PROFIBUS Configuration for Moxa MGate 5101-PBM-MN and Siemens S7-300

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About Moxa

Moxa manufactures one of the world's leading brands of device networking solutions. Products include serial boards, USB-to-serial hubs, media converters, device servers, embedded computers, Ethernet I/O servers, terminal servers, Modbus gateways, industrial switches, and Ethernet-to-fiber converters. Our products are key components of many networking applications, including industrial automation, manufacturing, POS, and medical treatment facilities.

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1. Introduction

This application note describes the configuration of Moxa MGate device as a PROFIBUS DP master to connect to a Siemens S7-300 PLC as a PROFIBUS DP slave. One word input and one word output data are configured in this example.

2. Applicable products

Product Line	Model Name			
MGate 5000 series	MGate 5101-PBM-MN, MGate 5101I-PBM-MN,			
	MGate 5101-PBM-MN-T, MGate 5101I-PBM-MN-T			

3. System requirements

Model / File Name	Version
CPU 315-2 PN/DP	3.2.3
Article Number:	
6ES7315-2EH14-0AB0	
SIMATIC STEP 7	5.5 + SP2
MGate 5101-PBM-MN	1.0
SIEM8180.GSE	13
MGate Manager	1.6
Modbus Poll	3.60a
	Model / File Name CPU 315-2 PN/DP Article Number: 6ES7315-2EH14-0AB0 SIMATIC STEP 7 MGate 5101-PBM-MN SIEM8180.GSE MGate Manager Modbus Poll

4. System overview

In this document, MGate 5101-PBM-MN is used as an example. The system architecture is shown below.



5. PLC configuration

5.1. Create STEP 7 project

5.1.1. Start SIMATIC Manager and create a new project by selecting **File** \rightarrow **New**. The user must assign a name for this project. In this example, we use "Demo1" as the project name.

SIMATIC Manager									
File	PLC	View	Options	Window	Help				
N	New Ctrl+N								
N	New Project' Wizard								
Open Ctrl+C								Ctrl+O	
S7 Memory Card									
М	Memory Card File								

New Project	×							
User projects Libraries	Multiprojects							
Name	Name Storage path							
🞒 \$7_Pro1	C:\Program Files\Siemens\Step7\s7proj\S7_Pro							
BS7-300_DP_Slave	C:\Program Files\Siemens\Step7\s7proj\S7-300							
S7-300_ProfibusSlave	C:\Program Files\Siemens\Step7\s7proj\S7-300							
Add to current multiprovi	ect							
Name:	Туре:							
Demo1	Project							
Ľ								
Storage location (path):	F Library							
C.\Program Files\Siemens\Step7\s7proj Browse								
OK Cancel Help								

5.2. Create a virtual PROFIBUS master device

5.2.1. Select **Insert** \rightarrow **Station** \rightarrow **2 SIMATIC 300 Station** to insert a SIMATIC 300 Station, which means the Siemens S7-300 PLC in this project.

SIMAT	IC Manager - Demo	o1
File Edit	Insert PLC View	Options Window Help
🗋 🗅 🗃	Station	1 SIMATIC 400 Station
B Domo	Subnet	2 SIMATIC 300 Station
Demo	Program	🔸 3 SIMATIC H Station 🖄
	S7 Software	▶ 4 SIMATIC PC Station
	S7 Block	5 Other Station
	M7 Software	6 SIMATIC S5
		7 PG/PC
	Symbol Table	
	Text Library	
	External Source	

Name the SIMATIC 300 Station "Virtual_Master" and double-click it to perform more configurations.

S S	IMAT	IC Mai	nager -	- Dem	o1				
File	Edit	Insert	PLC	View	Options	Window	Help		
	2	# 7 🐖	7 X		R 🏜	9	<u>a</u>	8- 8- 8- 8- 8- 8- 8- 8- 8- 8- 8- 8- 8- 8	
	🛓 Demo1 C:\Program Files\Siemens\Step7\s7proj\Demo1								
Demo1 Virtual_Master									

