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Operating Instructions
Field Xpert SMT50

Universal, high-performance tablet PC for device configuration

Endress+Hauser
People for Process Automation

Revision history

Software version	Operating Instructions	Changes
1.05.xx	BA02053S/04/EN/01.20	Initial version
1.05.xx	BA02053S/04/EN/02.21	Corrections
1.06.xx	BA02053S/04/EN/03.22	▪ Screenshots in English from this version ▪ Section 5.3: Software update service ▪ Section 8.5 "Fieldgate PAM SFG600 via PROFINET" removed ▪ Section 9.1: Battery maintenance ▪ Appendix: Protecting mobile devices
1.07.xx	BA02053S/04/EN/04.22	▪ Section 1.2.3: Explanation of symbols updated ▪ Section 1.3: Acronyms used ▪ Section 8: Screenshots adapted ▪ Section 8.3.6: Bluetooth new
1.08.xx	BA02053S/04/EN/05.24	▪ Section 1.2.3 "Field Xpert icons" updated ▪ Section 1.4: Revised ▪ Section 3.1: Figure revised ▪ Section 5.3: Revised ▪ Section 8.8 "Scanner app" removed
1.08.xx	BA02053S/04/EN/06.24	▪ Section 1.2.3 " Field Xpert icons" updated ▪ Section 3: Figure "Network architecture" removed ▪ Section 3.2" Licensing model "revised ▪ Section 4.2.1" Nameplate "revised ▪ Section 5" Installation "revised ▪ New Section 8 "Description of Field Xpert software" added ▪ New Section 9 "Installing communication drivers and device drivers" (DTM, FDT, IODD) added ▪ Section 10 "Operation" revised and reorganized

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1 About this document

1.1 Document function

These Operating Instructions contain all the information required in the various life cycle phases of the device: from product identification, incoming acceptance and storage, to installation, connection, operation and commissioning, through to troubleshooting, maintenance and disposal.

1.2 Symbols

1.2.1 Safety symbols

⚠ DANGER
This symbol alerts you to a dangerous situation. Failure to avoid this situation will result in serious or fatal injury.

⚠ WARNING
This symbol alerts you to a potentially dangerous situation. Failure to avoid this situation can result in serious or fatal injury.

⚠ CAUTION
This symbol alerts you to a potentially dangerous situation. Failure to avoid this situation can result in minor or medium injury.

NOTICE
This symbol alerts you to a potentially harmful situation. Failure to avoid this situation can result in damage to the product or something in its vicinity.

1.2.2 Symbols for certain types of information

Symbol	Meaning
	Permitted Procedures, processes or actions that are permitted.
	Preferred Procedures, processes or actions that are preferred.
	Forbidden Procedures, processes or actions that are forbidden.
	Tip Indicates additional information.
	Reference to documentation
	Reference to page
	Reference to graphic

Symbol	Meaning
▶	Notice or individual step to be observed
1., 2., 3...	Series of steps
→	Result of a step
	Help in the event of a problem
	Visual inspection

1.2.3 Field Xpert icons

Symbol	Meaning
	Switch tablet on and off.
	Windows button
	Wireless communication (WLAN, WWAN, GPS, Bluetooth)
	Battery
	Open the Offline Dynamic Installed Base Analysis (DIBA) function.
	Call up the Field Xpert software home screen.
	Jump back to the last page opened.
	Call up the menu page of the Field Xpert software.
	Call up the information page of the Field Xpert software.
	Minimize view.
	Enable full screen.
	Disable full screen.
	Close the Field Xpert software.
	Scroll up

Symbol	Meaning
	Scroll down
	Update
	Open the FDI Package Manager.
	Expand information.
	Collapse information.
	Connect automatically
	Connect with wizard (manual connection)
	Connect with Endress+Hauser wireless local area network (WLAN) and Bluetooth field devices
	RFID
	Netilion (Cloud)
	Favorites
	Keypad
	Camera
	Shortcut to Netilion Library
	Attach photos and PDFs to an asset in Netilion Library
	Execute function.
	Delete

1.3 Acronyms used

Acronyms	Explanation
DTM	Device Type Manager
FCC	Federal Communications Commission

Acronyms	Explanation
FDI	Field Device Integration
HF	High frequency [RF = radio frequency]
IODD	Input Output Data Definition
MSD	Menu Structure Description
SD	Secure Digital
WWAN	Wireless Wide-Area Network

1.4 Documentation

For an overview of the scope of the associated Technical Documentation, refer to the following:
- *Device Viewer* (www.endress.com/deviceviewer): Enter the serial number from the nameplate
- *Endress+Hauser Operations app*: Enter serial number from nameplate or scan matrix code on nameplate.

Field Xpert SMT50
- Technical Information TI01555S
- Operating Instructions BA02053S

1.5 Registered trademarks

Windows 10 IoT Enterprise® is a registered trademark of Microsoft Corporation, Redmond, Washington, USA.

Intel® Core™ is a registered trademark of Intel Corporation, Santa Clara, USA.

FOUNDATION™ Fieldbus is the trademark of the FieldComm Group, Austin, TX 78759, USA.

HART®, WirelessHART® is the registered trademark of the FieldComm Group, Austin, TX 78759, USA.

PROFIBUS® is a registered trademark of the PROFIBUS User Organization, Karlsruhe/ Germany.

PROFINET® is a registered trademark of the PROFIBUS User Organization (PNO), Karlsruhe/ Germany

Modbus is the registered trademark of Modicon, Incorporated.

IO-Link® is a registered trademark of the IO-Link Community c/o PROFIBUS User Organization, (PNO) Karlsruhe/Germany - www.io-link.com

All other brand and product names are trademarks or registered trademarks of the companies and organizations in question.

2 Basic safety instructions

The Operating Instructions supplied with the device and containing the safety instructions of the tablet PC manufacturer must be observed.

2.1 Requirements for the personnel

The personnel for installation, commissioning, diagnostics and maintenance must fulfill the following requirements:
- Trained, qualified specialists must have a relevant qualification for this specific function and task.
- Are authorized by the plant owner/operator.
- Are familiar with federal/national regulations.
- Before starting work, read and understand the instructions in the manual and supplementary documentation as well as the certificates (depending on the application).
- Follow instructions and comply with basic conditions.

The operating personnel must fulfill the following requirements:
- Are instructed and authorized according to the requirements of the task by the facility's owner-operator.
- Follow the instructions in this manual.

2.2 Intended use

The tablet PC for device configuration enables mobile plant asset management. It is suitable for commissioning and maintenance staff to manage field instruments with a digital communication interface and to record progress. This tablet PC is designed as a complete solution and is an easy-to-use, touch-enabled tool which can be used to manage field instruments during their entire life cycle. It provides extensive, pre-installed driver libraries and offers access to the "Industrial Internet of Things" as well as to information and documentation during the entire life cycle of the device. The tablet PC offers a modern software user interface and the option of online updates based on a secure Microsoft Windows 10 multi-functional environment.

2.3 Workplace safety

When working on and with the device:
- Wear the required personal protective equipment as per national regulations.

2.4 Operational safety

Damage to the device!
- Operate the device in proper technical condition and fail-safe condition only.
- The operator is responsible for the interference-free operation of the device.

Modifications to the device

Unauthorized modifications to the device are not permitted and can lead to unforeseeable dangers!
- If modifications are nevertheless required, consult with the manufacturer.

Repair

To ensure continued operational safety and reliability:
- ► Carry out repairs on the device only if they are expressly permitted.
- ► Observe federal/national regulations pertaining to the repair of an electrical device.
- ► Use only original spare parts and accessories.

2.5 Product safety

This measuring device is designed in accordance with good engineering practice to meet state-of-the-art safety requirements, has been tested, and left the factory in a condition in which it is safe to operate.

It meets general safety standards and legal requirements. It also complies with the EU directives listed in the device-specific EU Declaration of Conformity. The manufacturer confirms this by affixing the CE mark to the device.

2.6 IT security

The manufacturer warranty is valid only if the product is installed and used as described in the Operating Instructions. The product is equipped with security mechanisms to protect it against any inadvertent changes to the settings.

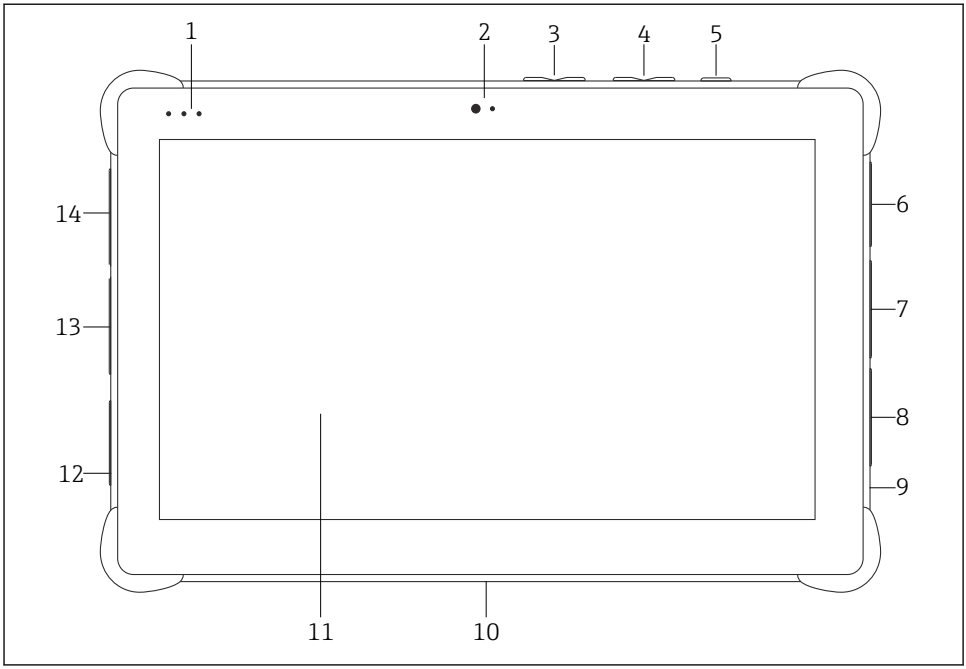
IT security measures, which provide additional protection for the product and associated data transfer, must be implemented by the operators themselves in line with their security standards.

3 Product description

With an ultra-compact form factor, the tablet PC meets the most demanding requirements, such as ingress protection (IP65) and shock resistance (MIL-STD 810G). The additional screen protector offers complete protection in harsh working environments. The tablet PC's good ergonomic features also protect workers' health, keeping physical strain to a minimum.

With the increasing popularity of 4G/LTE connectivity, the tablet PC ensures swift and seamless access to data. However, in situations where only a WLAN is available or not even a WLAN, the optional docking station with an Ethernet interface gives the tablet PC the necessary flexibility to link into existing network infrastructures. In addition, the latest Bluetooth standards are also supported.

After use in the field, the tablet PC can be used as an office PC with the optional office docking station, allowing the tablet to be seamlessly integrated into the office and business networks.

