DTM User Manual

Honeywell

Searchpoint Optima Plus
Infrared Gas Detector HART

Content

1 Introduction

The purpose of this document is to support the plant operators with commissioning, operation, configuration and diagnosis of the Searchpoint Optima Plus Infrared Gas Detector HART, which will be in the following called Optima Plus. The Optima Plus is an infrared point Hydrocarbon gas detector certified for use in potentially explosive atmospheres. The unit's infrared detection principle offers the fastest speed of response and fail-to-safe operation, ensuring that your plant is compliant, your personnel are protected and your production process can deliver maximum uptime.

The IR principle allows detection without background oxygen, as required for bead type detectors, while the plug-in handheld device allows fault diagnosis, change of gas type and event log access.

The Optima Plus HART device can be configured and operated by a DTM (Device Type Manager) that provides an easy to use user interface for accessing device variables, configuration parameters and diagnosis information.

The Optima Plus HART Device Type Manager offers the combination of FDT and EDDL technologies and a uniform user interface according to the FDT style guide. It is a full-featured device DTM that carries the standard EDD-Interpreter components to execute the EDD during runtime. Because it is using existing device descriptions, plant operators will experience a familiar operating concept in the DTM.

WARNING

For safety reasons this equipment must be operated by qualified personnel only. Read and understand the instruction manual completely before operating or servicing the equipment. For information regarding the Optima Plus device, please check the Optima Plus Operating Instruction Manual

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2 Software installation

2.1 Required software / software components

In order to be able to use the Optima Plus HART DTM and to go online with the device you need the following components:

- FDT Frame application (PACTware or some other FDT application supporting FDT 1.2.x)
- HART Communication DTM (it represents the communication hardware needed for connecting the field devices to the automation software): There is a free version of HART Communication DTM available for download from CodeWrights website (www.codewrights.de)
- Honeywell Analytics HART DTM Library
- Microsoft .NET Framework (.NET 2.0)
- HART modem (RS232 or USB interfaces of the companies Endress+Hauser, Microflex or MACTek) or HART multiplexer

This user manual describes in the case of using PACTware as FDT frame application and HART Commnucation DTM that is released by CodeWrights. Screen images captured from FDT frame application are of PACTware 4.1.

2.2 Downloads

2.2.1 PACTware

- Go to http://www.pactware.com, select English language
- Select Download
- Select PACTware
- There are free-of-charge PACTware download link.
- Follow the link and download PACTware 4.X

2.2.2 HART Communication DTM

- Go to http://www.codewrights.de/
- Select Downloads
- Select Software
- Select Download on CW_CommDTM_HART_1.0.52 (or above)

2.2.3 Honeywell Analytics HART DTM Library

- Go to the Honeywell Analytics link : http://www.honeywellanalytics.com/en/products/Searchpoint-Optima-Plus
- Go to Software and download DTM Toolkit for Searchpoint Optima Plus

2.2.4 HART modem or multiplexer driver

- Need HART modem driver to use HART modem
- Need HART multiplexer DTM library to use HART multiplexer

- Please contact the manufacturer to get the driver or DTM library

2.3 System requirements

2.3.1 System resources

Proper execution of the DTMs requires a standard PC with at least following system resources:

- x86 32-bit or x64 64-bit processor with at least 1 GHz
- Main memory (RAM) at least 512 MBytes
- Screen Resolution at least 1024x768 pixels

2.3.2 Operating systems

The DTM will run under the following operating systems:

- Windows XP SP3
- Windows 7 - 32 and 64 bit

2.3.3 Hard disk space

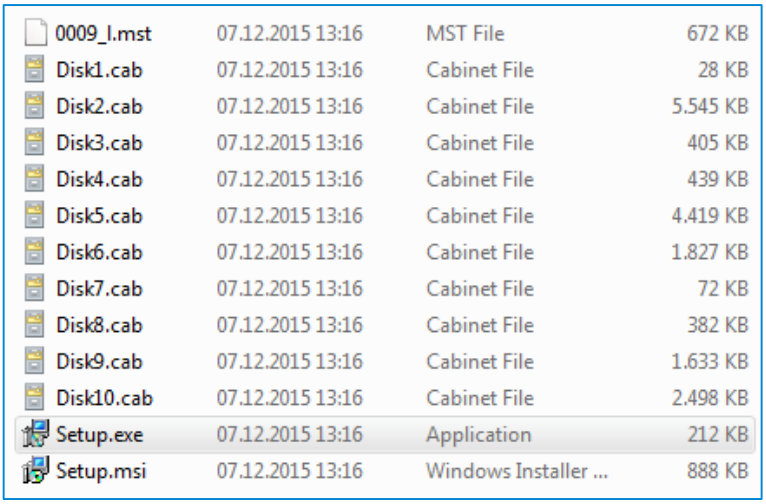
The Honeywell Analytics DTM Library HART requires approx. 50 MB hard disk space.

2.4 Installing DTM setup

Please install first the Frame Application PACTware (see §2.2.1) and HART Communication DTM (see §2.2.2).

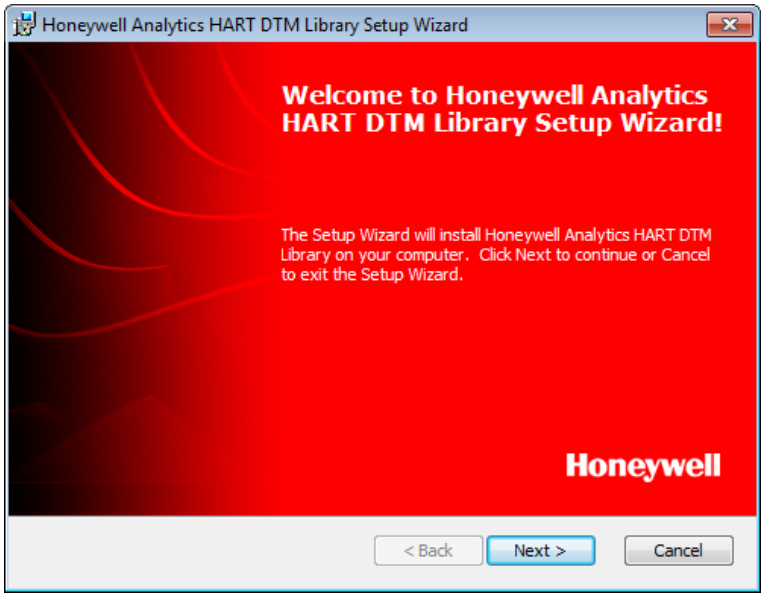
Install Honeywell Analytics HART DTM Library (see §2.2.3) as follows:

1. Execute the setup by double-clicking “Setup.exe” on the right-hand side: Extract the installation package to your local disk. Structure and files similar to the following example shall appear:

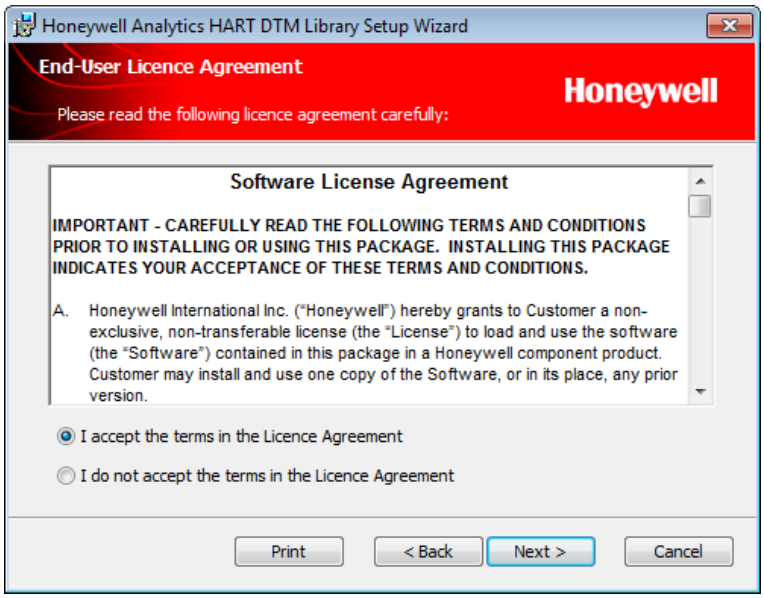


0009_l.mst	07.12.2015 13:16	MST File	672 KB
Disk1.cab	07.12.2015 13:16	Cabinet File	28 KB
Disk2.cab	07.12.2015 13:16	Cabinet File	5.545 KB
Disk3.cab	07.12.2015 13:16	Cabinet File	405 KB
Disk4.cab	07.12.2015 13:16	Cabinet File	439 KB
Disk5.cab	07.12.2015 13:16	Cabinet File	4.419 KB
Disk6.cab	07.12.2015 13:16	Cabinet File	1.827 KB
Disk7.cab	07.12.2015 13:16	Cabinet File	72 KB
Disk8.cab	07.12.2015 13:16	Cabinet File	382 KB
Disk9.cab	07.12.2015 13:16	Cabinet File	1.633 KB
Disk10.cab	07.12.2015 13:16	Cabinet File	2.498 KB
Setup.exe	07.12.2015 13:16	Application	212 KB
Setup.msi	07.12.2015 13:16	Windows Installer ...	888 KB

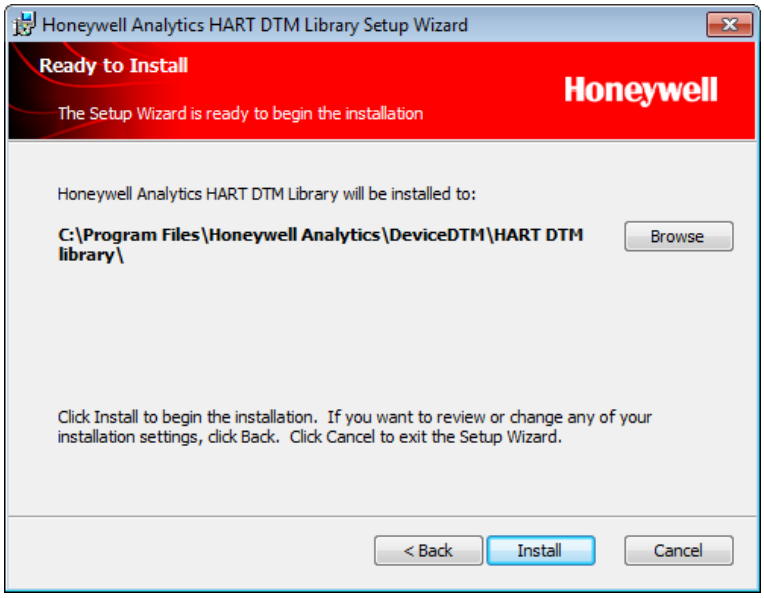
2. On the Welcome Screen, click “Next“:



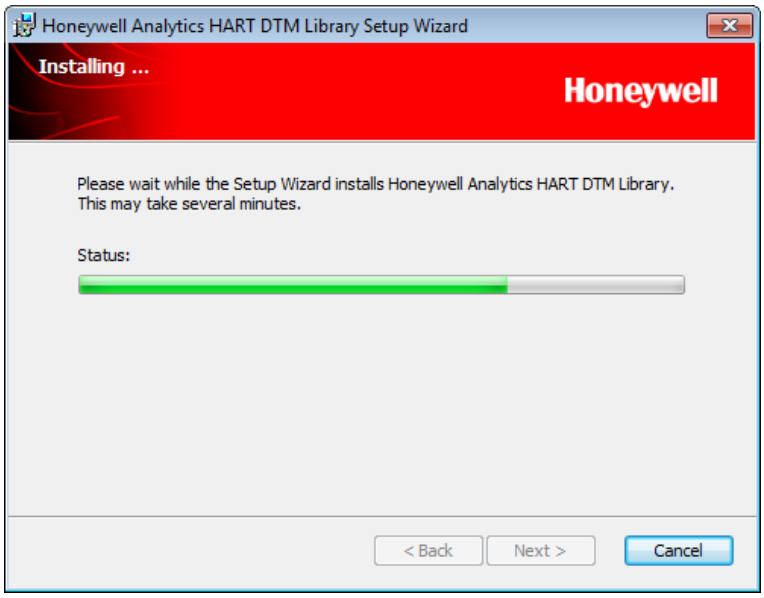
3. On the next screen, accept the License Agreement and click “Next”:



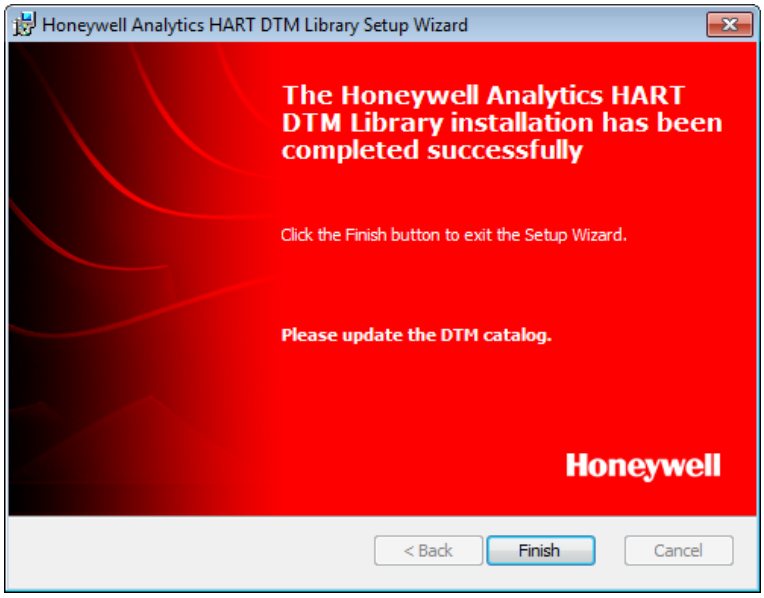
4. Adjust the installation path to your needs (choose the components to install and the destination directory) by pressing "Browse" or just confirm the default installation path with "Install":



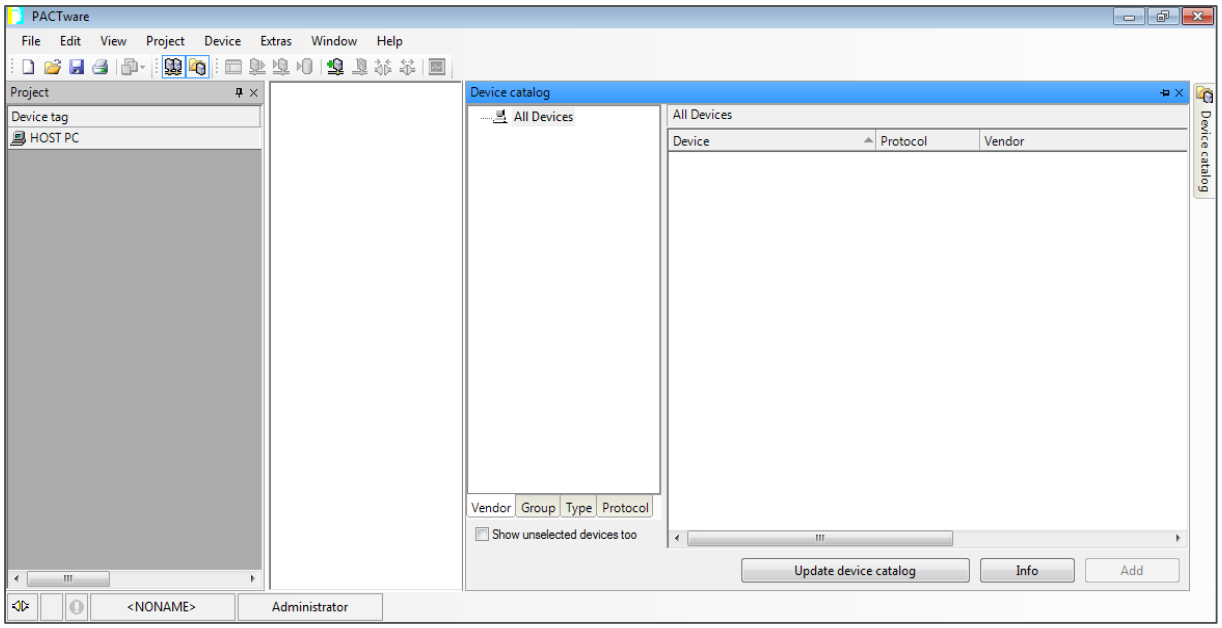
5. A window indicating the installation progress is displayed:



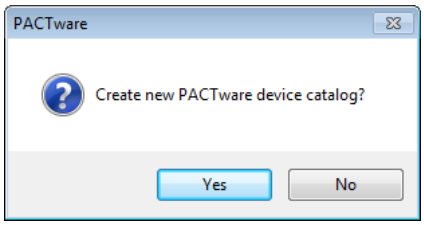
6. Confirm with “Finish” to close the setup wizard:



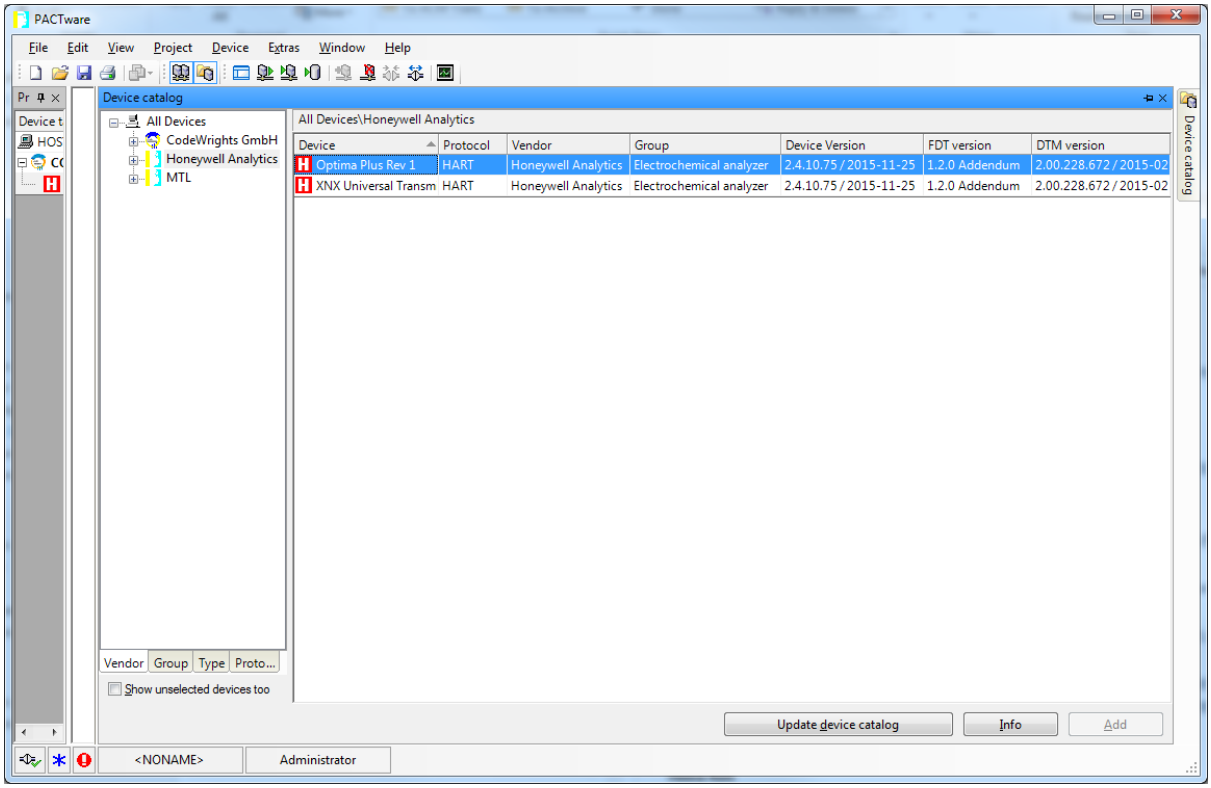
7. Run PACTware and update the device catalog:



8. Create an updated PACTware DTM catalog by clicking “Yes”:



9. After the update you will find the new installed device types listed in your catalog:



Please check if the DTM revision number (Device version) mentioned in the device catalog corresponds to the device revision number of the physical Optima Plus device you intend to connect.

