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**TURCK**

# excom<sup>®</sup> Gateways Firmware Update

Technical Support Document



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# 1 About these Instructions

These instructions describe the procedure for updating the firmware of the excom gateways by using the PACTware™ FDT frame application. Read the instructions carefully prior to using the product. This will prevent the risk of personal injury and damage to property. Keep these instructions safe during the service life of the product. If the product is passed on, pass on these instructions as well.

## 1.1 Target groups

This document is written for specially trained personnel, and must be read carefully by anyone who is charged with the operation and maintenance of the device.

## 1.2 Explanation of symbols

The following symbols are used in these instructions:



**DANGER**

DANGER indicates an immediate hazardous situation that, if not avoided, will result in death or serious injury.



**WARNING**

WARNING indicates a possible hazardous situation with the risk of death or serious injury if it is not prevented.



**NOTICE**

NOTICE indicates a situation that may cause possible damage to property if it is not prevented.



**NOTE**

NOTE indicates tips, recommendations and important information. The notes simplify work, contain information on particular operating steps and help to avoid additional work resulting from incorrect procedures.



**MANDATORY ACTION**

This symbol denotes actions that the user must carry out.



**RESULT OF ACTION**

This symbol denotes the relevant results of actions and procedures.

## 1.3 Other documents

Besides this document the following material can be found on the Internet at [www.turck.com](http://www.turck.com):

- Data sheet
- Quick start guide
- excom manual
- Approvals

## 1.4 Feedback about these instructions

We make every effort to ensure that these instructions are as informative and as clear as possible. If you have any suggestions for improving the design or if some information is missing in the document, please send your suggestions to [techdoc@turck.com](mailto:techdoc@turck.com).

## 2 Carrying out a firmware update



### NOTICE

Interruption of the power supply during the firmware update

#### Risk of device damage due to faulty firmware update

- Do not interrupt the power supply during the firmware update.
- During the firmware update do not reset the power supply.

The firmware of the gateways can be updated by using FDT technology. The PACTware™FDT frame application and the DTM for excom® can be downloaded free of charge from [www.turck.com](http://www.turck.com) or can be downloaded via the Turck Software Manager. The latest version is available from Turck on request.



### NOTE

The "Firmware Update" function is not provided in the basic license of the excom® DTM. This requires the chargeable standard license. The standard license is available from Turck on request.

A suitable adapter is required for PACTware™ to access Profibus via the Ethernet interface of the PC. This example uses the PB-XEPI adapter (article number 6905313).

A firmware update is not possible during ongoing operation. As soon as the update is carried out, the excom® station is automatically disconnected from any bus communication. Outputs are switched according to the preset substitute value strategy. The system automatically re-starts after the update. If the excom® station is operated with other excom stations, the update has no effect on the other stations.

### 2.1 Example: Updating firmware using FDT technology

#### 2.1.1 Software used

This example uses the following software:

- PACTware™ frame application
- Firmware file Gateway 2.3.1.0 (minimum requirement)
- DTM for excom® I/O system

#### 2.1.2 Hardware used

This example uses the following hardware:

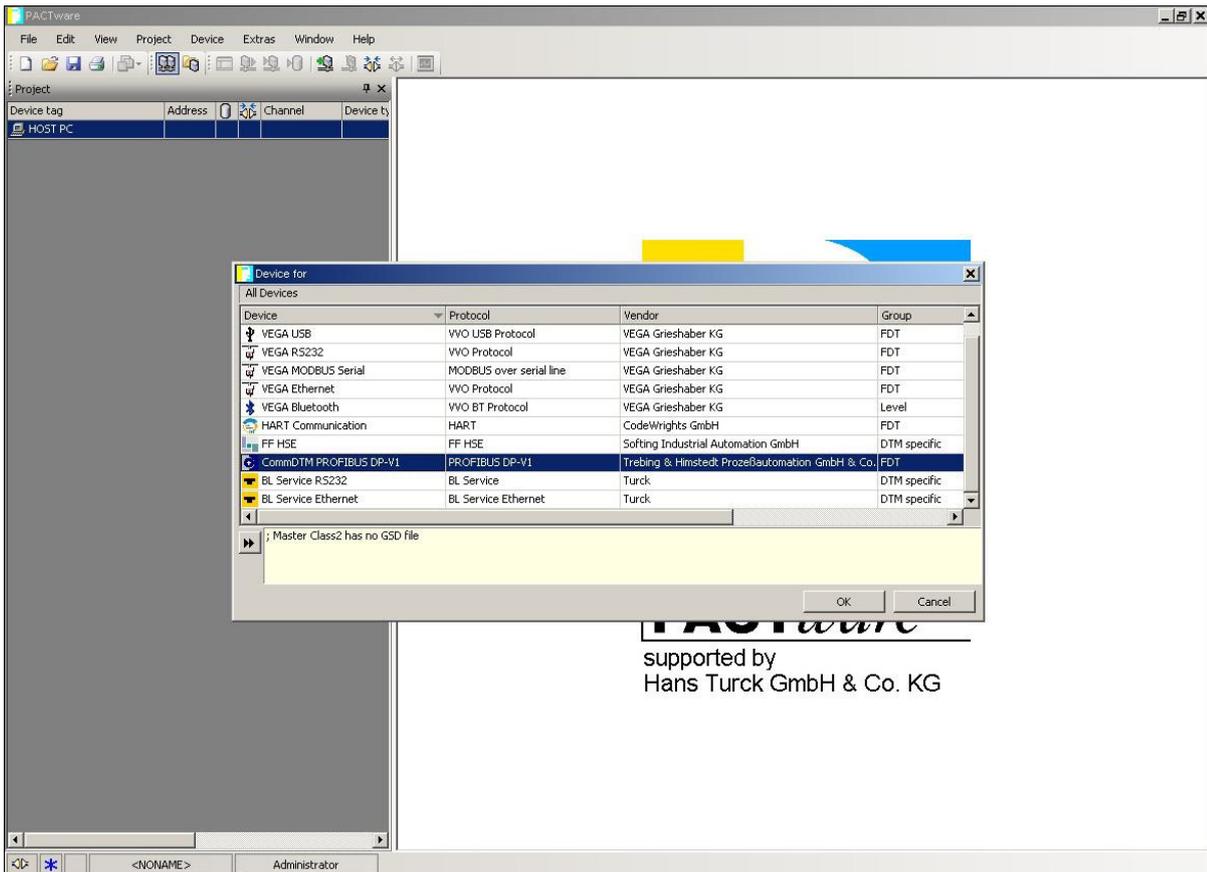
- MT16-2G module rack
- PSD24Ex power supply unit
- GDP-IS gateway
- SC12Ex segment coupler (RS485-IS)
- PB-XEPI adapter

## 2.2 Creating the project in PACTware™

To carry out a firmware update, a new project has to be created or an existing project has to be opened in PACTware™.

