Operating Instructions for the *excom*® DTM

Industrial Automation

Installation

❒ **Unpack the DTM.**

❒ **Start the Setup program.**
The *excom*® DTM has a modular design and so each *excom*® module is assigned a separate DTM. **"Complete"** should therefore be selected during the installation in order to later access all modules.

❒ **Enter a PROFIBUS address required for *excom*® between 0 and 126.**
The installation is always carried out in demo mode. The PROFIBUS address (0...126) is fixed in demo mode and cannot be changed for later project configurations. The fixed address can only be changed as required once licensing is completed (carried out later in the frame application).

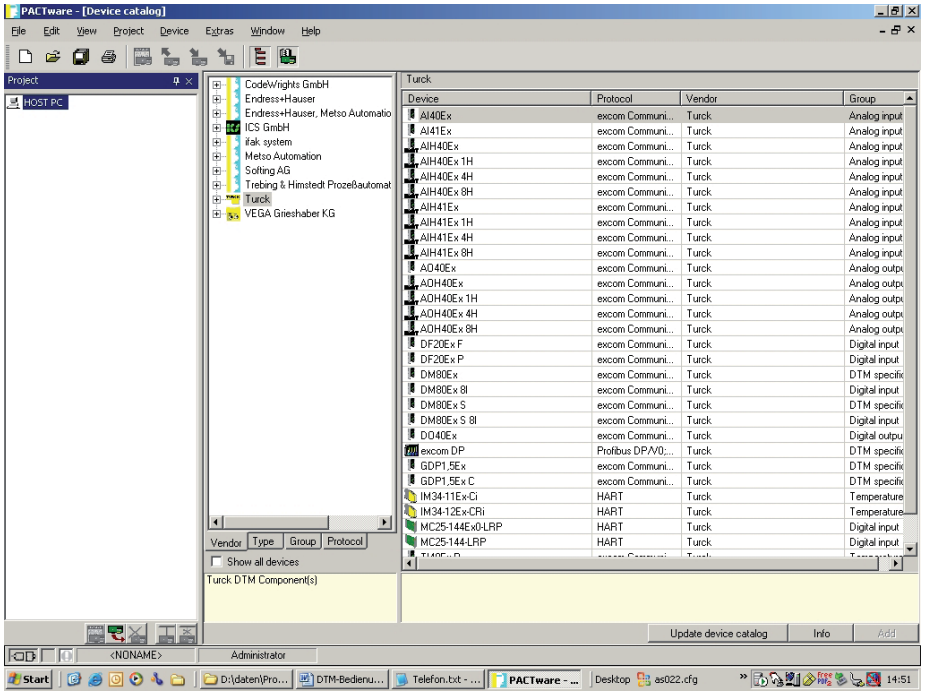

Fig. 1 Empty project window after PACT*ware*™ is started

Creating a project

The following procedure illustrates how to access *excom*® with the help of the DTM technology in the PACT*ware*™ frame application.

❒ **Start the PACT ware™ frame application** (Fig. 1)**.**
In this application the device catalogue may have to be updated in order to accept newly installed DTMs. An empty project window appears in which the host PC represents the hardware platform of the PACT*ware*™ application (see Fig. 1).

❒ **Add the communication DTM to the current project** (Fig. 2)**.**
Position the DTMs required for the network structure in this empty project. In this example, the CP5511 communication processor from Siemens is used to access PROFIBUS. The communication DTM required for this is supplied by Trebing+Himstedt. Select the communication DTM with the mouse and drag it onto the higher-level element in the project window (in this case the host PC) using drag and drop (see Fig. 2).