3 Operation

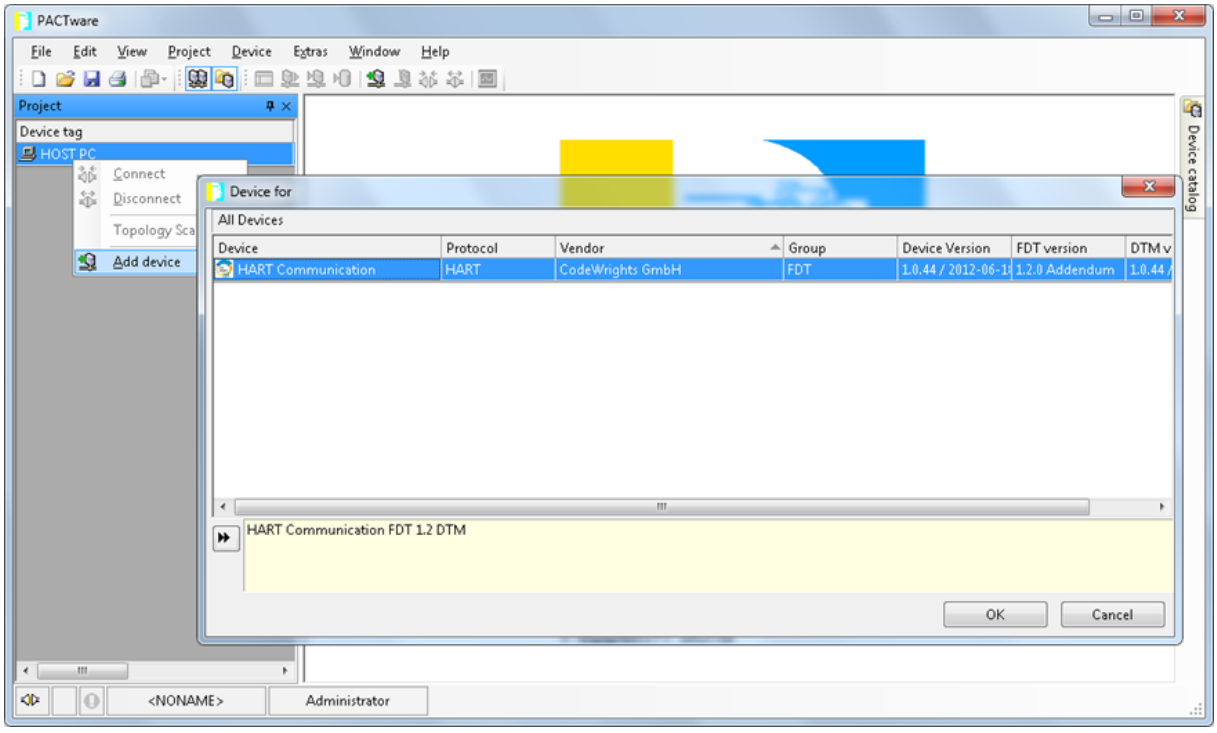
3.1 Establish connection with the device

For the electrical cabling and connections, please refer to the Optima Plus Operating Instruction Manual.

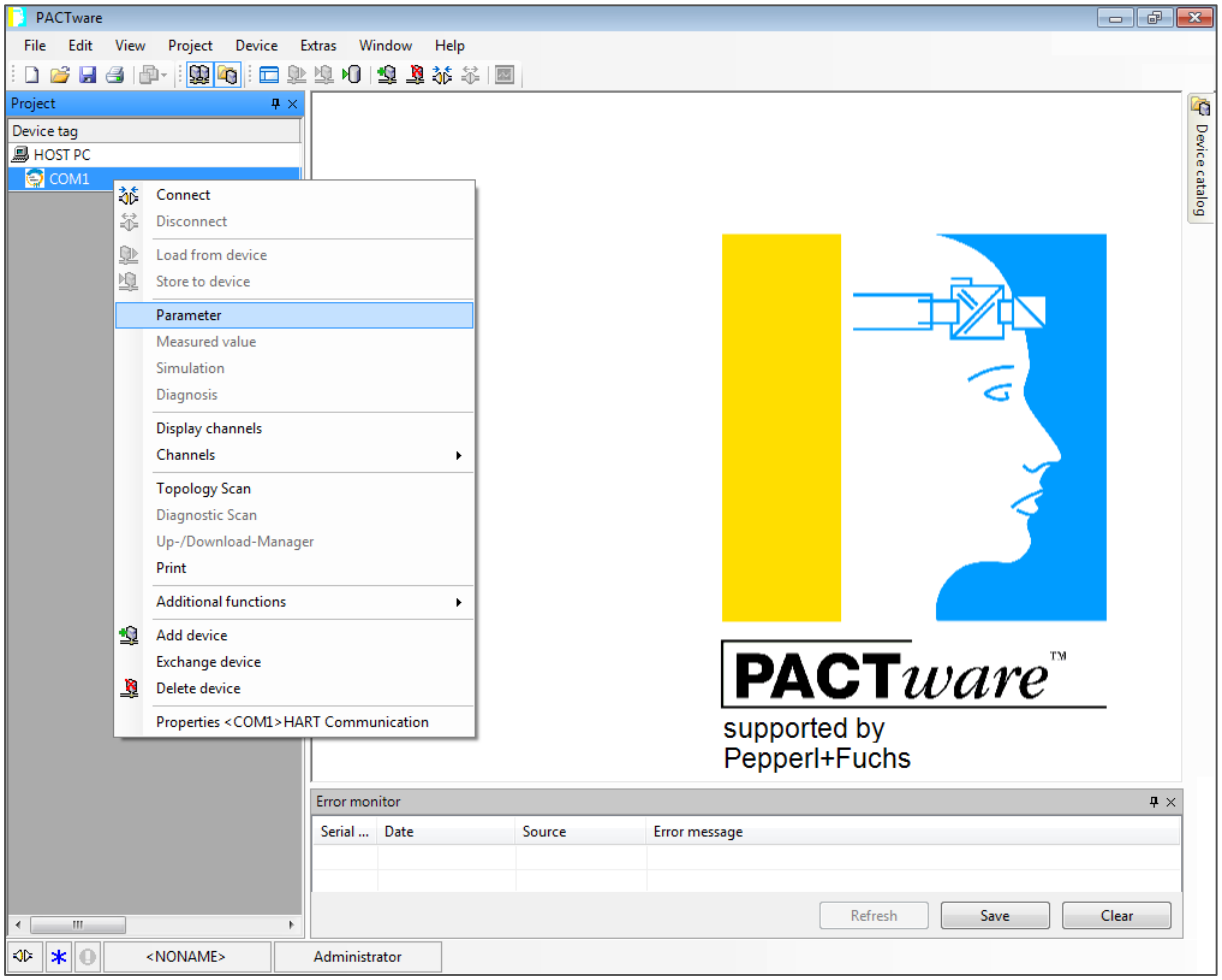
After completion of §2, please follow the steps described below for establishing the connection with your device using a serial HART modem and the CodeWrights HART Communication DTM (setting up a project in different FDT Frame application than PACTware or using different HART communication DTM than CodeWrights' might differ):

In order to use other HART interfaces such as HART Multiplexer, please refer to the relevant manufacturer's manual.

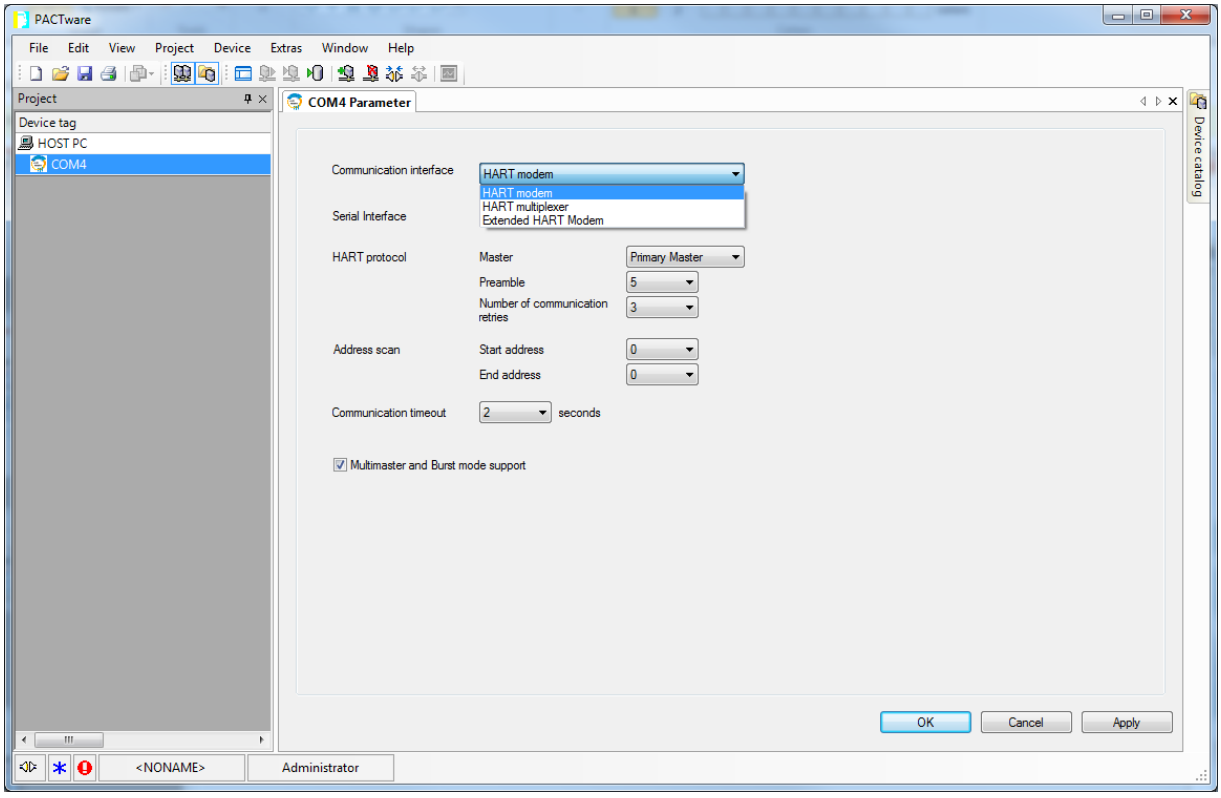
1. Open the PACTware frame application and make sure you have updated the "Device catalog" (if not already done yet) as mentioned in §2.4 Position 7
2. Connect the device and the serial HART modem as described in the Optima Plus device manual (http://www.honeywellanalytics.com/en/products/Searchpoint-Optima-Plus)
3. Connect the modem connector to the PC COM port (serial modem) or USB port (USB Modem)
4. Right-click on "HOST PC" in the project view on the left-hand side and select "Add device" to add the HART Communication DTM. On the next screen, select the DTM and click "ok":



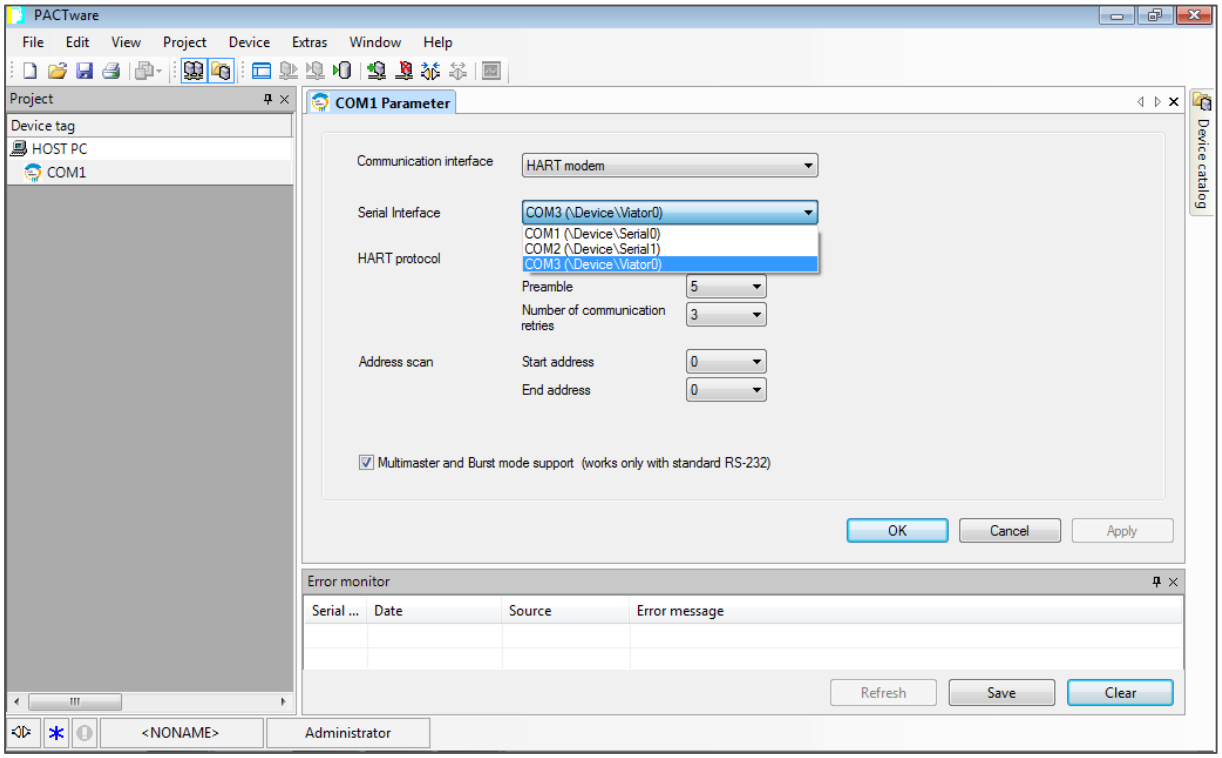
5. Right-click on "HOST PC" in the project view on the left-hand side and select "Parameter":



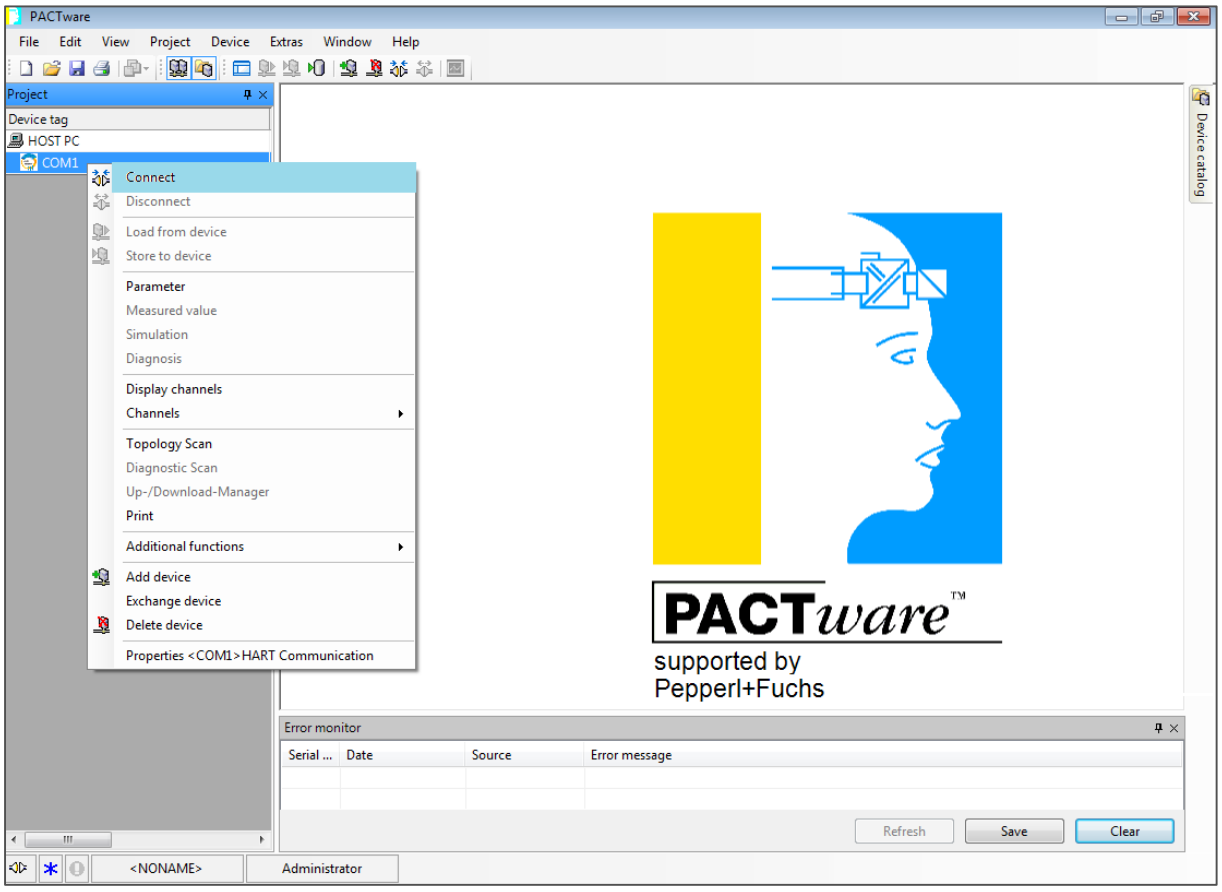
6. Select communication interface according to your hardware installation environment.



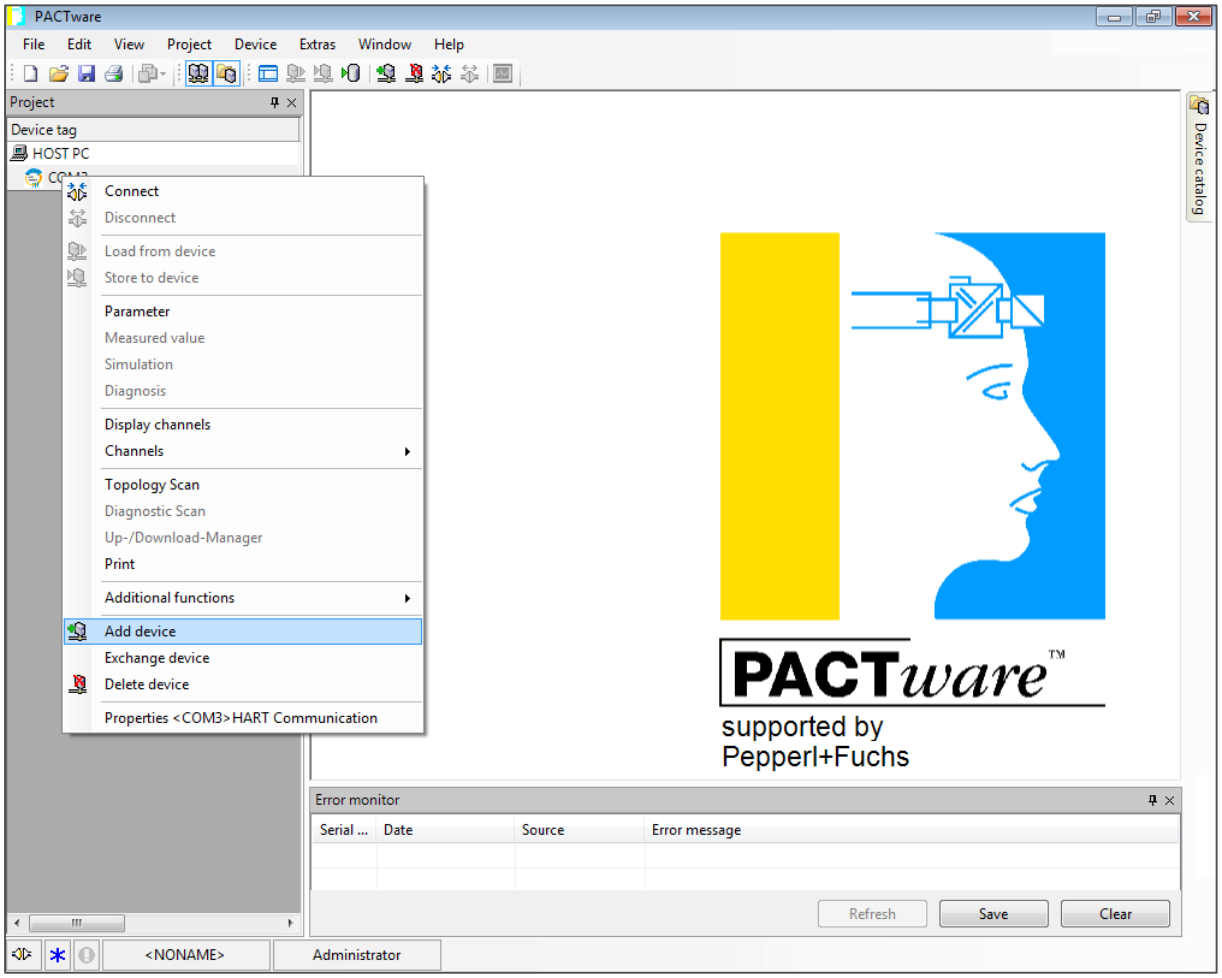
7. Adjust the serial interface according to your hardware connection (you can find this information in Computer/Properties/Device Manager/Ports/Communications Port) then click “ok”:



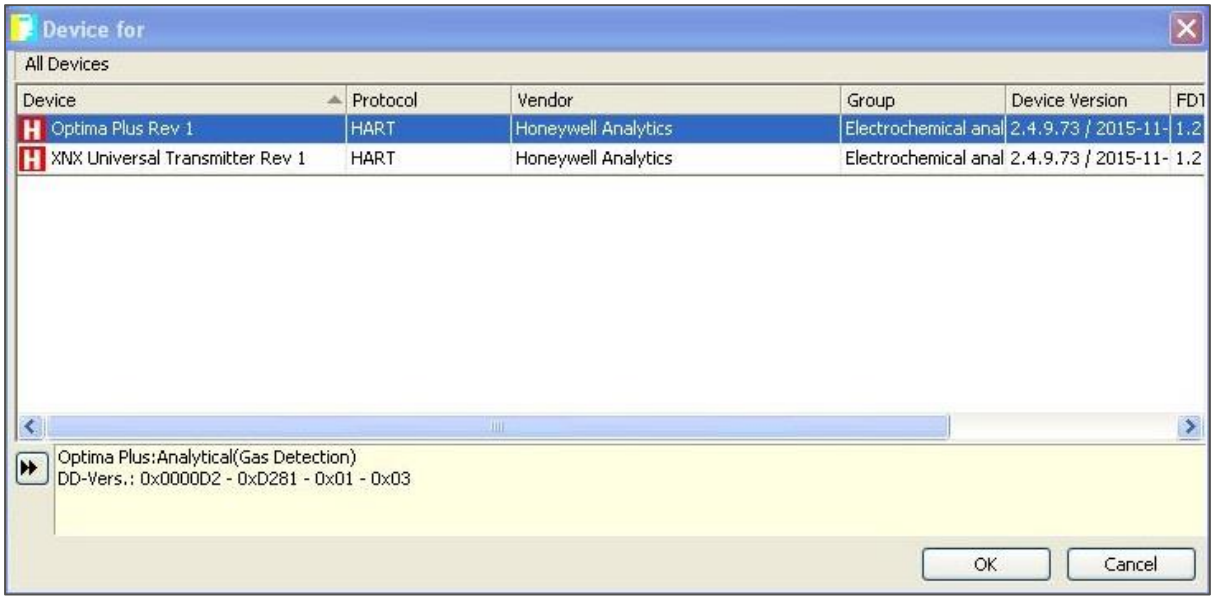
8. Now “Connect” the HART Communication DTM:



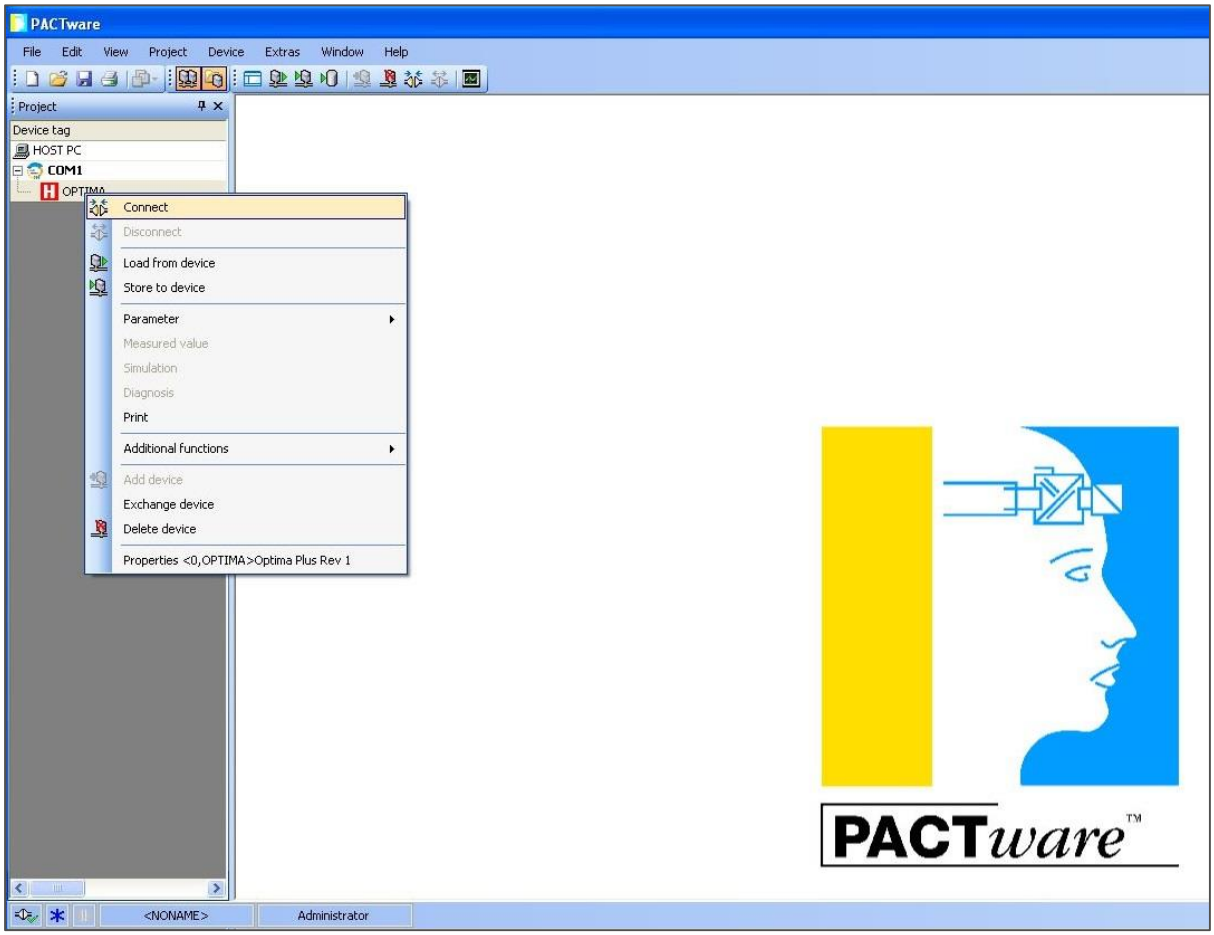
9. Now right-click on the communication DTM and select “Add device”:



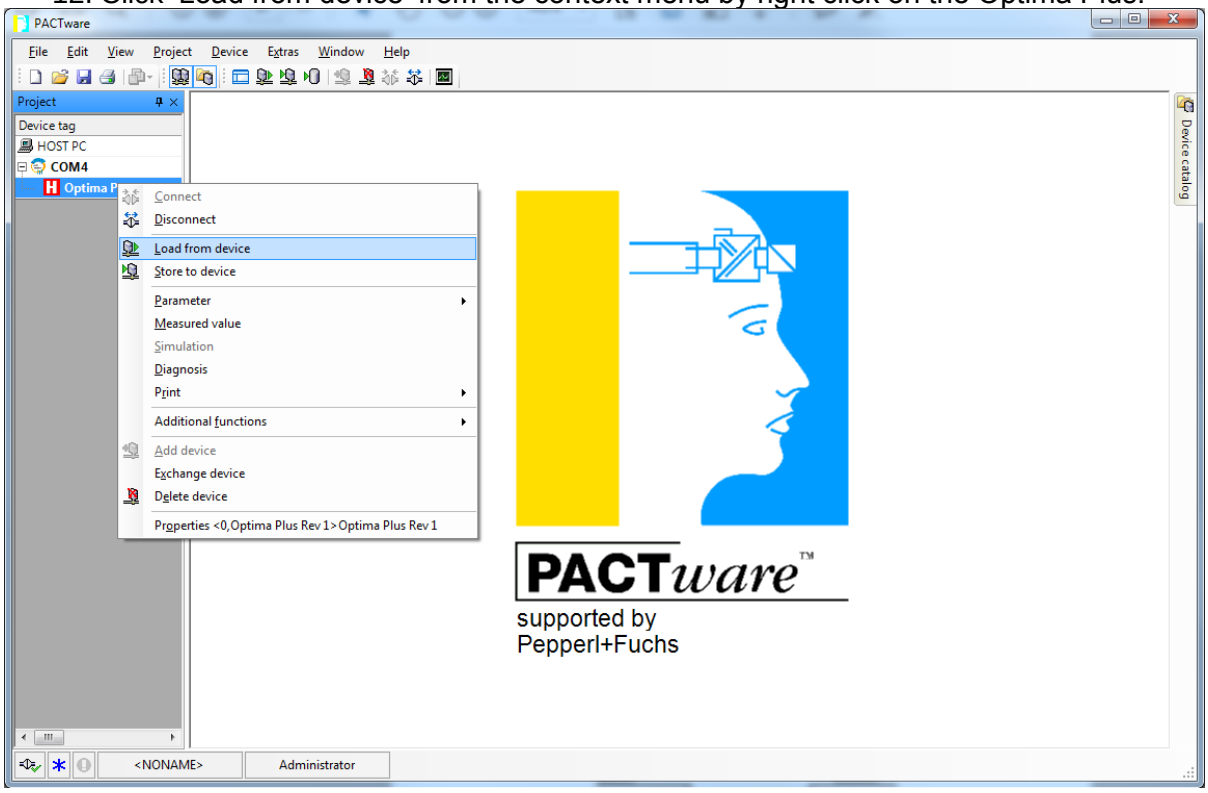
10. Select the Optima Plus device type for the Optima Plus device and click “OK”:



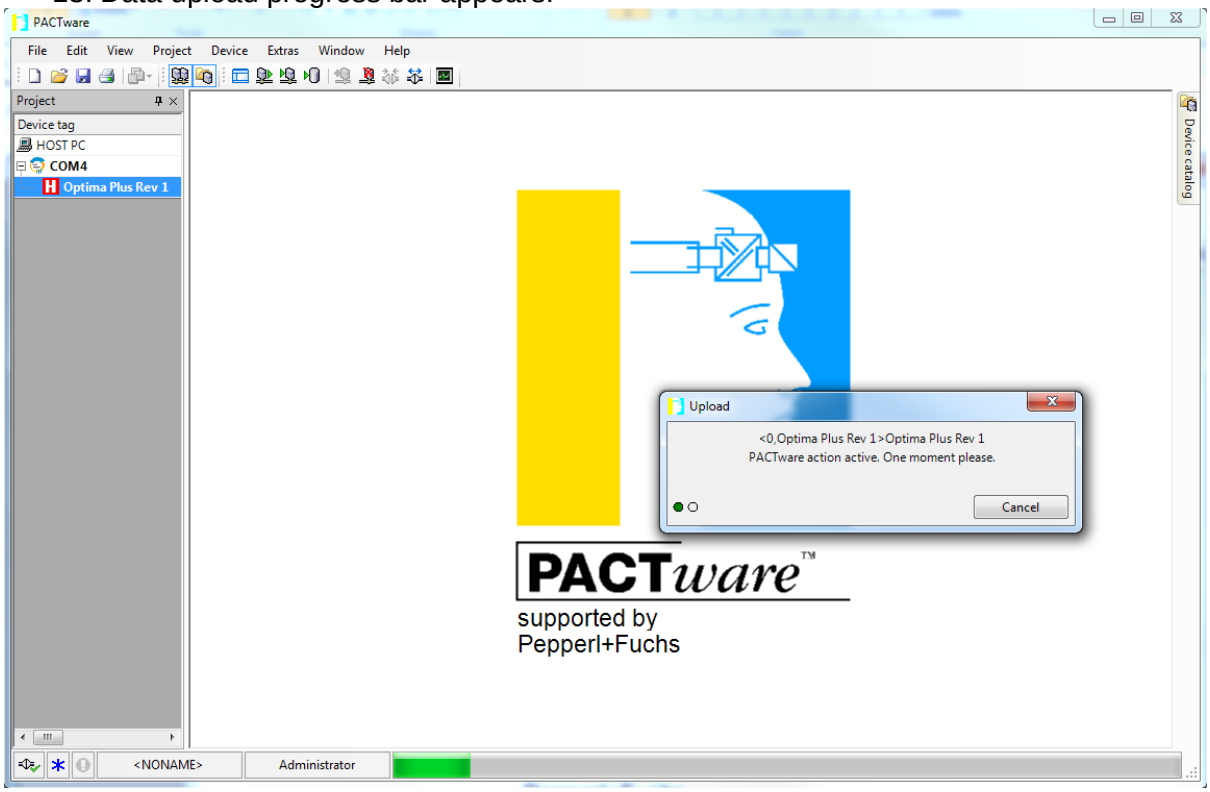
11. Go online by right-clicking on the device DTM and select “Connect” to connect the Optima Plus device:



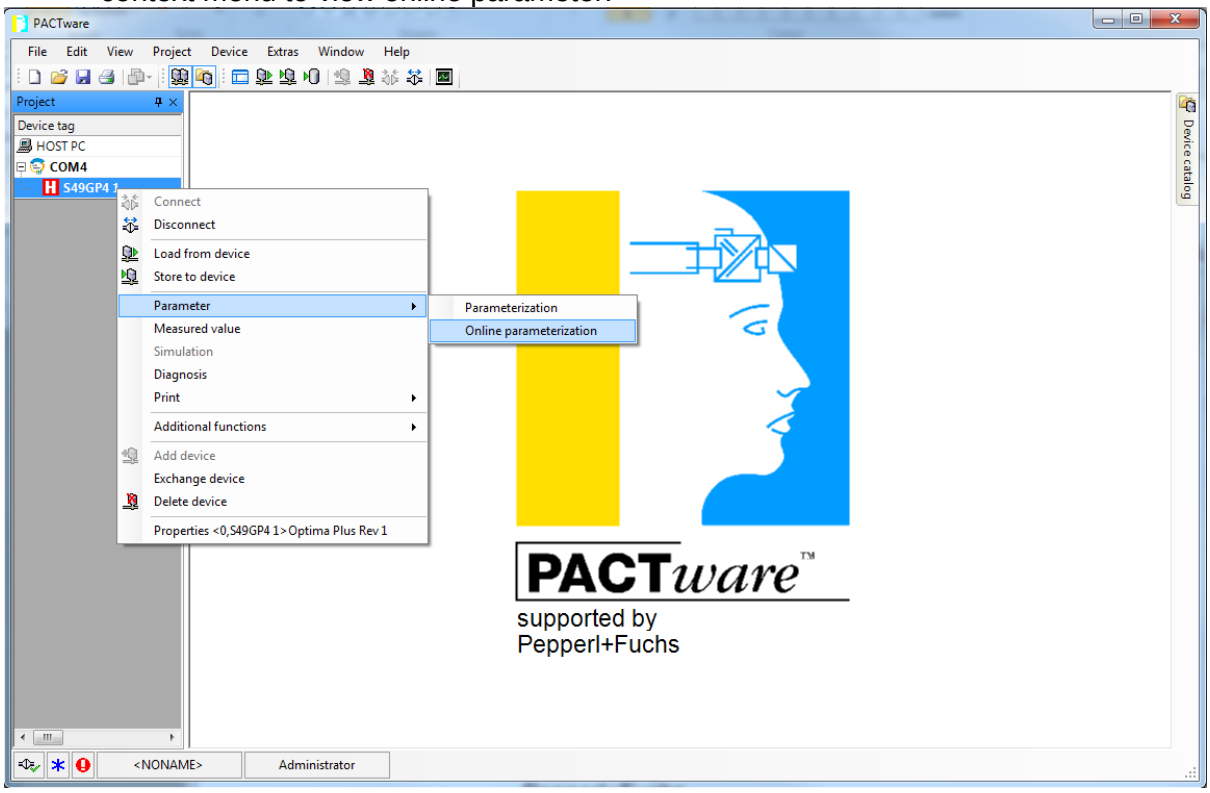
12. Click ‘Load from device’ from the context menu by right click on the Optima Plus.



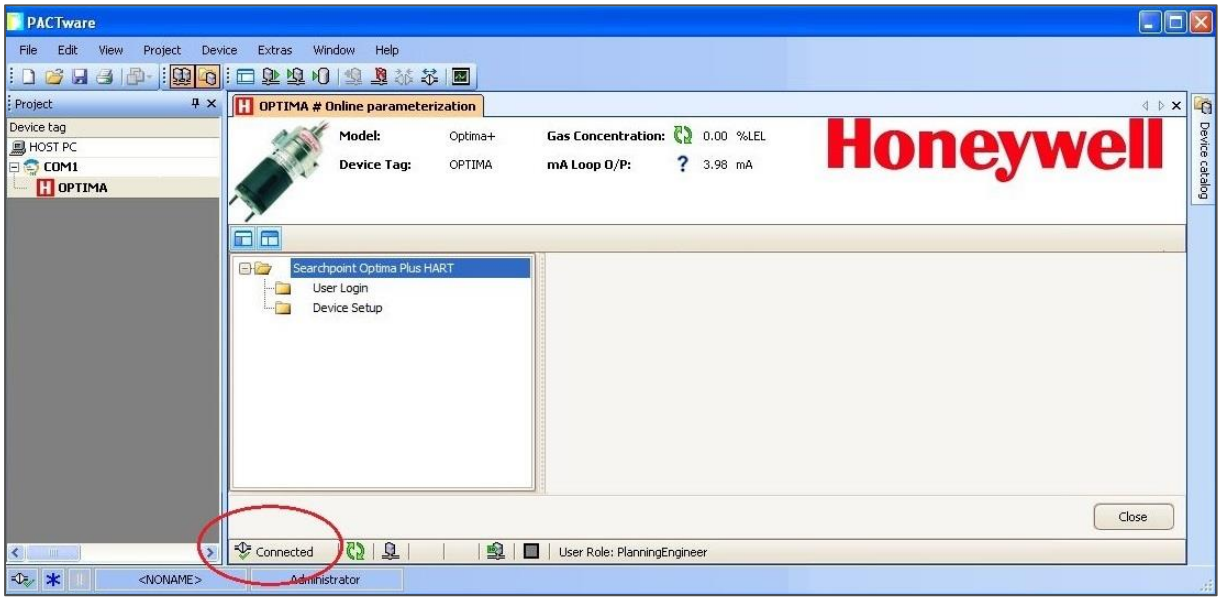
13. Data upload progress bar appears.



14. Once data upload is completed, the device name is changed to the device tag as below. Then double click the device tag or click ‘Parameter\Online parameterization’ from context menu to view online parameter.



15. Now your device should be online and the symbol “Connected” appears:



The following ERROR MESSAGE: “Connection to device could not be established” can be caused by the following:

- Optima Plus is not powered
- HART serial interface is not connected
- HART serial interface and DTM are using different serial ports (COM1, COM2,…). Determine what COM port the computer is using:
- START/Control Panel/System/Hardware/Device Manager/Ports
- (Windows 7: START/Control Panel/Device Manager/Ports). Note the COM port number. Return to the PACTware application. At the top left area of the Project window, right-click on the HART DTM while it is highlighted (e.g., “HART Com3”). Select PARAMETER and verify that the COM port number listed under Serial Interface matches the one in Control Panel)

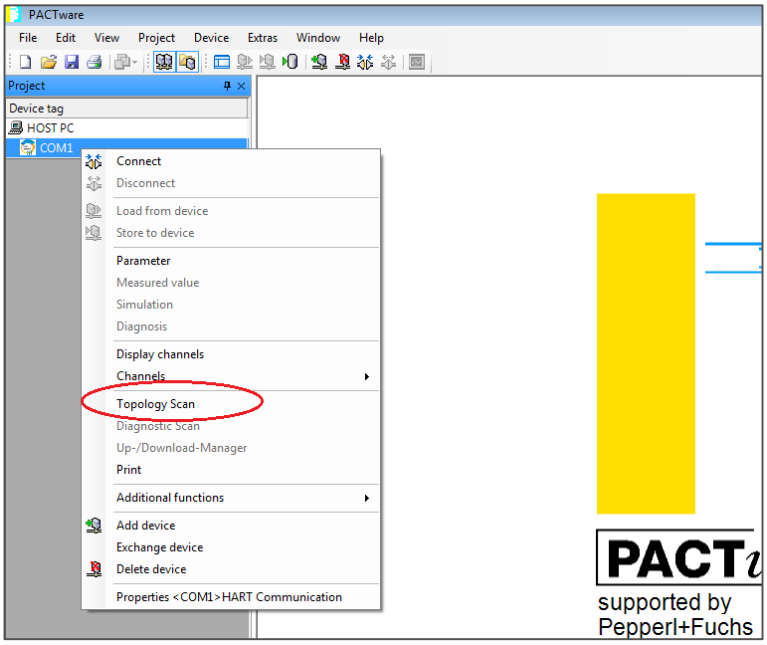
It may be necessary to DISCONNECT from the loop and then CONNECT again to establish communications. For more details regarding error messages, please check the Optima Plus Operating Instruction Manual.

