



IO-Link通信の実機デモ

IO-Link Community Japan
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IO-Link実機デモ

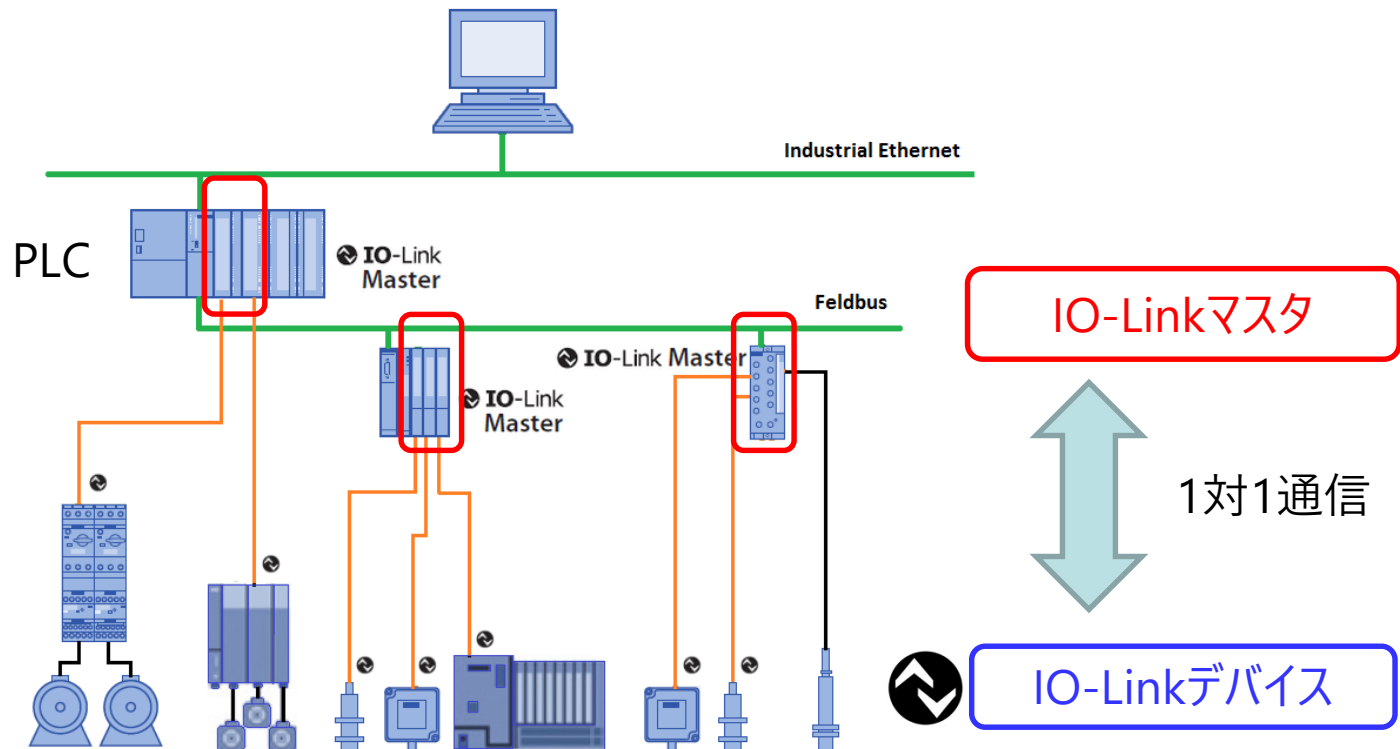
内容

- ポータブルIO-Linkマスタを使用した実機デモ
 - IO-Link通信の確立
 - Indexを使用したIO-Linkデバイスとの通信
 - FDTフレームを使用したIO-Linkデバイスのパラメータ設定
- リモートI/O型IO-Linkマスタとの実機デモ
 - IO-Linkデバイス確認機能 (Device Validation)
 - パラメータ保存機能 (Data storage)