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R HW Config - [Virtual_Master (Configuration) Demo1]				<u>- 0 ×</u>
🕼 Station Edit Insert PLC View Options Window Help]	<u>- 8 ×</u>
D 😂 🐎 🖩 🐘 🎒 🕒 🖻 🖬 🏙 🏙 👔 🗁 🞇 💦				
				_ _ ×
-	S <u>u</u> chen:]	m† mi
	Profile	Standard		•
		PROFIBUS DP PROFIBUS-PA PROFINET IO SIMATIC 300		
		C7 CP-300 CPU-300 FM-300		
Virtual_Master		Gateway IM-300		
201 Dezőhvani	. Def	PS-300		
		RACK-300		
	. ÷	SM-300		
	E 🕅 🤅	SIMATIC 400		
		SIMATIC PC Based Cont SIMATIC PC Station	rol 300/400	
		SIMATIC PC Station		
	PROFIB rack)	US-DP slaves for SIMA TI	C S7, M7, and C7 (distribu	ted <u>€</u> <
Press F1 to get Help.	D			

5.2.2. Double-click the **Hardware** icon and the **HW Config** window will appear:

Drag the **Rail** item located under **SIMATIC 300** \rightarrow **RACK-300** (in the hardware catalog window on the right) to the upper half of the **Station** window on the left:



An empty grid will then appear in the upper half of the **Station** window as shown below:

HW Config - [Virtual_Master	r (Configuration) Demo1]						
D Station Edit Insert PLC Vi	iew Options Window Help							BX
		¥ MY						
= (0) UR								믜뇌
							Suchen:	at mil
2								
3							Profile Standard	
4							E W PROFIBUS DP	
5							ROFIBUS-PA	
6							🖶 📅 PROFINET IO	
							SIMATIC 300	
						-		
						•	□ ±	
(0) UR							Gateway	
Slot Module	Order number	Firmware	MPI address	La	lo lo	21	🕕 🧰 IM-300	
		1 1111 1 010					📄 💼 🧰 PS-300	
2						_	RACK-300	
3								
4								
5		_		_			E SIMATIC PC Based Control 300/400	
				_	+	_	E SIMATIC PC Station	
8				-		_		
				-				
10						_	6ES7 390-1???0-0AA0	- E/
11							Available in various lengths	
Insertion possible								.hg //,

5.2.3. You must add the proper version firmware for the CPU module hardware model. In the figure below, we use **CPU 315-2 PN/DP** as an example. Drag the proper version of the CPU module firmware from the **Hardware Catalog** window on the right and drop it into the empty grid in the **Station** window on the left.



You will then be prompted to enter the proper IP address for the CPU module:

Properties - Ethernet interface PN-IO (R0/S2.2)	×
General Parameters If a subnet is selected, the next available addresses are suggested.	
IP address: Gateway Gateway Do not use router Use different method to obtain IP address ddress	
Subnet: not networked New Properties Delete	
OK Cancel Help	

Then the related blocks will be automatically added to the grid as shown below:

🖳 H W Config -	[Virtual_Master	(Configuration) Demo1]							
🛄 Station Edit	📭 Station Edit Insert PLC View Options Window Help								
🗅 😅 🔓 📓	🗣 🥌 Pa	ra 🏜 🌰 🖺 📼 🤮	≅ ∖?						
🚍 (0) UR									
1 2	関 CPU 315-2 I	PN/DP							
XI	MPI/DP								
X2 Y2 P/ P	PN-10								
X2 P2 R	Fort 2								
3									
	1								
(D) UI	R								
Slot 🚺 Mod	lule	Order number	Firmware	MPI address	I a				
	215 2 DW/DD	6E%7 215 2EU14 04D0	W2 0	2					
YI MELT		0E37 313-2ER14-0AB0	13.4	2	20478				
X1 NUPIDA				4	2047*				
X24 Bort (2040				
X2 A Port 2					2044*				

5.3. Create PROFIBUS network

5.3.1. Double-click on the MPI/DP field to open the Properties – MPI/DP window to configure the PROFIBUS DP module. Set the interface type to PROFIBUS by selecting PROFIBUS from the Interface → Type dropdown menu.

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Properties - MPI/DP - (R0/S2.1)	×
General Addresses Operating Mode Configuration Clock	
Short Description: MPI/DP	
	<u> </u>
, 	
Name: MPI/DP	
-Interface	
Type: PROFIBUS	
Address: 2	
Networked: Yes Properties	
Comment:	
	<u> </u>
	Y
Cancel	Help

Assign the address for PROFIBUS master module under the **Parameters** tab and click the **New...** button to create a new subnet.