Topology scan

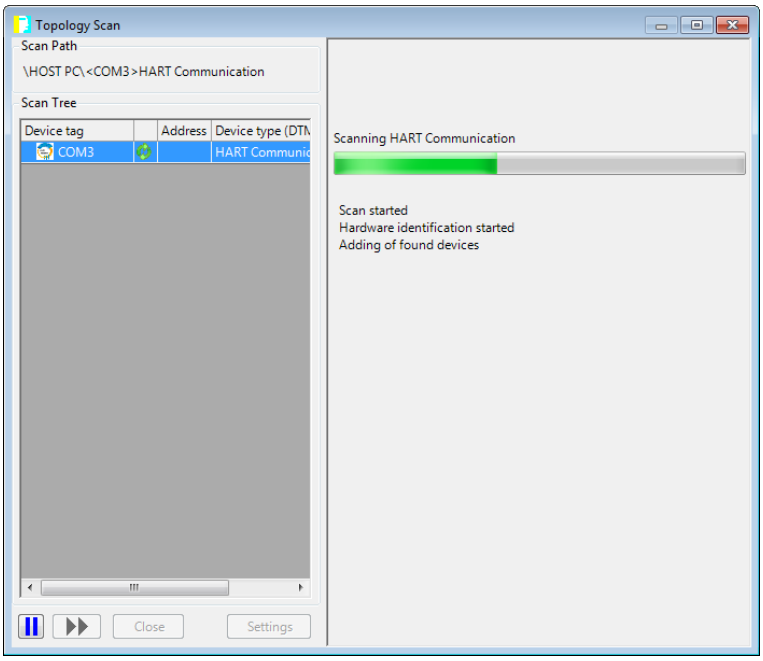
An easier way to connect the device is to use the function “Topology scan”. This function is searching automatically the device and adds it to the project.

Just follow the instructions as mentioned in §3.1 from Position 1-6 and then:

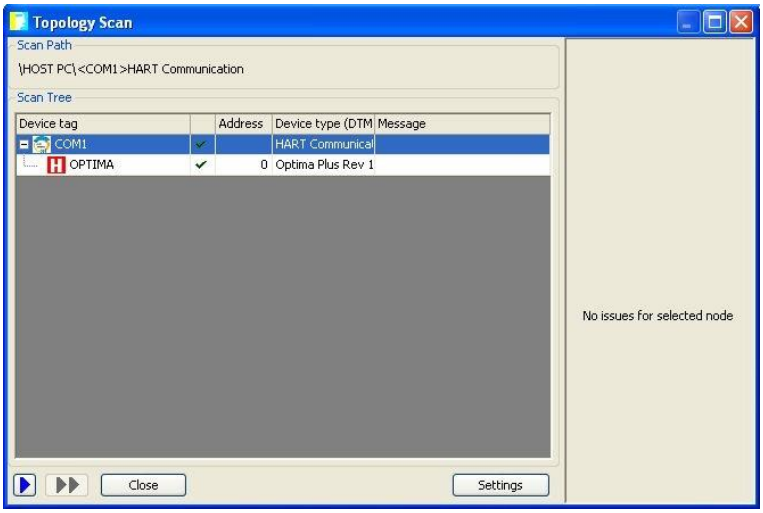
16. Right-click on the communication DTM and select “Topology scan”:



17. A window indicating the scanning progress is displayed:



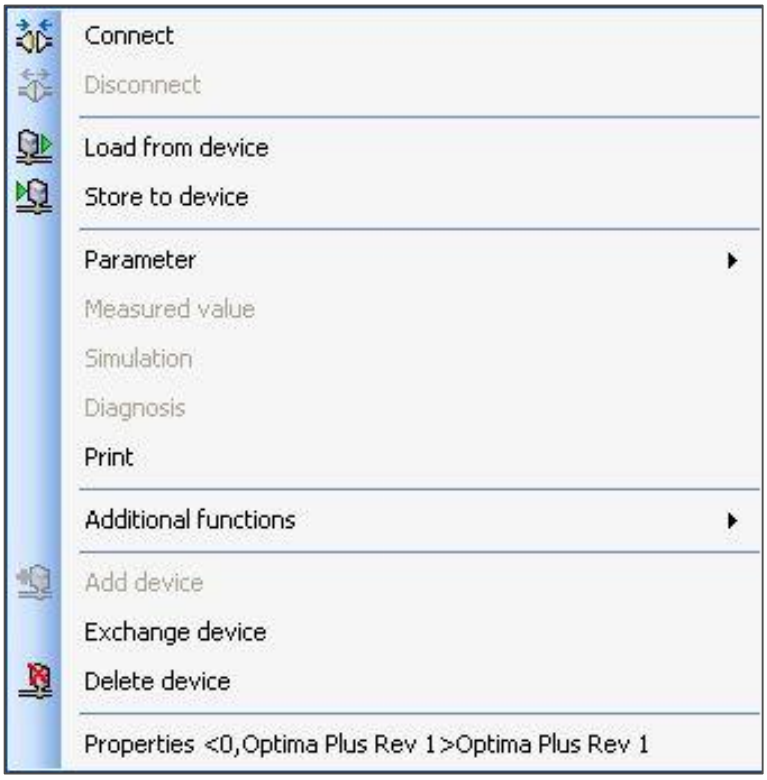
18. The device is added to the project:



19. Now continue with the instructions from §3.1 Position 10.

3.2 PACTware menu structure and items

By right-clicking on the device DTM you will find a menu list. Some menu items are characteristic for DTM and some for frame (in the shown example PACTware):



DTM characteristic menu items:

- Measured value (offers real time information about the current status of the device and is used for common device operation)
- Parameter (offers information regarding the complete device parameters which can be set according to your measurement application)

  - Online parameterization
  - Parameterization (which refers to offline parameterization)
- Diagnosis (offers information for maintenance engineers regarding the faults, warnings, alarms, etc)
- Additional functions (offers information regarding the DTM, like version number, manufacturer, registration status, etc)
  - About DTM
- Load from device (is used for uploading data set from the device to the offline parameterization). Perform this operation in order to store the device configuration in the Frame Application's project file or database.
- Store to device (is used for downloading the offline parameterization data to the device). Perform this operation in order to download and restore a device configuration from a saved project to the device.

Frame characteristic menu items:

The other items shown in the figure above are frame characteristic items. In the following pages we will describe the DTM characteristic items. For more information regarding the Frame items, please check www.pactware.com or the respective operating manual of your Frame Application.

3.3 Operation

WARNING

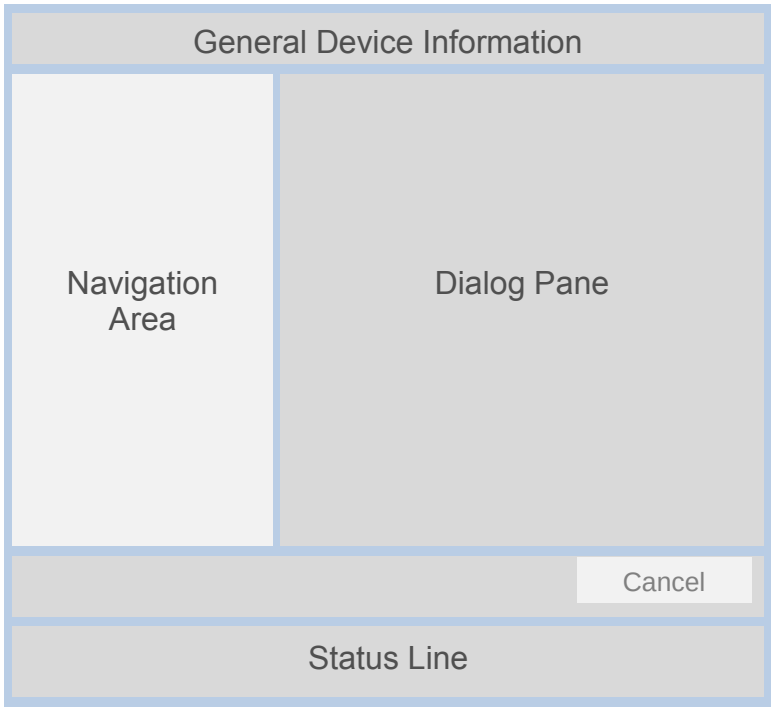
For safety reasons this equipment must be operated by qualified personnel only. Read and understand the instruction manual completely before operating or servicing the equipment. Inappropriate or incorrect use of an instrument adjusted with PACTware can give rise to application-specific hazards, e.g. vessel overfill or damage to system components through incorrect mounting or setting.

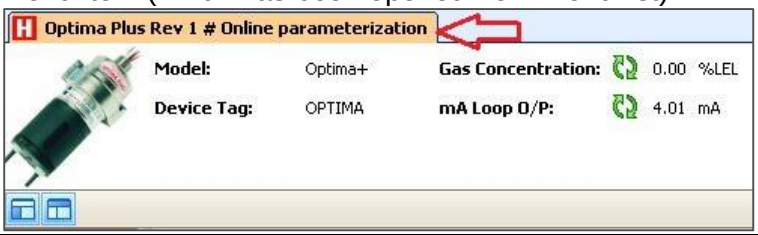
DTM graphical interface

The graphical user interface of the DTM is composed of different areas and elements listed hereafter:

- A header area containing the General Device Information
- The Navigation Area (area on the left side)
- The Dialog Pane (main area on the right side)
- Cancel button

- The Status Line containing information e. g. the online-state of the DTM



Parameter	**Meaning**
General device information	Contains information like: Model: Name of device Tag: Name of device according to firmware Logo: Logo of the device manufacturer Menu item (which has been opened from menu list): 
Navigation area	The Navigation Area contains folders and subfolders to open the dialog panes of the DTM.  Open/show the navigation area  Hide the navigation area
Dialog pane	On the dialog pane modules, submodules and parameters can be selected or configured. Grid controls display table data: The data grid control enables control of multiple columns and rows of varying control types that may be used to capture and track incident properties. Static grid control: The grid data is static Edit grid control: The grid data can be edited using built-in editors IP Grid control: The grid data cell to enter IP address Close/Open (+/-): Grid data view can be opened/closed via (+/-)

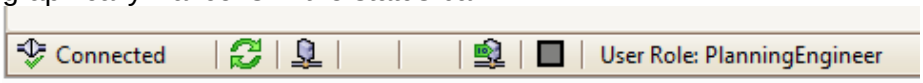
	Drop down grid control: Grid cell contains drop down list Drop down combo (with edit) grid control: Grid cell contains drop down list with edit control.  Wait to receive data from device  Displayed data is read in real time from device
Cancel button	To cancel your latest changes, click Cancel. The changes will not be saved or the changed values are not applied on the frame application database. The dialog then closes.
Status line	The Status line displays information about the current state of the DTM. The current activity, e.g. the DTM connection state, is signaled graphically via icons in the status bar:   Connected: Icon closed = Device is online  Disconnected: Icon opened = Device is offline  Disturbed: Communication interrupted between DTM and field device  Data set: The displayed data are read out from the instance data set (offline data from database).  Device: The displayed data are read out from the device (online data).

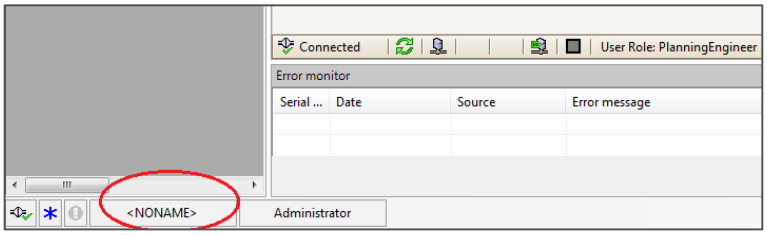
Table 1. Elements of the DTM graphical interface

3.4 Create a project

Starting point for the adjustment of all types of field devices is the partial or complete imaging of the device network in a PACTware project. This device network can be created automatically or manually and is displayed in the project window.

Even when instruments that are to be parameterized are not yet available or connected, the project can be created manually (offline operation). The DTM installed on the PC is displayed in the device catalog. The DTM usually has the same name as the instrument that can be adjusted with it.

To create a project in the project window, paste in the DTMs from the instrument catalog - one DTM for each actually used instrument. The entry HOST-PC is the starting point for pasting in the DTMs. The requested DTM can be brought over from the instrument catalog to the project window with a double click or Drag and Drop. In the project window you can change the names of the selected instruments for better differentiation. If the project window or the instrument catalog is not visible, they can be activated in the menu bar under "View ".

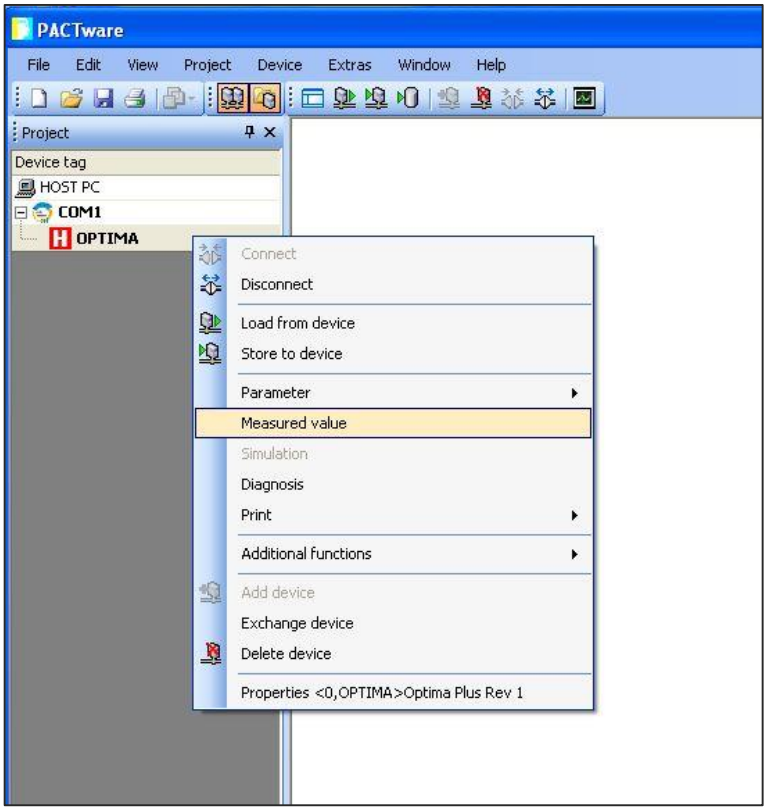


The given name of the project will appear in the PACTware window:

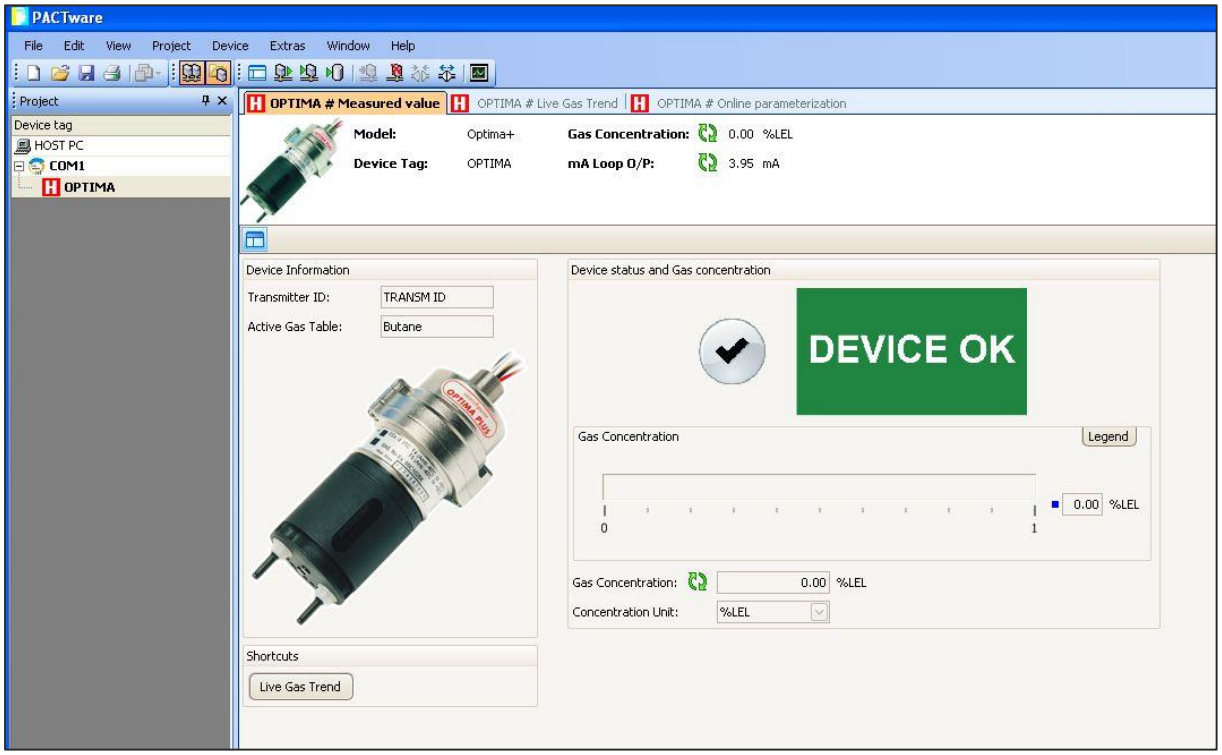
4 Measured Value

The function “Measured Value” offers real time information about the current status of the device and is used for common device operation.

1. In order to get started this function just right-click on device name in the project view on the left-hand side and select “Measured Value”:



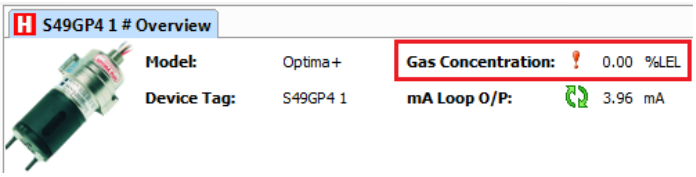
2. The following window containing the main operation parameters and device status will open:



- Device status display. The following states of the Optima Plus in order of increasing severity can be shown in this area:

Status	Symbol
Device OK	DEVICE OK
Warning	WARNING
Fault	FAULT
Alarm	ALARM

- Abnormal status (the red exclamation mark '!' is displayed if there is no response detected from the device. If ! mark is displayed for 10 seconds(or longer), please check the power supply, the cabling, electrical interference and noise, and etc.)



