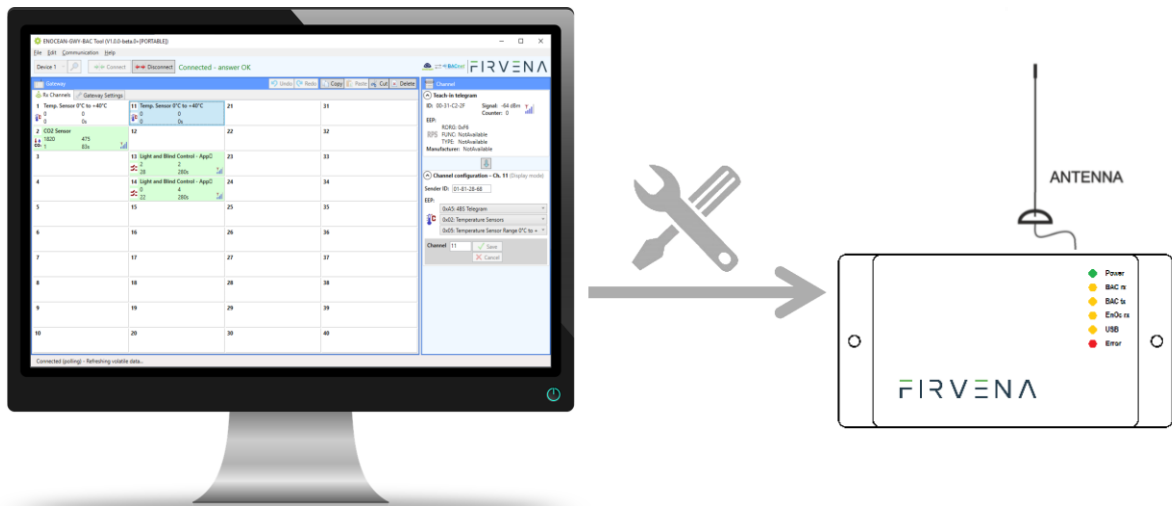


EO-BAC Tool User Manual

Introduction

The application EO-BAC Tool is a utility intended to be used for configuring the gateway EnOcean / BACNet. The main purpose is to help you with assigning EnOcean elements to the gateway. The application is also a useful verification tool whereby you can evaluate whether your system works well. It allows to see the states, measured quantities, communication intervals or signal strength of the connected EnOcean elements.

This manual describes features of the EO-BAC Tool application. For a detailed description of the gateway and its BACNet interface, refer the gateway manual.



Contents

Introduction	1
Contents.....	2
Figures	3
Tables	4
1 Communication with Gateway	5
2 Description of the User Interface	6
2.1 Main Window Overview	6
2.2 Menu Options.....	7
2.2.1 File.....	7
2.2.2 Edit.....	7
2.2.3 Communication	8
2.2.4 Help	8
2.3 Gateway Window	8
2.4 Rx Channels Tab	8
2.5 Gateway Settings Tab	8
2.6 Channel Window	9
2.6.1 Teach-in Telegram	9
2.6.2 Channel Configuration.....	9
3 Assigning EnOcean elements.....	10
3.1 Teach-in procedure	10
3.2 Manually.....	10
4 Backup of Gateway Configuration	12
Revision History	13

Figures

Fig. 1 Communication works properly.....	5
Fig. 2 Communication error	5
Fig. 3 Main window overview.....	6
Fig. 4 Rx channel item.....	8
Fig. 5 Teach-in telegram.....	9
Fig. 6 Channel configuration – having unsaved changes.....	9
Fig. 7 Adding elements – teach-in procedure	10
Fig. 8 Adding elements – manually.....	11

Tables

Tab. 1 Menu – File options	7
Tab. 2 Menu – Edit options.....	7
Tab. 3 Menu – Communication options	8
Tab. 4 Menu – Help options.....	8
Tab. 5 Document revision history	13

1 Communication with Gateway

Communication between a computer and the gateway is via USB interface. There is no need to install a driver, just plug the gateway into the computer using an appropriate USB cable and run the application. The application automatically connects to the first detected gateway.