Properties -	PROFIBUS interface	MPI/DP (F	R0/S2.1)		X
General	Parameters				
Address:	2 -		If a subnet is se available addre	elected, the next ss is suggested.	
Subnet:	networked				lew
				Pro	perties Delete
OK]			Cancel	Help

5.3.2. Select the proper transmission rate for this subnet. After completing these modifications, click the OK button to return to the Properties – MPI/DP – (R0/S2.1) window.

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Properties - PROFIBUS interface MPI/DP (R0/S2.1)	×
General Parameters	
Address: 2	
Transmission rate: 1.5 Mbrs	
Holonicon File. 1.5 Piles	
Subnet:	New
	Properties
	Delete
OK	ncel Help

Switch to the **Operating Mode** tab and set the mode as **DP master**.

C No DP		
 DP master 		
C DP slave		
🔲 Test, co	ommissioning, routing	
Master:	Station Module Rack (R) / slot (S) Receptacle for interface module	
Diagnostic	address:	
Address for	r "slot" 2;	
Address for	r "slot" 2;	

You should then see the results shown in the following figure, indicating that the PROFIBUS network was created successfully.

🔣 H W Config - [Vii	rtual_Master (Configuration) Demo1]
🛄 Station Edit Inse	ert PLC View Options Window Help
] 🗅 😅 🔓 🖫	; 😂 🖻 🛍 🏜 🏜 📴 🖼 👯 📢
🚍 (0) UR	
1	
XI XZ	MPI/DP PROFIBUS(1): DP master system (1)
AZ PI R XZ P2 R 3 4	Port 1 Port 2

5.3.3. Close the **HW Config** window and return to the main window of the "Demo1" project.

5.4. Create PROFIBUS slave device

5.4.1. Follow Step 5.2 to create a PROFIBUS slave device and name it "DP_Slave."



- 5.4.2. Double-click on DP_Slave → Hardware to open the HW Config window. Repeat steps 5.2.2 to 5.2.3 to add the proper CPU module to the PROFIBUS slave device.
- 5.4.3. Double-click on the **MPI/DP** field and the **Properties MPI/DP** window will appear for you to configure the PROFIBUS DP module. Set the interface type to **PROFIBUS**.

Properties - MPI/DP - (R0/S2.1)	×
General Addresses Operating Mode Configuration Clock	
Short Description: MPI/DP	A
Name: MPI/DP	
-Interface Type: PROFIBUS	
Address: 2 Networked: Yes Properties	
Comment:	×
OK	Help

5.4.4. Select **PROFIBUS(1)** to connect it to the subnet created in Step 5.3.2. Then click the **OK** button to return to the **Properties – MPI/DP – (R0/S2.1)** window.

Properties	- PROFIBUS	interface	MPI/DP (RO/S	2.1)				×
General	Parameters							_,
Address: Highest a	ddress: 126	3 💌		If a subnet is se available addre	elected, t ss is sug	the next gested.		
Transmis	sion rate: 1.5 M	4bps						
Subnet:						М	au	
PROFIE	US(1) 1.	5 Mbps				N	ew	
						Prop	erties	
						D	elete	
OK					Car	icel	Help	

5.4.5. Select the **Operating Mode** tab and set the mode to **DP slave**.

Properties - MPI/DP - (R0/S2.1)	×
General Addresses Operating Mode Configuration Clock	
C No DP	
C DP master	
 DP slave 	
Test, commissioning, routing	
Master: Station Module Rack (R) / slot (S)	
Diagnostic address: 2043	
Address for "slot" 2:	
OK	Help

5.5. Create I/O modules

- 5.5.1. Next, create the I/O modules you would like to add to the S7-300. In the following example, we will use the internal I/O modules for illustration purposes.
- 5.5.2. Follow step 5.4.5, select the **Configuration** tab and select **Word** from the **Unit** dropdown menu for both **Input** and **Output** I/O modules.

Рто	perties	- MPI/D	P - (R0/S2.1)					×
G	eneral	Addresse:	s Operating Mode	Configuratio	n Clock			
	Row	Mode	Partner DP ad	Partner addr.	Local addr.	Length	Consisten	
								î
								닅
	N	ew	Edit		Delete			
	Com	ment:					* *	
			,					
	OK					Cance	l He	elp

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Properties - MPI/DP	- (R0/S2.1) - (Configuration - Row 1			x
Mode:	MS	(Master-slave configuration)			
DP Partner: Master —		Local: Slave			
DP address:		DP address:	3	Mod assignment:	
Name:		Name:	MPI/DP	Mod address:	
Address type:		Address type:	Input 💌	Mod name:	
Address:		Address:	0		
"Slot":	<u> </u>	"Slot":			
Process image:		Process image:	OB1 PI 💌		
Interrupt OB:		Diagnostic address:			
Length:		Comment			
Il nit		Comment			<u>_</u>
Consistences	vora				
Consistency. [nit 🗾				<u></u>
					1
OK	Apply			Cancel	Help
D	(70.00.1)	- e e n n			
Properties - MPI/DP	- (R0/\$2.1) - (Configuration - Row 2			X
Properties - MPI/DP Mode: DP Partner: Master	- (R0/S2.1) - (Configuration - Row 2 (Master-slave configuration)			×
Properties - MPI/DP Mode: DP Partner: Master- DP address:	- (R0/S2.1) - (Configuration - Row 2 (Master-slave configuration) Local: Slave DP address:	3	Mod assignment:	X
Properties - MPI/DP Mode: DP Partner: Master DP address: Name:	- (R0/S2.1) - (Configuration - Row 2 (Master-slave configuration) Local: Slave DP address: Name:	3 MPI/DP	Mod assignment: Mod address:	
Properties - MPI/DP Mode: - DP Partner: Master DP address: Name: Address type:	- (R0/S2.1) - (Configuration - Row 2 (Master-slave configuration) Local: Slave DP address: Name: Address type:	3 MPI/DP	Mod assignment: Mod address: Mod name:	
Properties - MPI/DP Mode: DP Partner: Master DP address: Name: Address type: Address:	- (R0/S2.1) - (Configuration - Row 2 (Master-slave configuration) Local: Slave DP address: Name: Address type: Address:	3 MPI/DP Output	Mod assignment: Mod address: Mod name:	
Properties - MPI/DP Mode: DP Partner: Master DP address: Name: Address type: Address: "Slot":	- (R0/S2.1) - (Configuration - Row 2 (Master-slave configuration) Local: Slave DP address: Name: Address type: Address: "Slot":	3 MPI/DP Output	Mod assignment: Mod address: Mod name:	
Properties - MPI/DP Mode: DP Partner: Master DP address: Name: Address type: Address: "Slot": Process image:	- (R0/S2.1) - (Configuration - Row 2 (Master-slave configuration) Local: Slave DP address: Name: Address type: Address: "Slot": Process image:	3 MPI/DP Output V	Mod assignment: Mod address: Mod name:	
Properties - MPI/DP Mode: DP Partner: Master — DP address: Name: Address: Slot": Process image: Internat OB:	- (R0/S2.1) - (Configuration - Row 2 (Master-slave configuration) Local: Slave DP address: Name: Address type: Address: "Slot": Process image: Diagnostic address:	3 MPI/DP Output V 0 OB1 PI V	Mod assignment: Mod address; Mod name:	
Properties - MPI/DP Mode: DP Partner: Master DP address: Name: Address type: Address: "Slot": Process image: Interrupt OB:	- (R0/S2.1) - (Configuration - Row 2 (Master-slave configuration) Local: Slave DP address: Name: Address type: Address: "Slot": Process image: Diagnostic address:	3 MPI/DP Output V OBI PI V	Mod assignment: Mod address: Mod name:	
Properties - MPI/DP Mode: DP Partner: Master DP address: Name: Address type: Address type: Address: "Slot": Process image: Interrupt OB:	- (R0/S2.1) - (Configuration - Row 2 (Master-slave configuration) Local: Slave DP address: Name: Address type: Address: "Slot": Process image: Diagnostic address:	3 MPI/DP Output	Mod assignment: Mod address: Mod name:	
Properties - MPI/DP Mode: DP Partner: Master DP address: Name: Address type: Address type: Address: "Slot": Process image: Interrupt OB: Length:	- (R0/S2.1) - (Configuration - Row 2 (Master-slave configuration) Local: Slave DP address: Name: Address type: Address: "Slot": Process image: Diagnostic address: Comment:	3 MPI/DP Output V OBI PI V	Mod assignment: Mod address: Mod name:	
Properties - MPI/DP Mode: DP Partner: Master — DP address: Name: Address type: Address type: Address: "Slot": Process image: Interrupt OB: Length: Unit:	- (R0/S2.1) - (Configuration - Row 2 (Master-slave configuration) Local: Slave DP address: Name: Address type: Address: "Slot": Process image: Diagnostic address: Comment:	3 MPI/DP Output ▼ 0 OB1 PI ▼	Mod assignment: Mod address: Mod name:	
Properties - MPI/DP Mode: DP Partner: Master DP address: Name: Address type: Address: "Slot": Process image: Interrupt OB: Length: Unit: Consistency: [- (R0/S2.1) - (MS • • • • • • • • • • • • • • • • • • •	Configuration - Row 2 (Master-slave configuration) Local: Slave DP address: Name: Address type: Address: "Slot": Process image: Diagnostic address: Comment:	3 MPI/DP Output V OBI PI V	Mod assignment: Mod address: Mod name:	
Properties - MPI/DP Mode: DP Partner: Master DP address: Name: Address type: Address type: Address: "Slot": Process image: Interrupt OB: Length: Interrupt OB: Length: Interrupt OB: Interrupt OB: In	- (R0/S2.1) - (MS	Configuration - Row 2 (Master-slave configuration) Local: Slave DP address: Name: Address type: Address: "Slot": Process image: Diagnostic address: Comment:	3 MPI/DP Output ▼ 0 0B1 PI ▼	Mod assignment: Mod address: Mod name:	

