



PT2E-3420

# **SD-3 Series**

## **DTM Operating Manual**

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## 1. Introduction

This manual describes how to use the DTM (Device Type Manager) for the SD-3 Series and detector parameters. It provides information essential to correct use of the DTM.

The following actions are prohibited for the DTM:

- (1) Modifications or repairs
- (2) Disassembly or analysis
- (3) Any form of analysis, including reverse assembly and reverse compilation
- (4) Transfer or resale or provision as collateral to third parties
- (5) Use by third parties regardless of conditions, such as loan and reuse permission

The contents of this manual are subject to change without notice to allow product improvements. Any duplication or reproduction of this manual without permission is prohibited, whether in whole or in part. Riken Keiki accepts no liability for accidents or damage resulting from use of the product, whether within or outside the warranty period.

Review the warranty policy indicated on the warranty.

## 2. Supported FDT Frame Applications

The DTM complies with FDT 1.2 and supports operations with the following FDT frame applications:

- FieldMate Lite
- PACTware
- fdtCONTAINER

\* FDT (Field Device Tool) is a technology for connecting and setting field devices.

The FDT frame application allows the DTM (Device Type Manager) provided by the device manufacturer to communicate with field devices.

### 3. PC Operating Environment

The recommended PC operating environment for installing the FDT frame application and DTM is described in Table 3-1.

For operating environments other than the one described in Table 3-1, be sure to perform operation checking first.

Table 3-1 Recommended PC operating environment

Operating system	Microsoft Windows 8
	Microsoft Windows 10

### 4. DTM Installation Procedure

Run the SD-3 HART DTM.exe file contained in the SD-3 HART DTM\_X.X.X folder (Figure 4-1) to install the DTM.

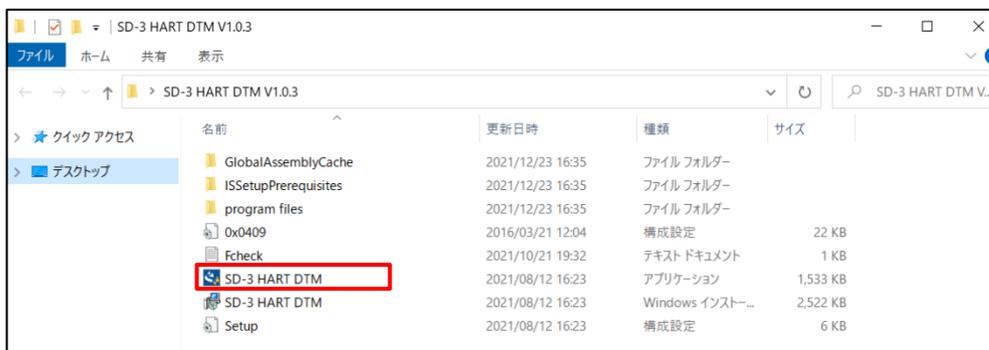


図 4-1 SD-3 HART DTM X.X.X folder

## 5. Launching the DTM from Each FDT Frame Application

This section describes how to launch the DTM for FDT frame applications supported by this DTM.

Note that only the basic instructions are provided here. For more information, refer to the operating manual for the corresponding FDT frame application.

### 5-1. How to start DTM on Field Mate

#### 5-1-1. Updating the DTM catalog

Field Mate cannot be recognized by the application only after DTM is installed. Therefore, after installing DTM, follow the steps below to update the catalog.

##### 1. Start DTM Setup

- Select "DTM Setup" from "YOKOGAWA FieldMate Lite" in the Start menu and launch it.



##### 2. Update DTM catalog

- A dialog box for updating the DTM catalog will appear. Select "Yes".

\*Please wait until the catalog update is completed.



##### 3. DTM catalog update completed

- After the update of the DTM catalog is finished, the installed DTMs will be displayed.
- When the update of the DTM catalog is finished, the installed DTMs will be displayed. After confirming, press "OK" to close the application.

\*If it does not appear after the update, the installation may not have been performed correctly. Please uninstall and reinstall.

