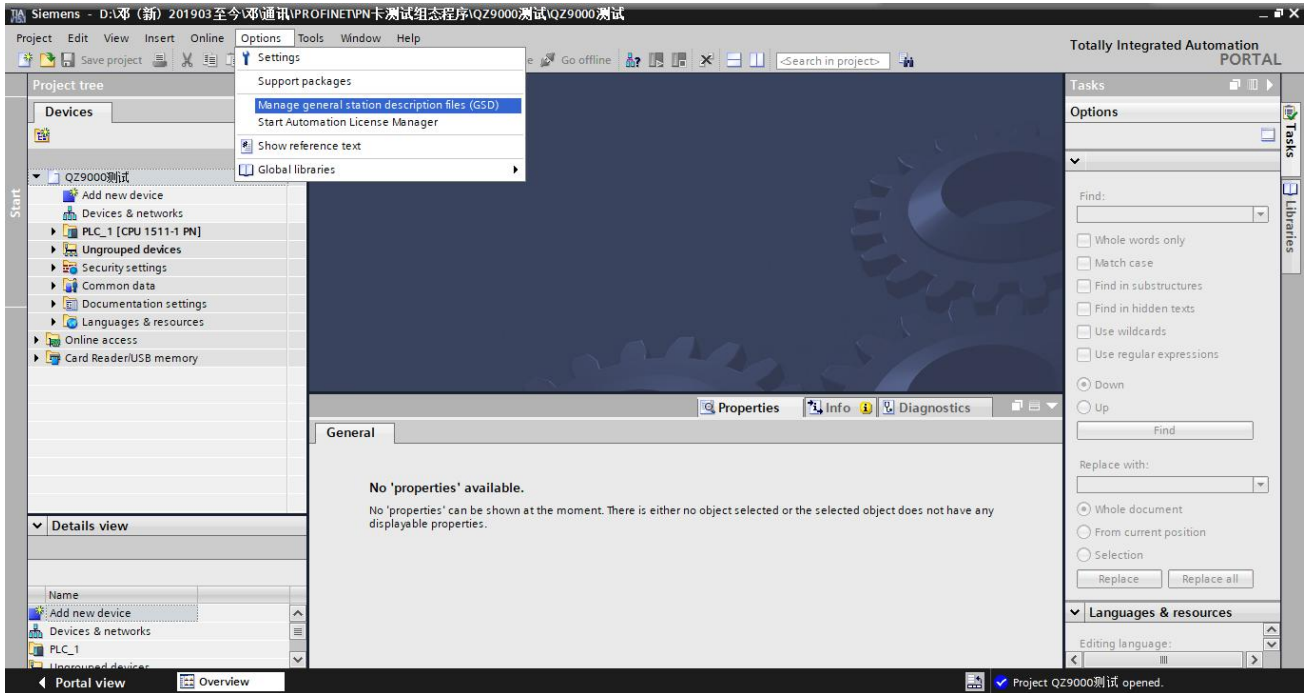


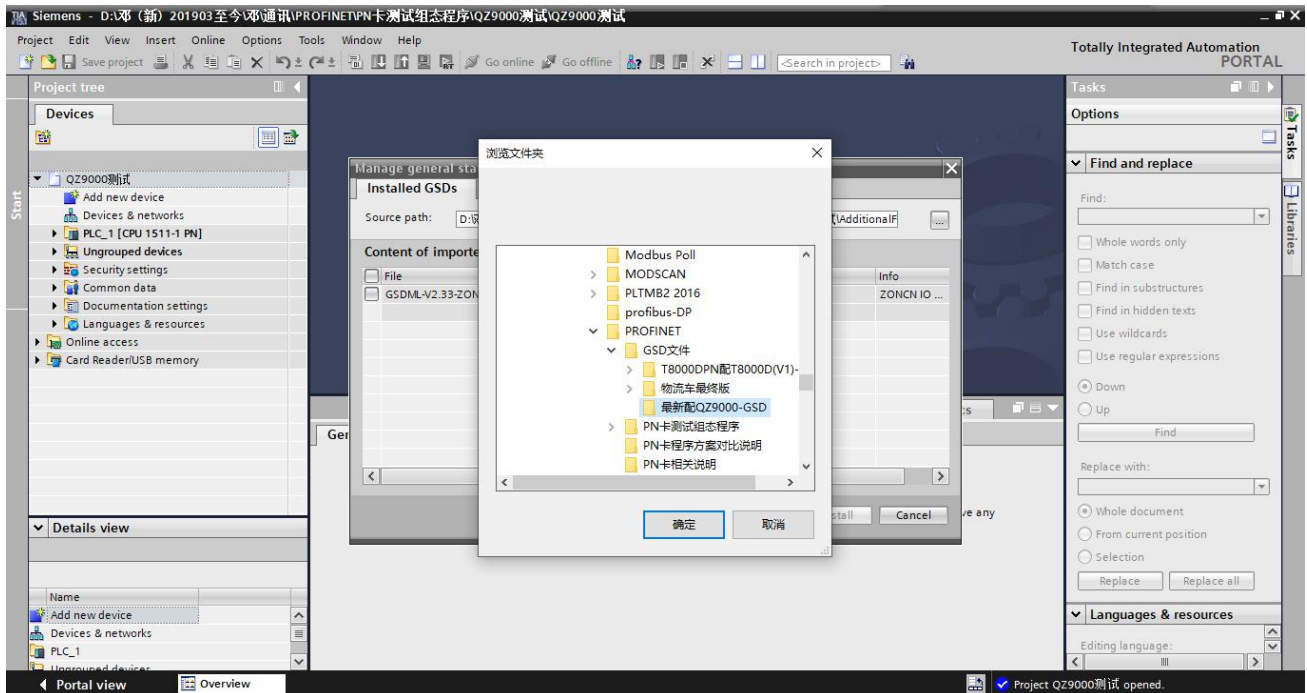
ZONCN T9000 Profinet Simple Instruction Manual