If everything is all right, the message “*Connected – answer OK*” is shown, the configuration data is uploaded from the gateway and then the application continues getting the current data.

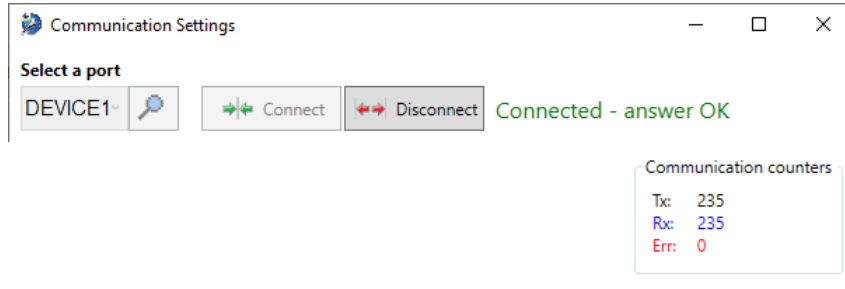


Fig. 1 Communication works properly

Otherwise, if communication does not work properly, a red-highlighted error message is shown.

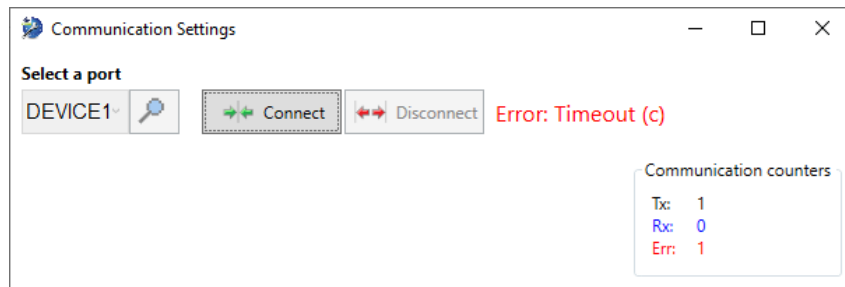


Fig. 2 Communication error

2 Description of the User Interface

In one point of view, the application can be thought as an editor of gateway configuration. This configuration can be stored either in the memory of a gateway or in a file. This chapter introduces the main parts of the user interface.

2.1 Main Window Overview

1. Communication control – basic control of communication with the gateway.
2. Application status – shows the state that the application is currently in.
3. Gateway – an editor of gateway configuration.
4. Teach-in telegram – the last teach-in telegram received by the connected gateway.
5. Channel configuration – an editor of the selected Rx channel.

