

PT2E-3420

SD-3 Series

DTM Operating Manual

RIKEN KEIKI Co., Ltd.

2-7-6 Azusawa, Itabashi-ku, Tokyo, 174-8744, Japan Phone: +81-3-3966-1113 Fax: +81-3-3558-9110 E-mail: intdept@rikenkeiki.co.jp Web site: https://www.rikenkeiki.co.jp/

Contents 1. 2. 3. PC Operating Environment......4 DTM Installation Procedure......4 4. 5. Launching the DTM from Each FDT Frame Application......5 5-1. Updating the DTM catalog 5 5-1-1. 5-1-2. 5-2. 5-2-1. 5-2-2. 5-3-1. Update DTM Catalog11 5-3-2. DTM Upgrade Procedure......14 6. DTM Uninstall Procedure14 7. 8. Precautions......14

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	Performended PC operating environment
	Recommended PC operating environment

Operating	Microsoft Windows 8
system	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.

📕 🗹 📕 🔻 SD-3 HAI	RT DTM V1.0.3				-		\times
ファイル ホーム 共有	表示						~ ?
← → ~ ↑ 🖡 > s	D-3 HART DTM V1.0.3			v U 🔎	SD-3 H	ART DTI	M V
> 🖈 クイック アクセス	名前	更新日時	種類	サイズ			
ヽ ■ デフカトップ	GlobalAssemblyCache	2021/12/23 16:35	ファイル フォルダー				
	ISSetupPrerequisites	2021/12/23 16:35	ファイル フォルダー				
	📜 program files	2021/12/23 16:35	ファイル フォルダー				
	🕤 0x0409	2016/03/21 12:04	構成設定	22 KB			
	Fcheck	2021/10/21 19:32	テキスト ドキュメント	1 KB			
	SD-3 HART DTM	2021/08/12 16:23	アプリケーション	1,533 KB			
	👘 SD-3 HART DTM	2021/08/12 16:23	Windows インストー	2,522 KB			
	🔊 Setup	2021/08/12 16:23	構成設定	6 KB			

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 Setup Tool

	1		
HART	FOUNDATION fieldbus	ISA100	Others

	DTM名	DTMリビジョン	DTM ベンダ名	サポートプロトコル
6	Generic HART DTW	4.0.5	ics amon	MANT
	SD-3 HART DTM	1.0.3	Riken Keiki Co Ltd	HART
4	CD CO INART DTM		Rikerrikeiki Co Eto	10407
	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_Win
	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
	TDLS8000 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.

操作 機器	保全情報を開く	(0)			
開通	l付けられたDTM	I(A)			
ITO	Mを選択(L)				
M DTMを選択			-		×
DTM名	DTMレビジョン	DTMペンダ			
SD-1 HART DTM	1.0.4	Riken Keiki	Co L	td	^
SD-D58-AC HART DTM	1.0.1	Riken Keiki	Co L	td	
SD-D58-DC HART DTM	1.0.1	Riken Keiki	Co L	td	
Constitution DTM	1.0.2	ICC Crobit			_
SD-3 HART DTM	1.0.3	Riken Keiki	Co L	td	
AAR HARTZ DIM	3.8.0.21	TOROGAWA	4		T
DYF HART7 DTM	3.6.0.21	YOKOGAW	4		
EJA-NEXT HART DTM	3.6.0.21	YOKOGAW	4		~
- W-01 + pro + 7 0-44 /#	に関連付ける。				
 選択したDIMをこの機種 					

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.

DTMデータロードオプション	
○ データベースからロード	
○ ファイルからロード	
デフォルトデータをロード	
	OK キャンセル

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.





levice catalog				
🖃 🚊 All Devices	All Devices (50 DTMs)			
CodeWrights GmbH CS GmbH CS GmbH Riken Keiki Co Ltd Riken Keiki Co. Ltd. VOKOGAWA	Device	Protocol	Vend	
	HART Communication	HART	Code	
	Generic HART DTM	HART	ICS G	
	SD-1 HART DTM	HART; HART_Wireless	Riker	
I TOKOGAWA	SD-D58-AC HART DTM	HART	Riker	
	G to oct octuation.			
	😤 SD-3 HART DTM	HART	Riken	
	gD-88 HART DIM	HARI	Riker	
	SDWL-1 Device DTM	ISA100	Riker	
	FGW710	ISA100	YOK	
	WFGW	ISA100	YOK	
	BRAIN Communication	BRAIN	YOK	
	RAIN Universal	BRAIN	YOK	
	FF-H1 Built-in DTM	Fieldbus FF H1	YOK	
	EN LLADT D. TH. COTMA	LIADT	NOV	