After adding the above I/O modules, you will see the following configurations:

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Properties - MPI/DP - (R0/S2.1)
General Addresses Operating Mode Configuration Clock
Row Mode Partner DP ad Partner addr. Local addr. Length Consisten 1 MS IO 1 Word Unit 2 MS OO 1 Word Unit
New Edit Delete
MS Master-slave configuration Master: Station:
Comment:
OK Cancel Help

5.5.3. All the configurations are now ready. Choose **Station** \rightarrow **Save and Compile** to save and compile the settings for the Siemens S7-300.

	HW Cor	afig -	[DP_S	lave (Config	uration)	Demo	1]
00	Station	Edit	Insert	PLC	View	Options	Window	Help
Тг	New.				Ct	rl+N		- 8
	Open	L			Ct	rl+O	434-7	
	Open	ONLI	NE					
	Close	•						
	Save							
	Save	and Co	ompile		Ct	rl+S		
	Prope	erties						
	Impo	rt						
	Ехро	rt					EL.	

5.5.4. Select **PLC** → **Download** from the menu bar to download all the settings to the Siemens S7-300.



6. Moxa's PROFIBUS device configuration

6.1. Install the GSD file

Before configuring the Moxa MGate 5101-PBM-MN, install the GSD file for the PROFIBUS slave device so the MGate 5101-PBM-MN can recognize the device.

6.1.1. Execute MGate Manager and click the **GSD Management** button to install the GSD file.

10 001			
🖶 MGate	Manager		
	_		
No.	Name	Model	MAC Address
01	MGate 5101_229	MGate 5101-PBM-MN	00:90:E8:00:0
Dev	ice Identification	Device Fur	iction
(Search	Cop	iguration
	bearen		igaración
	1		
	Locate	Loar	d Default
L			
	1		
	Language	GSD M	anagement

Click the **Add** button to locate the GSD file.

GSD Management			×
Name	Vendor	Filename	
			Add
			Remove
			ок
			F

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Select the GSD file and click the **Open** button to install it.