### 2.2.1 Adding CommDTM for PB-XEPI adapters

- Launch PACTware™.
- Right-click HOST PC → Add device.
- Select CommDTM PROFIBUS DP-V1 and confirm with OK.



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Fig. 1: Adding CommDTM PROFIBUS DP-V1

## 2.2.2 Selecting an PB-XEPI adapter

- Double-click CommDTM (here T+H PB MCL 2 ) to open the parameters.
- Click the “Search” button in the Parameter window.
- All PB-XEPI adapters available in the network are displayed.



### NOTE

The adapter used must be in the same IP address area as the host PC.

- Select PB-XEPI from the drop-down list.
- Set the PROFIBUS address. The PROFIBUS address must not collide with the master and slave addresses in the PROFIBUS network.
- Adjust the bus parameters to the network. The bus parameters are normally located in the configuration tool of the PROFIBUS master.
- Confirm selection with OK.

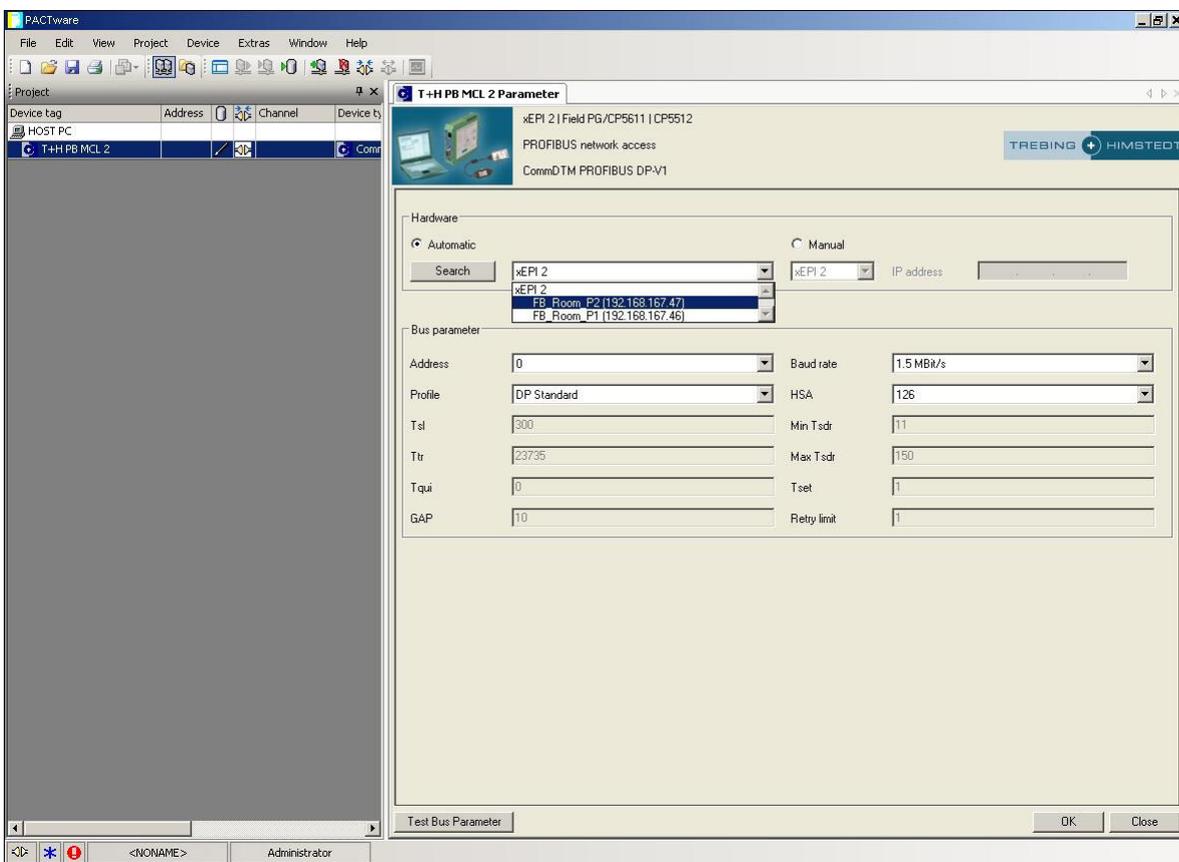
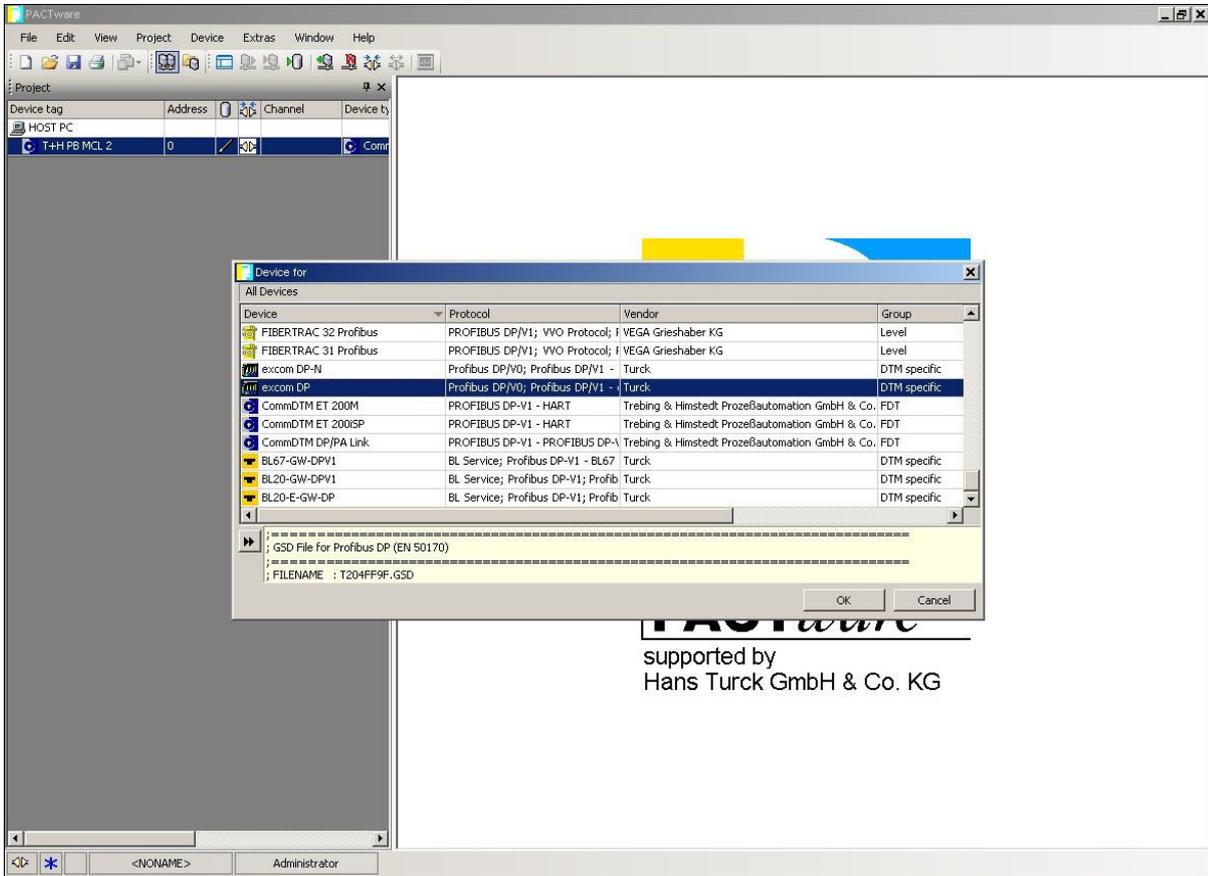


