

TECH NOTE :: digiCLIP with FDT/DTM application

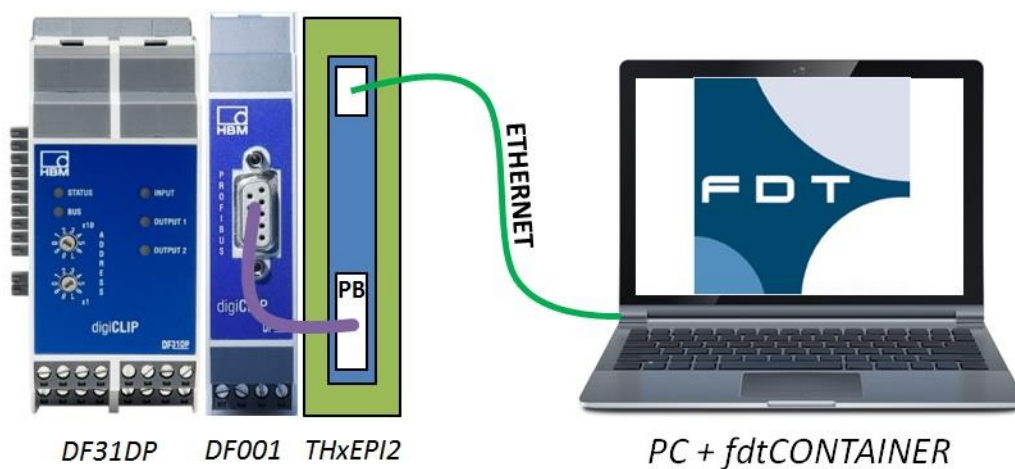
Version: 2017-03-24

Author: Michael Guckes, Silvan Ettle

Status: HBM: Public

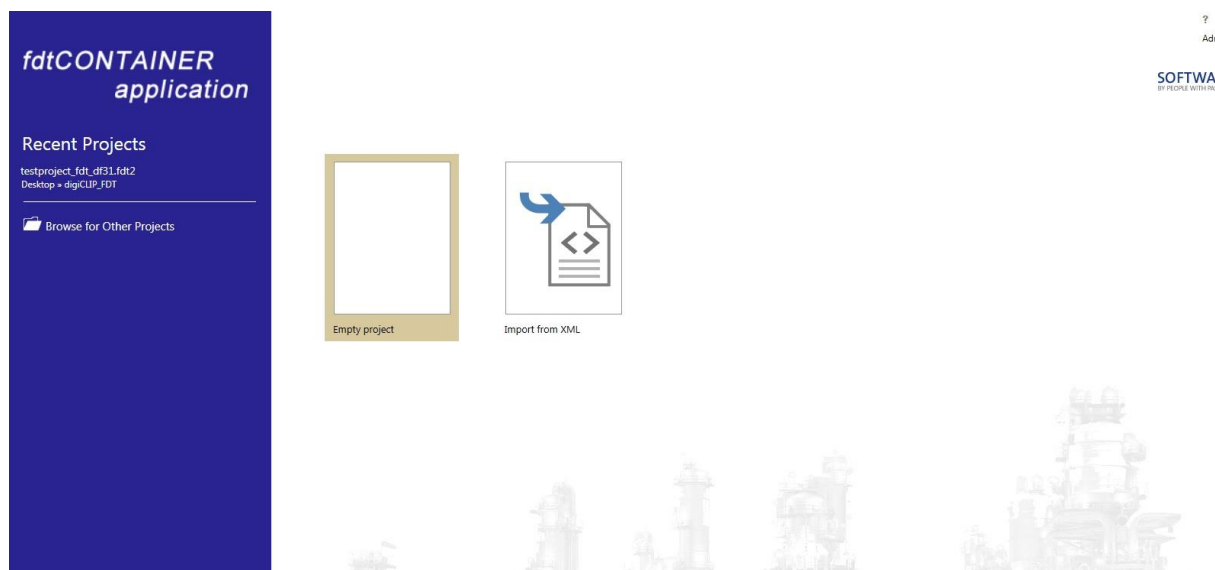
Brief description

This is an instruction for creating a project with the fdtCONTAINER 4 from the company M&M, which connects a Profibus digiCLIP (DF31DP) with a PC via an Ethernet gateway (THxEPI2). A topology consisting of a frame application (fdtCONTAINER), a communication DTM (commDTM) and a DTM for the device (deviceDTM) is built. Afterwards the device can be controlled and monitored with the frame application. Other software pieces are not