ポータブルIO-Linkマスタを使用した実機デモ

- IO-Link通信の確立

⇒IO-LinkマスタとIO-Linkデバイス間の通信

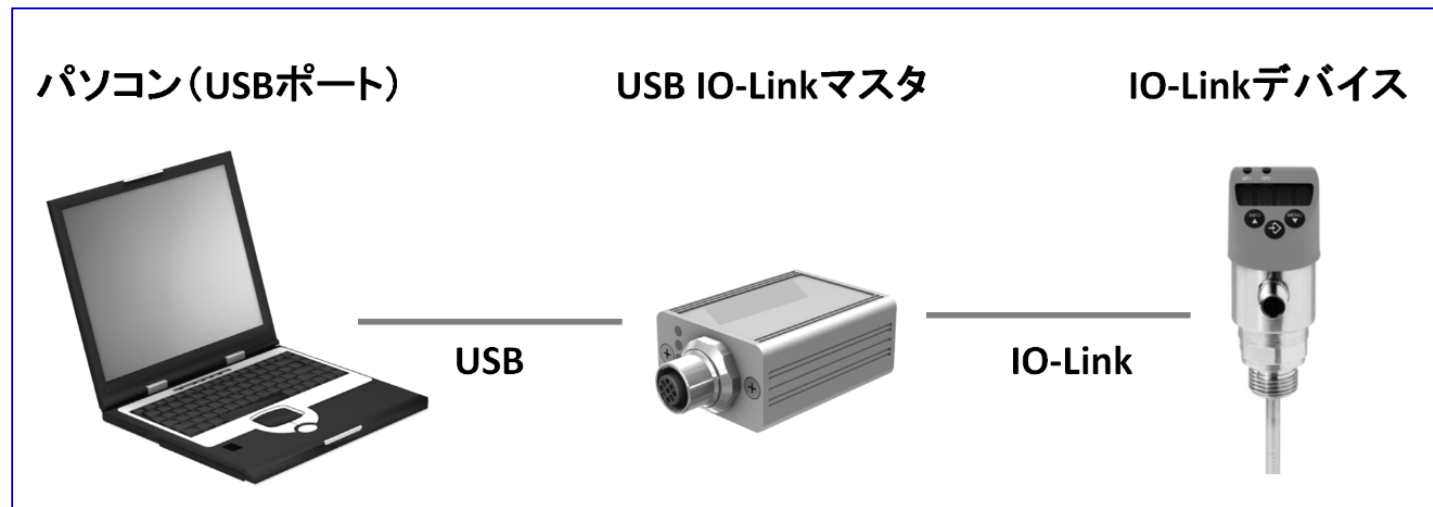


ポータブルIO-Linkマスタを使用した実機デモ

- IO-Link通信の確立

⇒IO-LinkマスタとIO-Linkデバイス間の通信

デモ用システム構成



FDTフレームアプリケーション

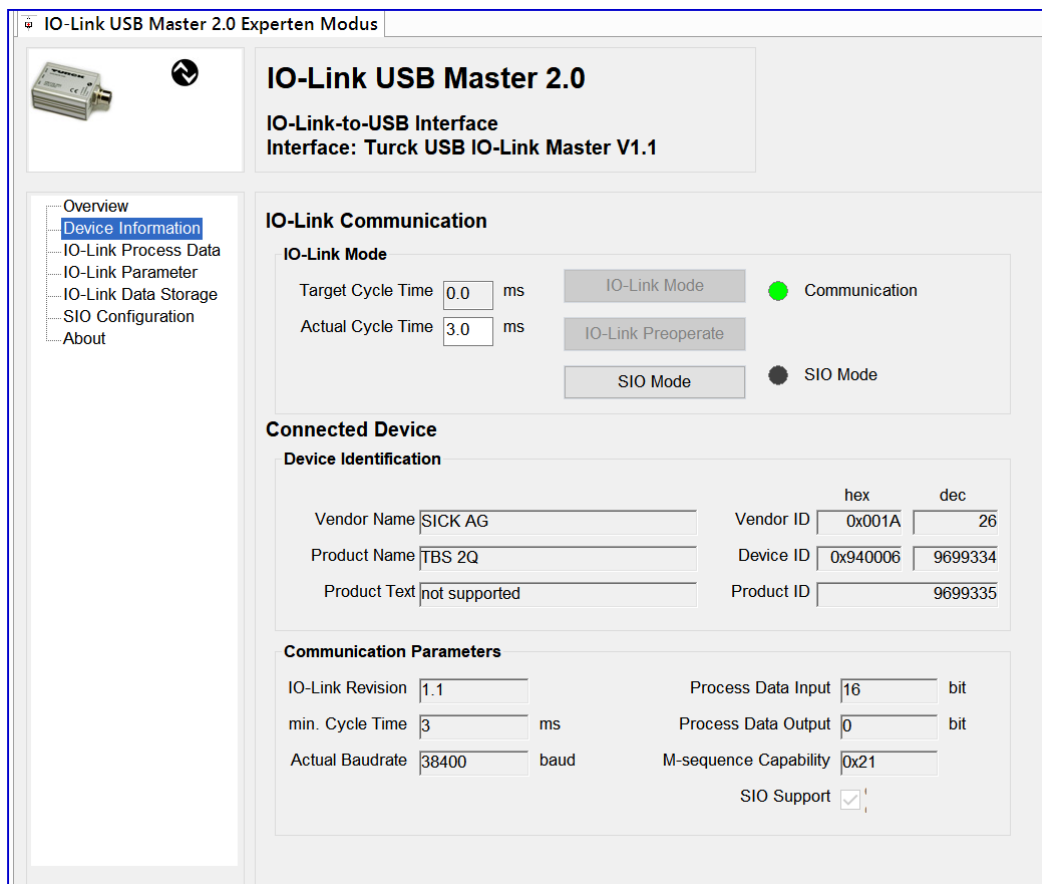
ジェネリック
デバイスDTM

IODDファイル

ポータブルIO-Linkマスタを使用した実機デモ

- IO-Link通信の確立

IO-Linkデバイスの 機器情報



The screenshot displays the 'IO-Link USB Master 2.0 Experten Modus' software interface. The main window title is 'IO-Link USB Master 2.0'. Below the title, it identifies the device as 'IO-Link USB Master 2.0' and the interface as 'IO-Link-to-USB Interface: Turck USB IO-Link Master V1.1'. A sidebar on the left contains a navigation menu with 'Overview' selected, and sub-items including 'Device Information', 'IO-Link Process Data', 'IO-Link Parameter', 'IO-Link Data Storage', 'SIO Configuration', and 'About'. The main content area is divided into several sections: 'IO-Link Communication' shows 'IO-Link Mode' set to 'IO-Link Mode' (indicated by a green dot) and 'SIO Mode' (indicated by a grey dot). It also displays 