

AMS Device Configurator Application

Release Notes – v3.2.1b



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General Information

Release Version : 3.2.1b
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 Released By : Emerson Automation Solutions

Product Description

The AMS Device Configurator Application offers a point-to-point solution to configure Emerson HART, FOUNDATION Fieldbus, Modbus and BLE devices based on the Field Device Integration (FDI) standard from the FieldComm Group.

System Requirements

Processor	Intel® Core™ Quad processor, 2 GHz or higher
Operating Systems	Microsoft Windows 64 bit OS <ul style="list-style-type: none"> ■ Windows 10 IoT Enterprise ■ Windows 10 Professional or greater editions ■ Windows 11 ■ Windows Server 2019 ■ Windows Server 2022
Memory	8 GB or higher
Hard Disk Space	Program requires minimum 5 GB free space
Monitor Resolution	1024x768 or higher
Bluetooth Version	5.0 or higher

Prerequisites

- Uninstall AMS Instrument Inspector application (if already present).
- Uninstall application Versions prior to 3.2.1b.
- HART Modem Driver software versions earlier than 3.1 must be uninstalled manually prior to installation.
- Uninstall the Modbus Comm Server and Modbus Configuration tool prior to this installation.
- Delete the Emerson folder from Program Files (x86) if exist after un-installing above applications. Make sure to take backup of data from Emerson folder if any other projects data available.

Install the following software on the target machine if not already installed:

- MACTek VIATOR HART Modem driver (now Pepperl+Fuchs products)
 - Available at https://www.pepperl-fuchs.com/global/en/classid_1362.htm?view=productdetails&prodid=89983#software
 - Download Universal VIATOR® Installer with drivers for 64 bits
- Softing mobiLink-Power Interface for FF Connection only
 - Available at **Softing** website
 - Download the – mobiLink | PA FDI CommServer (64 Bit) setup

- MicroLink USB HART Modem
 - Available at **Microflex** LLC website
 - Download 101-0027 & 101-0032 MicroLink HART Protocol Modems – USB Driver Version 6.0 (64 bit)
- WS232UP USB HART Modem
 - Available at **FTDI** Chip website
 - Download Virtual COM port (VCP) drivers
- PROCOMSOL USB HART Modem
 - Available at **PROCOMSOL** website
- Devonian USB HART Modem
 - Drivers are provided by the Vendor
- Printer Driver
 - To print device configuration
 - Local default printer configured on the PC
- PDF Viewer software
 - To view FDI Attachments
 - Available at <https://acrobat.adobe.com/us/en/acrobat/pdf-reader.html>

Note: This installation of AMS Device Configurator Application doesn't contain the DD Binaries of devices. Please make sure to install the AMS Device Configurator Device Library after the installation of AMS Device Configurator Application.

As checkbox for installing AMS Device configurator Device Library selected, AMS Device Configurator Application installer starts installation of Device library after click on 'Finish' button of last window of installShield wizard.

Installation

The application can be installed on operating systems specified in the system requirement. Please ensure you have Administrative privileges before proceeding with the installation.

What is included with Installer?

AMS Device Configurator will install the following software as part of its installation setup:

- HART Modem Driver (Version 3.1)
- Modbus Communication Server (Version 1.0.7)
- Modbus Configuration tools (Version 1.0.5)
- AMS Device Configurator Application (version 3.2.1b)

Note: After installing Microsoft .NET Framework, system may restart without user notification. Its depending on the settings of Add / Remove option of OS.

The application shall install on a system with any of the following applications already installed:

- AMS Wireless Configurator (v14.1.1 or lower)
- FDT Frame applications such as PACTware
- AMS Device Manager Roving Station (v14.1.1 or lower)

Installation Procedure

Note:

- Make sure all required prerequisites are installed before installing the AMS Device Configurator Application
- HART modems and Softing mobiLink-Power Interface must be disconnected during application installation

To install the AMS Device Configurator Application:

1. Right click on "AMS Device Configurator.exe" and choose "Run as administrator"
2. Follow directions in the Setup Wizard to complete the installation
3. Accept "End User License Agreement (EULA)" to proceed and follow the instructions to complete the installation
4. Clicking on Finish button of Last page of Installation, will automatically start Device Library Installation if setup is present in same folder
5. After installation there will be an application shortcut placed on the desktop and in "All Programs" menu (i.e. Start | Emerson | AMS Device Configurator)

Modems and Interfaces

The application supports the following modem and Interface hardware for communications with HART and FOUNDATION Fieldbus devices:

- MACTek VIATOR USB HART Modem (now Pepperl+Fuchs products) (Product order ID: 010031)
- MicroLink USB HART Modem
- WS232UP USB HART Modem
- Softing mobiLink-Power Interface
- Microflex RS485 converter for Modbus Device
- PROCMSOL USB HART Modem
- Devonian USB HART modem

Note: If HART device(s) are not getting detected in the AMS Device Configurator application, then make sure that Viator HART modem driver and HART Modem Driver was installed from Add / Remove Programs (Feature options) of Windows Operating system.