necessary anymore. Basic knowledge about Profibus connections, DTMs and the digiCLIP are recommended.



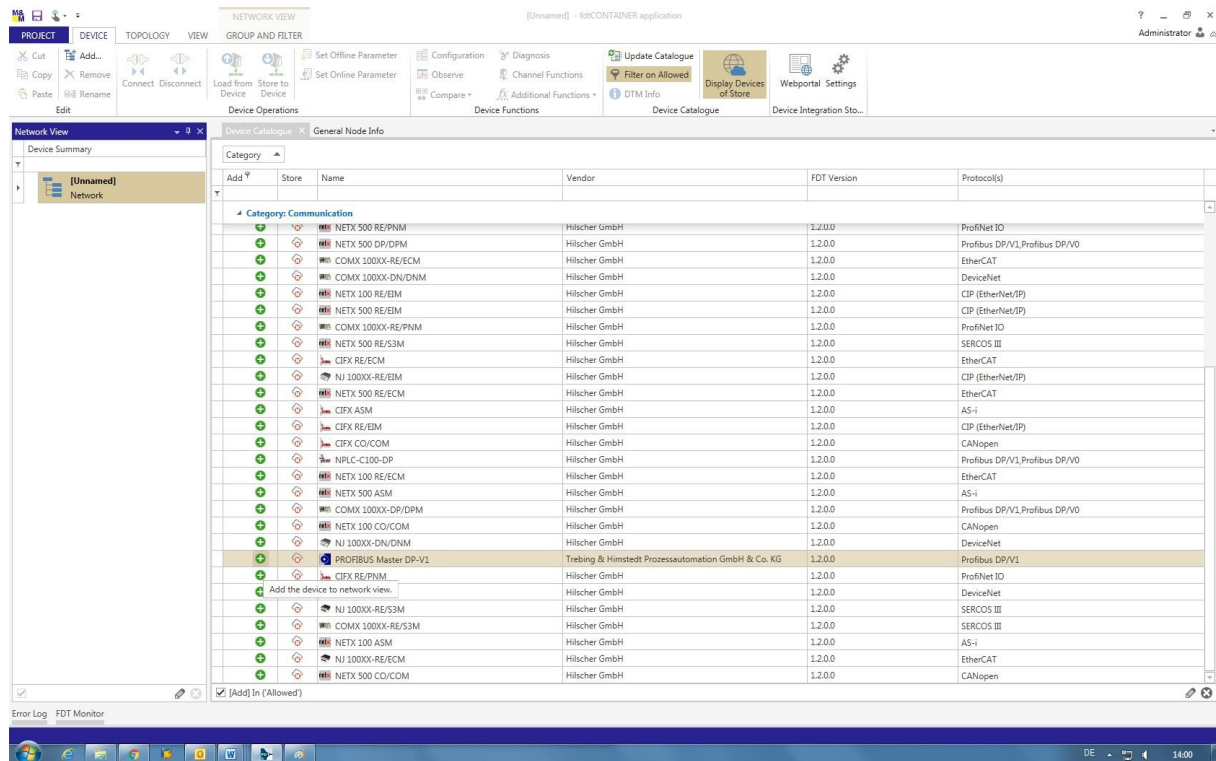
Software installation

First, the frame application fdtCONTAINER has to be installed. It can be downloaded from the M&M website for free. Additionally a DTM library is needed, which can be downloaded from the Softing website for example. It includes a lot of common commDTMs and device DTMs. To get the digiCLIP connected, its deviceDTM has to be downloaded from the HBM website and then installed. When all necessary software pieces have been installed, the fdtCONTAINER can be started and a new project can be generated.

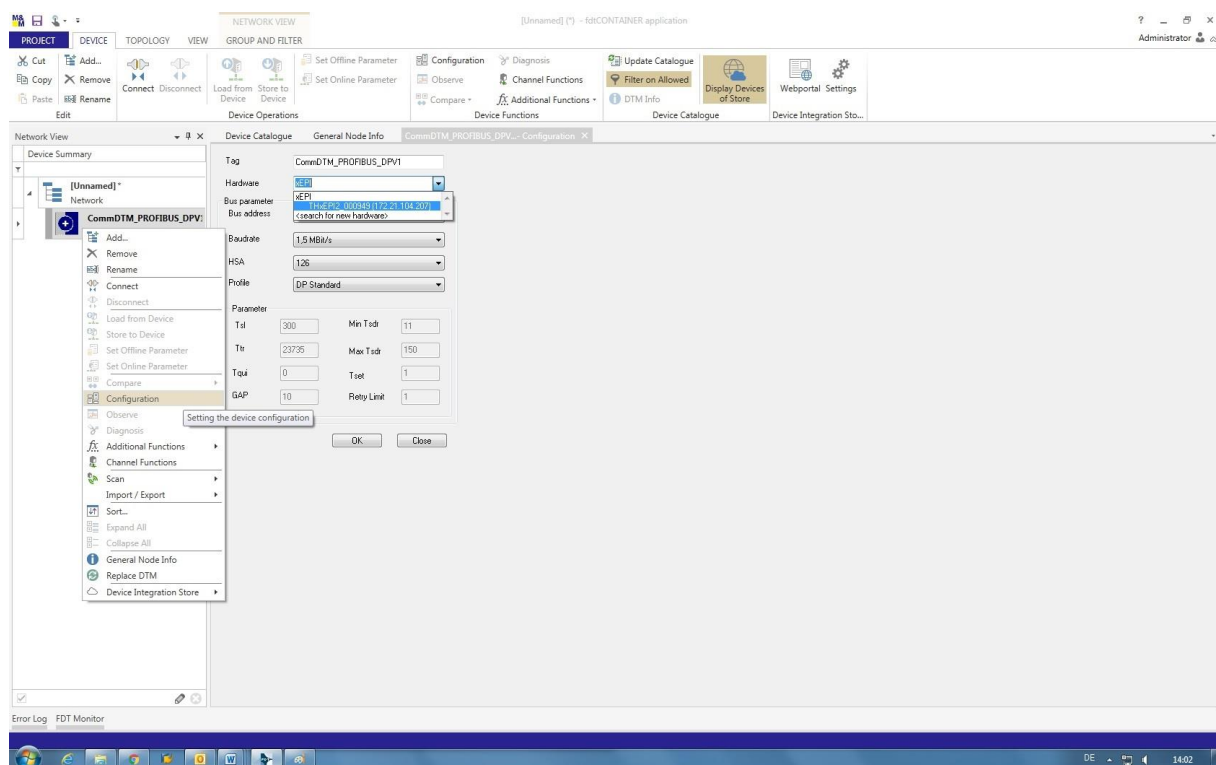


Set up the devices

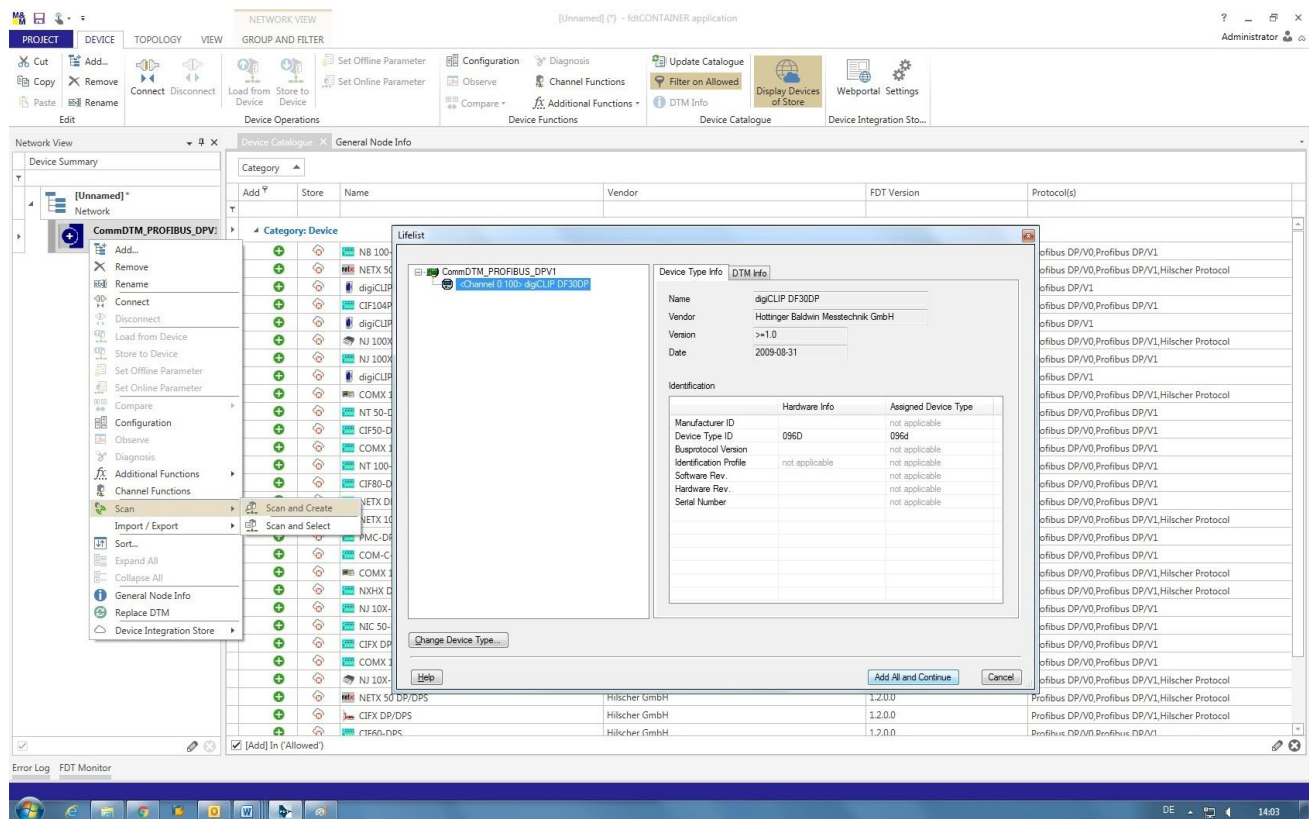
At first a communication device has to be installed. For this particular example the Trebing & Himstedt converter THxEP12 is used. The corresponding commDTM (CommDTM_Profibus_DPv1) is loaded from the device catalogue into the device summary by clicking the plus icon.



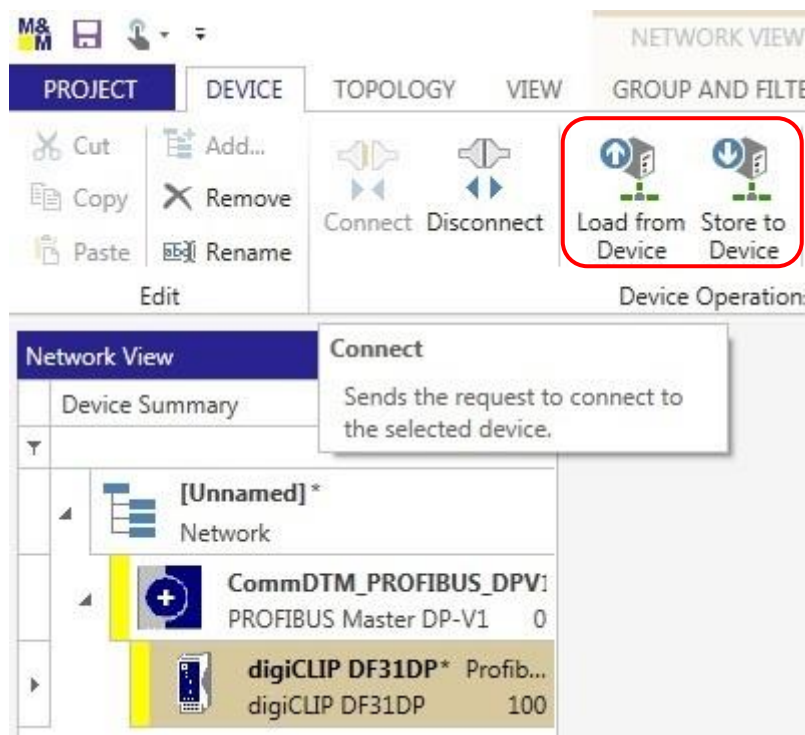
As next step the commDTM has to be configured and connected to the interface. Therefore perform a right-click onto the commDTM in the device summary. Afterwards you are able to connect to all hardware within the network. Select the digiCLIP module here.



Afterwards the network can be scanned and available devices can be added to the device summary. Make sure that the device type is the same as the device you are using. If the device type is different, it can be adapted via “change device type”. By clicking “add all and continue” the device is attached to the commDTM in the device summary.

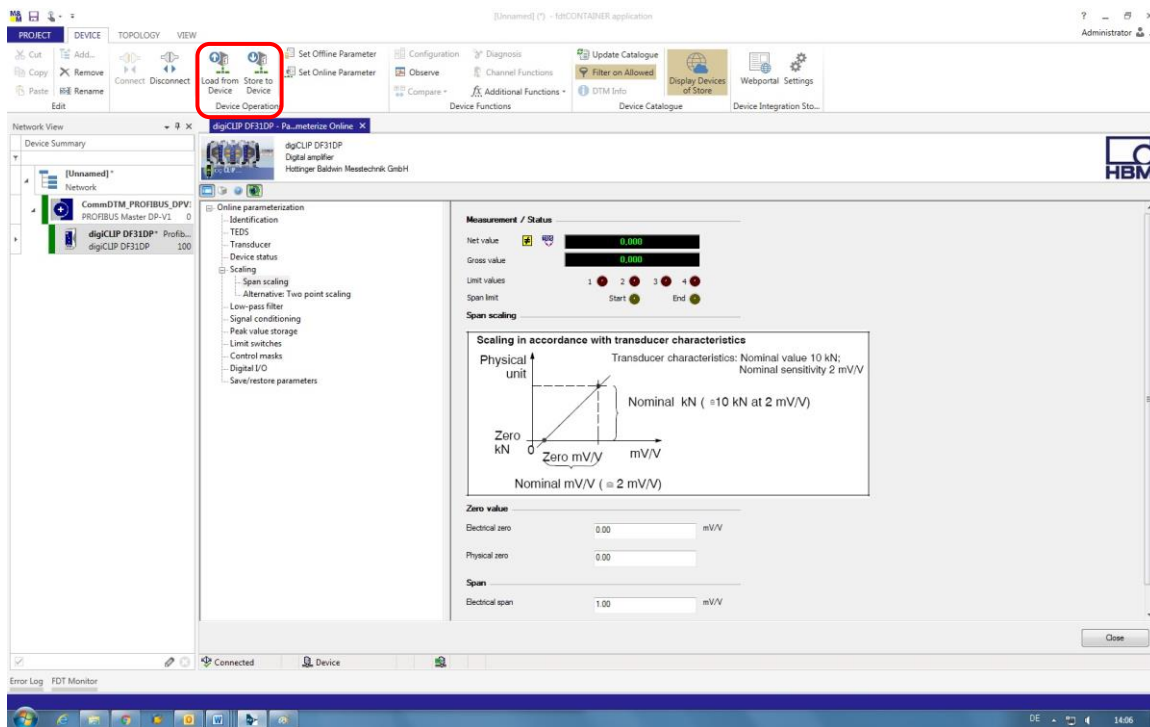


When all network devices are installed, a connection via the connect icon can be set up to load data from or to write data to the device. The application is running now. All devices in the device overview should light up yellow.