1. Install GSD file

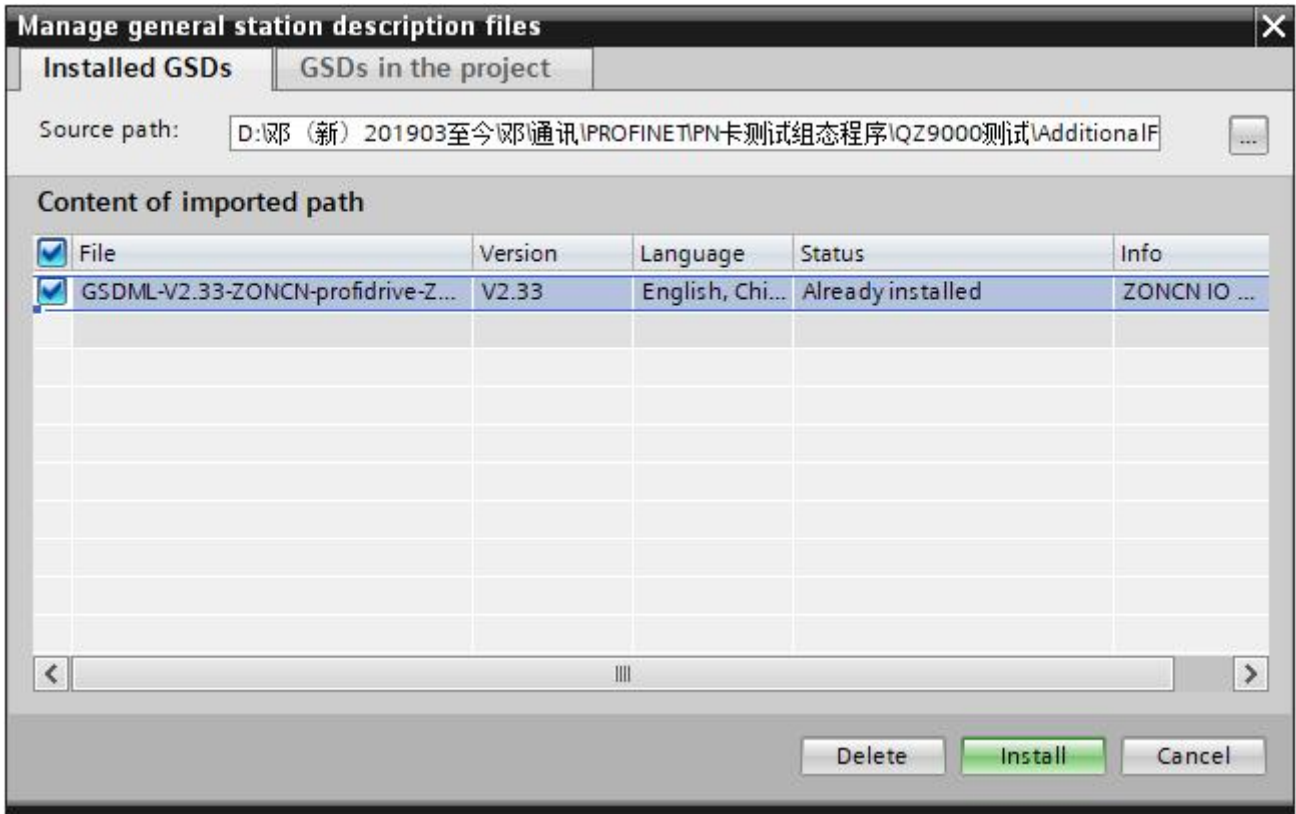
Step1: Open the TIA Portal, click "Options" -> "Manage General Station Description File GSD"