DTM名	DTMリビジョン	DTMベンダ名	サポートプロトコル
SD-3 HART DTM	1.0.3	Riken Keiki Co.Ltd	HART
SD-58 HART DTM	1.0.0	Riken Keiki Co.Ltd	HART
SD-D58-AC HART DTM	1.0.1	Riken Keiki Co.Ltd	HART
SD-1 HART DTM	1.0.4	Riken Keiki Co.Ltd	HART, HART_Wire
SD-D58-DC HART DTM	1.0.1	Riken Keiki Co.Ltd	HART
ROTAMASS TI FDT2.0 HART7 DTM	5.6.0.0	YOKOGAWA	HART
FLEXA HART DTM	3.6.0.21	YOKOGAWA	HART
YTA710 FDT2.0 HART7 DTM	5.6.0.0	YOKOGAWA	HART
TDL58000 HART7 DTM	3.6.0.21	YOKOGAWA	HART
ROTAMASS3 FDT2.0 HART DTM	5.6.0.0	YOKOGAWA	HART
ROTAMASS3 HART DTM	3.6.0.21	YOKOGAWA	HART

## 5-1-2. How to start DTM on Field Mate

In order to start DTMs in Field Mate, please connect the device first.

(The application will not start if it is not properly connected or if the correct DTM is not selected at startup.)

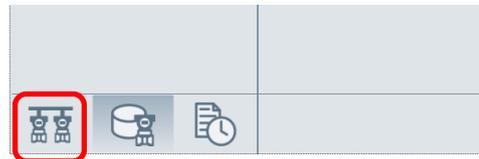
### 1. Starting Field Mate

- Select "YOKOGAWA FieldMate Lite" > "FieldMate" from the Start menu to launch it.



### 2. Toggle the segment viewer

- Once FieldMate is launched, press the "Segment Viewer" icon in the lower left corner of the screen to switch to the Segment Viewer screen.



### 3. HART communication settings (only if settings are required)

- If your HART modem is not configured or you need to change its port settings, select "Tools" > "HART Modem Settings" from the menu.
- Select the port to which the HART modem is connected and press the "OK" button. If the polling address number is large, you will need to change the maximum address value.

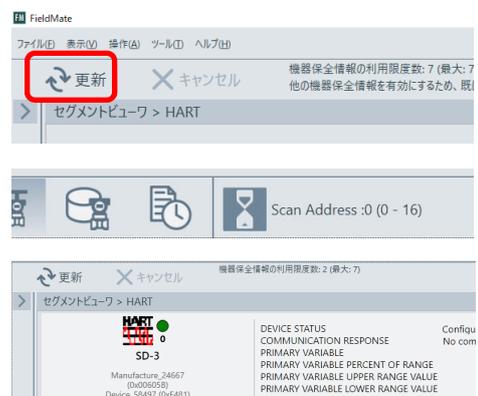


### 4. Connecting the device

- Press the "Update" button to connect to the HART device.

\* Press the "Update" button to connect to the HART device. If the specified address cannot be read, check the connection status or increase the number of retries in the modem settings.

- Once the device is connected, the device information will be displayed.



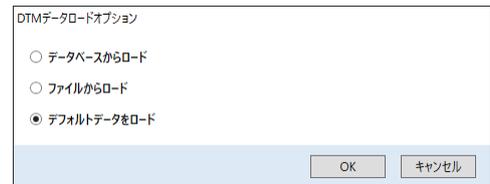
## 5. Selecting DTM

- After connecting to the HART device, press the "Operation" button at the top center of the screen to display the submenu. Select "Select DTM" from the submenu.
- After making your selection, a sub-window for selecting DTMs will appear, so select the DTM you want to load and click the "OK" button.



## 6. Starting DTM

- When DTM is started, the "Data load option" is displayed. Select "Load default data" and click the "OK" button.
- After loading the data, DTM will start up.



