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前面的文章我们介绍了SIMATIC S7-200 Smart的PROFIBUS-DP扩展模块-EM DP01(<u>如何将S7-200 Smart连接到Profibus-DP网络?</u>),今天这篇文章,我 们通过实例来介绍EM DP01的配置(GSD文件安装与网络组态)。



本文的实验环境如下:

PROFIBUS-DP主站(Master): CPU 315-2DP; PROFIBUS-DP从站(Slave): CPU ST40(带EM DP01模块); 软件环境:博途(TIA Portal)V13;

首先,我们打开博途V13,新建一个项目,添加CPU 315-2DP; 由于博途V13硬件目录中没有EM DP01,所以我们需要手动添加其GSD文件 (可以去西门子官网或方正智芯官网下载)。

手动添加EM DP01的步骤如下:

**1)** 点击【选项 (Option )】菜单,找到【管理GSD文件 (Manage general station description files )】,如下图:

Siemens - D:\FDCP_Project\EMDP0	11\Project1\Project1	
Project Edit View Insert Online 🖥 🎦 🔚 Save project 🔳 🐰 🗐 🕻	Options Tools Window Help	e 🖉
Project tree	Support packages	net
Devices	Manage general station description files (GSD) Start Automation License Manager Show reference text	ions
▼ T Project1	[]] Global libraries	•
Add new device	PLC_1	
✓ □ PLC_1 [CPU 315-2 DP] □ Device configuration ○ Online & diagnostics	Crosis-2 Dr 口 心-方正	<b>。</b> 省心
Program blocks	000005.0000000	

2) 在弹出的对话框中,点击【浏览】定位到你下载的GSD文件夹,勾选找到的 GSD文件,点击【安装(install)】,如下图:

Manage general	station description	ı files			×
Source path:	D:\Software\DP01_GS	D_Files			
Content of imr	oorted path				
File	in the particular	Version	Language	Status	Info
siem81c7.gs	d	version	Default	Not yet installed	PROFIBUS
<					>
				Delete	方理智志

3) 会出现安装画面直到安装完成,如下图:



nsta	allation result				
M	lessage				
	Installation was	completed s	uccessfully.		

**4)**安装完成后,点击【关闭(Close)】,系统会自动更新硬件目录,如下



安装完成后,在网络视图的【硬件目录(Hardware catalog)】中会看到新添加的【EM DP01 PROFIBUS-DP】模块,如下图:

Project1 > Devices & networks		_ <b>= =</b> ×	Hardware catalog
🚆 Topology view	hetwork view	evice view	Options
Network 1 Connections HMI connection	- 🕎 🔛 🔍 1	: 🖪 🗍	
		^	✓ Catalog
			<search></search>
PLC 1			📝 Filter
CPU 315-2 DP			Distributed I/O
			Field devices
			<ul> <li>Other field devices</li> </ul>
			PROFINET IO
			✓ ☐ PROFIBUS DP
			Drives
			Encoders
		Z	🕨 🛅 Gateways
		two	🕨 🛅 General
		- 7	Ident systems
		▲ 101	✓ Im PLCs
			👻 🛅 SIEMENS AG
			👻 🛅 EM DP01 PROFIBUS-DP
			【・たち7-方年町2005次A0 ▶ □ SIMOTION

将【EM DP01 PROFIBUS-DP】模块拖拽到网络中,并将它与之前添加的CPU 315-2DP的DP相连,组成PROFIBUS-DP网络,如下图:

Project1 > Devices & networks			
		📱 Topology view	Network view
Network Connections HMI connection	🔽 🛍 📲 🖿 🔍 ±		
PLC_1 [ CPU 315-2 DP	Slave_1 EM DP01 PROFI		
PROFIBUS	1		方正智芯

选中新建立的PROFIBUS网络,可以在其属性窗口中查看或修改相关的属性,如 下图:

Network	onnection 💌 🕎 🖽	€ <b>.</b> ±	🚰 Topology view	hetwork view	v 🛐 Devi
PLC_1 CPU 315-2 DP	Slave_1 EM DP01 PROFI PLC_1 PROFIBUS_1				
< m PROFIBUS_1 [Profibus]			> 100	0% 🗓 Info 追 🗓 Di	agnostics
Korrel (Profibus)     General IO tags System	em constants Texts		> 100	0%	agnostics
M     PROFIBUS_1 [Profibus]     General IO tags System     General ID tags System	em constants Texts Network settings		Properties	0% 1 Info 🚺 🕑 Di	agnostics
K     III       PROFIBUS_1 [Profibus]       General       IO tags       System       General       Network settings       Cable configuration	em constants Texts Network settings		Properties	0%	agnostics
K     III       PROFIBUS_1 [Profibus]       General       IO tags       System       General       Network settings       Cable configuration       Additional network devices	em constants Texts Network settings Highest PROFIBUS address:	126	Properties	0%	agnostics
Control     PROFIBUS_1 [Profibus]       General     IO tags     System       General     IO tags     System       General     Cable configuration     Additional network devices       Bus parameters     Bus parameters     Bus parameters	em constants Texts Network settings Highest PROFIBUS address: Transmission speed:	126 1.5 Mbps	Properties	0%	■] —— Ţ— agnostics

好了,关于EM DP01 GSD文件的安装与PROFIBUS-DP网络的组态就先介绍到这里,下一篇文章我们介绍如何在DP主站(CPU 315-2DP)与从站(EM DP01)之间组态数据交换。

方正智芯官网(www.founderchip.com)在本文的底部提供【EM DP01】 GSD文件的下载,如果你喜欢这篇文章,也可以下载本文的PDF版本。 小程序【李工谈工控】提供方便的文章检索功能,欢迎体验:

