



# Quick Start Guide

PACTware 5.0

HART Communications FDT 1.2

Microflex Generic HART DTM-6



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## PACTware FDT Overview

PACTware (Process Automation Configuration Tool) is a program which allows the selection of communication-capable field devices of different manufacturers from a device catalog, and combine them in projects. PACTware is used as a frame program for DTMs (Device Type Managers) which are delivered as configuration software by the manufacturers of field devices. Microflex offers the Generic HART DTM which supports the HART protocol common practice and universal commands and works with all HART registered devices. The manufacturer of your HART device may offer a DTM module specifically for your device with full HART protocol functionality. Additional DTMs may be installed into PACTware to add functionality as needed - not just for HART but other protocols as well. Detailed information can be found at [www.pactware.com](http://www.pactware.com) and from the PDF brochure file included on the software distribution CD.

PACTWare\_Efficient-Configuration-en[1].pdf

## System Requirements

- Windows 10, 8, 7, or Vista
- Windows dot NET Framework 2.0
- 100 MB disk space and 50 MB main memory
- 450MHz processor or better
- XGA Graphics
- Mouse or equivalent pointing device

## PACTware Prerequisites

The Microsoft dot NET framework release 2 or higher must be installed before installing PACTware. The dot NET framework may already be installed on your PC and is included with most versions of Windows. Framework version 2 is included on your MicroLink CD and can also be downloaded at no charge from Microsoft at <http://www.microsoft.com> (search for “dot net 2 download”).

To install the dot net framework from the CD run **dotnetfx.exe** from the \ **DotNetFramework** folder.

## Microflex Generic HART DTM

The Microflex Generic HART DTM is installed into the PACTware frame device catalog and can parameterize any HART device using the common practice and universal set of HART protocol commands. Not all device functionality will be supported but in many applications the Generic HART DTM may be the answer. If a specific DTM does not yet exist for your HART device, and common practice commands are sufficient for your needs, the Generic DTM can provide a simple low cost solution.

Microflex offers two versions of the Generic HART DTM. The Standard licence versions is included free with all Microflex HART protocol modems. The Professional license requires a USB Microlink modem and adds additional calibrations and configuration functions.

Visit [www.microflx.com](http://www.microflx.com) for details on the Generic DTM-6 HART software.

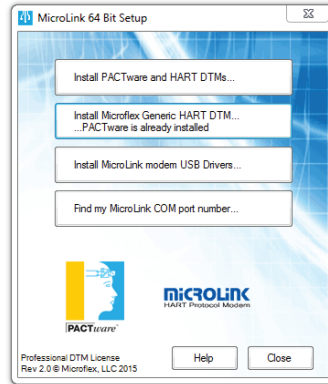
Microflex Generic DTM-6 Feature List	Standard License	Professional License
HART 7, 6, and 5 support	•	•
HART protocol common practice and universal command support	•	•
Offline & online parameterization	•	•
Load & store data from device	•	•
Read device state	•	•
Measured values acquisition	•	•
Diagnosis	•	•
Write device data to a file		•
Printing -Configuration -Parameterization -Diagnosis data		•
Calibration -Sensor zero trim -Analog output DAC trim -Scaled DAC trim -Loop test -Set measuring range		•
Requires MicroLink™ USB Modem		•

## Installation

Before you install PACTware close all running programs. From the CD's folder, double-click Msetup.exe to load the setup utility. If the auto-run feature is enabled for your PC the setup utility will run automatically after the CD is inserted.

If you already have PACTware installed and would like to add the Microflex Generic HART DTM, choose **Install Microflex Generic HART DTM...**

*(Refer to Updating the Device Catalog)*

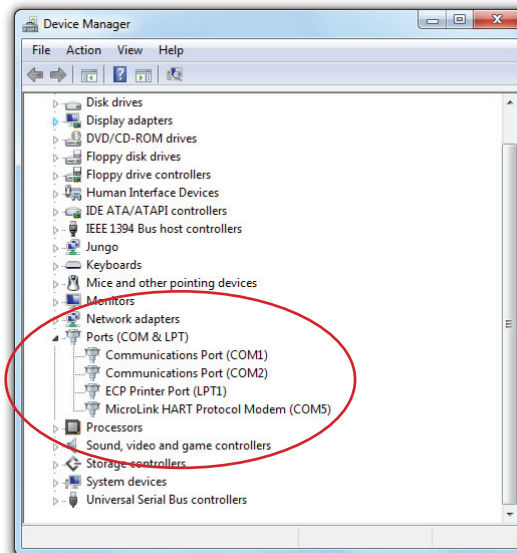


To install PACTware and the required HART DTM modules choose **Install PACTware and HART DTMs...**

The MicroLink USB HART modem requires drivers to be installed BEFORE the modem is connected to the USB port. Choose **Install MicroLink USB drivers...** to pre-install USB drivers for a USB HART modem. After installing the drivers, plug-in the modem to complete the setup.