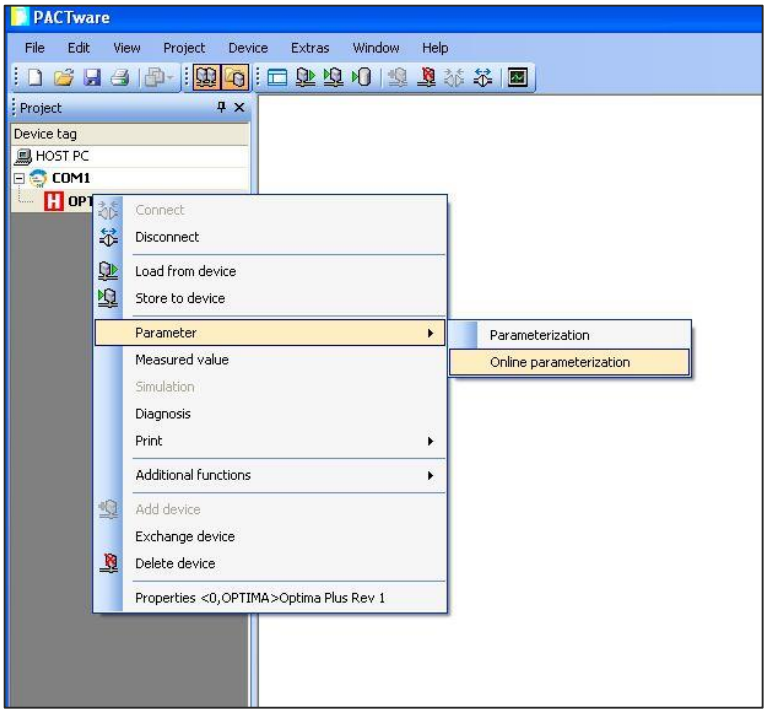
- Gas concentration trend (a trend of the measured concentration is displayed)
- Gas concentration (the gas concentration is based on the current configurations)
- Concentration unit (the concentration units are, for example, Vol %, LEL*Meters, or PPM)
- Transmitter ID (the serial number of the Optima Plus)
- Active Gas name (the target gas)
- Photograph (a typical transmitter/sensor system is displayed, representing the specified)
- Shortcuts (the button will immediately display the Live Gas Trend screen)
- Live Gas Trend (the following parameter is traced on the graph: Live Gas reading)

5 Online Parameterization

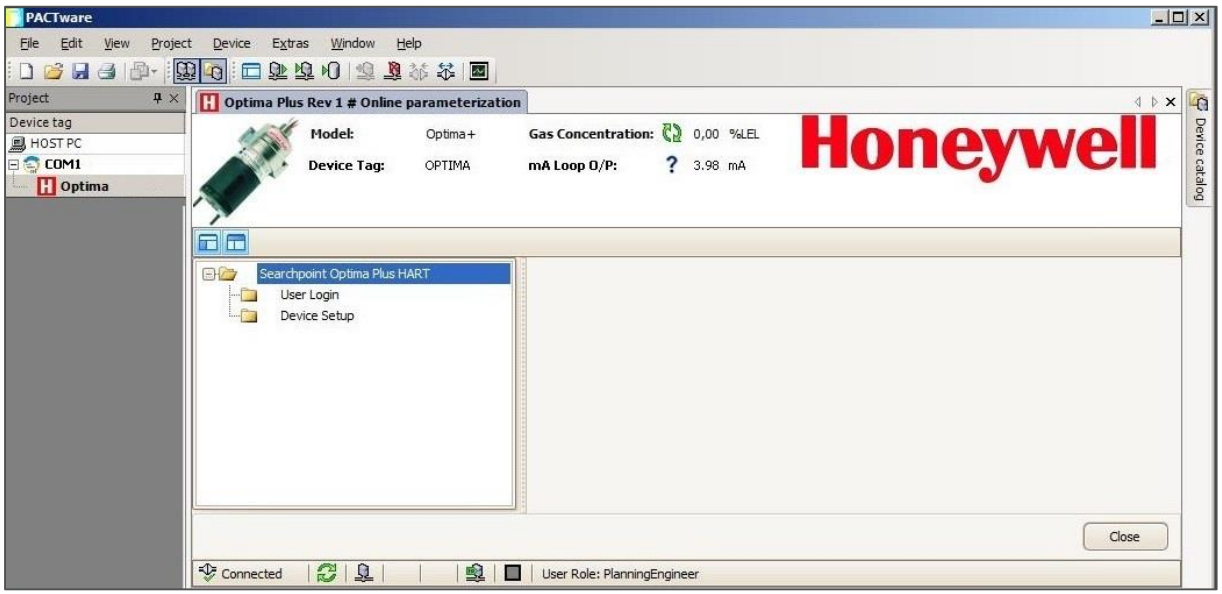
The “Online Parameterization” function can be used to configure your device during operation (online parameterization), but also offline (offline parameterization) when the device is not connected.

The following pages describe the steps to configure the Optima Plus device with the DTM. At this time it is assumed that the DTM installation (§ 2.4) and connection with the device (§3.1) was already done.

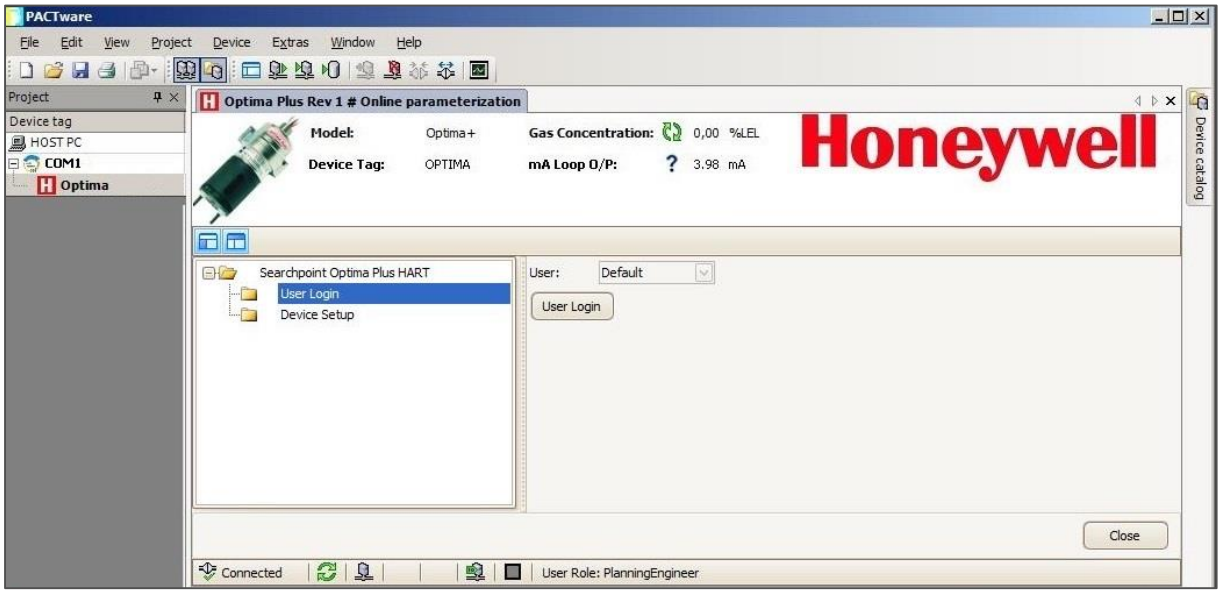
1. In order to get started this function just right-click on device name in the project view on the left-hand side and select “Parameter” then “Online parameterization”:



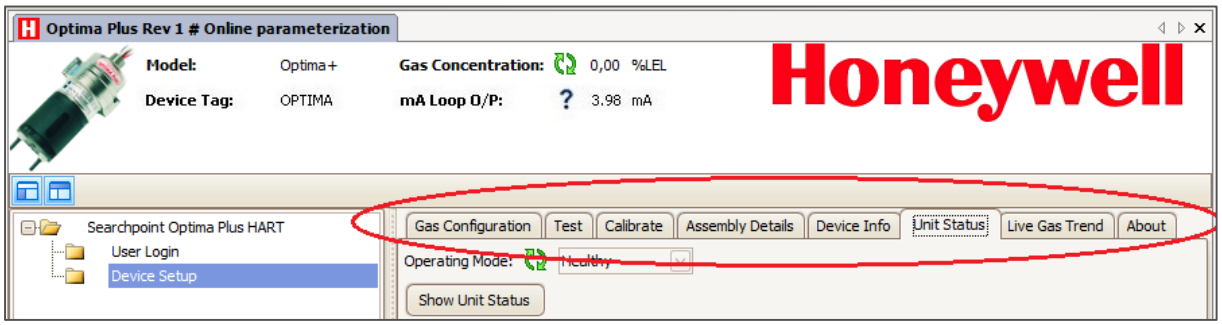
2. After clicking on “Online Parameterization” the following window will be displayed:



3. By clicking button “User Login”, the login level will be determined (see description in § 5.1)



4. By clicking button “Device Setup” an overview of all online configurable functions will be displayed (as described in § 5.2):



5.1 User Login

The first button in the online parameterization is “User Login”. Login level is determined according to the passcode number.

The Optima Plus Device Type Manager (DTM) has three security levels:

- Default (read only, allows the user to view the software settings with no access to Configurations), no password required
- Level 1 (entering a level-1 password will allow the user to view and change the software settings) for Maintenance Engineers. The 8 digits password is eight zeroes by default and can be changed by user. Please contact Honeywell Analytics if the password reset needed.
- Level 2 is for Honeywell Field Engineer only.

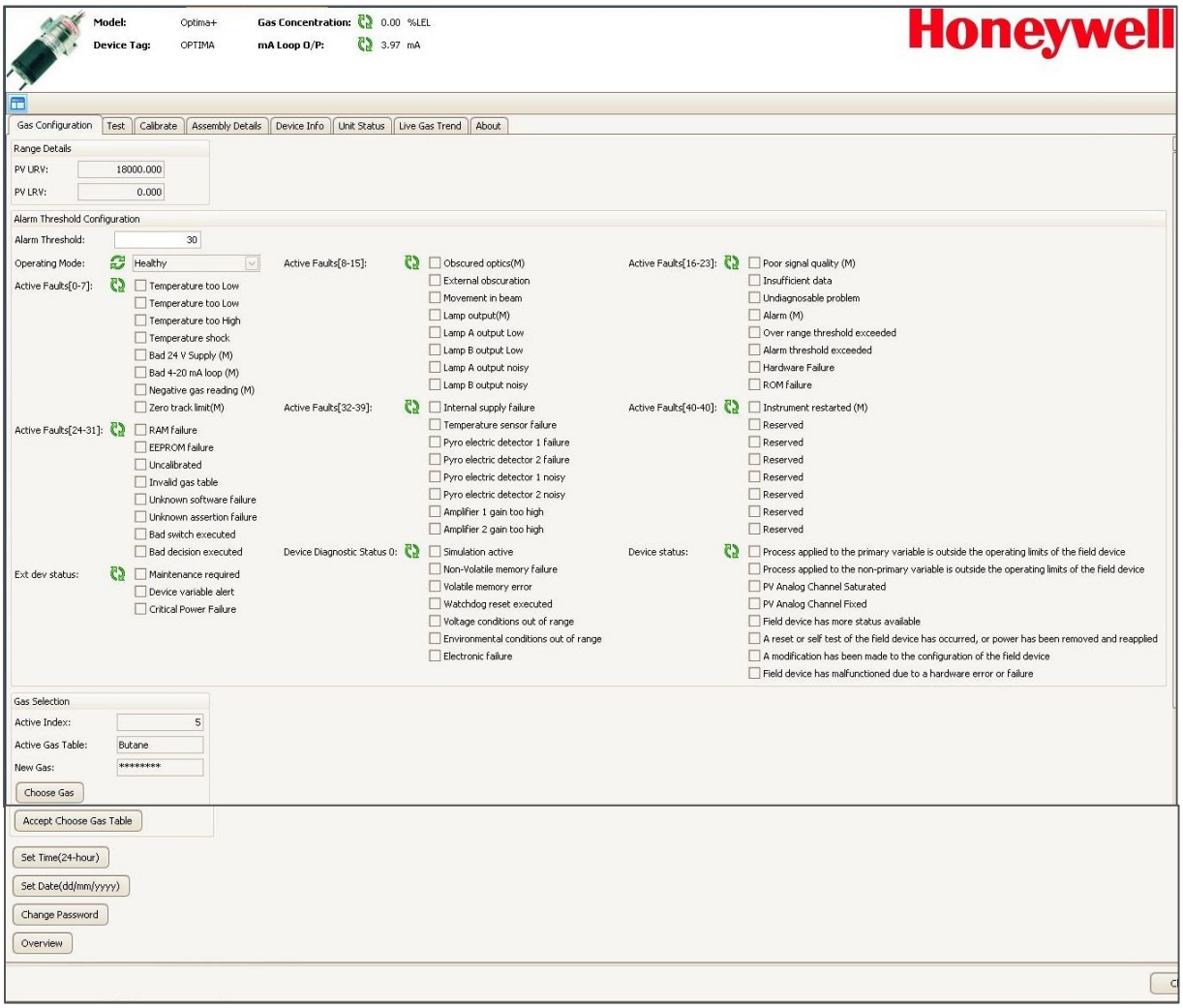
5.2 Device Setup

The second button in the online parameterization is “Device Setup”. All online configurable functions are here displayed, depending on the access level of the user.

5.2.1 Gas Configuration

The “Gas Configuration” function allows the maintenance engineers examination of all faults, warnings, and informational messages.

If any alarms or warnings have been activated, a check mark will be displayed in the square adjacent to it. A detailed description of the alarms and warnings can be found in the Optima Plus device manual §14.2.

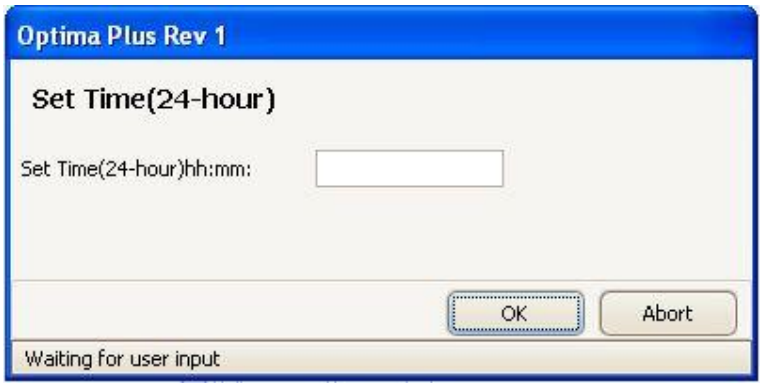


The gas configuration function provides following features:

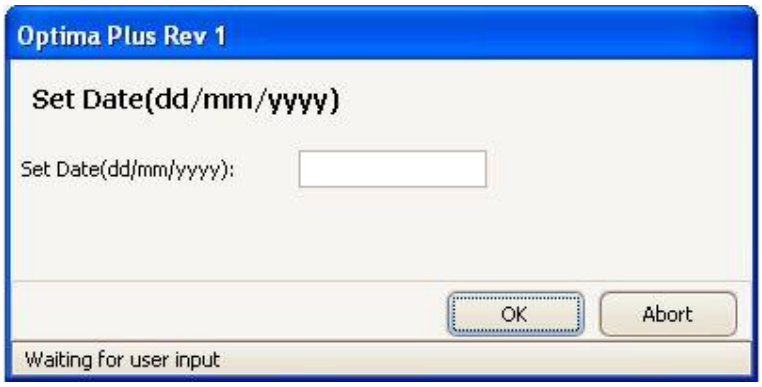
- Range Details (the upper and lower limits shall be entered here). The Range and options change according to Optima Plus:
  - PV URV (full scale value)
  - PV LRV (lower range value)
- Alarm Threshold Configuration (the upper and lower limits shall be entered here). The Alarm Settings options change according to Optima Plus:
- Operating Mode (six operating modes are displayed in this area)
  - Healthy
  - Warning
  - Fault
  - Alarm
  - Inhibit
  - Forced
- Active Faults 0 - 40 (if any faults occur, they are displayed in the square adjacent)
- Ext dev status (the corresponding warning, fault or action is displayed here)
- Device Diagnostic Status 0 (data indicating that the device has detected conditions relating to its operating status, validity of variable and internal processes)
- Device Status (data indicating that the device has detected conditions relating to its hardware and external processes. Eight device statuses are displayed in this area)
- Gas Selection (information regarding the selected gas): Gas table and index vary depending on what gases are loaded onto the Optima Plus device on purchase
- Active Index (the gas calibration Index is displayed here)
- Active Gas Table (the name of the gas is displayed here)
- New gas (name of the new gas to be in use)
- Choose gas Button (the options in the dropdown box are:
  - First gas
  - Last gas
  - Next gas
  - Previous gas

- Accept Choose Gas table (confirm the chosen gas list as follows):

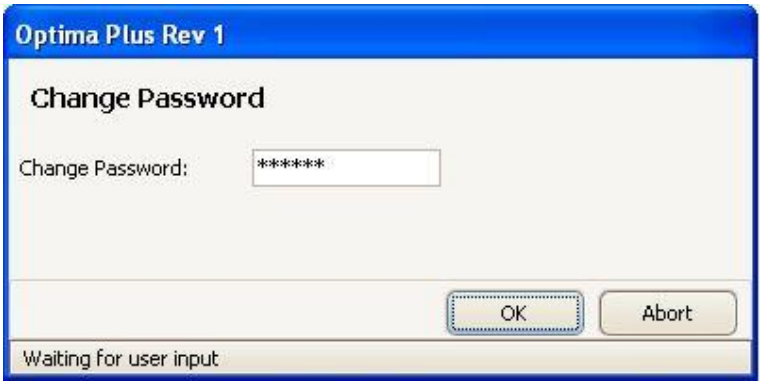
- Set Time Button (the Time Date Format is HH:MM)



- Set Date Button (if adjustments to the date or time are needed, press this button)



- Change Password Button (enter the new password if you want to change the current password for this function)



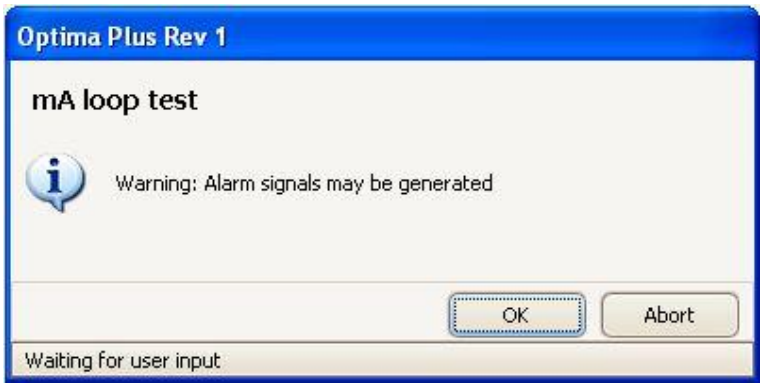
- Overview (if you want to see a summary of the measured values (see § 4), press the button)

5.2.2 Test

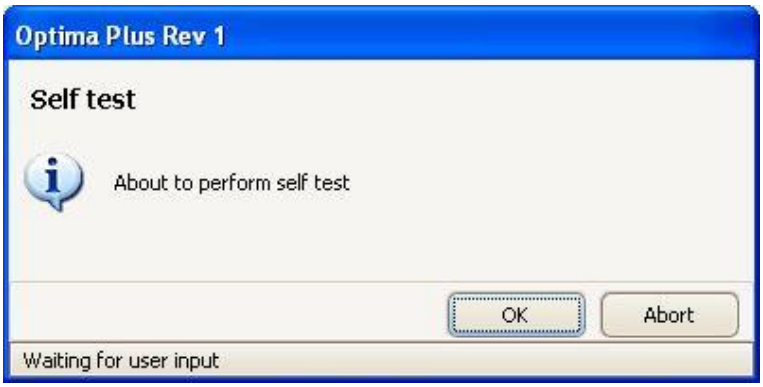
Other important item in the online parameterization is “Test”.
The test function is displayed after login and provides following features:

- Inhibit Device Button (this allows the functioning of Optima Plus to be tested without creating an external alarm):
  - Start Inhibit
  - End Inhibit

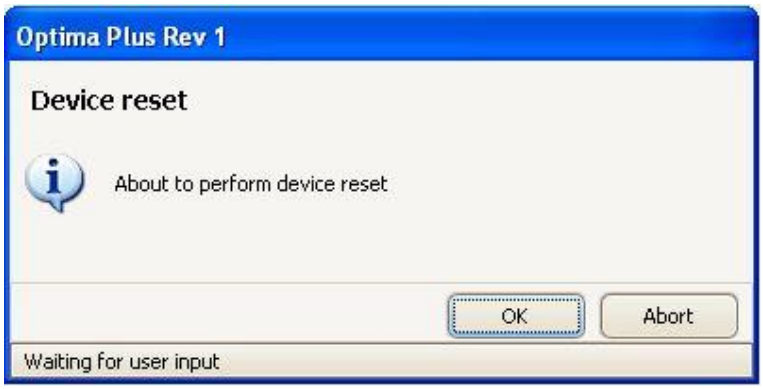
- mA loop Test Button (a test will be started to check the connections and cabling):



- Self Test (this action instructs the unit to complete a self test cycle):



- Device Reset Button (selecting this option forces the unit to reboot):



- Simulation Alarm/Fault Button (alarms and faults can be simulated to verify that the sensors are operating properly without requiring conditions that trigger actual alarms or faults. A simulation, in effect, forces a sensor into inhibit mode. Simulations can be accomplished either at the sensors with an appropriate test gas or remotely through the DTM software. The DTM display responds just as it would with a real alarm or fault). The possible test simulations are Alarm, Warning and Fault. To end simulation, choose “End Simulation”.
- If Optima Plus is in warning status after end of simulation, please make sure the device status by choosing device reset or clearing faults and warning in the Unit Status tab.