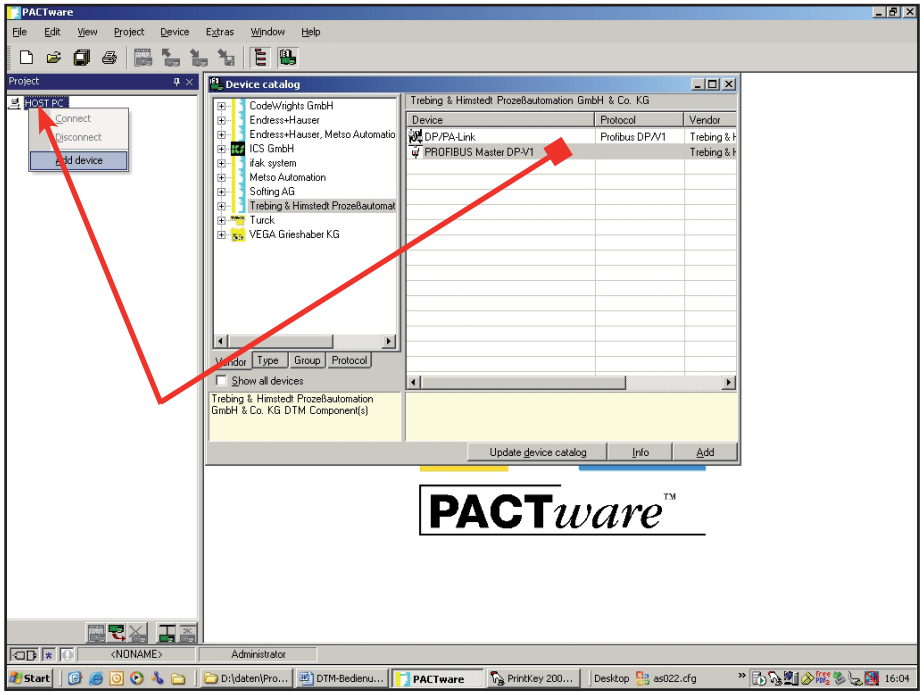

Fig. 2 Adding the communication DTM to the current project

❒ **Set the bus parameters** (Fig. 3)
For fault-free communication, the bus parameters of the hardware (CP5511) used must be set on the communication DTM. Call up the **Parameters** menu by right-clicking the communication DTM. It must be ensured that the bus address of the CP5511 is not already in use in the PROFIBUS network. The baud rate and the transfer times used-on the Class I PROFIBUS master (master of the PLC) must also be set here. If the **DP Standard** profile is selected, the parameters of the bus times are automatically calculated and cannot be edited. To edit the parameters, select the profile **User-Defined**.

❒ **Add *excom*®** (Fig. 4)
excom® can then be added to the communication DTM by drag and drop or via the context menu of the DTM (right-clicking the DTM in the project window). Select first of all the DTM entry **"excom DP"**, which provides access to PROFIBUS and the interface to the *excom*® modules.

❒ **Add the modules**
From the list of *excom*® modules, now add the modules used with PACT*ware*™ to the project. In this way, it is not necessary to configure **all** the modules of an *excom*® station. However, ensure during configuration that the selected modules match those that were also configured by the Class I master exactly. If, for example, an **"AIH40Ex 4H"** was configured in the Class I master, an **"AIH40 1H"** should not be configured in the PACT*ware*™ project.
Please note: For parameterization in the PLC the mode 2 GSD file must be used.

HART® communication
Analog modules of type AIH… and AOH… contain a HART® controller that opens a separate communication with the connected HART® instrumentation.
The associated DTMs support this feature and offer a communication channel for it. They are therefore device and communication DTMs in one. In this way, you can configure the device DTMs of the field devices on the excom® periphery using drag and drop, and also use them for other functions. The project tree including the HART® instrumentation is shown in Fig. 5.