'Target Cycle Time' as 0.0 ms and 'Actual Cycle Time' as 3.0 ms. The 'Connected Device' section, under 'Device Identification', lists: Vendor Name: SICK AG, Vendor ID: 0x001A (hex) / 26 (dec), Product Name: TBS 2Q, Device ID: 0x940006 (hex) / 9699334 (dec), and Product Text: not supported. The 'Communication Parameters' section shows: IO-Link Revision: 1.1, min. Cycle Time: 3 ms, Actual Baudrate: 38400 baud, Process Data Input: 16 bit, Process Data Output: 0 bit, M-sequence Capability: 0x21, and SIO Support: checked.



ポータブルIO-Linkマスタを使用した実機デモ

- IO-Link通信の確立

IO-Linkデバイスの機器情報のインデックス

	Index (dec)	Sub index	asciiを選択
Vendor Name	16	0	
Product Name	18	0	
Product ID	19	0	
Serial Number	21	0	
Hardware Version	22	0	
Firmware Version	23	0	
Application Specific Tag	24	0	

ポータブルIO-Linkマスタを使用した実機デモ

- IO-Link通信の確立

プロセスデータ

IO-Link USB Master 2.0 Experten Modus

IO-Link USB Master 2.0
IO-Link-to-USB Interface
Interface: Turck USB IO-Link Master V1.1

Overview
Device Information
IO-Link Process Data
IO-Link Parameter
IO-Link Data Storage
SIO Configuration
About

