SPECTRUM CONTROLS

Modules DTM Library
Release Notes
Part Number Cross Reference
Document No: 0100292-01 Rev. A

Spectrum Controls Modules DTM Library

The Spectrum Controls Modules DTM Library is delivered as a standalone Setup.
The following modules are supported:

- 1734sc-IE2CH
- 1734sc-IE4CH
- 1734sc-OE2CIH

This library requires FactoryTalk® Linx™ CommDTM and provides communication capability between HART devices and HART DTMs, so that asset management for HART devices is possible.

Supported frame applications

The Spectrum Controls Modules DTM Library supports the following FDT Frames:

- Endress+Hauser FieldCare 2.13

System requirements

System resources

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

- 1 gigahertz (GHz) or faster 32-bit (×86) or 64-bit (×64) processor with at least 2 cores
- 1 gigabyte (GB) RAM (32-bit) or 2 GB RAM (64-bit)
- Screen Resolution of at least 1024×768 pixels

Operating systems

The DTMs of the DTM library will run under the following operating systems:

- Windows 7
- Windows 10
- Windows Server 2012

Hard disk space

The Spectrum Controls Modules DTM Library requires approximately 100 MB hard disk space.

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Change history

Version 1.0.3

Supported use cases

- Creation of FDT topology
- Scanning/Discovery of HART devices connected to I/O Modules
- Opening/Closing connection to HART devices
- Communication of HART commands to HART devices for configuration purpose

Limitations

Description	Symptom
Module DTM Library	Following uses cases are not supported • Verification of IO module hardware identity during connect • Error handling in case of disturbed connection or broken IO module hardware

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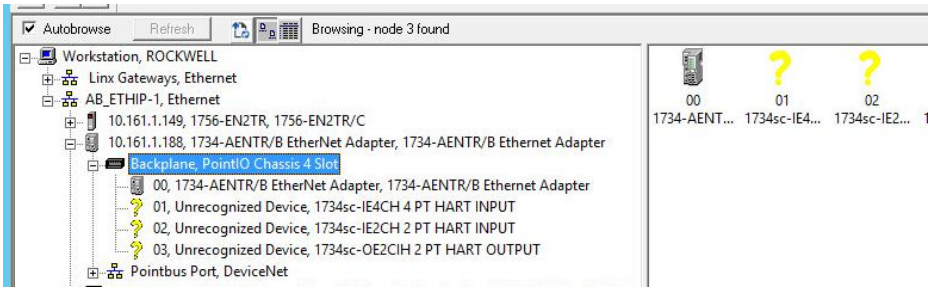
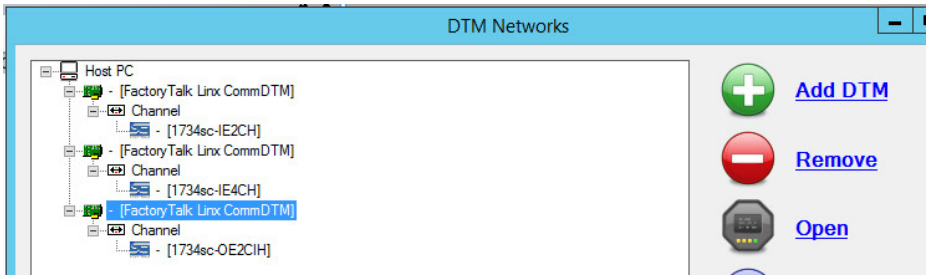
Description	Symptom
Rockwell Automation - FactoryTalk® Linx™ CommDTM (Version 1.0.65) 1-1 relation to HART IO modules or EtherNet/IP field devices	FactoryTalk® Linx™ CommDTM allows only 1-1 relation. That means it is only possible to create FDT topology with FactoryTalk® Linx™ CommDTM instance and only one connected Module DTM instance. In Figure 1 an example network is shown, which contains three HART IO modules. In Figure 2 the matching FDT topology is created. For each HART IO module, a new FactoryTalk® Linx™ CommDTM is needed.  **Figure 1 Example network of 1734 chassis**  **Figure 2 DTM network - 1-1 relation**