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.

i 🗗 - i 🛄 🛛	1	Cor	nnect		
		Dis	connect		Dia
]	Тор	ology Sca	an	occ
	~	Dia	gnostic S	can	Na
ſ	<u>0</u>	Ad	d device		

Device for		
All Devices (4/48 DTMs)		
Device	Protocol	
HART Communication	HART	Ci
YFGW/10	ISATUU	Υ
🛱 YFGW	ISA100	Y
B BRAIN Communication	BRAIN	Y

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.

📑 PAC	Tware					
<u>F</u> ile	<u>E</u> dit	<u>V</u> iew	<u>P</u> roject	<u>D</u> evice	E <u>x</u> tras	Window
i 🗋 🖆	; 🔒	3 🗗	- 1 🔛 🛛	0 : 🗖 .	Qe 👲	🕸 🧕 🤹
Project					ą.	× 🔳 (
Device ta	ag			0 🎗	🕸 Chan	nel
EL HOS	T PC	_				
Q CC	DM6			/ +		

All Devices (26/50 DTMs)		
Device	Protocol	Vendor
Generic HART DTM	HART	ICS GmbH
SD-1 HART DTM	HART; HART_Wireless	Riken Keiki Co Ltd
SD-D58-AC HART DTM	HART	Riken Keiki Co Ltd
😴 SD-3 HART DTM	HART	Riken Keiki Co Ltd
g GD-88 HART DTM	HART	Riken Keiki Co Ltd
🖉 HART Built-in DTM	HART	YOKOGAWA
💇 AXR HART7 DTM	HART	YOKOGAWA
💇 DYF HART7 DTM	HART	YOKOGAWA
EJA-NEXT HART DTM	HART	YOKOGAWA
1 million		

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.

PACTware		
<u>File Edit View Project</u>	<u>D</u> evice E <u>x</u> tras <u>W</u> indow	<u>H</u> el
i 🗅 💕 🛃 🎒 👘 - i 😫 🕯	👌 🗖 🕸 🕸 🗐 🖄 🕷	÷
Project		
Device tag	🚺 👤 🐝 Channel 🛛 Ad	dres
B HOST PC		
🗆 🚭 СОМ6	/ + ↔	
👇 🤗 SD-3 HART DTM	ARTCH 0	

PAC	.Tware						
<u>F</u> ile	<u>E</u> dit	View	<u>P</u> roject	<u>D</u> evice	E <u>x</u> tras	Window	<u>H</u> el
1 🗋 🛛	ê 🔒	3 🖻	- 1 🔛 🛛	0	🕸 🖞	🗐 🧕 🕼	₩
Project							
Device	tag			0	🕸 Cha	nnel A	ddres
💻 но:	ST PC						
🗏 🔁 🖸	OM6			1+	=Tz		
Q	SD-31	HART D	ГМ	1+	=D= HAR	RTCH 0	



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 fdtCOTAINER

- •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.



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



- •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.



♂ 診断	🚰 カタログの更新
💂 チャネル機能	♀ 追加可能のみ
<u>か</u> 付加機能 -	① DTM情報
「イス機能	デバイスカタログ

	т					
RT	F	▶ カテゴリ	:ゲートウエイ			
		▲ カテゴリ:デバイス				
0		0	Generic HART DTM	ICS GmbH		
		0	🗣 SD-1 HART DTM	Riken Keiki		
		0	GD-88 HART DTM	Riken Keiki		
		0				
			😵 SD-3 HART DTM	Riken Keiki		
		0	🐲 SD-D58-AC HARI DIM	Kiken Keiki		
		0	SDWL-1 Device DTM	Riken Keiki		
		0	ISA100 Built-in DTM	YOKOGAW		

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 fdtCOTAINER

- •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.





YOKOGAWA

1.2.0.0

VEGW710

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.



erial Interface	COM1 (Intel(R) Active Man	agement Technology 🗸
IART protocol	Master	Primary Master \sim
	Preamble	5 ~
	Number of communication retries	3 ~
ddress scan	Start address	0 ~
	End address	0 ~
ommunication timeout	2 v seconds	

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 \Rightarrow Settings \Rightarrow System \Rightarrow 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