Step2: Follow the steps in the figure below, select the path to store GSD, and click OK

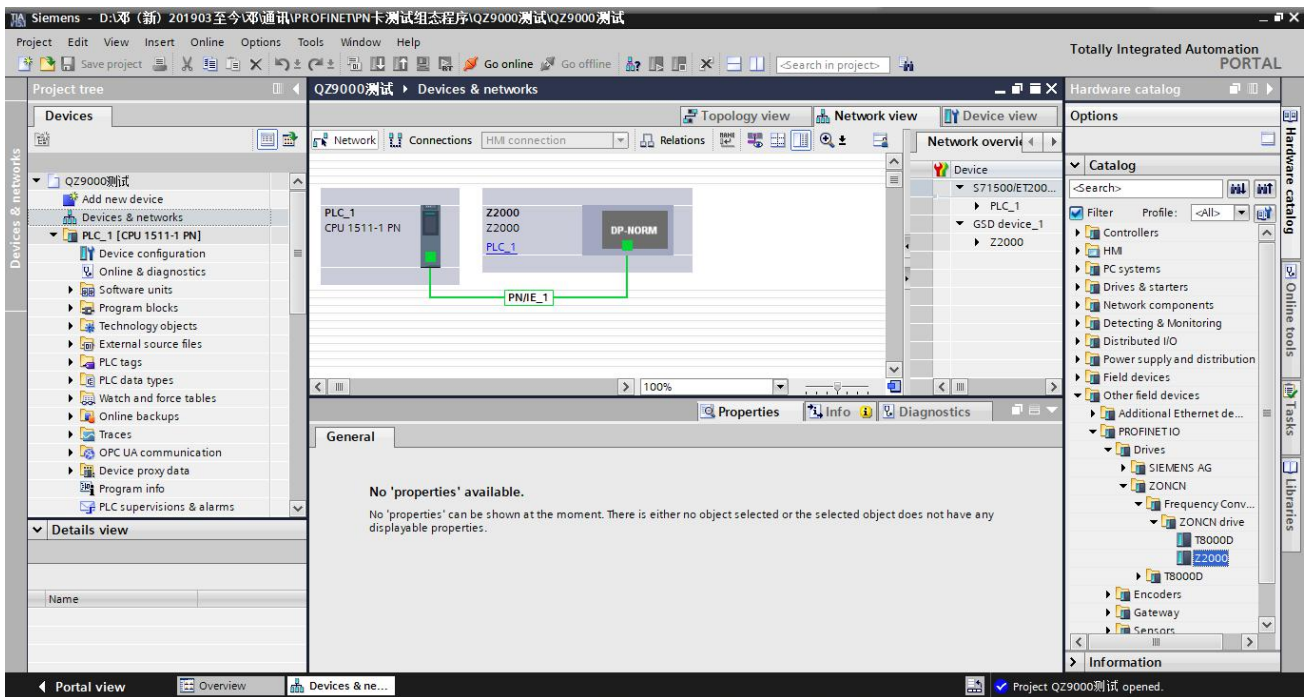


Step3: After clicking OK, all GSD files in the catalog will be listed, tick the GSD that needs to be installed, click Install, and you can use it after the installation is complete.