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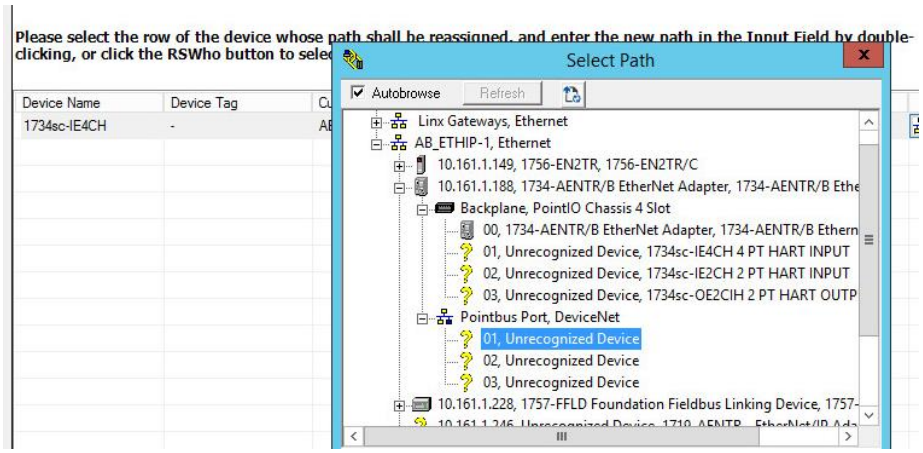
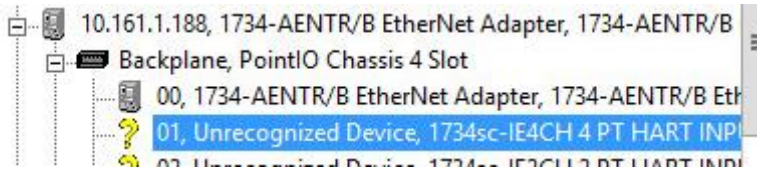
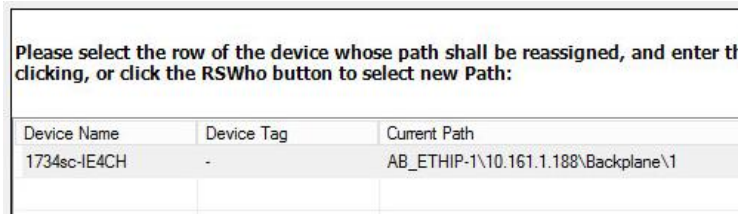
Description	Symptom
Rockwell Automation - FactoryTalk® Linx™ CommDTM (Version 1.0.65) 1734-AENTR Pointbus Port not supported	When selecting Path in “Select Path” dialog via “Pointbus Port, DeviceNet” to an IO Module (see Figure 3) the communication does not work.  **Figure 3 Path via "Pointbus Port" not supported** Only Path via “Backplane” Port is supported (see Figure 4).  **Figure 4 "Backplane" port is supported**  **Figure 5 Accepted Path from "Select Path" dialog**