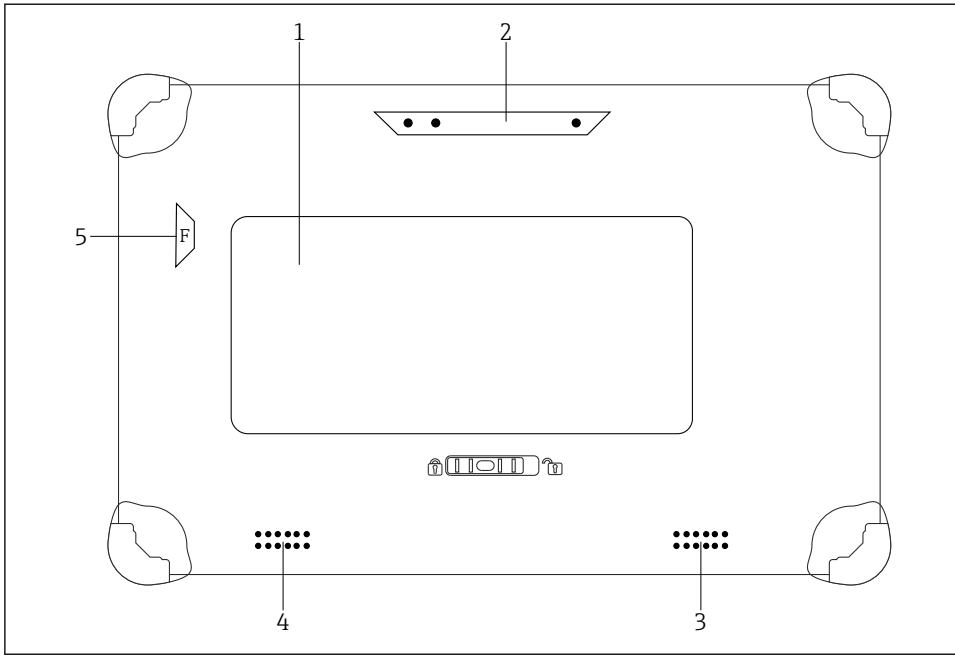


1 Front view of tablet PC

1 Status LEDs: (power/charge indicator/WLAN)
2 Front camera
3 Programmable buttons P1/P2
4 Volume buttons
5 On/off button
6 USB 2.0
7 DB-9 serial COM 2: RS-485 fixed (Pin1: D+/Pin2: D-/Pin5: GND)
8 DB-9 serial COM 1: RS-232 fixed (Standard)
9 Slot for Kensington lock
10 Dock connector
11 Corning® Gorilla® Glass
12 LAN/DC socket
13 USB 3.0/USB 2.0
14 Audio out 3.5mm/USB type C/mini HDMI

Component	Description
Programmable buttons	Go to user-defined program
Front camera	For video recordings (e.g. at video conferences)
DC socket	For connecting the power adapter
Dock connector	For connecting the tablet PC to a docking station
Slot for Kensington lock	For connecting a Kensington-compatible security lock

Component	Description
Volume buttons	For setting the volume
On/off button	For switching the tablet PC on or off



2 *Rear view of tablet PC*

1 *Replaceable battery (SIM and SD card slot are located below the battery)*
2 *Rear camera*
3 *Loudspeaker, left side*
4 *Loudspeaker, right side*
5 *Button F: Torch*

Component	Description
Camera flash	For additional lighting in poor light - press button F.
Camera	For taking pictures.
Battery compartment	Contains the battery.
Button to unlock the battery compartment	Press down the button and hold to unlock the battery compartment.
Loudspeaker	For sound

Component	Description
SIM card slot	For inserting a SIM card for WWAN (LTE+GPS).
Memory card slot	For inserting Micro SD memory cards, and SD, SDXC, SDHC memory cards using an adapter.

3.1 Field of application

The tablet PC for device configuration enables mobile plant asset management. It is suitable for commissioning and maintenance staff to manage field instruments with a digital communication interface and to record progress. This tablet PC is designed as a complete solution and is an easy-to-use, touch-enabled tool which can be used to manage field instruments during their entire life cycle. It provides pre-installed driver libraries and offers access to the "Industrial Internet of Things" as well as to information and documentation during the entire life cycle of the device. The tablet PC offers a modern software user interface and the option of online updates based on a secure Microsoft Windows 10 multi-functional environment.

3.2 Licensing model

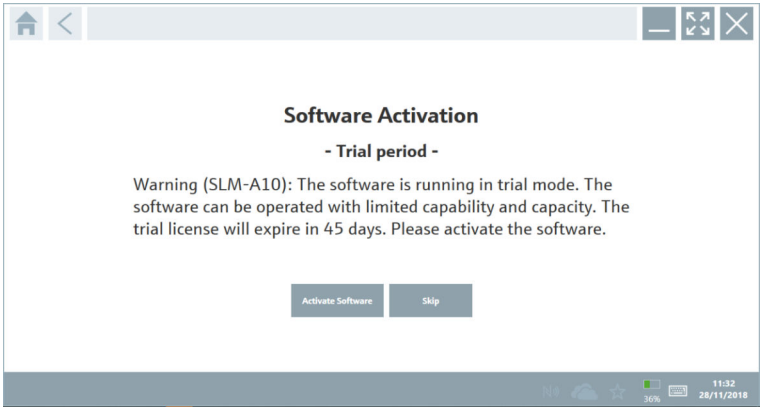
The Field Xpert software is already installed on the tablet PC upon delivery.

You must first activate the software in order to use it for its intended purpose. A user account is required in the Endress+Hauser software portal for this purpose.

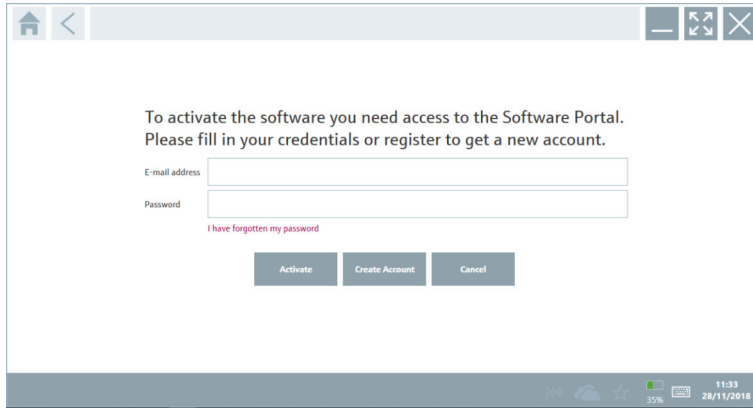
Endress+Hauser software portal: https://www.software-products.endress.com/

Activating the Field Xpert software

1. Tap the **Field Xpert** shortcut on the start screen of the tablet PC.
   ↳ If the license has not yet been activated, the page for activating the software opens.



2. Tap **Activate Software**.
   ↳ The following page is displayed:



3. Enter **E-mail address** and **Password** and tap **Activate**.
   ↳ A dialog box with the message "The application has been activated successfully." opens.
4. Tap **Show license**.
   ↳ A dialog box with information on the license opens.
5. Tap **Close**.
   ↳ The start screen of the Field Xpert software opens.

4 Incoming acceptance and product identification

4.1 Incoming acceptance

Visual inspection
- Check the packaging for visible damage arising from transportation
- Open the packaging carefully
- Check the contents for visible damage
- Check that the delivery is complete and nothing is missing
- Retain all the accompanying documents

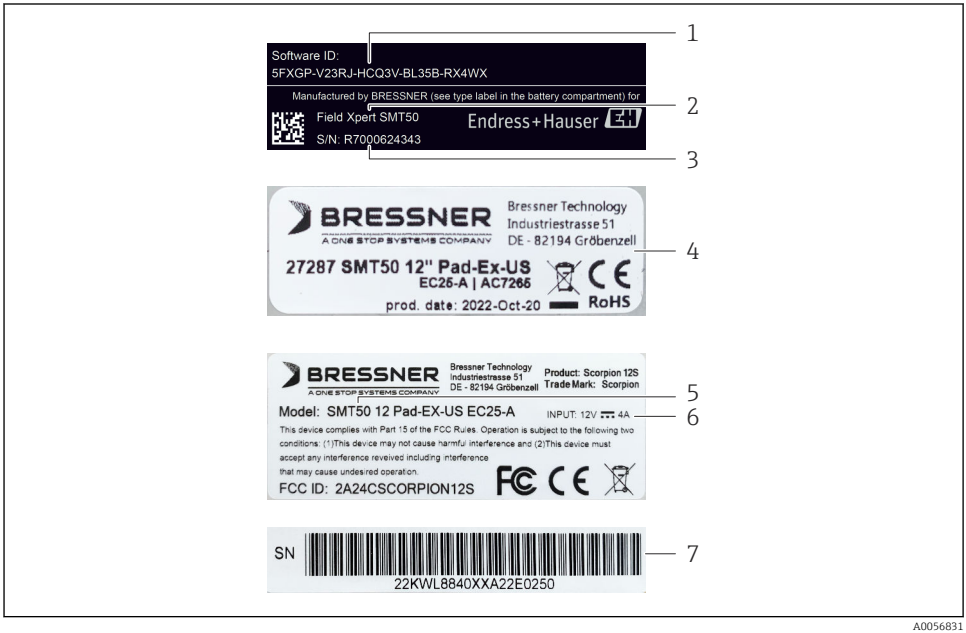
The device may not be put into operation if the contents are found to be damaged beforehand. In this case, please contact your Endress+Hauser Sales Center: www.addresses.endress.com

Return the device to Endress+Hauser in the original packaging where possible.

Scope of delivery
- Field Xpert SMT50 tablet PC
- AC charger with device cable as per order
- Software and interfaces/modem as per order
- Operating Instructions with safety instructions from Bressner

4.2 Product identification

4.2.1 Nameplate



A0056831

1 Endress+Hauser software ID
2 Endress+Hauser product name
3 Endress+Hauser serial number
4 Manufacturer nameplate
5 Manufacturer model number
6 Manufacturer technical information
7 Manufacturer serial number

4.2.2 Manufacturer address

Hardware

Bressner Technology GmbH

Industriestrasse 51D

82194 Groebenzell

Germany

www.bressner.de

Software

Endress+Hauser Process Solutions AG

Christoph Merian-Ring 12

4153 Reinach

Switzerland

www.endress.com

4.3 Storage and transport

Always use the original packaging when transporting the product.

4.3.1 Storage temperature

–20 to 60 °C (–4 to 140 °F)

5 Installation

5.1 System requirements

The Field Xpert software is already installed on the tablet PC upon delivery. The software must be activated.

Licensing model → 12

5.2 Updating the software

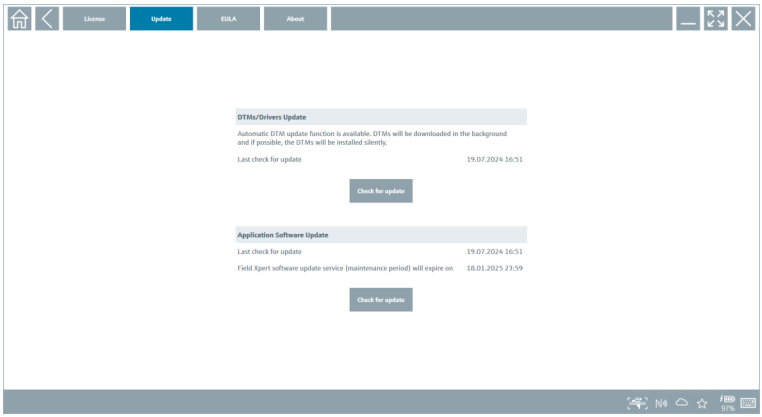
Software update service

The inclusive maintenance period starts with the creation of the license and ends automatically after one year.

Software updates can also be loaded at a later stage if the software release has been published within a valid, active maintenance period.