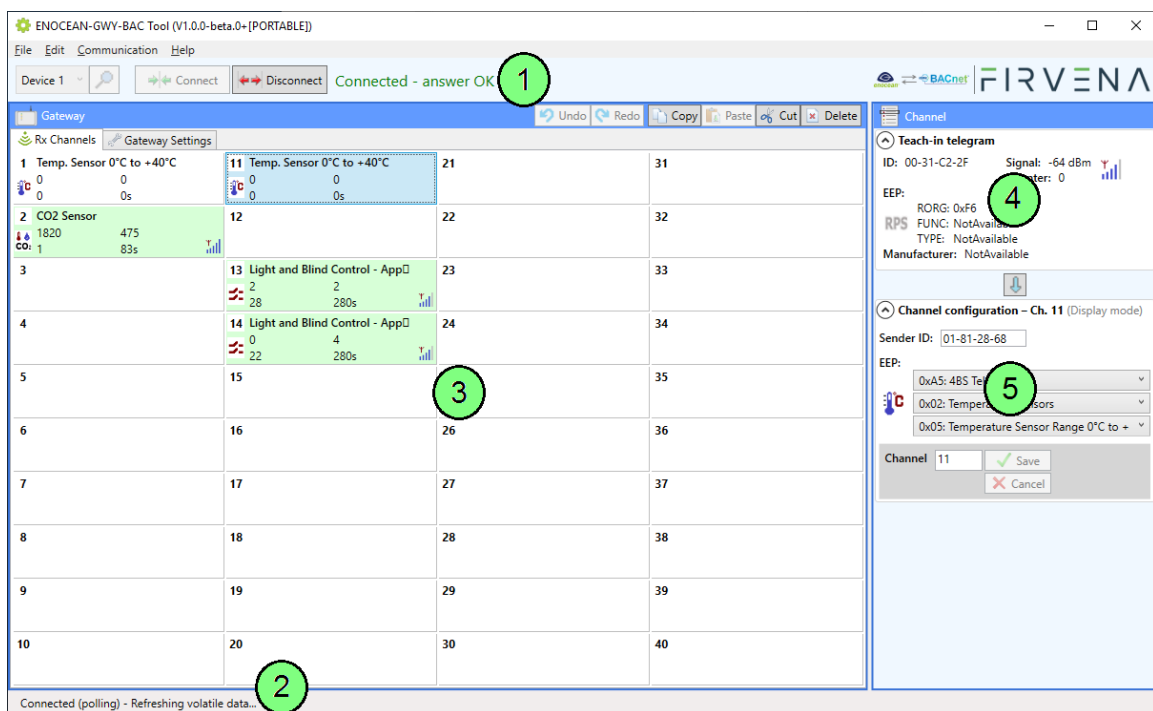





Fig. 3 Main window overview

Note: The main window can operate under two modes – online and offline. The online mode occurs when there is a gateway connected. In the online mode, overall configuration changes made by the editor are written directly to the gateway, the volatile data (e.g. analog and binary inputs, Teach-in telegram, etc.) is available and new elements can be assigned. In the offline mode, it works only as a configuration file editor.

2.2 Menu Options







2.2.1 File

Tab. 1 Menu – File options

Item	Meaning
 Open	Opens an existing configuration file. Then the file can be written to the connected gateway or shown in another window.
 Save	Saves changes to the open configuration file.
 Close	Forces the application to close.




2.2.2 Edit

Tab. 2 Menu – Edit options

Item	Meaning
 Undo	Undoes the last change made to the gateway configuration.
 Redo	Undoes the last undo action.
 Copy	Copies the selected Rx channels to the clipboard.
 Paste	Writes the copied Rx channels, if there are any. The writing starts at the first selected channel of the current selection.
 Cut	Copies and deletes the selected Rx channels.
 Delete	Deletes the selected Rx channels.



2.2.3 Communication

Tab. 3 Menu – Communication options

Item	Meaning
 Connect	Starts communicating with the gateway. (Enters the online editor mode)
 Disconnect	Stops communicating with the gateway. (Leaves the online editor mode)
 Communication Settings	Settings of communication between the application and gateway.

2.2.4 Help

Tab. 4 Menu – Help options

Item	Meaning
 View Help	The manual.
 About	Information about the application.
View Changelog	Brief information about differences between the current and recent versions.

2.3 Gateway Window

This window, together with the “Channel” window, can be considered an editor of gateway configuration. It is used to display and edit the configuration stored either in the connected gateway or in the open file. This chapter explains the meaning of individual parts.

2.4 Rx Channels Tab

It contains an overview of all Rx channels.

1. The last received data
2. Telegram counter
3. Time elapsed since the last telegram
4. Signal strength

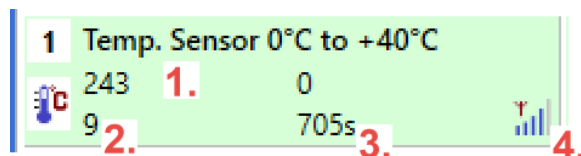


Fig. 4 Rx channel item

2.5 Gateway Settings Tab

These are the settings concerning the settings and state information of the gateway itself. The hardware and firmware version can be seen there.

The changes made in the editor must be confirmed with the “Save” button to store the new values. To restore the default values, use “Restore Defaults” → “Save”.

2.6 Channel Window

2.6.1 Teach-in Telegram

Teach-in data is displayed in this box that was received in the last teach-in telegram. The teach-in data can be used in the “Channel configuration” box to configure the selected Rx channel.