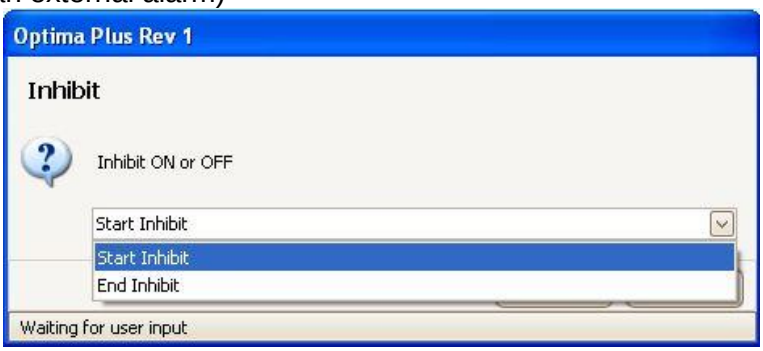

Optima Plus Rev 1
Simul. Alarm Fault
Simulate Alarm or Warning or Fault
Alarm
Alarm
Warning
Fault
End Simulation
Waiting f

5.2.3 Calibrate

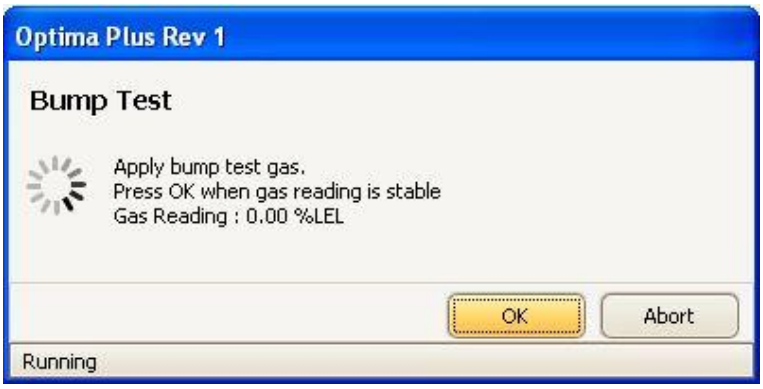
Other important item in the online parameterization is “Calibrate”:

The calibration function is displayed only after login and provides following features:

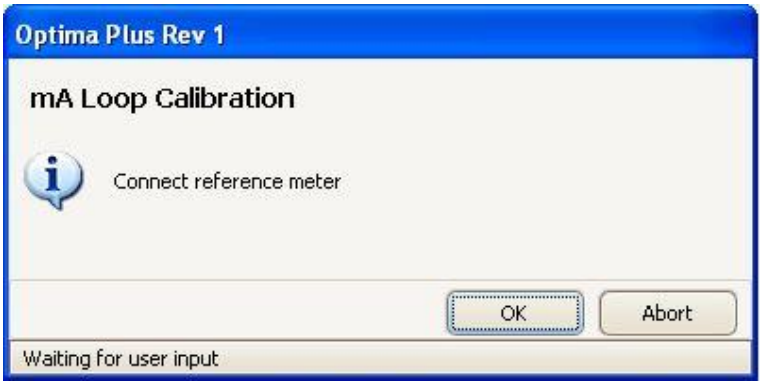
- Inhibit Off Button (this allows the functioning of Optima Plus to be tested without creating an external alarm)

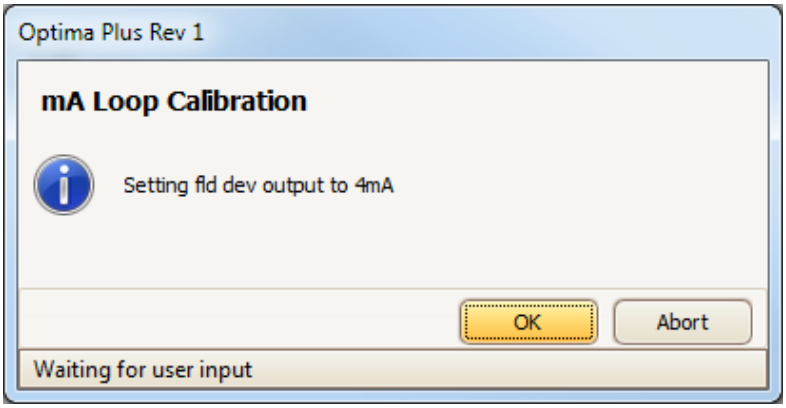


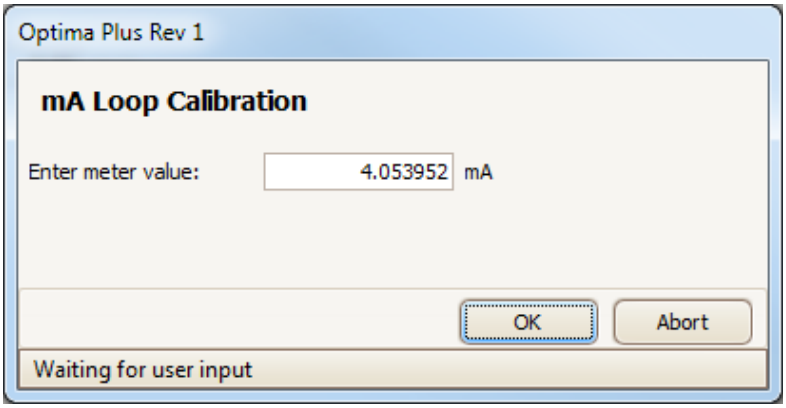
- Start Bump Test button (pressing this button will allow functional response checks to be initiated, then please click OK)

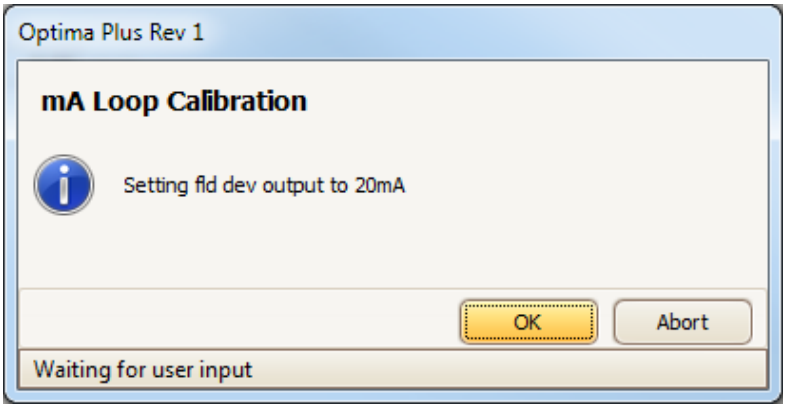


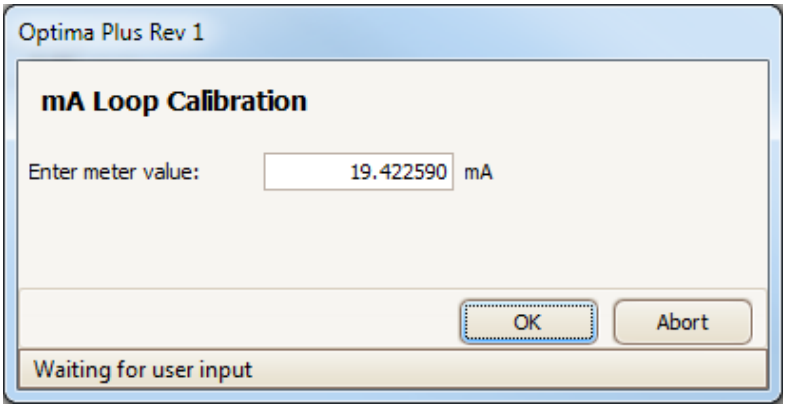
- Gas Concentration (the gas concentration is based on the current configurations)
- mA loop Calibration Button (pressing this button will allow the milliamp output parameters to be changed from the factory settings). To perform mA loop calibration, current measuring device(e.g. multi-meter) is needed.


Optima Plus Rev 1
mA Loop Calibration
Connect reference meter
OK
Abort
Waiting for user input

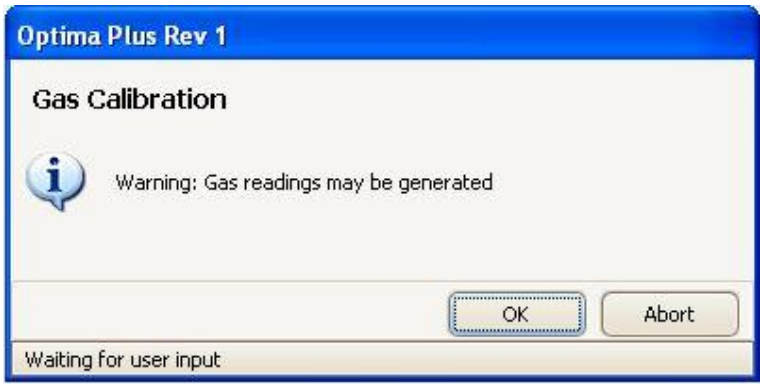

Optima Plus Rev 1
mA Loop Calibration
Setting fld dev output to 4mA
OK
Abort
Waiting for user input

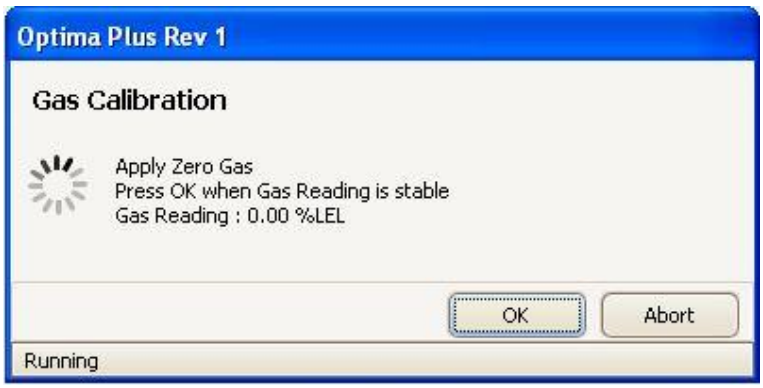

Optima Plus Rev 1
mA Loop Calibration
Enter meter value:
4.053952
mA
OK
Abort
Waiting for user input


Optima Plus Rev 1
mA Loop Calibration
Setting fld dev output to 20mA
OK
Abort
Waiting for user input

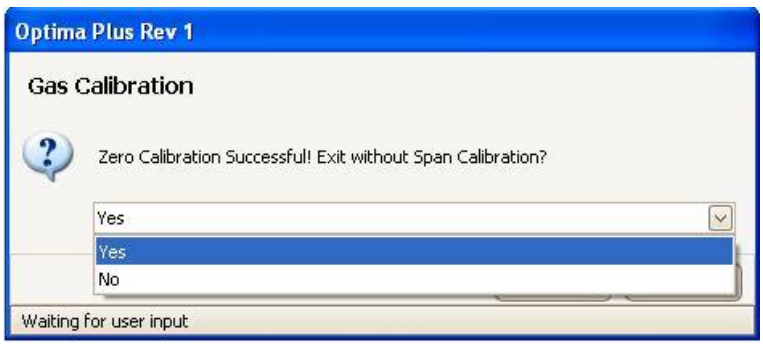


- Gas Calibration Button (pressing this button will allow the gas calibration procedure to be initiated, then please click OK)





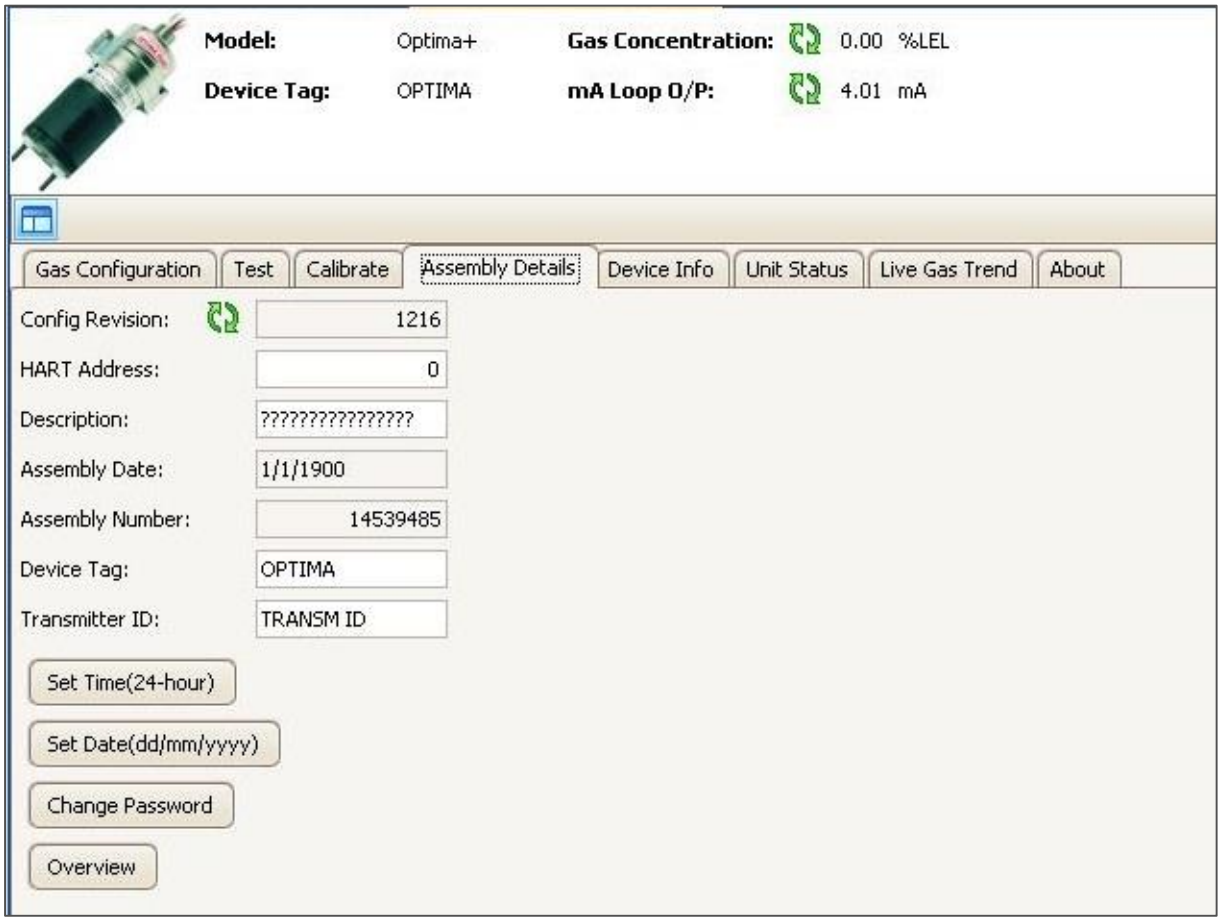
- Choose span calibration if required



- Calibration Info (information regarding the current calibration state is displayed here)
- Set Time Button (the Time Date Format is HH:MM)
- Set Date Button (if adjustments to the date or time are needed, press this button)
- Change Password Button (enter the new password if you want to change the current password for this function)
- Overview (if you want to see a summary of the measured values (see § 4), press the button)

5.2.4 Assembly Details

The “Assembly Details” contains following information:

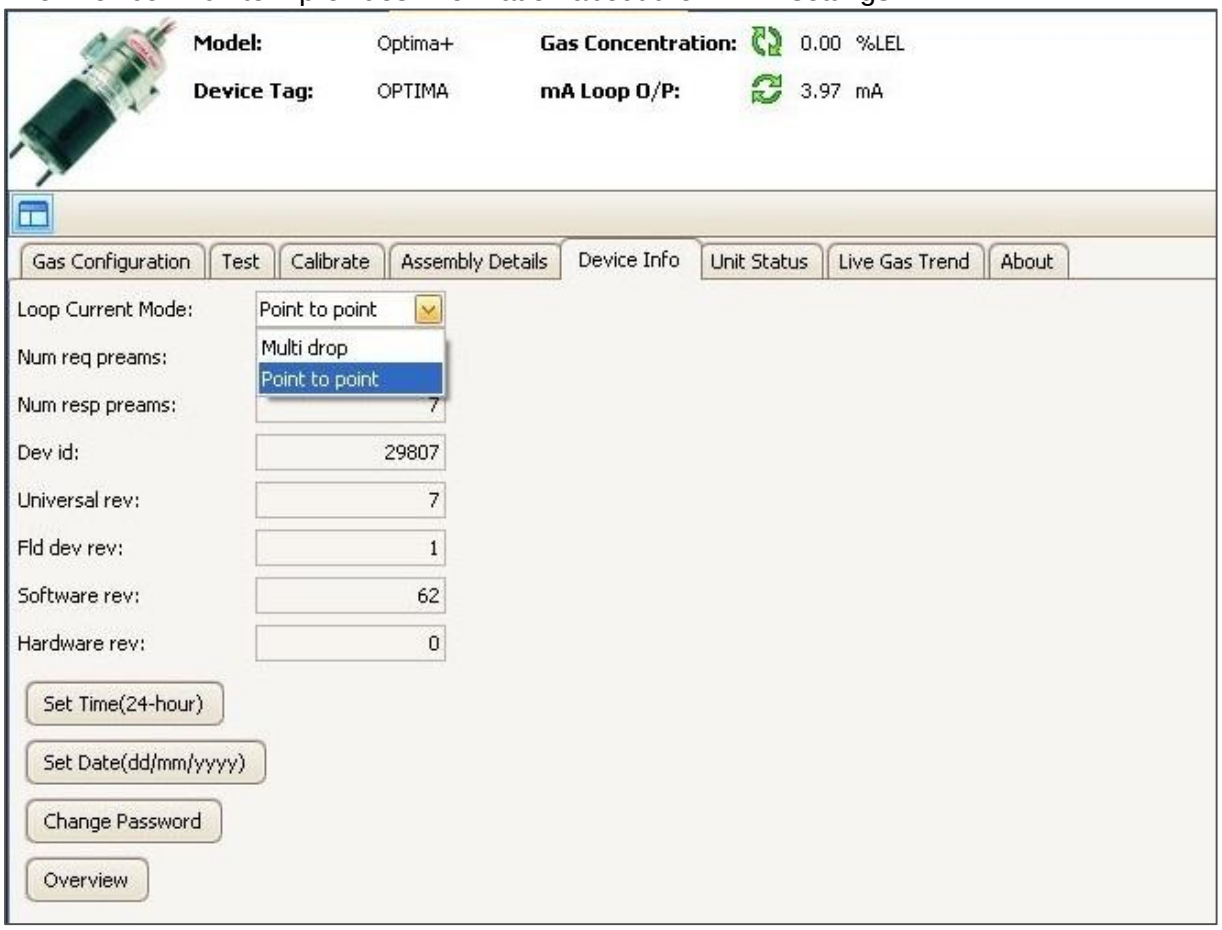


- Config Revision (provides information about the configuration version number)
- HART Address (defines the protocol address of the unit when connected into a multi-drop digital network, used only in specialist applications. Please be careful to change the address. Wrong address could cause the communication problem. HART address should be changed depends on the loop current mode. For the point-to-point, the HART address must be 0. For the multi-drop, HART address must be configured between 1 and 63. Please refer to the Optima Plus Operating Instruction Manual for more information)
- Description (a user-configurable space, typical used to display such information as the location of the sensor)
- Assembly Date

- Assembly Number (a manufacturer's reference number)
- Device Tag (a user-configurable space, typical used to display the equipment type)
- Transmitter ID (this can be set if a long tag is used for HART addressing)
- Set Time Button (the Time Date Format is HH:MM)
- Set Date Button (if adjustments to the date or time are needed, press this button)
- Change Password Button (enter the new password if you want to change the current password for this function)
- Overview (if you want to see a summary of the measured values (see § 4), press the button)

5.2.5 Device Info

The "Device Info" item provides information about the HART settings:

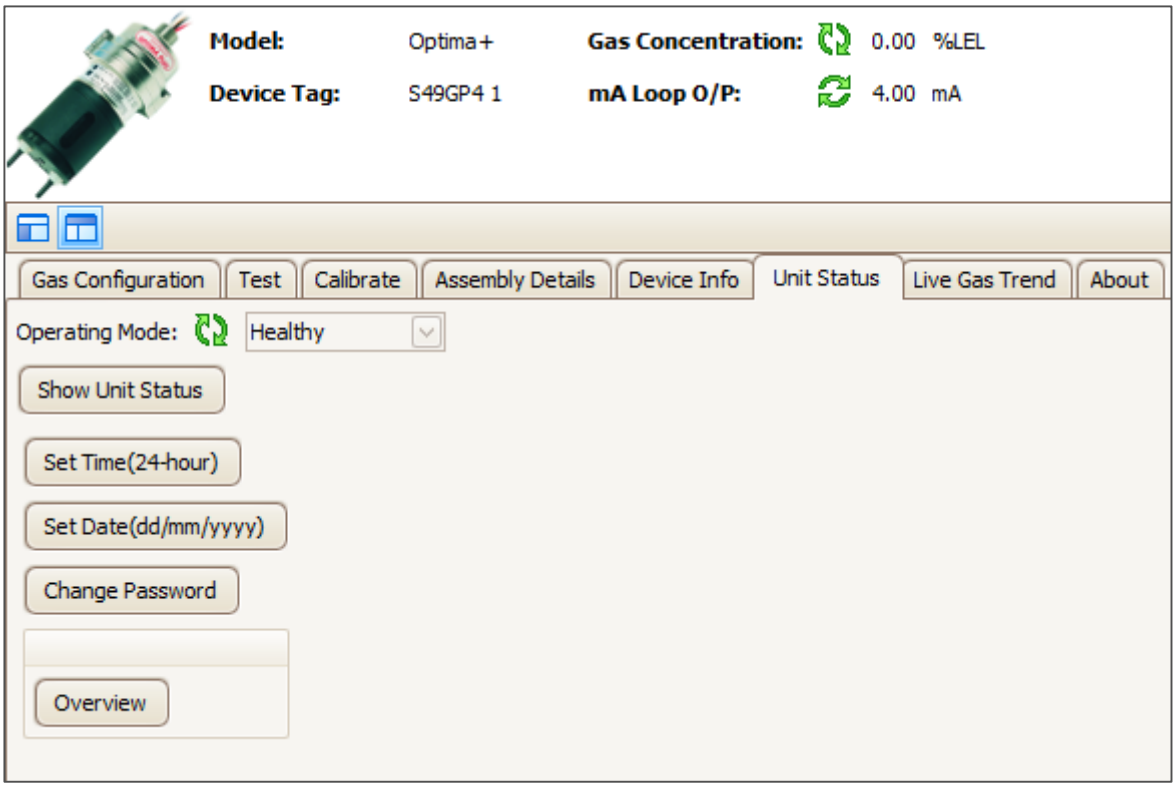


- Loop current mode (the options are available "Multi drop" and "Point to point". Please be careful to change the loop current mode. Wrong mode could cause the communication problem. For use in multi-drop mode the HART address must be configured between 1 and 63. Please refer to the Optima Plus Operating Instruction Manual for more information)
- Num req preams (Number of request preambles required from the host request by the field device)
- Num resp preams (Number of preambles to be send in the response message from the field device to the host)

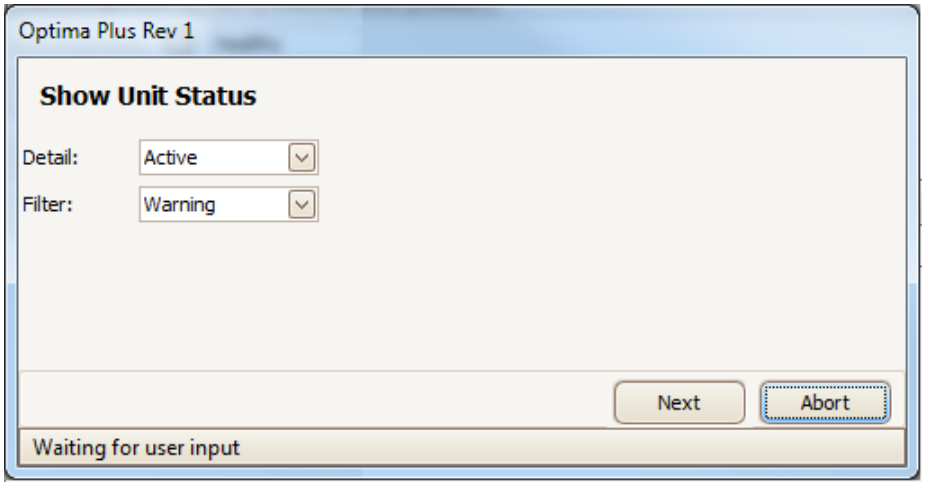
- Device ID (a manufacturer's reference number)
- Universal Rev (a manufacturer's reference number)
- Fld Dev Rev (Field device revision number)
- Software Rev (displays the current Optima Plus software revision number)
- Hardware Rev (revision of hardware)
- Set Time Button (the Time Date Format is HH:MM)
- Set Date Button (if adjustments to the date or time are needed, press this button)
- Change Password Button (enter the new password if you want to change the current password for this function)
- Overview (if you want to see a summary of the measured values (see § 4), press the button)

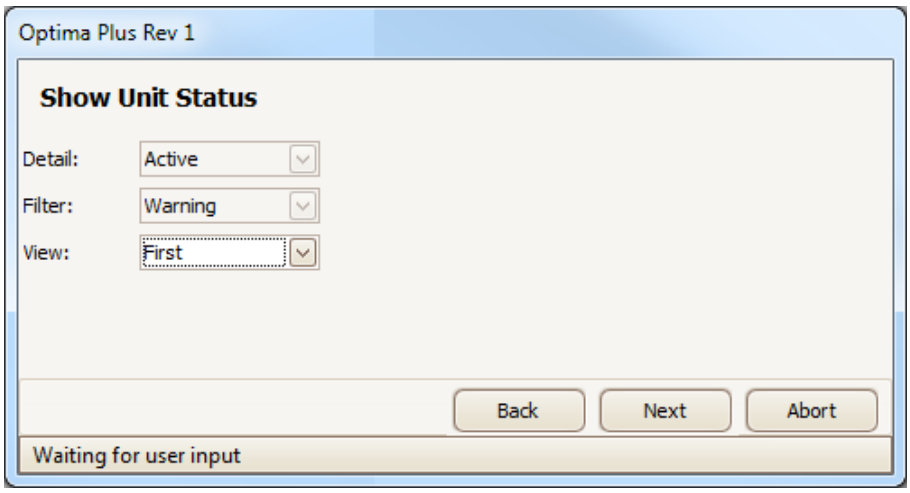
5.2.6 Unit Status

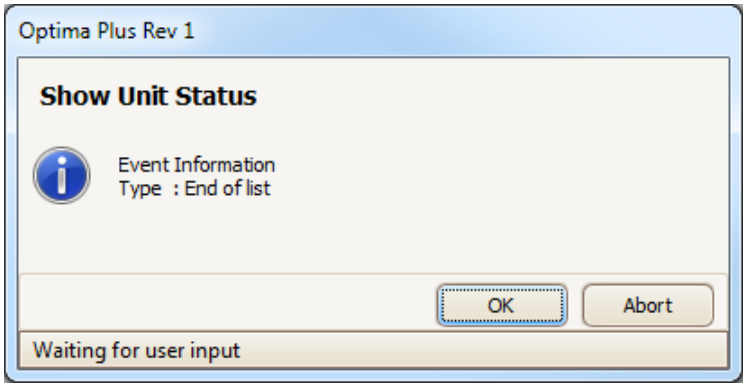
In the “Unit Status”, all faults, warnings, and history are captured:



- Operating Mode (six operating modes are displayed in this area)
  - Healthy
  - Warning
  - Fault
  - Alarm
  - Inhibit
  - Forced
- Clear Faults and Warnings (Clear all faults and warnings, Level 2 only)
- Set Time Button (the Time Date Format is HH:MM, Level 1&2 only)
- Set Date Button (if adjustments to the date or time are needed, press this button, Level 1&2 only)
- Change Password Button (enter the new password if you want to change the current password for this function, Level 1 only)
- Overview (if you want to see a summary of the measured values (see § 4), press the button)
- Show Unit Status (status filtering options are below):
  - Detail (Active, Latched(Level 2 only) and Event History(Level 1&2 only)
  - Filter (the filtering options are warning, fault)
  - View (filters events beginning with the most recent or the oldest)



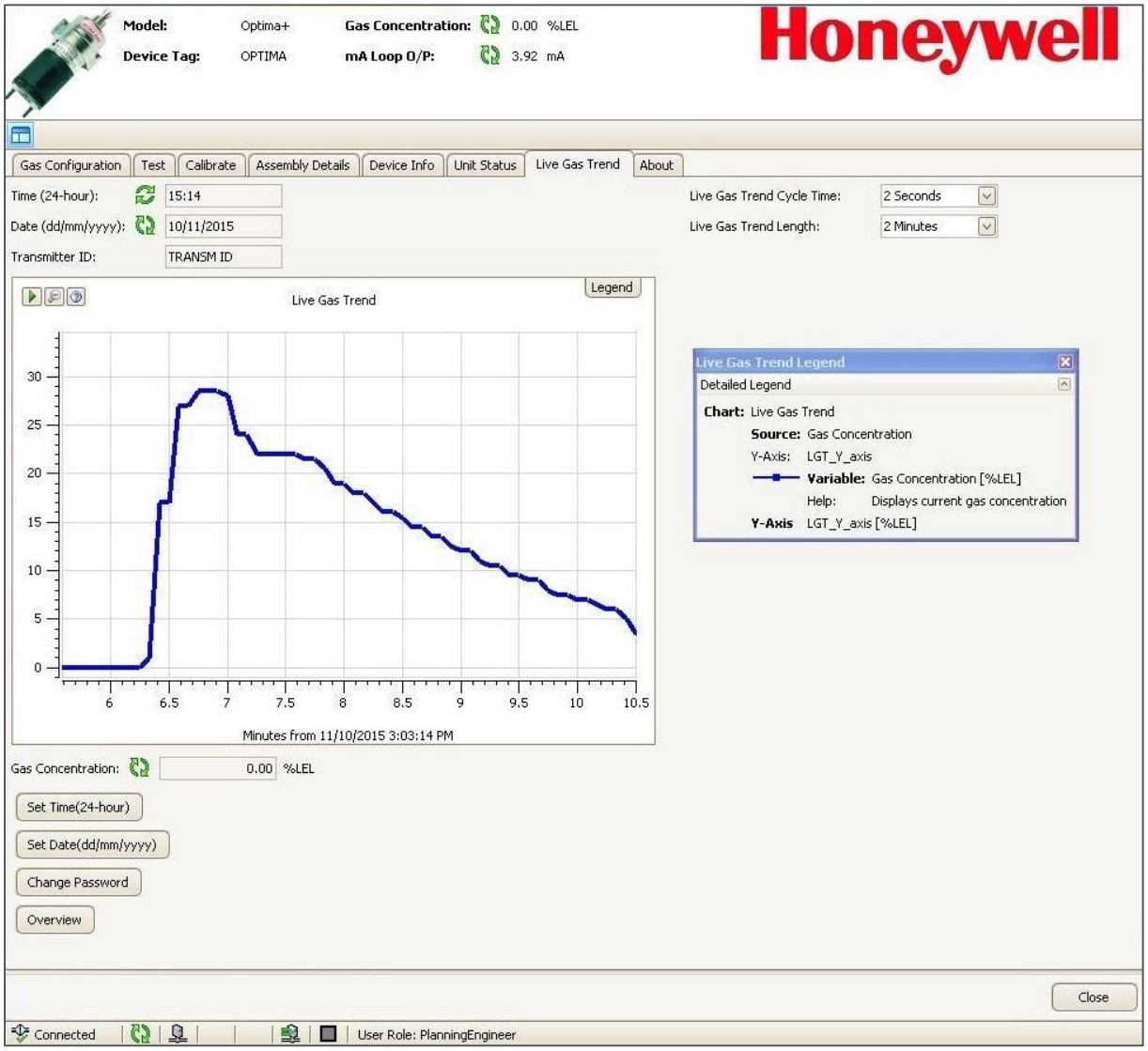




5.2.7 Live Gas Trend

The “Live Gas Trend” tab displays the chart and other relevant information.

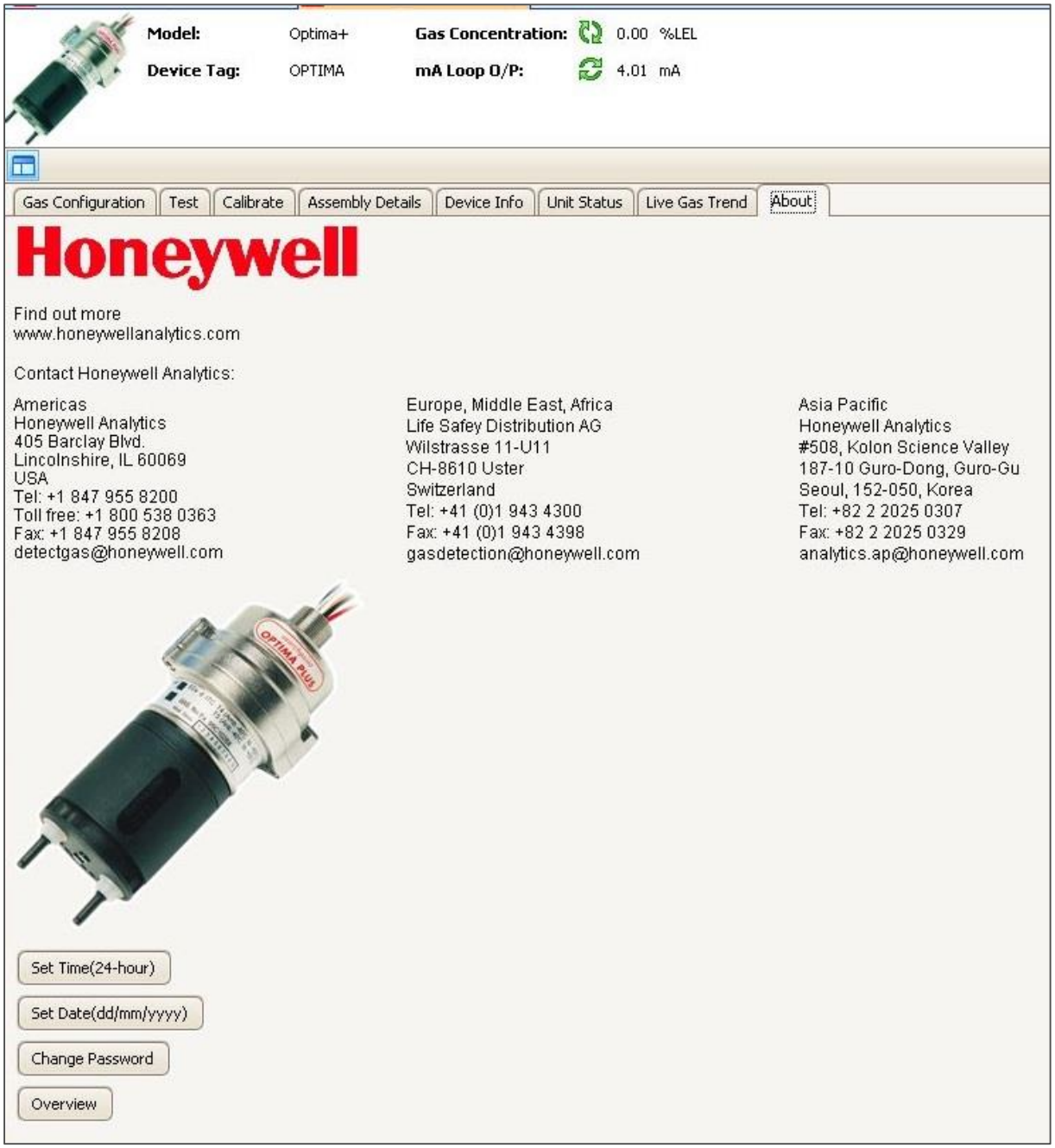
In the Live Gas Trend chart is tracked the gas concentration (in blue). The sampling interval displayed in the chart can be up to one hour.



- Current time (current time, time format is HH:MM)
- Current date (current date, date format is DD/MM/YY)
- Optima Plus ID (the long tag of Optima Plus)
- Gas concentration (the gas concentration is displayed in this space)
- Live Gas Trend Cycle Time (the sampling rate is set in this box)
- Live Gas Trend Length (the time of the display shown at one time is entered in this space)
- Live Gas Trend Legend (information regarding the chart, source, variables and Y-Axis)
- Set Time Button (the Time Date Format is HH:MM)
- Set Date Button (if adjustments to the date or time are needed, press this button)
- Change Password Button (enter the new password if you want to change the current password for this function)
- Overview (if you want to see a summary of the measured values (see § 4), press the button)

5.2.8 About

The following information is displayed in the “About” tab:



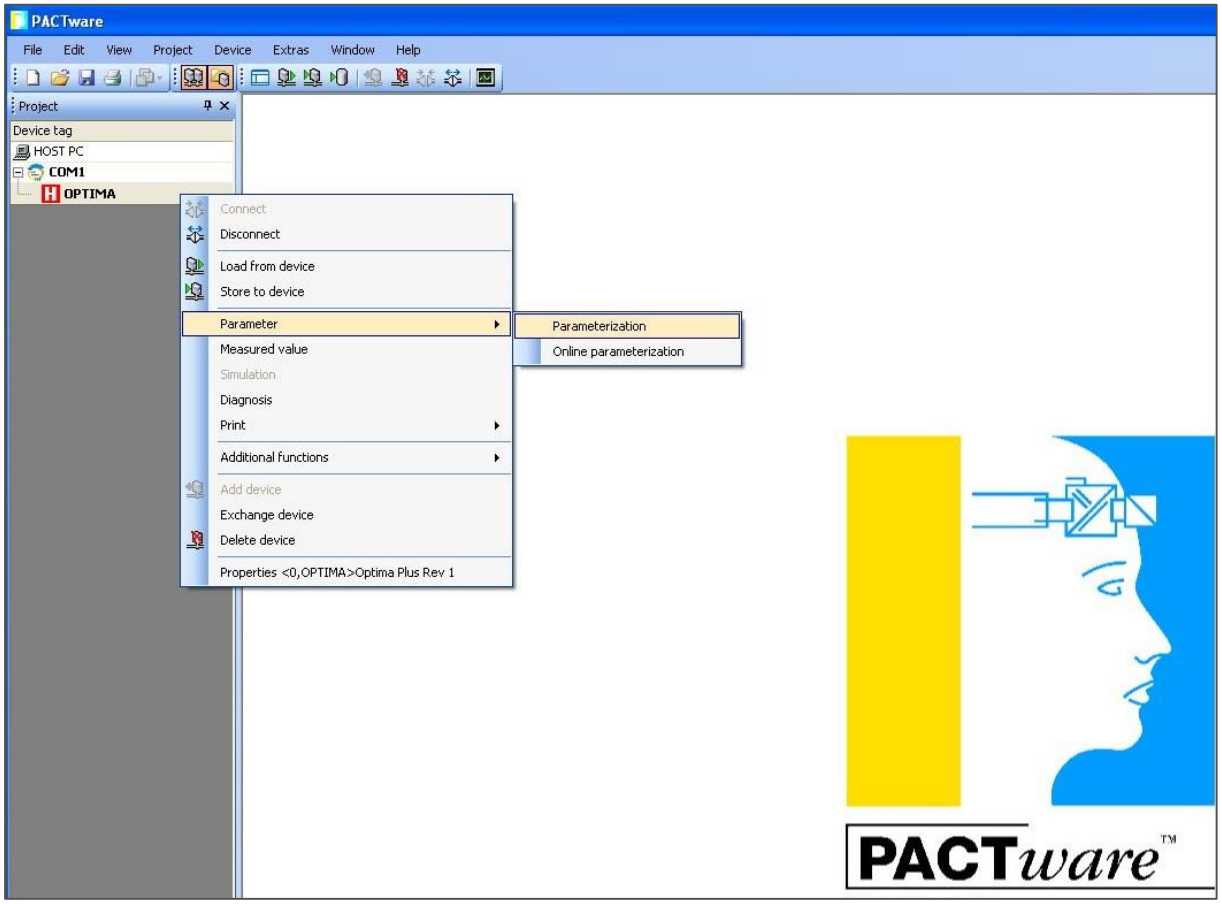
The About tab displays the URL of the Honeywell Analytics website and contact information for our headquarters in North America, South America, Europe, the Middle East, Africa, and the Asia Pacific region.

6 Offline Parameterization

In offline mode, the project can be prepared, created and stored without connected instruments. Later on, in online mode these data can be transmitted to the instruments ready for operation.

The following pages describe the steps to offline parameterize Optima Plus device with the DTM. At this time it is presupposed that the DTM installation (§ 2.4) was already done.

In order to get started this function just right-click on device name in the project view on the left-hand side and select “Parameter” then “Parameterization”:



Offline configuration is the ability to manipulate device parameters without the presence of a physically connected device (commissioning, device exchange, device data set archiving). Offline parameters are stored by the FDT frame.