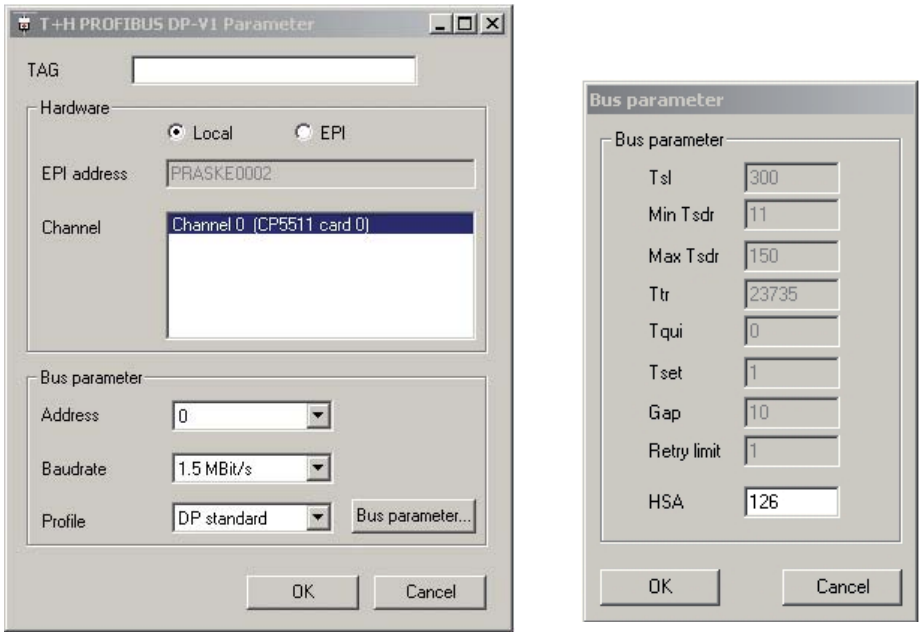

Fig. 3 Setting the bus parameters

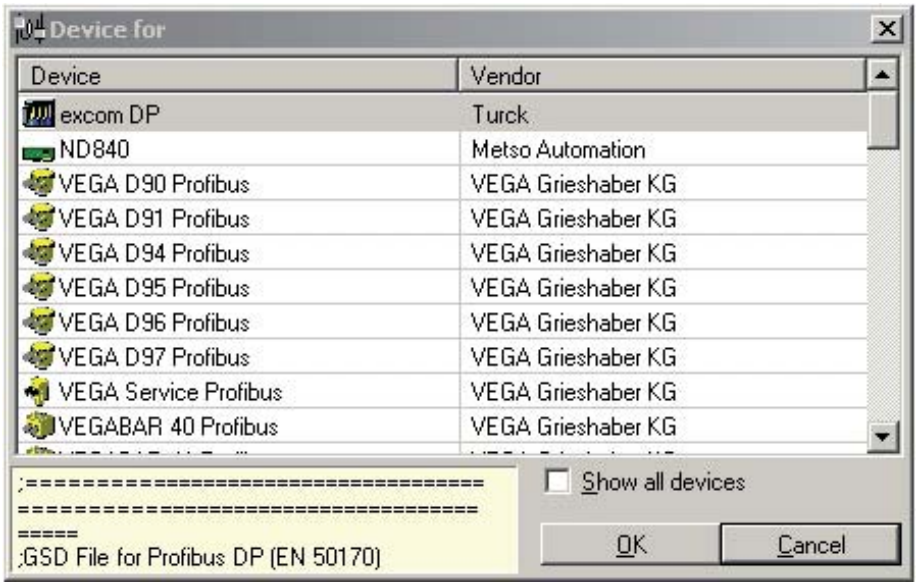

Fig. 4 List of the installed PROFIBUS DTMs

Using the *excom*® DTMs
The context menu (right-click the DTM in the project window) provides information on the functions available. Different options are possible depending on the connection status (connected/not connected). When not connected, all settings are carried out that are not directly linked with the hardware, e.g. offline parameters. The offline parameters of the *excom*® DTMs are used in PACT*ware*® for setting the DTM access of the associated module, e.g. selecting which HART® secondary variables are to be read or the direction of the channels of the DM80Ex (input/output module).

When connected, the DTM is linked directly to the hardware. There is first of all a logical connection between the DTM and the module. In this state, the DTM allows access to process data, diagnostics and device data as well as the manipulation of process data for simulation tasks.

The following figures show the basic structure and operation of all DTMs (see Fig. 6 to Fig. 10):

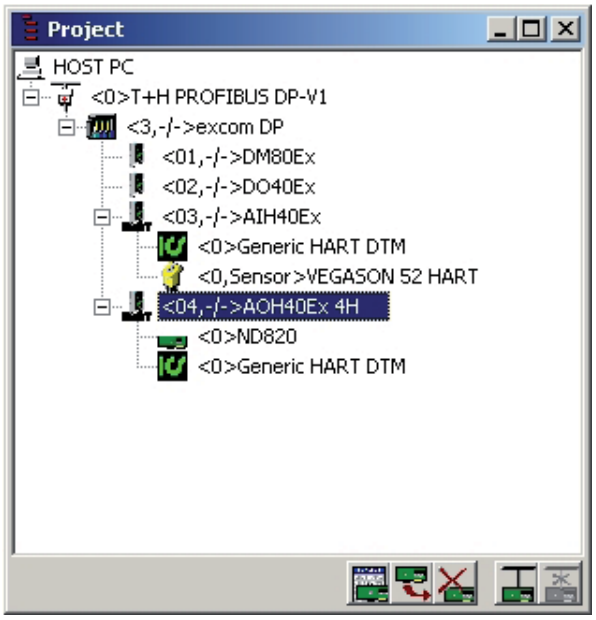

Fig. 5 Project tree including HART® instrumentation.

