User's Manual
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USB Fieldbus Interface

User's Manual

EMERSON

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1 Introduction

This manual guides you in using the USB Fieldbus Interface to power and/or configure fieldbus devices. Included here are basic setup, configuration, and troubleshooting information, as well as guidelines on how to use the interface with AMS Device Manager and with a third-party FDT Frame Application.

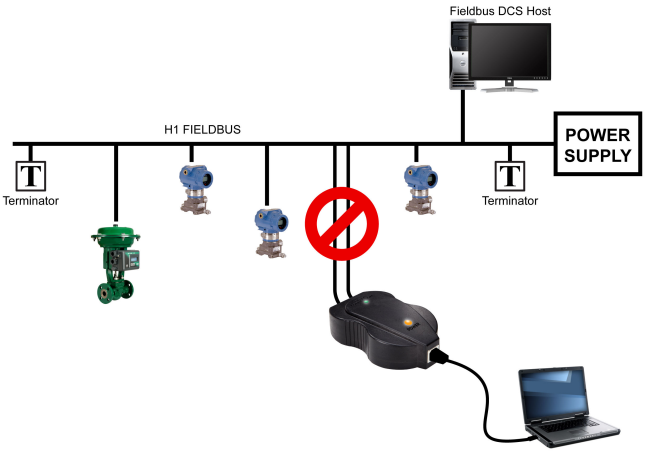
This USB Fieldbus Interface User's Manual contains the following information:

- **Chapter 1: Introduction** – contains safety messages and information about this manual.
- **Chapter 2: USB Fieldbus Interface** – contains information about the interface, its parts, usage, and features.
- **Chapter 3: Software installation and device setup** – contains system requirements, software installation instructions, and device setup information.
- **Chapter 4: USB Fieldbus Interface Configuration utility** – contains information on how to use the utility to power, commission, and/or configure some parameters of fieldbus devices, including device address and tag.
- **Chapter 5: Using with AMS Device Manager** – contains setup information and instructions in using the interface with AMS Device Manager to configure fieldbus devices.
- **Chapter 6: Using with an FDT Frame Application** – contains setup information and instructions in using the interface with an FDT Frame Application to configure fieldbus devices.
- **Chapter 7: Troubleshooting** – contains solutions to the most common operating problems.
- **Appendix A: Approvals and certifications** – contains certifications and approval information.
- **Appendix B: Specifications** – contains specifications such as operating temperature, software, electrical information, and environmental considerations.
- **Appendix C: Waste disposal** – contains disposal guidelines.
- **Appendix D: Remove pre-release driver versions on a Windows 10 operating system** – contains instructions on how to remove previous driver versions.

1.1 Safety message

⚠ WARNING

Do not connect the USB Fieldbus Interface to a *live* segment (with an active DCS Host and power supply attached) if the power indicator light on the interface is amber in color. Doing so can disrupt communications and may compromise automation safety.



2 USB Fieldbus Interface

2.1 Overview

The USB Fieldbus Interface enables two-way communication between a computer and fieldbus devices. Its primary function is to allow the setup, configuration, monitoring, and troubleshooting of fieldbus devices at any valid FF address through a computer.

The interface is fully compatible with all FOUNDATION fieldbus (FF) devices and is always configured as a "visitor."

It is particularly useful in these plant scenarios:

- Workbench setup and troubleshooting of fieldbus devices
- With a laptop in the field to configure, commission, decommission, set device address, or troubleshoot fieldbus devices

The USB Fieldbus Interface comes with a USB cable, lead set, user's manual*, and installation CD/DVD*. The user's manual and installation CD/DVD are not included in the illustration.

Figure 2-1: Box Contents

2.2 Parts and function

Figure 2-2: USB Fieldbus Interface

1	**Field connection indicator light** *	Indicates the fieldbus device connection status
2	**Power indicator light**	Indicates the power mode of the interface
3	**USB port**	Enables USB connection
4	**Fieldbus device connection socket**	Enables fieldbus device or segment connection

* *See the Indicator light scenarios table.*

Table 2-1: Indicator light scenarios

Power indicator light	Field connection indicator light	Scenarios
Normal scenarios		
Green	Green	The USB Fieldbus Interface is connected to an externally powered segment and is able to communicate.
Amber	Green	The USB Fieldbus Interface is providing power to a fieldbus segment and is able to communicate.
Other scenarios		
Off	Off	The USB Fieldbus Interface is not connected to a powered computer. ***-OR-*** The USB Fieldbus Interface is connected to a computer but the computer power is off. ***-OR-*** The USB FF HSE Server is not running on the connected computer.
Green	Off	The USB Fieldbus Interface is not connected to a powered segment. ***-OR-*** The USB Fieldbus Interface is connected to a powered segment with the wrong polarity.
Off	Green	The USB Fieldbus Interface is connected normally to a powered segment but the USB FF HSE Server is not running.
Amber	Red	The USB Fieldbus Interface is providing power but a short circuit has been detected on the field connection.
Amber	Off	The USB Fieldbus Interface is providing power and connected to an already powered fieldbus segment with reverse polarity.
Amber	Amber	The USB Fieldbus Interface is providing power to a fieldbus segment and the load on that segment has exceeded its limit.

2.3 Power modes

The USB Fieldbus Interface has two power modes:

- **Mode 1** - The interface does not supply power to the connected fieldbus device or segment. The fieldbus device or segment is powered by an external source.
  Mode 1 is the default.
- **Mode 2** - The interface powers the connected fieldbus device or segment and no external power is needed.
  In Mode 2, it can provide current of up to 85 mA (typically sufficient for three or four fieldbus devices on the same segment).
  You can configure Mode 2 using the USB Fieldbus Interface Configuration utility. For more information, see Power fieldbus device with the USB Fieldbus Interface Configuration utility.

⚠ WARNING

Choose only one power mode. Never attempt to use two power sources at the same time. Doing so can disrupt communications and may compromise automation safety.

3 Software installation and device setup

Perform software installation and device setup in the following order:

1. **Install the USB Fieldbus Interface Configuration utility.**
   This allows you to configure the USB Fieldbus Interface and connected fieldbus devices.
2. **Install the Emerson DTM Library.**
   This allows you to use DTMs associated with Emerson devices through an FDT Frame Application.

   Note
   Device DTMs are usually acquired from device suppliers. Contact your device supplier if you have a non-Emerson device and install the appropriate third-party DTM library.
3. **Set up and configure connected fieldbus devices.**

3.1 System requirements

Supported operating systems
Windows 10
Hard disk space
500MB or more
Hardware
USB 1.1, 2.0, or 3.x port

3.2 Install the USB Fieldbus Interface Configuration utility

Notes

- Do not connect the USB Fieldbus Interface to the computer or to a fieldbus device or segment until software installation is complete.
- You may be prompted to determine the operating system and the Windows version (32-bit or 64-bit) running on your computer. Keep this information handy.
- For installation purposes, the user must use the Administrator account.

Procedure

1. Insert the USB Fieldbus Interface installation CD/DVD.
   Software and driver installation should start automatically.

If AutoRun is not enabled, double-click **setup.exe**.

2. Follow the prompts on the installation window.
3. Click **Finish**.

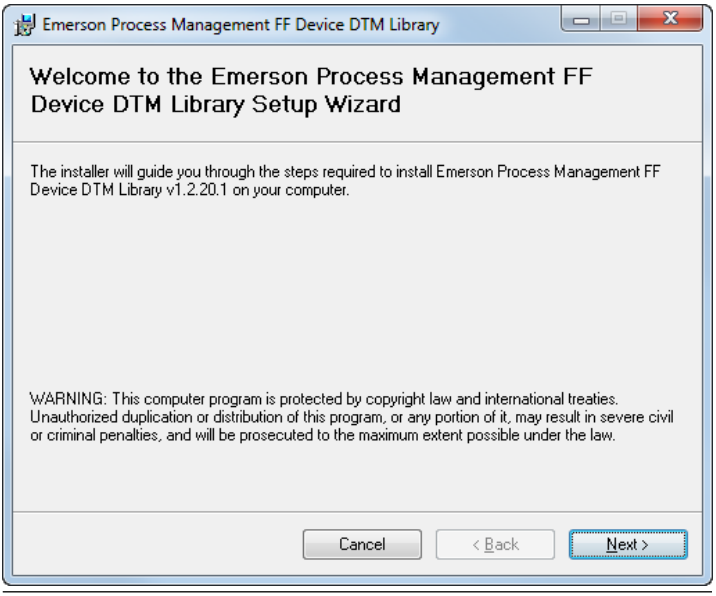
3.3 Install the Emerson DTM Library

Procedure

1. Insert the USB Fieldbus Interface installation CD/DVD.
2. Navigate to the Emerson DTM Library folder.

   The DTM library folder is typically named "Emerson Process Management FF Device DTM Library v1.x.x".
3. Double-click **Setup** → **Setup.exe**.
4. Click **Next** and follow the prompts on the installation window.