To search for updates, the tablet PC will need to be connected to the Internet.

1. Tap the icon on the Field Xpert software start screen.
   ↳ The "License" page is displayed.
2. Tap the **Update** tab.
   ↳ The following page is displayed:



3. In "Application Software Update" tap **Check for updates**.
   ↳ The Field Xpert software starts searching for updates.

5.3 Removing the software

NOTICE

Uninstalling the Field Xpert software.
Field Xpert can no longer be used for its intended purpose.
- ▶ Do **not** uninstall the Field Xpert software from the tablet PC.

6 Operation

Avoid damage to the housing and components:
- ▶ Always place the device on a stable surface.
- ▶ Do not cover the ventilation opening, or block it by other objects.
- ▶ Keep the device away from liquids.
- ▶ Do not expose the device to direct sunshine or very dusty conditions.
- ▶ Do not expose the device to excess heat or humidity.

6.1 Shutting down the tablet PC

Make sure you shut down the tablet PC properly, as this is the only way to avoid losing unsaved data.

- ▶ Tap the **Windows icon** → ⏻ → **Shut down**.

The tablet PC shuts down.

Do not disconnect the power source until the tablet PC is switched off completely.

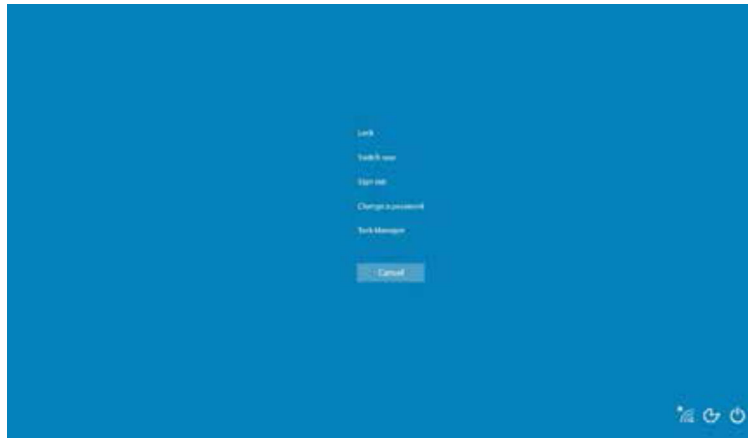
6.2 Switching off the tablet PC

▶ Press and hold the ⏻ button until the power LED flashes.

The tablet PC is in sleep mode.

6.3 Security screen

1. Press key combination Ctrl +Alt+Del
   ↳ Windows security screen appears



2. Select an action.

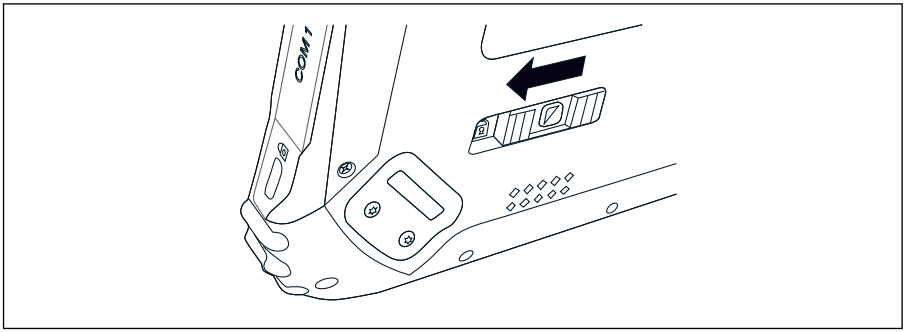
Possible actions:
- Lock the device
- Change to another user
- Log out
- Change the password
- Open Task Manager
- Shut down or restart the device

7 Commissioning

The tablet PC can be powered by the AC adapter or the lithium ion battery.

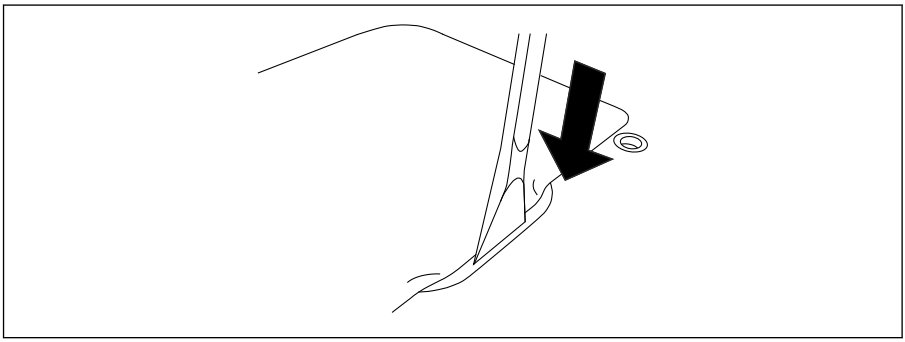
7.1 Inserting the battery

1.



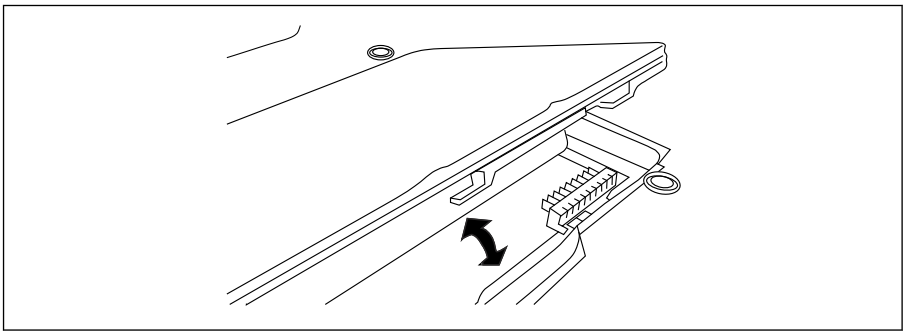
Release the lock on the battery cover by pressing the slide control on the rear of the tablet to the left.

2.



Take the enclosed plastic lever and use it to open the battery cover.

3.



Insert the battery, fit the battery cover back on and close the lock by pressing the slide control to the right.

The battery is inserted.

7.2 Charging the battery

Due to transport safety regulations, the lithium ion battery is not fully charged when purchased.

1. The battery must be inserted.
   Connect the AC adapter to the DC socket of the tablet PC.
2. Connect the AC adapter to the power cable.
3. Connect the power cable to a power outlet.

7.3 Switching on the tablet PC

► Press and hold the ⏻ button until the power LED is lit.

The tablet PC starts.

7.4 Connecting the AC adapter

The AC adapter powers the tablet PC and charges the battery.

When using the AC adapter:

Place the device sufficiently close to a power outlet that the power cable can still reach the outlet.

Only operate the device with the type of power source indicated on the device nameplate.

Disconnect the AC adapter from the power outlet if the device will not be used for an extended period.

1. Connect the AC adapter to the DC socket of the tablet PC.
2. Connect the AC adapter to the power cable.
3. Connect the power cable to a power outlet.

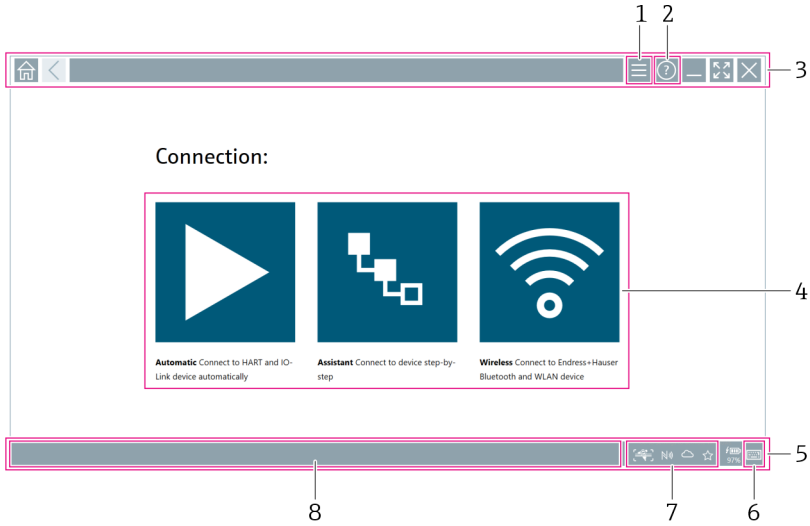
The tablet PC may only be used with the corresponding AC adapter.

If the tablet PC is connected to a socket and the battery is inserted, the tablet PC is powered via the socket.

8 Description of Field Xpert software

8.1 "Connection" start screen

▶ Tap the **Field Xpert** shortcut on the start screen of the tablet PC.
↳ The Field Xpert software is started. The start screen is displayed:

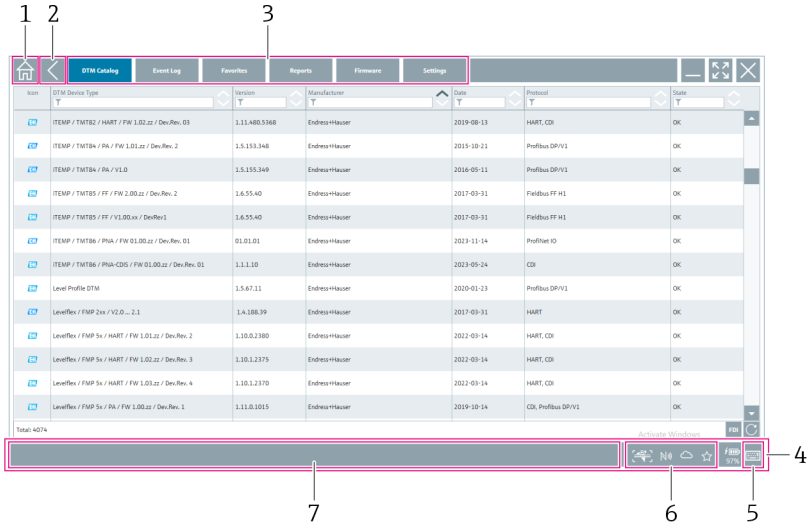


3 *Example of start screen*

1 *Call up menu page*
2 *Call up information page*
3 *Header*
4 *Wizards to establish connection to the field device*
5 *Footer/Status bar*
6 *Open keypad*
7 *Access other functions, depending on the tablet PC version*
8 *Open the "Event Log" page*

8.2 Menu pages

▶ Tap the ☰ icon in the header on the start screen.
↳ The following page is displayed:



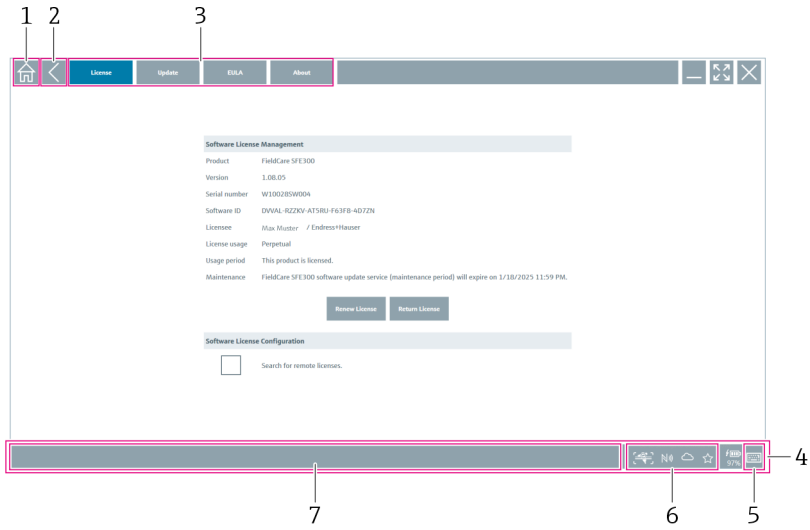
4 *Example of menu page*

1 *Open the "Connection" start screen*
2 *Back to previous page*
3 *Other menu pages*
4 *Footer/Status bar*
5 *Open keypad*
6 *Access other functions, depending on the tablet PC version*
7 *Open the "Event Log" page*

Detailed information on menu pages: → 38

8.3 Information pages

▶ Tap the ? icon in the header on the start screen.
↳ The following page is displayed:



5 Example of information page

1 *Open the "Connection" start screen*
2 *Back to previous page*
3 *Additional information pages*
4 *Footer/Status bar*
5 *Open keypad*
6 *Access other functions, depending on the tablet PC version*
7 *Open the "Event Log" page*

Detailed information on information pages: → 45

9 Installing the communication drivers and device drivers

All required communication drivers and device drivers must be available in the Field Xpert software to enable communication between the tablet PC and the field device. Depending on the communication protocol and the field device, these drivers are available as DTM, FDI or IODD.