## 5-2. How to start DTM on PACTware

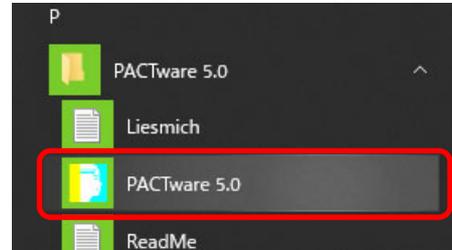
### 5-2-1. Updating DTM Catalog

PACTware cannot be recognized by the application just by installing DTM.

Therefore, after installing DTM, please follow the steps below to update the catalog.

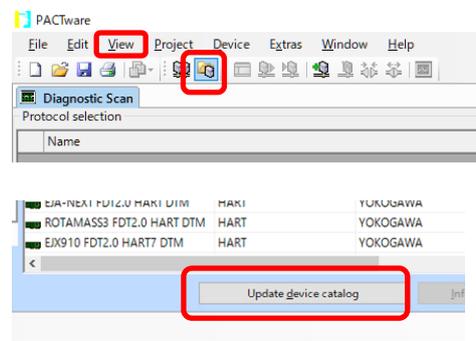
#### 1. Start PACTware

- Select "PACTware 5.0" from the Start menu and launch it.



#### 2. Updating the device catalog

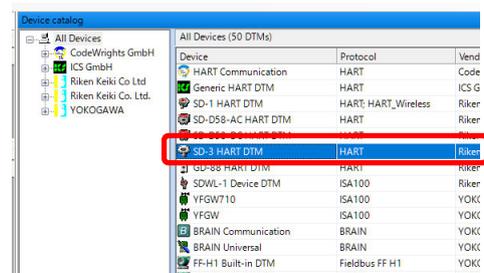
- Select "Device Catalog" from the "View" menu, or press the "Device Catalog" icon.
- After making your selection, the Device Catalog will be displayed on the right side of the screen, click the "Update device catalog" button at the bottom of the window.
- After the update confirmation message is displayed, the catalog will be updated.



#### 3. DTM catalog update completed

- Once the DTM catalog has been updated, the installed DTMs will be displayed.

\*If it does not appear after the update, it is possible that the installation was not done correctly. Please uninstall and then reinstall the software.



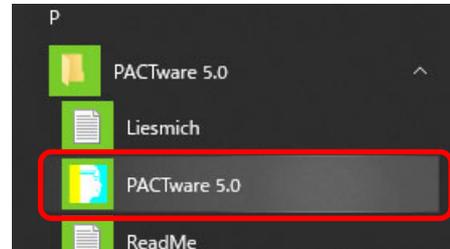
## 5-2-2. How to start DTM on PACTware

In order to start DTMs in PACTware, you must first connect the device.

(The application will not start if it is not properly connected or if the correct DTM is not selected at startup.)

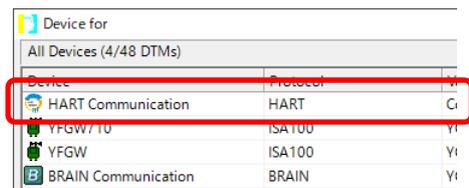
### 1. Start PACTware

- Select "PACTware 5.0" from the Start menu and launch it.



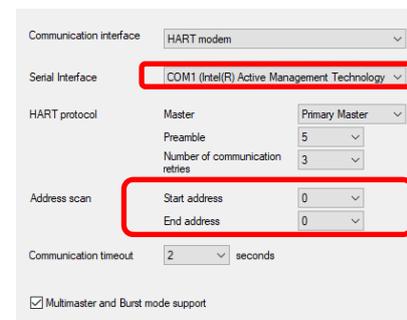
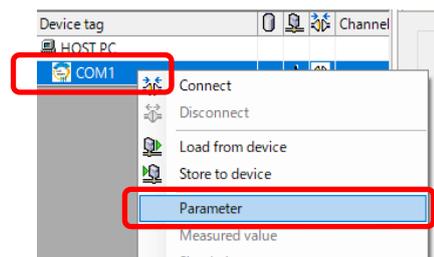
### 2. Adding a device

- Select "Add device" from the "Device" menu.
- After making your selection, the "Device for" window will appear in the center of the screen. Select "HART Communication" as the connection protocol and click the "OK" button.