Fig. 2: Selecting the PB-XEPI adapter

### 2.2.3 Adding an excom® station

- Right-click T+H PB MCL 2 → Add device.
- Select excom® and click OK.



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Fig. 3: Adding an excom® station

- In the following window, enter the PROFIBUS address of the excom® slave and confirm with "OK".

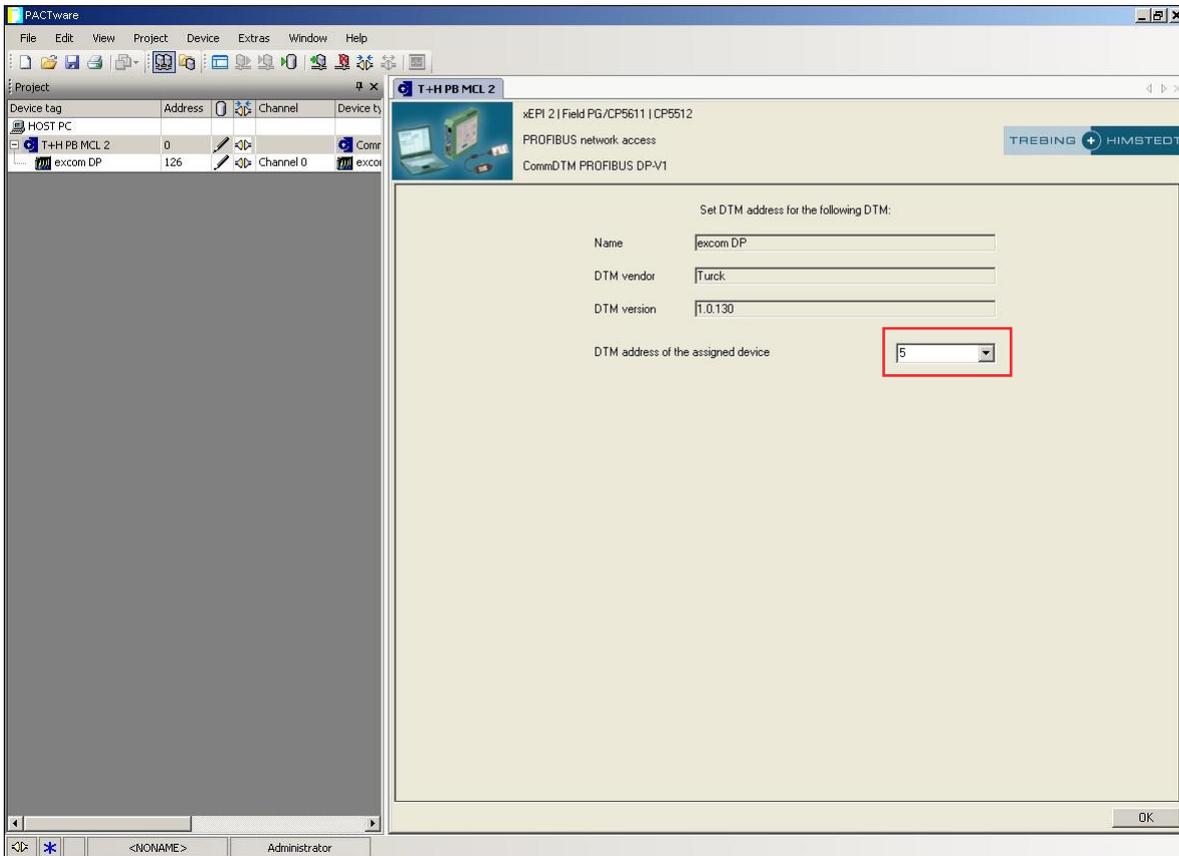


Fig. 4: Entering the PROFIBUS address (example: 5)

## 2.2.4 Adding a gateway

- Right-click the excom® station → Add device.
- Select the gateway (here: GDP-IS) and confirm with OK.
- The project was successfully created.