9.1 DTM

If you start the Field Xpert software and the tablet PC is connected to the Internet, the software automatically searches for new DTMs. New DTMs are downloaded to the tablet PC and installed automatically.

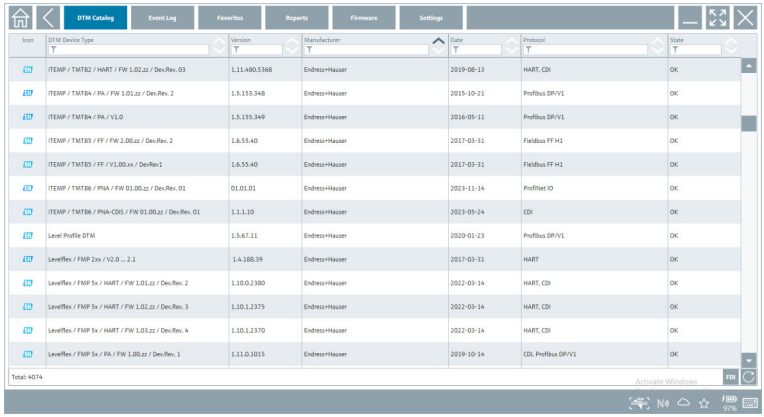
You must download FDIs manually and install them on the tablet PC using the FDI Package Manager → 24.

You must download IODDs manually and install them on the tablet PC using the IODD DTM Configurator → 25.

Open the DTM catalog

▶ Tap the icon in the header on the start screen of the Field Xpert software.

↳ The "DTM Catalog" page is displayed:



Updating the DTM catalog

▶ Tap the icon on the "DTM Catalog" page.

↳ The Field Xpert software searches for drivers that have recently been installed on the tablet PC.
The "DTM catalog refresh is running" message is displayed.
A blue progress bar and rotating circle in the footer indicate the progress.
Updating the DTM catalog can take several minutes.

You can use the "Update" page to search for new DTMs on the server. → 46

Start the FDI Package Manager from the Field Xpert software

▶ On the "DTM Catalog" page, tap the FDI icon.

The offline view of the device driver opens

▶ Tap on the line with the desired device driver.
↳ The offline view of the device driver is displayed.

This function is only possible if the device driver supports the offline view.

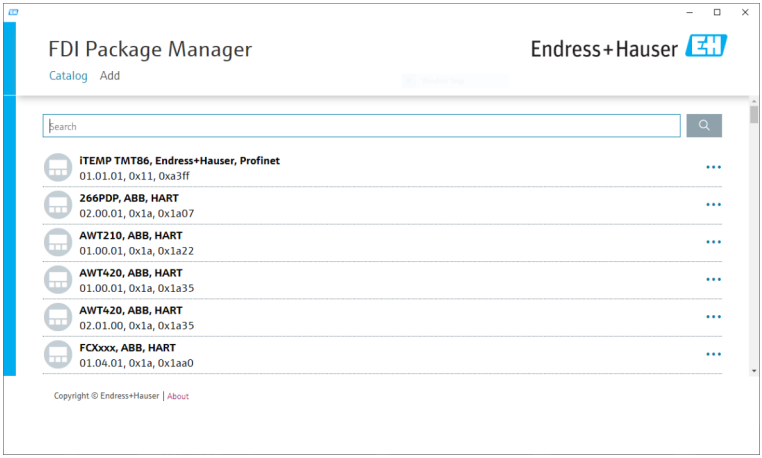
9.2 FDI – FDI Package Manager

Requirements
The required drivers have been downloaded to the tablet PC.

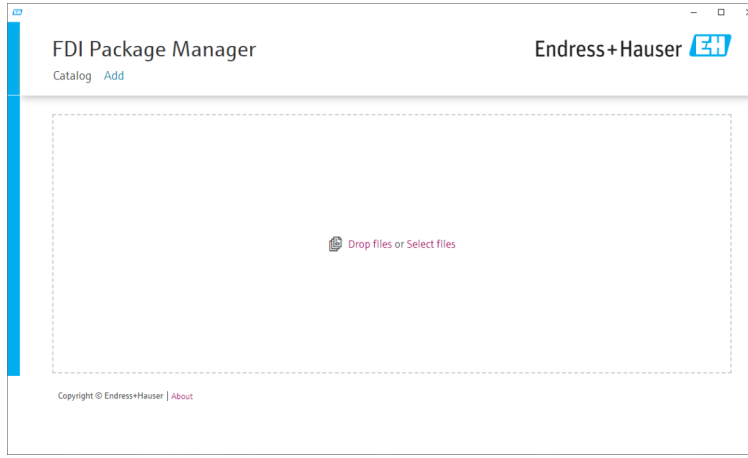
For Endress+Hauser field devices, you can download the device drivers either from the relevant product page or via the Endress+Hauser software portal. You will need to register for the software portal.

Software portal: https://www.software-products.endress.com

1. Tap the **FDI Package Manager** shortcut on the start screen of the tablet PC.
↳ An overview of all the FDI files already installed on the tablet PC is displayed.



2. Tap **Add** in the header.
   ↳ The "Add" page is displayed.



3. Tap **Drop files or Select files** and select the FDI file.
   ↳ The FDI file is automatically installed on the tablet PC.
   The new driver is displayed on the "Catalog" page.
   In the Field Xpert software, the new driver is displayed on the "DTM Catalog" page after you have updated the DTM catalog. → 🖹 23

9.3 IODD – IODD DTM Configurator

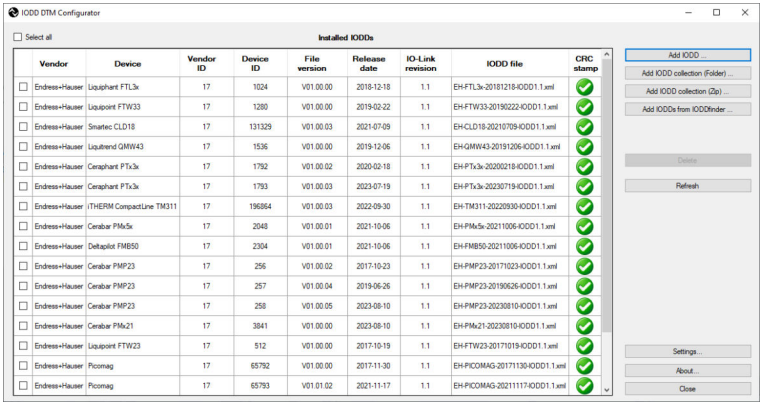
Requirements
The required drivers have been downloaded to the tablet PC.

For Endress+Hauser field devices, you can download the device drivers either from the relevant product page or via the Endress+Hauser software portal. You will need to register for the software portal.

Software portal: https://www.software-products.endress.com

Alternatively, you can also download the device drivers via the "IODD DTM Configurator" using the "Add IODDs from IODDfinder" function of IODD server.

1. Tap the **IODD DTM Configurator** shortcut on the start screen of the tablet PC.
   ↳ The following view is displayed:



2. Tap either **Add IODD**, **Add IODD collection (Folder)** or **Add IODD collection (Zip)**.
3. Select the file (*.xml or *.zip) or folder.
   ↳ The file is automatically installed on the tablet PC.
   The new driver is displayed in the "Installed IODDs" table.
   In the Field Xpert software, the new driver is displayed on the "DTM Catalog" page after you have updated the DTM catalog. → 📄 23

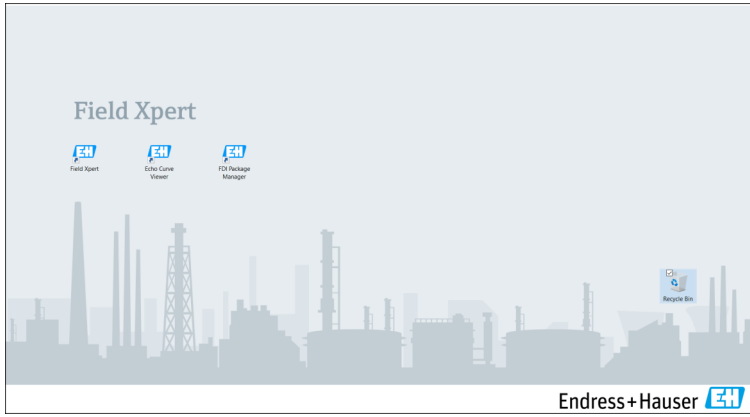
10 Operation

NOTICE

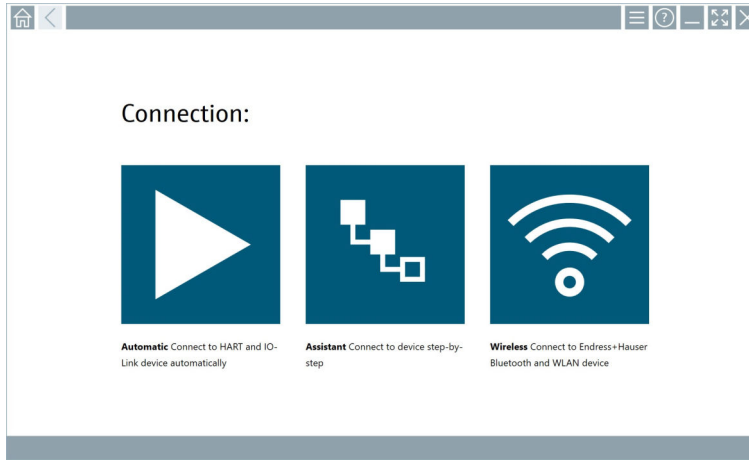
Operation with unsuitable objects.
Damage to screen.
► Do not use pointed objects for the screen.

10.1 Starting the Field Xpert software

The user must accept the terms of use the first time the Field Xpert software is started.



▶ Tap the **Field Xpert** shortcut on the start screen of the tablet PC.
↳ The Field Xpert software is started. The start screen is displayed:



The Field Xpert software provides three different methods to establish a connection to the field device. The version that is possible depends on the protocol, the interface (modem/gateway) and the field device.