Figure 3-1: Emerson DTM Library installation



5. Click **Close**.

3.4 Setup and connection

Note
Install the USB Fieldbus Interface Configuration utility first before setting up and connecting the USB Fieldbus Interface. For more information, see Install the USB Fieldbus Interface Configuration utility

Procedure

1. Connect the USB Fieldbus Interface to the computer using the USB cable provided.

   USB driver installation should start automatically.

2. Connect the interface to a fieldbus device or to a fieldbus segment using the field leads.

   ⚠ WARNING

   Do not proceed to the next step if you are connecting to a *live* (powered) segment. Providing additional power source to an already powered segment can disrupt communications and may compromise automation safety.

3. Power the connected fieldbus device or segment.

   Connect the fieldbus device or the unpowered segment to an external power source (Mode 1), or provide power using the USB Fieldbus Interface Configuration utility (Mode 2). For more information on the power modes, see Power modes.

Figure 3-2: Sample benchtop connection

3.5 Connect to a live fieldbus segment

Warning

Do not use the Supply Power option on the USB Fieldbus Interface Configuration utility when connecting to a live segment. Doing so can disrupt communications and may compromise automation safety.

Procedure

1. Make sure the USB Fieldbus Interface is connected to the computer and that all software and drivers are installed.
2. Plug one end of the field lead to the fieldbus device connection socket of the interface and connect the other end to the live fieldbus segment.

Notes

- The USB Fieldbus Interface draws current of 10 mA from the segment. Make sure the segment has enough power and has the capacity to provide this additional current.
- Make sure the lead set is connected to the live fieldbus segment with the correct polarity.
- Changing the device tag/address is only allowed when the USB fieldbus Interface is acting as Link Active Scheduler (LAS).

- When a fieldbus device is acting as a LAS, you can cycle power to the device, or remove and replace the fieldbus device from the segment to make the USB Fieldbus interface act as the LAS. You can check the LAS address next to the segment info to find out which device is the LAS.

4 USB Fieldbus Interface Configuration utility

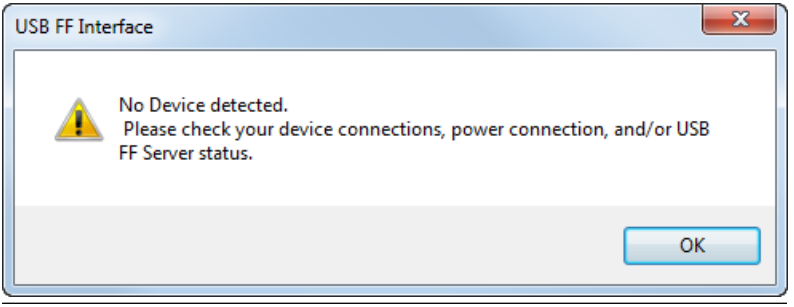
4.1 Launch the USB Fieldbus Interface Configuration utility

Procedure

Click **Start** → **All Programs** → **Emerson Process Management** → **USB Fieldbus Interface**.

Note
If no fieldbus device is detected after 35 seconds, this dialog is displayed. Click **OK** to continue.

Figure 4-1: No device detected dialog



A connected fieldbus device or segment has to be powered by an external power source or by the USB Fieldbus Interface Configuration utility for it to be detected. For more information, see Fieldbus device not detected in USB Fieldbus Interface Configuration utility.

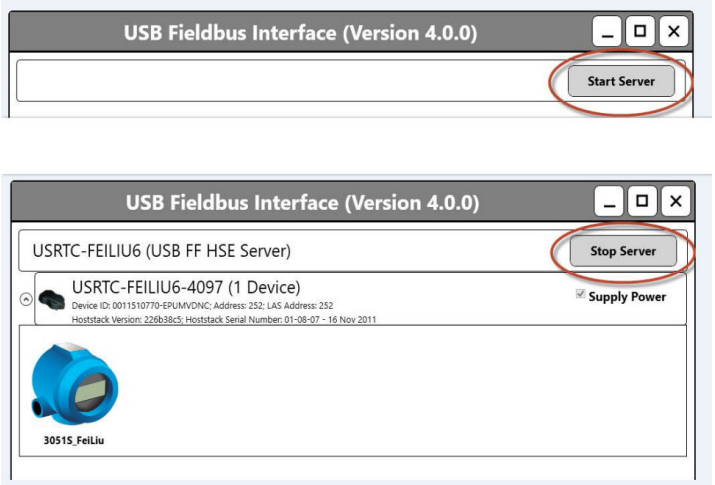
4.2 Start or stop the USB FF HSE Server manually

The USB FF HSE Server automatically starts when you launch the USB Fieldbus Interface Configuration utility. It is typically *not* necessary to start or stop the USB FF HSE Server manually.

Procedure

1. Launch the USB Fieldbus Interface Configuration utility.
2. Click **Start Server** or **Stop Server**.

Figure 4-2: Start Server/Stop Server



Note

The USB FF HSE Server should be running to use the USB Fieldbus Interface Configuration utility to power or configure a fieldbus device or segment.

4.3 Power fieldbus device with the USB Fieldbus Interface Configuration utility

You can power a fieldbus device or segment by connecting it to an external power source or by using the USB Fieldbus Interface Configuration utility.

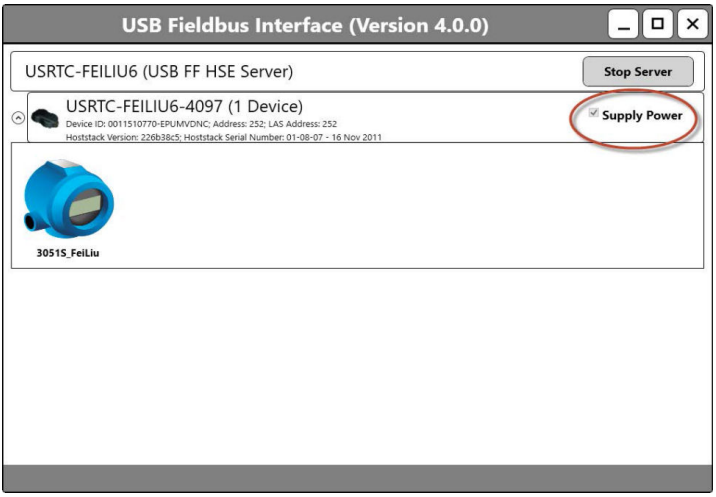
Note
You can also power a fieldbus device or segment by connecting it to an external power source.

Procedure

1. Launch the USB Fieldbus Interface Configuration utility.
2. Select the **Supply Power** check box.

Note
The USB Fieldbus Interface is only capable of providing an output current of up to 85 mA. Typically, you should not attempt to connect more than three or four fieldbus devices on the same segment when using the Supply Power option.

Figure 4-3: Supply Power option



⚠ WARNING

Do not use the Supply Power option on a live (already powered) segment. Doing so can disrupt communications and may compromise automation safety.

3. Select **Yes** to acknowledge the warning and restart the USB FF HSE Server.

4.4 Set Fieldbus Device Permanent Address/Tag

Device Address can be set to permanent, which commissions the device. Device Tag can be set and cleared.

Notes

- You need to commission fieldbus devices first before you can use them with AMS Device Manager or with an FDT Frame Application.
- The USB Fieldbus Interface must be acting as the Link Master to commission or decommission.

Procedure

1. Launch the USB Fieldbus Interface Configuration utility.
2. Double-click the Fieldbus device icon you want to configure. A device screen is displayed.