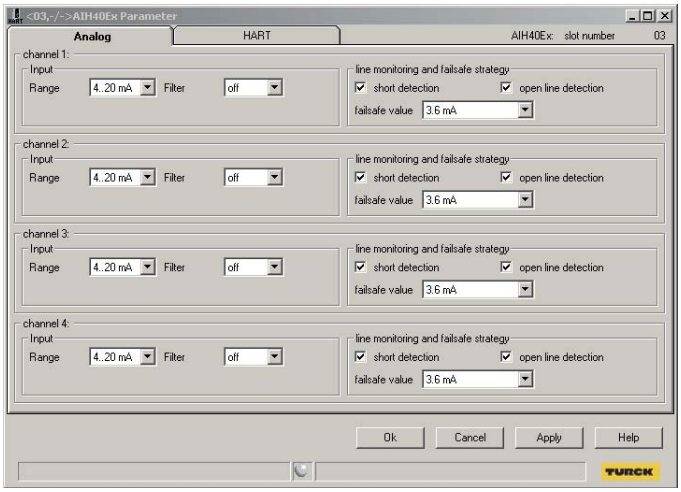

Fig. 6 Parameter entry

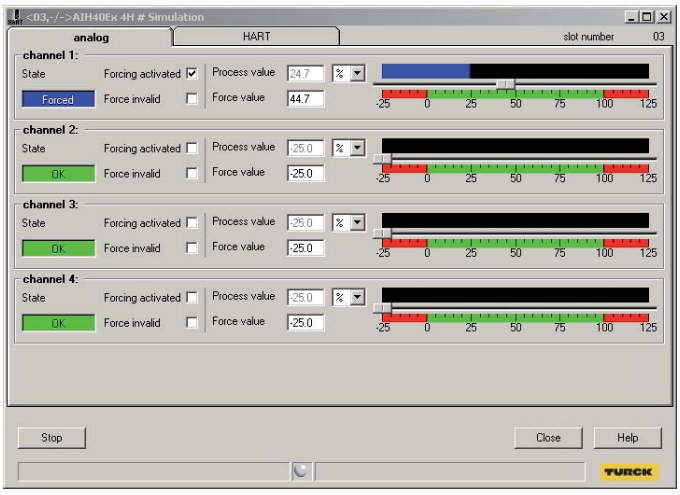

Fig. 7 Simulation

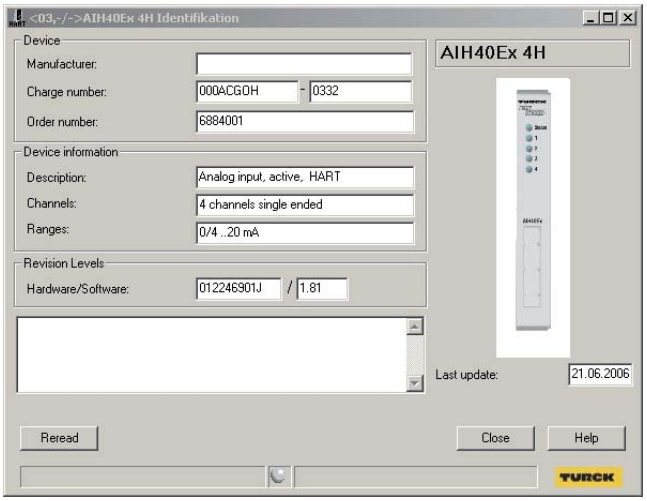

Fig. 8 Identification

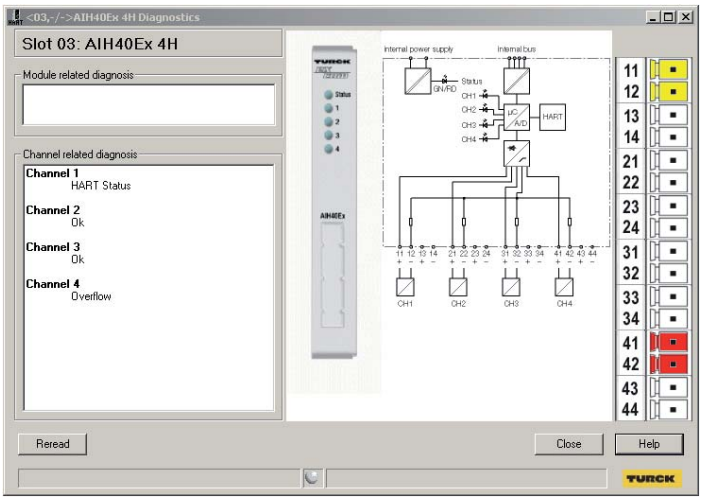

Fig. 9 Diagnostics

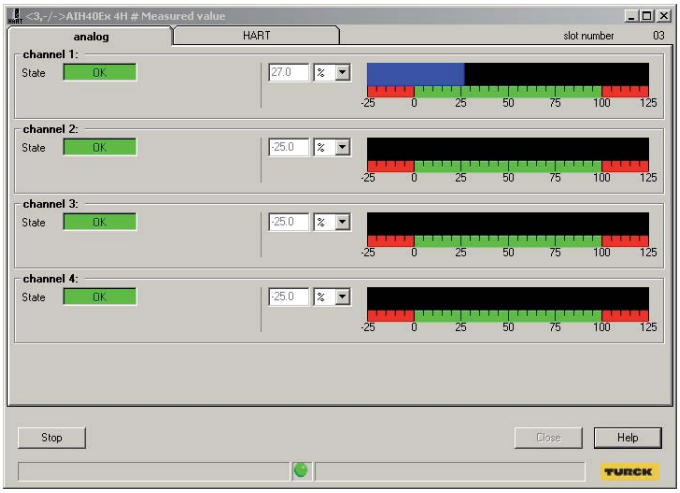

Fig. 10 Measured value representation

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