- Detailed information on "Connection types, protocols and interfaces": → 28
- Detailed information on "Establishing a connection": → 29 to → 34

10.2 Overview of connection types, protocols and interfaces

10.2.1 Overview of connection types

The Field Xpert software provides three different methods to establish a connection to the field device. The version that is possible depends on the protocol, the interface (modem/ gateway) and the field device.

Connection type	Description	Protocols
	Automatically Connection to the field device (modem)/field device is established automatically.	▪ HART ▪ IO-Link ▪ Endress+Hauser service interfaces
	Wizard You establish a connection to the interface (modem/gateway) and the field device step by step.	▪ HART ▪ PROFIBUS ▪ FOUNDATION Fieldbus ▪ Modbus ▪ IO-Link ▪ Endress+Hauser service interfaces
	Wireless Select this option if you wish to establish a connection to an Endress+Hauser Bluetooth or wireless local area network field device.	▪ Bluetooth ▪ WLAN

10.2.2 Overview of protocols and interfaces depending on the connection type

"Automatic" connection

Protocol	Interface (Interface/modem)
HART	▪ Commubox FXA195 ▪ Viator Bluetooth IS modem ▪ Viator USB modem with PowerXpress ▪ FieldPort SFP50
IO-Link	FieldPort SFP20
Endress+Hauser service interfaces	▪ Commubox FXA291 CDI ▪ TXU10 V2 PCP ▪ CDI USB

"Wizard" connection

Protocol	Interface (interface, modem, gateway)
HART	▪ Commubox FXA195 ▪ Viator Bluetooth IS modem ▪ Viator USB modem with PowerXpress ▪ FieldPort SFP50 ▪ Fieldgate SFG250 ▪ Memograph RSG45 ▪ Tank Scanner NXA820 ▪ FieldGate SWG50 ▪ Fieldgate SWG70
PROFIBUS	▪ Softing PROFIusb ▪ Softing PBpro USB ▪ FieldPort SFP50 with PROFIBUS license ▪ Fieldgate SFG500
PROFINET	PROFINET Comm DTM
FOUNDATION Fieldbus	▪ NI USB ▪ FieldPort SFP50 with FOUNDATION Fieldbus license ▪ Softing FFusb
Modbus	Modbus serial
IO-Link	FieldPort SFP20
Endress+Hauser service interfaces	▪ Commubox FXA291 CDI ▪ Commubox FXA291 IPC, ISS, PCP ▪ Commubox FXA193 IPC, ISS ▪ TXU10 V2 CDI ▪ TXU10 V2 PCP ▪ TXU10 V1 PCP, CDI ▪ CDI USB ▪ CDI TCP/IP

"Wireless" connection

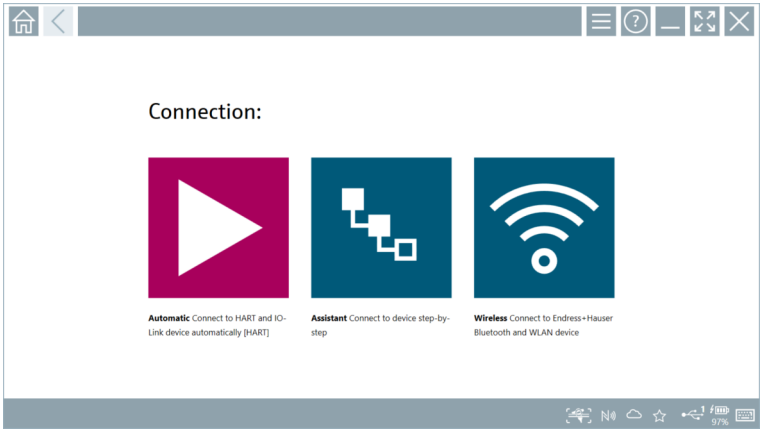
Protocol	Interface (radio signal)
Bluetooth	Endress+Hauser field devices with Bluetooth function
WLAN	Endress+Hauser WLAN field devices

10.3 Establishing an "Automatic" connection

Requirements

- All of the required communication drivers and device drivers have been integrated into the Field Xpert software.
- The field device is connected to the appropriate interface of the tablet PC via an interface (modem).

▶



Tap the ▶ icon.

↳ The Field Xpert software establishes a connection via the interface (modem) to the connected field device.

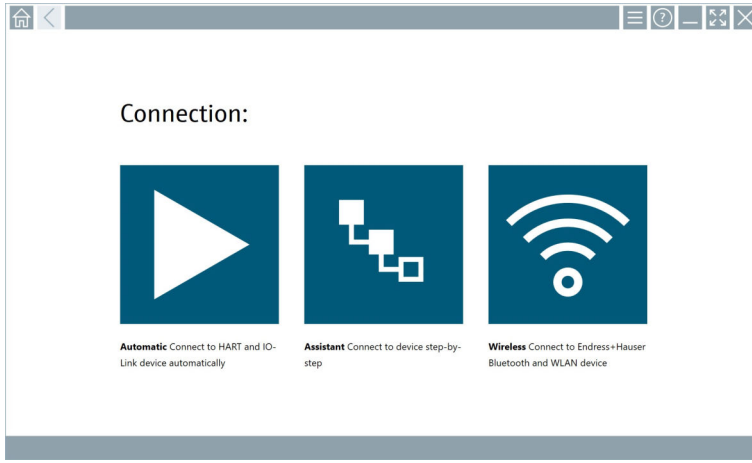
The page for the field device DTM is displayed.

10.4 Establishing a connection via "Wizard"

Requirements

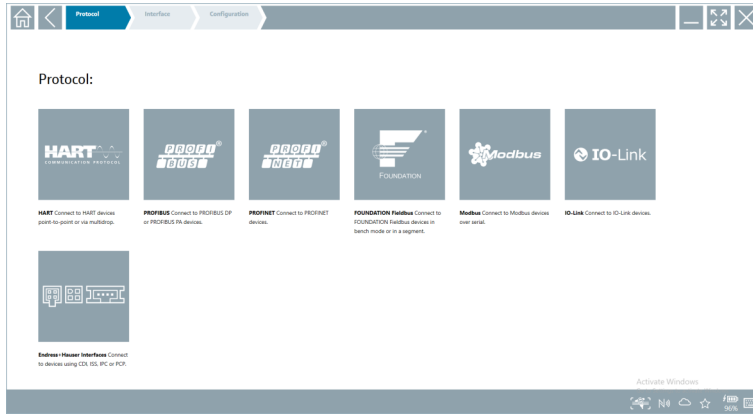
- All of the required communication drivers and device drivers have been integrated into the Field Xpert software.
- The field device is connected to the appropriate interface of the tablet PC via an interface (modem/gateway).

1.

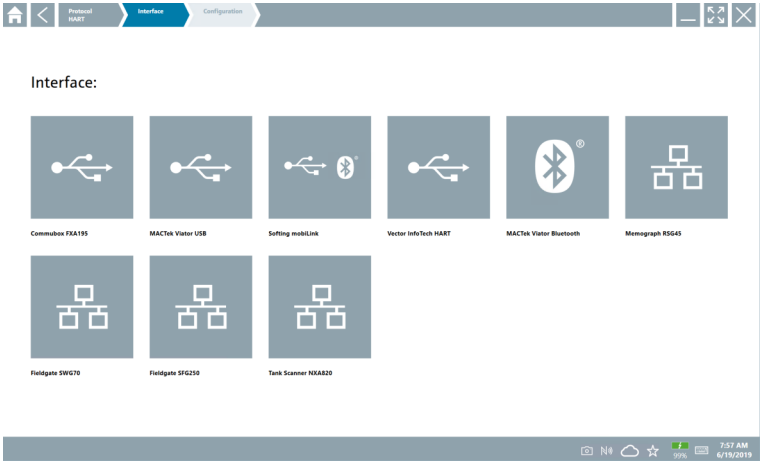


Tap the icon.

↳ An overview of all the available protocols is displayed.



2. Select a protocol.
   ↳ An overview of all the supported interfaces (modems/gateways) is displayed.



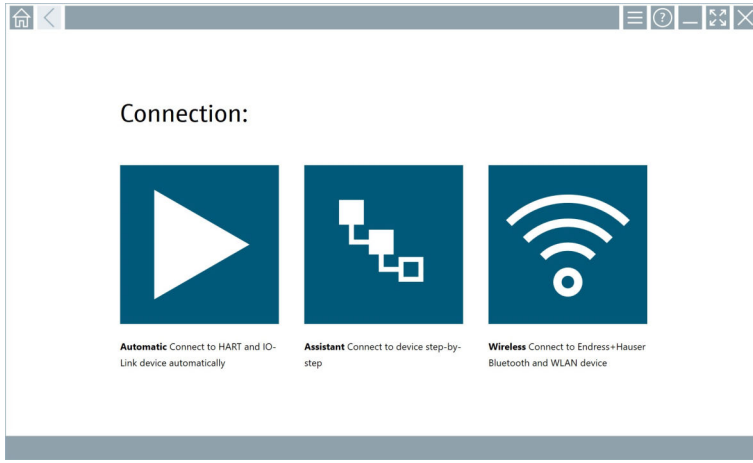
3. Select an interface.
   ↳ The remaining steps depend on the interface selected. The Field Xpert software guides you through the necessary steps. If the following icon ▶ is displayed on one page, you must tap on it for the next step.
4. Where necessary, configure the interface (modem/gateway).
5. Where necessary, select the DTM.
6. Where necessary, select the field device DTM.

The page for the field device DTM is displayed.

10.5 Establishing a connection via "Wireless" Bluetooth

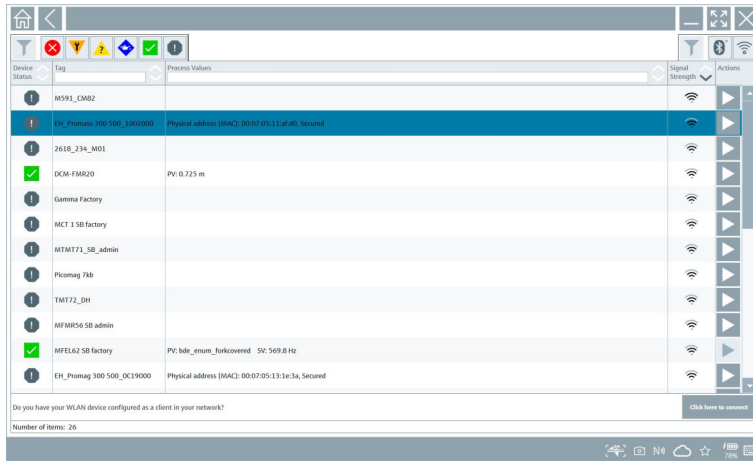
Requirements
All of the required communication drivers and device drivers have been integrated into the Field Xpert software.

1.



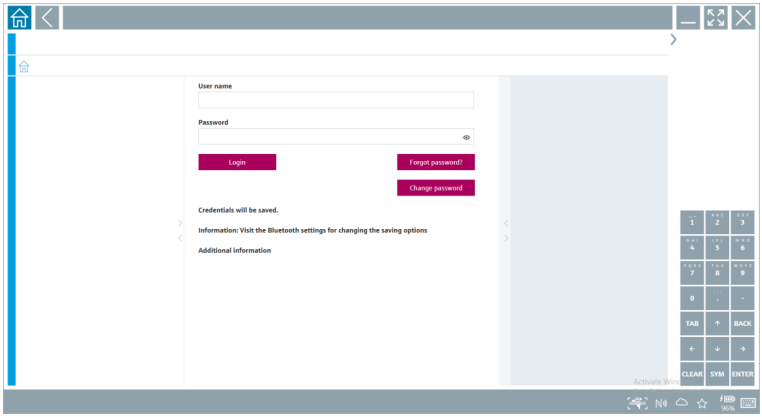
Tap the icon.