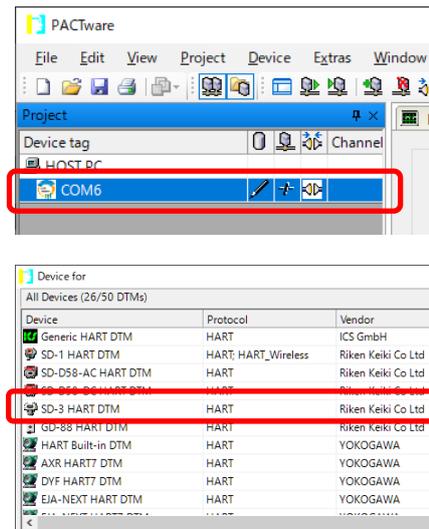
### 3. Change the COM port

- When you add the HART Device, the "COM1" port is set by default, so change the port.
- Right-click on the port "COM1" and select "Parameter" from the submenu.
- \*You can also double-click on the pen icon next to COM1.
- The "Configuration" tab will open in the center of the screen. Set the port number of the HART modem and the scan address range, and then click the "OK" button.
- Click the "OK" button to apply the changes and the COM number under "HOST PC" will change.



#### 4. Adding a HART device

- Right-click on the COM port (COM6 in the picture) and select "Add device" from the submenu.
- When selected, the "Device for" window appears in the center of the screen. Select "SD-3 HART DTM" for the connected DTM and click the "OK" button.

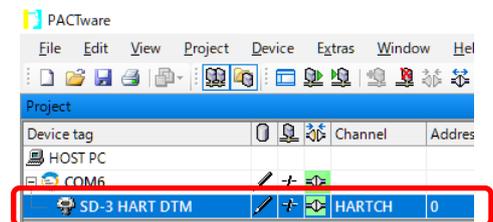
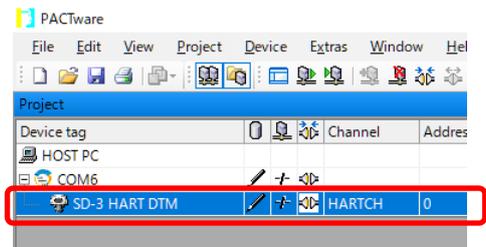


#### 5. Connecting to HART devices

- Right-click "SD-3 HART DTM" in the DTM and select "Connect" from the submenu

\*You can also double-click on the connection icon next to COM1.

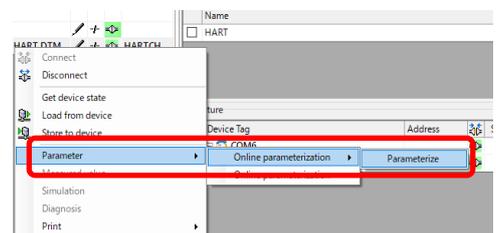
- When the connection is complete, the connection icon will turn green.



#### 6. Starting DTM files

- Right-click on the DTM "SD-3 HART DTM" and select "Parameter" > "Online parameterization" > "Parameterize" from the submenu.

- After selecting, the DTM tab will open in the center of the screen.



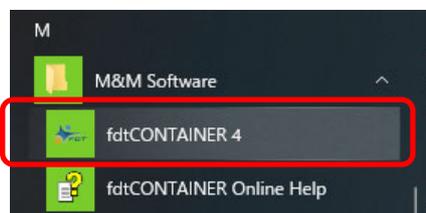
### 5-3. How to start DTM on fdtCONTAINER

#### 5-3-1. Update DTM Catalog

fdtCONTAINER cannot be recognized by the application just by installing DTM. Therefore, after installing DTM, please follow the steps below to update the catalog.

#### 1. Start fdtCONTAINER

- Select "fdtCONTAINER 4" from "M&M Software" in the Start menu and launch it.
- When the project selection screen opens after startup, select "Empty Project".