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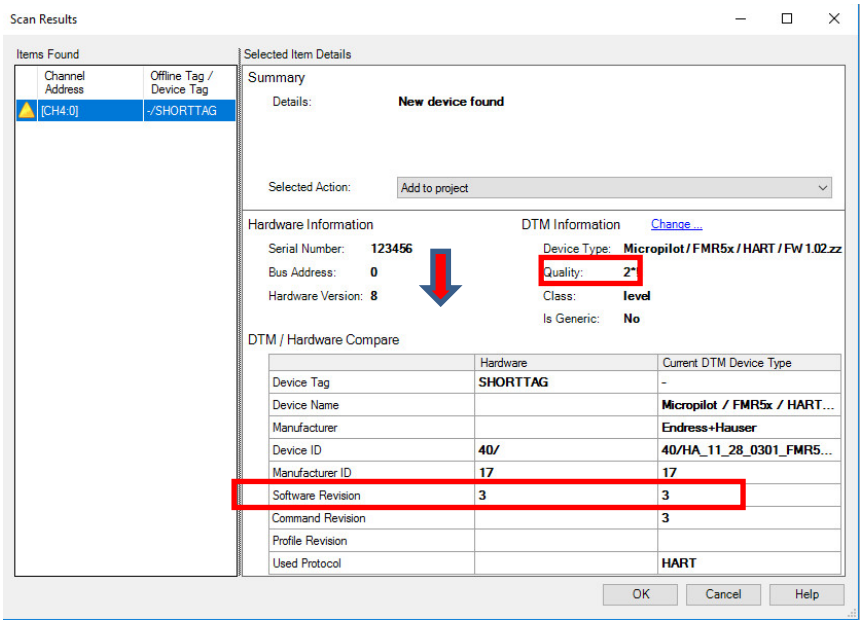
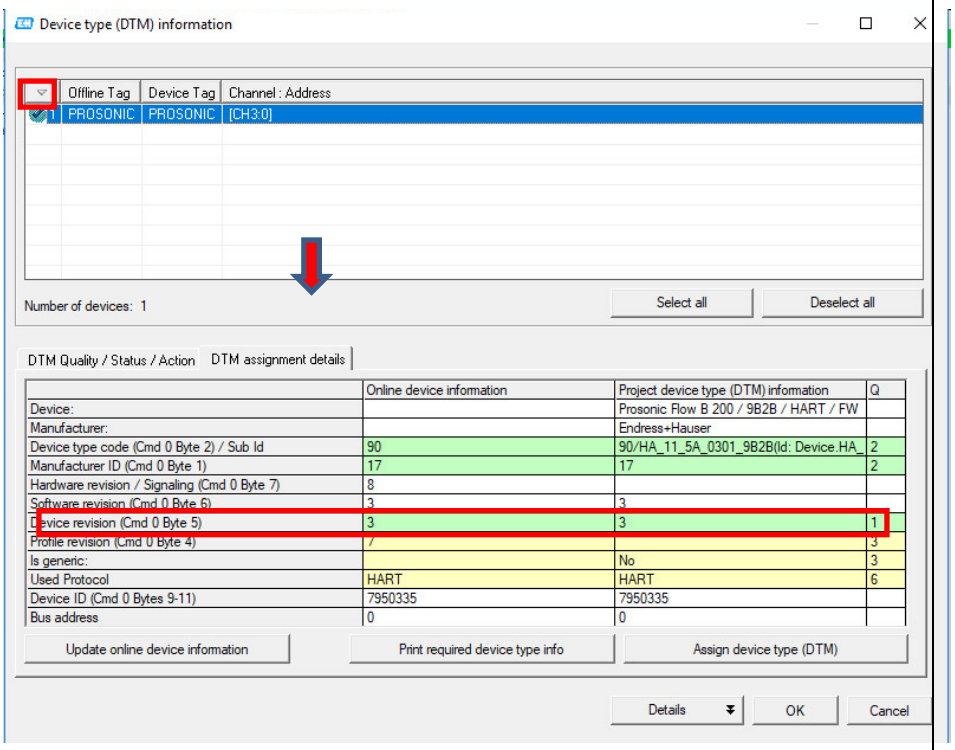
Description	Symptom
Rockwell Automation – Factory Talk® AssetCentre (7.1 and higher) Issue Scanning/Discover: Parsing FDT 1.2.1 scan response	With the frame FactoryTalk® AssetCentre the HART device DTMs achieve only quality level 2 after scanning/discover. Therefore, correct HART device DTM must be selected manually.  With FieldCare same sequence results in a match with quality 1. 