↳ A live list of all available Endress+Hauser Bluetooth and WLAN field devices is displayed.



You can filter by Bluetooth and WLAN field devices in the live list. Tapping the icon switches the filter for Bluetooth field devices either on or off. Tapping the icon switches the filter for WLAN field devices either on or off.

2. Tap the ▶ icon next to the field device that is to be configured.
   ↳ The login page of the field device is displayed.



3. Enter the **User Name** (admin) and **Password** and tap **Login**.

The page of the field device DTM (default) or the field device MSD of the field device is displayed.

The initial password corresponds to the serial number of the field device.
Contact Endress+Hauser Service for the reset code.

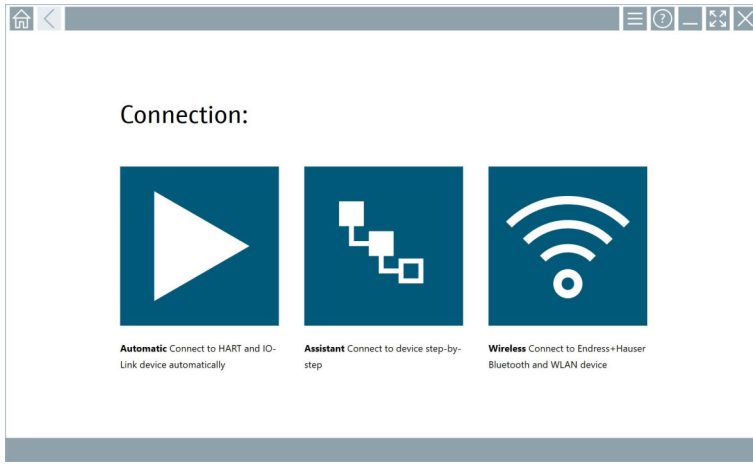
10.6 Establishing a connection via "Wireless" local area network

Requirements
All of the required communication drivers and device drivers have been integrated into the Field Xpert software.

If the WLAN field device is already integrated into the WLAN network as a client, you can access the WLAN field device directly. → 📄 37

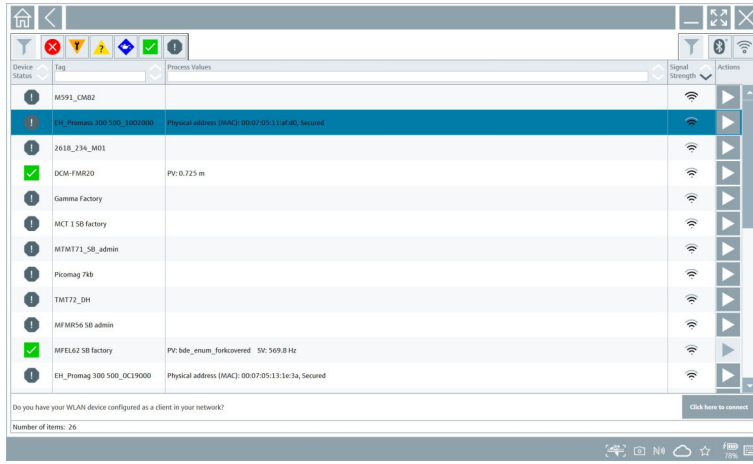
Procedure if WLAN field device is not integrated into the WLAN network as a client

1.



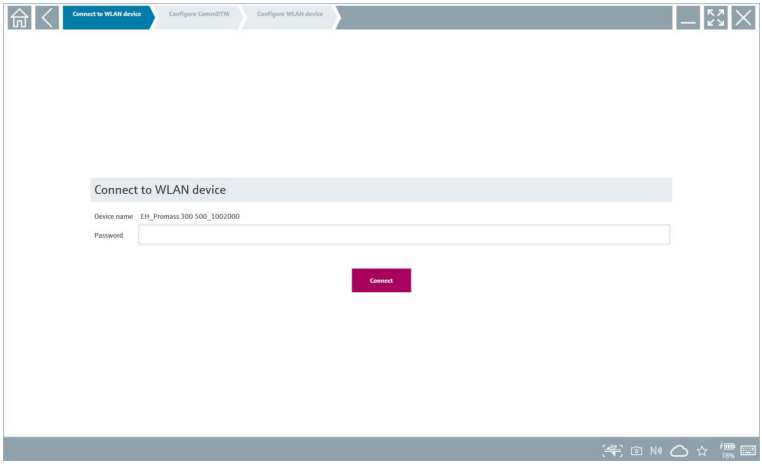
Tap the icon.

↳ A live list of all available Endress+Hauser Bluetooth and WLAN field devices is displayed.



You can filter by Bluetooth and WLAN field devices in the live list. Tapping the icon switches the filter for Bluetooth field devices either on or off. Tapping the icon switches the filter for WLAN field devices either on or off.

2. Tap the ▶ icon next to the field device you wish to configure.
   ↳ The page for the WLAN connection to the field device is displayed.

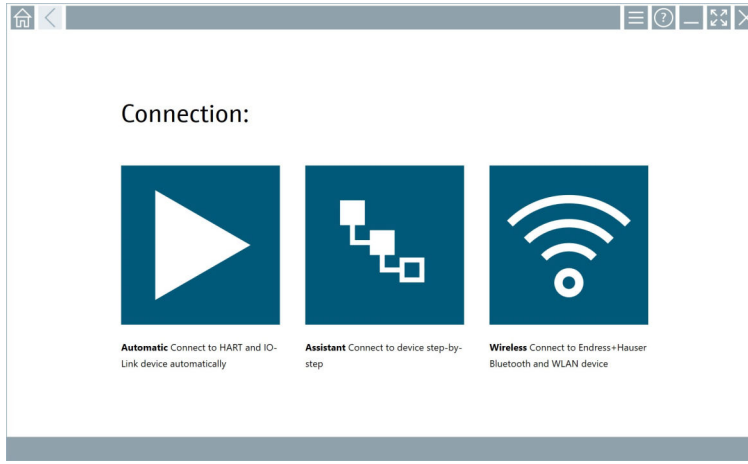


The initial password corresponds to the serial number of the field device.

3. Enter the **Password** and tap **Connect**.
   ↳ The page for the configuration of the IP address is displayed.
4. Do not change the IP address - leave it as is.
5. Tap the ▶ icon.
   ↳ The "Device DTM" page is displayed.
6. In the "Select DTM" section, select the desired DTM for the field device.

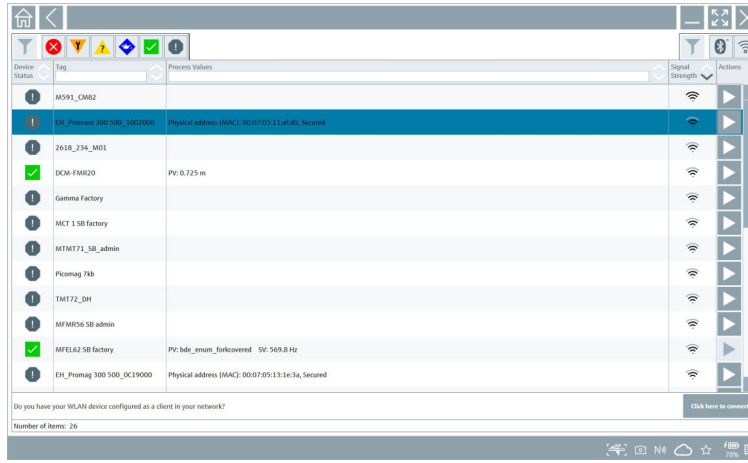
The page for the field device DTM is displayed.

Procedure if the WLAN field device is already integrated into the WLAN network as a client

1. 

   Tap the icon.

   ↳ A live list of all available Endress+Hauser Bluetooth and WLAN field devices is displayed.



2. Select the WLAN field device to which the connection should be established.
3. Tap **Click here to connect** under the list.
4. Enter the IP address of the field device.
5. Tap the icon.

   ↳ The "Device DTM" page is displayed.

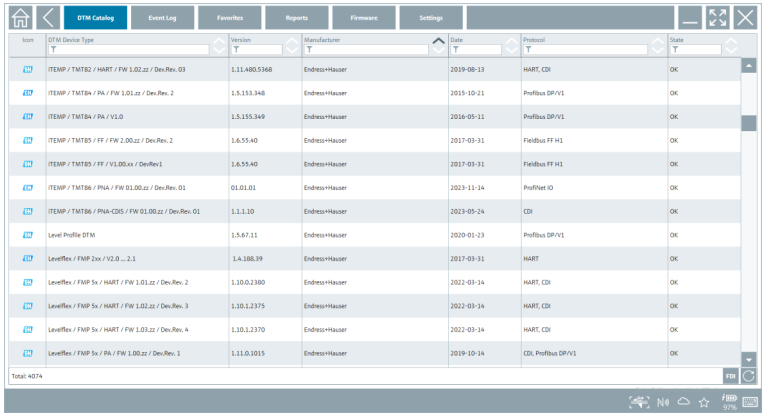
The page for the field device DTM is displayed.

10.7 Menu pages

10.7.1 DTM catalog

▶ Tap the ☰ icon in the header on the start screen.

↳ The "DTM Catalog" page is displayed with an overview of all available DTMs, FDIs, and IODDs.



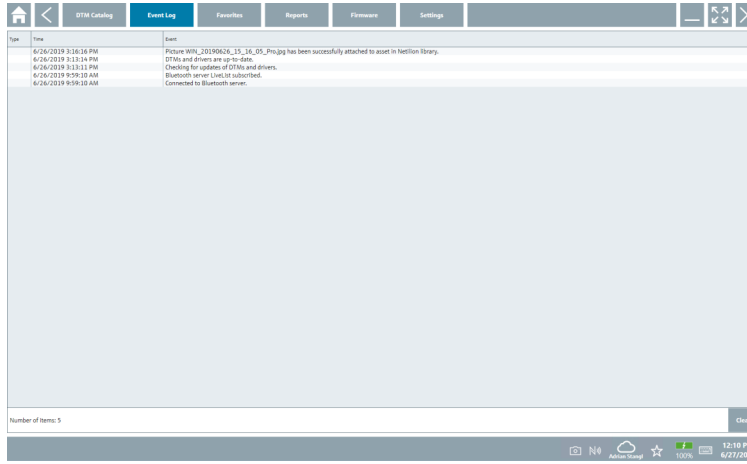
Detailed information on the "DTM Catalog" page: → 23

10.7.2 Event log

1. Tap the ☰ icon in the header on the start screen.

↳ The "DTM Catalog" page is displayed.