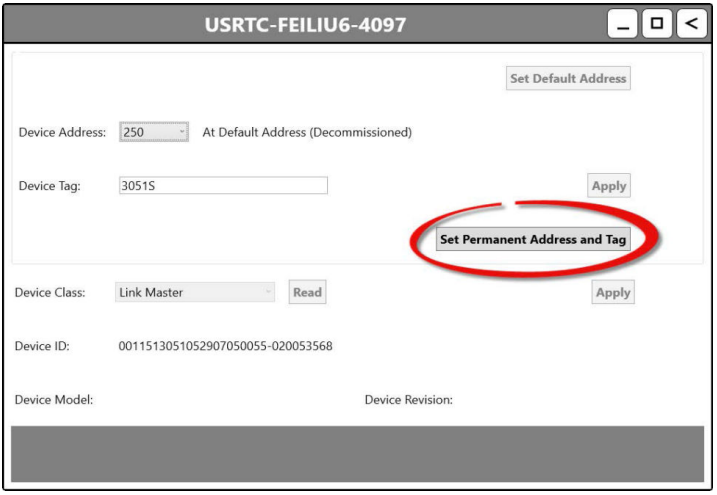
   Note
   A connected fieldbus device or segment should be powered by an external power source or by the USB Fieldbus Interface Configuration utility for it to be detected.

3. Optionally, select a permanent device address from 17 to 40 or from 223 to 247. Otherwise, the first available address is assigned.

   Note
   The utility only accepts device addresses in the range of 17 through 40 and the range of 223 through 247.

4. Optionally, enter a device tag or clear a device tag.
5. Click **Apply** to accept the new tag. Or, click **Set Permanent Address and Tag** to accept both the permanent device address and the tag.

Figure 4-4: Set Permanent Address and Tag



Note
The set permanent address and tag process takes about 1 to 2 minutes to complete.

6. Repeat steps 2 through 5 for each device on which you want to set a permanent address.

4.5 Set Fieldbus Device Default Address

Device address can be set to a default address, which decommissions the device.

Note
Fieldbus devices on a *live* segment cannot be decommissioned.

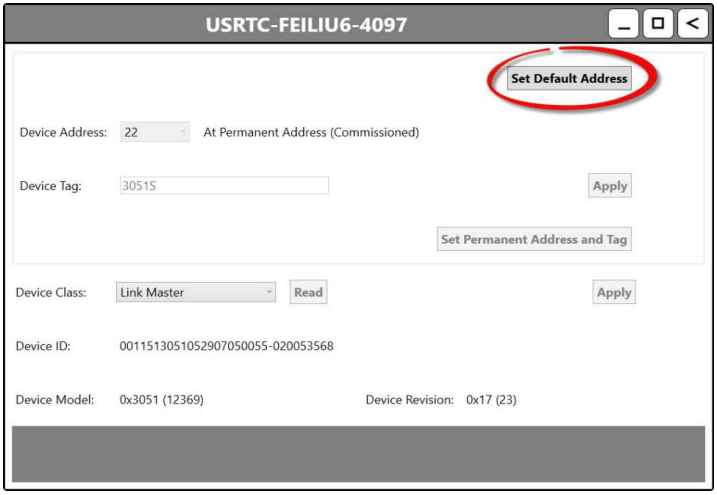
Procedure

1. Launch the USB Fieldbus Interface Configuration utility.
2. Double-click the Fieldbus device icon you want to configure. A device screen is displayed.

   Note
   A connected fieldbus device or segment should be powered by an external power source or by the USB Fieldbus Interface Configuration utility for it to be detected.

3. Click **Set Default Address**.

Figure 4-5: Set Default Address



4. If the device was set to a permanent address by a different host, it is not recommended that you set the device to a Default Address. If you click the **Set Default Address** button, you will be asked to confirm if you really want to set the device to a default address.
   - If you select **Yes**, the device will be set to a default address.
   - If you select **No**, the operation will be canceled.
5. Repeat steps 2 through 4 for each device you want to set to a default address.

4.6 Change the device class

A connected fieldbus device can be assigned as a Link Master (LM) or as a basic device. A Link Master contains the LAS functionality that controls communications on a fieldbus link or segment.

Procedure

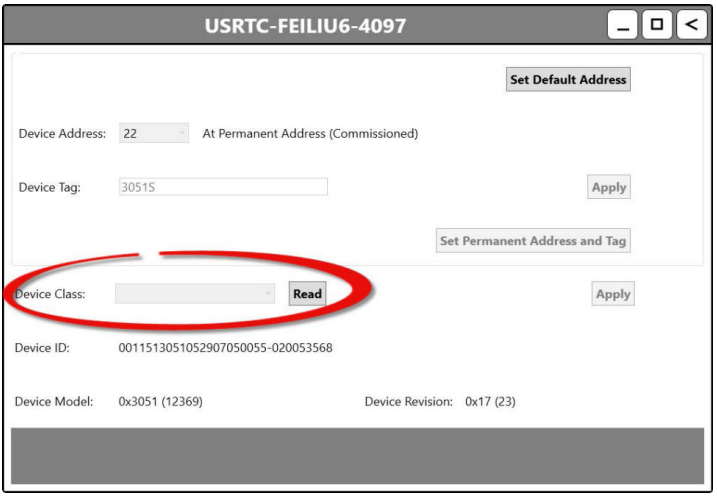
1. Launch the USB Fieldbus Interface Configuration utility.
2. Double-click the Fieldbus device icon you want to configure. A device screen is displayed.

Note
A connected fieldbus device or segment should be powered by an external power source or by the USB Fieldbus Interface Configuration utility for it to be detected.

3. If Device Class is not displayed, click **Read** to identify if the fieldbus device is a Link Master or a basic device.

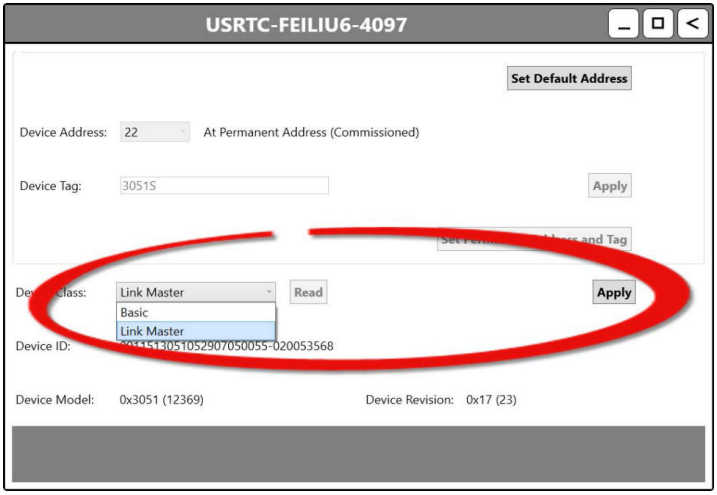
Note
Only the device class of a fieldbus device at a permanent address can be identified. For more information on setting a permanent device address, see Set Fieldbus Device Permanent Address/Tag.

Figure 4-6: Identify the device class



4. Switch to **Basic** or **Link Master** from the drop-down menu and click **Apply**.

Figure 4-7: Change the device class



5. Click **Yes** to acknowledge the restart of the device.
6. Click **OK** to continue. The operation is complete when the **Apply** button is grayed out.

Note
Changing the device class takes about 1 minute to complete.

5 Using with AMS Device Manager

AMS Device Manager provides a single application for predictive diagnostics, documentation, calibration management, and device configuration. Using AMS Device Manager gives you better visibility into the assets in your plant, resulting in faster startup and increased availability through more cost-effective maintenance and improved asset performance.

Contact your Emerson Sales/Support representative for more information on AMS Device Manager.

5.1 Add a network component in AMS Device Manager

An FF HSE network component is required to use the USB Fieldbus Interface with AMS Device Manager.