#### 2. Updating the device catalog

- Select "Update Catalog" from the menu.
- After the update confirmation message is displayed, the catalog will be updated.



#### 3. Device catalog update completed.

- After the device catalog update is finished, the installed DTMs will be displayed.

\*If it does not appear after the update, it is possible that the installation was not done correctly. Please uninstall and then reinstall the software.



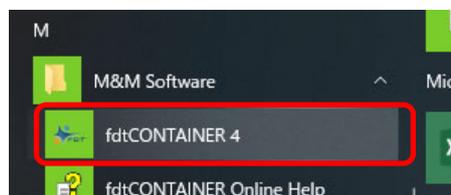
### 5-3-2. How to start DTM on fdtCONTAINER

In order to start DTM in fdtCONTAINER, please connect the device first.

(The application will not start if it is not properly connected or if the correct DTM is not selected at startup.)

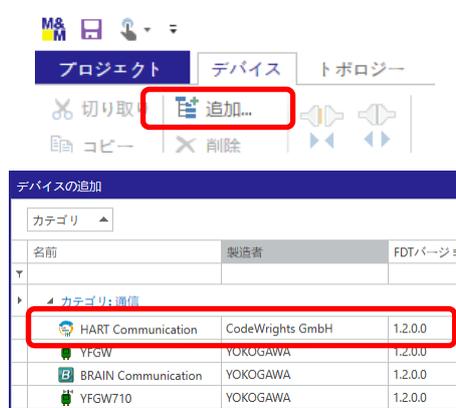
#### 1. Start fdtCONTAINER

- Select "fdtCONTAINER 4" from "M&M Software" in the Start menu and launch it.
- When the project selection screen opens after startup, select "Empty Project."



#### 2. Adding a device

- Select "Add" from "Devices" in the menu.
- After making your selection, the Add Device window will appear, select "HART Communication" and press the "OK" button.



#### 3. Change the COM port

- When you add a device, the "COM1" port will be set by default, so you will need to change the port.
- To begin, right-click on the port "COM1" and select "Settings" from the submenu.
- The "Settings" tab will open in the center of the screen. Set the port number of the HART modem and the scan address range, and then click the "OK" button.
- Click the "OK" button to apply the changes and change the COM number in the Device Summary column.



#### 4. Adding a HART device

- Right-click on the COM port (COM6 in the picture) and select "Add" from the submenu.
- After selecting the device, the Add Device window will appear. Select "SD-3 HART DTM" as the connected DTM and click the "OK" button.



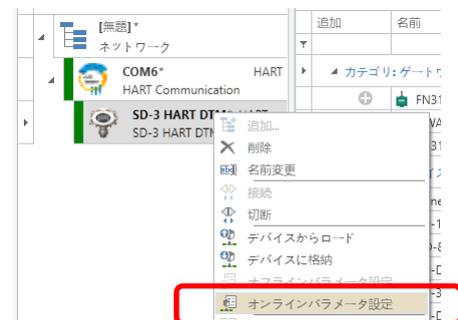
#### 5. Connecting to HART devices

- Right-click "SD-3 HART DTM" in DTM and select "Connect" from the submenu.
- When the connection is complete, the color next to the icon will change to green.



#### 6. Starting DTM files

- Right-click "SD-3 HART DTM" in DTM and select "Online Parameter Setting" from the submenu.
- After selecting, the DTM tab will open in the center of the screen.



## 6. DTM Upgrade Procedure

Run the SD-3 HART DTM.exe file found in the SD-3 HART DTM\_X.X.X folder (upgrade version) to install in the same way as when installing for the first time. Older versions of DTM detected during installation will be upgraded automatically.

## 7. DTM Uninstall Procedure

Use "Add or Remove Programs" in the Windows Control Panel to uninstall the DTM software.

\* With Windows 10, uninstall by selecting Windows' Start menu ⇒ Settings ⇒ System ⇒ Apps & features.

## 8. Precautions

The fdtCONTAINER printing function cannot be used with the Japanese operating system.

Revision history

Issue	Revision	Issue date
0	First issue	12/24/2021