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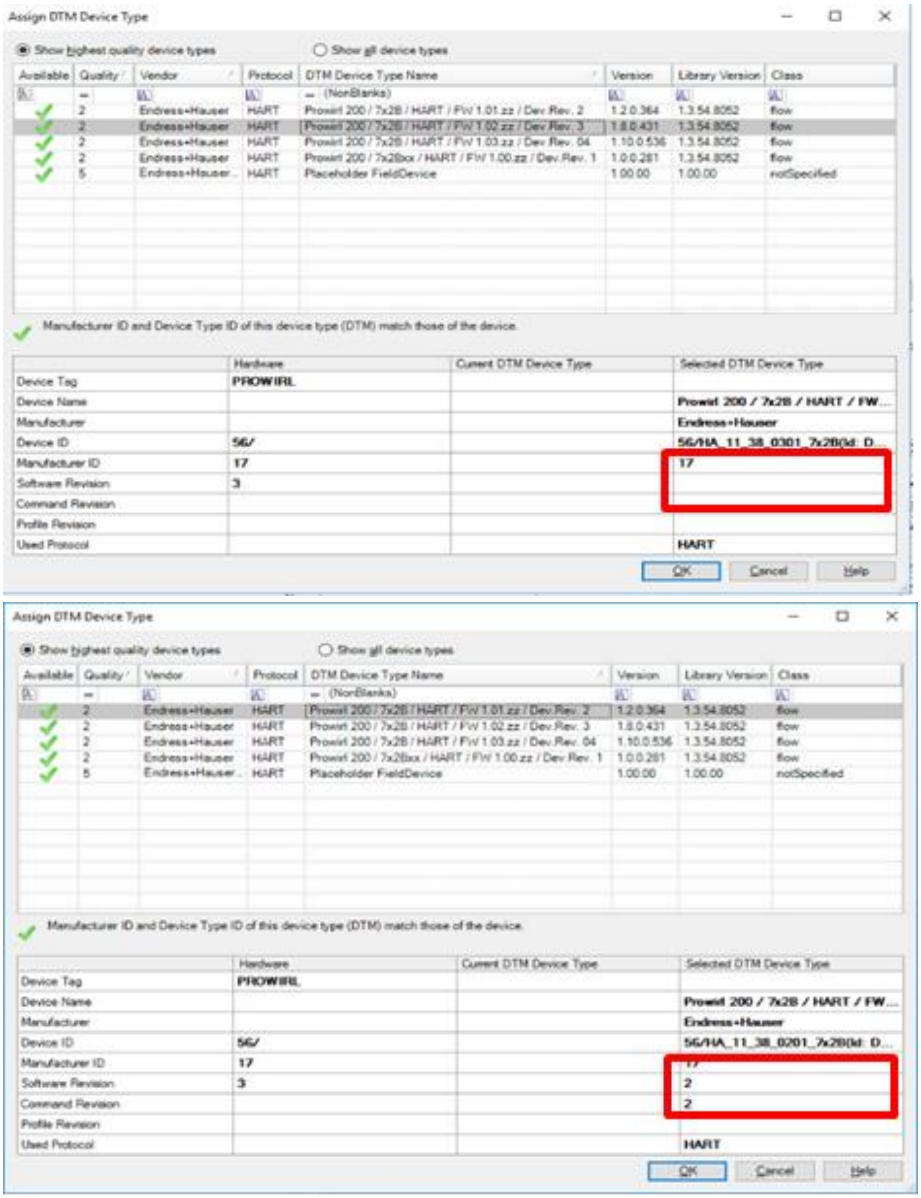
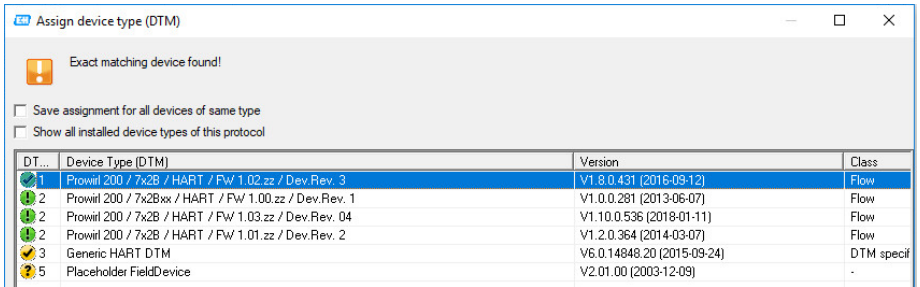
Description	Symptom
Rockwell Automation – Factory Talk® AssetCentre (7.1 and higher) Issue Scanning/Discover: Parsing FDT GetInformation document	For some FDT 1.2 HART device DTMs we observed that some catalog information is missing for FactoryTalk® AssetCentre which is resulting in quality 2 during discovery. Therefore, correct HART device DTM must be selected manually.  With FieldCare both device types show full information. 