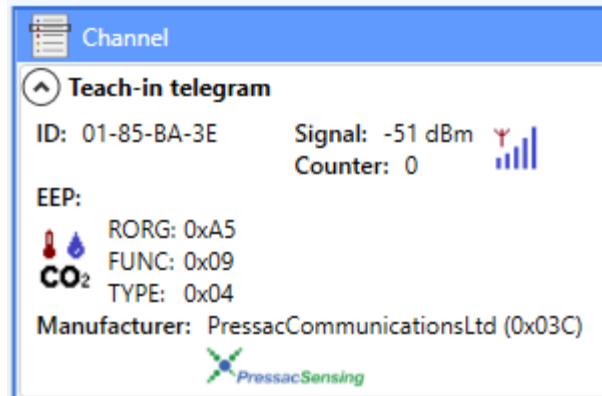


Fig. 5 Teach-in telegram

2.6.2 Channel Configuration

This box serves as a channel editor. There are two states:

1. **Display mode:** Configuration of the currently selected channel is shown.
2. **Editor mode:** Appears when there is an unsaved change made to the content of the box. It happens either by editing the content or by receiving a new teach-in telegram. The display is locked, and channel selection only affects the channel number where the content is to be saved.

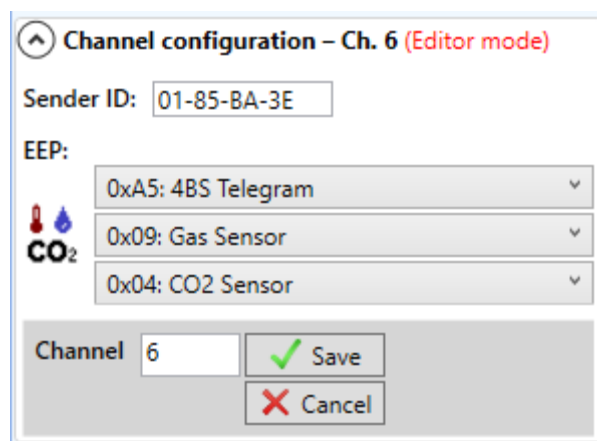


Fig. 6 Channel configuration – having unsaved changes

3 Assigning EnOcean elements

3.1 Teach-in procedure

Let's have a CO2 sensor we want to assign to the channel 6. The procedure is as follows:

1. Push the “Learn” button to transmit a teach-in telegram.
2. The received telegram is displayed in the “Channel” panel.
3. Select the channel number 6.
4. Click “Save” to confirm changes.
5. Now the sensor is assigned to the channel 6 and its data is available through the BACNet interface.