IO-Link Communication

IO-Link Mode

Target Cycle Time ms Communication

Actual Cycle Time ms SIO Mode

SIO Mode

IO-Link Process Data

Process Data

Automatic Update Logging

Display binary hex decimal

valid Input Data

Output Data

Interval ms

ポータブルIO-Linkマスタを使用した実機デモ

- Indexを使用したIO-Linkデバイスとの通信

IO-Linkパラメータ

IO-Link USB Master 2.0 Experten Modus

IO-Link USB Master 2.0
IO-Link-to-USB Interface
Interface: USB device not connected

Overview
Device Information
IO-Link Process Data
IO-Link Parameter
IO-Link Data Storage
SIO Configuration
About

IO-Link Communication

IO-Link Mode

Target Cycle Time ms ● Communication Request

Actual Cycle Time ms

● SIO Mode

IO-Link Parameter

Parameter Data

	Index	Subindex	Display	<input type="radio"/> binary	<input type="radio"/> hex	<input type="radio"/> decimal	<input checked="" type="radio"/> ascii
<input type="button" value="Read"/>	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text"/>				
<input type="button" value="Write"/>	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text"/>				
Error	<input type="text"/>						



ポータブルIO-Linkマスタを使用した実機デモ

- FDTフレームを使用したIO-Linkデバイスのパラメータ設定

IODDファイル

The screenshot shows the configuration interface for an IO-Link device. The window title is "UC500-30GM-2EP-IO-V15..UC500-30GM-IUEP-IO-V15 IODD1.0.1 Parameter". The vendor is "Pepperl+Fuchs". The interface includes a menu tree on the left and a main table of parameters.

Name	Value	Default value
Operation Parameter		
Switching Signal 1 Parameter		
Switching Signal 1 : Threshold 1	50 mm	50 mm
Switching Signal 1 : Threshold 2	500 mm	500 mm
Switching Signal 2 Parameter		
Analog Signal Parameter		
Analog Signal : Limit 1	100 mm	100 mm
Analog Signal : Limit 2	250 mm	250 mm
Operation Mode Configuration		
Switching Signal 1 Configuration		
Switching Signal 1 Configuration : Switching Si...	Non Inverted	Non Inverted
Switching Signal 1 Configuration : Switching Si...	Window	Window
Switching Signal 1 Configuration : Switching Si...	1 %	1 %
Barrier Offset : Barrier Offset	10 %	10 %
Switching Signal Delay : On-Delay (cycles)	0	0
Switching Signal Delay : Off-Delay (cycles)	0	0
Switching Signal 2 Configuration		
Analog Signal Configuration		
Sensor Configuration		
Output Configuration		
User Interface Configuration		

ポータブルIO-Linkマスタを使用した実機デモ

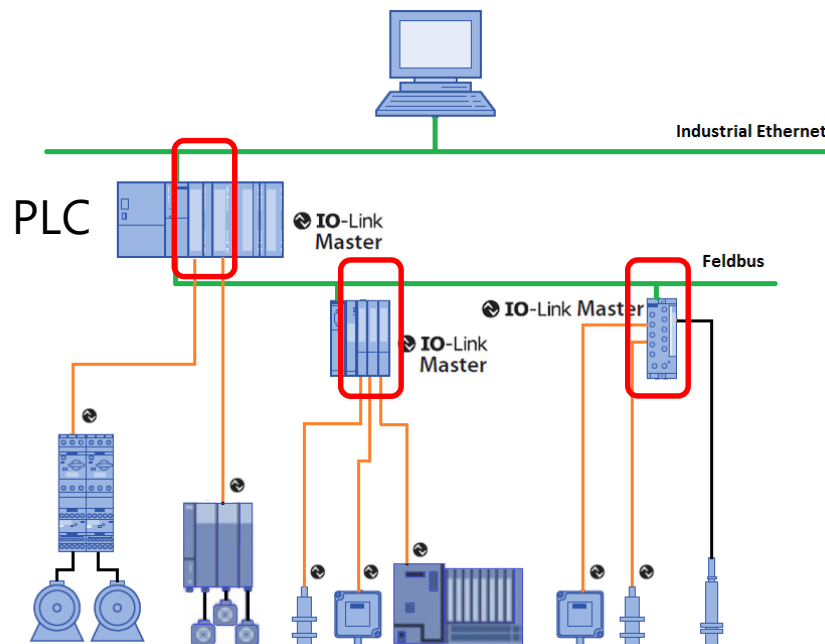
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IODDファイル