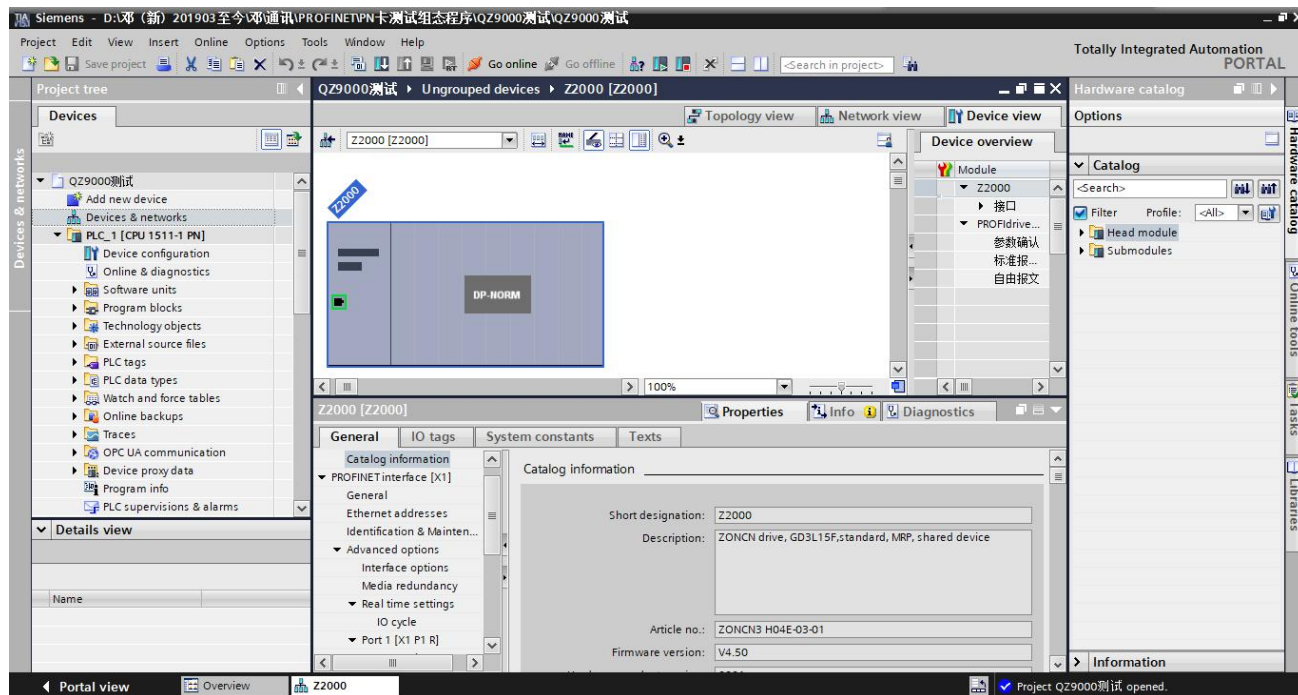


2. Use in the TIA Portal

1) After installing the GSD file, you can find the corresponding device in the TIA Portal, the device name is "T8000DPN", and the path is: "other site devices"->"PROFINET IO"->"I/O"->"Drives"->"ZONCN"->"Frequency Converter"->"ZONCN drive"->"Z2000"