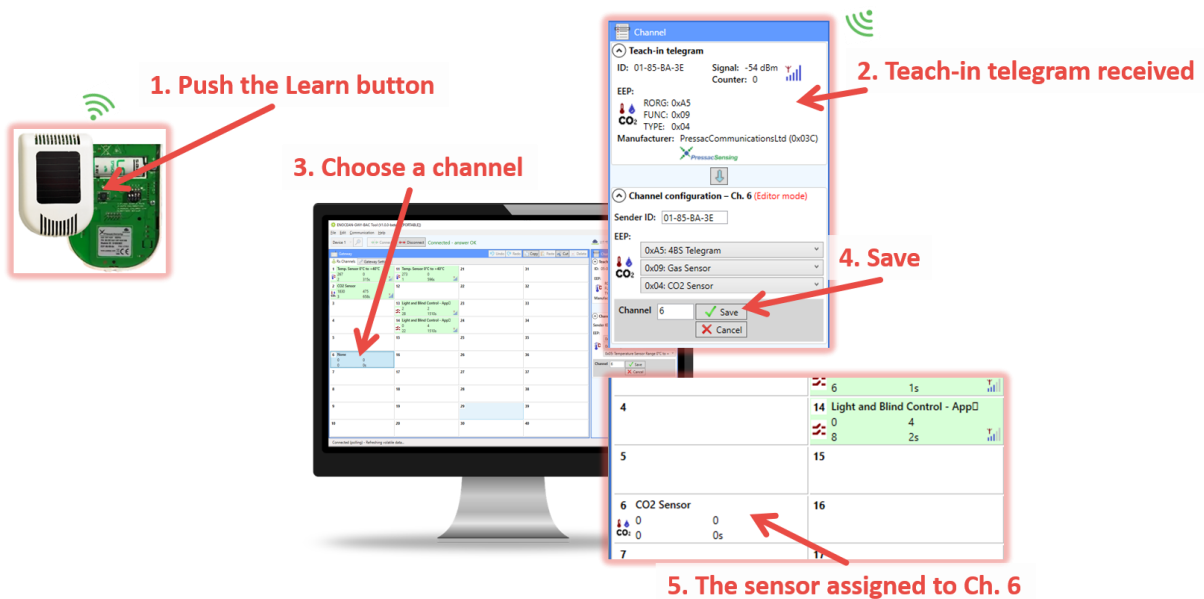


Fig. 7 Adding elements – teach-in procedure

Note: Some types of EnOcean devices do not provide the EEP information in their teach-in telegrams or even not have a special telegram for teach-in (e.g. buttons and switches). In that case, the EEP must be set manually. The knowledge of EEP allows the gateway to correctly interpret the received data.

3.2 Manually

Alternatively, the “ID and EEP information can be set by hand, it is usually given by a label on the device.

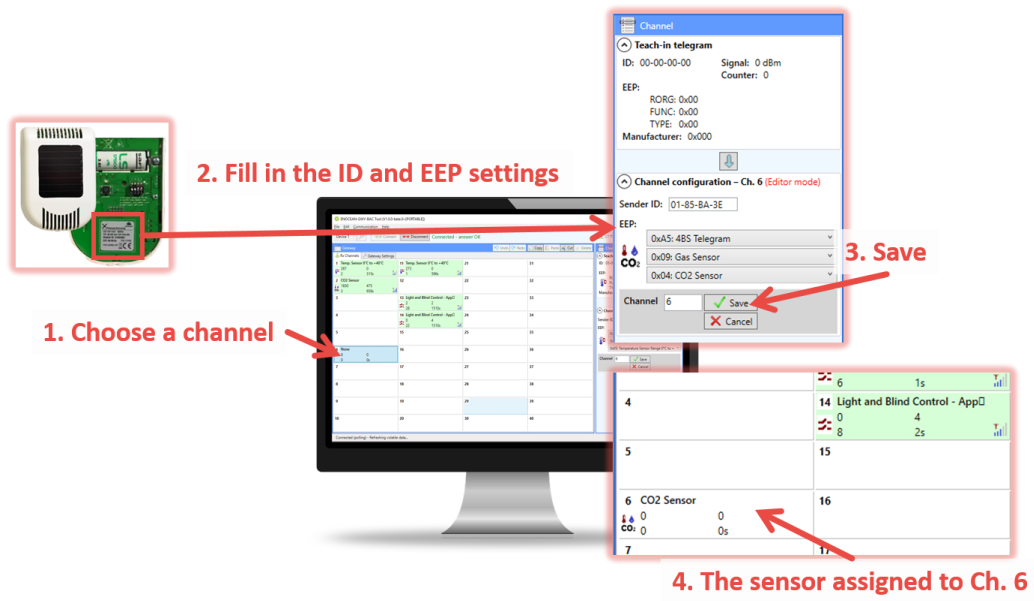


Fig. 8 Adding elements – manually

4 Backup of Gateway Configuration

The configuration of the gateway can be exported to a file for later recovery or other purposes.

To back up the configuration:

1. Connect the gateway and let the configuration to be loaded.
2. Use the Save command (*Ctrl+S* or *File/Save*).
3. Define the file path and name in the dialog shown.
4. Confirm "Save".

To restore the configuration:

1. Connect the gateway and check if the communication works properly.
2. Use the Open command (*Ctrl+O* or *File/Open*).
3. Select a file and confirm "Open" in the dialog shown.
4. A prompt dialog is shown, select "Yes" to confirm the gateway configuration is to be overwritten.

Note: Select "No" if you only wish to open the file, it will be shown in a new window.

Revision History

Tab. 5 Document revision history

Date	Version	Modifications made
2019-12-09	1.0	Initial release