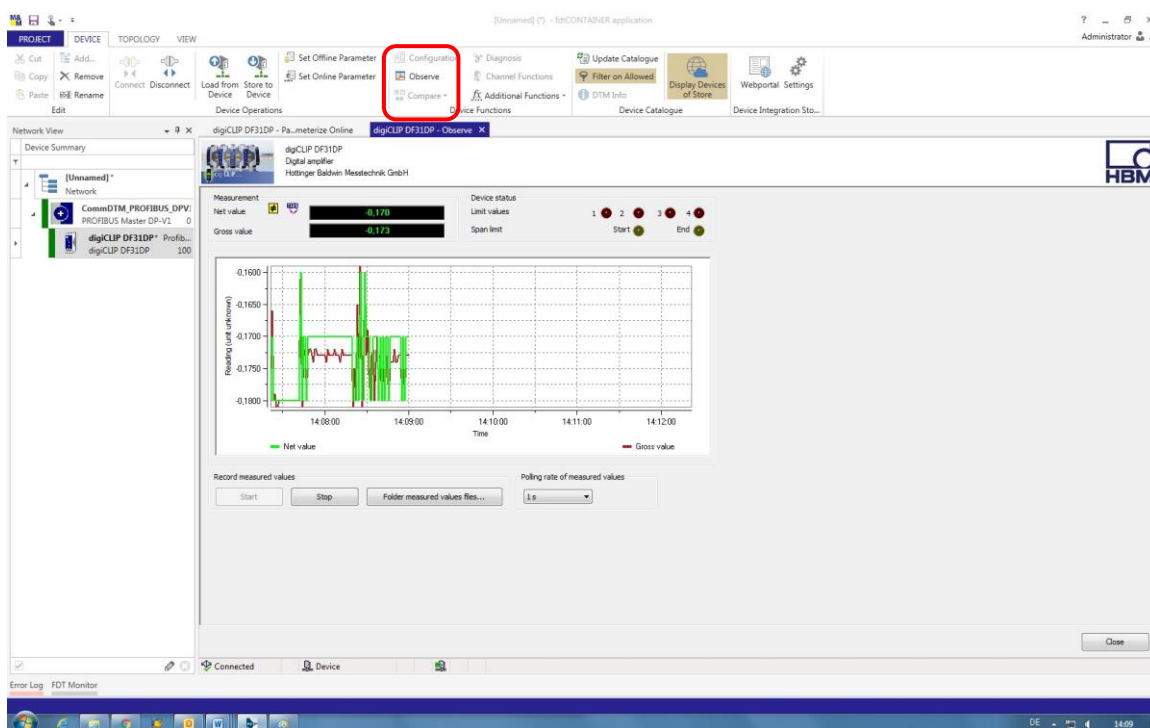


Communication with the device

By double-clicking onto the digiCLIP in the device summary you get to its settings. You can select different setting dialogues in the tree structure to enter or change corresponding parameters. With the button “load from device” all settings and values can be loaded into the frame application from the device. The other way around you can parameterize the device from the frame application by clicking the button “save to device” – that way additional device software is unnecessary.