Recommendations for Use

AMS Device Configurator Application must be installed completely; this includes all prerequisites and drivers to work. Partial installations will not work as expected.

AMS Device Configurator Application must be executed in the Windows Administrator mode because it is using the windows secure key storage management to store the BLE Device's authentication information.

If AMS Device Configurator Device Library is not installed after installation of AMS Device Configurator application, then the Application will show "Application Device Library folder is missing," error and won't get start.

After adding device packages for HART devices (EDDs or FDI Packages), wait for at least one complete device scan cycle to detect the device for which the new device EDD or FDI Package was added. This is indicated by the scanning in progress bar being displayed and cleared.

Avoid disconnecting the HART modem / Softing mobiLink-Power Interface / Bluetooth of system while device communications are in progress, the application may hang. In this case the application must be restarted.

The AMS Device Configurator Application supports “commissioned” FOUNDATION Fieldbus devices only.

When uninstalling, the AMS Device Configurator Application must be uninstalled prior to uninstalling any prerequisites.

Following communication ports are used by the AMS Device Configurator application to communicate with FDI Communication Server. Field devices are not getting scanned if these ports are blocked.

- 9557 – mobiLink – FDI FF Comm Server
- 7001 & 4840 – Modbus Communication Server

Avoid closing Device Screen Window when Method Window was open, Application will always show Device screen was open message if user closes the Method Window after closing the Device Screen window.

For Rosemount 1208C it is recommended to use the following screen resolution:

- Display resolution: 1920 x 1080 or higher
- Size of text, apps and other items: 100%

Before using the “My Emerson” feature of Bluetooth Device, make sure that at least one time the Bluetooth Device Screen should be open. Otherwise, this option won't open the My Emerson URL.

AMS Device Configurator application recommending using the Microflex RS485 converter to connect with the Modbus device to avoid the chaos for different converter naming provided by different vendors.

The Modbus Configuration Tool used for configuring the Modbus communication channels always need to execute in Admin Role because while using this tool, the Modbus Communication Server service needs to be Stop and Start.

AMS Device Configurator application is not allowing to delete or modify installed files for non-administrator user of the system. However to enable the application log / set trace level, the non-administrator user can edit the “user.config” file from the local user data folder of the system. The application logs are created in the Logs folder under installed path of application e.g. *C:\Program Files (x86)\Emerson\AMS Device Configurator\Logs*.

Known Behavior

Following are the known issues observed in the AMS Device Configurator:

- Device Screen not closing when application direct close
- RTR UIP may not work if .net Framework is 3.5 missing Windows OS

AMS DC Application sometime is not showing Viator HART modem on Windows Server OS machine, in that case user need to restart the PC.

HART device may disconnect during long run (typically greater than 8 hours) of application. To reconnect, acknowledge the device disconnection message, return to the home screen and rescan for devices or restart the application.

Softing mobiLink-Power Interface takes 20 sec to 3 minutes (depending on number of devices connected) for scanning and showing connected FF devices.

Softing mobiLink-Power Interface stops the power to the FF device if user changes any FF Communication Server parameter from Application Setting window. Users need to power on the FF Device by pressing “Power” button on the mobiLink-Power Interface.

The application does not show any FF and Modbus device disconnection message on Device Screen when device disconnected.

The application may hang when running the "Restart Communication" method on the FOUNDATION Fieldbus Rosemount 5400 Level Transmitter Rev 3. To resolve the issue, terminate the AMS Device Configurator.exe process using task manager and restart the application.

On occasion, the "Processor Reset" method may not work for the HART Rosemount 644 Temperature Transmitter Rev 9.

The application may hang on Rosemount 5408 Level Transmitter Rev 1 when running the "Basic Setup" method with Process Variable set to "Volume".

The application crash for Rosemount 8732 FF Rev 03 device for "Master Reset" method and throw operation error for "Configure Display" method and Date / Time parameter.

The application throw operation error on Rosemount 3051 FF Rev 23 for "Local Display" method.

The application does not show device parameters on "Device Setup" window for Rosemount 975 HART Rev 01 device. Also "Configure Device" method is aborting, and operation fail message shown for "Model Number" parameter.

The application shows device disconnected message for Rosemount 3051C Rev 7 HART device when device is connected to DeltaV™ system and Burst Mode is ON.

The application shows "Device Screen Opened" message box appears when user close the method window after closing device screen window and then try to re-open device window again.