Notes

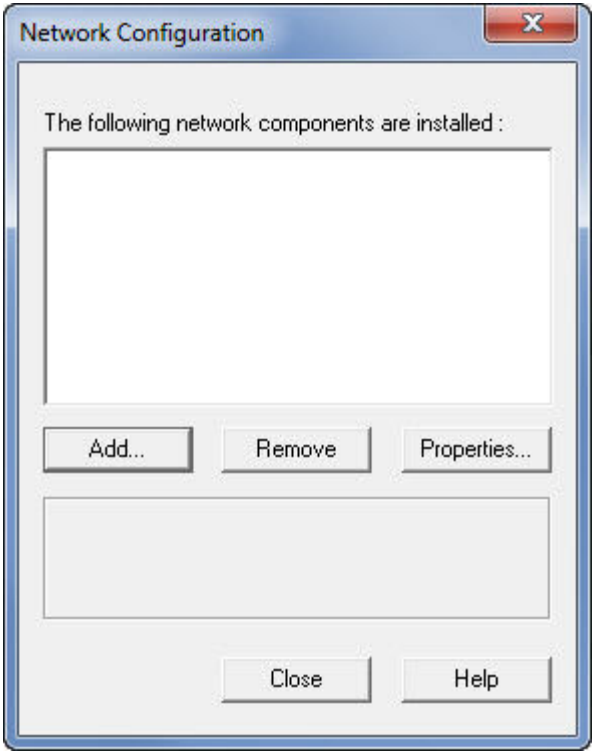
- If there is an existing FF HSE network configured for another fieldbus device, you do *not* need to add a new FF HSE network component.
- You must have an updated license file that includes an HSE license. The HSE license enables you to add an FF HSE network component in AMS Device Manager.

  If you do not yet have an HSE license, contact your Emerson sales representative and place an order for part number AW7060HSE.

Procedure

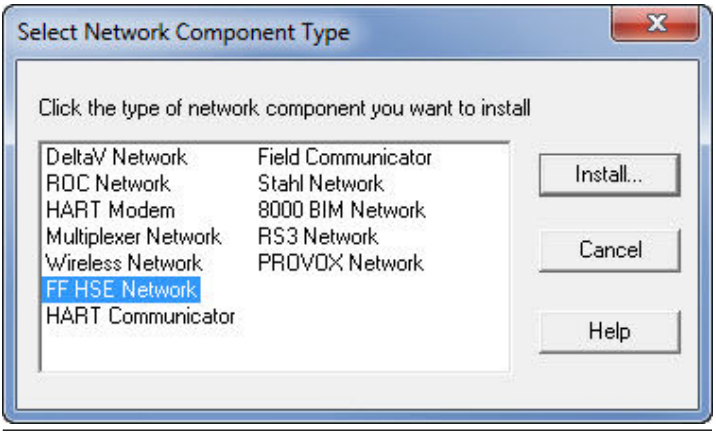
1. Click **Start** → **All Programs** → **AMS Device Manager** → **Network Configuration** to open the AMS Device Manager Network Configuration utility.
2. Click **Add**.

Figure 5-1: Add a network component



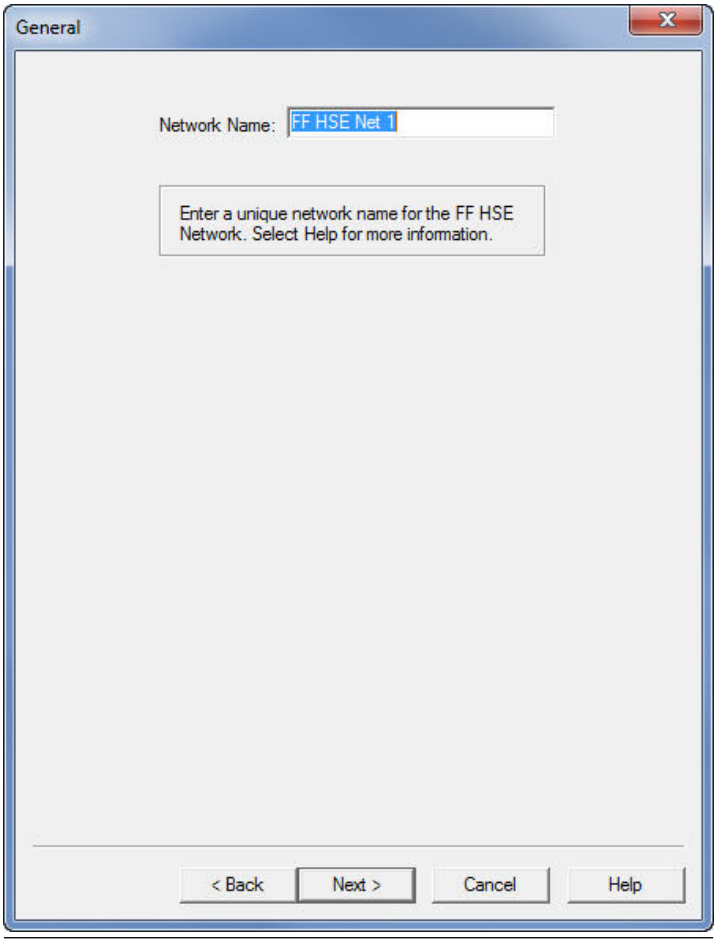
3. Select the FF HSE Network component, and click **Install**.

Figure 5-2: Install an FF HSE network component



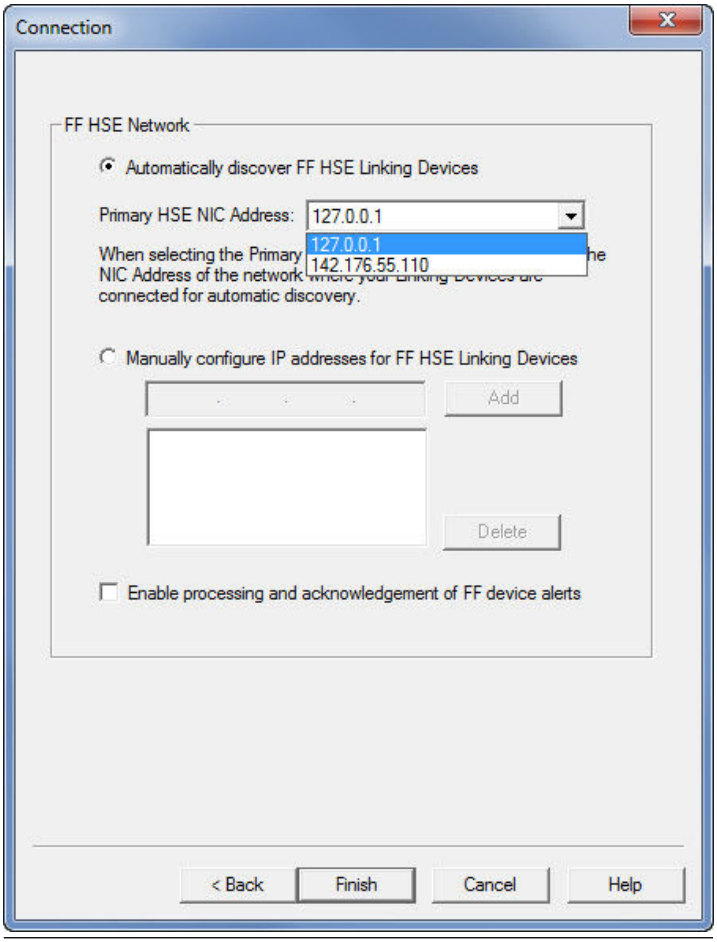
4. Click **Next**.
5. Enter a name for the FF HSE network, and click **Next**.

Figure 5-3: Enter a network name



6. Choose to automatically discover FF HSE linking devices or manually configure IP addresses for FF HSE linking devices.

Figure 5-4: Configure the network connection



Notes

- Choosing the PC NIC address in the Primary HSE NIC Address field displays the USB Fieldbus Interface and any local FF HSE interfaces on the network in the AMS Device Manager hierarchy.
- Choosing the localhost address (127.0.0.1) in the Primary HSE NIC Address field displays only the USB Fieldbus Interface in the AMS Device Manager hierarchy.
- Manually entering IP addresses displays manually entered FF HSE networks and the USB Fieldbus Interface in the AMS Device Manager hierarchy.

- The USB Fieldbus Interface does not support FF device alerts.