The offline parameterization provides a selection of features which can be found also in the online parameterization:

- Password (enter the 8 digits password)
- Gas concentration (the gas concentration is displayed in this space)
- Conc unit (the concentration units are displayed in this space)

- PV Alarm Status (Alarm status of the device)
- mA Loop O/P (milliamp output parameters are here displayed)
- Time (current time, time format is HH:MM)
- Date (current date, date format is DD/MM/YY)
- Gas name (the target gas)
- Alarm thresholds (alarm set points)
- PV URV (full scale value)
- PV LRV (lower range value)
- Config Revision (provides information about the configuration version number)
- HART Address (defines the protocol address of the unit when connected into a multi-drop digital network, used only in specialist applications)
- Description (a user-configurable space, typical used to display such information as the location of the sensor)
- Assembly Number (a manufacturer's reference number)
- Device Tag (a user-configurable space, typical used to display the equipment type)
- Transmitter ID (this can be set if a long tag is used for HART addressing)
- Calibration Info (information regarding the current calibration state is displayed here)
- Zero Factor (only for security level 2, Honeywell Field Engineer)
- Span Factor (only for security level 2, Honeywell Field Engineer)
- Ratio Change (only for security level 2, Honeywell Field Engineer)
- Ch A1 (only for security level 2, Honeywell Field Engineer)
- Ch A2 (only for security level 2, Honeywell Field Engineer)
- Ch B1 (only for security level 2, Honeywell Field Engineer)
- Ch B2 (only for security level 2, Honeywell Field Engineer)
- Dead band on (yes/no)
- Gas Filter On (yes/no)
- Field Temperature (device temperature)
- Target Current (reference current value)
- Measured current (measured current value)
- Analog 5v Rail
- Loop Current Mode (the options are available "Multi drop" and "Point to point")
- Num req preams (Number of request preambles required from the host request by the field device)
- Num resp preams (Number of preambles to be send in the response message from the field device to the host)
- Dev id (device identification number)
- Universal rev (a manufacturer's reference number)
- Fld dev rev (Field device revision number)
- Software rev (displays the current Optima Plus software revision number)
- Hardware rev (revision of hardware)
- Operating Mode (six operating modes are displayed in this area)
- Active Faults 0 – 7 (if any of the 8 faults occur, they are displayed in the square adjacent)
- Active Faults 24 – 31 (if any of the 8 faults occur, they are displayed in the square adjacent)
- Ext dev status (the corresponding warning, fault or action is displayed here)
- Active Faults 8 – 15 (if any of the 8 faults occur, they are displayed in the square adjacent)
- Active Faults 32 – 39 (if any of the 8 faults occur, they are displayed in the square adjacent)

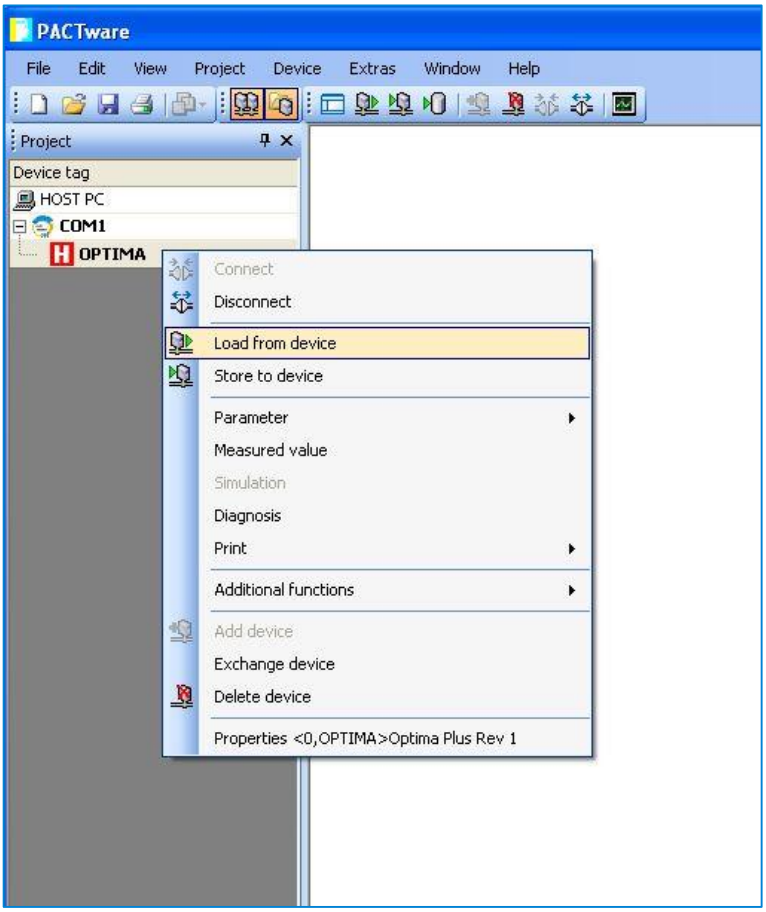
- Device Diagnostic Status 0 (data indicating that the device has detected conditions relating to its operating status, validity of variable and internal processes)
- Active Faults 16 – 23 (if any of the 8 faults occur, they are displayed in the square adjacent)
- Active Faults 40 – 40 (if any faults occur, they are displayed in the square adjacent)
- Device Status (data indicating that the device has detected conditions relating to its hardware, validity of variable, operating status and internal processes. Eight device statuses are displayed in this area)

6.1 Load from device

WARNING

You may lose the current offline configuration parameters.

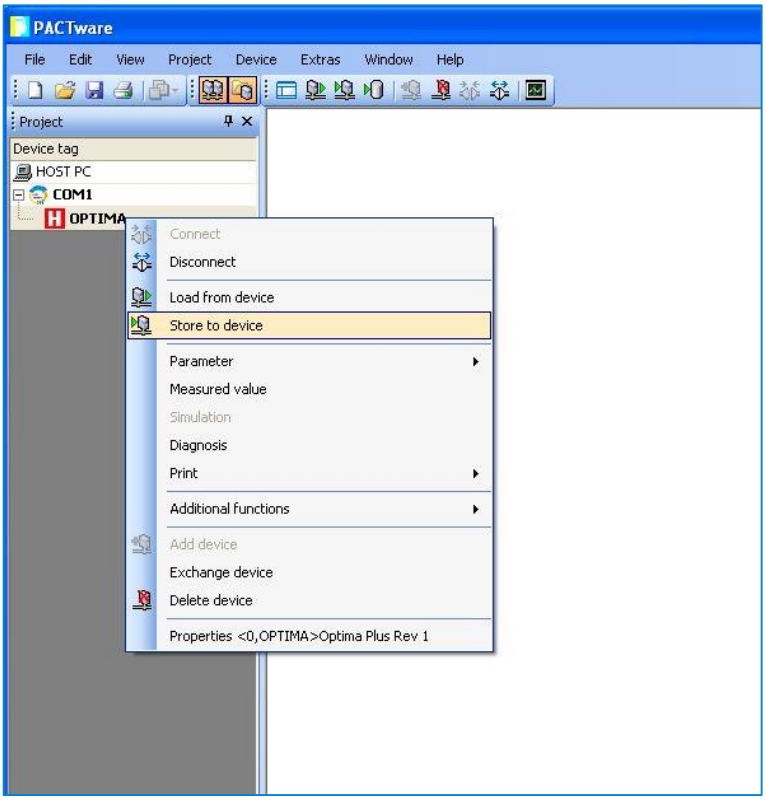
"Load from device" loads device parameters from the currently connected device to the Offline parameterization window of the DTM:



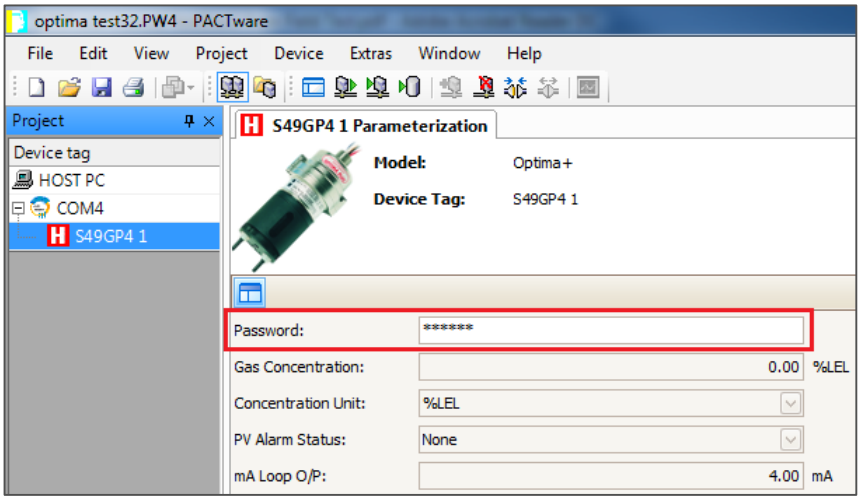
After clicking "Load from device" icon, an "Upload" screen will be shown and the upload progress bar. When the progress bar is through building, you can click on the "Edit device parameter" icon.

6.2 Store to device

"Store to device" sends the device parameters from the "Offline Parameterization" window of the current DTM to the currently connected device. Ensure the offline parameters are appropriate values before sending:



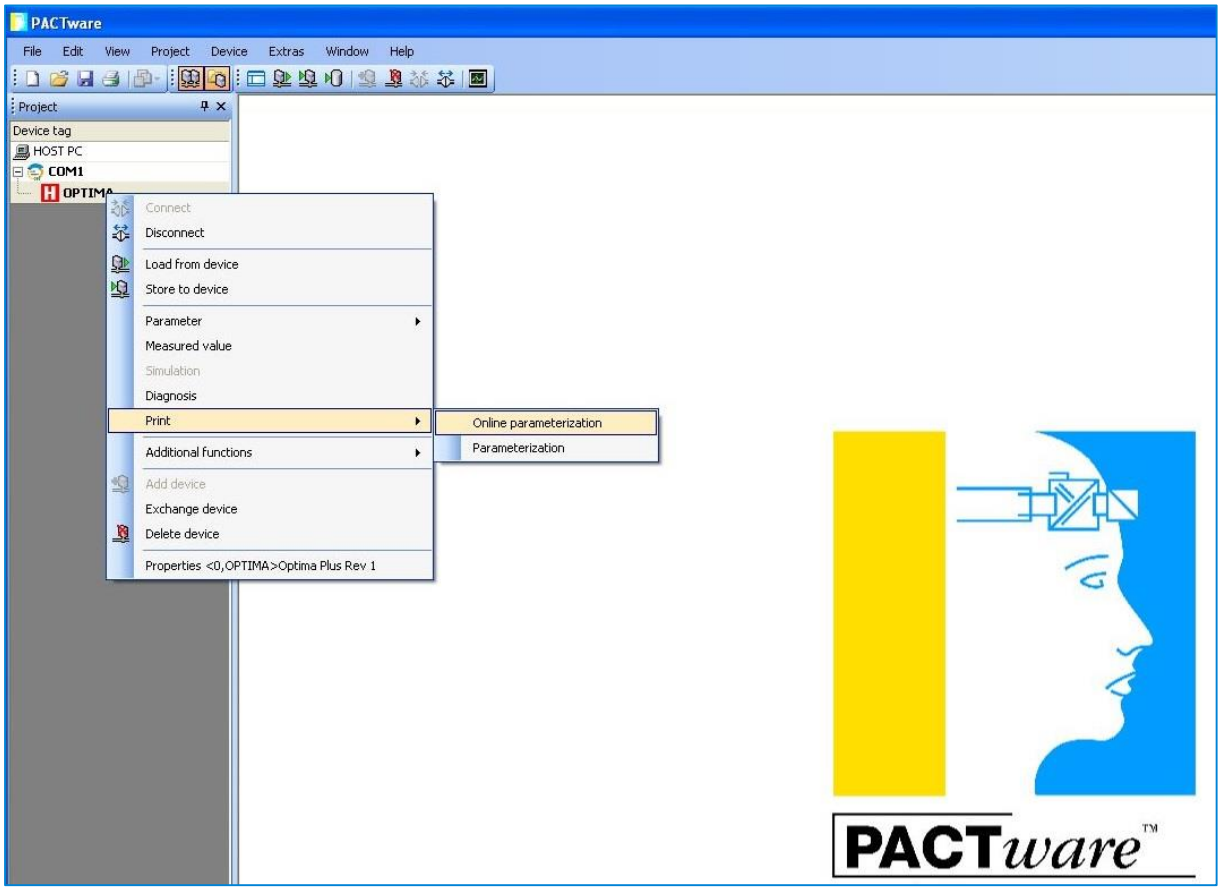
To store parameters to the device, the Level2 password must be entered.



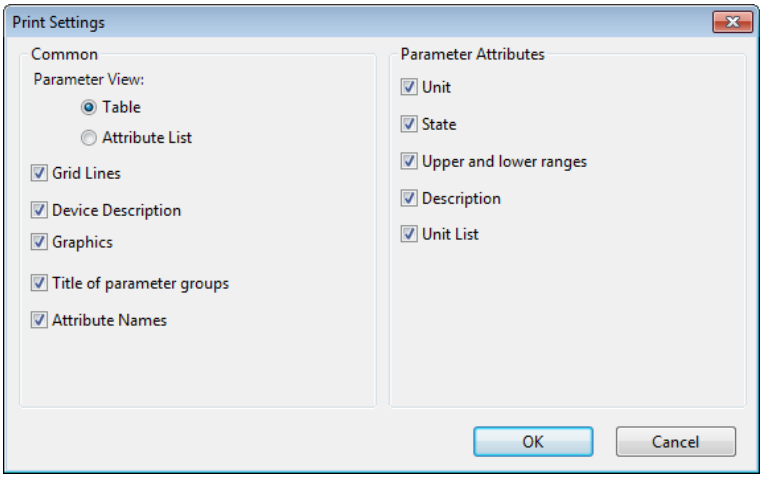
6.3 Print

“Print” is a frame specific function which offers the possibility to print the online/offline parameter set.

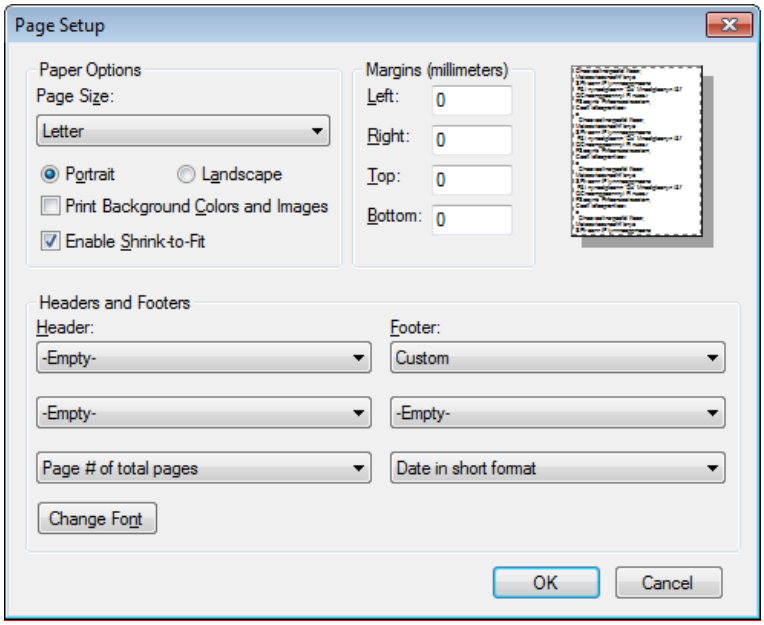
In order to print the parameter list just right-click on device name in the project view on the left-hand side and select “Print” then “Online Parameterization” or “Parameterization”:



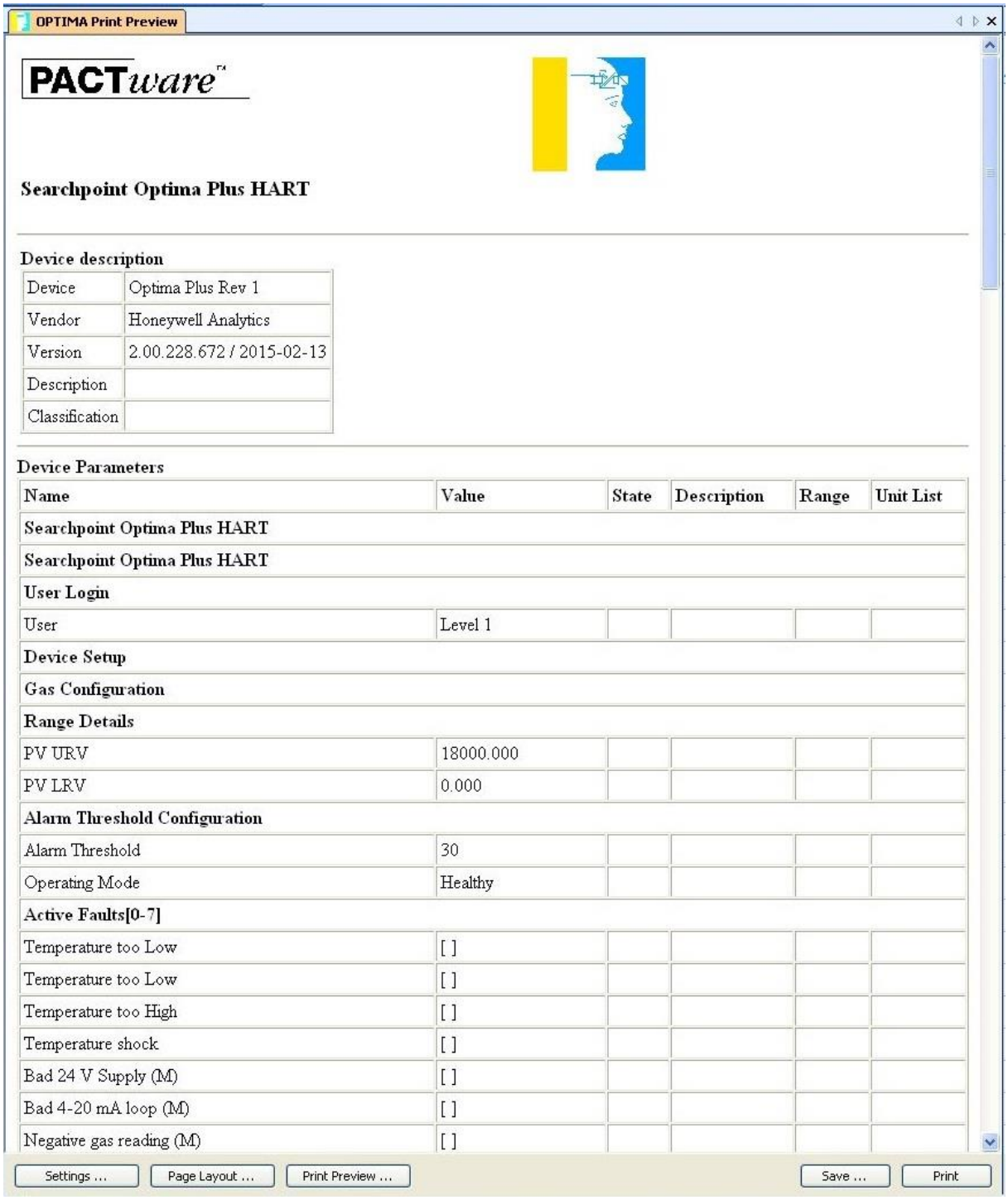
Define the items which shall be printed:



Also the page layout can be adjusted:



Before printing or saving the file on your computer, the print preview will be displayed:



OPTIMA Print Preview

PACTware™

Searchpoint Optima Plus HART

Device description

Device	Optima Plus Rev 1
Vendor	Honeywell Analytics
Version	2.00.228.672 / 2015-02-13
Description	
Classification	

Device Parameters

Name	Value	State	Description	Range	Unit List
Searchpoint Optima Plus HART					
Searchpoint Optima Plus HART					
User Login					
User	Level 1				
Device Setup					
Gas Configuration					
Range Details					
PV URV	18000.000				
PV LRV	0.000				
Alarm Threshold Configuration					
Alarm Threshold	30				
Operating Mode	Healthy				
Active Faults[0-7]					
Temperature too Low	[ ]				
Temperature too Low	[ ]				
Temperature too High	[ ]				
Temperature shock	[ ]				
Bad 24 V Supply (M)	[ ]				
Bad 4-20 mA loop (M)	[ ]				
Negative gas reading (M)	[ ]				

Settings ... Page Layout ... Print Preview ... Save ... Print

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Issue 1_26/2016

2108M0571