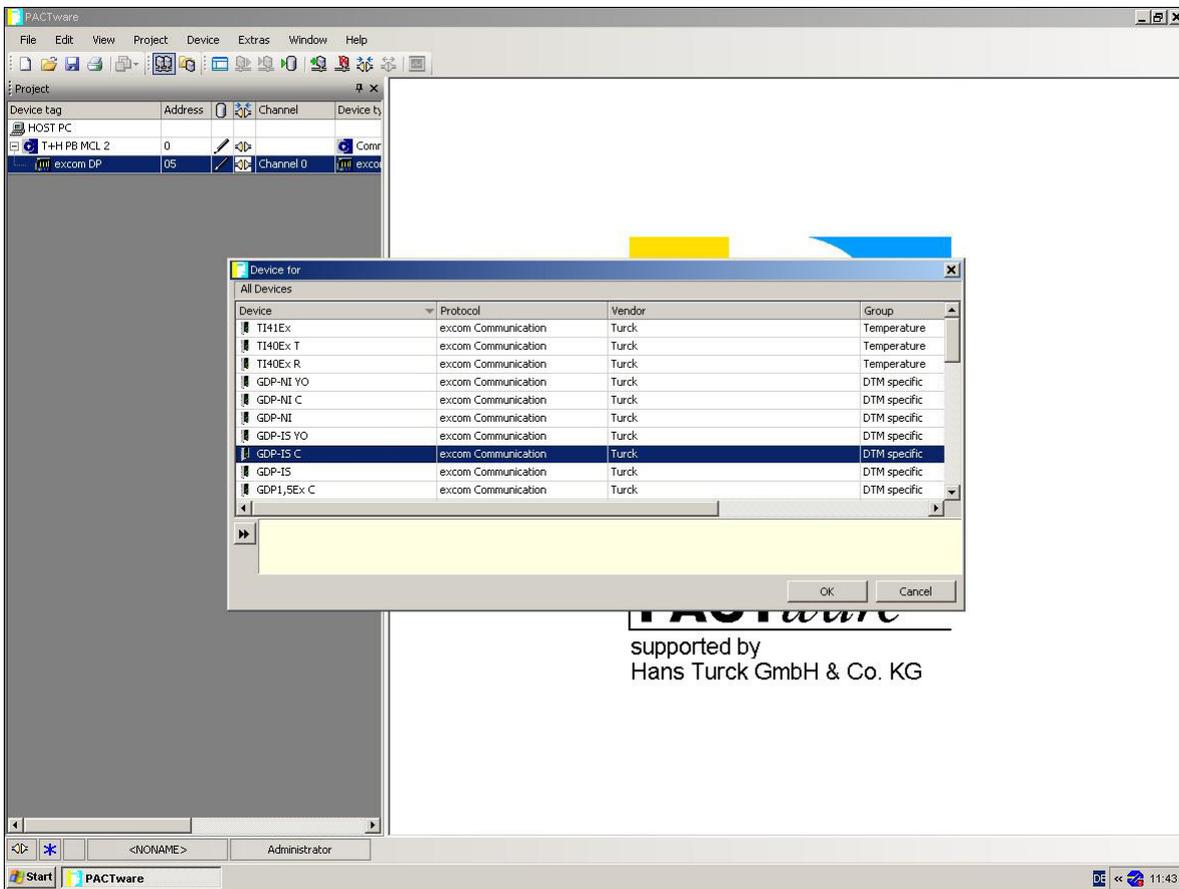


Fig. 5: Adding a gateway

## 2.2.5 Creating a connection between PC and gateway

► Right-click the gateway → Establish connection.

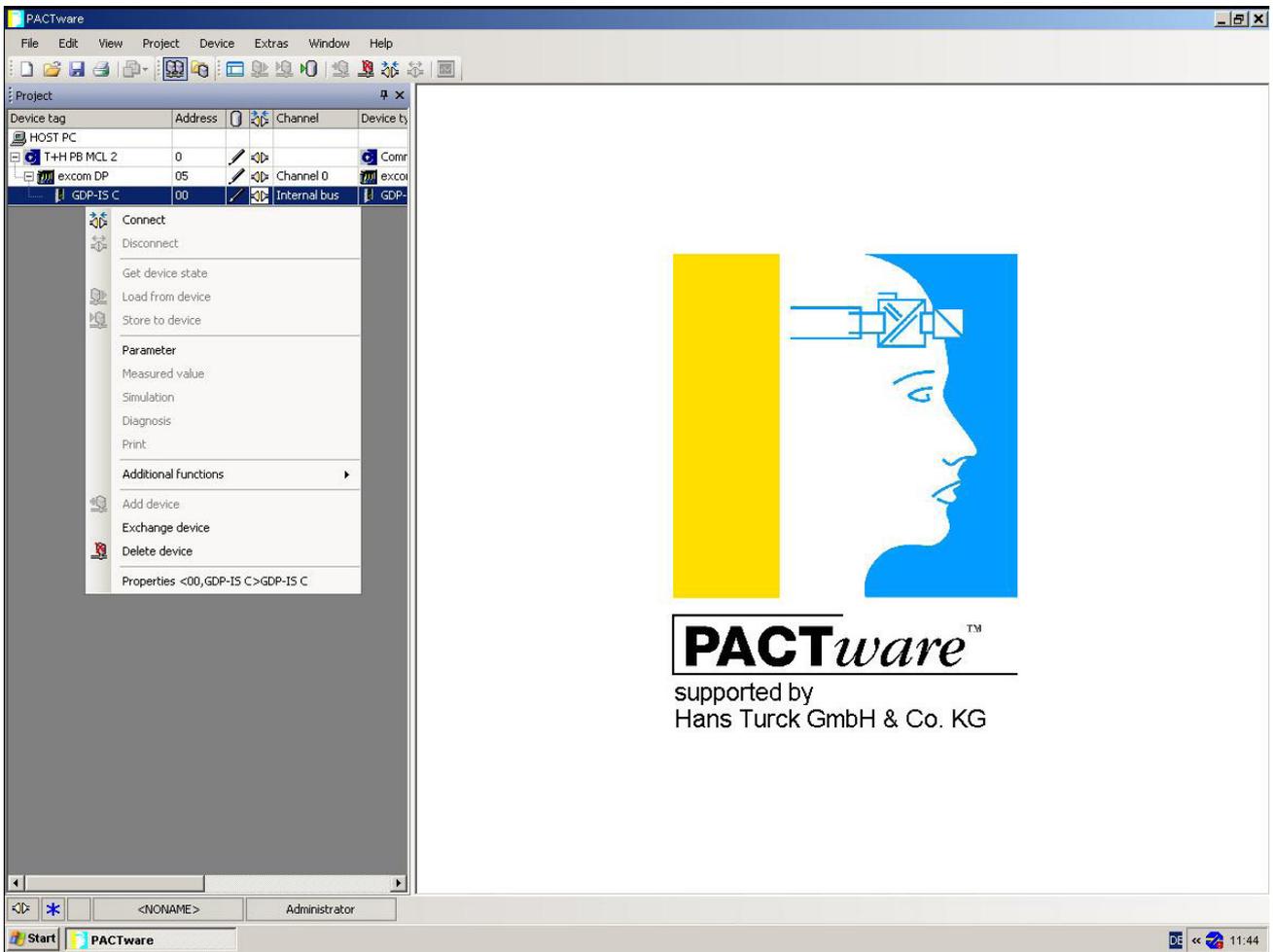


Fig. 6: Creating a connection between PC and gateway

## 2.3 Updating the firmware

- Start the firmware update: Right-click excom DP → Other Functions → Select Firmware Update.