7. Click **Finish**.

5.2 Configure fieldbus devices in AMS Device Manager

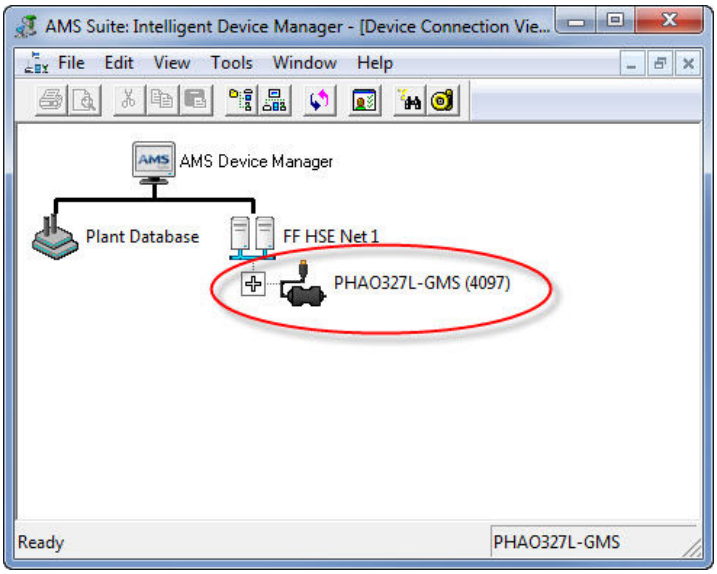
Note
Commission fieldbus devices first in the USB Fieldbus Interface Configuration utility before configuring them in AMS Device Manager. For more information, see Set Fieldbus Device Permanent Address/Tag.

Procedure

1. Click **Start** → **All Programs** → **AMS Device Manager** → **AMS Device Manager** to open AMS Device Manager.
2. From the Device Connection or Device Explorer view, right-click the FF HSE network icon and select **Rebuild Hierarchy**.

   The USB Fieldbus Interface icon then appears under the FF HSE network.

Figure 5-5: USB Fieldbus Interface icon in AMS Device Manager



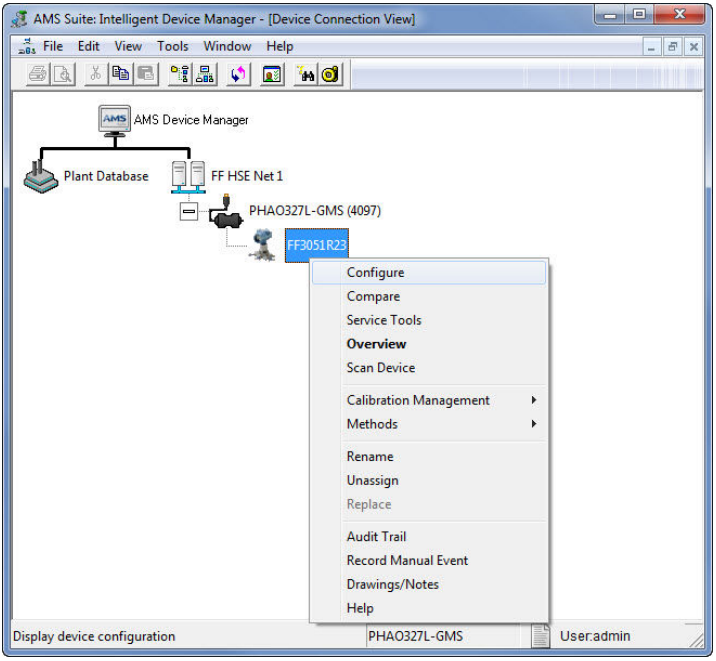
3. If you are using the Device Connection View, click the  sign next to the USB Fieldbus Interface icon to display a list of connected fieldbus devices.

4. If necessary, right-click the USB Fieldbus Interface icon and then scan new devices.

   Scanning synchronizes the AMS Device Manager database with connected live devices.

5. Right-click the fieldbus device you want to configure and select from the context menus.

Figure 5-6: Fieldbus device context menus



Configure	Displays configuration parameters that define the physical attributes and operating characteristics of the device.
Compare	Lets you compare two configurations of the device.
Service Tools or Device Diagnostics	Displays alert conditions. These include hardware and software malfunctions or parameters with values beyond the device specifications.
Overview or Process Variables	Displays the current output from the device.

For more information about the context menus and other AMS Device Manager functions, refer to *AMS Device Manager Books Online*.

6 Using with an FDT Frame Application

You can also configure fieldbus devices using third-party FDT Frame Applications. For the purpose of this document, PACTware is used as an example. PACTware can be downloaded from multiple sites on the Internet.

6.1 Install an FDT Frame Application

Note
Install the Communication DTM software (provided separately) and the Emerson DTM Library first before installing an FDT Frame application. For instructions, see Install the Emerson DTM Library.

To be able to view DTMs associated with a device, an FDT Frame Application should be installed. Follow the manufacturer's recommended software installation instructions.

For the purpose of this document, PACTware is used.

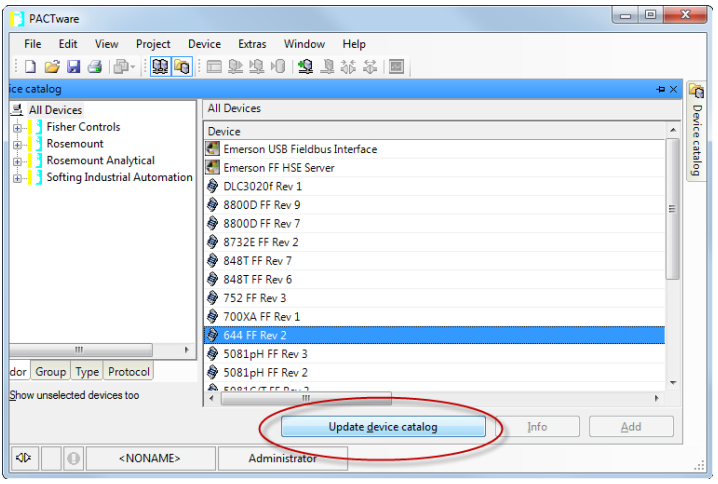
6.2 Update the DTM library

Note
You only need to update the DTM library when a new DTM is recently added.

Procedure

1. Launch PACTware.
2. Press **F3** to show the Device catalog and click **Update device catalog**.

Figure 6-1: Update device catalog



3. Click **Yes** when prompted to create a new PACTware device catalog.
4. Close the device catalog when done.

6.3 Configure fieldbus devices in an FDT Frame Application

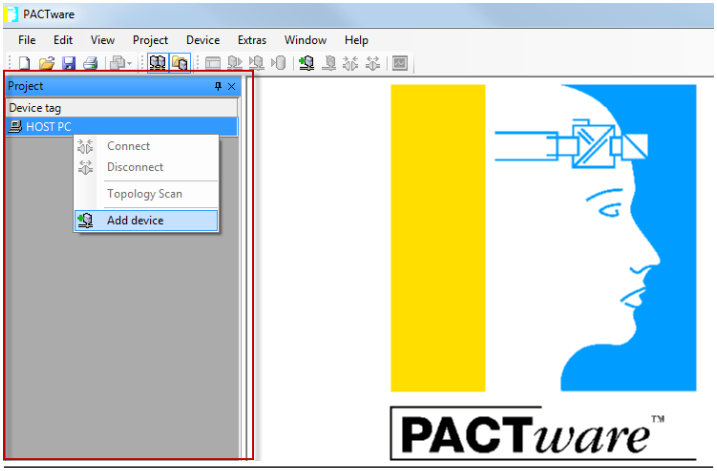
Notes

- Install the Communication DTM software (provided separately) and the DTM Library first before configuring fieldbus devices in an FDT Frame Application. For more information, see Install the Emerson DTM Library.
- If necessary, update the DTM library. For more information, see Update the DTM library.
- Make sure the USB Fieldbus Interface and fieldbus devices are correctly set up and that the USB Fieldbus Interface Configuration utility is installed and running. For more information, see Setup and connection and USB Fieldbus Interface Configuration utility.

Procedure

1. Launch PACTware.
2. From the Project pane, right-click **HOST PC** and click **Add device**.

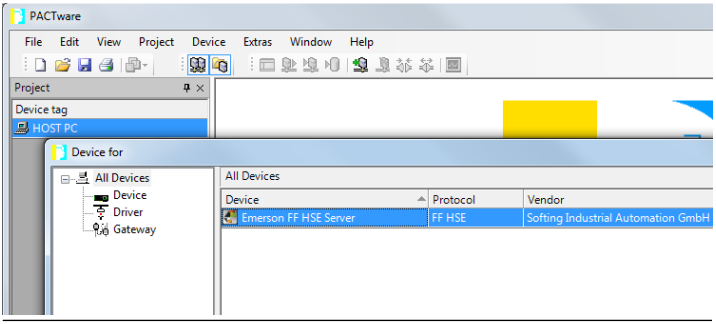
Figure 6-2: Project pane



Press **F2** to display the Project pane if it is not already displayed.