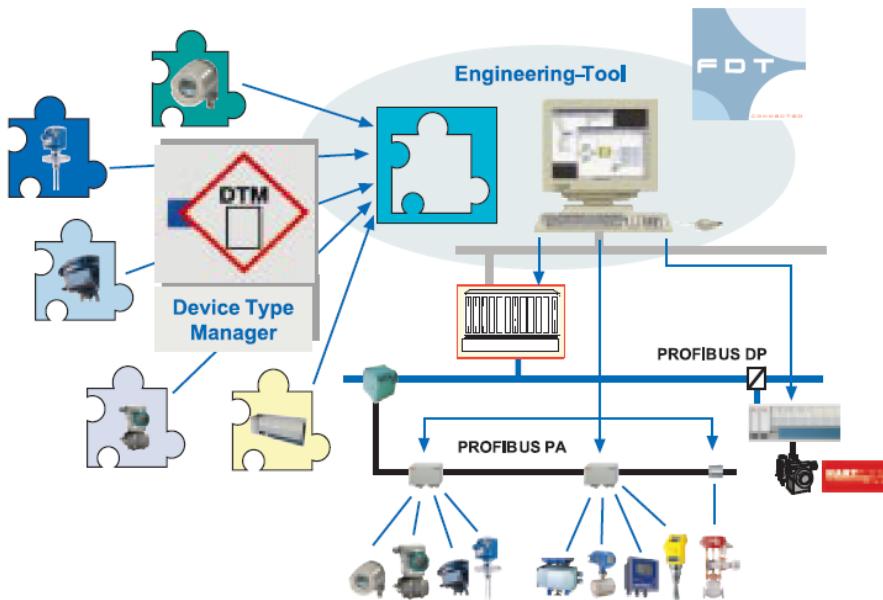
With the button “observe” you can get access to the line writer for example. It enables a long-term- and trend monitoring.



Hints

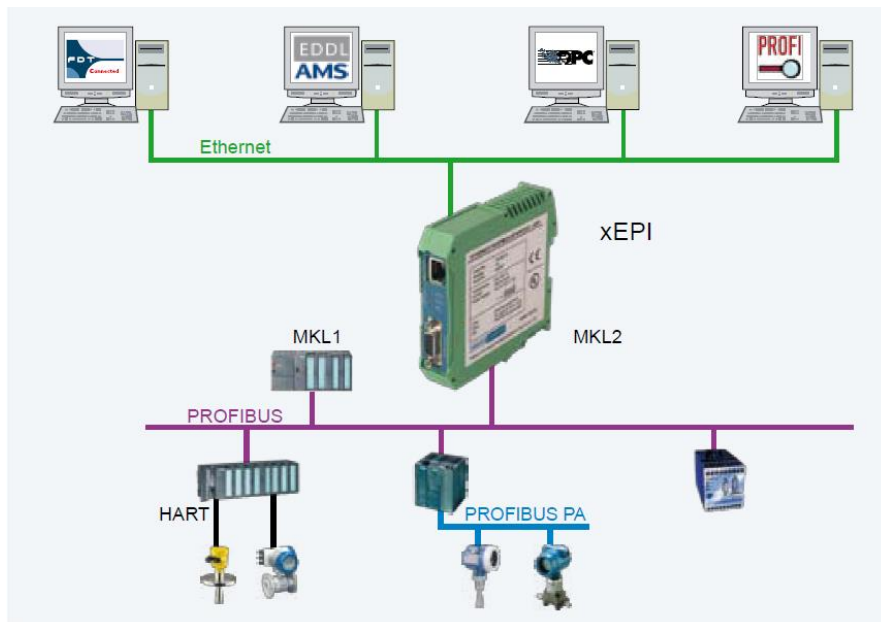
FDT – Field Device Technology:

FDT is a specification for a software interface. This software interface describes the data transfer between an application and a software component for field devices. FDT is standardized as international norm IEC 62453 and ISA103. More information can be found here: https://de.wikipedia.org/wiki/Field_Device_Tool



xEPI – Ethernet-Profibus-Interface:

Besides its gateway functionality the xEPI-module enables an efficient diagnosis of the Profibus network and the field devices in combination with the diagnosis software TH SCOPE.



Disclaimer

These examples are for illustrative purposes only. They cannot be used as the basis for any warranty or liability claims.