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Switching Signal 2 Configuration		
Analog Signal Configuration		
Sensor Configuration		
Output Configuration		
User Interface Configuration		

リモートI/O型IO-Linkマスタとの実機デモ

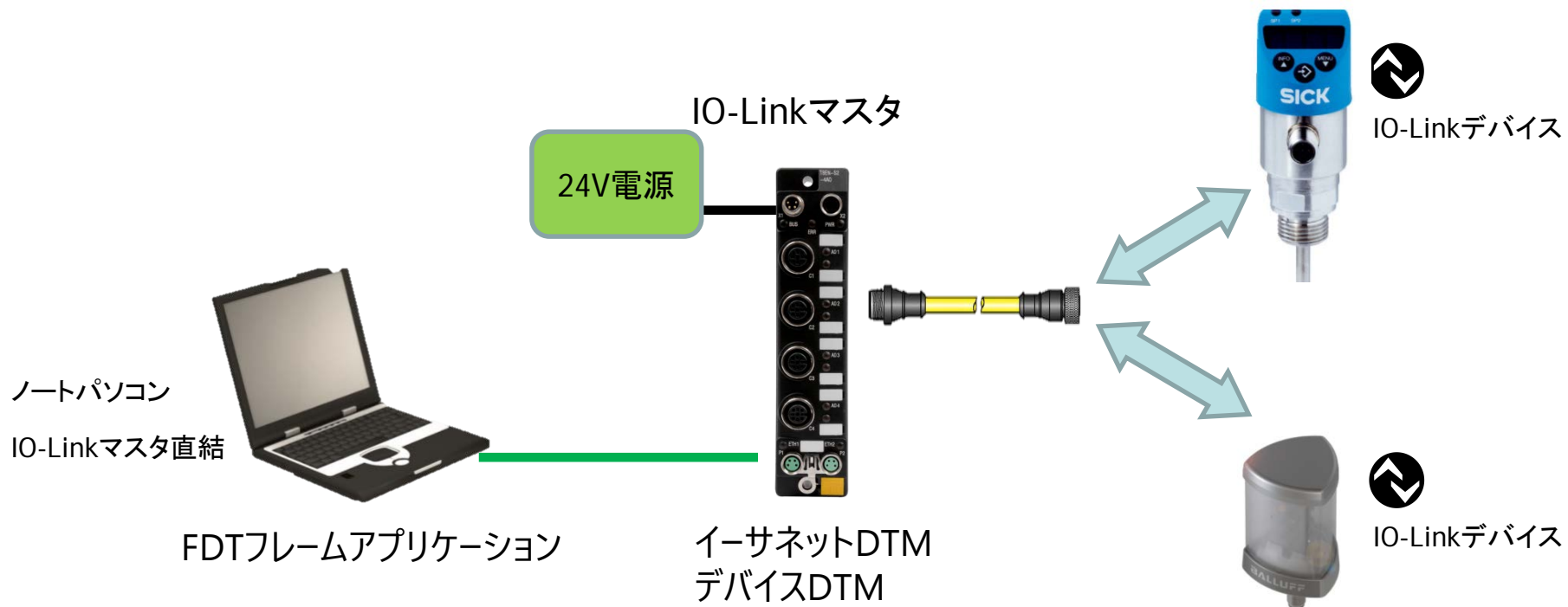
- リモートI/O型IO-Linkマスタとの実機デモ
 - IO-Linkデバイス確認機能 (Device Validation)
 - パラメータ保存機能 (Data storage)