6.2. Device configuration with MGate Manager

6.2.1. Start MGate Manager and **Search** for the Moxa MGate 5101-PBM-MN.

MGat	e Manager			
No.	Name	Model		MAC Address
⊢De	evice Identification		Device Fund	tion
L	Search		Confi	guration
	Locate		Load	Default

6.2.2. Select the target device and click the **Configuration** button to configure it.

		1	1 m /m m		
MGate 5101_50006	MGate 5101-PBM-MN	00:90:E8:33:FF:FF	192.168.35.116		Ver. 1.0 Build 12082314
Identification	Device Fur	nction			
e Identification Search	Device Fur	figuration	Monitor	ProCOM Mappir	ig Import
e Identification Search Locate	Cont	figuration	Monitor Diagnose	ProCOM Mappin	ig Import
E Identification Search Locate	Con	figuration	Monitor Diagnose	ProCOM Mappin	ig Import

6.2.3. Select the **PROFIBUS** tab and click the **PROFIBUS Settings** button to start PROFIBUS configurations.

		\$		Modbus/TCP	OK Cancel
	(MG	ate 5101-PBM-MN	PROFIBUS	
isic Netwo Address 1	rk PROFIB	JS Modbus System	Vendor Moxa Inc.		

6.2.4. Select PROFIBUS → AutoScan or click the AutoScan button to enable the AutoScan function to scan the network for the PROFIBUS slave device automatically.



6.2.5. The MGate 5101-PBM-MN will find the PROFIBUS slave device as shown below:

D	Devices connected to the network										
		Device status	Addr	Ident	Model name	Vendor	Module	GSD file			
		Master in bus configuration	1	0x0DF3	Moxa PROFIBU	Moxa Inc.	-	MPBM0DF3.gsd			
		Slave not in bus configuration	3	0x8180	CPU 315-2 PN/	SIEMENS	1st general ID	SIEM8180.GSE			
							1st general ID				
							1st general ID				
							Master_Q Slave				
							Master_I Slave				

Based on the settings of Siemens S7-300, modify the "general ID" to:

1st general ID

2nd general ID

3rd general ID

Select the checkbox as shown in the following screenshot:

D	Devices connected to the network										
l		Device status	Addr	Ident	Model name	Vendor	Module	GSD file			
		Master in bus configuration	1	0x0DF3	Moxa PROFIBU	Moxa Inc.	-	MPBM0DF3.gsd			
	\square	Slave not in bus configuration	3	0x8180	CPU 315-2 PN/	SIEMENS	1st general ID	SIEM8180.GSE			
							2nd general ID				
							3rd general ID				
							Master_Q Slave				
							Master_I Slave				

Then click **OK** button and the MGate 5101-PBM-MN will finish the configuration for you.

6.2.6. After verifying all the settings, click **File** \rightarrow **Save** to save the configuration and click **File** \rightarrow **Exit** to exit the **PROFIBUS Settings** window.

PROFIBUS Settings					- 🗆 ×
File Edit PROFIBUS					
S 🕒 🔍					
PROFIBUS DP					
Programmable Logic Cor					
SIEMENS					
Ist general					
2nd general	R:				
🔡 3rd general	(3)CPU 31	5-2 PI			
Master_I Sk	(5)0F0 51	5-211			
Master_I Sli		7			
Master_I Si-					
Master I Si		*			_
Master_I Sk Co	mmon I/O Data Grou	up properties User parameter	1		
Master_I Sk	ot Module type	Module	Input address	Output address	Timeout (ms 🔺
Master I Si	0x00	1st general ID			
Master_I Ski 2	0x00	2nd general ID			
Master_I Sk 3	0x00	3rd general ID			
Master_I Si 4	0x60	Master_Q Slave_I 1 Wo unit		01	0
Master_I Sk 5	0x50	Master_I Slave_Q 1 Wo unit	23		
Master_I Sl					

6.2.7. On the main window, click the **OK** button to save the changes and the MGate 5101-PBM-MN will reboot for the changes to take effect.

Configuration			×
	000000000		ОК
		Modhue/TCP	Cancel
		WOUDUS/TGP	

7. Communication Test

7.1. Create Variable Table

To monitor the internal memory of the Siemens S7-300, add a Variable Table to modify or monitor the I/O modules we have created.

7.1.1. Return to the Step 7 in project "Demo1" and click DP_Slave → CPU 315-2
 PN/DP. You will then be able to select Insert → S7 Block → Variable
 Tables from the menu bar to add a Variable Table.



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(Here, we use the default name VAT_1 for the Variable Table.)

7.1.2. After creating the Variable Table, double-click on the **VAT_1** icon to configure which I/O module to monitor.



7.1.3. Enter the address we configured into the **Address** column:



For this example:

IWO for the Input module has a length of 1 word. **QWO** for the Output module has a length 1 word.