For Modbus Devices, INIT_ACTIONS for Menu are not supported in AMS Device Configurator.

AMS Device Configurator application may not detect the HART modem if it is already configured in AMS Device Manager on same PC. To detect the HART modem in AMS Device Configurator application, release the HART modem port from AMS Device Manager by removing the HART modem from network configuration utility or stop the AMS Device Manager server.

AMS Device Configurator application show generic message for different version of device package already present when user try to add lower version of device package.

AMS Device Configurator application sometime shows two device icon for connected Modbus Micro Motion 5700 Config I/O Coriolis Flowmeter Rev 4 device. The second device is detected via device service port.

AMS Device Configurator application provides option for user to enable or disable background scanning of HART devices when Device Screen in open. AMS Device Configurator application only scan for connected device in background whose device screen was opened.

AMS Device Configurator application's UIP Sandboxing restrict user from exporting files outside the UIP Sandbox folder.

AMS Device Configurator application's UIP Export service allows only ".txt, .pdf, .docx, .bak, .rmbak, .rmdat, .xls, .csv, .mem" file extension.

For Rosemount 1208C, 3408, 5408 and 3308A DD, the AMS Device Configuration application freeze when Burst mode configured.

For Rosemount 5300 HTML5 UIP, the AMS Device Configurator application freezes when reading echo curves for long periods (approx. 5h).

When AMS Device Configurator application shows "Failed to start the Application." message then check whether another instance of application is running from Windows OS Task manager.

AMS Device Configurator application's setting page showing "USB HART (COM#)" modem name for WS232UP and PROCOMSOL USB HART Modem. If you connect any RS-485 converter (Other than Microflex) for Modbus device together with WS232UP & PROCOMSOL USB HART, the "Connection Type" in Settings page will show as "USB HART (COM#)".

AMS Device Configurator application will check systems Bluetooth availability and version at time of application launch and first time at time of switching to the Bluetooth from the settings page if Wired communication type selected at launch of application. Checking Bluetooth availability and version may take 10-15 seconds. This time may vary depend on the OS & System configuration.

AMS Device Configurator application's storage limit for BLE Firmware are set to 50 MB. Means user can add different files but total size storage size is restricted to 50MB.

AMS Device Configurator application automatically hides the scanned HART devices if HART devices are connected in multi-drop mode on same Communication port if user configured to do background scanning of connected device from settings menu.

AMS Device Configurator application is allowing to open the multiple instance of same WPF UIP for connected device. However for HTML5 UIP its automatically taking care focusing on the already opened UIP.

If mobiLink FF Comm Server was installed more than 1 year back, its certificate might be expired and AMS Device Configurator may not detect the FF Comm Server. In this case, user need to un-install and install the FF Comm Server again.

AMS Device Configurator application was not showing HART device icon if user changes the polling address of device using DD screen item or Method and that new polling address is outside the HART polling address scanning specified in the Setting page. However Device screen is going to work properly even device icon is not visible in the application main window.

AMS DC application is not supporting the Rosemount 8712 / 8732 Rev 4 (HART 4) DDs.

AMS DC application is crashing when user select "Restart Processor" option from "Restart Options" method for DVC 6000 Rev 1 FOUNDATION Fieldbus device.

Security

The following items are recommendations to help secure AMS Device Configurator:

1. AMS Device Configurator stores the FF FDI Comm Server certificates in the Program Data folder. You should monitor and harden the location to ensure that only specific users have the capability of reading and writing to the location.
2. You should monitor and harden the access to the application configuration file in the installed path to only allow specific users and/or groups to modify the file.
3. You should monitor and harden the UIP sandbox data folder to protect so that only specific users and/or groups can access the location.
4. You should monitor the traffic of a local machine / PC to make sure only AMS Device Configurator application is accessing the FDI Modbus Comm Server.

Revision History

The following table has a list of the AMS Device Configurator Application Releases.

Note: Latest release is listed on top of the list.

Version	Release Date	Summary
3.2.1b	23-Sept-2024	AMS Device Configurator updated for <ul style="list-style-type: none"> ■ CCS and Device Screen packages
3.2.0.0	04-Dec-2023	AMS Device Configurator updated for <ul style="list-style-type: none"> ■ BLE Device Support Access Control level for users
3.1.1.0	08-Mar-2023	AMS Device Configurator updated for <ul style="list-style-type: none"> ■ UIP Issues fixed ■ Restricting device scanning while Device Screen open
3.1.0.0	13-May-2022	AMS Device Configurator updated for <ul style="list-style-type: none"> ■ HTML5 UIP Support ■ Device Screen of AMS Device Manager

Product Support

For questions and comments about AMS Device Configurator, please contact your Emerson device manufacturer, <https://www.emerson.com/en-us/contact-us>.

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