IO-Linkマスタ側の
ポート (ch) ごとに
各機能のON/OFFを
設定します。

リモートI/O型IO-Linkマスタとの実機デモ

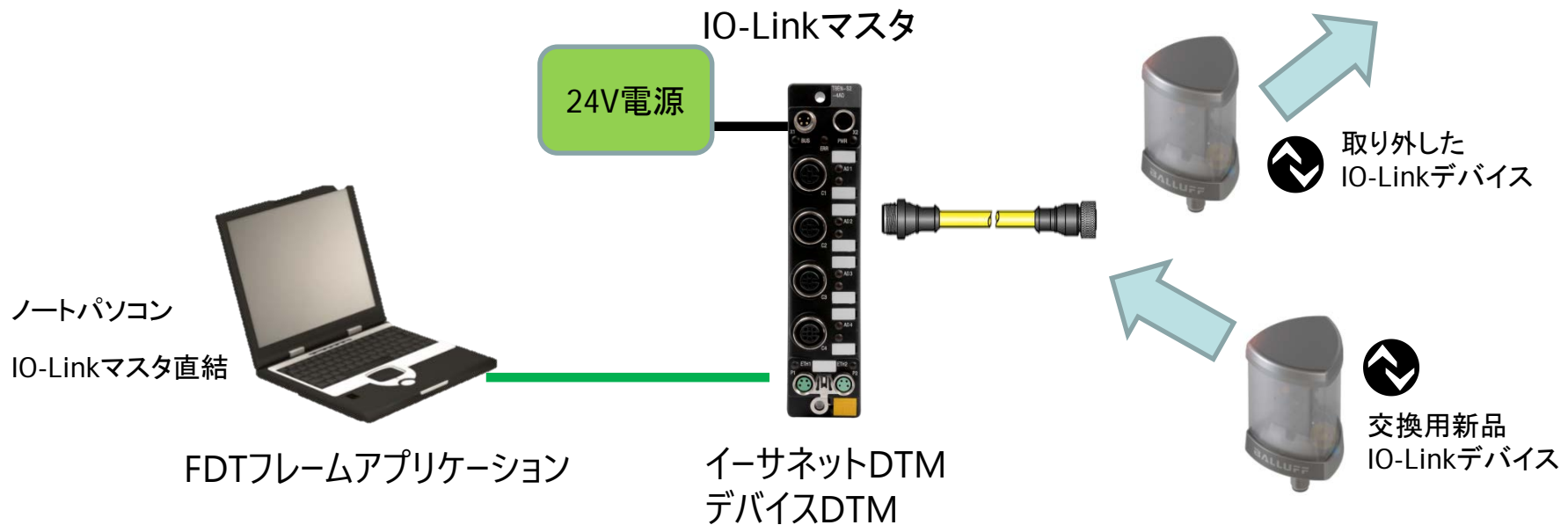
- IO-Linkデバイス確認機能 (Device Validation)
⇒接続されたIO-Linkデバイスが正しいかチェックできます。



リモートI/O型IO-Linkマスタとの実機デモ

- パラメータ保存機能 (Data storage)

⇒ポート側にパラメータ情報保存することが可能なので
メンテナンス時に新品のパラメータ設定は不要



リモートI/O型IO-Linkマスタとの実機デモ

- 設定画面例

The screenshot displays the '01/S2-4IOL Parameterization' window. At the top, the device type is 'Intern-S2-4IOL' and the description is 'Intern electronic modules 4 IO-Link ports.' The TURCK logo is visible in the top right. The interface is divided into several sections:

- Left Panel:** A tree view showing the configuration structure, including 'Global' and four IO-Link channels (0-3) with their respective DXP (Data eXchange Protocol) settings.
- Center Panel:** A table showing the parameters for 'Port 1 - IO-Link (Channel 0)'. The 'Operation mode' parameter is highlighted in blue.
- Right Panel:** An 'Offline parameterization' table showing the mapping between parameter names and their values.

Name	Value
Port 1 - IO-Link (Channel 0)	
Notation	
Channel name	
IO-Link port parameters	
Operation mode	IO-Link without validation
Data storage mode	deactivated, clear
Cycle time	automatic
Revision	automatic
Activate Quick Start-Up	no
Device parametrization via GSD	inactive
Diagnostic settings	
Process input data invalid	diagnostic generated
Deactivate diagnostics	notifications and warnings
Data mapping	
Process input data mapping	swap 16 bit
Process output data mapping	swap 16 bit

Parameter name	Value	Meaning
Operation mode	IO-Link without validation (*)	Pin 4 operation Link 1. The r not cl conn device the c one.
	IO-Link with compatible device	Pin 4 operation Link 1. The r check vend the d the c device