**Find my MicroLink COM port number...** will scan your computer and display the port number assigned to your USB modem. You will need to set PACTware to use the same port number in your project. *(Step 2 - Set Modem Serial Port Number)*.

The assigned port number can also be found using the Windows Device Manager. View com ports under **Ports (COM & LPT)**. USB modems will show as *MicroLink HART Protocol Modem*. RS-232 modems will connect to a hardware serial port. In the example shown a RS-232 modem could connect to COM1 or COM2.



## Running PACTware

Connect the MicroLink modem to your PC before running the PACTware program. This is especially important if you have a USB modem. With the modem connected, start PACTware; either by clicking on the PACTware icon on the desktop, or by choosing it from...

**Start > All Programs > PACTware 5.0 > PACTware 5.0.**

With PACTware installed and running you will need to add a new device to the new PACTware project. The following steps will guide you through adding the FDT HART communications DTM and the Generic HART DTM to your project. After the DTM's are added you will be able to communicate with your HART transmitter.

### Step 1 - Add FDT HART Communications DTM

From the top menu, click **Device > Add device**. A dialog window showing the HART Communications DTM is displayed. Click **HART Communication** from the list and then click **OK** to close the window and add the HART communications DTM to your project.

If **HART Communication** is not in the list it may not have installed or was not added to the PACTware Device Catalog. Refer to *"Adding DTMs"* in this guide for procedures to resolve this.

### Step 2 - Set Modem Serial Port Number

In the Project window, click **COM1** (under HOST PC in the Project Window) to make it active. Although COM1 is used in this example yours may be set to a different COM number. From the top menu, click **Device > Parameter** to set the communications port number to match the COM port number that your HART modem is connected to. In the HART Communications Parameter dialog window - select the COM port from the drop down list and then click **OK** to save your choice and close the window. If the project window is not visible, press **F2** or click **View > Project** to make it visible.

### Step 3 - Add Generic HART DTM

With the COM1 DTM still highlighted and active in the project window, click **Device > Add device** from the top menu bar. This will open the *Device for* dialog window. Click **Microflex Generic HART DTM** in the list and then click **OK** to save your choice to the project and close the window.

If the **Microflex Generic HART DTM** is not in the list, it may not have installed or was not added to the PACTware Device Catalog. Refer to *"Adding DTMs"* in this guide for procedures to resolve this.

## Connecting to a HART Device

With the HART DTM set to use the Generic HART module, and the COM port set to match the port that the modem is connected to, you are ready to connect to your HART device. Refer to the manual for your HART device if you need help with attaching the Microlink modem mini-clips to the HART loop.

Click **Generic HART DTM** in the project window to make it the active device.

From the top menu - click **Device > Load from Device**.

Click **Yes** in the pop-up dialog to open a new connection.

To edit device parameters click **Device > Parameter** from the top menu.

To poll the device's values click **Device > Measured Value** from the top menu.

## Adding DTMs

If your device has a supporting DTM it can be installed and added to the PACTware Device Catalog. For a list of available DTMs visit...

<http://fdtgroup.org/product-catalog/certified-dtms>.

Also check with your device manufacturer to see if they offer a DTM for your device.

To install the HART Communications DTM from the CD run **setup.exe** from the **\AdditionalSetups\CWHARTFDTSetup\** folder. This module is normally installed as a part of the PACTware installation is required for all HART communications.

To install the Generic HART DTM from the CD run **setup.exe** from the **\AdditionalSetups\MFXGenHartSetup\** folder. This module is normally installed as a part of the PACTware installation.

## Updating the Device Catalog

After installing new DTMs onto your computer you may need to update the PACTware Device Catalog to make PACTware aware of the new modules.

First, make the Device Catalog visible by pressing **F3** or click **View>Device Catalog**. Click the **Update Device Catalog** button at the bottom of the window and PACTware will locate the new DTMs and add them to the catalog.

## **Additional Information**

PACTware PDF format manuals are available in several languages on the MicroLink CD in the **PDF-Manuals** folder.

Additional information on PACTware, DTM technology, and the Field Device Tool (FDT) Joint interest group can be found at the following web sites;

[www.pactware.com](http://www.pactware.com) PACTware Consortium  
[www.fdt-jig.org](http://www.fdt-jig.org) FDT Joint Interest Group  
[www.hartcomm.org](http://www.hartcomm.org) HART Communications Foundation  
[www.microflx.com](http://www.microflx.com) Microflex, LLC

Additional DTM modules are available from participating PACTware members. For a list of members, and available DTM modules visit [www.pactware.com](http://www.pactware.com).