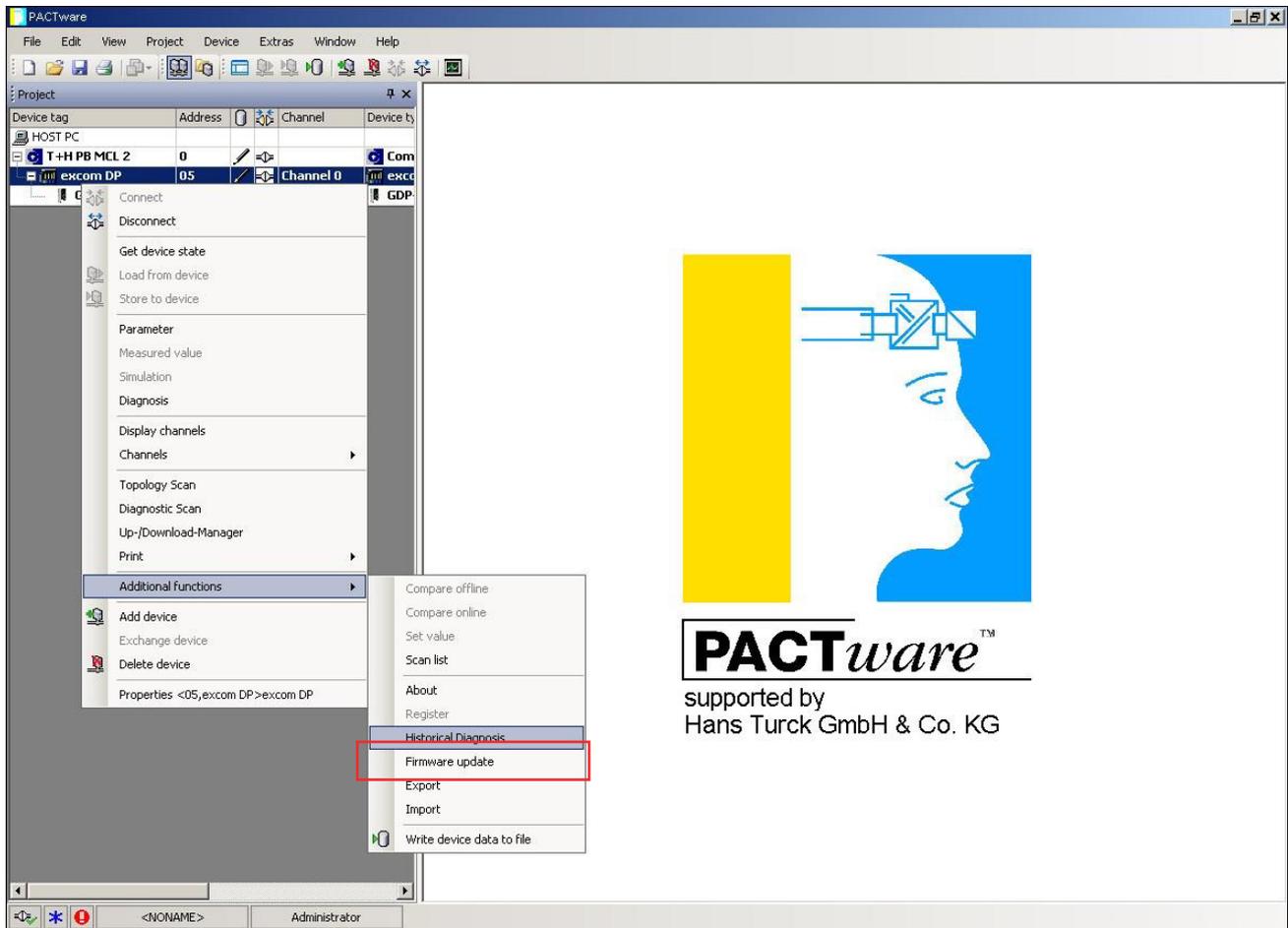


Fig. 7: Starting the firmware update

► Select the firmware file: Click “Firmw. Select”.