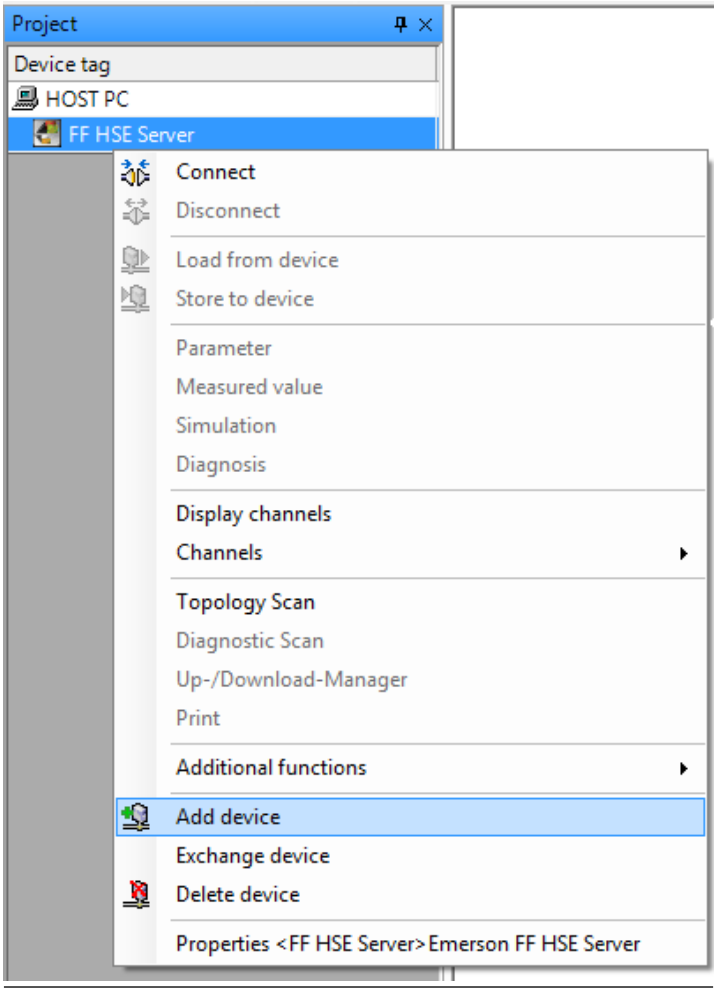
3. Select **Emerson FF HSE Server** and click **OK**.

Figure 6-3: Add the Emerson FF HSE Server



4. Right-click **FF HSE Server** on the Project pane and click **Add device**.

Figure 6-4: FF HSE Server - Add device

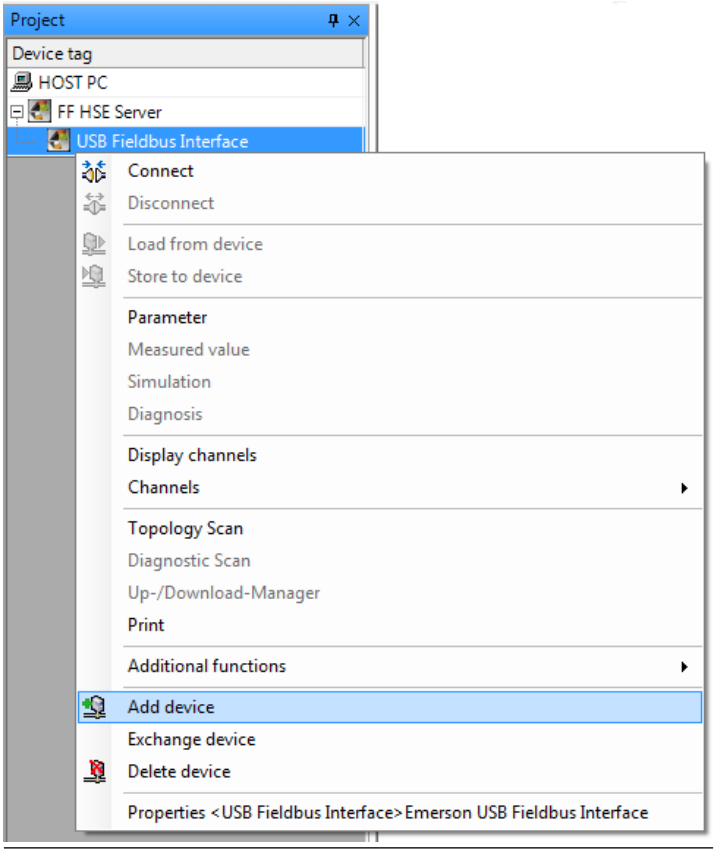


5. Select **Emerson USB Fieldbus Interface** and click **OK**.

Figure 6-5: Add the Emerson USB Fieldbus Interface

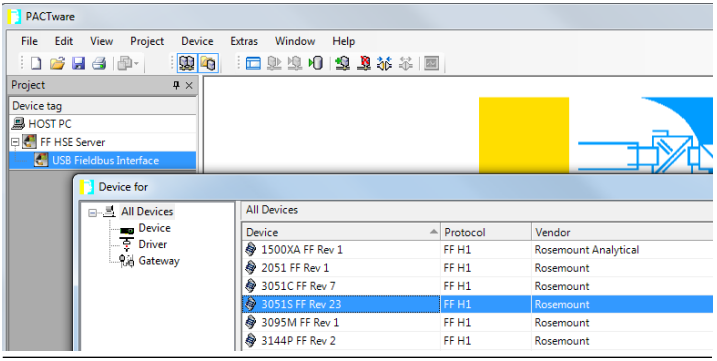
6. Right-click **USB Fieldbus Interface** on the Project pane and click **Add device**.

Figure 6-6: USB Fieldbus Interface - Add device



7. Select the device you want to add then click **OK**.

Figure 6-7: Add device

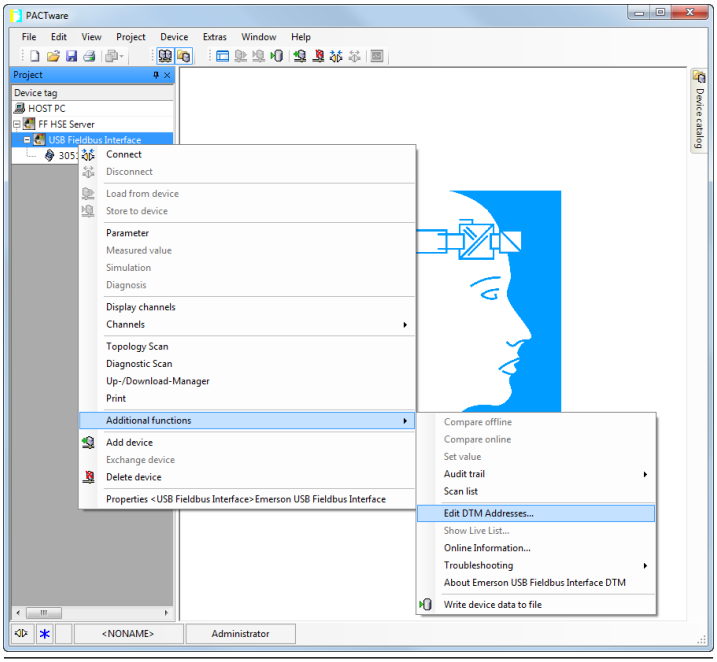


Only devices with DTMs available and installed appear on the list. For more information on DTM library installation, see Install the Emerson DTM Library.

Repeat steps 6 and 7 if you want to add more devices to the list.