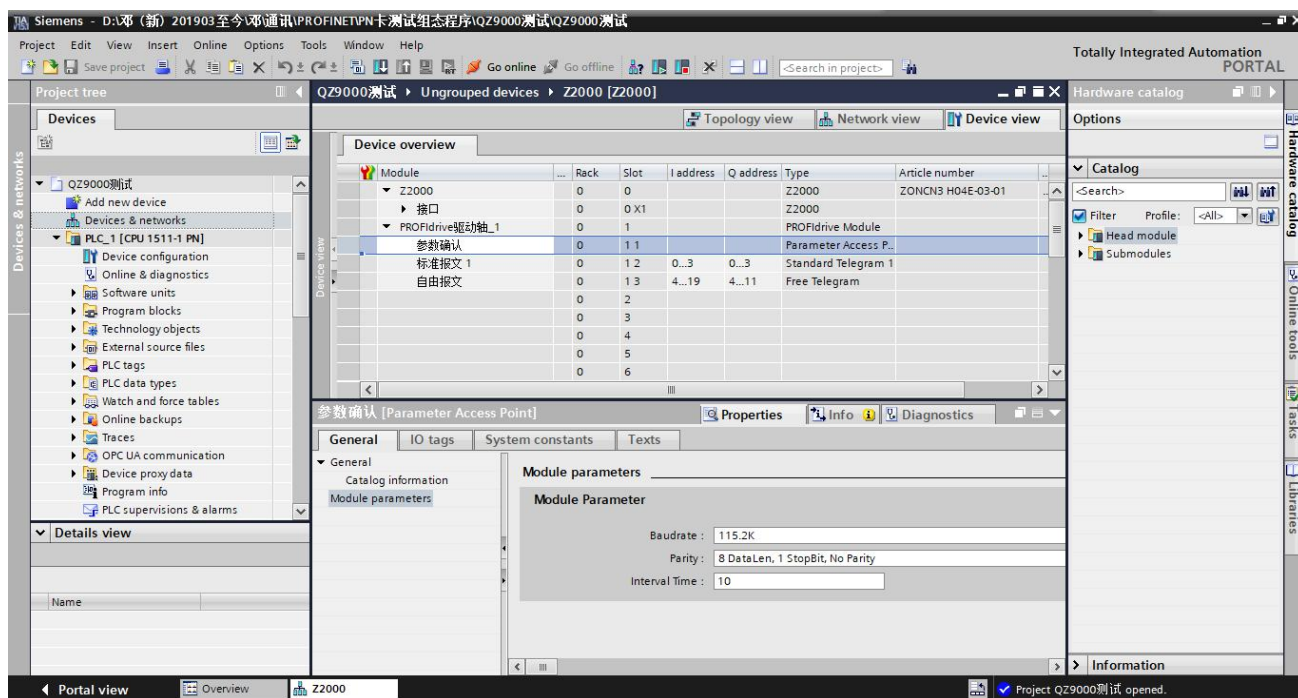


2) Set the device name: After adding the Z2000 module to the device, double-click the module to set it and modify the device name. The name needs to be the same as the actual name inside the module. The current default name of the module is "Z2000". If you need to modify it, you can go through "Online Diagnose" -> "Accessible Device" to modify the actual name of the device online. In short, the name in the configuration must be consistent with the actual name inside the module.



3) Profinet Communication Protocol Description

a、 The communication parameter settings are as follows



b、 Directly control the start and stop through "Message 1", and set the frequency

1.1 Standard Communicate Data 1

Byte	Output	Input
1	Control Word (STW1)	State Word 1 (Z1W1)
2		
3	Setting value (NSOLL_A)	Actual value (NIST_A)
4		

STW1 = 0x0400 Stop

STW1 = 0x0401 Start

NSOLL_A = 0~0x4000 Corresponding inverter Forward 0~50HZ

NSOLL_A = 0x8000 ~0xC000 Corresponding inverter Reverse 0~50HZ

For example:

According to the address allocated by the configuration: STW1 = QW0; NSOLL_A=QW2

标准报文 1	0	1 2	0...3	0...3	标准报文 1
自由报文	0	1 3	4...19	4...11	自由报文

In the monitoring table, by assigning values of 0x0401 and 0x0400 to QW0, control the start and stop of the inverter

In the monitoring table,

control the start and stop of the inverter by assigning values of 0x0401 and 0x0400 to QW0;

control the forward rotation of the inverter by assigning values of 0 to 0x4000 to QW2;

control the reverse rotation of the inverter by assigning values of 0x8000 to 0xC000 to QW2

c、 "Free Message"

Byte	Output	Input
1	Bus voltage	Terminal output
2		
3	Output voltage	
4		
5	Output current	
6		
7	Output power	
8		
9	Output torque	

10		
11	Running speed	
12		
13	X input signal	
14		
15	Fault info	
16		

✓	标准报文 1	0	1 2	0...3	0...3	标准报文 1
✓	自由报文	0	1 3	4...19	4...11	自由报文

From the above figure, we can see that the address input assigned to the "free message" is IB4~IB19, combined with the free message definition table, we can see: IW4 = bus voltage; IW6 = output voltage; and so on. IW16 = X input flag

The address output is QB4~QB11, combined with the table, we can see that QW4 = terminal output

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%IW6	十六进制	16#0000	<input type="checkbox"/>
%IW16	十六进制	16#0421	<input type="checkbox"/>
%QW4	十六进制	16#0000	<input type="checkbox"/>

%IW6	十六进制	16#0000	<input type="checkbox"/>
%IW16	十六进制	16#0020	<input type="checkbox"/>
%QW4	十六进制	16#0000	<input type="checkbox"/>
<新增>			<input type="checkbox"/>

By connecting the COM terminal and the FWD terminal with a switch, Switch the switch state , you can detect the change of the input state in IW16.

%IW6	十六进制	16#0000	<input type="checkbox"/>
%IW16	十六进制	16#0020	<input type="checkbox"/>
%QW4	十六进制	16#0000	<input type="checkbox"/>
<新增>			<input type="checkbox"/>

%IW6	十六进制	16#017C	<input type="checkbox"/>
%IW16	十六进制	16#0020	<input type="checkbox"/>
%QW4	十六进制	16#0000	<input type="checkbox"/>

%IW6	无符号十进制	380	<input type="checkbox"/>
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By starting the inverter, you can see the change of IW6 (output voltage 380V)

%IW16	十六进制	16#0020	<input type="checkbox"/>
%QW4	十六进制	16#0004	<input checked="" type="checkbox"/>

By changing the value of QW4, the output of the relay can be controlled.