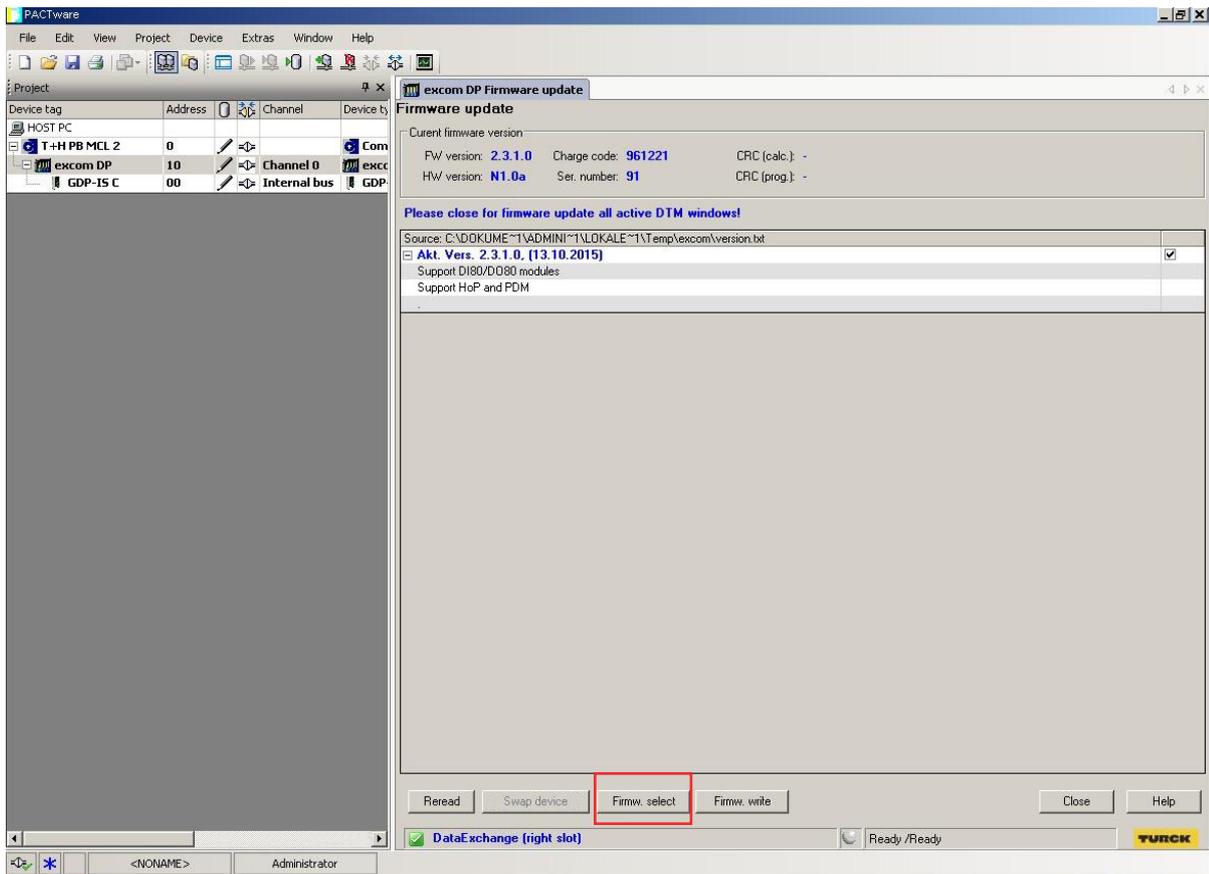


Fig. 8: “Firmw. Select” button

► Select the firmware file at the storage location.



**NOTE**

The firmware file must be provided as a Zip file and must not be unpacked.

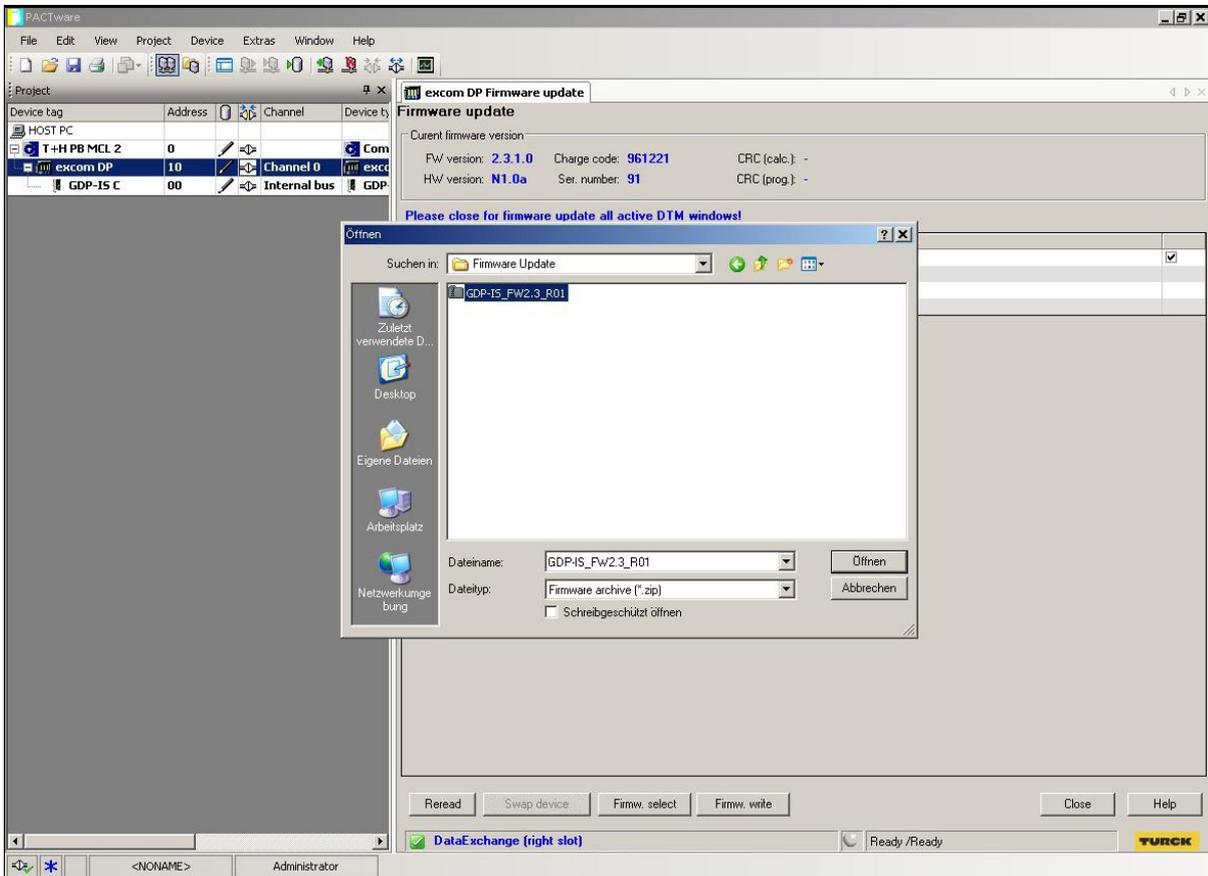


Fig. 9: Selecting the firmware file

- Transfer the firmware to the gateway: Click the “Write Firmw.” button.
- The write operation is indicated by a green loading progress bar at the bottom edge of the screen.
- The Status LED of the gateway flashes red and green alternately during the firmware update. The CAN LED is off during the firmware update.