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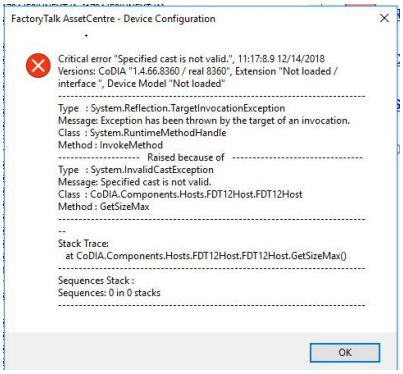
Description	Symptom
Rockwell Automation – Factory Talk® AssetCentre (7.1 and higher) Issue: .Net CLR 4 usage	FactoryTalk® AssetCentre is running with .Net CLR 4. FDT 1.2.*x* implementations are restricted to CLR 2 by FDT specification. Following this restriction, the DTMs are based on .Net Framework 3.5 and earlier. When loading such class libraries in the .NET CLR 4.0, an exception is observed ("Could not find file '*xxx* .resources'. at System.Reflection.RuntimeAssembly.InternalGetSatellite Assembly(…)") as soon as the resources need to be accessed. A second exception is also suspected of being caused by incompatibility with .Net CLR 4.0  The presence of additional incompatibility issues with .Net CLR 4.0 is possible.

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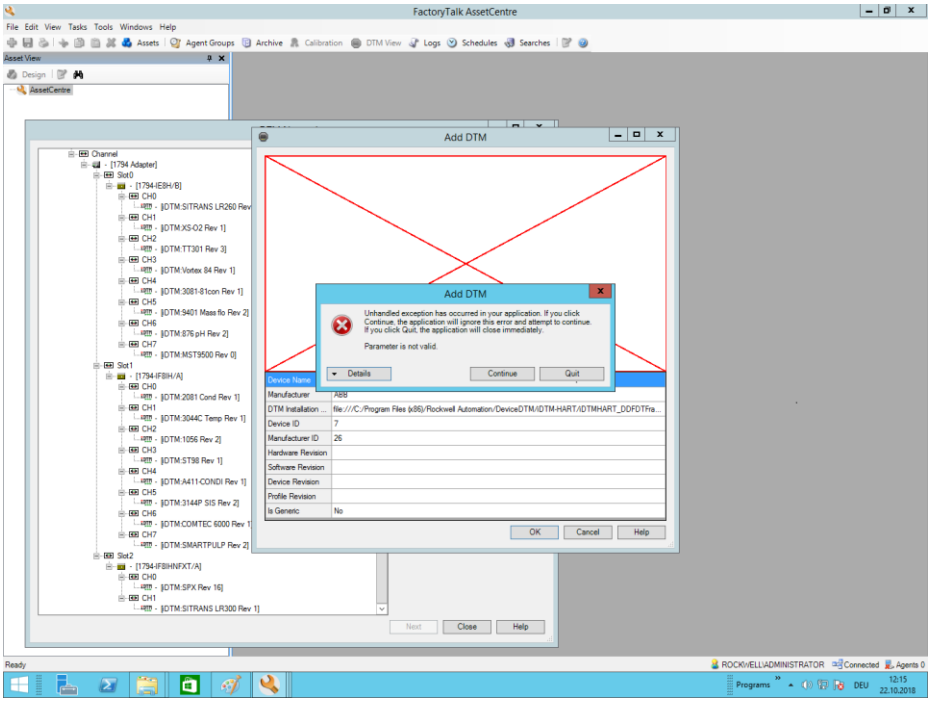
Description	Symptom
Rockwell Automation – Factory Talk® AssetCentre (7.1 and higher) Issue: Loading more than 20 DTM instances	 This behavior can be reproduced also using only the HART Communication DTM and iDTM HART device types without RA I/O modules. The exception occurs when 18 device DTMs are instantiated and we want to add the 19th device type by clicking "Add DTM".

