Windows task bar -> Start Task Manager) end the RMGView^{EVC}.exe process in the processes tab.

If a connection from the same computer to several ultrasonic gas meters is desired, then initially, in the already opened instance of RMGView^{EVC} you must switch to the second, connected COM port before RMGView^{EVC} can be restarted on the standard COM port.

6.3 Display „The file TME400_001.rmx ...“

...could not be found. Get in touch with RMG in order to receive a USE_xxx.rmx file that is suitable for your USM09.

- 1 Procure an .rmx file suitable for the firmware of your ultrasonic gas meter. Disconnect your ultrasonic gas meter. Start RMGView^{EVC}. Select the menu item Tools->RMGView^{EVC} Open RMG APPDATA folder, copy the .rmx file into the folder displayed.
- 2 Close RMGView^{EVC}.
- 3 Reconnect the ultrasonic gas meter. Start RMGView^{EVC}.

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8 Glossary

In this chapter you will be given information on terminology.

TME400 VM

The TME400 VM is a flow meter for the turbine TME400 VM, a measuring turbine for gas volume flow rate measurements. The flow rate is measured of the operating volume of non-aggressive gases and fuel gases. The operating volumetric flow rate is determined at the current pressure and temperature conditions. The measured operating volumes are summed up. The result is displayed in an electronic register, an encoder.

HF and NF frequency outputs are available as output, which can be used as a flow rate sensor for control tasks and remote transmission. In addition to these outputs, the TME400 VM also has a digital RS 485 interface.

The TME400 VM is used in the non-custody transfer market.

TME400 VMF

The TME400 VMF is also a flow meter for non-aggressive gases and fuel gases, which can be controlled by an encoder via the same outputs.

The TME400 VMF is used in custody transfer applications (fiscally).

TME400 VC

The TME400 VC also allows calculation of the standardized volumetric flow rate (volume corrector) in addition to the operating volumetric determination. As additional input variables, a pressure and temperature determination is required under the current conditions.

The encoder also allows the data to be read out via frequency outputs or the digital interface.

The TME400 VC is used in the non-custody transfer market.

TME400 VCF

The TME400 VCF is installed in the custody transfer market.



Subject to technical modification.

For further information

If you would like to learn more about the products and solutions from RMG, please visit our website:

www.rmg.com

or your local support office
or contact your local sales representative.

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