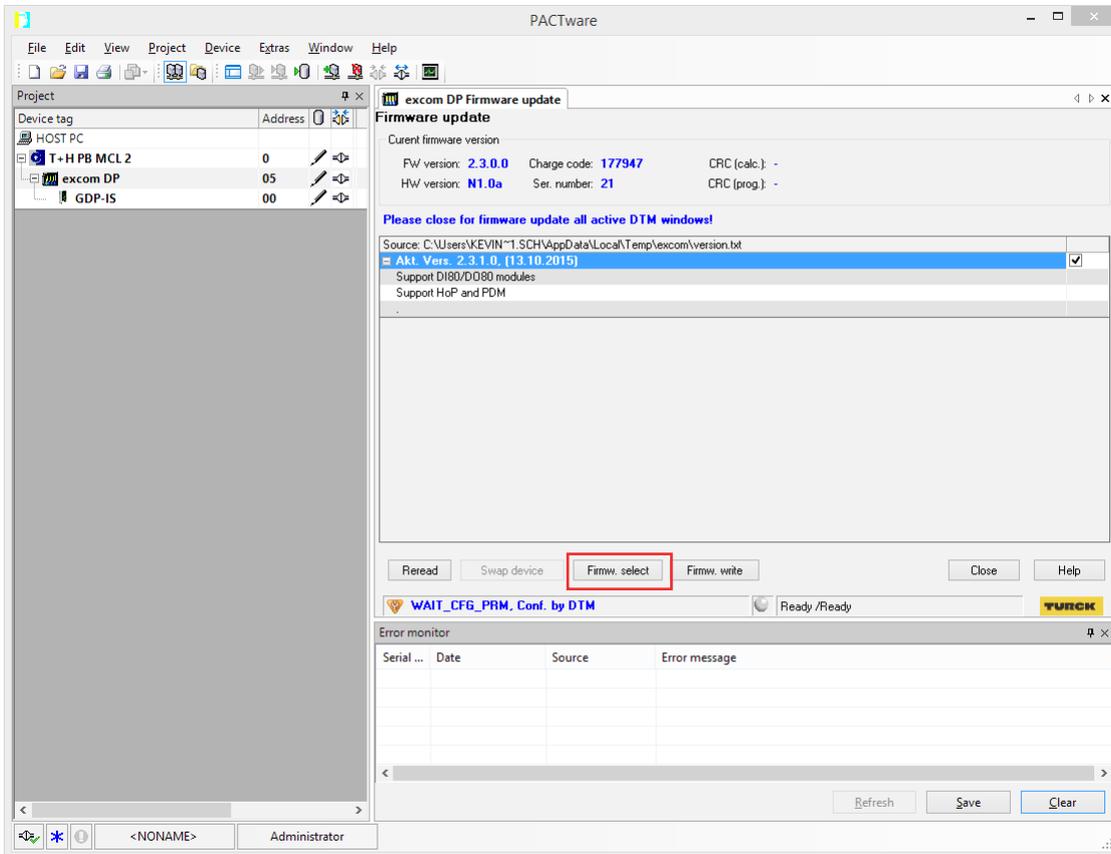


Fig. 10: Transferring the firmware to the gateway

- A successful firmware update is indicated in the DTM by the message “Firmware download successfully completed”.

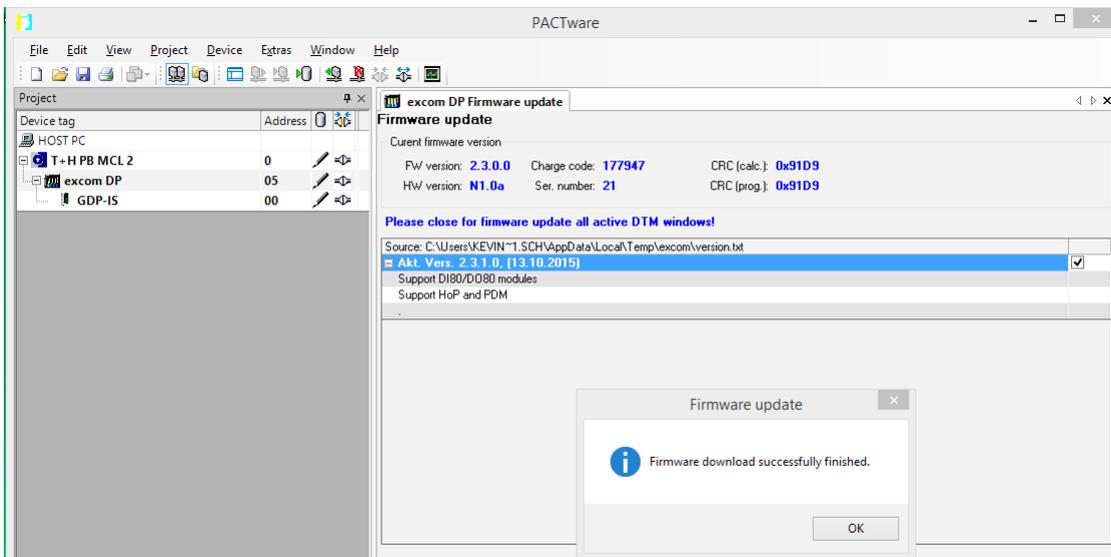


Fig. 11: “Firmware download successfully completed” message

## 2.4 Checking the firmware status

- Right-click the gateway in the project tree.
- Select "Other functions" → "Identification".