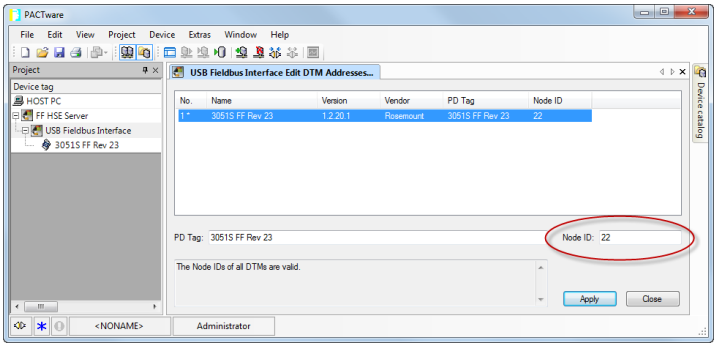
8. Right-click USB Fieldbus Interface and select **Additional functions → Edit DTM Address**.

Figure 6-8: Edit DTM Address



9. On the right pane, select the fieldbus device from the list, enter the device address in the Node ID field, and click **Apply**.

Figure 6-9: Enter Node ID



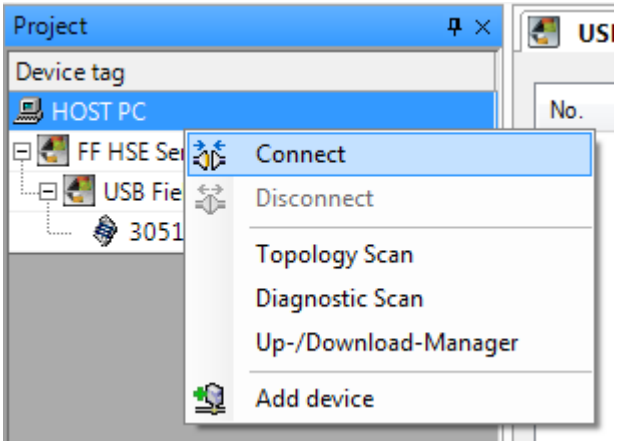
Note

The device address and Node ID should match. The device address is set and can be found in the USB Fieldbus Interface Configuration

utility. For more information on setting the device address, see Set Fieldbus Device Permanent Address/Tag.

10. Right-click HOST PC and click **Connect**.

Figure 6-10: Connect devices

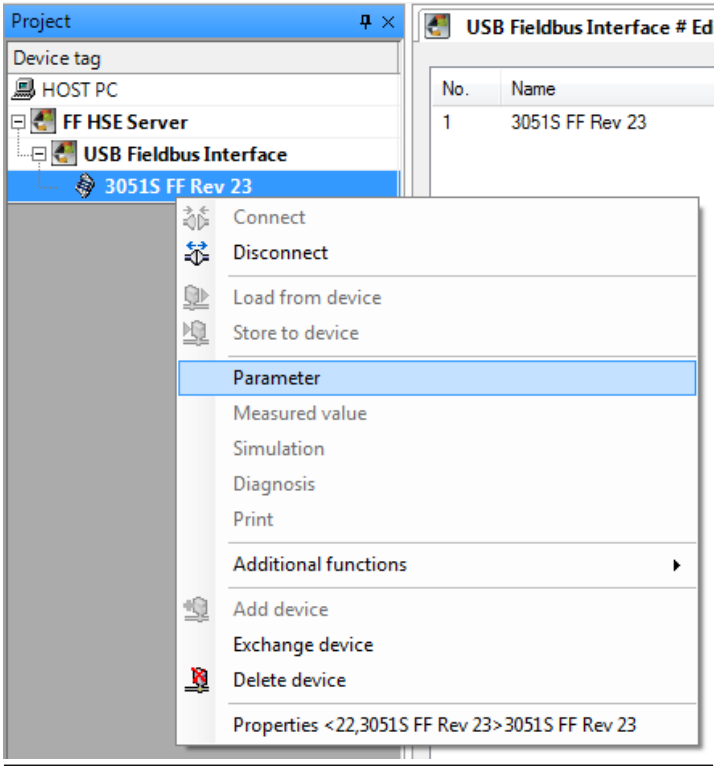


This connects all devices under the host PC. You can also opt to select each device you want connected and click **Connect**.

Connected devices appear in bold face type in the menu tree.

11. Right-click the fieldbus device you want to configure and click **Parameter**.

Figure 6-11: Parameter

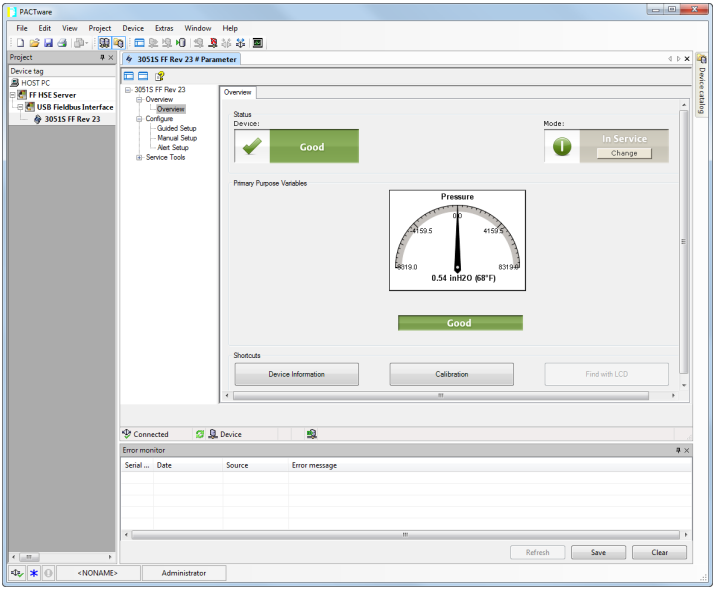


This displays the various parameters you can edit for the device.

12. Configure the parameters of the device.

Note
The parameter display varies and is dependent on the device manufacturer.

Figure 6-12: Edit device parameters



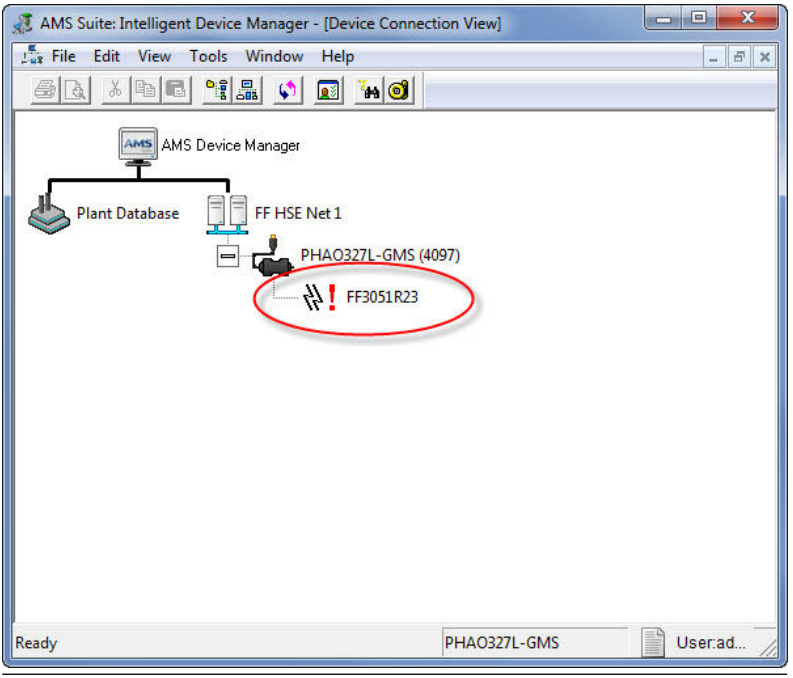
7 Troubleshooting

7.1 Fieldbus device not responding in AMS Device Manager

To configure a fieldbus device in AMS Device Manager, you must first commission the device in the USB Fieldbus Interface Configuration utility. For more information on commissioning a device, see Set Fieldbus Device Permanent Address/Tag.