	VA	T_1	I)emo1\]	DP_Slave\CP	U 315-2 PI	N/DP\\$7 Pro	gran
	1	Adduess		Symbol	Display format	Status value	Modify value	
1		I₩	0		HEX			
2		QW	0		HEX			
3								

7.1.4. Click the **Monitor** button to start monitoring.

	2	¥a	r - V.	AT_	1					_ 🗆 ×
_	Tab	ole	Edit	Ins	ert PLC	C Variable '	View Options	Window Help		
	-12	1		<u> 2 </u>	8) 🔏 🖻 🛙	<u>a n a x</u>		? 🧕	४ 🕹 😽
Γ	¥	٧A	\T_1	@	Demo 1	l \DP_Slave\(CPU 315-2 PN/	DP\S7 Progr		
			Addue	255	Symbol	Display format	Status value	Modify value		
	1		IW	0		HEX	W#16#0000			
	2		Q₩	0		HEX	W#16#0000	W#16#0000		
	3									
L										
I										
I										
Ī)em	1011	DP_S1	ave\.	\\$7 Pro	gram(3)			•	RUN //.

7.2. Modify and monitor I/O data

7.2.1. Execute the Modbus Poll function on the PC to simulate data exchange from the Modbus TCP master to the MGate 5101-PBM-MN.

🐮 Modl	bus Poll - []	Mbpoll1]						
🔛 File	Connection	Setup Fu	unctions	Display	View 1	Window	Help	_
								리지
🗅 🖻		× 🗖 !		JL 05	06 15	16 22	23	101
Tx = 1	62: Err	= 0: ID) = 1:	F = 0	3: SR	= 100	Oms	
40001	= 0x0000							
40002	= 0x0000	5						
For Help,	press F1. For	Edit, double	e click on	i a value.		192	.168.3	5.1: //

7.2.2. The first test is to write data to the Input module of the PROFIBUS slave.

Index Year - VAI Index File Index Window Help Index Index Index Index	Image: Second
Demo1\DP_Slave\\S7 Program(3)	For Help, press F1. For Edit, double click on a value. 192.168.35.1: /

The Input module of the PROFIBUS slave device is updated by the Modbus Poll's command from 0x0000 to 0x1111.

	Wodbus Poll - [Mbpoll1]
Table Edit Insert PLC Variable View Options Window Help	File Connection Setup Functions Display View Window Help
🕍 🖓 🗛 T_1 @Demo1\DP_Slave\CPU 315-2 PN/DP\S7 Progr 💶 💌	Tx = 182: Write Single Register
Adduess Symbol Display former fit to a brown Modify value	
2 OW 0 HEX W#IG#IIII	40002 = 0x
	Address: 1 Cancel
	Value (HEX): 1111
	Use Function
	 O6: Write single register C 16: Write multiple registers
Demo1\DP Slave_\S7 Program(3)	For Help, press F1. For Edit, double click on a value. 192.168.35.1

7.2.3. The next test is to read data from the Output module of the PROFIBUS slave.



The value of address 40002 is updated by the Output module of the PROFIBUS slave device from 0x0000 to 0x9999.

	N			_							
8	<u>í</u> 🕐	ar - 1	AT								Wodbus Poll - [Mbpoll1]
1	Table Edit Insert PLC Variable View Options Window Help										🚰 File Connection Setup Functions Display View Window Help 🔜
	(m)	D	i		3 🔏 🖻 1	<u>s</u> 2 2 2	(💁 🔒 🕅	9	66° ₩*	66°[
		VAT	1	@Demo	o1\DP_Slave	CPU 315-2 PN	/DP\\$7 Prog	_ _ ×	1		□ □ □ □ □ □ □
llī	í	66A	ve <i>s</i> s	Symbol	Display format	Status value	Modify value				1x - 205: EFF - 0: 1D - 1: F - 03: 5K - 1000ms
	1	IW	0		HEX	W#16#1111					
	2	QW	0		HEX	W#16#9999	W#16#9999				$40002 = 0 \times 9999$
	3										
					<u>.</u>						
Ш											
Ш											
D	emol	NDP_S	lave\	\\$7 Pro	gram(3)			•	RUN	11.	For Help, press F1. For Edit, double click on a value. 192.168.35.1:

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