2. Tap the **Event Log** tab.
   ↳ An overview of events is displayed.

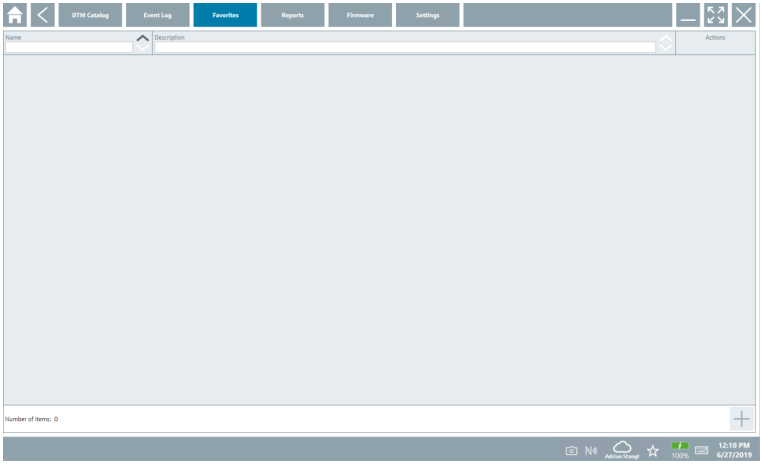


Alternatively, you can also tap in the gray area of the footer to open the "Event log".
You can use the **Clear** button to delete the displayed events.

10.7.3 Favorites

1. Tap the ☰ icon in the header on the start screen.
   ↳ The "DTM Catalog" page is displayed.

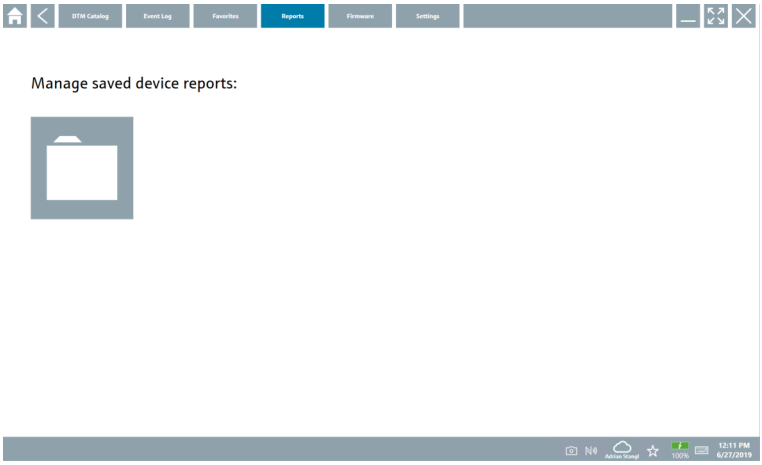
2. Tap the **Favorites** tab.
   ↳ An overview of all favorites is displayed.



Alternatively, you can also tap the ☆ icon in the footer to access the "Favorites" page.

10.7.4 Managing reports

1. Tap the ☰ icon in the header on the start screen.
   ↳ The "DTM Catalog" page is displayed.
2. Tap the **Reports** tab.
   ↳ An overview is displayed with the "Manage saved device reports" folder.

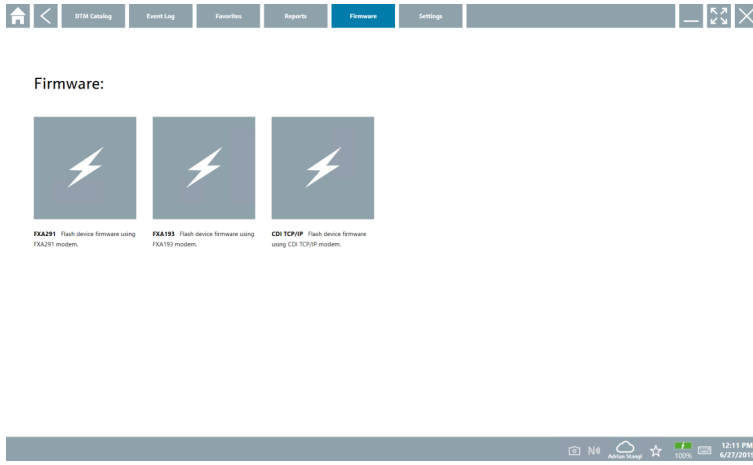


3. Tap the "Manage saved device reports" folder.
   ↳ The folder with all the saved device reports is displayed in Internet Explorer.

10.7.5 Firmware

You can use the "Firmware" page to flash field devices. The field device must be connected via one of the specified service interfaces for this purpose.

1. Tap the ☰ icon in the header on the start screen.
   ↳ The "DTM Catalog" page is displayed.
2. Tap the **Firmware** tab.
   ↳ An overview of the possible service interfaces is displayed.



3. Tap on the service interface used.
4. Flash the field device in accordance with the instructions.

10.7.6 Settings

Information on settings: → 41

10.8 Settings

10.8.1 Language

1. Tap the ☰ icon in the header on the start screen.
   ↳ The "DTM Catalog" page is displayed.

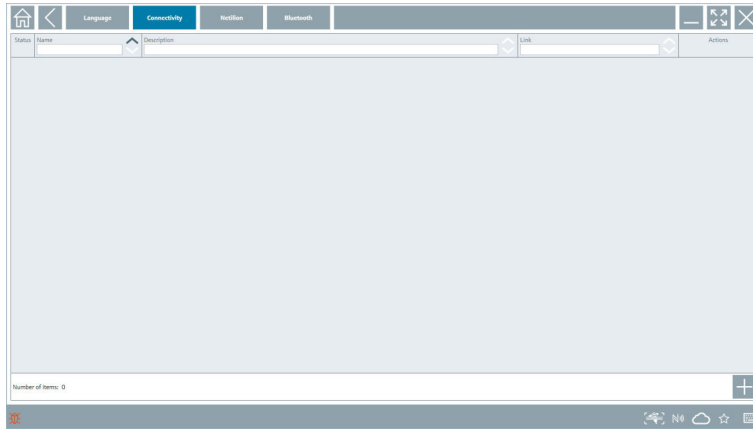
2. Tap the **Settings** tab.
   ↳ An overview of all the available languages is displayed.

3. Tap on the desired language.
   ↳ A dialog box is displayed with a prompt.
4. Select **Yes** if you wish to change the language. Select **No** not to change the language.
   ↳ If you select "Yes", the Field Xpert software is restarted. The selected language is active.

10.8.2 Connection

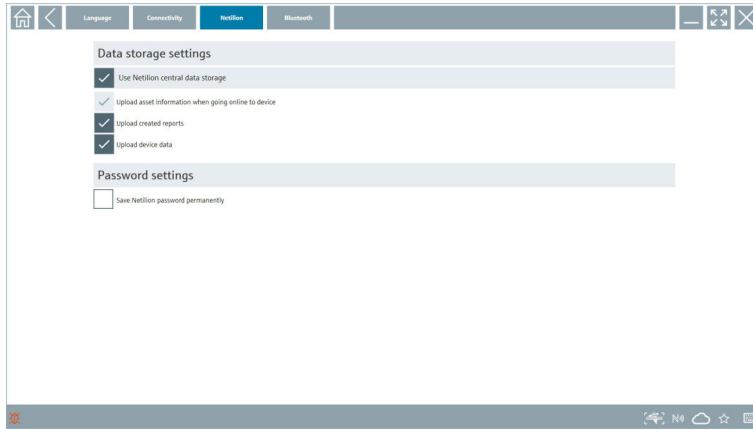
1. Tap the ☰ icon in the header on the start screen.
   ↳ The "DTM Catalog" page is displayed.
2. Tap the **Settings** tab.
   ↳ The "Language" page is displayed.

3. Tap the **Connectivity** tab.
   ↳ An overview of all connections to date and connections that have not been deleted is displayed.



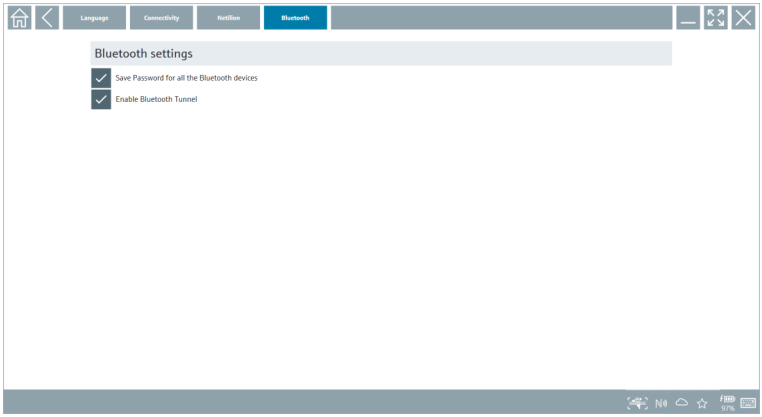
10.8.3 Netilion

1. Tap the ☰ icon in the header on the start screen.
   ↳ The "DTM Catalog" page is displayed.
2. Tap the **Settings** tab.
   ↳ The "Language" page is displayed.
3. Tap the **Netilion** tab.
   ↳ The settings for the data storage are displayed.



10.8.4 Bluetooth

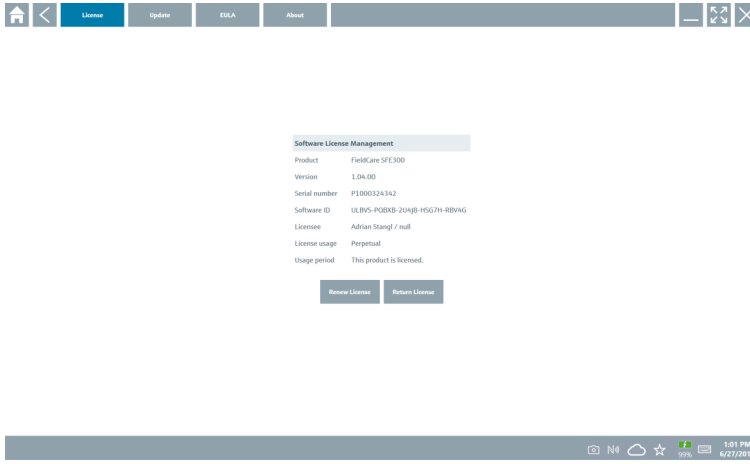
1. Tap the ☰ icon in the header on the start screen.
   ↳ The "DTM Catalog" page is displayed.
2. Tap the **Settings** tab.
   ↳ The "Language" page is displayed.
3. Tap the **Bluetooth** tab.
   ↳ The Bluetooth settings are displayed.



10.9 Information pages

10.9.1 License

▶ Tap the icon in the header on the start screen.
↳ The "License" page is displayed with information on the license.



Renewing the license

A maintenance contract extension must be ordered if the "Field Xpert SMT71" maintenance contract has expired.

To renew the license, the tablet PC must be connected to the Internet.

Renewing license for software version 1.05 and later

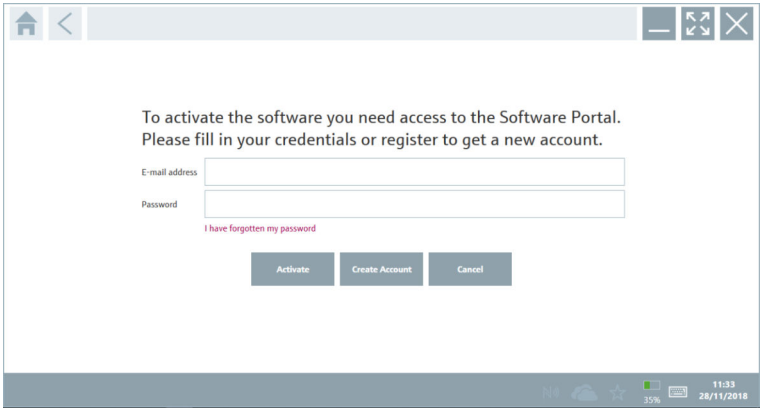
The license status is checked online when the Field Xpert software is started. If a license update is available for the customer, the license is updated automatically. The customer then receives notification.

Renewing license for software versions up to 1.04

On successful completion of "Field Xpert SMT71" maintenance contract extension order:

1. Tap the **License** tab.

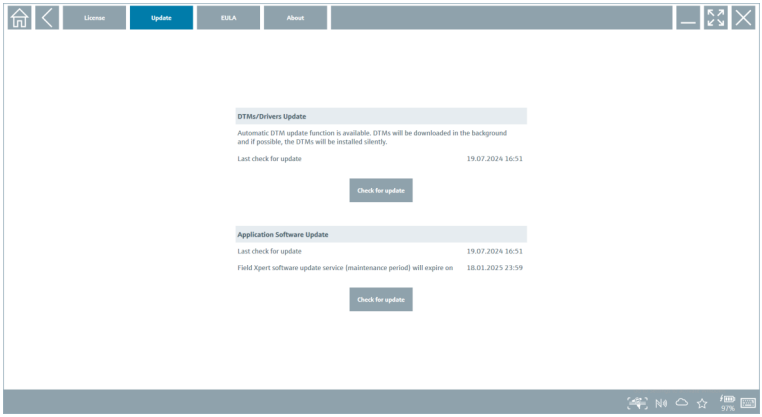
2. Tap **Activate License**.
   ↳ The following page is displayed:



3. Enter **E-mail address** and **Password** and tap **Activate**.
4. Tap **Activate License**.
   ↳ The license has been renewed.

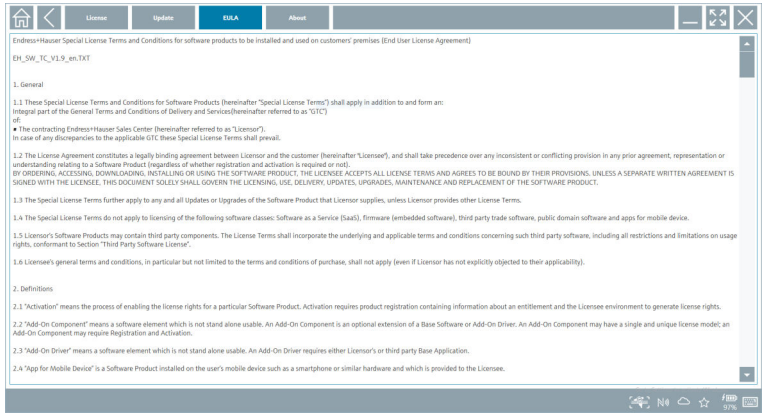
10.9.2 Update

1. Tap the icon in the header on the start screen.
   ↳ The "License" page is displayed.
2. Tap the **Update** tab.
   ↳ Information is displayed on the most recent updates. You can also search for new updates.



10.9.3 EULA

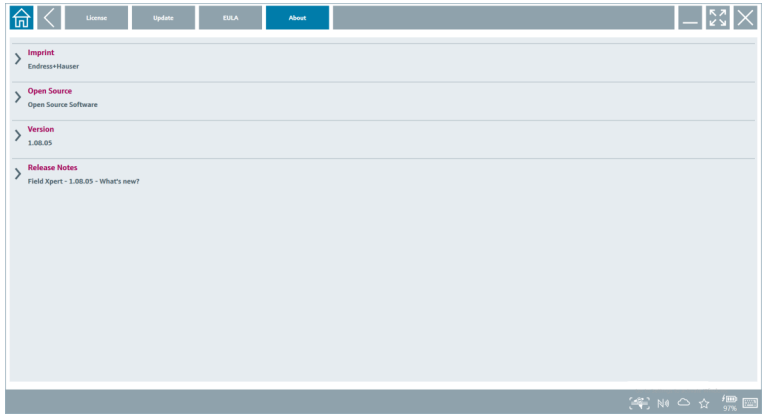
1. Tap the ? icon in the header on the start screen.
   ↳ The "License" page is displayed.
2. Tap the **EULA** tab.
   ↳ A page is displayed with Endress+Hauser's business and licensing terms.



10.9.4 Info

This page shows information about the current Field Xpert software such as imprint, source texts, version and the current release notes.

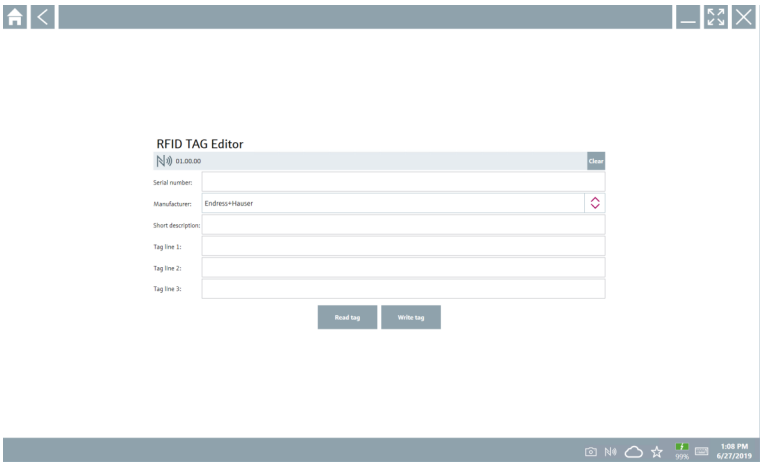
1. Tap the ? icon in the header on the start screen.
   ↳ The "License" page is displayed.
2. Tap the **About** tab.
   ↳ An overview is displayed with information.



3. For more information on a topic, tap the > icon.

10.10 RFID

1. Connect the RFID reader to the tablet PC.
2. Tap the icon in the footer of the Field Xpert software.
   ↳ The "RFID TAG Editor" page is displayed.



3. Place the RFID tag on the RFID reader.
4. Tap **Read tag**.
   ↳ The "Device Viewer" button is displayed.
5. Tap **Device Viewer** for serial number-specific device information and documentation.
   ↳ The Device Viewer is opened in Internet Explorer.
6. Tap **Write tag** once you have changed the data.
   ↳ The changes are written to the RFID tag.

11 Maintenance

11.1 Battery

Please note the following when using the battery:
- Charge and discharge the battery at room temperature
- The battery operating life depends on several factors:
  - Number of charge and discharge cycles
  - Ambient conditions
  - State of charge during storage
  - Demands placed on the battery
- Predominant battery usage will negatively affect the device performance
- Batteries can discharge outside the device

The deterioration in performance can increase with the battery operating life due to the stress from daily charging and discharging.

Li-ion batteries are usually replaced after 300 to 500 charge cycles (complete charge/discharge cycles) or if the battery capacity has reached 70 to 80 %.

The actual number of cycles varies depending on the pattern of use, temperature, age and other factors.

To avoid permanent degradation of the battery capacity due to self-discharging, the batteries must never be discharged to under 5 %.

⚠ WARNING

Dropping, crushing or any other improper handling of the battery
can cause a fire or chemical burns.
- ▶ Always use the battery properly.

NOTICE

The battery cannot be charged if temperatures are too low or too high.
This prevents potential damage to the battery.
- ▶ Only charge the battery at a temperature of approximately 20 °C (68 °F).

⚠ CAUTION

Damaged or leaking batteries
can cause personal injury.
- ▶ Handle the battery with utmost care.

⚠ CAUTION

If the battery overheats or there is a smell of burning during the charging process,
leave the area immediately.
- ▶ Notify safety personnel immediately.

Please note the following when using the battery:
- Replace the battery if the operating time becomes shorter
- Do not place any objects or materials on the battery
- Keep the battery away from conductive or flammable materials

- Keep the battery out of the reach of children
- Only use original batteries
- Only charge the battery with original devices or original charging stations
- Keep the battery away from water
- Do not burn the battery
- Do not expose the battery to temperatures below 0 °C (32 °F) or above 46 °C (115 °F)

If the battery is exposed to extreme temperatures, 100 % battery capacity cannot be achieved. The capacity may be restored if the battery returns to a temperature range of approximately 20 °C (68 °F).

- Keep the ventilation free
- Charge the battery at a location with temperatures of approximately 20 °C (68 °F)

- Do not place the battery in a microwave
- Do not take the battery apart or touch it with a pointed object
- Do not remove the battery from the device with a sharp object

Batteries are Ex-certified in combination with the device. The use of batteries not listed on the certificate will invalidate the Ex-certification.

Battery energy conservation
- Windows 10 Creators Update
  - Improve battery life
  - Check battery drain
- Switch off wireless modules that you are not using
- Check and optimize settings of the wireless devices
- Reduce the brightness of the display
- Switch off all modules not being used in the service program, e.g. GPS, scanner, camera
- Turn on the screensaver
- Create a power plan according to Microsoft guidelines
- Configure power options according to Microsoft guidelines
- Configure sleep settings according to Microsoft guidelines

12 Repair

12.1 General information

NOTICE

Unauthorized repairs to the device

Damage to the device and/or voiding of the warranty/guarantee.

▶ The repair work may only be performed by Endress+Hauser. For repairs, always contact the Endress+Hauser sales organization: www.addresses.endress.com

12.2 Spare parts

For spare parts currently available for the product, see online at:
https://www.endress.com/deviceviewer (→ Enter serial number)

12.3 Return

The requirements for safe device return can vary depending on the device type and national legislation.

1. Refer to the web page for information:
   https://www.endress.com/support/return-material
   ↳ Select the region.
2. If returning the device, pack the device in such a way that it is reliably protected against impact and external influences. The original packaging offers the best protection.

12.4 Disposal

If required by the Directive 2012/19/EU on waste electrical and electronic equipment (WEEE), the product is marked with the depicted symbol in order to minimize the disposal of WEEE as unsorted municipal waste. Do not dispose of products bearing this marking as unsorted municipal waste. Instead, return them to the manufacturer for disposal under the applicable conditions.

12.4.1 Battery disposal

This product contains a lithium-ion battery or a nickel-metal hydride battery. These batteries must be disposed of in the correct manner. Please contact your local environmental protection authority for information on recycling and disposal schemes in your country.

13 Accessories

The accessories currently available for the product can be selected at www.endress.com:

1. Select the product using the filters and search field.
2. Open the product page.
3. Select **Spare parts & Accessories**.

14 Technical data

For detailed information on the "technical data", see the Technical Information. → 7

15 Appendix

15.1 Protecting mobile devices

These days mobile technology is an important part of modern business enterprises, since more and more of our data is stored on mobile devices. Furthermore, these devices are now just as powerful as conventional computers. As these mobile devices frequently leave the business premises, they need even more protection than desktop devices. Below you can find four quick tips to help you protect mobile devices and the information they contain.

Switch on password protection

Use a sufficiently complex password or a PIN.

Run security updates

All manufacturers release regular security updates to protect the device. This process is quick, easy and free. Under your settings, make sure that the updates are installed automatically. If the manufacturer does not plan to release any more updates for the device, the device must be replaced with an up-to-date version.

Run app and operating system updates

Update all installed applications and the operating system regularly with patches released by the software developers. These updates not only add new functions but all fix any security vulnerabilities that may have been detected. The Endress+Hauser software update function provides automatic notification of new updates. This requires Internet access. For staff it is important to know when the updates are available, how they are installed, and that this must be done as quickly as possible.

Do not connect to unknown WLAN hotspots

The easiest precaution to take is to never connect to the Internet through unknown hotspots and to use the 3G or 4G cellular network instead. Via virtual private networks (VPNs), your data is encrypted before being transmitted over the Internet.

www.addresses.endress.com

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