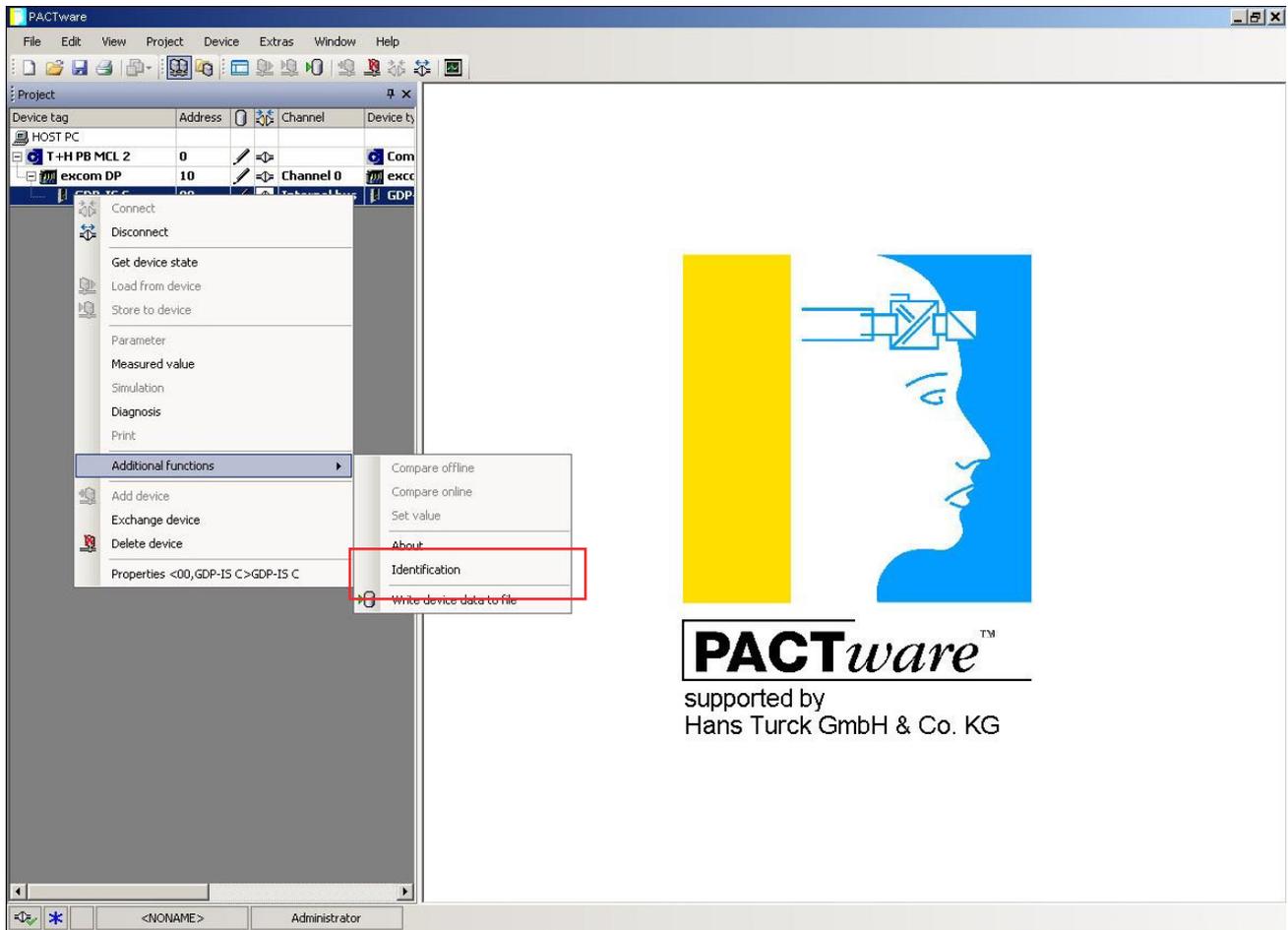


Fig. 12: Opening identification

➔ The current firmware status of the device is shown under "Revision Levels".

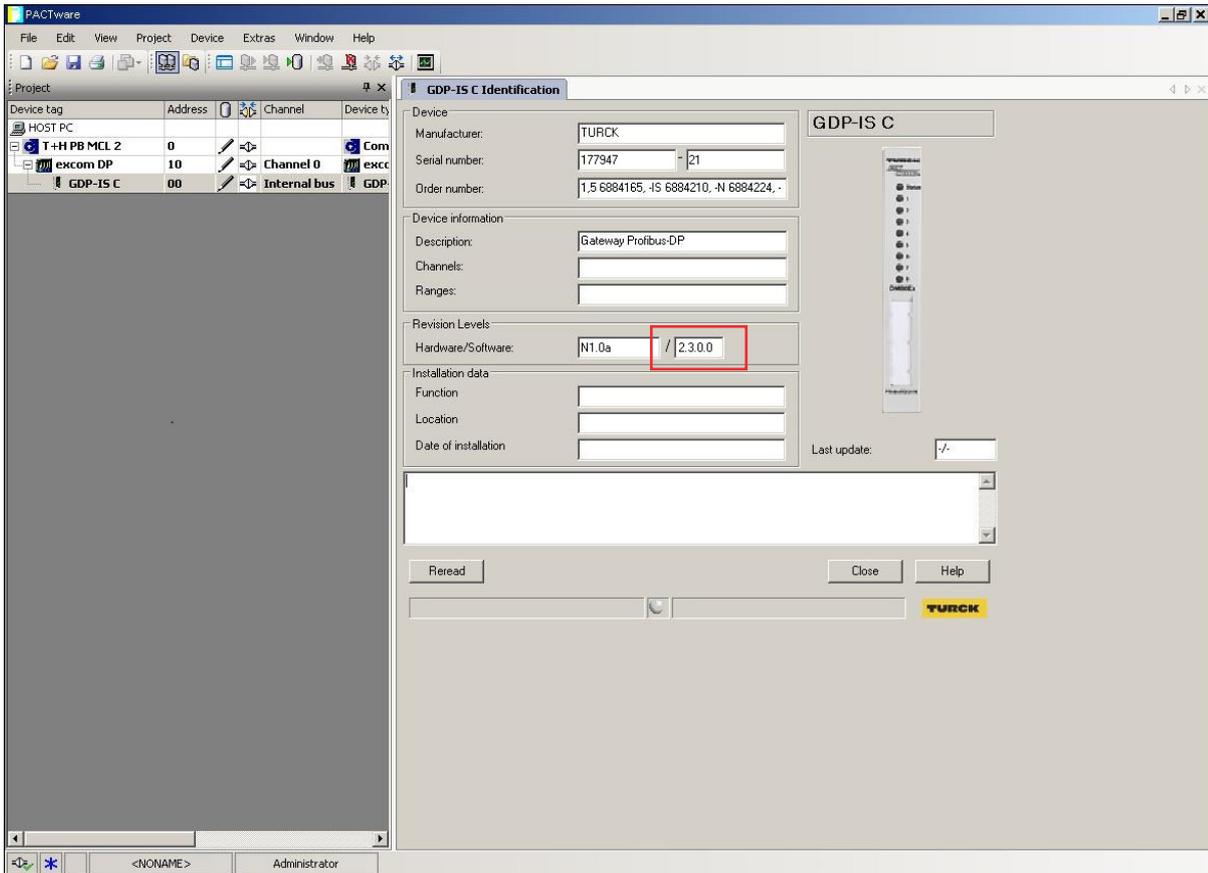


Fig. 13: Checking the firmware status



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