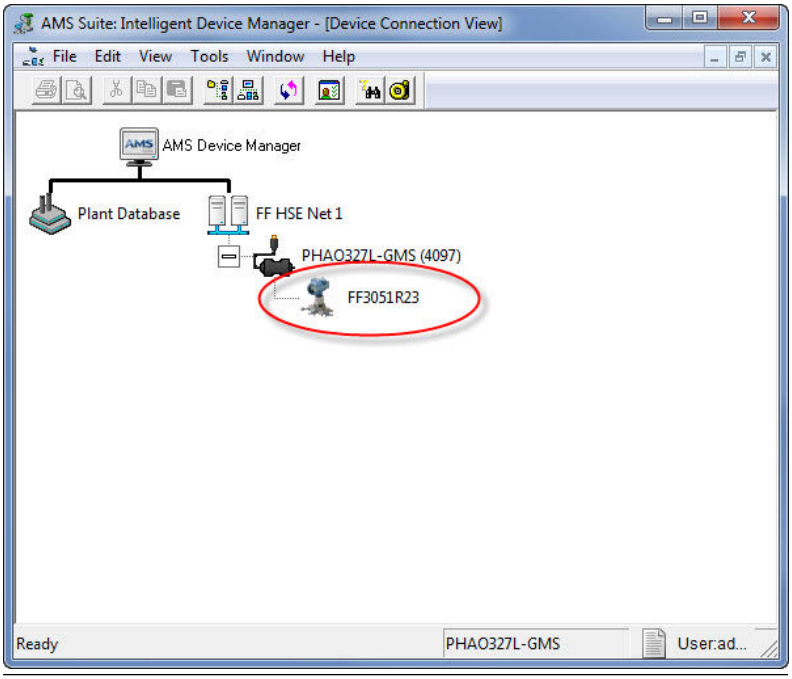
Uncommissioned devices are marked in AMS Device Manager with the (non-responding device) icon and are characterized by an empty device tag or by the device default address.

Figure 7-1: Uncommissioned device in AMS Device Manager



Commissioned fieldbus devices appear with their own icons in AMS Device Manager and are characterized by a valid permanent address or by a valid device string.

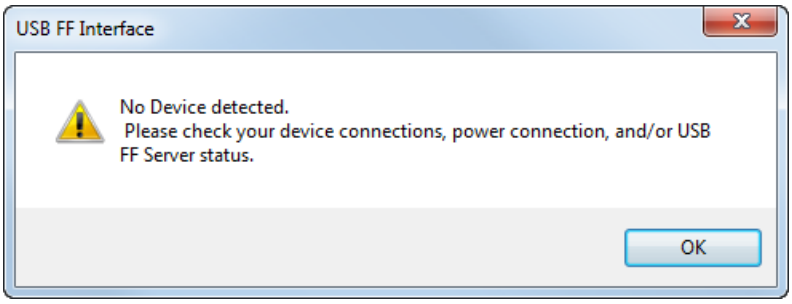
Figure 7-2: Commissioned device in AMS Device Manager



7.2 Fieldbus device not detected in USB Fieldbus Interface Configuration utility

The USB Fieldbus Interface Configuration utility immediately detects connected fieldbus devices. If 35 seconds have elapsed and no device is detected, the following dialog is displayed.

Figure 7-3: No device detected dialog



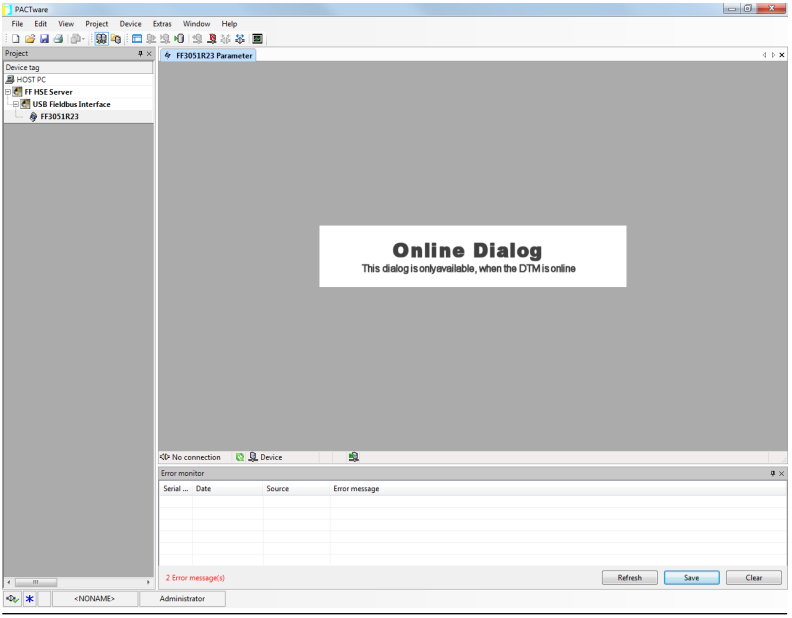
Procedure

Click **OK** and check for the following:

- Make sure the fieldbus device or segment is powered either by an external source or by the USB Fieldbus Interface. For more information, see Power modes.
- Make sure drivers are installed and that the hardware is ready for use.
- Check that there are no loose connections and that the USB cable does not exceed 2 meters in length.
- Make sure the USB FF HSE Server is running.

7.3 Cannot edit device parameters in FDT Frame Application

Figure 7-4: Cannot edit device parameters in PACTware



- Check the Node ID in PACTware and the Device Address in the USB Fieldbus Interface Configuration utility. The Node ID and Device Address should match. You may need to manually enter the Node ID in PACTware. For more information on entering the Node ID, see Configure fieldbus devices in an FDT Frame Application.
- Update the DTM library. If a new DTM is added, you may need to update the DTM library. For more information, see Update the DTM library.

- Check physical connections. Make sure all devices are properly connected and have access to a power source. For more information, see Setup and connection.
- Commission the fieldbus device. For more information, see Set Fieldbus Device Permanent Address/Tag.

A Approvals and certifications

Fieldbus Foundation Communication

FF Physical Layer Specification (IEC 61158-2)

FF Physical Layer Conformance Test (FF830)

CE

EN 61326-1-2006, Radiated Emissions Class B, Basic Immunity Test Requirements.

ETL (US and Canada)

Conforms to ANSI/UL STD 60950-1; Certified to CAN/CSA STD C22.2 NO. 60950-1.

IC

This Class B digital apparatus complies with Canadian ICES-003, Issue 4:2004.

Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.

FCC

This device complies with Part 15 Subpart B of the FCC Rules. Operation is subject to the following conditions:

47 CFR, Part 15:2009, §15.107, §15.109, Class B

Any modifications made to this device that are not approved by Emerson may void the authority granted to the user by the FCC to operate this equipment.

B Specifications

Software	
Supported operating systems	Windows 10
USB 1.1 and USB 2.0 interface	Drivers included
Application software	
AMS Device Manager	Version 11.5 or later
License	
AMS Device Manager HSE license	Part number AW7060HSE
Electrical	
Power consumption (Mode 1)	≤ 0.2 W
Power consumption (Mode 2)	at 85 mA output current ≤ 2.5 W at 50 mA output current ≤ 1.7 W
Power supply to a fieldbus segment (in Mode 2)	85 mA at 10V
Environmental	
Operating temperature	-20 °C to 60 °C (-4 °F to 140 °F)
Storage temperature	-40 °C to 85 °C (-40 °F to 185 °F)
Storage humidity	0 to 95% relative humidity

C Waste disposal

Products with the following label comply with the Waste Electrical and Electronic Equipment (WEEE) directive, 2002/96/EC, which applies to European Union (EU) member states only.

The label indicates this product should be recycled and not treated as household waste. Customers in EU member states should contact their Emerson sales representative for information on discarding any part of the USB Fieldbus Interface.

For customers in all other world areas, if it is necessary to discard any part of the USB Fieldbus Interface, follow the waste disposal regulations applicable in your location.

D Remove pre-release driver versions on a Windows 10 operating system

Uninstall the USB drivers using Windows Device Manager:

Procedure

1. Launch Windows Device Manager (**Start** → **Run**, type `devmgmt.msc`, or device manager, and click on the found item).
2. Expand **Ports (COM & LPT)**.
3. Connect the USB Fieldbus Interface to the computer through the USB port and wait a few seconds to see if **770 Fieldbus Interface (COMxx)** appears on the list.
4. Right-click **770 Fieldbus Interface (COMxx)**, and select **Uninstall**.
5. Click **OK** to confirm the driver removal.
6. Expand **Universal Serial Bus controllers**, right-click **770 Fieldbus Interface**, and select **Uninstall**.
7. Click **OK** to confirm the driver removal.

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