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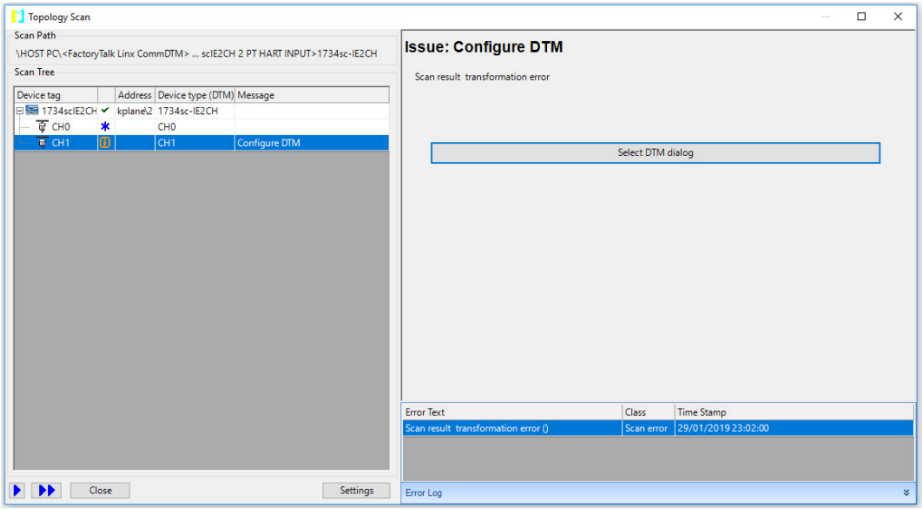
Description	Symptom
PACTware e.V. – PACTware (5.0.4) Issue Scanning/Discover: Parsing FDT 1.2.1 scan response	With the frame PACTware, it is not possible to scan the HART devices. It is necessary to select HART device DTMs manually.  **Figure 6 Error case during topology scan**

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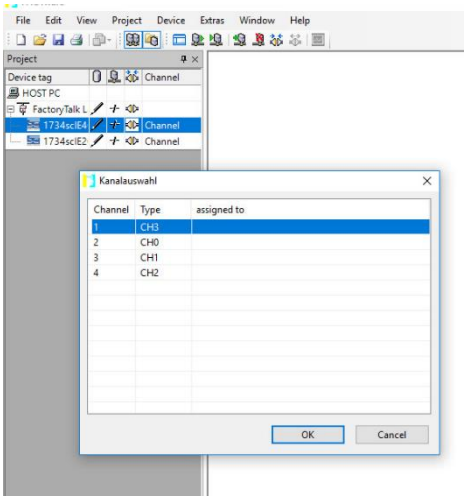
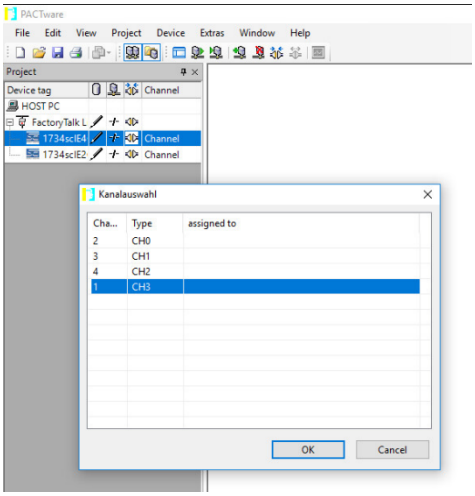
Description	Symptom
PACTware e.V. – PACTware (5.0.4) Channels are unsorted, but label “CH*x*” match with real hardware.	With the frame PACTware channels of I/O Module DTMs are not sorted in some dialogs. Name “CH*x*” is related to real hardware.  **Figure 7 Unsorted channel list** Please sort column “type” of manual adding dialog.  **Figure 8 Sorted channel by selecting "Type" column**

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